The evidence of lay witnesses identifying those aspects of the environment which are appreciated by them, the reasons for that appreciation, and expressing their views as to how their appreciation might be reduced by a particular proposal, are legitimate subjects of lay evidence. We have had due regard to such evidence. That consideration does not extend to information sourced from the internet that went into areas such as technical noise issues and health effects.

[67] We will deal specifically with the more significant articles that were relied on by some of the witnesses under the technical topics to which they refer, but generally we agree with and adopt Judge Dwyer's approach. This is not to say, however, that the end decision is determined solely by expert evidence. Where there is a need for risk assessments to be made about future effects on the environment, both expert and lay evidence can often assist the Court to predict how likely it is that these effects might eventuate, and if they are likely, what the nature and impact of them is likely to be, but the weight to be given to expert and lay evidence depends on the issue in contention.

THE ACTUAL AND POTENTIAL EFFECTS OF THE PROPOSAL ON THE ENVIRONMENT

[68] Section 104(1)(a) requires us to have regard to any actual and potential effects on the environment of allowing the activity. We have already outlined how the RMA defines "*effect*". "*Environment*" is defined in s2 of the Act as:

In this Act, unless the context otherwise requires,-

environment includes-

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) all natural and physical resources; and
- (c) amenity values; and
- (d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) or which are affected by those matters

[69] We have outlined in the Introduction the positive and potentially adverse effects on the environment arising from this proposal that were raised by the parties. We will deal with each in turn.



What are the potentially positive effects on the environment?

[70] Meridian contended that a number of benefits would accrue from the development of the proposal at local, regional and national levels. In general terms, these included:

- the national benefit of meeting predicted electricity demand from a reliable renewable energy source.
- economic benefits to the local and regional economies,

Some submitters challenged the predicted economic benefits to the local and regional economies, the demand predictions presented to the Court by Meridian, and the reliability of wind generation.

Renewable energy

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[71] Meridian submitted that the legislative framework favours renewable energy projects, and the fact this is one, is a positive effect. This is correct in the sense that s7(j) of the RMA requires us to have particular regard to the "benefits to be derived from the use and development of renewable energy."⁴¹

The NPS – Renewable Electricity Generation 2011

[72] The importance of renewable energy has been highlighted in *The* NPS – *Renewable Electricity* which came into effect in May 2011 and which, as we have outlined, is a statutory planning instrument under s104(1)(b) to which we must have regard. It recognises renewable electricity generation activities, and the benefits of renewable electricity generation, as matters of national importance under the RMA.⁴²

[73] The Preamble to the NPS - Renewable Electricity states the central government has reaffirmed the strategic target that 90 percent of electricity generated in New Zealand should be derived from renewable energy sources by 2025. It also states that in some instances the benefits of renewable electricity generation can compete with matters of

The NPS - Renewable Electricity, p. 4 and Explanatory Note p. 8.

⁴¹ s7(j) was inserted into the RMA as from 2 March 2004, by s 5(2) Reserve Management (Energy and Climate Change) Amendment Act 2004 (2004 No. 2)

national importance as set out in section 6 of the RMA, and with matters to which decision-makers are required to have particular regard to under section 7. Further, it states that development that increases renewable electricity generation capacity can have environmental effects that span local, regional and national scales, often with adverse effects manifesting locally and positive effects manifesting nationally.

[74] The NPS - Renewable Electricity has a sole objective, being:

To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's target for renewable electricity generation.

[75] The NPS – Renewable Electricity objective and policies, where relevant, are required to be considered by decision-makers in determining resource consent applications.

[76] The NPS - Renewable Electricity policies relevant to this proposal include:

A. Recognising the benefits of renewable electricity generation activities

POLICY A

Decision-makers shall recognise and provide for the national significance of renewable electricity generation activities, including the national, regional and local benefits relevant to renewable electricity generation activities. These benefits include, but are not limited to:

- a) Maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;
- Maintaining or increasing security of supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
- c) Using renewable natural resources rather than finite resources;
- d) The reversibility of the adverse effects on the environment of some renewable electricity generation technologies;
- e) Avoiding reliance on imported fuels for the purposes of generating electricity.

B. Acknowledging the practical implications of achieving New Zealand's target for electricity generation from renewable sources.

POLICY B

Decision-makers shall have particular regard to the following matters:



c) meeting or exceeding the New Zealand Government's national target for the generation of electricity from renewable sources will require the significant development of renewable electricity generation activities.

C. Acknowledging the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities.

POLICY C1

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Decision-makers shall have particular regard to the following:

- a) The need to locate the renewable electricity generation activity where the renewable energy resource is available;
- b) Logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity;
- c) The location of existing structures and infrastructure including but not limited to, roads, navigation and telecommunication structures and facilities, the distribution network and the national grid in relation to the renewable electricity generation activity, and the need to connect renewable electricity generation activity to the national grid;
- d) Designing measures which allow operational requirements to complement and provide for mitigation opportunities; and
- e) Adaptive management measures.

POLICY C2

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When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decisionmakers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment or community affected.

The New Zealand Energy Strategy 2011-2021

[77] We were referred to the New Zealand Energy Strategy 2011-2021: Developing our energy potential, New Zealand Government, August 2011 ("the Strategy"). This is not a statutory document, but because it refers to renewable energy targets and because Policy B(c) of the NPS – Renewable Electricity requires us to have regard to the Government's national target for renewable electricity generation, it is a relevant document to which we should have regard under s104(1)(c). No party contended otherwise.

[78] The Strategy identifies energy security and response to climate change as two SEAL OF Significant global energy challenges which have ramifications for New Zealand's energy future. In relation to response to climate change, two of the government's four priorities identified in the Strategy are to diversify resource development, and to be environmentally responsible. We will discuss energy security shortly.

The evidence

[79] Mr Pyle, the chief executive of the New Zealand Wind Energy Association ("NZWEA") gave evidence on this topic. NZWEA is a membership-based industry association. Its activities are funded by its members and it is a non-profit organisation. It does not have any financial involvement in the proposal or any other wind farm development but Meridian is a member of NZWEA, as are all of the major electricity generator-retailers, independent electricity generators, Transpower and several lines companies, a number of major international and domestic wind turbine manufacturers, and a range of other companies with interests ranging from site evaluation through to operations and maintenance of wind farms.

[80] Even though NZWEA is an industry-based organisation, Mr Pyle's evidence was helpful to assist our understanding of, among other things, renewable energy and the demand for electricity and the need for security of supply. Mr Pyle told us that the energy sector has been identified as a key action area for reducing New Zealand's greenhouse gas emissions.⁴³ Developing renewable energy resources and reducing energy-related greenhouse gas emissions are two specific areas of focus.⁴⁴

[81] We were told that the wind farm would not emit greenhouse gases, and with very low variable operating costs, and a requirement to offer generation electricity into the electricity market at \$0.01/MWh, would operate ahead of thermal power stations. Mr Truesdale also told us that renewable options for electricity generation are more commercially attractive because, under the Emissions Trading Scheme, thermal generators face increased operating costs because they pay for carbon emissions.

[82] The evidence also established that in order to meet the government's target of 90% renewable generation and to meet future demand growth, a substantial amount of new renewable generation needs to be developed.⁴⁵ We were told that under central

 $^{^{43}}$ Mr Pyle, evidence-in-chief, paragraphs [6.2] and [6.11]

SFAL OF 45 AME Truesdale, evidence-in-chief, paragraph [11]

demand forecasts prepared by the Ministry of Economic Development ("MED") and the Electricity Commission (now the Electricity Authority), new renewable generation capable of contributing around 18,400 and 21,000 GWh to annual supply requirements would need to be developed to attain this target by 2030.⁴⁶

[83] NZWEA has estimated the requirement for renewable electricity by 2025 at around 13,000GWh, or an average of around 900GWh per year. Mr Pyle told us that this represents an increase in total renewable generation of around 40% in just 14 years.⁴⁷ He noted that over the past 15-20 years New Zealand's total renewable generation has only increased by around 3,000-4,000GWh in total (or around 15%), demonstrating the challenge of the target and the importance of all the projects that will contribute towards it.⁴⁸ Mr Pyle referred to Meridian's calculation that this proposed wind farm could generate up to 260GWh per year, which he noted represents just less than 30% of one year's estimated annual new renewable generation requirement.⁴⁹

[84] Given the evidence we heard, and the lack of any substantive challenge to it, we are satisfied that a positive effect arising from this proposal is that this it involves electricity generation from a renewable source.

The demand for electricity and the need for security of supply

[85] We were told that developing additional generation opportunities in the upper South Island will reduce the amount of supply that would otherwise need to be imported through the national grid. We were told (and it was not substantively challenged) that the demand for electricity in the upper South Island exceeds generation by a substantial margin, with electricity having to be imported at all times through the grid from the Waitaki area, with corresponding transmission losses. The argument was that developing generation locally would reduce transmission losses (in effect generation from elsewhere that is otherwise wasted during transmission),⁵⁰ the cost of which is reflected in the spot market electricity prices. Meridian contended that if local generation is increased, the gap between regional spot market prices and prices in other regions is likely to reduce.⁵¹

⁴⁸ Mr Pyle, evidence-in-chief, paragraph [6.19]

⁵⁰ Mr Truesdale, evidence-in-chief, paragraph [17]

⁵¹⁴ Section 6.3 of the Concept Report

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⁴⁶ Mr Truesdale, evidence-in-chief, paragraph [11]

⁴⁷ Mr Pyle, evidence-in-chief, paragraph [6.19]

⁴⁹ Mr Pyle, evidence-in-chief, paragraphs [6.18] and [6.22]

[86] Mr Truesdale, a consultant to Meridian with engineering qualifications and extensive experience in the electricity industry, oversaw the preparation of the report "*Hurunui Wind Farm Project – Electricity-related Benefits*" dated February 2011 which formed a part of Meridian's Assessment of Environmental Effects.

[87] Mr Truesdale's analysis, which was not substantively challenged, suggested that by reducing the flow of electricity into the upper South Island, the proposed wind farm could on average reduce the cost of purchasing electricity from the spot market in 2020 at the Waipara and Culverden grid connection points compared to Benmore by around 0.8%.⁵² Assuming an average Benmore spot price of around \$100 in 2020, this analysis indicated the reduction in the combined costs of purchasing electricity from the market at the Waipara and Culverden grid connection point compared to Benmore of around \$120,000 per annum. The impact of this across all grid connection points in the Canterbury region would be around \$3.5m per annum.⁵³

[88] At the outset of the hearing there was some publicity about the Tiwai Point aluminium smelter, and whether the plant would be closed if a solution to the pricing of electricity supply to it could not be resolved. Some submitters contended that if this occurred, it would obviate the need for further generation opportunities for Meridian, as demand would reduce. Mr Muldoon told us that should this occur it would have no bearing on demand in the upper South Island, given that the electricity supplied to Tiwai Point does not connect to this part of the grid.

[89] Mr Pyle referred to the MED forecast that electricity demand will continue to grow at an average rate of approximately 1.5% per year (compounding) through to 2030, despite the expectation of significant energy efficiency gains.⁵⁴

[90] Mr Pyle also addressed the topic of security of electricity supply. As part of the establishment of the Electricity Authority, the Electricity Industry Participation Code 2010 came into force on 1 November 2010. Under the Code, Transpower is responsible for forecasting and publishing information on the level of security and supply, and for

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⁵² Mr Truesdale, evidence-in-chief, paragraph [19]

⁵³ Mr Truesdale, evidence-in-chief, paragraph [20]

 ⁵⁴ Mr Pyle, evidence-in-chief, paragraph [6.18] Mr Pyle acknowledged that Transpower uses a slightly lower growth estimate. NZWEA has estimated the requirement for new renewable energy electricity by 72025 at around 13,000GWh, or an average of around 900GWh per year.

managing supply emergencies. The Code specifies a winter energy margin of 17% for the overall New Zealand system.⁵⁵

[91] Dry year events can create risks to the security of electricity supply. We were told that dry years have occurred in 2001, 2003 and 2008, and frequently in previous decades. Because of this, Mr Pyle identified a need for investment in new electricity generation projects and for diversification away from the current reliance on hydrogeneration.⁵⁶

[92] Several submitters were concerned about the reliability of wind generation and used this as a basis to challenge Meridian's predictions about the electricity that would be able to be generated from it. At its most simplistic, the argument was that if the wind is not blowing, electricity is not being generated, and furthermore it cannot, unlike hydro, be stored.

[93] We heard a reasonable amount of evidence about the superior quality of the wind resource on the proposed site. This evidence established that the turbines would be able to generate 87% of the time.⁵⁷ Whilst accepting that wind generation is intermittent, the significant point highlighted by Meridian's evidence was that, given New Zealand's high proportion of hydro capacity, it is better placed than many countries to integrate intermittent wind generation.⁵⁸

[94] Mr Pyle also noted that wind energy is a reliable source of generation because it varies little on a long-term basis. He noted that the available energy from the wind typically only varies by around 5-10% annually, compared to around 20% for hydrogeneration. Accordingly, wind energy, by displacing sources of generation that can store their fuel (e.g. gas, coal, hydro), and by having a relatively low annual output variation, makes an important contribution to ensuring that the energy margin component of security of supply can always be achieved.⁵⁹

[95] We are satisfied that the reliability of the resource is not really a serious issue in this case.

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⁵ Mr Pyle, evidence-in-chief, paragraphs [9.3] – [9.4]

⁵⁶ Mr Pyle, evidence-in-chief, paragraph [9.8]

⁷ Mr McKinney, evidence-in-chief, paragraph [8]

Mr Truesdale, evidence-in-chief, paragraph [27]

Mr Pyle also focussed his evidence on what he described as an "even more [96] pressing need for new generation in Canterbury".⁶⁰ He referred to Transpower's Annual Planning Report, which identifies that maximum demand in Canterbury is currently 843 MW (estimated to increase to 981 MW by 2020); yet local generation is only 77.1 MW. We were told that this shortfall must be imported into the region via the transmission network, leaving the region vulnerable to faults or constraints in that network, and increasing total generation demand due to the losses that occur as the electricity is transported into the region.

Mr Pyle's evidence was that if the proposal was granted, it would improve the [97] security of supply to the region and would enable water used for hydro generation to be stored for future use, a factor that is particularly important in dry years.

We are satisfied that the evidence establishes that there is significant demand [98] for additional electricity generation in this area, and that there is also a need to improve the security of supply to this region and elsewhere.

Economic benefits

[99] There was no challenge to the fact that economic benefits will flow from the proposal; the question was to whom.⁶¹

Mr Muldoon, an engineer who is Meridian's Wind Development Manager, told [100] us that the anticipated economic benefits include:

- (a) local economy expenditure, both during the construction and operation stages as follows:
 - (i) an estimated NZ\$54 million (25% of the total budget for the project) to be spent directly within the North Canterbury region;⁶²
 - (ii) during the 18-24 month construction period, employment is anticipated to peak at approximately 100-150 people with

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Mr Pyle, evidence-in-chief, paragraph [9.9]

⁶¹ Mr & Mrs McLean, evidence-in-chief, paragraph [6.4]; Ms Barnes, evidence-in-chief, paragraph [23]; SEAL OF 62% Ms Meares, evidence-in-chief, paragraph p [34]

approximately 600 people inducted onto the site during the course of construction,⁶³ and

- (iii) after construction, 4 full-time staff members will be employed. We were told that Meridian's experience of other wind farms located in rural environments is that a number of these staff base themselves close to the site;⁶⁴
- (b) farmers who are hosting wind turbines will receive income;⁶⁵ and
- (c) a community fund is proposed to be established to provide direct benefits to the local community once the wind farm is operational.

[101] Some submitters were sceptical that the local and regional community would benefit much at all, particularly given that the construction industry within the region is stretched by the Christchurch rebuild. Whilst this may be the case, there is no requirement that any benefits should directly accrue to the local or even regional community. The proposal if granted will still generate employment and cash into the economy.

[102] The community fund was to directly benefit the local community. Whilst we will say more about this later in this decision, the offer by Meridian is to contribute \$100,000 towards the fund over a three year period from when construction commences, but thereafter any annual contribution would be at Meridian's discretion. We were asked to infer that the fund is likely to be ongoing, given that Meridian has reviewed community funding arrangements for its other wind farms and has extended their operation, sometimes by contributing higher amounts than that which was originally offered.⁶⁶

[103] We agree that should the wind farm be consented there will be economic benefits flowing from it.

⁶³ Mr Muldoon, evidence-in-chief, paragraph [58]
⁶⁴ Mr Muldoon, evidence-in-chief, paragraph [59]
⁶⁵ Mr Muldoon, evidence-in-chief, paragraph [72]
⁶⁶ Transcript, page 91, lines 10-13

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Conservation initiatives and other technologies

[104] Some submitters contended that demand could be affected by conservation initiatives and/or that other technology such as solar generation could also impact on it. We are satisfied from the evidence we heard that, even if conservation and efficiency gains are made, there is still a shortfall of generation capability to meet the predicted increased demand.

[105] As to alternative technology, Meridian is not required to assess or include alternatives of this kind as part of its proposal. Furthermore, we did not hear any evidence that enabled us to rely on with confidence that other generation technologies were available to meet the predicted demand within the estimated time frame it is required.

What are the potentially adverse effects on the environment?

[106] As signalled in our introduction, most of the contested evidence focussed on potentially adverse effects arising from the wind farm. These effects related to:

- landscape and visual amenity;
- noise;
- health;
- traffic and construction;
- ecology including avifauna;
- recreation and tourism; and
- property values.

[107] We heard the evidence about these matters as "topics", meaning that the evidence from each of the parties about the particular potentially adverse effect was heard consecutively, with the witnesses being cross-examined as required. This had the benefit of all information (both submissions and evidence) on a particular topic being able to be presented and challenged in a cohesive way, and the issues under each topic were able to be more clearly focussed and defined.



[108] We will deal with each of these topics in turn, and where appropriate the conditions proposed by Meridian (and HDC and CRC) to mitigate any adverse effects will also be analysed.

[109] The primary position for those opposed to the wind farm was that adverse effects could not be appropriately mitigated, but as a backstop position the Society and Mr Carr proposed alternative conditions on some topics.

Landscape and visual amenity

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[110] Under ss7(c) and (f) of the RMA we are required to have particular regard to "the maintenance and enhancement of amenity values ... and the quality of the environment" when considering whether or not to approve the proposal. A key issue in this case was whether the introduction of wind turbines to the landscape would change it to such an extent that there would be an adverse effect on "the maintenance and enhancement of amenity values ... and the quality of the environment". The cumulative effect of the Mt Cass wind farm on visual amenity was also an issue for some.

[111] *"Amenity values"* are defined in s2 of the RMA as:

...those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

The definition of "*environment*" in s 2 also includes amenity values. In this section we will refer to the potential impact on "*visual amenity*", understanding that "*amenity*" incorporates other factors as well.

[112] When dealing with landscape and visual amenity issues several basic legal principles need to be remembered. The first is that there is no right to a view.⁶⁷ Even though we must have particular regard to the maintenance and enhancement of amenity values, this is not the same thing as saying there is a right to a view.⁶⁸ The second is that a landowner is permitted to use their land as they see fit, providing that the use of it does

57 Anderson v East Coast Bays City Council (1981) 8 NZTPA 35, page 37 (HC) 5. EAL OF 68, W73/98, 2 September 1998, Kenderdine EJ, paragraph [104] not breach any legal requirement.⁶⁹ It follows that the use of land by a neighbour in some circumstances can lawfully change an existing view.

[113] The significance of a particular landscape to people who live near it and are thereby affected by any change to it (and the interrelated effect on visual amenity) require us to carefully consider both local and expert views. An analysis of the District Plan provisions relating to landscape and visual amenity is also important because this is the framework against which local expectations about amenity must be measured.

[114] We heard a considerable amount of evidence about this topic from those who live locally and from the expert witnesses. The expert landscape witnesses were Mr Rough for Meridian, Mr Craig for HDC and Ms Steven for the Society. ⁷⁰ Visual simulations showing how the turbines will most likely appear in the landscape were prepared by Truescape (for Meridian) and BuildMedia (for the Society). These simulations were separated into private and public viewpoints.

[115] We also undertook four site visits during the hearing:

- (a) The first was undertaken shortly after opening addresses. From this we gained an overview of the area said to be affected by the proposal, and we considered the public viewpoints potentially affected by the proposal.
- (b) We then requested and undertook a site visit to Meridian's Te Uku wind farm near Raglan, to gain an understanding of the size of the turbines, given that the turbine proposed in this case is similar to that used at Te Uku.
- (c) We then undertook two separate site visits to a number of private addresses in order to understand better the submitters' concerns about the impact on their visual amenity.

[116] We will first outline the relevant provisions in the District Plan before evaluating the change to the landscape that will occur if the proposal is granted, with specific reference to the identified public and private viewpoints. The evaluation will

⁶⁹ Meridian, legal submissions on landscape and visual amenity effects, paragraph [45]

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also consider whether or not any cumulative visual amenity effects arise as a result of this proposal and the Mt Cass wind farm.

How does the District Plan address landscape and visual amenity?

[117] As we have already outlined, the provisions in the District Plan relating to *Important Landscapes* under Objective 7 and *Environmental Amenity* under Objective 10 are relevant.

[118] The District Plan states that the starting point for defining the landscape resource is a 1995 report ("the Lucas report"),⁷¹ and that further work will be ongoing. The Plan acknowledges that landscape as a resource is not static, and that a large proportion of the Hurunui landscape is a working landscape used for a range of legitimate pastoral, horticultural and forestry activities. The District Plan recognises distinctions between "*outstanding*" landscape areas and the remainder of the district. Relevant provisions include:

Objective 7

To protect and enhance the natural features and landscapes of the Hurunui District which are valued by the community by managing change in the landscape in a manner that has particular regard to natural processes, features, elements, and the heritage values, which contribute to this resource's overall character and amenity.

Policy 7. 2

To encourage subdivision, use and development activities to be undertaken in such a way that the natural features and landscapes which contribute to the amenities of the District are protected and enhanced.

Policy 7. 3

To control subdivision, use and development where there would be an adverse effect on outstanding natural features or landscapes and to avoid or mitigate the effects on areas which have a high degree of naturalness, visibility, aesthetic value or expressiveness.

Policy 7.4

To promote the restoration and enhancement of important natural features and landscapes.

[119] Although these provisions refer to natural features and landscapes that might be valued by the community and those classified as "*outstanding*" or "*important*", the rules in Section A2 specifically apply only to "*outstanding landscape areas*" that are shown on a plan at Appendix A2 and the Planning Maps.

SEAL 0/71/Lucas Associates, February 1995, "Landscapes of the Hurunui District".

[120] The provisions relating to *Environmental Amenity* centre on Objective 10, but there is some overlap between this section and others in the District Plan, particularly those relating to landscapes. Objective 10 states:

Objective 10

A healthy and safe environment within the District and maintenance and/or enhancement of amenity values which the community wishes to protect.

[121] The various policies listed under this objective relate to avoiding, remedying or mitigating adverse effects of activities on amenity values (refer to Policies 10.1, 10.3, 10.5, 10.5a, and 10.9). Of particular relevance to this topic are the following two policies:

Policy 10.5

To avoid, remedy or mitigate the adverse effects of activities on amenity values.

Policy 10.5a

To avoid, remedy or mitigate the adverse visual effects of buildings and structures sited on prominent ridges or immediately adjacent to strategic arterial, district arterial and collector roads or to Lake Sumner Road

[122] The main methods to implement these provisions are the standards or development controls set out in the district-wide rules (particularly Section A1 – Environmental Amenity), which seek to support a healthy and safe living environment. These include setbacks and separation distances, minimum areas, height limits (eg maximum height 10 metres), noise standards, screening, controls on signs and earthworks, and vehicle movements.

What are the values that attach to this landscape and the changes that will result from the proposal?

[123] We will first outline the landscape values relative to the site and whether or not this landscape is an important or amenity landscape. We will then analyse the evidence about the change the proposal will bring to the landscape; first dealing with the experts' opinions on this topic, and then outlining the locals' perspectives.



[124] The landscape experts first described the landscape values relative to the site, and $agreed^{72}$ that:

- the site is typical of a working pastoral farm landscape, with very few built elements on it and no particular natural or cultural features of note;
- the ecology of the site is highly modified, but the current degree of visual modification to the landscape is moderate;
- the site has moderate visual quality and general amenity value and significance as a backdrop and visual focus;
- the site has value as being recognisable and creating a sense of place;
- in New Zealand, electricity generation is an expected element in rural areas.

Landscape classification - Is the landscape an important or amenity landscape?

[125] Ms Steven contended that the landscape of Centre Hill is an important landscape, akin to a "visual amenity landscape" as that term is understood in relation to the Queenstown-Lakes District Plan. Mr Rough disagreed, contending that if Centre Hill is important, it is more akin to an "other landscape" as defined in the Queenstown-Lakes District Plan, that being a category of less importance in terms of protection and enhancement than a "visual amenity landscape".

[126] With respect to the experts, this debate somewhat misses the point. The concepts "visual amenity landscape" and "other landscape" categories in the Queenstown-Lakes District Plan are classifications adopted by it, and cannot simply be transported to other district plans where such categorisations do not occur. The Hurunui District Plan does not provide either for "visual amenity landscapes" or "other landscapes," but it does contain Objectives 7 and 10, and supporting provisions dealing with the topic.

[127] In the context of this debate we were referred to the Lucas report,⁷³ which, whilst we acknowledge is somewhat dated, identified "*important*" landscapes in the

SEAL OF 73 Joint Caucusing Statement - Landscape, 1 June 2012, 73 Mir Rough, Rebuttal evidence, paragraph [14]

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Hurunui District. A map⁷⁴ in the Lucas report categorised the important landscape units in a legend as either "*outstanding*" or "*significant*" and these were shown on the map as coloured red and orange respectively. Other landscape units that were not categorised as important were left white or uncoloured on the map. Centre Hill and its immediate surrounds are uncoloured and therefore were not classified as "*important*", being neither "*outstanding*" nor "*significant*".

[128] Whilst the Court on occasion has been prepared to determine that certain landscapes are outstanding, or that they are outstanding natural features (a classification the Court was prepared to make in the *Mt Cass* decision), in our view this is not something that should be undertaken lightly. There is force in the submission made by Mr Beatson for Meridian, and supported by Mr Smith for HDC, that a district-wide study would need to be undertaken in order to properly conclude, by way of comparison, what landscapes afford special planning recognition. Importantly in this case, the expert witnesses were agreed that the landscape is not an outstanding natural feature or landscape in terms of s6(b) of the RMA. We agree.

[129] We find that Centre Hill and its surrounds are neither "visual amenity landscapes" nor "other landscapes" as contended by the experts and as those terms are used in other plans. We find that Centre Hill and the site do not attract enhanced landscape recognition and protection within the provisions of the District Plan, as they do not qualify to be described as "important", "outstanding" or "significant". We agree with the experts that this area is of general amenity value.

Change to the landscape – the experts' opinions

[130] The experts agreed⁷⁵ that, should the wind farm proceed, the changes to the landscape will be caused by the presence of turbines and roads and:

• the turbines will have the most significant effect, followed by the roads to a considerably less degree, with the other elements of the wind farm either having localised or relatively minor effects;



- the turbines would be very significant structures in the landscape, potentially striking a strong visual focus, but the use of one turbine model would give better visual unity than using a variety of models
- from many views the proposed roads would not be seen.
- [131] The experts also $agreed^{76}$ that:

SEAL 0F77 Joint Caucusing Statement - Landscape, 1 June 2012 SEAL 0F77 Mr. Craig, supplementary evidence, paragraphs [2. 11] and [2. 14]

- although turbines have an industrial character, the resulting landscape character would not change to be industrial;
- the generic rural character of the landscape will be maintained;
- the following aspects will be maintained on the site:
 - o the presence of distinctive natural features;
 - the ability to enjoy panoramic framed views, albeit the subject of the view would be affected;
 - o the effect of changing light, weather and atmosphere;
 - the ability to appreciate the detail of landform and vegetation generally.
- the landscape character will change, although it would remain generically rural (as opposed to urban or industrial);
- it is difficult to mitigate the effects of the turbines on the landscape.

[132] The experts did not agree about the nature of the change to the landscape. Ms Steven's opinion was that the landscape would change to an "*energy production landscape*," rather than a "*rural landscape*", but Mr Rough and Mr Craig did not agree. Their opinion was that pastoral farming would still remain the dominant land use, with the character of the landscape reflecting this.⁷⁷

[133] Mr Craig's opinion was that the better landscape outcome would be the status quo to remain, but he recognised that electricity generation is necessary and inevitably comes at a cost to the landscape. His overall opinion was that this landscape is not an inappropriate one to accommodate a wind farm.⁷⁸

Change to the landscape – the locals' perspectives

[134] Not surprisingly, the submitters who live near to Centre Hill and the site view the landscape as significant and important to them. Mr Wallace for the Society submitted that, in particular, Centre Hill is significant for:

- a more natural character in contrast to the more intensely farmed valley floors;
- its long open natural skyline;
- a constant significant backdrop to six landscape settings arrayed around it;
- it is a widely visible hill;
- it has a typical pastoral farm landscape character with many appealing elements;
- it is a large part of the SH1 and railway visual corridor;
- it is part of the enclosing backdrop to the wider Waipara wine growing area.⁷⁹

[135] Many of those local people who gave evidence referred in very strong terms to what they felt would be the effect of the proposed wind turbines, describing them in some cases as not only industrial in character, but contending that the landscape character would change to an industrial landscape.

[136] We were referred to some research which shows that there is a diversity of views about how people find wind turbines. It was clear to us that most of the submitters did not find wind turbines attractive or elegant (as contended by Mr Rough),⁸⁰ but dominant and overbearing. But we also note that not all local people were necessarily of

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Mr Craig, evidence-in-chief, paragraph [7.7]

⁹ The Society, Opening Submissions on Landscape, paragraph [4.5]

Mr Rough, evidence-in-chief, paragraph [102] and rebuttal, paragraphs [31] and [32]

this view. We heard from Mr Turnbull (a hosting landowner) who clearly did not feel the same way.

[137] We agree that there will be changes to the landscape as a result of the proposal, but we do not agree that the landscape will become an energy production or industrial landscape. We also agree that changes to the landscape *can*, but not necessarily *will* affect visual amenity.

The assessment of visual amenity effects

How should visual amenity be assessed?

[138] Meridian accepted that the real question is whether the degree of change to amenity is so intrusive that it requires turbines to be removed from the project. Whilst the evidence of Mr Rough and Mr Craig was that this threshold has not been reached, and that the proposal is acceptable from a landscape and visual amenity perspective, Ms Steven presented a different view.

[139] At the hearing Mr Rough amended his evidence to describe the consequence of the change to the landscape as contributing to the effect on visual amenity from specific viewpoints.⁸¹ In his amended assessments he described the degree of landscape and visual change from specific viewpoints on a scale ranging from "negligible" to "very substantial", and he described the visual amenity consequence using a scale of terms: "negligible – slight – moderate – significant".

[140] We agree with Mr Rough that identifying the change to the landscape is a useful basis for a visual amenity assessment. But Mr Rough also contended that an assessment that there was a substantial change to the landscape did not necessarily equate to substantial adverse effect on visual amenity values.⁸² We were referred to *Meridian Energy Limited v Wellington City Council*,⁸³ a case in which Mr Rough was also involved where the Court seemed to adopt this submission, but do not agree that in so doing the idea has evolved into a principle of law. In our view the degree of change to a landscape is a factor to be taken into account when assessing the effect on visual amenity.

NL UF 7/81 Mr Rough, second statement of supplementary evidence Mr Rough, evidence-in-chief, paragraph [179] ⁸³ [2011] NZEnvC 232, paragraph [354] The degree to which that change has occurred (a matter for the Court to assess), may or may not result in a finding that the effect is adverse, depending on the facts of the case.

[141] Ms Steven contended that a visual amenity assessment must begin with an understanding of what visual amenity values are important to those affected by the proposed change to the landscape. Consequently, Ms Steven surveyed members of the Society, asking them what they valued or like most about the landscape.⁸⁴ Ms Steven identified eleven key characteristics and/or attributes from which the local community derives its visual amenity. These values include tranquillity, clean natural skylines and open uncluttered landscape.⁸⁵ Because of the methodology Ms Steven employed to obtain these views, Meridian challenged her conclusions about these characteristics. Meridian submitted that by only interviewing the members of the Society, the responses obtained were not independent or representative enough of the community, because the community also includes people who are not members of the Society. We were asked to bear in mind that the Society was formed for the sole purpose of opposing the proposal, a factor which inferentially could have distorted the independence of the results.

[142] There is some force in Meridian's argument. As we have already outlined, there are members of the local community who are neutral, or indeed supportive of the proposal. As we have already identified, given the behaviour of some at the public meetings held to impart information about the proposal, it is reasonable to infer that members of the community not necessarily opposed to the wind farm would be tentative about expressing their views. There was no opportunity for these parties to contribute to the questionnaire prepared by Ms Steven.

[143] We agree that the evidence provided by Ms Steven is evidence of how those members of the Society who completed the questionnaire identify the characteristics and/or attributes that they believe contribute to their sense of visual amenity. We take this into account, but do not reach the conclusion that these are the only opinions that members of the local community have about what contributes to their sense of visual amenity.

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Ms Steven, evidence-in-chief, paragraph [12.30] and Appendix E Ms Steven, evidence-in-chief, paragraph [19.3]

[144] In addition, the provisions of the District Plan dealing with amenity and landscape are important, as they provide the framework against which expectations about visual amenity must be considered.

The visual simulations

[145] The public and private viewpoints Mr Rough identified as representative were selected using a combination of desktop studies, investigations of the area, and computer modelling. All of the landscape experts agreed with this approach, with Ms Steven for the Society considering that all but one of the private viewpoints showed a fair representation of the nature of the view from the selected properties.⁸⁶ We note that several submitters raised issues about the accuracy of the visual simulations depicting their properties, but after hearing all of the evidence and attending the site visits we are satisfied that have an accurate picture of what is proposed and where.

[146] Photo simulations, digital terrain model ("**DTM**") simulations and animated time-lapse simulations were prepared by Truescape as aids to conveying the wind farm's varying level of visibility and assessing landscape and visual effects.⁸⁷ For the Society, BuildMedia were instructed to prepare a series of DTM simulations. The BuildMedia DTM images provided a greater selection of private viewpoints than those which had been selected by Mr Rough and incorporated into the Truescape material, but they only presented what is colloquially know as the "*scorched earth*" view, because the context of the image is lacking, with vegetation not consistently shown and structures in existing views omitted.⁸⁸

[147] Mr Beatson submitted that, as the DTM simulations are generated entirely from contour data, they do not represent the primary field of view, but did accept that they provided guidance in very general terms to assist the viewer to understand the location and visibility of the proposed wind farm.⁸⁹

[148] Part of the BuildMedia brief was to include visual simulations that incorporate the consented Mt Cass wind farm. Mr Rough challenged the BuildMedia modelling because the Mt Cass decision enables a choice of three turbine envelope options of

SEAL OF 88 Mr Rough, rebuttal, paragraph [65]

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⁶ Ms Steven, paragraph [16.4] in relation to the viewpoint 41

⁸⁷ Mr Rough, evidence-in-chief, paragraph [11(k)]

^{UF}⁹/₂Mr Maunder, evidence-in-chief, paragraph [2.7]

varying heights, and the BuildMedia model used the largest of the envelope options. In other words, the BuildMedia images are the worst case scenario in terms of the size of the turbines. Whilst this point was an important one to draw to our attention, we think it sensible that the BuildMedia images did present a worst case scenario, and we understand that the two smaller envelope options were not included for cost reasons. We do not think that for this reason the BuildMedia images should be disregarded.

[149] A more significant problem with the BuildMedia images was their presentation to the Court. It did not become evident until this part of the evidence was sought to be presented by Mr Meares, who was assisting with this part of the presentation of the Society's case. Mr Meares sought to enlarge the BuildMedia images by the use of "*five clicks*" of the computer mouse. This was done to enable the Court to purportedly see the proper scale of the proposed turbines. We accept that Mr Meares was probably unaware of Court protocols in this regard, but we were left with considerable unease about the proper scale that should apply to the Build Media images.

[150] The Truescape material included TruViewTM photo simulations prepared in A3 format. The evidence establishes that these photo simulations provide a geometrically accurate representation of scale when viewed at 0.8m from the image. A reference photograph showing the full primary human field of view, that is 124° horizontal and 55° vertical at each viewpoint location, was provided with each simulation.

[151] The time-lapse simulation depicts how the proposed wind farm will be experienced during the course of an entire day, and reflects accurately the exact sunlight and climatic conditions experienced at the time of the photography.⁹⁰

[152] The Truescape images were particularly helpful to us, but the BuildMedia ones were as well. We accept that there are more limitations to the BuildMedia images, but nothing much turns on this.

[153] As we have already outlined, on our site visits we were able to view the exact points from which the simulations had been prepared, and we were therefore able to gain a sense of the scale of what is proposed.



Visual amenity effects from public places

[154] Mr Rough chose 19 land-based public viewpoints.⁹¹ He accepted that from five of the viewpoints the proposed turbines would appear to be highly prominent. These are:

(a) Greta cafe and bar carpark (Viewpoint 04)

(b) SH1 lay-by near Glenmore (Viewpoint 06)

(c) Motunau Beach Road near Greta Valley School (Viewpoint 09)

(d) Motunau Beach Road 4km from SH1 (Viewpoint 11)

(e) Reeces Road, opposite Serrat Downs (Viewpoint 15)

[155] Mr Rough accepted that there will be a substantial change to the landscape from these five viewpoints,⁹² but he considered that it would result in a moderate visual amenity consequence. In his opinion the turbines would not adversely affect visual amenity values to the degree that would necessitate the removal of specific turbines.⁹³

[156] At Ms Steven's request, BuildMedia prepared a number of DTMs from public viewpoints which she then assessed. Ms Steven also prepared a photo book ("*Photobook* – *public places*"). Ms Steven prepared a number of additional public viewpoints. She challenged Mr Rough's assessment on the basis that it appeared to analyse visual effects from particular viewpoints rather than taking a more holistic overview. Ms Steven concluded⁹⁴ that "there are very few public places where it was said the two wind farms together, or even Project Hurunui Wind on its own would not be visually prominent and distinctive."

[157] Overall, Ms Steven's view was that the "character of the valley would change from a typical pleasant pastoral landscape to an energy production landscape where moving wind turbines are a prevalent feature."⁹⁵ As well, her opinion was that adverse cumulative effects would arise, with the Mt Cass wind farm and this proposal being

- () Ms Steven, evidence-in-chief, paragraph [22.50]
- ²⁵ Mśr Steven, evidence-in-chief, paragraph [22.63]

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¹ Mr Rough, evidence-in-chief, Graphic Attachment, 23 January 2012

¹² Mr Rough, evidence-in-chief, paragraph [11(y)] and second supplementary, Appendix 1, sheet 1

⁹³ Mr Rough, evidence-in-chief, paragraph [217] and second supplementary, paragraph [13]

collectively so prominent and dominating that the existing rural character of the landscape will no longer prevail.⁹⁶ Mr Craig did not agree with Ms Steven that cumulative visual effects will be significant in every location; rather, his view was that they would vary from location to location.⁹⁷ Meridian submitted that dominance may be mitigated by alternative views (views constrained by topography); vegetation (complex or otherwise); complex foreground; and house design and use.⁹⁸

[158] Our site visits were instructive. We agree with Mr Rough that there will be a substantial change to the landscape by the introduction of the turbines to the five public viewpoints identified. We also agree that in the overall context of each of these views no significant adverse visual amenity effects will arise. This is because these viewpoints will be visible in passing. The exception to this is viewpoint 9 (outside the Greta Valley School), but as the school is not completely oriented towards that viewpoint for significant parts of the day, and as there are few turbines visible, we agree that the effect on visual amenity can be described as moderate.

Visual amenity effects from private places

[159] Mr Rough assessed a number of viewpoints from private properties.⁹⁹ He assessed the degree of landscape and visual change and the visual amenity consequence.

[160] Mr Rough considered that only one of the private viewpoints resulted in a very substantial change to the landscape and a significant consequential effect on visual amenity.¹⁰⁰ He identified the following properties to the north of the wind farm as experiencing significant visual amenity consequences, and as needing careful consideration. These were:

- (a) the Barrington property at 1689 Omihi Road,
- (b) the Sloss new dwelling at 1837 Omihi Road,
- (c) the Marr property at 2000 Omihi Road,

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⁹⁶ Joint Caucusing Statement - Landscape, 1 June 2012, paragraph [59]

⁹⁷ Mr Craig, supplementary evidence, paragraph [2.15]

Meridian Energy Limited v Wellington City Council, W031/07, 14 May 2007, Judges Kenderdine & Thompson, paragraph [517]

(d) the Heslop property at 1661 Omihi Road.

[161] For Tipapa, Mr Rough assessed seven viewpoints. He considered that for two of those viewpoints (One Tree Hill walkway and One Tree Hill) there would be a substantial degree of change to the landscape but that the consequence to visual amenity would be moderate. For the other five Tipapa viewpoints he considered the effect on visual amenity to be slight or negligible.

[162] For the balance of the private viewpoints Mr Rough considered the effect on visual amenity to be moderate, slight or negligible. There were various reasons advanced depending on the property, but in some vegetation screening the visible turbines was a factor, with Mr Rough overall assessing the visibility of the turbines on the basis of dominance. Mr Rough's reliance on the concept of dominance was supported by reference to the *Mill Creek* decision.¹⁰¹

[163] We were referred to *Moturimu Wind farm Limited v Palmerston North City* $Council^{102}$ where the Court accepted that vegetative screening was a matter to be taken into account when assessing the effects of a wind farm on visual amenity, but it was accepted by Meridian that this is something that cannot necessarily be relied upon. This idea met with some resistance from some submitters, including Mr Meares and Mr Carr.

[164] Ms Steven assessed 36 properties. Her opinion was that the visual amenity of 31 out of 36 private properties she assessed would be significantly adversely affected by the proposal. Ms Steven challenged (as did Mr Craig) Mr Rough's view that the test for determining whether or not there is a significant adverse effect is whether the turbines can be said to be dominating.¹⁰³ Ms Steven described turbines as being "a dominating landscape element wherever they are sufficiently large and/or numerous enough to be a significant feature which would constantly draw visual attention, ie be visually dominant in the view."¹⁰⁴

[165] Mr Craig conducted a peer review of Mr Rough's evidence for the HDC. He did not break down his evidence into a specific analysis of private and public viewpoints, as Mr Rough and Ms Steven did. He agreed in the main with Mr Rough, but in his view

 ¹⁰¹ Meridian Energy Limited v Wellington City Council, [2011] NZEnvC 232, paragraph [356]
¹⁰² W067/08, 26 September 2008, paragraph [229]

¹⁰³ Ms Steven, evidence-in-chief, paragraph [17.3] and Mr Rough, evidence-in-chief, paragraph [367] ¹⁰⁴ Ms Steven, evidence-in-chief, paragraph [17.6]

there would still be some viewpoints where there were significant adverse effects arising, and these more or less corresponded with the degree of physical change to the landscape, notwithstanding the presence of circumstantial factors such as screening vegetation.¹⁰⁵ His opinion was that these adverse landscape and visual effects are very difficult to mitigate due to the fact that turbines are large and require elevated locations.

[166] Despite this, Mr Craig's overall opinion was that the site was suitable for a wind farm because:¹⁰⁶

- It is a working rural one that is modified, mainly with regard to its land cover
- It has not attracted RMA s6(b) status and is therefore not regarded by the District and Region to be an outstanding natural landscape and does not contain any outstanding natural features such as prominent rock outcrops, water bodies or significant indigenous vegetation
- It has no coastal association, and nor with any other significant natural feature such as a major river or lake
- It does not display character that is particularly rare or distinguished and so as a finite resource it is not unduly threatened
- As a consequence of avoidance and following remediation and mitigation the application site is able to absorb associated effects arising from earthworks and such like
- The landform will remain fundamentally intact, as will the underlying land cover.

[167] We have carefully considered the large amount of material that was presented on this topic by both the experts and the submitters.

[168] Many of the submitters' properties were included in the list of private viewpoints. From the evidence presented by the submitters it was clear that many of them have lived in the locality for a considerable period of time and/or have family associations with the

Mr Craig, evidence-in-chief, paragraph [6.13] SEAL 0/106 Mr Craig, evidence-in-chief, paragraph [7.5]

locality over several generations. The submitters opposing the wind farm made it clear that they preferred the existing landscape.

[169] Because of the polarised positions of the experts, principally Mr Rough and Ms Steven, our site inspections were useful in assisting us to evaluate the evidence and submissions.

[170] We have identified two groups of adversely affected properties: those which are affected by a few turbines that are in close proximity; and those which are further away from the wind farm and have a larger number of turbines in their panoramic views.

[171] Examples of the former include the properties of Sloss, Barrington, and Marr. These properties are adversely affected by the dominant, overbearing proximity of Turbines F1 and G1 in particular. These two turbines are located on two high points to the north of one of the main ridgeline rows of turbines and closer to SH1. We find that the adverse effect of these two turbines on visual amenity of some properties is very significant.

[172] Other properties at the eastern end of the wind farm, on Motunau Beach Road, are affected principally by the proximity of Turbine A11. Examples of these properties include Symonds and Archbold. However we find that the turbine is not as dominant and overbearing, and there are other mitigating factors including vegetation screening, and orientation of the dwellings such that the wind farm is not the sole or principal outlook from the main living areas. At Tipapa, we consider that the principal visitor attractions, being the house, woolshed and garden areas, will not be adversely affected and the turbines will not be nearly as visible as from other properties.

[173] For the second group of properties, the Truescape simulations show more than 20 turbines from the viewpoints, and examples of these properties include those of McLean, Baxter, Lynnette and Belinda Meares, and David and Vivienne Meares. The effect on this group of properties is somewhat similar to the public viewpoints although it is acknowledged that for residents the impact is more permanent depending on the orientation of the dwelling and the main living areas. We find that there would be a significant adverse effect which is due to the large number of turbines on the skyline across the panorama of these viewpoints. Because they are further away from the viewer



it is the combined effect of all of the visible turbines rather than individual turbines that create the significant adverse effect.

Conclusion – landscape and visual amenity

[174] In this case we are not dealing with outstanding natural features or landscapes in terms of s6(b) of the RMA or any of the planning documents. Rather, the evaluation is primarily against the District Plan and particularly some of the provisions under Objectives 7 and 10 as they relate to amenity. These provisions are consistent with the broader regional planning framework but are more relevant as they better reflect the local circumstances.

[175] The District Plan provisions refer to protecting and/or enhancing landscapes and amenity values valued by the community, but these Objectives are then to be given effect to through subsequent provisions in the Plan. In other words, areas or values that are "valued by the community" or "which the community wishes to protect" should be identified publicly in the Plan. Centre Hill and its surrounds have not been so identified in the Plan.

[176] The District Plan recognises that the Hurunui landscape is a working landscape used for a range of legitimate pastoral, horticultural and forestry activities, and also that the landscape will not be static. It follows that changes to the landscape resulting from these activities are generally considered to be acceptable and to be expected. This includes forestry plantations and the often significant changes that result from harvesting. Similarly, the conversion of pastoral land, including hillsides, to vineyards with their associated structures, and also the increased use of large scale irrigation structures. Against this background it is acknowledged that wind farms have a wider visual catchment because of the height of the turbines and the need for an elevated location to best use the wind resource.

[177] In this case we have found that for some of the properties in the local community the proposed wind farm will have a significant adverse effect on visual amenity. We have found that removing Turbines F1 and G1 will go some way towards reducing the very significant adverse effect on properties close to those proposed turbines. To the extent that the whole wind farm, rather than individual turbines, will



have a significant adverse effect on local visual amenity, we find the proposal to be inconsistent with Policies 10.5 and 10.5(a) of the District Plan.

Noise

Overview

[178] In this section of our decision, we examine the effects of noise arising from the operation¹⁰⁷ of the wind farm. This is important because noise or "unwanted sound" at unreasonable levels can adversely impact on people's health and amenity.

[179] The topic was of considerable importance to many submitters, including members of the Society who were concerned that noise from the wind farm would impact on their ability to enjoy the quiet and tranquil ambience they perceived they currently experienced, and some were concerned that their sleep would be disturbed. There was debate about how any potentially adverse noise effects could be mitigated, with some submitters contending that this could only be met by the imposition of a 2 km setback, with provision for more should there be residents who could be described as vulnerable and more particularly affected by noise.

[180] Mr Carr from Tipapa, was particularly passionate about his ability to "unwind" at his property and his ability to "hear the silence" in tranquil surroundings. He contended that noise from the turbines would have a devastating effect on Tipapa's business, which is specifically marketed to reflect the peace and tranquillity he believes his property enjoys. Mr Carr described noise as an effluent, no different from trade waste, and toxic, as it has the ability to affect health.¹⁰⁸

[181] Meridian's case was that the predicted sound levels for all operational sources from the wind farm will comply with NZS6808:2010 Acoustics-Wind farm Noise ("NZS 6808:2010") which it argued has been set to protect health and reasonable amenity and contains specific guidelines for the prediction, measurement and assessment of sound from wind farms. It contended and the HDC agreed that the predicted sound levels will be below 40dB at all noise sensitive receivers and under 35dB for all apart from three

Carr - Opening: Noise Topic

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"noise sensitive receivers".¹⁰⁹ Meridian was confident that the proposed suite of conditions agreed between it and the HDC would satisfactorily address any noise effects, but the Society and a number of the submitters including Mr Carr for Tipapa disagreed.

[182] We heard from three noise/acoustic experts; Dr Chiles for Meridian¹¹⁰, Mr Camp for the HDC and Mr Huson for the Society. All of these witnesses were extensively cross-examined. Prior to the hearing, Dr Chiles, Mr Camp and Mr Huson attended two expert witness conferencing sessions.¹¹¹ Some matters were agreed and the areas of disagreement were outlined. There was some overlap between the matters covered by these witnesses and those experts called by the parties concerning health effects. In this section we deal with the issues dealing with the acoustics of the sound predicted to be emitted from the wind turbines, rather than the effects of it on sleep and/or health. These issues will be covered in the next section of this decision.

[183] Mr Carr's written evidence appended material from Professor Dickinson,¹¹² various articles and a report dated November 2011 from Dr Thorne. Dr Thorne has a professional background in the measurement of low background sound levels and his report is entitled "*Hurunui Wind Farm Noise Assessment for Mr J Carr – A Review*." At the beginning of the review Dr Thorne noted that he has read the evidence-in-chief prepared by Dr Chiles and Mr Camp. He also made it clear that he agreed for the review to be tendered by Mr Carr to the Court, on the specific understanding that he was not available to attend the hearing. ¹¹³ Dr Thorne expressed the opinion that there is potential for audible noise and low frequency noise and infrasound at Tipapa. He then outlined the issues he believes lead to uncertainty in the noise contours from the noise prediction models. He stated his opinion that there is a significant risk of adverse health effects for those "*people out to at least 2000m away from an industrial wind turbine installation*". The potential health issues with which he is concerned have been reviewed by the World Health Organisation ("WHO") and are discussed elsewhere in our decision.

[184] As Dr Thorne and Professor Dickinson were not made available for crossexamination, their opinions were unable to be properly tested and for this reason can be

Mr Carr attended the first session, but not the second.

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¹⁰⁹ Properties at 1689, 1949 & 2000 Omihi Road. Dr Chiles, evidence-in-chief, Appendix A, Acoustics Assessment, Table 4-7, page 17.

¹¹⁰ Dr Chiles was also the chairperson of the committee of the Standards Council established under the Standards Act 1988 that supervised the preparation of NZS 6808:2010.

 ² Rrofessor Dickinson and Mr Rapley spoke at the woolshed meeting held at Tipapa on 17 June 2010
³ Hurunui Wind Farm Noise Assessment from Mr J Carr – A Review, November 2011, page 5

given little weight.¹¹⁴ Nonetheless, Dr Chiles and Mr Camp were cross-examined by Mr Carr and others about the opposing views expressed by Professor Dickinson and Dr Thorne.

[185] The broad issues we need to determine under this section are:

- (a) What are the predicted noise levels and how accurate /reliable are they?
- (b) How should operational noise be measured and monitored?
- (c) Should certain properties be treated as high amenity areas?

We will deal with each of the above issues in turn.

What are the predicted noise levels and how accurate /reliable are they?

Overview

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[186] Whilst Dr Chiles, Mr Camp and Mr Huson agreed that a specific methodology is required for wind farm noise, they did not agree on the methodology that should apply.¹¹⁵ Mr Huson was concerned that NZS 6808:2010 does not provide the level of predictive certainty that Dr Chiles and Mr Camp contend it does. Specifically the experts disagreed about the place at which the sound source was modelled (at blade tip or hub height), the ground attenuation factor used in the model and whether or not an increase in noise levels would be created by turbulence created by upwind turbines. There was also an issue about low frequency noise and infrasound as well as how special audible characteristics ("SAC's") should be dealt with.

[187] Mr Carr argued that we should not use NZS6808:2010 as an assessment or measurement tool at all. He submitted that the standard was "corrupted," and that because of their involvement in the promulgation of the standard the experts for Meridian (particularly Dr Chiles and Mr Botha) "are so conflicted that their evidence must be given little credibility". He also asked the Court to disregard Mr Camp's evidence contending that he was biased, because he was the President of the New Zealand Acoustical Society for part of the time when it was also involved on the committee tasked to prepare the

This matter was specifically raised in a pre-trial Minute dated 19 July 2012.

Joint Witness Caucusing Statement - Noise, paragraphs [3] and [4]

standard, and also because five years ago Dr Chiles had worked for Marshall Day Acoustics, a firm in which Mr Camp is a principal. We do not accept that there is any substance to Mr Carr's submission that Mr Camp's evidence is biased because of these matters.¹¹⁶

[188] We will first consider the existing noise environment and then outline the nature of the predicted noise arising from the wind turbines, as that is the operational noise source of most concern. We will then analyse the specific issues to do with the model used to predict the noise contours relied on by Meridian, low frequency noise and infrasound, as well as SAC's.

The existing noise environment

[189] Whilst many of the submitters talked about the quiet, tranquil environment they experience, these expressions of belief must be seen in context of the particular environment and what is perceived by the listener as pleasant and/or acceptable sound. As Dr Black one of the health experts for Meridian noted (and we agree), rural environments are far from quiet in the sense of there being no sound. The sounds in a rural environment can be "natural" in the sense of "arising from nature" (e.g. birdsong, the sound of animals), but they can also be "unnatural" in the sense of "being manmade" (e.g. the sound of tractors and farm machinery). Whilst Mr Carr talked about "hearing the silence" at his property, there are times when the functions at his property, even if they are within his resource consent provisions, may produce sound which could be viewed by some as unwanted and unnatural in this environment. All this goes to show is that a person's reaction to sound and whether they view it as noise and unreasonable, depends on the person who is hearing it.

[190] It is important to note that changes to noise levels in the existing environment are permitted as long as they are not unreasonable. Accordingly just as there is no legal right to a view, there is no legal right for an existing quiet and tranquil environment to remain so. Whether or not a sound can be heard is not the issue. The issue is whether or not the sound is unreasonable. The RMA recognises this in s16 by requiring every occupier of land to adopt the best practicable option to ensure that the emission of noise from that land does not exceed a reasonable level.

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[191] What level of noise can be reasonably expected in an environment is typically outlined in District Plan provisions. In this case, the relevant part of Rule A1.2.9 of the District Plan sets out the noise levels permitted in the rural area as being:

All activities shall be designed and conducted so as to ensure that the following noise limits are not exceeded, at or outside the boundary of the site:

55 dBA L ₁₀	7am – 7pm daily
45 dBA L ₁₀	7pm – 7am daily
75dBA L _{max}	All days between 10pm and 7am

In the case of residential dwellings and/or zones, noise is to be measured at any point at or within the boundary of any residential zone, or the notional boundary of any habitable residential building in any other zone.

The notional boundary is defined as a line 20 metres from the façade of any rural dwelling or the legal boundary where this is closer to the dwelling.

[192] This rule is a key method implementing Policy 10.9 which states:

Policy 10.9

To control noise emissions at levels acceptable to the community and where they exceed those levels, generally maintain a separation distance between those noise-emitting activities and sensitive receivers.

The nature of the predicted noise from the turbines

[193] Adverse noise effects can potentially be created by a single turbine or turbines in combination. Turbines are known to emit noise, which various witnesses described as a "low hum" or like "surf rolling in on a beach", but could also include "- whoomp, whoomp as sails pass, a sea noise – rhythmic ... a jet engine taking off but never takes off. "¹¹⁷. It was said that such sounds can be heard from "3, 4, 5 km away." ¹¹⁸

[194] Wind turbine noise can be problematic for those who live near to them and some people find the noise emitted from them annoying. The characteristics of wind turbine noise are complex, and the circumstances when it arises (day and night) can make

¹¹⁷ Mr Carr – Opening: Noise Topic 148

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it difficult to avoid, remedy or mitigate in a timely way if problems arise and it becomes unreasonable to the person experiencing it.

[195] In this case, particular mention was made of complaints about noise from residents near to wind farms at Makara (also known as "West Wind") and Te Uku, both operated by Meridian. Meridian did not accept that unreasonable noise is generated by these wind farms, citing that they complied with their conditions of consent, but it did accept that difficulties arose at Makara with one turbine that did not comply with its factory specifications and agreed that the problem took some time to resolve. To avoid a similar problem arising in this case, Meridian has proposed a condition to require precommissioning testing of each turbine. When cross-examined about noise complaints arising from these wind farms, Mr Botha accepted that in the case of Makara, in August and September 2010 there were a large number of complaints (between 100-180), but in the few months preceding this hearing there were only 4 or 5.¹¹⁹ In relation to Te Uku, Mr Botha said there were two complaints in two years.¹²⁰ We note also that both these wind farms were consented before NZS6808:2010 was promulgated.

[196] NZS6808:2010 sets a standard noise limit of 40dB L_A90 or the background sound level + 5dB (whichever is higher). Dr Chiles and Mr Camp agree that this will provide reasonable noise levels for residents.¹²¹ The modelling, undertaken by Dr Chiles and peer-reviewed by Mr Camp, shows that of the 73 "*noise sensitive receivers*" only three will receive noise levels above 35dBA.¹²² The modelling of the expected wind farm noise also complies with the District Plan noise limits to the extent that they are applicable to wind farm noise.¹²³ Mr Camp described a level of 35dBA from wind turbines as being "*very quiet, and as a level which will ensure that any adverse noise effects are minor*,"¹²⁴ provided that there are appropriate conditions to ensure that unusual noise issues such as tonality and amplitude modulation do not exist.¹²⁵

¹¹⁹ Transcript, pages 1051-1052

¹²⁰ Transcript page 1106

²¹ Mr Camp, evidence-in-chief, paragraph [3.4], Joint Caucusing Statement – Noise, 15 June 2012, paragraph [4]

SEAL OF Dr. Chiles, evidence-in-chief, paragraph [2.3]

¹²³ Dr Chiles, evidence-in-chief, paragraph [7]

²⁴ Mr Camp, evidence-in-chief, paragraph [2.3]

⁽Mr Camp, evidence-in-chief, paragraph [4.2]

NZS6808:2010

[197] New Zealand standards are not statutory documents under the RMA which *require* a consent authority to have regard to them; nonetheless a consent authority *may* decide to do exactly that. Reference to a standard is often considered to be best practice when dealing with technical matters and often conditions of consent will include reference to relevant standards.

[198] Meridian and the HDC contended that NZS 6808:2010 provides the best, most workable noise assessment and compliance framework for wind farms. It follows on from its precursor NZS6808-1998 and has been refined to reflect experience in the field since then. The document was developed by a committee of experts, representing a wide range of organisations brought together by Standards New Zealand. The committee was chaired by Dr Chiles who gave evidence that the committee followed the usual process of developing a draft, distributing it for comment, then agreed on a final draft that was approved by the Council of Standards New Zealand.

[199] The Forward to NZS6808:2010 provides:

"...Guidance is provided on noise limits that are considered reasonable for protecting sleep and amenity from wind farm sound received at noise sensitive locations" and ..."The consensus view of the committee, including numerous experienced acoustic experts, is that the Standard provides a reasonable way of protecting health and amenity at nearby noise sensitive locations without unreasonably restricting the development of wind farms. "

[200] The Outcome Statement provides:

This Standard provides suitable methods for the prediction, measurement and assessment of sound from wind turbines. In the context of the Resource Management Act, application of this Standard will provide reasonable protection of health and amenity at noise sensitive locations.

Under the scope section these comments are however tempered by the statement that:

The noise limits recommended in this Standard provide a reasonable rather than an absolute level of protection of health and amenity.


Was the process associated with the promulgation of NZ68080-2010 so flawed that we should disregard it?

[201] As outlined above, Mr Carr contended that the review process was flawed, extending his submission to include an allegation that the process was corrupted.

[202] It was clear that Mr Carr had extensively researched the background to the committee's deliberations, including obtaining copies of the minutes of meetings and he cross-examined Dr Chiles about these. He asserted that the committee¹²⁶ did not engage a health expert to have input to the standard and that it was inappropriate for Dr Chiles to write an initial draft of the standard for consideration by the committee stating:

We have a standard here whereby the fox was asked to put the padlock on the hencoop, the fox was given the key, and then allowed into the hen coop to eat the chickens in accordance with the way he wished to do so.¹²⁷

[203] We agree with Meridian that Mr Carr's allegations that the review process was flawed and corrupted are unfounded. Even bearing in mind Mr Carr's tendency to use colourful language, an allegation that a process is corrupted is a serious allegation to make and requires the party asserting it to assume an evidential burden close to the higher sliding civil standard of proof. Mr Carr's assertions do not come anywhere near that requirement and were at times inaccurate. For example, Mr Carr contended that no health expert had input into the standard, but Mr Goodwin, a public health expert, represented the Ministry of Health¹²⁸ on the committee. The standard, as the preface to it indicates, was the result of a committee collaboration, the members of whom were from a number of different representative bodies.

[204] The Court does not have the power to judicially review the process that was undertaken to reach the standard; its consideration is limited to whether or not the standard should be applied. In this case these two matters were confused and conflated by Mr Carr. Because of this, but mindful that we cannot judicially review the

¹²⁶ The representatives on the committee are listed at the beginning of the standard and include Energy Efficiency And Conservation Authority, Executive of Community Boards, Local Government NZ, Massey University, Ministry for the Environment, Ministry of Health, NZ Acoustical Society, NZ Institute of Environmental Health Inc, NZ Wind Energy Association, Resource Management Law Association, University of Auckland. We were also advised that Ms Paul, a party in opposition to the West Wind wind farm was the local government representative (see Transcript page 797, lines 22-25)



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committee's processes, we have covered the topic in more detail than it warrants from a legal perspective.

[205] We conclude that we *can* use the standard as a basis for the assessment, but whether we *should* rely on it depends on the accuracy of its predictions. We now turn to analyse this topic.

Can we rely on NZS6808:2010 to accurately predict the sound emitted from wind turbines?

[206] Dr Chiles outlined the general approach to predicting the noise emitted and received at various locations from a wind farm and the considerable experience that he and Meridian have in using an international computer model to predict noise contours for wind farms constructed in New Zealand. Inputs to the computer model are the sound power emitted from each turbine, the number and location of each turbine together with topographical ground factors a few hundred meters adjacent to each turbine and also adjacent to each receiving residence or location.

[207] Meridian witnesses including Dr Chiles and Dr Black, emphasised that, in their view, there is significant built-in conservatism to the prediction of the noise contours. The model assumes that all turbines are facing and delivering full sound power to any given location for a given wind velocity – a physical impossibility as the turbines are spread over a significant physical distance and for a given wind direction they cannot all be facing and delivering sound to any given receiving location. The conservatism built into the model was said to be appropriate when compared to measured sound levels at actual wind farms.¹²⁹

[208] Mr Huson was critical of some aspects of the standard, although he admitted that he had no previous experience of how it is applied in New Zealand or what the practical success of it has been¹³⁰. He challenged some of the assumptions used in the model, namely the use of the blade tip height for the sound source, the ground attenuation factor used, and the lack of allowance for an increase in noise level to occur due to turbulence created by upwind turbines.



Sound source height measurement

[209] Mr Huson contended that rather than using blade tip height for the sound source, hub height should be used. In evidence Dr Chiles explained that he has run the model with the sound source at both the tip and hub heights and that there was no significant difference in outputs, with data changing by decimal places of decibels.¹³¹ Dr Chiles' evidence was that blade tip height was used in the final model because it was more conservative, effectively reducing the screening effect of land cover and topography.¹³²

[210] Dr Chile's findings were not significantly challenged by cross-examination. We are satisfied that it was appropriate to use blade tip height for the sound source, but in any event there is no major difference between the measurements being taken from the sound source at blade tip or hub height.

Ground attenuation

[211] Mr Huson's opinion was that the ground attenuation factor of 0.5 used by Dr Chiles is too high, and that a value of 0.0 (representing a highly reflective surface) should have been chosen.¹³³ Dr Chiles explained that any value over 0.5 has been shown through experience to be too high for the purposes of wind farm noise.¹³⁴ Dr Chiles' opinion was that NZS6808:2010 is conservative specifying 0.5 as the default value for soft ground,¹³⁵ because in his view it is more likely that more sound would be absorbed in this situation.¹³⁶

[212] Mr Huson referred to a paper by Tickell, which shows an increase of 4dB in predicted sound levels where G = 0.0 was used as an input to the model rather than G = 0.5. Dr Chiles agreed that this could occur, but identified that the Tickell study was based in Australia, where wind farms are generally located on flat terrain. In Dr Chile's opinion more hilly terrain would result in a greater scatter of sound.¹³⁷ Dr Chiles' opinion was, further, that although the ground might be frozen at some periods, he would

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¹³¹ Transcript, pages 748-749

¹³² Transcript, page 749, lines 14-15

¹³³ Mr Huson, evidence-in-chief, paragraph [16]

¹³⁴ Transcript, page 752, lines 1-9

SEAS Transcript, page 752, lines 2-3

¹³⁶ Dr Chiles, evidence-in-chief, paragraph [27] ¹³⁷ Transcript, page 763, lines 14-19

not use G = 0 in a prediction model, unless this were the case over a significant portion of the year,¹³⁸ because the approach taken for all noise modelling (not only that undertaken for wind farms), is to choose a representative scenario, rather than a worst case scenario.¹³⁹ In this case the site for the proposed wind farm would not be frozen for a significant portion of the year. Dr Chiles also explained that colder conditions do not necessarily mean that the ground surface is more reflective, as vegetative land cover, undulating terrain, and the absorption properties of fresh melting snow would require in his opinion a higher ground attenuation factor than 0.0.¹⁴⁰

[213] We accept that Dr Chiles has satisfactorily explained and justified the G=0.5 input into the model. Accordingly we are satisfied that the ground attenuation factor used in the model is conservative and appropriate.

Noise levels due to turbulence created by upwind turbines

[214] Mr Huson referred to this as being a matter that should be considered. Dr Chiles' opinion was that turbulence per se does not generate noise,¹⁴¹ and disagreed that there was evidence to support the hypothesis that turbulence from upwind turbines would enhance the propagation of sound. Mr Botha told us that upwind turbulence has the potential to decrease the power output of downstream turbines and for this reason the wind turbines are relatively widely spaced in the wind farm layout.

[215] We are not satisfied that turbulence from upwind turbines will increase noise levels and we are satisfied that the layout of the turbines is such that even if it was an issue, it is very unlikely to arise in this case.

Conclusion

[216] The above matters were properly raised by Mr Huson and have resulted in us being provided with more information about the modelling undertaken by Dr Chiles. As a result of this additional scrutiny and based on monitoring from other wind farms, we are satisfied that the assessment process outlined in NZS6808:2010 followed by Dr Chiles is



conservative to a sufficient degree for us to be satisfied that it is very likely to be accurate and therefore reliable. ¹⁴²

[217] The result is that we accept Dr Chiles evidence (supported by Mr Camp), that the predicted sound levels from the wind turbines will be below 40dB at all noise receivers and specifically, will be below 35dB for all but three locations. Robust compliance monitoring will however, be required to validate these predictions. Whilst Meridian contended that sufficient monitoring had been done at other wind farms to validate the model, our view is that more needs to be done. We will return to that topic shortly.

Special audible characteristics

[218] A further aspect of noise from wind farms is the potential to emit special audible characteristics ("SACs") that include tonality, impulsiveness and amplitude modulation which is produced by the wind turbine blades passing in front of a support tower. In amplitude modulation there is a greater than normal degree of fluctuation as a function of the blade passing frequency (typically about once per second for larger turbines).

[219] In their caucus statement the noise experts agreed the assessment of special audible characteristics should be in accordance with Appendix B of NZS 6808:2010. We agree.

[220] The tests for SACs and the penalties to be applied are contained within NZS6808:2010.¹⁴³ Meridian and the HDC's proposed condition 18 requires that all measurement of wind farm sound must include an assessment of SACs.¹⁴⁴

Low frequency noise and infrasound

[221] Mr Huson considered that low frequency noise should be accounted for in noise modelling, and monitoring of G-weighted noise levels as well as A-weighted levels

SEAL OF T43 Raragraph 4.2 144 Exhibit HGR1, version 4

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¹⁴² Transcript, page 700-701, 1013, lines 1-3, lines 1017, Dr Chiles, evidence-in-chief, paragraphs [29] and [85], Mr Botha, rebuttal evidence, paragraph [39]

should be required.¹⁴⁵ To support this argument, Mr Huson referred to a graph from a report produced by Hayes MacKenzie Partnership, which purportedly shows that wind turbines produce high levels of infrasound. Mr Botha disputed that this conclusion was able to be drawn from the figure provided. Mr Huson conceded during cross-examination that the Hayes MacKenzie Partnership report itself concludes that there is no issue with low frequency noise or infrasound at the levels emitted from wind turbines.¹⁴⁶

[222] The HDC submitted that the monitoring of G-weighted noise is notoriously difficult, and would add considerable complexity to any monitoring process with no demonstrable benefit.¹⁴⁷ Meridian favoured A-weighted sound level limits. It and Dr Black contended that compliance with those levels would also result in a restriction of the low frequency wind farm noise.¹⁴⁸

[223] We prefer the approach of Meridian and the HDC. We are satisfied that the conclusions in the paper relied upon by Mr Huson, given that they are different from his assertion of what the graph in the paper contends, are sufficient to persuade us that G-weighted noise levels is not required.

How should operational noise be measured and monitored?

[224] Prior to and during the hearing, Meridian and the HDC worked on a proposed suite of conditions. For operational turbine noise the conditions:

- (a) supported the use of NZS6808:2010 for measurement and assessment (Condition 16); and
- (b) required the consent holder must ensure that wind farm operational sound levels do not exceed a noise limit of 40dB L_{A90(10 min}) except that when the background sound level is greater than 35dB L_{A90(10 min}) the noise limit must be the background sound level L_{A90(10 min}) plus 5dB (Condition 17).

[225] Conditions 17-25 covered further detail including submitting an updated noise production report to the consent authority and confirming the predictions by measuring

OF148 Dr Chiles, Rebuttal, paragraph [24]

¹⁴⁵ Joint Witness Caucusing Statement – Noise, paragraphs [26] – [28]

¹⁴⁶ Transcript, pages 822-823

Mr Camp, supplementary evidence, paragraph [7.4]

noise in at least one location chosen by the consent holder in consultation with the consent authority provided that the site is no more than 1,000 m from the turbines which are being tested (Condition 19).

[226] Validating the noise predictions was an issue very much alive during the hearing. Earlier versions of the proposed conditions (submitted by Meridian and the HDC) involved one specified location at 2000 Omihi Road. Early in the hearing the single measurement location at 2000 Omihi Road was shifted on to a neighbouring property in order to avoid the probable interference by a plantation of trees that would present difficulties in obtaining an accurate noise measurement.

[227] Using one location to confirm the computer modelling is permissible under NZS6808:2010, but was opposed by the Society, Tipapa and other submitters. Mr Huson considered that 8 locations (representing the cardinal points) would be appropriate. Dr McBride (a health expert for HDC) thought as many as possible would be desirable. Mr Wallace, counsel for the Society, pushed for measurement at any residence where the house owner requested such measurements, but by the end of the hearing, the Society submitted a set of draft conditions¹⁴⁹ that proposed compliance measurements at all dwellings identified in the noise prediction report to be exposed to 35dB L_{Aeq} outside and in at least 8 locations.¹⁵⁰

[228] Further cross-examination of Dr Chiles indicated that, although the computer model is a sophisticated one, it is not able to accurately model the effects of valleys and the reflections from the sides of the valleys. Mr Carr was particularly concerned about this issue in his proposed draft conditions, and he wished to have two noise measuring locations fixed at Tipapa. The final version of proposed Condition 23 requires monitoring of the completed wind farm to be undertaken at three (3) locations.

[229] We see utility in using the standard, but with a minor adjustment to require some additional monitoring locations to validate the noise prediction modelling. Although we accept that Meridian's modelling has proved to be accurate in relation to other wind farms, each wind farm site has its own unique topographical features and in our view a more site specific approach is required. It is hard to see how any significant detriment arises from this approach, although we accept that it will involve additional, but



not major, cost for a period of time. Balancing this against the importance of the accuracy of the prediction model to amenity, we think that actual noise measurements need to be carried out at a minimum of four (4) locations to validate the model and confirm compliance. The HDC is well placed to determine these locations. We are also mindful that our earlier direction to delete turbines F1 and G1 will alter the noise predictions and this revision should be taken into account in selecting the four (4) monitoring locations.

[230] We direct the HDC to determine the location of a minimum of four (4) suitable post construction noise testing locations, after taking into account the following factors:

- wind turbine layout;
- wind direction and strength;
- topography;
- number and location of residences and noise sensitive locations; and
- noise predictions.

[231] Currently proposed condition 23 provides for monitoring of the completed wind farm. It would also be appropriate to provide for monitoring in case the proposal is staged or completion is delayed. We note that NZS6808:2010 Section 8.4.1 provides for staging, but we consider it appropriate to signal it overtly in the conditions and provide for the HDC to require monitoring once any turbine has begun generating electricity.

What monitoring if any should there be at Tipapa?

[232] Mr Carr presented his proposed conditions to the Court on 23 October 2012.¹⁵¹ These proposals were not based on a firm technical basis and did not adequately address the issues to the Court's satisfaction. The general flavour of the proposed conditions is captured by the opening sentence of proposed condition 11:

In the event that the perceived wind farm noise at any time is causing the owner of the Tipapa property, or any overnight guests, visitors for events, or tourists visiting Tipapa to complain about annoyance, stress or sleep deprivation, the Consent holder cannot claim compliance with the noise standard...



[233] The proposed conditions lack balance and would not allow ongoing operation of the wind farm. We do not agree that such a condition would be sufficiently certain or enforceable and in any event does not accord with our findings.

[234] The predicted noise levels at Tipapa are not within the group of properties described as the most sensitive receivers. In fact the predicted noise level is 31dB, well within the District Plan provisions either for day or night noise.

[235] Although Tipapa is included as a noise monitoring location in the latest version of the Meridian/HDC conditions we do not expect it to be one of the four (4) sites we have required unless it is justified given the factors listed. We have no concerns if it is included as an additional site for other reasons.

Should certain properties be considered high amenity areas within the NZS6808:2010 definition?

[236] A number of residents, including Mr Carr for Tipapa, maintained that if the Court accepted the modelled sound predictions by Meridian based on NZS6808:2010, their properties should be treated as high amenity areas within the definition appearing in that standard. This would justify the use of a lower noise limit.

[237] NZS6808:2010 provides that in special circumstances at some noise sensitive locations, a more stringent noise limit may be justified to afford a greater degree of protection of amenity during evening and night time.¹⁵² The standard provides:

A higher amenity noise limit should be considered where a plan promotes a higher degree of protection of amenity related to the sound environment of a particular area, for example where evening and nighttime noise limits in the plan for general sound sources are more stringent than 40dB L_{Aeq} (15min) or 40dBA L_{10} . A high amenity noise limit should not be applied in any location where background sound levels, assessed in accordance with section 7, are already affected by other specific sources, such as road traffic sound.

[238] In a high amenity area the level set by the standard is 35dB $L_{A90(10min)}$ or background + 5dB, whichever is the greater.



[239] Ms Belinda Meares contended that the area around her home is an exceptional location, and would justify being treated as a high amenity area.¹⁵³ Mrs Marr and Tipapa also asked for their properties to be treated as high amenity areas.

[240] The District Plan enables noise in this zone of up to 45dB L₁₀ at night. The area around the proposed site is not identified through particular noise standards in the Plan or otherwise, and accordingly the first limb of the description in the standard is not met.

[241] Meridian submitted that all of the houses that are in the prevailing winds and near SH1 in particular (ie all the houses where predictions are over 35dB but under 40dB) do not have an existing noise environment that could justify additional protection.

[242] Ms Meares' property is well outside the 35dB contour and we agree that there is nothing to justify this property being treated as a high amenity area. In relation to Mrs Marr's property, background sound levels at 2000 Omihi Road show that sound levels during the night do not drop below approx 23dB, and could be as much as 43dB in certain wind conditions.¹⁵⁴ We have already outlined that the predicted sound levels at Tipapa are 31dB.

[243] For the reasons expressed above, we are not satisfied that Tipapa, Ms Meares' or Mrs Marr's properties, or any other property should be treated as high amenity noise limit areas.

Conclusion - noise

[244] We are satisfied that NZS6808:2010 provides the most workable noise assessment framework for this proposed wind farm. It was developed as a result of the input from a number of experts and representatives from different backgrounds, who considered in much more detail than we were able to, the literature, experience and scientific evidence available relating to wind farm noise.

[245] We are satisfied that the inputs to the model used by Dr Chiles are such that the predicted sound levels at the modelled locations are likely to be conservative. As a result, the noise from the wind turbines is predicted to be well within acceptable levels. We have

SEAL 0/154 Ms Meares, final submission, 15 October 2012, paragraph [14]

determined that turbines F1 and G1 should be removed for reasons relating to visual amenity and this decision will mean that the noise contour modelling will need to be redone for some properties (including the Marr property which was suggested by Meridian and the HDC to be the most appropriate place to undertake monitoring).

[246] We are not satisfied than any property should be treated as a high amenity area for the purposes of NZS6808:2010.

[247] The conditions proposed by Meridian and HDC concerning SAC's are appropriate and the proposed monitoring of A-weighted noise levels are also appropriate to meet any concerns about low frequency noise or infrasound. We have determined that monitoring for the purposes of validating the model and general compliance with the noise conditions should include a minimum of four monitoring sites.

[248] With the amendments we have suggested, we are satisfied that these conditions will adequately mitigate any potentially adverse noise effects and will ensure that amenity values as they relate to noise, are maintained.

Health

Overview

[249] The main concern expressed under this topic by the Society, Tipapa and local residents was the impact wind turbine noise would have on human health.¹⁵⁵ The key issue was whether or not adverse health effects from the wind farm (particularly sleep disturbance) can reasonably be anticipated, but the debate encompassed how wind turbine noise might affect the health of vulnerable groups such as the young and the elderly and those with special needs, whether secondary or indirect health effects were able to be considered, and whether annoyance over a period of time and community anxiety could be considered a health effect, or affect wellbeing. These concerns were premised on the assumption that there would be adverse noise effects, even if the noise from wind turbines was within the limits set out in NZS6808:2010, and were informed by material that had been obtained off the internet, information that had been provided at the

¹⁵⁵ Although some nearby farmers were concerned about the effect of noise and infrasound (i.e. low frequency sound below the threshold of human hearing) on their farm animals and the potential for the lambing percentage to be reduced as a result, these concerns did not have any evidential basis and were not significantly advanced at the hearing.



woolshed meeting by Professor Dickinson and Mr Rapley, and information gained from some people who lived near to wind farms, particularly at Te Uku and Makara, and do not like them. Most of those opposed to the wind farm submitted that, to avoid any adverse noise and therefore health effects, there should be at least a 2 km setback between any residence and any wind turbine.

[250] Meridian and HDC disagreed, contending that if NZS6808:2010 is used there will be no adverse noise effects. Meridian and HDC also supported the use of NZS6808:2010 to provide the framework for compliance monitoring and disagreed that a 2km setback was necessary or appropriate.

[251] We heard from several expert witnesses on this topic; for Meridian - Dr Black (a specialist medical practitioner and public health expert), Professor Petrie (a professor of health psychology) and Ms Breen (a psychologist specialising in the treatment of people with autistic spectrum disorder), for HDC - Dr McBride (an occupational physician), and for the Society - Dr Shepherd (an academic with a doctorate in psychoacoustics and a masters degree in experimental psychology). The experts had undertaken expert witness caucusing which helpfully outlined the areas of agreement and disagreement between them.

[252] We will address the following issues:

- (a) Will there be direct, secondary or indirect health effects caused by the operation of the wind farm?
- (b) Is a 2km setback required to mitigate adverse effects?
- (c) How should hypersensitive individuals (including those with autism spectrum disorder) and those with atypical noise sensitivity be dealt with?

[253] We will first consider how the RMA deals with health and wellbeing generally, before turning to consider each of the above issues.

Health, wellbeing and the RMA

[254] The question arises as to whether or not there is a difference between health and SEAL OF wellbeing, and if so whether in the context of this case it makes any difference. Mr Wallace for the Society submitted that amenity is something different from health and wellbeing, and that wellbeing is not necessarily part of amenity. To support this argument, Mr Wallace referred to the definitions in section 2 of "amenity values" and "environment", and correctly identified that the definition of "environment" includes amenity values, but does not specifically mention wellbeing.

[255] Whilst adverse noise effects might affect amenity and can therefore be considered under s7(c) and potentially s7(f) of the RMA, how health effects can be considered under the RMA was less clear. Section 5(2) identifies social wellbeing as a separate matter from health, but both are referred to as part of what needs to be put into the balance when considering managing the use, development and protection of natural and physical resources in a way or at a rate that enables people and communities to provide for them while (relevantly here) avoiding, remedying or mitigating any adverse effect on the environment.

[256] Mr Smith's submission for HDC was that the distinction between health and wellbeing in s 5(2) is conceptually fraught. Mr Smith submitted that for the purpose of the Court's inquiry in respect of this application, whether health and wellbeing are seen as distinct or one and the same is largely irrelevant because if the Court is of the view that the proposal will have adverse effects on either health or wellbeing, those effects will need to be addressed by way of appropriate consent conditions, or by declining the application.

[257] Our view is that there is a distinction, and that whilst health might be part of wellbeing, the concept is wider than that. But we agree with Mr Smith that the legal effect of that distinction is not important to our overall conclusion in the context of the facts of this case. For this reason it is not necessary for us to develop the distinction between the concepts any further at this time.

Will there be direct, secondary or indirect health effects arising from the operation of the wind farm?

[258] Dr Black concluded that the level of wind farm noise allowed by NZS6808:2010 is not sufficient to cause changes in health status, although he accepted it may affect amenity,¹⁵⁶ and Professor Petrie concluded that enough quality research has

Transcript, page 1301, lines 1-6

been done to show that there are no *direct* health effects caused by wind turbines.¹⁵⁷ Whether or not *indirect* health effects might arise was a topic of much debate. Indirect health effects said to be relevant were sleep disturbance caused by wind turbine noise, and annoyance caused by noise or the very presence of a wind farm.

The research

[259] The experts referred to a number of overseas reviews that examined the connection between alleged adverse health effects and wind farms. Dr Shepherd also referred to a study he and Professor McBride had undertaken at Makara.

The reviews

[260] Professor Petrie referred to 17 reviews that had been undertaken, which conclude that there is no causal connection between adverse health effects and wind turbines.¹⁵⁸ Professor Petrie's evidence focussed in part on negative expectations leading to mis-attribution of symptoms. Professor Petrie was careful not to characterise those who complain about turbines as unstable or dishonest, but rather that such mis-attribution can be put down to how humans interpret symptoms. Professor Petrie noted that this is a concept which holds true generally in medicine, and is by no means confined to wind farms. To illustrate this point, Professor Petrie referred to medical students' disease, where students, after learning of the symptoms of various diseases, will consider that they may suffer from them.¹⁵⁹

[261] Ms Meares submitted that the studies which state there are no health effects caused by turbines are "*not exactly a good place to start*."¹⁶⁰ She submitted that more studies should be undertaken first, particularly given the experience of residents who have lived close to other wind farms.

[262] Dr Shepherd contended that health effects can arise from wind turbine noise. Meridian submitted that Dr Shepherd's opinions are out of step with the other scientific opinion on the topic, and that the evidence of Dr Black and Professor Petrie should be preferred. Meridian submitted that we should give weight to the fact that Dr Shepherd's

⁵⁷ Transcript page 1594, lines 30-33, page 1595, lines 5-7

¹⁵⁸ Transcript page 1594, lines 30-33

SEAL OF Transcript, page 1555, lines 17-32

Transcript page 1595, lines 8-10

opinion has not been followed in other wind farm cases, but we disagree that this is a significantly relevant factor we should take into account in this case. This Court is a Court of first instance and is entitled to make its own assessment of the weight it should give to any particular piece of evidence, particularly where there are highly qualified and experienced experts who disagree with the conclusions of each other. In this field there are often differences of expert opinion and the Court should be cautious to completely dismiss opinions that do not accord with the mainstream view just because of that fact.

Dr Shepherd referred to papers by Pierpont and Harry to support his theory that [263] health effects can arise from turbine noise, but Mr Beatson submitted that some of Dr Pierpont's work in this area has been criticised and should not be considered reliable. Overall Meridian submitted that we should not accept Dr Shepherd's evidence as either reliable or persuasive, with Mr Beatson going so far as to submit that Dr Shepherd has been selective, biased, misleading and evasive.¹⁶¹ In the main the challenges to Dr Shepherd's evidence by Meridian centred on his failure to reference or to give context to papers,¹⁶² or inaccurately asserting facts¹⁶³ he relied upon and relying on hearsay.¹⁶⁴ In addition, Meridian submitted that Dr Shepherd's evidence should be given little weight because it failed to mention the studies that conclude that there are no adverse health effects arising from wind turbine noise. Specifically Mr Beatson referred to the Knopper and Ollson 2011 paper¹⁶⁵ and the Massachusetts review¹⁶⁶ that Dr Shepherd was aware of, but did not refer to in his evidence. Dr Shepherd dismissed the other reviews as being "all just reviews commissioned by wind turbine companies or particular authorities".¹⁶⁷ Mr Beatson submitted that this statement was "blatantly incorrect",¹⁶⁸ as many of the reviews are papers that are published in academic journals and entirely regardless of authorship are part of the scientific literature.

We do not agree that this amounts to bias or that Dr Shepherd's evidence was [264] misleading, but we agree that Dr Shepherd's approach to the above matters was too loose, and not entirely in accordance with the provisions of the Court's Practice Note. We will

- 166 Meridian exhibit 10
- Transcript, page 1434, lines 17-19

Meridian closing submissions paragraph [183].

¹⁶² Pedersen 2007 paper, van den Berg's 2005 dissertation

¹⁶³ Overestimating how many wind turbines in Europe are offshore

¹⁶⁴ Berglund discussion, Pedersen discussion

¹⁶⁵ Meridian, Exhibit 9,

^{()/168} Mit Beatson, Closing submission, Paragraph [183](b)

return to the significance of this shortly when we evaluate the weight that should be given to the competing expert opinions.

The Makara study

[265] Whilst accepting that a lay person is not always the best judge of their state of health,¹⁶⁹ Dr Shepherd relied on a survey of Makara residents he and Professor McBride (and others) undertook in 2010, which Dr Shepherd contended supported his views. The Makara study was a health survey, which Dr Shepherd told us did not specifically purport to be about wind turbines or wind farm noise. He explained that it was a study to investigate the correlation between wind turbine noise and health.¹⁷⁰

[266] Meridian challenged the conclusions Dr Shepherd drew from the Makara survey. It contended that he was selective about the parts of the study that he reported on in his evidence, and contended that the survey in fact showed no difference in self-rated health or illness, social or psychological wellbeing. Meridian also contended that the Makara study was flawed for the following reasons:

- (a) If the purpose of the study was to establish a correlation between noise from wind turbines and health, to have any real benefit such a study should have been done before and after a wind farm is operating.
- (b) Whilst the survey was described as a health survey, Meridian submitted that it was almost inevitable that the study participants would have suspected that it was aimed at wind farm noise.¹⁷¹
- (c) The cover sheet sent out to participants had Dr Shepherd's name and contact details on it, and he took at least one phone call from a survey participant which was specifically about wind turbine noise. Dr Shepherd cannot recall whether he identified himself to the caller or not, but Meridian submitted he is well known in anti-wind farm circles, and he is a scientific advisor for the Society for Wind Vigilance, and has been involved in setting up the New Zealand branch of the Noise Abatement Society.

SEA 70 Transcript, page 1495, lines 26-33 Transcript, page 1495, lines 17-20 ¹⁷¹ Transcript, page 1489, lines 25-28 [267] We agree that the problems associated with the Makara study mean that we should not place significant weight on it and the conclusion suggesting that noise from wind turbines can negatively impact facets of health-related quality of life.¹⁷²

Weight to be given to competing expert opinions

[268] We accept that there have been a number of reviews undertaken, and those opposing Dr Shepherd's view should have been referred to by him in his evidence,¹⁷³ but this does not necessarily mean that the reviews should be regarded as determinative of what is clearly a complex issue with subjective elements involved in the assessment of it. What was abundantly clear to us is that there is a current debate in the scientific community about wind farm noise, how it should be predicted and measured, and how the noise from turbines affects people, be it within consent conditions or not. Wind farm technology has only been introduced to New Zealand in relatively recent times, and whilst Meridian contended otherwise, in our view there is room for more independent research to be conducted about this very topic. It is important that alternative expert views are able to be robustly discussed and debated, because this will encourage additional studies that eventually will provide more certainty for everyone.

[269] We are, however, required to deal with the state of the scientific research as it appeared before us, and determine whether or not it establishes that adverse health effects are likely. We have concluded that, of the reviews done, the current weight of scientific opinion indicates that there is no link between wind turbine noise and adverse health effects. Dr Shepherd challenges this, but we are not satisfied that Dr Shepherd's critique of the reviews (as presented to us) is sufficiently robust to outweigh their conclusions. Neither are we are satisfied that the Makara study is sufficiently robust in its methodology for us to give it the kind of weight that would be required to counterbalance the weight of the other scientific opinion expressed in the reviews.

[270] Overall we are satisfied that the research establishes that adverse health effects are not likely to arise from the operation of the wind farm.

[271] We now turn to evaluate whether noise from the wind turbines will cause sleep disturbance.

172 Dr Shepherd, evidence-in-chief, Appendix A

¹⁷ Environment Court Practice Note - Expert Witnesses, Code of Conduct, paragraph [5.3.1(f)]



Sleep disturbance

[272] The experts agreed that wind farm noise can disturb sleep, with the result that it is important to ensure that it does not.¹⁷⁴ We heard from Dr Black and Professor Petrie that sleep disturbance and difficulties in getting to sleep are normal in the general population.¹⁷⁵ We also heard that there is no strong evidence to suggest that normal sleep disturbance is associated with adverse health outcomes,¹⁷⁶ however if sleep problems become chronic (to the extent that they are better termed insomnia), then this can lead to adverse health effects.¹⁷⁷

[273] We have already determined that the methodology outlined in NZS6808:2010 is appropriate to use to predict the level of sound that will be generated from the wind turbines. We have found that, provided conditions in accordance with that standard are imposed, there should be no adverse noise effects. This is significant because, at the levels predicted, wind turbine noise is likely to be at a very low level and sleep disturbance is not expected.¹⁷⁸

[274] Meridian referred to two World Health Organisation ("WHO") Guidelines on noise and health, namely the Guidelines for Community Noise (WHO April 1999) and the Night Noise Guidelines for Europe (WHO 2009). We found the WHO publications to be particularly useful and relevant to this case. The WHO publications were formulated by an international committee of experts and then endorsed by the WHO.

Guidelines for Community Noise (WHO April 1999)¹⁷⁹

[275] To avoid negative effects on sleep this guideline recommends, for continuous noise, that the equivalent sound pressure level should not exceed 30dB(A). It recommends an indoor guideline for bedrooms of 30dB L_{Aeq} for continuous noise, and 45dB L_{Amax} for single sound events. The recommendation assumes that the bedroom windows are open and the noise reduction from outside to inside is 15dB.

177 Franscript, page 1539, line 9

¹⁷⁹ Meridian Exhibit 3

¹⁷⁴ Joint Witness Caucusing Statement – Health, paragraph [76]

¹⁷⁵ Transcript, page 1539, lines 13-15

¹⁷⁶ Transcript, page 1539, lines 32-34

Transcript page 1548, lines 3-5

Night Noise Guidelines for Europe (WHO 2009)¹⁸⁰

[276] This guideline updated the WHO 1999 Guidelines, and was produced by a working group of experts who carried out an extensive review of the scientific evidence on the health effects of night noise, and derived health-based guideline values. The guideline makes it clear that it is sleep disturbance that gives rise to potential health effects e.g. hypertension, cardiovascular disease, and not noise per se. It concluded that an L night outside of 40dB should be the target of the night noise guideline ("NNG") to protect the public, including the most vulnerable groups such as children, the chronically ill and the elderly. An outside value of 55dB was recommended as an interim target for the countries where the NNG could not be achieved in the short term for various reasons and where policy-makers chose to adopt a stepwise approach.

[277] The extensive review reiterated that to avoid negative effects on sleep the equivalent sound pressure level should not exceed 30dBA indoors for continuous effects. A notable feature in this Hurunui case was that all health and noise experts agreed that $30dB(L_{Aeq})$ inside a bedroom was the target to prevent sleep disturbance and thereby prevent health effects.

[278] The Meridian and HDC experts supported the WHO assumption of 15dB attenuation from outside to inside, but the experts for the Society believed there would be a lower attenuation. We now turn to evaluate this issue.

Noise attenuation of buildings from outside to inside

[279] The experts during caucusing agreed that 30dB L_{Aeq} was generally appropriate to provide protection from sleep disturbance for an average person inside a bedroom. They disagreed about the allowance that should be made for attenuation from outside to inside a dwelling.



[280] Mr Camp (HDC) and Dr Chiles (Meridian) agreed that 40dB $L_{A90}(10_{min})$ was an appropriate level for outside a residence, and acknowledged that NZS 6808:2010 assumes a 15dB reduction from outside to inside when windows are partially open. Mr Huson thought 15dB was an overestimate and that the attenuation could be as low as 6dB.¹⁸¹

[281] In Dr Chiles's rebuttal evidence he appended a report from Mr George Bellhouse entitled "*Testing of the sound insulation of the external envelope of six houses*". The investigation was commissioned by the Building Industry Authority, Wellington and was conducted in March/April 2000. Six houses were tested; two were near the Auckland International Airport while the other four were 10-15 metres away from a busy highway. All houses were tested with windows partially open by100mm. The study concluded that the A weighted level of attenuation obtained was between 14 and 17dB for road traffic noise and between 15 and 18dB for air traffic noise.

[282] We acknowledge that attenuation will show variation depending on the width of window opening and type of construction materials, but on the basis of the WHO Guidelines and the Bellhouse study we are satisfied that 15dB is a reasonable assumption for attenuation of noise between outside and inside. We are satisfied that it is not practical or necessary to undertake noise level testing inside bedrooms. It is therefore reasonable and appropriate in our view to measure noise levels (outside residences) in accordance with NZS6808:2010.

Conclusion – sleep disturbance

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[283] The WHO is a specialised agency of the United Nations and has gone through an extensive and robust process to arrive at recommended community levels of night noise to protect public health. The design of the wind farm and the proposed conditions are in line with the WHO guidelines. We are satisfied that the design of the wind farm and the conditions of consent agreed between Meridian and HDC (with the amendments we have required) are appropriate and will protect the health of the public in the general

¹⁸¹ Professor Dickinson's paper "Nonsense on Stilts," published in Acoustic 2009, raised a number of technical issues and difficulties in accurately measuring noise from wind farms and questions the assumption of a 15dB reduction (attenuation) from outside a house to inside a bedroom with the window partially open. He proposed that "no wind farm shall be situated less than say 10 kilometres away from any residence unless the occupant agrees in writing for this condition to be waived".

sense and avoid sleep disturbance, provided, as Dr Black and Professor McBride emphasised, there is strict compliance with the conditions of consent.

Is annoyance a health effect?

[284] Dr Shepherd contended that annovance caused by a noise source should be the basis for determining effects on health and that a 2 km setback between a wind turbine and a noise-sensitive receiver is therefore required as a starting point.

[285] Meridian acknowledged the potential for people to be annoved by wind farms, but it submitted that annoyance is not necessarily related to a noise level and should not be considered a health effect or outcome in and of itself, although it was accepted that it could lead to adverse health outcomes if not appropriately managed by the person experiencing it. Meridian submitted that to the extent that it can and should be considered, it is really an amenity issue, "something to be assessed in the frame of what values a person or a community draws from the local environment".¹⁸² Dr Shepherd appeared to agree with this approach.¹⁸³

This issue was partially considered in the context of airport noise in Cammack [286] v Kapiti Coast District Council.¹⁸⁴ It was contended that annoyance experienced by some people when exposed to airport noise may lead to chronic impairment of wellbeing. In that case the Court preferred the evidence of Dr Black, who considered as he does here that annovance refers to effects on amenity and does not necessarily equate to effects on public health.¹⁸⁵

Ultimately, whilst it might be conceptually important for annoyance to be [287] analysed as a health or amenity effect, a more fundamental issue is whether annoyance should be considered as a separate effect at all. In this case it is likely to arise as a consequence of an unwanted noise or visual effect and therefore could arguably be double counted (either as a noise, visual or amenity effect) if it is treated as a separate effect. On a more practical level there are real difficulties in measuring annoyance with any degree of certainty given the subjective nature of it and the fact that it is unable to be objectively assessed or measured and is unpredictable. Dr Shepherd accepted this, and

182 Meridian, Closing, paragraph [135]

C183 Franscript, page 1462, lines 29-33

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¹⁸⁴ W069/09, 3 September 2009, Dwyer EJ, paragraph [98] Ibid al paragraph [133]

also accepted that annoyance has to be measured by self-reporting.¹⁸⁶ We also agree with Meridian that compliance with NZS6808:2010 would not necessarily avoid annoyance, and even if a setback were to be imposed those outside a setback could also remain annoyed by the presence of a wind farm. It is difficult to see what measures outside declining consent outright could guarantee that annoyance is able to be avoided, remedied or mitigated.

[288] In conclusion, we are not satisfied that annoyance can and should be taken into account by us as a separate effect. But if we are wrong on this issue, our determination on the facts of this case is that there is insufficient evidence to establish that annoyance could lead to an adverse health or amenity effect.

Is a 2km setback required to mitigate adverse effects?

[289] The Society and local residents sought to prohibit any turbines being located within 2km of a dwelling, primarily for noise reasons but also as a way of reducing community anxiety. This was reflected in the amended proposed conditions of consent submitted by the Society and Tipapa. In support of the 2km setback or separation distance, reference was made to several overseas documents and planning guidelines, including ones from Australia and the United Kingdom.

[290] Dr Shepherd recommended a 2km setback, or buffer zone, rather than using NZ6808:2010. In his opinion the noise standard failed to correctly conceptualise the relationship between noise and health. He considered that a better and simpler regime was for turbines more than 2km from a dwelling to be approved, and where turbines were less than 2km from a dwelling then the owner's consent would be required. He said that at around 2km the audibility of the noise should not affect health or amenity.¹⁸⁷ His recommendations were based on his personal experience of staying at a house in the Manawatu at 2.2km from a turbine, as well as his survey work at Makara, near Wellington. Dr McBride was also involved in carrying out the survey at Makara, and that formed the basis of his support for a 2km setback, although he recognised that it was not effects-based.

Transcript, page 1462, line 1

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Dr Shepherd, evidence-in-chief, paragraph [9.11] and Transcript pages 1514 & 1515.

[291] We do not accept that the Makara survey is relevant to evaluating the significance of a 2km setback, as it included only houses closer than 2km to a turbine. There was no information from houses at Makara more than 2km from a turbine from which to make any comparisons. In response to questions from the Court, Dr McBride acknowledged that the Makara survey did not provide a basis for selecting the 2km distance in preference to any other distance.

Dr Shepherd also referred to research by Nissenbaum and included figures¹⁸⁸ of [292] dose response curves relating a health variable such as annoyance or disturbed sleep, and distance. He said that these figures "clearly demonstrate(s) that adverse effects are substantially greater below two kilometres". In response to questions from the Court, Dr Shepherd agreed that in these figures there were data clusters at around 1.5km and 3.5km. We fail to see how this evidence supports a cut-off distance of 2km. Indeed Dr Shepherd also referred to other research which he said proposed various setbacks of 1.5km, 2km and 2.4km.

Overall we did not find Dr Shepherd's and Dr McBride's evidence helpful on [293] this matter and it certainly did not support 2km as a relevant setback distance.

Both Mr Camp and Dr Black were critical of the concept of a 2km setback. [294] They said it was not effects-based and in essence considered it to be a blunt and primitive approach. Dr Black made it clear on a number of occasions that exposure and dose were the key variables to consider, not simply separation distance.

[295] For some of the local residents their initial support for a 2km set-back seemed to change during the hearing. Ms Meares' own house is 2.8km from the nearest turbine and she expressed a personal preference for a 3km setback.¹⁸⁹ For Mr Archbold 2km was not enough as he sought the removal of turbines A9, A10 and A11 (the latter turbine being the closest to his dwelling at 2.16km).¹⁹⁰ For Tipapa, Mr Carr, although advocating for a 2km setback, sought removal of turbine A9 which he acknowledged was 2.35 km away, but he said the extra distance was so minimal the effects from it would be the same as if it was within 2km.¹⁹¹

Dr Shepherd, evidence-in-chief, Figures 8A, 8B and 12.

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Ms B Meares, Submissions dated 15 October 2012, para 14.

Mr/Archbold, evidence-in-chief, paragraph [4] and Transcript page 2619. Mi Carr, Submissions, Tipapa Exhibit 25.

[296] With reference to the overseas documents that were cited as supporting a 2km setback, we start by noting that care needs to be taken when transferring overseas examples into New Zealand as different countries usually have different legislation and planning frameworks. Having read some of these overseas documents we note that in most cases where they use a separation distance, such as 2km, it is as a trigger to then require a case specific evaluation process to be carried out and/or require the consent of affected householders. They do not prohibit turbines within 2km of dwellings *per se*, but rather use a separation distance as a "process trigger". We do not see any benefit in adopting such an arbitrary approach here when under the RMA we are required to carry out an effects-based evaluation of the whole project, regardless of the distance between turbines and existing dwellings.

[297] For the reasons expressed above, we do not agree that a 2km setback is appropriate or required to mitigate any adverse noise effects given the predicted levels of noise and the existing District Plan provisions relating to the levels of noise that are permitted in this rural area both during the day and at night.

How should hypersensitive individuals, including those with autistic spectrum disorder be dealt with?

[298] In public health terms, a population of individuals will have individual noise sensitivity that falls on a normal distribution (Gaussian bell curve). It would be a reasonable expectation that the population that falls within the curve defined by plus or minus 2 standard deviations of the mean would be protected. This represents 95% of the population, but 5% of the population remains and these people *may* be particularly sensitive to an environmental stressor.

[299] In *Motorimu Wind Farm Ltd v Palmerston North City Council*¹⁹² the Court accepted, in dealing with annoyance that might give rise to sleep deprivation, anxiety and possible consequential health effects, which "*ultimately, consideration of noise effects must be based on normal physiological responses, and cannot seek to protect those whose sensitivities might be at the higher end of the scale*"¹⁹³. We agree with this approach, because the RMA is not a "*no effects*" statute. The 5% of the population who are either hyper or hyposensitive to noise may attract an individual assessment and

SEAL 192 W067/08 26 September 2008 bid, paragraph [327] CONST

arrangements to avoid a potential health effect, but any arrangements reached will need to be by agreement outside the requirements of the RMA

Autism Spectrum Disorder

[300] In this case it came to the notice of Meridian that there are three children (from different families) who are diagnosed as having Autism Spectrum Disorder ("ASD").

[301] We heard from Ms Tanya Breen, a consultant clinical psychologist who has been retained by Meridian to develop and implement a programme to ameliorate any adverse effects of the wind farm on neighbouring children. Neither Ms Breen nor Dr Black could say with certainty that there would be an effect on the ASD children, but were of the opinion that there was a potential health effect in that, although there are no peer-reviewed papers published on the specific subject of potential effects of wind farms on people with autism, there is literature suggesting people with autism often exhibit unusual responses to sensory inputs such as noise, touch, smell and visual stimuli. The lack of research that had been done in this area was highlighted during the questioning of Ms Breen.

[302] Meridian has offered assistance to the three known ASD children. It is to be commended for its approach, which will involve the assessment of the individual children before, during and after construction of the wind farm and will result in an individually tailored and supported response depending on the needs of the child.

[303] It was submitted that Meridian's assistance should be widened to cover any adults or children in the community who subsequently are diagnosed with ASD or have such a diagnosis and move into the area. We do not agree that this approach accords with the RMA for the reasons expressed above.

[304] The conditions proposed by Meridian and HDC contain the offer made by Meridian. We consider that these conditions need to be amended to increase their certainty so that they can be understood and implemented in the future as it may be some years before this wind farm is constructed. For example, we consider that the conditions need to be more precise about when the process is to commence and how the three individuals should be identified as they may not reside near to the wind farm in the



[305] At the request of the families concerned and without opposition an order was made at the hearing suppressing the names and addresses of the individuals diagnosed with ASD who were referred to in the hearing. We now make that order final and extend it to incorporate a prohibition on publishing any information that might lead to the identity of these individuals being revealed.

Community anxiety

[306] Dr Black accepted that community anxiety about potential health effects caused by wind turbine noise was a valid health concern, but one that would only be experienced by a very small percentage of the population.¹⁹⁴ The evidence in this case did not establish whether there would be any such people in this community. We can reasonably infer that if the numbers are small they are likely to be within the 5% of people not within the bell curve to which we have already referred.

[307] As to the general community concerns expressed, Dr Black contended that actual monitoring assists in providing a level of comfort to a community, to those who are sceptical of modelling, and particularly if the actual monitoring confirms the model's predictions. Dr Black expressed his confidence in NZS6808:2010 as being more than adequate to protect public health, and further intimated that in his experience, predicted effects are often proved subsequently to have been over-estimated. In the context of discussing a setback (which he did not favour), Dr Black expressed the view that he did not think it would deal with community anxiety. He said that in his experience, what does help is to make commitments about compliance (with standards) and then demonstrate that they are met.¹⁹⁵

[308] We accept Dr Black's opinion. We do not accept that general community anxiety should be treated as a health effect.

Conclusion - health

[309] In summary, we do not consider that a 2 km setback is required, or is appropriate. We find that if the conditions, proposed by Meridian and the HDC relating to noise and as amended in this decision, are imposed and complied with, there will be no



direct or indirect adverse health effects for all but a very small percentage of the population. In relation to hypersensitive people, an individual approach is required as the RMA would not necessarily provide the level of protection that might be desirable. In this case Meridian has responsibly acknowledged that special assistance on an individual basis needs to be provided to those with ASD. We have no evidence to suggest that anyone in this community is likely to suffer from the kind of anxiety response that Dr Black indicated might occur in a very small percentage of the population.

Traffic and access

Overview

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[310] The proposal is for a single access point to the wind farm site to be used during construction and then retained for ongoing use during the operational stage. An indicative construction period of 18-24 months has been estimated, and this period will include most of the increased traffic volume and the heavy and over-dimensioned vehicles. The period of greatest activity is between months 3 to 6, when some 310 vehicle movements per day are anticipated. This period coincides with the transportation of material for internal roading. For the remainder of the construction period, vehicle generation is expected to range between 80 - 190 movements per day. Once the project is operational then a much reduced traffic volume of mainly service vehicles will be required. Meridian considered the relative merits of nine alternative access options before committing to the option included in the application, which proposes an access point off Motunau Beach Road, 3.2km south of State Highway 1 (Northern Access Option 4).

[311] Expert evidence on this topic was presented by Mr Andrew Carr for Meridian and Mr R A Chesterman, for the HDC. For the submitters, Mr John Carr, Mr Messervy and Mr Archbold presented statements. Mr Messervy appeared also for the Society and Tipapa. In addition there were three Joint Witness Statements. Mr John Carr attended only the first conference. Messrs Andrew Carr, Chesterman, and Messervy attended all three conferences.

[312] The weight to be given to the evidence, particularly that of and for the submitters, was raised as a matter to be considered. At this stage we record in summary

- Mr Andrew Carr has a Masters in Transport Engineering and 22 years experience as a traffic engineer;
- Mr Chesterman has a Masters of Engineering and Transportation and 12 years experience in traffic engineering;
- Mr John Carr has no academic qualifications of relevance to transport and traffic related matters. His experience comes from using his own property on Motunau Road, where he has lived for eight years;
- Mr Messervy is a Certified Automotive Engineer, NZQA Certified for emergency vehicle driving, a certified automotive vehicle inspector, and has done some study in civil engineering. He has 40 years experience in the repair and maintenance of vehicles and owned the Greta Valley garage business for 32 years.¹⁹⁶ He was an AA contractor (vehicle recovery (tow truck) operator) for 36 years, an Emergency Services Driver for the Rural Fire Brigade for 20 years, and a school bus driver in 1975 and 1976 and currently since 2002. He lives at Tipapa Place in the Greta Valley village;
- Mr Archbold lives at 368 Motunau Beach Road. He has been a member of the Scargill Fire Brigade for 16 years (currently the Rural Fire Chief), and the rural mail contractor for 12 years for the Amberley RD3.

[313] A wide range of traffic-related matters was canvassed in the submissions and statements and during the hearing. The two expert traffic witnesses (Mr Andrew Carr and Mr Chesterman) were agreed on all matters and considered that the proposed access route was appropriate, subject to conditions including management plans for controlling traffic safety and management generally. The main issues of contention related to the safety and suitability of the proposed access route (Northern Access Option 4). The submitters considered the proposed route to be unsafe and unsuitable and nominated an alternative route further to the south using Reeces Road (Southern Access Option 1 via Reeces Road (Stevenson Property)).

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[314] The other remaining areas of concern to the submitters which we will consider here are:

- (a) the sight lines for vehicles turning right from SH1 into Motunau Beach Road;
- (b) the safety of SH1, particularly at the Omihi Saddle;
- (c) the assessment of alternative access routes to the site; and
- (d) proposed conditions of consent.

Sight lines – SH1 and Motunau Beach Road

[315] At the T-junction with Motunau Beach Road, the north-bound side of SH1 has been widened to provide a through-traffic lane and a dedicated right turn/stopping lane for vehicles turning right into Motunau Beach Road. The two lanes are marked out on the road surface. Past Motunau Beach Road (to the north) SH1 veers to the left around a bend. The area has a 100km per hour speed limit with a speed advisory limit of 75km per hour. The District Plan Map G (Greta Valley) shows a New Zealand Transit Agency ("NZTA") designation (D-42 Proposed Road Widening) on the inside curve of the State Highway at this location but the land has not been taken. We note that NZTA was not a party to the hearing. The debate centred around the safety of the intersection geometry, particularly the adequacy of the sight distance for right-turning vehicles to on-coming vehicles travelling south on SH1.

[316] Mr Andrew Carr and Mr Chesterman stated that the industry-wide accepted guideline for assessing such intersections is "Austroads: Guide to Road Design, Part 4A - Unsignalised and Signalised Intersections" ("Austroads"). Austroads defines the stopping sight distance as "the distance travelled by a vehicle between the time when a driver receives a stimulus signifying a need to stop, and the time the vehicle comes to a rest". Mr Chesterman's evidence was that the Austroads Guide suggested that the required stopping distance for a vehicle travelling 100km per hour is 179 metres. This assumes that the driver of the on-coming vehicle has a reaction time of 2.5 seconds and that the vehicle has an operating speed of 100km per hour. He considered that vehicle speed at this intersection was likely to be lower because of the advisory 75km per hour speed limit posted for the area.

Mr Andrew Carr initially estimated the sight distance at SH1/Motunau Beach [317] Road at 250 metres and then subsequently measured it on site. Mr Andrew Carr and Mr Chesterman were agreed that a revised distance of 225 metres was in accordance with the Austroads guide. Mr Messervy did not consider that the Austroads Guide provided an appropriate location from which to measure. He did not consider it to be a credible position at which an oncoming vehicle first becomes visible. Mr Messervy maintained that based on common sense the forward sight distance was 180 metres. Mr Andrew Carr and Mr Chesterman did not agree that Mr Messervy's location was the appropriate point from which to measure in accordance with the Austroads Guide.¹⁹⁷

[318] All of the witnesses agreed that vegetation on the inside of the SH1 curve restricted the forward sight distance. This vegetation included a substantial "pine tree" hedge which overhangs the boundary fence, and a wilding pine growing on the grass of the SH reserve. We were advised that the overhanging hedge is cut back to the boundary line every two years or so. During the hearing the offending wilding pine was removed, and Mr Messervy confirmed that the sight distance had increased: using his measurement methodology he stated that the amended distance was 215 metres, which he still maintained was inadequate.¹⁹⁸

[319] Mr Andrew Carr and Mr Chesterman both analysed the reported accident records for the intersection for the past five years (2007 to 2011). Three accidents were recorded, all involving a single vehicle only, where the driver had lost control when negotiating the curve in the road. None involved vehicles turning to or from Motunau Beach Road. We consider that it is relevant to note that during this period there were traffic-generating attractions along Motunau Beach Road such as the school, Tipapa and the Motunau Beach residential area and boating facilities. Mr Messervy's and other local residents' concerns about the safety of the intersection do not appear to be supported by events and accident records to date.

[320] Mr Andrew Carr used the equations set out in the NZTA Economic Evaluation Manual to calculate the number of injury accidents that could normally be expected at this location. His calculations showed that 0.8 injury accidents would normally be expected over a five-year period arising from turning movements, whereas none had been

Second Joint Statement by Transportation Planning Witnesses, 1 June 2012, paragraphs [5] and [6], A. Carr Rebuttal paragraphs [26] and [46], and Transcript page 1821. Mr Messervy, Personal Submission dated 5 October 2012, para 34(c).

reported. He also calculated the change in the number of injury accidents that the presence of construction vehicles associated with the wind farm could cause. This showed that an additional 0.08 injury accidents may occur for each year of construction. In his view, the accident records do not indicate a particular issue at this location despite the limited sight distance, and that the increase in accident risk associated with the wind farm construction is not significant.

Conclusion – sight lines

[321] We accept that the Austroads Guide is the accepted standard for analysing sight distances at intersections such as this. The existing sight distance is acceptable in terms of the guidance provided by Austroads. The accident records and predictions confirm that the intersection operates within acceptable standards. Having said that we recognise that the existing intersection has some limitations, and this is no doubt the reason for the posted reduced advisory speed limit of 75km per hour. The regular maintenance and removal of road side vegetation on the inside of the SH1 curve is an obvious and reasonably simple measure that will assist to maximise the available sight distance, regardless of the proposed wind farm. We also accept that Mr Messervy has considerable personal experience from living in the area and using the SH1/Motunau Beach Road intersection. His local knowledge confirms that some caution on the part of motorists is advisable at this intersection, and again this is consistent with the reduced advisory speed limit.

[322] We are satisfied that the intersection does not pose an adverse safety risk such that consent to the proposed wind farm should be refused. The main period of concern with the proposed wind farm is during the estimated 18 month construction period, when traffic volumes will be highest and there will be an increase in heavy and over-sized vehicles. A Construction Traffic Management Plan ("CTMP") is proposed as part of the conditions of consent. It is to be a comprehensive document and we are satisfied that this can be used to appropriately manage the changed volume and mix of traffic and promote road safety.



State Highway 1 - safety

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[323] Mr Messervy was concerned about the safety of the last eight kilometres of the access route from just south of the Omihi saddle on SH1 through to the entrance to the wind farm site. Mr Messervy relied on Mr Archbold's analysis of fire brigade call outs (January 2006 to May 2012) to motor vehicle accidents on SH1 from Reeces Road to the Hurunui Bridge to support his view that there is a significant increase in the number of accidents on the lengths of road before and after crossing the railway line to the south of the Omihi saddle. The Omihi saddle is identified by an increase in gradient, and includes a 300 metre length of additional "slow vehicle" lane. Mr Messervy had described this as an accident blackspot "including deaths". In Mr Messervy's opinion, any increased risk of crash potential should be avoided, hence he promoted the use of Reeces Road as the access route, being to the south of the Omihi Saddle. Similar views relating to general road safety issues on SH1 were expressed by other submitters, including Mr and Mrs McLean and Mrs V Meares. Mr John Carr promoted a "zero tolerance" to any and all risks over the route from Omihi Saddle to the site.

[324] Both Mr Andrew Carr and Mr Chesterman analysed the NZTA Crash Analysis System between 2002 to 2011 for SH1 from Motunau Beach Road to the Omihi railway crossing. They identified two fatal accidents on this section of highway, and in their view neither were attributable to a deficiency in the road environment. In the context of the construction traffic effects of the wind farm, they considered it was relevant to note that both accidents involved just a single vehicle, and both occurred at times of day when traffic flows were low.

[325] While acknowledging that Mr Archbold's calculations were numerically correct, Mr Andrew Carr was critical of Mr Archbold's approach, in that the baseline for the comparison was solely the accident rate on the straight section of highway to the immediate east of (before) the Omihi railway crossing. Mr Andrew Carr considered this to be an arbitrary point of reference, and that it was not valid to conclude that another section of highway was "hazardous" by comparison. He considered that it was more appropriate to use the accident prediction equations published by NZTA.

[326] Mr Andrew Carr's application of the NZTA Economic Evaluation Manual equations to the section of SH1 between the Omihi railway crossing and Motunau Beach Road shows that over a five-year period, 5.6 accidents could be expected, and the records show that 6 injury accidents were recorded. On this basis, he concluded that this slightly higher rate was well within expected parameters and could not be described as a "blackspot". Similarly, Mr Chesterman concluded that the Omihi saddle is not significantly more hazardous than the flatter and straighter section of road that precedes it.

[327] In response to Mr Messervy's concerns that long and over-dimensioned vehicles would result in overtaking vehicles being pushed across the centreline at the top of the saddle, near where the "slow vehicle lane" ends, Mr Andrew Carr clarified that the movement of such vehicles is subject to a permit system including the use of pilot vehicles to control the extent and location of overtaking vehicles. These are all matters included in the CTMP, and if necessary specific mention could be made of the potential hazard.

Conclusions - safety

[328] We agree with Mr Andrew Carr that it is neither practical nor reasonable to expect that there be no increase at all in the level of risk of vehicle accidents from the present situation. We agree that this portion of SH1 does not have a poor accident record, and that the likely change in road safety risk due to the proposed wind farm is negligible. The State Highway network is designed, and is expected, to be the main vehicle transport route in the country.

[329] The main traffic concerns relate to the increased volume and change to the vehicle mix, with more heavy and over-dimensioned vehicles in the construction-related traffic. The combination of the proposed CTMP and the standard requirement for permits for over-dimensioned loads and vehicles provides adequate means to control and manage any adverse traffic safety effects.

Assessment of alternative access routes

[330] As outlined above, the case for many of the submitters was that an alternative access route using Reeces Road, further to the south, should be required.



[331] Meridian's position was that the focus of the present proceedings should be on whether or not the access that is proposed, and is the subject of the application, causes unacceptable adverse effects, rather than whether some other access that does not form part of the application is better. Meridian also submitted that the RMA only requires an assessment of alternatives where adverse effects are significant. To the extent that an assessment of alternative access is relevant, it was submitted that the issue to be resolved is whether or not Meridian has given sufficient consideration to these matters. We were reminded that it is not the role of the Court to select the "best" access option. For Meridian it was submitted that the question for the Court is essentially whether the effects of using the proposed access route, including SH1 and Motunau Beach Road, are so significant that it is unacceptable for the applicant to look to use this access option.

[332] We agree with Meridian's submissions. In the circumstances we have found that the likely adverse traffic effects of the proposed wind farm are primarily limited to the construction-related traffic estimated to occur over an 18 month period and that these effects, as managed through the proposed conditions of consent, will not be significant. We are satisfied that Meridian has given sufficient consideration to any possible alternatives, and this was set out in the application documents and the evidence of Mr Wiles, including the Construction Effects and Management Report ("CER").

[333] We find the proposed access route including SH1 and Motunau Beach Road to be appropriate and acceptable.

Proposed conditions of consent - traffic

[334] Both the Society and Tipapa filed proposed amendments to the traffic-related conditions of consent with their closing submissions. In response, Meridian presented, with its closing submissions, a final revised draft dated 23 October 2012 (Version 4).¹⁹⁹ Counsel for Meridian submitted that a great deal of what had been sought by the Society for traffic management was either unworkable, or unnecessary as it was already required to be part of the CTMP.

[335] Both the Society and Tipapa sought to reduce the maximum speeds on portions of SH1 and Motunau Beach Road to 70km/hr for construction traffic. Mr Andrew Carr considered that this could create a hazard for other road users, who might not expect the

SEAL 05 Exhibit HGR1, Revised Draft 23 October 2012, Draft Conditions of Consent Version 4.

reduction in speed. We note that NZTA and the HDC control the speed restrictions on these roads. In the circumstances, we do not consider that mandatory speed reductions are appropriate or necessary as consent conditions. We find that the provisions in the CTMP are sufficiently broad to allow for discussions between all parties on speed restrictions, should they be considered appropriate for some limited and defined circumstances. We do not find it appropriate to predetermine such matters and include them as specific conditions of consent. Similarly, in relation to the Society's suggested prohibition at all times against exhaust brakes, we agree with the submissions for Meridian that it is not appropriate to specify any further measures in the CTMP, or other conditions of consent.

[336] The Society also sought a large number of detailed changes to the CTMP conditions identifying local noise sensitive activities and including involvement of the Community Liaison Group. In response, Meridian's final Version 4 proposed conditions included many of these matters. Some of them were included in a more generic manner than the specific wording proposed by the Society. Given that the CTMP may not be prepared for some years, we are satisfied that the Meridian/HDC Version 4 conditions appropriately identify and "flag" matters that should be considered in the CTMP, and they also provide sufficient flexibility for the parties to recognise the local environment closer to the time of construction.

[337] For Tipapa, Mr John Carr also sought that there be "no construction activity whatsoever on Centre Hill and no construction traffic along Motunau Beach Road" during the following times: weekdays from 6pm to 7am; weekends from 12 noon Saturday until 7am Monday; and on public holidays. These restrictions were sought to avoid any possible noise disruption to the weddings and social functions held at Tipapa.

Resource Consent – extending the Tipapa function venue

[338] During the hearing we were advised that Mr John Carr had lodged a resource consent application to increase the capacity of the Tipapa function venue from 50 persons to 150 persons at any one time, and to provide for a single event in any 12 month period of up to 230 persons, and to operate a tourist retail shop. The Council considered that application on a non-notified basis and granted consent, subject to conditions, on 14 . November 2012, after the close of the wind farm hearing.



[339] Mr Carr forwarded the consent to the Court. The parties were asked to advise the Court whether or not it should have regard to the consent as the hearing of evidence had finished. In response, the s274 parties supported the Court having regard to the consent. The CRC had no issue with the consent being taken account of, provided it did not lead to the hearing being reopened, and the HDC advised it would abide the decision of the Court.

[340] Meridian advised that it was neutral on the issue, provided that it did not lead to reopening the hearing, but it requested that if the Court decided to have regard to the consent then it should also have regard to the relevant planner's report, and accordingly enclosed a copy. Meridian repeated its offer to include a condition in the CTMP including protocols for liaising with the operator of Tipapa in order to avoid construction traffic movements at times when wedding ceremony vows are to be exchanged, and offered to extend this to also cover the additional single large event per annum authorised by the resource consent.

[341] Mr Carr responded, rejecting Meridian's offered condition, and described the offer to limit construction traffic during the taking of vows as "*disingenuous* (sic) and absurd". He maintained that his conditions, as presented to the Court hearing, seeking wider limits to construction activity, were essential and fundamental to being able to operate his business at Tipapa.

[342] We have read the Council decision and the planning report relating to the extended operations at Tipapa. We note that a traffic assessment in support of the application estimated 60 vehicle trips per day as being realistic, but that a maximum of 120 vehicle trips per day could be generated if the venue was operating at capacity. The traffic assessment concluded that even 120 vehicle trips per day could be easily accommodated on Motunau Beach Road without affecting its safety and efficiency. The traffic assessment noted that the visibility at the Motunau Beach Road/SH1 intersection meets relevant guidelines. The planning report states that NZTA had confirmed that they had no concerns in relation to the proposal.

[343] The documentation in support of Tipapa's application, and the Council's decision, are consistent with the experts' evidence presented to this Court. In the circumstances we have no reason to change our finding that the proposed access route,


including SH1 and Motunau Beach Road, is appropriate and acceptable. The route can accommodate additional traffic without resulting in any significant adverse effects.

[344] In relation to the CTMP, Version 4 of the proposed conditions includes in condition 71 as some of the objectives of the CTMP to:

(e) minimise disruption to the surrounding community, school, farming operations and rural services; and

(g) encourage the participation of the surrounding community in maximising safety and minimising disruption, including liaison with the Community Liaison Group.

[345] These objectives are to be given effect to through subsequent conditions, including condition 73 which lists out matters which the CTMP must include, but is not limited to. There follows a list of 15 matters, including:

(m) protocols for liaising with the operator of Tipapa to avoid construction traffic movements at times when wedding ceremony vows are to be exchanged.

We understand that Meridian has offered to extend this condition to also include the single event in any 12 month period when the number of people at Tipapa is allowed to exceed 150 but be limited to a maximum of 230 people (excluding staff).

[346] The Meridian/HDC Version 4 proposed conditions contain a table of noise limits for construction activities. These follow the standard format of Table 2 of NZS6803:1991 – Acoustics – Construction Noise for works of 'long term' duration. Additionally, as we have outlined above, there are provisions in the CTMP which recognise certain sensitive activities in the local community and provide an opportunity for the parties to consider any specific measures.

[347] We consider Mr John Carr's proposed prohibitions on construction activities and construction traffic using Motunau Beach Road to be excessive and unwarranted. The proposed conditions require the CTMP to limit heavy vehicles associated with construction work during public holidays, before 6am or after 8pm Monday to Friday inclusive, or before 7am and after 5pm Saturday and Sunday, with exemptions for staff carrying out sediment control works, vehicles and staff associated with pouring of cement and emergency works. We consider these provisions to be an appropriate balance

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between the desire for efficient construction timetabling and the protection of the amenity of the local area.

[348] Mr Carr's rejection of the offer to also include the annual large event at Tipapa in the CTMP would seem to be rather hasty. In our view it is reasonable to include this annual event in the "agenda" for discussions between the relevant parties as part of the CTMP procedure. It may well be that someone other than Mr Carr is operating Tipapa in the future when the wind farm is being constructed, and we are fairly certain that any future operator would appreciate the opportunity to liaise in relation to limiting any adverse effects of construction traffic on the event.

[349] We direct that the Meridian/HDC Version 4 proposed condition 73(m) is to be amended to include the annual large event allowed at Tipapa. We do not find it appropriate to make any other amendments to the conditions relating to construction noise (Version 4, conditions 12 & 13) or traffic management (Version 4, conditions 71 to 79).

Construction, Erosion, Sediment Control and Groundwater, and Fire

[350] Expert witnesses presenting evidence on this topic were called by Meridian and CRC.

[351] The submitters concerns related to the potential for additional erosion from the construction of the roads and turbine platforms, the discharge of sediment and the effectiveness of sediment control measures, the potential for oil spills, and the potential to impact on the Tipapa Stream. For the submitters, Mrs Messervy and Mr John Carr questioned the experts during the hearing.

[352] It was accepted that the proposed wind farm will involve considerable volumes of earthworks, and consequently erosion and sediment control will be a major part of the project's construction programme. Construction effects will result in some large cuttings, soil disturbance and vegetation clearance, as well as associated discharges to land and water. Also, there can be potential nuisance effects such as dust and noise. Other activities during the construction phase, such as concrete batching and the storage of the potential effects associated with the wind farm relate to the construction period.

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[353] The applicant proposed the adoption of best practice measures to avoid erosion and sediment generation, as well as best practice methods to treat run-off that contains sediment. For Meridian it was submitted that all avoidance and treatment measures accord with Environment Canterbury's Erosion and Sediment Control Guidelines 2007. The applicant proposed, as conditions of consent, the use of management and monitoring plans. These included an overarching Environmental Management Plan ("EMP"), Supplementary Environmental Management plans ("SEMP") and a Flocculation Management Plan ("FMP"). The Regional Council agreed with this approach and these plans. Mr Breese for Meridian explained that this type of framework and suite of consent conditions has evolved through a number of wind farm projects, including Te Apiti, White Hill, West Wind, Tararua 3 and Mill Creek.²⁰⁰

[354] Mr B Handyside, for the Regional Council, had raised a number of concerns relating to erosion and sediment control. At caucusing, the experts considered these matters further and reached agreement on including additional provisions in the proposed conditions of consent. They then agreed that the potential adverse effects arising from the construction activities could be adequately avoided or mitigated if the proposed wind farm was undertaken in accordance with the proposed EMP and SEMP method and the proposed conditions of consent. At the commencement of the hearing there was one outstanding issue as to whether or not the Flocculation Management Plan should require all high risk sediment works, including the main access road to Turbine A11, to be treated with chemical flocculation. The experts for CRC and Meridian subsequently reached agreement, and a proposed method and condition of consent was presented.

[355] In relation to groundwater and the storage of hazardous substances, a condition of consent was proposed requiring that the bulk fuel facility not be located in an area where the groundwater is shallower than 30 metres below natural ground level. An additional condition controlling ponding also provides groundwater protection by preventing the discharge from the concrete batching plant from resulting in pools of liquid containing contaminants on the ground surface.

[356] The final proposed conditions of consent, as agreed between CRC and Meridian, were presented for the four consents sought from the CRC (referenced as CRC 111342, 111343, 111344 and 111354, and including Schedule 1 General Conditions



[357] The Meridian/HDC proposed conditions also contain conditions, under a heading "Environmental Management Plans," which require an EMP for construction works. These proposed EMP conditions are similar to, but not the same as, the CRC's conditions. We believe that in reality one EMP document will be prepared to meet the requirements of both Councils. We certainly do not consider it necessary for two documents dealing with construction activities. This could result in unnecessary confusion for all parties, including other operators and contractors undertaking works. We consider that a common or duplicate set of conditions should be prepared relating to the EMP and construction activities, where the requirements of the two Councils overlap. We accept that it will be appropriate for CRC's consents to contain additional conditions, as the primary responsibility for controlling and managing the construction activities arise under the regional consents.

[358] The Society's revised draft conditions only addressed the Meridian/HDC set of proposed conditions relating to the EMP. Several of the Society's amendments were accepted by the HDC and Meridian. Meridian did not accept the Society's request that the EMP be reviewed annually by the consent holder. We agree with submissions made for Meridian that, as the projected construction period is for around 18 months, it is unnecessary for there to be annual reviews. We consider that the proposed conditions adequately address the need for implementation and compliance with the EMP, and other subsidiary management plans, and there are provisions to amend the EMP. Taken together these conditions allow sufficient flexibility to respond to events and or changes.

[359] We note that the Meridian/HDC EMP conditions were amended to provide for the Society's request that the EMP be publicly available at two of the local public libraries and electronically via the web. We consider it is important that the full sets of consent conditions be also available in order to provide the necessary context to the EMP.

[360] For Tipapa, Mr John Carr requested a number of conditions relating to construction. We have commented already on the traffic-related ones. Consistent with his requirement that there be no construction traffic along Motunau Beach Road on all weekday evenings, on Saturday afternoons and Sundays of all weekends, and on all public holidays, Mr Carr also sought for the same prohibitions to apply to all construction activity on "Centre Hill". Even aside from the uncertainty about the area affected by his Tabel "Centre Hill", we find that this request is unreasonable. The reason for the prohibition relates to noise, and there are other conditions which limit the noise levels

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through standard conditions usually applied to construction activities. There is also a balance to be struck in the interests of the wider community, with construction being completed in a timely manner so that the period for potential for nuisance effects is not prolonged.

[361] Mr Carr also sought to define the exact location of the concrete batching plant, primarily so that it was not near the Tipapa boundary. Mr Wiles, for Meridian, explained that the location of the concrete batching plant was worked out later when the detailed construction strategy had been finalised, usually done in conjunction with the contractors. Mr Wiles was satisfied that any adverse effects relating to the concrete batching plant were controlled by the proposed conditions of consent, regardless of the precise location. We accept that to be the case. In addition to the Meridian/HDCVersion 4 construction noise conditions, there are a number of conditions in the Regional Council conditions relating to the concrete batching plant. We find that the proposed conditions allow the consent holder flexibility to select an efficient location for the concrete batching plant whilst at the same time set controls for managing any adverse effects.

Fire

[362] Two submitters, Mrs Messervy for the Society and Mr Higginson (an adjacent landowner to the wind farm), in particular, were concerned that the turbines would increase the risk of fire hazard. Mr Higginson asked who would be liable for loss or damage incurred as a result of fire. Evidence from Mr Breese, and submissions for Meridian, were that the actual risk of fire was very low, and the fire safety measures and equipment were outlined. The submissions also addressed the provisions and agencies outside of the RMA which are relevant where property is damaged by fire.²⁰¹

[363] In answer to questions from Mrs Messervy, Mr Breese confirmed that it was usual practice to prepare a fire management plan in conjunction with the local fire brigade.

[364] We are satisfied that the risk of fire is appropriately recognised in the proposed conditions of consent: it is identified as a matter to be included in the EMPs in both the Meridian/HDC Version 4 and CRC's suite of proposed conditions.



Conclusion - construction

[365] To summarise in relation to the construction topic, we find that the proposed conditions, being Meridian/HDC Version 4 and the CRC suite (as amended in this decision), will appropriately address the potential effects of the construction-related activities through construction noise conditions, and the use of management plans and monitoring plans. Implementation of, and compliance with, these plans is also addressed through measures including inspections, maintenance, audits, reporting, monitoring and resourcing.

Ecology

Overview

[366] The potential adverse effects to ecological values on the site were identified as those relating to terrestrial ecology (with a focus on indigenous vegetation and habitats for indigenous fauna); aquatic ecology; herpetofauna (lizards and geckos), and avifauna (birdlife). Two ecological reports formed part of Meridian's Assessment of Environmental Effects; the "Ecological Values and Assessment of Effects Report" ("the **Ecology Report**"), prepared by Mr Hooson and Dr Keesing, and the "Assessment of Effects on Avifauna Report" ("the Avifauna Report") prepared by Mr Hooson.²⁰² In relation to avifauna, Meridian also obtained additional assistance from Dr Barea, an expert on the NZ falcon.

[367] Other ecologists with specific areas of expertise were engaged by both the HDC and CRC to peer review the work done by the experts retained by Meridian. The Society called evidence from Mr Onley, an experienced ornithologist and illustrator to present evidence on avifauna.

[368] All of the experts participated in expert conferencing before the hearing and a large number of matters were resolved and others further refined during the hearing itself. Overall the approach of all the experts under this topic was constructive, and where issues were unable to be resolved there were genuine differences of opinion about what might be required.



[369] Whilst various submitters raised issues concerning the effect of the proposal on other ecological values, the main focus in the hearing was on avifauna and in particular, the potential for birds to collide with the turbines and the effect this would have on specific species.

[370] We will first outline the ecological context relevant to the site and then consider each of the ecological values likely to be impacted by the proposal in turn.

Ecological context

[371] The site is contained within the Motunau Ecological District, which from an ecological perspective has been highly modified by pastoral farming. Only 1% of this Ecological District is protected either within public conservation land or by QEII covenants. We were told that pre-European settlement, the vegetation of much of the Ecological District would have been short tussock lands, cabbage tree tree land and mixed shrublands on the drier hills and ridges. Extensive areas of coastal mixed podocarp/hardwood forest are also thought to have been present along with kanuka forest, mixed hardwood forest and areas of riparian black beech forests. Little of the podocarp forests remain, but remnant broad leaf hardwood forests are still present, and shrublands are still extensive, though often confined to slopes and gullies.²⁰³

[372] There are three named waterways and a number of unnamed tributaries near the site. The streams draining the site flow into the Motunau River (to the east and south), into the Omihi Stream (to the south-west), and into the Tipapa Stream (to the north), and Cave Creek (to the north-east).²⁰⁴ The Ecology Report noted that all of the aquatic systems that were surveyed have been modified by surrounding farming practices, removal of riparian vegetation, higher than natural nutrient status and sedimentation. It was noted that most of the streams are incised, turbid, have highly embedded substrates, marginal to sub-optimal aquatic habitat diversity and abundance, and poor to marginal riparian condition. Some of the streams on the south-eastern side of the site have more intact riparian cover, but despite this the ecologists observed these streams to be in similarly poor condition.²⁰⁵

203 Mr Hooson, evidence-in-chief, paragraphs [45] – [47] SE 204 Mr Hooson, Appendix B, paragraph [3.2] 205 Mr Hooson, Appendix B, paragraph [3.2]

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[373] Our observations during our various site visits confirmed the ecologists' view. We observed as we drove around the area that, unlike some other farming communities in other parts of the country, there appeared to be little fencing of waterways and the waterways were in some parts choked with willows. We observe that, whilst some of the submitters might contend that the waterways are pristine, that is unlikely to be the case where stock has access to them.

[374] In the main, those submitters who wished to be heard on this topic did not appear to fully appreciate that the natural environment in this area is highly modified from an ecological perspective. We do however acknowledge the efforts of Mr and Mrs Symonds, Mr Leslie and Mr & Mrs D & V Meares to improve the ecological values on their properties.

Terrestrial ecology

[375] Mr Hooson (for Meridian) and Dr Lloyd (for the Councils) gave evidence on this topic. Both experts attended expert conferencing, and agreed on certain mitigation measures which were finally resolved during the hearing. These measures are represented in proposed conditions 68 - 70.²⁰⁶

[376] Due to various refinements in the placement of turbines and road, almost all but 4.17ha of indigenous vegetation and habitat for indigenous fauna on the site will be avoided.²⁰⁷ The 4.17ha comprises three indigenous vegetation habitat types being: silver tussock grassland; rock outcrop habitats; and indigenous shrubland containing small numbers of "At Risk" plants (namely *Aciphylla subflabellata* and *Einadia allanii*).²⁰⁸

[377] Meridian has agreed to the following conditions:

(a) To register a legally binding covenant which provides legal protection in perpetuity of at least the three areas of rock outcrop habitat labelled as 0.7, 0.9 and 0.3 ha on the map attached to the proposed conditions (proposed condition 68);

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²⁰⁶ Exhibit HGR1, 23 October 2012

²⁰⁷ Mr Hooson, evidence-in-chief, paragraph [130]

GEAL OF Joint statement of Dr Lloyd and Mr Hooson relating to Terrestrial Ecology, May 2012, paragraph [1];

- (b) Where the consent holder has to disturb or remove any of the "At Risk" plants as a result of the wind farm development, to establish and maintain an equivalent quantity of these plants on the site using direct vegetative transfer, planting or other appropriate methods (proposed conditions 69 and 70).
- [378] No other party challenged these proposed conditions.

[379] We are satisfied that the proposed conditions will satisfactorily mitigate any potential adverse effects on the remaining 4.17ha of indigenous vegetation and habitat for indigenous fauna on the site that is unable to be avoided by the proposal. However, we direct the HDC to amend the conditions to provide for appropriate monitoring and reporting. Accordingly, we are satisfied that all potentially adverse effects on terrestrial ecology can either be avoided or mitigated.

Aquatic ecology

[380] Dr Lloyd (for the Councils) and Dr Keesing (for Meridian) agreed at expert conferencing that the potential for adverse aquatic effects arising from the proposal were generally negligible and required no mitigation, other than water discharges which might occur during construction. For this reason, Mr Wiles and Mr Breese (both of whom are involved for Meridian in the construction aspect of the proposal) also attended expert conferencing on this topic.

[381] Despite the above, the experts agreed that the catchments of the Tipapa Stream and upper catchments of the Motunau River have comparably higher aquatic ecological values than their neighbouring catchments. They agreed that it would be preferable to use spoil fill areas outside these catchments, but where that was not possible a process was agreed whereby discharges into those areas could be minimised. Conditions were proposed and agreed upon to meet any potentially adverse effects on these two catchments.

[382] The experts also agreed that the monitoring framework for aquatic values should incorporate a number of elements.²⁰⁹ These provisions have also been



Joint Witness Caucusing Statement (Mr Wiles, Mr Breese, Mr Keesing and Dr Lloyd) – Construction, Erosion & Sediment and Aquatic Ecology, 15 June 2012, paragraph [3]

incorporated in proposed conditions. We have already discussed some of these matters in the earlier section on construction.

Mrs Symonds was concerned about the potential for discharged sediment or silt [383] to fill up local pools, including an in-line pond in Cave Creek.²¹⁰ Meridian offered to measure the volume and amount of sediment accumulated in the pond on the Symonds' property before commencing earthworks and then again at the conclusion of the earthworks. Meridian also agreed to remove any deposited material which is an issue, nonetheless contending that the pond is expected to receive minimal additional suspended sediment.²¹¹ We are satisfied that these measures would resolve any potential adverse effects of concern to Mrs Symonds, however we are not certain that Meridian's offer is reflected in the proposed conditions. We direct the CRC to amend the conditions, if necessary, to include this matter.

[384] Mrs Messervy was concerned that the construction of the wind farm would result in degradation of streams due to runoff from the roading associated with the project.²¹² She was also concerned that fragile stream beds would be damaged. Mr Breese's evidence for Meridian, which was not significantly challenged in crossexamination, was that there is no risk of this occurring given the erosion and sediment controls proposed. This is particularly so given that the discharge of water from the existing farm track network will be improved by the replacement roading, and because there are no stream crossings associated with the proposal and therefore no work required directly in streams.²¹³ We accept this evidence. We are satisfied that these measures resolve any potential adverse effects of concern to Mrs Messervy.

[385] Mr Carr for Tipapa was concerned about the Tipapa Stream, which runs through his property. He described this stream as pristine. We do not doubt that Mr Carr genuinely believes the stream to be pristine, but we noted during our site visit to Tipapa that the part of the stream which we could see was unfenced, therefore enabling stock direct access to it. Mr Carr wished to secure a separate monitoring site in the Tipapa Stream near to where the stream enters his property. Dr Keesing was not averse to this suggestion. We deduce that this is provided for in the CRC's Schedule 1 General

Mr Breese, rebuttal evidence, paragraph [32]

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Dr Keesing, rebuttal evidence, paragraph [31]

Dr-Keesing, rebuttal evidence, paragraph [47] and Meridian submissions on ecological effects, paragraph 44. 212

Mif Breese, rebuttal evidence, paragraph [32] and Mr Wiles, rebuttal evidence, paragraph [61]

Conditions (condition 19(a)) but we direct the CRC to amend the conditions, if necessary, to provide for this matter.

[386] We conclude that the proposed conditions (as amended in this decision) satisfactorily mitigate the risk of adverse effects on aquatic ecology.

Herpetofauna (lizards and geckos)

[387] In his initial ecological survey of the site, Mr Hooson undertook a visual search for lizards at eleven different places²¹⁴ considered to be suitable habitat areas for herpetofauna. Early on in the survey, it became clear that Canterbury gecko were abundant in the greywacke outcrops on the plateau tops at the site.²¹⁵ The Canterbury gecko is described as a species "At Risk", being in gradual decline, and is a winsome animal, hiding in deep crevices in rock outcrops during the day and coming to life at night. Mr Hooson recommended that potential areas of habitat for the Canterbury gecko should be avoided, and if not possible, mitigated by implementing a trap and transfer programme in conjunction with the construction of long-term artificial habitat. The common skink was also recorded at the site, but it is not threatened.

[388] Dr Tocher (for HDC) reviewed Mr Hooson's evidence. She identified the main potentially adverse effects on herpetofauna as habitat disruption,²¹⁶ habitat fragmentation,²¹⁷ and ongoing disturbance through use of machinery on the roads and during construction.²¹⁸

[389] Dr Tocher and Mr Hooson participated in expert conferencing and continued their dialogue during the hearing. Proposed conditions 62-67²¹⁹ now record the agreement between the experts about how any adverse effects on herpetofauna will be managed. Proposed condition 62 provides that the consent holder will, where possible, avoid adverse effects on rocky habitat by seeking advice from a suitably qualified and experienced herpetologist during the detailed design phase. Proposed condition 64(c) provides that there must be a survey prior to construction to identify appropriate

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²¹⁴ Mr Hooson, evidence-in-chief appendix B, paragraph [2.7]

²¹⁵ Mr Hooson, evidence-in-chief, paragraph [60]

²¹⁶ Dr. Tocher, evidence-in-chief, paragraph [4.11]

Statz Dr Tocher, evidence-in-chief, paragraphs [4.12]-[4.17]

²¹⁸ Dr Tochen, evidence-in-chief, paragraphs [4.18]-[4.23]

²¹⁹ Exhibit HOR1 23 October 2012

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translocation sites for the Canterbury gecko and the Herpetofauna Management Plan must include both methods for the provision of alternative Canterbury gecko habitat at the relocation site, and relocation success criteria (proposed conditions 64(d) and (e)).

[390] We are satisfied that the proposed conditions satisfactorily mitigate any adverse effects on the Canterbury gecko and other herpetofauna.

Avifauna

Overview

[391] The potential risks for avifauna are:

- (a) the loss of habitat, and
- (b) the risk of death²²⁰ from collision with wind turbines (known as "collision mortality").

The real issue was the risk of collision mortality rather than loss of habitat and the evidence focussed on this.

[392] To assess the extent of collision mortality risk, Mr Hooson for Meridian completed two studies (referred to in his evidence as the "Level 1 study" and the "Level 2 study") which included surveying the species of birds present at the site. These studies showed that most of the birds frequenting the site are introduced species. Of the native bird species observed to be present, Mr Hooson's opinion was that only a small proportion of them are active at heights that put them at risk of collision mortality and with the exception of the black-fronted tern, NZ pipit and NZ falcon, are not threatened species, but are widespread and abundant.

[393] Given the presence of a breeding pair of NZ falcon at the site, Dr Barea, an expert on this species was retained by Meridian to advise it on how best to protect this species. It has been assessed as being "*Nationally Vulnerable*."

GEAL OF is less likely but included under this heading as well

[394] Dr McClellan (for the HDC) reviewed Meridian's evidence on the effects on avifauna. Her evidence focussed particularly on the potential risks to the NZ falcon and the black-fronted tern. Her view was that generally speaking the mitigation proposed for the NZ falcon was suitable, but she did not think that sufficient information had been provided by Meridian on the black-fronted tern. She recommended further survey work be undertaken.

[395] Mr Onley, an ornithologist, and illustrator gave evidence for the Society. Mr Onley disagreed with methodology used for the risk assessment (specifically the use and application of avifauna survey methods and the timing of the surveys), the conclusions that could be reached from it given the amount of data obtained (he thought more surveys including nocturnal surveys needed to be done), and the extent of post-construction monitoring proposed.

[396] Several individual submitters were also concerned about the effects of the proposal on avifauna. Mr Meares and Mr Messervy asked selected questions of the expert witnesses. Mr Carr expressed concern about the impact on the birdlife he has observed to be present at Tipapa, including the paradise duck (which we were told mates for life), the Australian harrier, the NZ falcon and the pied-oystercatcher.

[397] The experts participated in expert conferencing and with the exception of Mr Onley had, by the end of the hearing, agreed on proposed conditions that in their view would avoid and mitigate any potentially adverse effects on avifauna. Essentially the proposed conditions require an Avifauna Panel to be convened of not less than three suitably qualified and experienced independent avifauna experts (proposed conditions 41 and 42) to make assessments and recommendations to the consent holder about:

- (a) whether the adverse effect on any bird species listed as "Threatened" (nationally critical, nationally endangered or nationally vulnerable) or "At Risk" (declining, recovering, relict or naturally uncommon) is more than minor, and if so any remediation or mitigation measures to reduce that effect so that it is no more than minor; and
- (b) the adequacy of the bird monitoring required by conditions 49-60.



[398] The consent holder will be required to implement any recommendations of the Avifauna Panel (proposed condition 46), and if it fails to do so then the HDC may review any or all avifauna-related conditions (proposed condition 47).

[399] There was an issue about what was meant by "more than minor". Meridian referred us to Foodstuffs (South Island) Limited v Queenstown Lakes District Council²²¹ where the Court held that:

...whether adverse effects are "minor" or "more than minor" depends on the circumstances and context. ... any adverse effect which changes the quantity or quality of a resource by under 20% may, depending on context, be seen as minor.

[400] The Court recognised that:

... where a significant habitat of a threatened indigenous species is at risk in a region where the species' population has already reduced to 20% of its former population, even a small (say 1%) reduction in its habitat or population may be more than minor. It depends on the species, the factors on which its population viability depend and the margins of error in the analysis.²²²

[401] In answer to questions, however, it was accepted that this case concerned an application for a non-complying activity where one of the threshold tests under s104D is whether the adverse effects of the activity on the environment will be minor. This case does not require an assessment under s104D as the activity we are considering is not non-complying. We agree that the question of measuring an adverse effect depends on the quantity or quality of the resource, but we do not necessarily accept the percentage referred to in *Foodstuffs* as being definitive across the board in all situations. Each case will depend on the facts that are presented.

[402] There was an issue about whether or not the Avifauna Panel might be required to determine matters that offended against the principle of non-delegation of judicial powers.²²³ We accept that the case law confirms that the Court may confer upon some other person the function of settling matters of detail in a condition imposed, where the matter is to be settled according to that person's own standards based on that person's own skill and experience as a certifier. We agree that the proposed conditions require the Avifauna Panel to exercise a judgment rather than to resolve a dispute, and for this reason



the proposal does not in our view offend the principle of non-delegation of judicial powers. We also agree that as the effect on each species will be different depending on a number of factors relevant to that species, it would be unwise to seek to define "more than minor" in the conditions. We are satisfied that the Avifauna Panel is well placed to exercise this judgment.

[403] We deal next with the general issue relating to the sufficiency of preconstruction data, before moving on to consider the specific risk assessments for the NZ falcon, NZ pipit, black-fronted terns and shorebirds. We will then consider the adequacy of the proposed post-construction monitoring conditions.

Has sufficient pre-construction data been obtained?

[404] There is a risk of collision mortality to the bird species frequenting the site. As Mr Onley pointed out, the post- monitoring data obtained from the West Wind site shows a collision mortality rate of 5-6 birds per turbine per year. No doubt some people will find any loss of birdlife in this manner to be unacceptable but the RMA is not a "no effects" statute. The question for us is whether or not in the end analysis the effect of collision mortality from wind turbines on a particular bird population can be said to be adverse.

[405] The key question for us is whether we can rely on the bird surveys and monitoring undertaken so far, and the further monitoring proposed, to provide adequate data to support the predictions about collision mortality. Mr Onley made a number of very good points about the paucity of general bird census information in New Zealand. He was well placed to do so, because before coming to New Zealand in the 1970s, he lived in England where he studied geography at Cambridge University before working for the British Trust for Ornithology, and then at the Edward Grey Institute for Field Ornithology at Oxford. We acknowledge Mr Onley's evidence that, compared to Britain, in New Zealand there are fewer volunteers participating in bird surveys. As well, until recently the official (as opposed to volunteer) data collection for avifauna has typically been undertaken by the Department of Conservation or those studying at universities. It is not surprising, therefore, that the data collected has focussed on indigenous species and more particularly on those that may be at risk.



[406] The bird survey methodology used by Mr Hooson was set out in detail in the Avifauna Report. Mr Onley thought that more frequent point counts should have been used and a more robust bird census to establish the birds frequenting the site both during the day and at night. Essentially Mr Onley's point was that not enough data has been collected to enable reliable predictions about effects on bird species to be made. He also considered that the risk assessment should take into account the proportion of the population of each species that are present at the site,²²⁴ cautioning that widespread and common species should not be dismissed as being beyond risk.²²⁵ He was wary of averaging out the predicted mortality rates and interpreting the significance of them to national rather than local populations.²²⁶

Mr Hooson argued that the methodologies upon which the avifauna surveys [407] were based are specifically designed for assessing the impacts of wind farms on birds, and are well-developed both in New Zealand and overseas.²²⁷ During the Level 2 study fixed period counts were used and Mr Hooson told us that these are a standard bird utilisation method used at wind farm sites.²²⁸ He told us that these methods are based on guidelines developed in Australia and Canada, and are the most common method employed for generating quantitative data on bird use at a potential wind farm site.²²⁹

Whilst Mr Hooson disagreed that the methodology used was insufficient,²³⁰ [408] proposed conditions 49-50 now provide for an additional year of pre-construction monitoring and include the bird breeding season of August, September and October. Further pre-construction monitoring can be required by the Avifauna Panel if this monitoring shows that local or national populations are likely to be adversely impacted in sufficient numbers by mortality from collisions.

In relation to the common species observed at this site, the effect cannot be [409] described as adverse, but we accept this depends on the accuracy of the predicted mortality rate. We are satisfied that the proposed conditions establishing the Avifauna

- 227 Mr Hooson, rebuttal evidence, paragraph [70]
- ²²⁸, Mr Hooson, rebuttal evidence, paragraph [74]

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²²⁴ Mr Onley, evidence-in-chief, paragraph [31]

²²⁵ Mr Onley, evidence-in-chief, paragraph [28]

²²⁶ Mr Onley, evidence-in-chief, paragraphs [29].

^{0/229} Mr. Hooson, rebuttal evidence, paragraph [74]

Mr Rooson, rebuttal evidence (Dr McClellan), paragraphs [53]-[68]; Joint statement of avifauna experts, 13 June 2012, paragraph [9]

Panel means that any bird species that is found to be represented in the collision statistics is able to be addressed by them.

[410] We agree that in an ideal world there would be more data available about bird populations in particular parts of New Zealand, but we observe that the responsibility for improving this is a collective responsibility. We do not agree that this should be the task of Meridian to the extent proposed by Ms Meares, Mr Onley or Mr Carr, but it is certainly open to those in the community to do something about the lack of data should they choose to do so. Overall, we are satisfied that the data collated by Mr Hooson is adequate for us to reach an informed view about the risk of collision, and we are also satisfied that the proposed conditions are nimble enough to respond should there be unanticipated adverse effects on any non- threatened population species.

[411] The more particular focus should however be on indigenous species and it is appropriate that those threatened or at risk populations receive closer scrutiny and attention than those that are not. Mr Messervy referred to morepork and the shining cuckoo at Greta Valley, but neither species are threatened or at risk. Mr Onley suggested nocturnal surveys, but Dr McClellan and Mr Hooson did not think these were required. Dr McClellan's view was that a well-designed and thorough collision mortality monitoring programme is the preferred manner for detecting the mortality of all bird species that use the site.²³¹ We agree with Dr McClellan. We are persuaded that nocturnal surveys are not required at this point.

NZ falcon

[412] The initial assessment by Mr Hooson identified a resident breeding pair of falcons on the site. Because they are a threatened species, Dr Barea a falcon expert was retained to advise Meridian on this topic.

[413] Dr McClellan brought her expertise to bear on the topic for the HDC and Mr Onley also did so for the Society. The experts attended expert conferencing before the hearing, and by the end of it Drs Barea and McClellan had reached agreement that any adverse effects arising from the proposal on the NZ falcon could be successfully mitigated by conditions. The proposed conditions contain specific provisions relating to $\frac{1}{2}$ falcon.



[414] Mr Onley described the data obtained for the breeding pair on the site as a step up from that which had been done for other wind farm sites, but he was not convinced that enough data had been collected for other non-resident falcons using the site. He referred to information from the Ornithological Society which suggested that falcons move around a lot in the autumn and his understanding that a breeding pair of falcons at the White Wind site have continued to nest on the site, despite one of their nests having been removed.

[415] In relation to the NZ falcon we will deal first with whether there has been enough data collected to predict the risk of collision mortality and then with our assessment of the adequacy or otherwise of the proposed mitigation.

Has enough data been collected to predict the risk of collision mortality for the NZ falcon?

[416] The initial assessment by Mr Hooson, later aided by Dr Barea, identified the resident pair of NZ falcons had successfully nested within the proposed site for the 2009/2010 and 2010/2011 breeding seasons. The pair was monitored over both years to assess their breeding success, and they were radio-tracked over the 2010 winter and subsequent breeding season to assess their use of habitat and home range within the context of the site. Based on this data and his knowledge of falcons, Dr Barea described the potential for loss of habitat for the falcons to be inconsequential. The real risk related to the potential for the falcons or their offspring to collide with the turbines. The data collected about the movement patterns of this pair was used in a collision-risk model, to estimate the probability of this risk eventuating.²³²

[417] The collision risk modelling undertaken by Dr Barea estimated that, on average, the time between potential collisions for the resident adult falcons would be approximately 4-5 years, and every 50 years for juveniles during a 3-month pre-dispersal period, after which they are expected to disperse from the site. If there was a collision, Dr Barea's opinion was that it would constitute a local adverse effect, but not a significant effect at an overall population level.²³³ Drs Barea and McClellan agreed that the risk of collision is likely to be low, with Dr Barea considering it to be very low based



on the available literature on falcon home-range size, and frequency of long distance movements.²³⁴

[418] Mr Onley did not think that the assessment went far enough to address the use of the site by non-resident falcons particularly breeding pairs,²³⁵ but Dr Barea did not support Mr Onley's view, that a wider survey area was required. Dr Barea thought that such a survey beyond the hill country into the wider landscape would be ineffective, as in his view, the wider landscape is unlikely to contain suitable falcon nesting habitat due to the conversion of indigenous vegetation to pasture, and the absence of landscape features such as hill country gullies that falcons usually select for nesting.²³⁶ Dr McClellan noted that the use of the site by non-resident falcon remains unknown.²³⁷

[419] Whilst not wishing to derogate from Mr Onley's considerable expertise as an ornithologist of many years, and despite Dr McClellan's view, we are satisfied that we can rely on Dr Barea's opinion on this issue, given his specialised expertise in relation to falcons. We accept, however, that the predictions made by the modelling would need to be closely assessed against the actual experience of the monitored site when the wind farm is operational.

Is the proposed mitigation sufficient?

[420] Dr Barea proposed, and Meridian has accepted, that a specific Construction Falcon Management Plan is required (proposed condition 52(b)).²³⁸ This requires a report to be prepared by a suitably qualified independent ecologist familiar with falcon reproductive behaviour that:

- (a) details the monitoring of the falcons in the season that construction will occur to determine whether they are nesting or not;
- (b) outlines a process for transferring falcon eggs or nestlings to an appropriate facility, and the subsequent release of fledglings within the Motunau

SEA 236, Mr Onley, evidence-in-chief, paragraph [38] SEA 236), Dr Barea, rebuttal evidence, paragraph [14]

⁸ Exhibit HGR1, 23 October 2012

²³⁷ Dr McClellan, supplementary evidence, paragraph[8]

Ecological District if falcons are found to be nesting within 500m direct line-of-sight of any locations where construction activity is visible; and

(c) outlines the process for restricting construction to distances 200m beyond any nest while active, where it is less than 500m from construction activities but not within direct line-of-sight.

[421] The proposed conditions also require a Falcon Release Management Plan (proposed condition 52(c)) again to be prepared by a suitably qualified independent ecologist familiar with falcon reproductive biology and falcon release programmes which details the release programme, and makes provisions for eight juvenile falcons to be released by the hack method in the Motunau Ecological District every ten years from the date any wind turbine first generates electricity.

[422] Drs Barea and McClellan agreed that the release programme is sufficient to offset any mortality caused by the turbines,²³⁹ thereby providing a conservation gain rather than simply a no-net-loss approach.

[423] Mr Onley disagreed with Drs Barea and McClellan that the Construction Falcon Management Plan provisions provided a suitable avoidance option.²⁴⁰ His main concern was that the release of juvenile falcons would place them at risk from turbine strike.²⁴¹ Whilst we accept it was legitimate to raise this as an issue, the intent of the Construction Falcon Management Plan is to release the fledglings in a suitable location away from the site, but in the Motunau Ecological District, and we are mindful of Dr McClellan's evidence that the captive rearing and release of falcon is a proven technique for establishing or augmenting populations. We refer to Dr McClellan's opinion that the birds released away from the wind farm site will be at lower risk of collision.²⁴² We are mindful of what Mr Onley told us about a breeding pair at White Wind, but we were not provided with any context to this statement that means we are able to give it much weight.

S^{EA/240}/Mr, Onley, evidence-in-chief, paragraph [40]

²⁴¹ Mr Onley, evidence-in-chief, paragraph [40]

Dr McClellan, supplementary evidence, paragraph [9]

[424] Meridian submitted that it has adopted a very conservative approach, by assuming that loss will actually occur, but it of course may not.²⁴³ We accept that the establishment of a pair in the absence of loss would represent an enhancement to the falcon population.²⁴⁴ The evidence from Dr Barea establishes that even if, during any 10 year period, the resident falcons are lost from the site, the outcome is expected at a minimum to be one of "*no net loss*".²⁴⁵ If this proves to be incorrect, then the proposed conditions permit the Avifauna Panel to make recommendations to ensure any effects are "*not more than minor*". We agree that this addresses Mr Onley's concern about the accurateness of the risk assessment for non-resident falcon that occasionally use the site, although we also agree with Dr McClellan that this situation needs to be carefully monitored.

[425] Overall, we are persuaded by the evidence of Drs Barea and McClellan that the proposed mitigation measures deal responsibly and appropriately with any potential adverse effects of the proposal on the NZ falcon and in particular the breeding pair resident on the site. We are satisfied that the intent of the proposed conditions is at the least to provide a "*no net loss*" to this species, but there is a strong possibility, in our view, that it will in fact result in a conservation gain for the species.

[426] We are satisfied that any adverse effects on the NZ falcon can be mitigated by the proposed conditions, subject to amendments to provide further clarity in relation to the implementation, monitoring and reporting of the management plan. As we read the proposed conditions: condition 53 requires the consent holder to implement the "construction and post-construction avifauna monitoring and management plan" (of which the falcon management plans are a part); and conditions 54 and 55 require monitoring and reporting of bird strike; but we do not understand there to be a condition requiring monitoring and reporting of the falcon management plans. We direct the HDC to amend the proposed conditions, if necessary, to provide for monitoring and reporting in relation to all parts of the avifauna plan required under condition 52. We also consider that it would be helpful if the bird collision matters listed in condition 52(a) were linked (or cross referenced) to the bird strike requirements under conditions 54 and 55.

GE A¹³ Dr Barea, rebuttal evidence, paragraph [9]
 Dr Barea, rebuttal evidence, paragraphs [9] and [30]
 Dr Barea, rebuttal evidence, paragraph [9]

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[427] At this point we record that in general there needs to be some rationalisation of the avifauna conditions in particular, and some more consistency in the conditions overall. For example, monitoring and reporting is required of the herpetofauna management plan under conditions 66 and 67, and similar provisions should apply to other management plans. There is also some confusing overlap/duplication between the numerous avifauna conditions: for example amongst the groups of conditions (49, 50, 51) and (52, 54, 55) and (56 – 60). Accordingly, we direct the HDC to review all of the conditions (and in particular those relating to avifauna) and to amend them to rationalise them and to provide consistently for monitoring and reporting.

NZ pipit

[428] The NZ pipit is a species that has been assessed as *At Risk (Declining)*. During Mr Hooson's surveys this species were recorded as being present over the turbine footprint at turbine blade height for 21% of the observations.²⁴⁶ Mr Hooson's opinion was that this represents a moderate collision risk for this species at the site, which may have an impact at the local population level. His overall view was that this is unlikely to result in adverse effects for the overall New Zealand population.²⁴⁷

[429] Dr McClellan in her supplementary evidence specifically dealt with the NZ pipit.²⁴⁸ Whilst accepting that the local population level might be impacted by collision with turbines, in her view there is unlikely to be any population effect. This is because, while birds resident or moving through the site are fairly at risk of collision, the species is widespread throughout much of New Zealand and is relatively common.

[430] Mr Onley was not convinced. He was concerned that the approach by the other experts was an example of the danger of assuming that the numbers of a species recorded in a survey is necessarily a good indication of the total population using the site.²⁴⁹

[431] We accept the evidence of Mr Hooson and Dr McClellan that there are unlikely to be adverse effects on the national NZ pipit population should some species mortality occur as a result of turbine collisions, but we cannot ignore that there could be a local population impact and that the status of this species is *At Risk (Declining)*. In our view, it

²⁴⁹ Mr. Onley, evidence-in-chief, paragraph [29]-[31]

Mr Hooson, evidence-in-chief, paragraph [94]

 ²⁴⁷ Joint Statement of Avifauna Experts, 13 June 2012, paragraph [18]
 ²⁴⁸ Dr McClellan, Supplementary evidence, paragraph [13b]

is unclear whether or not the NZ pipit at a local level is potentially at risk of being adversely impacted by the proposal. Nonetheless we think that careful monitoring of this species by the Avifauna Panel will be sufficient to mitigate any adverse effects on this species. The current proposed conditions (conditions (49, 50 and 51) coupled with proposed conditions 43 and 44) enable the Panel to require further pre-construction monitoring and/or make recommendations should the additional monitoring in proposed condition 49 reveal a risk that sufficient number of NZ pipit might be impacted by collision mortality. Given the evidence we have heard we consider it is necessary to identify the NZ pipit by specifically listing it as a species to be addressed in the conditions included under the heading "Avifauna Management". We direct the HDC to so amend the conditions.

The black-fronted tern

[432] The black-fronted tern has been assessed as *Threatened (nationally endangered)*. At expert conferencing Mr Onley and Dr McClellan expressed the view that insufficient data had been provided about the presence of this species at the site to determine the potential impact of the proposal on it.²⁵⁰ Since then, an interim Pre-Construction Avifauna Monitoring Report has been prepared which presents the findings of all the survey data collected between November 2009 to January 2010, and November 2010 to July 2011, and this includes detailed information on the use of the site by black-fronted tern.²⁵¹

[433] Based on the information currently available, Mr Hooson considers that the risk to the black-fronted tern population is likely to be low because:

- (a) black-fronted terns are not resident at the site, but appear to be infrequent seasonal visitors;
- (b) black-fronted terns were not recorded during 179 hours of formal point count surveys;
- (c) no birds were observed during the six-month period of surveys between February and July;

²⁵⁰ Joint Statement of Avifauna Experts, 13 June 2012, paragraph [19] ²⁵¹ Mr Hooson, Rebuttal evidence, paragraph [55]

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- (d) the majority of the observations during the roaming counts were away from proposed turbine locations;
- (e) black-fronted terns generally have excellent flight manoeuvrability;
- (f) internationally, terns have suffered low rates of mortality at wind farms, with the exception of three sites in Belgium;²⁵² and
- (g) in a recent review of the potential impacts of New Zealand wind farms on New Zealand birds, the Department of Conservation concluded that it is likely that the black-fronted tern population would be compromised if wind turbines were erected within or adjacent to nesting colonies or where terns congregate to forage.²⁵³

[434] We are satisfied given this additional information that the risk to the blackfronted tern population is likely to be low. However as an additional safety measure in our view it should be specifically addressed and listed, in the same way as we have directed for the NZ pipit, in the further monitoring and management required in the conditions under the heading "Avifauna Management".

Migrant shorebirds

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[435] Proposed conditions 56-60 now provide specifically for additional monitoring of migrant shorebirds prior to construction. Essentially, the proposed conditions require the following:

- (a) the monitoring programme for migrant shorebirds must have its methodology approved by the Avifauna Panel, and the programme must be supplied to it;
- (b) monitoring must be undertaken during one northward (summer) migration (January-February) and one southward (winter) migration (July-August);
- (c) monitoring must be undertaken from a sufficient number of locations to ensure adequate average of the site (as determined by a suitably qualified and experienced avian ecologist) to record the flight paths of birds moving across the site;

²⁵² It was noted that one of these sites turbines were sited close to gull and tern nesting colonies. ²⁵³ Mr Hooson, Rebuttal evidence, paragraph [56]

- (d) if migrant shorebirds are recorded crossing the proposed wind farm site in sufficient numbers to indicate that mortality from collisions could impact regional or national populations, as determined by the Avifauna Panel, then a further monitoring programme must be undertaken prior to construction activities commencing, to identify any potential adverse effects on migrant shorebirds and how to appropriately avoid, remedy or mitigate them;
- (e) the consent holder must supply the consent authority and the Avifauna Panel with a report prepared by a suitably qualified and experienced avian ecologist on the monitoring undertaken pursuant to conditions 56-69, and the report must be submitted within 3 months of completion of the monitoring.

[436] As a result, Dr McClellan agreed that her concerns about migrant shorebirds had been addressed. Mr Onley, whilst pleased to see the improvements to the proposed conditions, did not think sufficient detail had been provided to deal with different migrant shorebirds patterns such as the North/South migrations in August/September and the coastal/inland migration that might involve nesting inland from July- September.²⁵⁴ In his view the type of monitoring needed to be more detailed. He recommended sound recording which in his view was quite cost effective.

[437] We are satisfied that the proposed conditions for migrant shorebirds are a step in the right direction. Whilst we tend to agree that more work needs to be done about the detail of the monitoring required, in our view the Panel will be in a good position to review the proposed monitoring programme and make recommendations about what might be required. The proposed conditions provide for such a process.

Is the monitoring proposed post-construction adequate?

[438] All of the experts agreed that bird strike monitoring needs to done regularly and thoroughly. The disagreement was about the frequency of the checks. Proposed condition 52(a) requires monitoring protocols for bird collision to be included in the avifauna management plan, and condition 54 specifies in further detail that the consent holder must monitor the instances of bird strike at the wind farm as follows:



- (a) within the first two years of operation (commencing from the date all wind turbines are generating electricity, or within six months of any wind turbine first generating electricity, whichever is earlier), retrieving any bird carcases or other signs of bird strike, including feather spots or partial carcases, on a fortnightly basis;
- (b) recording the retrieval of any sign of bird-strike, including feather spots and partial or whole carcases at the site, including the date and location on a New Zealand map grid coordinate;
- (c) recording the identification of and if possible the age class (ie juvenile or adult) of any injured bird, including the date and its location on a New Zealand map grid coordinate; and
- (d) recording of any injured bird or carcases of the bird species listed as "*Threatened*" or "*At Risk*" and assuring that, if it is on such a list, it is assessed by a suitably qualified and experienced independent veterinarian to, where possible, record each specimen's species, age class (ie. juvenile or adult) and probable cause of injury or death.

[439] A detailed annual report on the bird strike monitoring under condition 54 must also be provided to the consent authority and the Avifauna panel under condition 55.

[440] Ms Meares, in her cross-examination of Mr Hooson, challenged how effective fortnightly monitoring would be, given that it does not necessarily take into account the removal of bird carcasses by predators. Mr Hoosen thought that the fortnightly monitoring was adequate and more frequent than that which was undertaken at most wind farm sites. We agree with Ms Meares that absence of evidence is not evidence of absence. Nonetheless, a balance must be achieved. The conditions provide for the monitoring protocols and reporting to be prepared by an avifauna expert and for it to be reviewed by the Avifauna Panel. Again we consider that this Panel will be well placed to recommend any changes that may be considered appropriate.

[441] Mr Onley suggested that the monitoring results should be made more public, so as to provide more of a data base on the overall effect of wind farms on avifauna. Whilst a laudable idea, we are not certain whether or not Meridian had concerns about making SEAL detailed information publicly available, particularly if other consent holders may not be so required. It is unclear whether or not this is already provided for in the proposed conditions. It seems to us that the combination of the reporting to the Avifauna Panel and to the consent authority, along with the operation of the Community Liaison Group may already provide for this, at least during early years. We direct the HDC to consult with Meridian and to clarify the conditions relating to making reports and information publicly available.

Other proposed avifauna conditions

[442] Mr Onley's opinion was that Meridian's resource consent conditions should specify blade strike mortality thresholds for species of concern.²⁵⁵ Dr McClellan and Mr Hooson disagreed that this requirement is needed until it is known what actual effects there are (if any).²⁵⁶ We agree. Proposed condition 46 requires the consent holder to implement any recommendation by the Avifauna Panel so as to ensure the effects of the wind farm on any bird species listed as "*Threatened*" or "*At Risk*" are not more than minor. We are satisfied that these proposed conditions are a better way to deal with any effects as they are revealed.

[443] We must note that proposed condition 48 provides that the Avifauna Panel will be disbanded if, after five consecutive years (starting on the date any wind farm turbine first generates electricity) the monitoring of any conditions 49-60 demonstrates that there are not more than minor effects on bird species listed as "Threatened" or "At Risk." The exception to this is if proposed condition 61 applies. Proposed condition 61 enables reduced monitoring to occur in certain circumstances. It provides that if two years of monitoring, in accordance with conditions 49-60 shows that the operation of the wind farm in the opinion of the Avifauna Panel is having no or a minimal effect on "Threatened" or "At Risk" species, monitoring may be reduced in frequency to the level as advised by the Panel, or discontinued following agreement with the consent authority. We agree that it is appropriate to provide for such conditions in the event that the effects do not warrant continued monitoring. However it would be more helpful if these two conditions were scheduled together in the suite of conditions. This is a matter that the HDC is to consider as a part of the overall rationalisation of the conditions that we have directed them to undertake.

oint Statement of Avifauna Experts, 13 June 2012, paragraph [23] Mr Hodson, Rebuttal evidence, paragraph [99]

Conclusion - avifauna

[444] Overall, we are satisfied that the proposed conditions with the amendments we have directed will appropriately avoid, remedy or mitigate any potentially adverse effects on avifauna.

Recreation and Tourism

Overview

[445] Some submitters, in particular the Society, Mr Thomas and Ms Vincent (vineyard owners from Waipara) and Mr Carr for Tipapa, argued that the wind farm would have an adverse effect on recreation values and tourism activities near the site. This opposition was based on the premise that the visual and/or noise effects arising from the proposal would impact to such a degree on the amenity of the area that potential tourists and users of recreation facilities nearby would be deterred from participating in what the area has to offer. Mr Thomas contended that the combined effect of the Mt Cass wind farm and this proposal would impact on his business at Tipapa would be "so great and so disastrous that it will damage the entirety of my business and my investment".²⁵⁷ Meridian and the HDC disagreed.

[446] The evidence on this topic was given by: Mr Greenaway, a consultant leisure and open space planner (for Meridian); Mr Burns, an independent tourism sector director and advisor with a commerce background (for HDC); Mr Pearson, a tourism manager with a resource management and tourism background (for the Society); Mr Carr for Tipapa; and Mr Thomas.

[447] We will first outline what tourism and recreation activities are available near the site, before analysing the potential effects of the proposal on these activities, with specific reference to the Waipara area and Tipapa.



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What are the current recreation and tourism activities near the site?

[448] The proposed site is within the Alpine Pacific Triangle, a marketing area designed to delineate the main centres of tourist activity within the Hurunui District. The main tourist destination is Hanmer Springs, with the northern-most tip of the triangle offering tourism activities at Kaikoura and the southern-most tip of the triangle comprising the Waipara region. Of the three, the Waipara region is nearest to the site and the least developed as a tourist destination.

[449] The Waipara region is promoted for its vineyards, wineries and other local produce.²⁵⁸ It is also associated with the Weka Pass Railway, walking tracks and a nature reserve.²⁵⁹

[450] Nearer to the site, the recreational activities included Motunau Beach (popular for camping, fishing, surfing and diving activities),²⁶⁰ the Scargill Golf Course and Domain, and the Omihi Reserve (a social and sporting facility that hosts the Glenmark Rugby Club). In Greta Valley there is the Cafe and Bar and several accommodation options including the Greta Valley Camping Ground and bed and breakfast-style services.

[451] There is also Tipapa, which offers the activities previously described on a seasonal basis from October to April.²⁶¹

What does the research say about the relationship between tourism and wind farms?

[452] As part of his evidence, Mr Greenaway reviewed the available international research on the effects of wind farms on tourism and recreation activities. He was the only expert to do so. This literature review indicated that there is a mix of reactions to wind farms from a tourism perspective, but the trend was generally neutral, and is often positive.²⁶² In his opinion this was because wind farms are rarely built in areas with high tourism profiles. Of the international studies, Mr Greenaway referred to a number of surveys, mostly undertaken in England, Wales and Scotland, with one study being undertaken in Australia.

- ²⁵⁸ Mr Greenaway, evidence-in-chief, paragraphs [44]-[45]
 ²⁵⁹ Mr Greenaway, evidence-in-chief, paragraph [45]
 ²⁶¹ Mr Greenaway, evidence-in-chief, paragraph [43]
 - 262, Mr Greenaway, evidence-in-chief, paragraph [60]

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[453] He also referred to a UMR research study (UMR 2007) completed for Meridian Energy in 2007 based on a telephone survey of 500 Otago residents, and information from Destination Manawatu about visitors in one weekend in 2004 at the Te Apiti wind farm visitors' area.

[454] In relation to recreational settings Mr Greenaway referred to the Stevenson and Ioannou 2010 study, which indicated that more than 81% of New Zealanders were supportive or very supportive of wind energy, and a similar proportion (80%) support wind farms in New Zealand.²⁶³ Mr Greenaway was careful not to infer from this that there was a correlation with a positive or negative effect on recreation and tourism satisfaction or uptake, but in his view it shows that amongst the domestic market there is a high level of support for wind farms as elements of the national landscape, and they should not be considered purely as a negative addition to a recreational setting.²⁶⁴

[455] In summary, Mr Greenaway's conclusion from the research was that while there is a segment of the tourism and recreation population who may consider wind farms have an adverse effect on their experience, there is no evidence to suggest that a wind farm will have negative effects on tourism and recreational activity generally. Mr Greenaway was, however, careful to note that his assessment was partly dependent on the intentional findings being transferable to this setting.

What are the potential effects on recreation values and tourism activities?

[456] Mr Greenaway accepted that the visibility and audibility of the turbines had the potential to adversely affect amenity and thereby recreation and tourism activities.²⁶⁵

[457] Mr Greenaway's opinion relied in part on the evidence of Dr Chiles and Mr Rough about noise and visual effects. But an important factor also, in Mr Greenaway's assessment, was his view that there is little tourism or recreation activity in the area which defines itself by the landscape setting of Centre Hill. Compared to Kaikoura and Hanmer Springs, which are attractive destinations because of the landscape, Mr Greenaway's opinion was that the landscape in this area was an addition to the visitor

Mr Greenaway, evidence-in-chief, paragraph [61] and Appendix A

²⁶⁵ Mr Greenaway, evidence-in-chief, paragraph [61] ²⁶⁵ Mr Greenaway, evidence-in-chief, paragraph [80] experience, rather than the purpose of it.²⁶⁶ Mr Greenaway did, however, accept that Tipapa treated its setting as a destination in itself.

[458] Mr Burns' evidence focussed primarily on the tourism sector, that being his particular area of expertise. He agreed with Mr Greenaway that there will be no adverse effects in the overall perception of Hurunui District as an attractive destination to visit for domestic and international tourists. He did not think there would be any impact on visitors previously unaware of the wind farm travelling past it; proffering the opinion that it is likely to be neutral from a tourism perspective.²⁶⁷ Neither did Mr Burns believe there would be a cumulative effect arising from the Mt Cass wind farm, and this proposal. He did accept that there is likely to be minor impact on quiet recreation and enjoyment for some Greta Valley and Centre Hill residents, but not to the extent it would impact on tourism.²⁶⁸

[459] Mr Burns did not consider Centre Hill and Greta Valley as visitor destinations for Hurunui District, referring to the Hurunui Tourism Strategy 2015 completed in June 2011. He noted that there are no attractions or accommodation in these areas that feature in the official 2011 Visitor Guide for Hurunui District.

[460] Mr Pearson (for the Society) was previously the Hurunui Tourism Manager (Alpine Pacific Tourism) from May 2004 to July 2009. He considered that the wind farm would have adverse effects on the recreation values and tourism activities in the Hurunui District.

[461] Given the different characteristics of the Waipara region and Tipapa, we will focus on the evidence in relation to each of these separately.

The Waipara region

[462] The two issues for the Waipara winegrowing area were expressed as the visual impact from turbines from this proposal, and the cumulative effect of this when considered in conjunction with the turbines recently consented for Mt Cass. Mr Burns' opinion was that the Mt Cass wind farm would have more of an impact on visitors to

[8] MP/Greenaway, evidence-in-chief, paragraph [80] Mr Burins, evidence-in-chief, paragraph [9] Mr Burns, evidence-in-chief, paragraph [12] COURT

Waipara than this proposal because of the wider range of views of it heading north or south on SH 1, on SH 7 and within the Waipara Valley.²⁶⁹

[463] Mr Burns acknowledged that the Waipara Valley is considered a growing visitor destination that would be compromised by a much larger cumulative wind farm footprint. He acknowledged, as was a theme in Mr Thomas' evidence that wine tourism experiences are as influenced by the distinctive dedicated landscape the vineyards often occupy, as by the food and the wine tasting elements.²⁷⁰ Nonetheless, in cross-examination he somewhat mediated the view that appeared in his written evidence by expressing the opinion that those interested in a fine wine experience will be more influenced by the quality of the wine than other factors, although still maintaining that these would have some influence.²⁷¹ Mr Burns also said that an established wine industry does not mean that wine tourism will establish in a region. He saw other barriers preventing this from occurring in Hurunui District, not the least of which was infrastructure and human capital restrictions.

[464] Mr Thomas and Ms Vincent were particularly passionate about the importance of terroir on the fine wine experience. Their vineyard has recently been planted and is not yet in production. We visited it, and it is situated on the slopes of the hills below the Mt Cass ridgeline off SH1. Mr Thomas explained that the fine wine value was to be obtained from cellar door sales and, whilst not saying as much, it seemed to us that this was the direction in which he and Ms Vincent were planning to head, but that will be some years away.

[465] Whilst not doubting Mr Thomas' passion, or indeed his experience, knowledge and ability as a winemaker, it is too early in the life of the vineyard for us to draw any real conclusions about whether Mr Thomas and Ms Vincent are likely to find themselves in the market to which they aspire. What we did observe was some fairly established vineyards in the Waipara region and we were told, and accept, that some of the wine from this region is indeed fine wine. We did not hear from any other vineyard owners or operators.



[466] To put a balance on the visual impact of wind turbines, however, we must bear in mind the consented Mt Cass wind farm and, to a limited degree, the existence of other structures in the landscape including the use by some vineyards of frost fans. We accept that the frost fans are used intermittently, but we observed a number of them as permanent fixtures in the landscape as we were driving along SH1. Ms Rigg (the planner for HDC) told us that there were approximately 100 frost fans in the Waipara region. She told us that Rule A1.2.9(i) now controls new frost fans, and that this rule became operative on 13 July 2011. She explained that there have been three consents issued for three frost fans, but 97 are not controlled. Up to 12 metres, frost fans are exempt. Whilst we do not place a great deal of weight on the presence of frost fans, and accept that they are nowhere near the size of the proposed turbines, they do have some impact on visual amenity.

[467] Mr Pearson (for the Society) told us that the Waipara Valley has over 75 vineyards and 26 wineries, of which 8 have commercial cellar doors and the remainder by appointment.²⁷² The valley is a producer of high quality wines and is especially well known for its award-winning Rieslings and Pinot Noirs. The region now produces more than 250,000 cases of wine each year. We were also told that there are excellent opportunities for walking, cycling, restaurants, cafes (the Weka Railway) and a variety of accommodation available. There is also, Mr Pearson stressed, cycle trails that could eventuate, and referred us to the Hurunui Walking and Cycling Strategy 2009 and the Hurunui District Tourism Strategy of 2015.²⁷³ The thrust of Mr Pearson's evidence was that the proposed turbines would impact on tourism and recreation experiences because they would not enhance the visitor experience.

[468] Mr Pearson's real concern was that Messrs Greenaway and Burns had based their assessment on current effects, heavily weighted towards present day use, but did not give enough consideration to the growth and development potential of the Waipara wine region, wine tourism and other visitor activities and events in the region.²⁷⁴

[469] Whilst there is clearly great potential and existing success for wine growing in Waipara there is insufficient independent evidence for us to accept that Mr Thomas'



view, or indeed Mr Pearson's view of where the Waipara Valley might head is correct. Where HDC will head with its marketing and tourism strategies in this regard is up to it.

Greta Valley and Motunau Beach

[470] Mr Pearson identified the Greta Valley Restaurant and Bar as a focal point for residents and a stopping point for travellers. Whilst acknowledging that the effects on the present experience at the cafe would not be as substantial as those at Tipapa, Mr Pearson's opinion was that the introduction of the wind turbines would result in "a dramatic change to the Greta Valley environment, particularly when outdoors".²⁷⁵ Whilst this is one of the five publicly accessible viewpoints that Mr Rough assessed as being substantially affected, we do not agree that this will deter potential customers.

[471] So far as Motunau Beach is concerned, Mr Pearson agreed with Mr Burns that the most obvious disturbance to the visual values of the Motunau Beach area will be on the return trip from Motunau Beach to SH1. We do not agree with Mr Pearson's conclusion that the rural character of this area will be dramatically altered.²⁷⁶ This view was at odds with the expert landscape witnesses, and is not an opinion that is within Mr Pearson's expertise. We do not think there will be any direct adverse effects on tourism or recreation activities undertaken at Motunau Beach from the wind farm.

Tipapa

[472] Mr Greenaway acknowledged that Tipapa's commercial activities could be adversely affected in a minor way during the construction of the wind farm and he also noted that upon completion, some viewpoints on the property will change. He did not necessarily think that this would translate into a reduction in the number of people who chose to undertake the farm walk or stay at the property.²⁷⁷ Overall, Mr Greenaway accepted that there could be some minor adverse effect, considering Tipapa is promoted as being based in a setting with historic values.²⁷⁸ He also acknowledged that the soundscape at Tipapa is an important value for luxury accommodation, but relying on Dr Chile's assessment he did not think this was likely to be a problem.

Mr Pearson, evidence-in-chief, paragraph [50] Mr Pearson, evidence-in-chief, paragraph [51] Mr Greenaway, evidence-in-chief, paragraph [23] eenaway, evidence-in-chief, paragraph [84] COURT

[473] Mr Carr emphasised that Tipapa is exceptional and unique in the district. His opinion is that its business relies exclusively on the visual beauty around it, and the sounds experienced at it. He also highlighted that Tipapa is marketed for international visitors and he talked about the discerning visitor. He contended that the wind farm would not enhance tourism, but that the turbines would obliterate the skyline. He described the wind farm as:

 \dots visual and noise desecration of this property... the antithesis of everything Tipapa is – a majestic beautiful place.

[474] He referred to the turbines as "monstrous", and the landscape at the top of One Tree Hill as "outstanding". He said the experts "haven't a clue what they are talking about". He described the impact on Tipapa as being so great and so disastrous that it would damage the entirety of his business and his investment. He highlighted, from his visitor's book, comments of those who remarked on the beauty and silence of its surroundings.

[475] Whilst accepting that the view from One Tree Hill was very pretty, Mr Greenaway did not accept Mr Carr's proposition that it was majestic. He described the view as having very little natural character, and being modified farmland. Mr Greenaway accepted that, were the wind farm to be constructed, Tipapa would need to change its marketing expectations and promotional material. He did not accept that this would result in Mr Carr having to close down his business. He did not agree that there would be a big shift in the experience of Tipapa in its wider context, and in his view, if any noise effects from the turbines were barely audible it would not cause any concern to the soundscape from the tourism or recreation perspective. He did accept that if there were discernible noises during, for example, a wedding ceremony, this would be an effect, but he referred to the District Plan noise limits.

[476] Mr Carr repeated on a number of occasions his concern that noise from the proposed wind farm would interfere with his ability to offer a peaceful and tranquil wedding venue. The homestead gardens are near to Motunau Beach Road. Our visits to Tipapa was instructive (we visited it on two occasions). We were able to hear traffic travelling down the road on what was a quiet peaceful sunny day. From a common sense perspective, visitors to events at the woolshed are less likely to be quiet. Apart from weddings, and particularly the garden weddings at times when vows are exchanged, the only other real activity at Tipapa that we need to consider is overnight visitor

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accommodation. Based on our findings in relation to noise we do not accept that these will be impacted. We accept that during the construction period noise could potentially cause some limited concern, but we are satisfied that this can be managed appropriately by conditions. We have discussed this already in the construction section.

[477] Mr Burns' opinion, based on his business experience, was that Tipapa currently was diverse to the extent that this, in itself, was likely to be problematic. Mr Burns' view was that the business would be better managed if it concentrated on fewer activities, and he highlighted wedding events as being one that might be a better option than others. Mr Burns' view was that, should the wind farm be constructed, Tipapa might need to manage its response more appropriately in marketing material, commenting that all business owners need to be responsive to reasonable change.

[478] We do not agree with Mr Carr that his business will be ruined if the wind farm is consented and constructed. We accept that there may well need to be some modification to his marketing material, but not to a significant degree. We accept Mr Burns' evidence that such a response is reasonable, given that all business owners need to be responsive to change.

Conclusion – recreation and tourism

[479] Overall we are satisfied that the wind farm would cause few, if any, adverse effects on tourism and recreational opportunities in the area.

Property values

Overview

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[480] A number of the residents (including Mr Carr for Tipapa)²⁷⁹ were concerned that their property values would reduce if the wind farm is approved,²⁸⁰ and some who are already in the market to sell contended that prospective buyers aware of the proposed

²⁸⁰ Mr Archbold, evidence-in-chief, paragraph [8]; Mr Earl, evidence-in-chief, paragraph [8];

SEAIMn Higginson, evidence-in-chief, paragraph [8]; Mrs McLean, evidence-in-chief, paragraph [5];

Mr & Mis McLean, joint evidence, evidence-in-chief, paragraph [5]; Mr Meares, evidence-in-chief, paragraph [6.3]; Mrs Symonds, evidence-in-chief, paragraph [70]; Mrs Messervy, evidence-in-chief, paragraph [5]; Mrs Forrester, evidence-in-chief, paragraph [5]

⁷⁹ Mr John Carr, evidence-in-chief, undated
wind farm had already been deterred because of it.²⁸¹ The contention that property values would reduce was predicated on the assumption that there would be adverse noise and visual effects to such an extent that the properties of the complainants would become less desirable, leading to a drop in value.

[481] We heard evidence and submissions from the residents about their concerns, which for most of them, particularly those nearing retirement, were keenly felt and a source of worry. We heard from two experts, Mr Manning (a registered valuer) for Tipapa and Mr Crighton (a registered valuer and chartered accountant) for Meridian. At the hearing, the expert evidence focussed on whether or not there would be a loss to the value of Tipapa, but Mr Crighton's evidence contained material of general relevance to the other residents.

[482] The issues we need to consider are:

(a) Is there a correlation between wind farms and property values?

(b) If the wind farm is approved will there be a reduction in the value of Tipapa?

Before we evaluate each of these issues, we will outline how the RMA and other cases deal with this issue.

Property values and the RMA

[483] Section 104(1)(a) requires us to have regard to any actual and potential effects of a proposed activity on the environment. There are difficulties associated with treating a potential reduction in property value as a separate effect under s104(1)(a). If property values are reduced as a result of activities on another property, the argument is that the loss in value is the *result* of the effect of that activity on the environment, not an effect itself. The objection is to the prospect of effects being double-counted.

[484] As well, establishing that an activity is likely to cause a diminution in property values is problematic. How does one factor in the vagaries of the property market and the various other factors that can contribute to a potential loss in property value? Coupled with this, the Environment Court is almost invariably dealing with activities that are SEAL OF

Ms Barrington, evidence-in-chief, paragraph [4]; Ms Copeland, evidence-in-chief, paragraph [13]

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proposed to occur in the future (sometimes some distance away in the future, as may be the case here), and therefore there is a significant predictive element to the Court's assessment. How certain and therefore reliable can future predictions about the property market be in this context?

The question of adverse effects on property values has been addressed by the [485] Court on several occasions. Some of the case law articulates the idea that if it occurs at all, the diminution in property value is simply another measure of adverse effects on amenity values.²⁸² In one case, ²⁸³ the Court noted that a potential purchaser takes the situation as it exists at the time of purchase and may not be influenced by matters which may be of great moment to a present owner and occupier. There are inherent difficulties in trying to assess whether or not a proposed activity under the RMA is likely to result in a drop in property values.

Is there a correlation between wind farms and property values?

[486] Mr Crighton's evidence contained some helpful references to studies done both in New Zealand and internationally on the relationship between wind farms and property values. These studies show that there is no statistically significant or measurable effect on house sale prices caused by the view of, or the distance to, wind farm developments.²⁸⁴ Mr Crighton also visited Te Uku and West Wind wind farms and spoke to some residents there.

The McCarthy study

Mr Crighton referred to the McCarthy Study,²⁸⁵ the purpose of which was to [487] investigate the impact of a developed wind farm on property values in the Manawatu and Tararua regions. Wind farm construction along the Tararua and Ruahine ranges began in 1998, and by 2011 three wind farms²⁸⁶ comprising a total of 286 turbines had been established there.²⁸⁷ Mr Crighton told us that the region in which the study was

284 Mr Crighton, rebuttal evidence, paragraph [39]

Tararua, Te Apiti and Te Rere Hau

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Mr Crighton, rebuttal evidence, paragraph [43]

Foot v Wellington City Council, W73/98, 2 September 1998, paragraph [256]

²⁸³ Hudson v New Plymouth District Council W138/95, 9 November 1995, page 6

²⁸⁵ The study adopt an Hedonic pricing approach, ie certain characteristics often influence market prices, so in real estate the use of a hedonic regression equation treats these characteristics (or attributes) separately. This can be used to construct a price index or a more statistically robust form of the sales Fcomparison approach

undertaken was one where there was ample data to enable the study to evaluate sales transactions that occurred within an 8-kilometre view shed of the wind turbines, and provide suitable comparable localities which were used for control purposes.

[488] The study was undertaken over a three year timeframe, commencing before any wind farm was constructed and finishing one and a half years after the completion of the wind farms. The results from the study show that trends in property sale prices over this time increased in a similar way to those within the control group. In other words, there were no obvious impacts on average sale price immediately prior to, during the construction phase, or on completion of any of the wind farms.²⁸⁸

[489] Mr Carr challenged the findings of the study on the basis that it had been commissioned by Mainpower, the owner of the resource consent for the Mt Cass wind farm. Mr Carr made no other substantive challenge to the research undertaken either to its methodology or conclusions, apart from seeking to distinguish the applicability of the conclusions to his property on the basis that the value of the properties studied were significantly less than his.

[490] There is no rational or evidential basis to suggest that because the study was commissioned by Mainpower that the results of it are biased or distorted somehow by that fact. We have found the study to be of use to us in a general way, although its findings are not determinative. We will return to the applicability of the study to Mr Carr's property shortly.

Other studies

[491] Mr Crighton also referred to a number of other studies noting that "extensive international research has been undertaken into the potential for wind farm developments to affect property values".²⁸⁹ He summarised this research as concluding that there is no statistically significant or measurable effect on home sale prices caused by the view of, or distance to wind farm developments.²⁹⁰ This evidence was not significantly challenged and we found it helpful by way of background.

Mr Crighton, rebuttal evidence, paragraphs [44] and [45] Mr Crighton, rebuttal evidence, paragraph [38] Mr Crighton, rebuttal evidence, paragraph [39] COURT

Ms Meares' material

[492] Ms Meares' supplementary appendices included two articles with photographs that were appended to the internet versions of the articles. Mr Crighton commented on the two articles, one which had appeared in the *Daily Mail UK* on 22 July 2012 and another dated 21 July 2012 depicting various photographs from Scotland of scenery and landmarks that were said in the article to be "*blighted forever by turbines*". The first article reported that a government agency had finally admitted that thousands of dollars could be wiped off the value of homes as a result of nearby wind turbines. Mr Crighton's supplementary evidence contended that these examples were not useful to us because there was no way to validate their content or determine what level of effect the turbines in the examples had on houses in terms of their distance from houses, visual dominance and noise levels.²⁹¹ We agree with Mr Crighton on this point. Mr Crighton relied on surveys based on market transactions and expert opinions on noise and visual issues and these should be preferred to newspaper articles.

Conclusion –valuation general

[493] We accept that limited research has been done on the topic in New Zealand, but there are a number of international studies that conclude that property prices do not necessarily reduce solely as a result of a nearby wind farm development. Based on the evidence we have heard it cannot be assumed that there will be a drop in property values if the proposal is consented and proceeds, but accept that this will depend largely on their being no adverse noise and visual effects. We have already determined that with appropriate mitigation there will be no adverse noise effects, but we have found that from some viewpoints there will be adverse visual effects that are unable to be mitigated. We are not however persuaded that this will result in a drop in property values. Many of the properties affected are farm properties, the value of which is affected by their productive value rather than just their residential value.

[494] Mr Crighton initially accepted that there *could* be a *limited* impact on *some* property values during the consent lapse period, particularly if it was to be 10 years, but after some reflection he said that *overall* he did not think that a consent lapse period of 10 years would be a problem.²⁹² This is because for some people the prospect of a nearby

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⁵FAL 297 Transcript, page 2,261, line 29 – page 2,262

wind farm would not be a detraction. Mr Crighton referred to a local resident whose property had been placed on the market and had received 20 expressions of interest only one of which was deterred by this proposal. In these circumstances Mr Crighton considered there was a significant enough pool of prospective buyers to establish a realistic market value of the property. Mr Crichton's opinion was not significantly challenged through cross-examination.

[495] We accept that the research done so far does not establish that there is a link between a consented wind farm and a drop in property values. We accept that this will depend largely on the property in issue, whether or not any potentially adverse noise effects are able to be mitigated and the extent of the visibility of wind turbines from a particular property. The visual effect of wind turbines is problematic, because the research establishes that there are those who like wind farms and those who do not, but it cannot be assumed that all prospective purchasers will regard wind turbines, if visible, as a negative factor. As a result, there can be no safe conclusion drawn that this proposal will result in a diminution of property values.

If the wind farm is approved, will there be a reduction in the value of Tipapa?

[496] Mr Carr contended that Tipapa was in a unique situation given the value of it and the niche market in which it operates. He further submitted that the general findings of the research should not be applied to Tipapa because they did not include any property quite like it either in terms of quality, use and/or value. Mr Carr was understandably concerned about his investment in the property and he described feeling as if he was fighting for his life's work.

[497] Initially Meridian agreed that Tipapa required a more tailored-made approach and it arranged (with Mr Carr's agreement) for Mr Crighton to prepare a valuation report for Tipapa. The report (dated 21 January 2011)²⁹³ found that there would not be a loss of value. It was not accepted by Mr Carr. Mr Carr then briefed Mr Manning to provide a report for him, which concluded that there will be a loss in the value of Tipapa if the proposal proceeds.²⁹⁴

[498] Both valuers attended caucusing and agreed that:



- (a) there has been extra investment in facilities at Tipapa over and above that which could be expected at a normal farm property;²⁹⁵
- (b) the character, heritage factors and improvements form the basis of their valuation rather than the farm itself; and
- (c) cost does not necessarily equal value.²⁹⁶

[499] This latter point is important because it is evident that Mr Carr has spent a significant amount of money on Tipapa. Both valuers were reasonably agreed about the value of the improvements, with Mr Crighton identifying them at \$1.4 million and Mr Manning identifying them at \$1.45 million. We agree that this fact does not mean that this expenditure has increased the value of Tipapa by an equivalent amount.

[500] Tipapa did not call any evidence to establish the value of the goodwill in its business. The valuation evidence centred solely on the value of the buildings and land and how that might be diminished (if at all) should consent be granted.

Areas of expert disagreement

[501] There was disagreement about the highest and best use of the property. Mr Crighton's view was that its highest and best use was as a rural lifestyle property, whereas Mr Manning's view was that because Tipapa is part of North Canterbury's rural history, the assets that have been developed (a high end lodge, separate visitor centre, events centre based on the heritage facilities) mean that the property comprises four income streams: a farm which is leased, events, lodge income, and casual visitors for six months of the year. Mr Manning also emphasised the benefits of living in the homestead which are enjoyed by Mr Carr.

[502] The business operation of Tipapa is currently as Mr Manning described. However there was some evidence from Mr Burns that this was not a sensible business model. Because of this, Mr Crighton's market assessment regarding the highest and best use of the property may well be right. In the event, nothing significant turns on this distinction.

Joint conferencing statement - valuation

²⁹⁶ Joint conferencing statement - valuation, paragraphs [4] and [5]

[503] The experts disagreed about whether or not Tipapa would suffer "*injurious affection*" if the wind farm proceeded. Whilst both valuers undertook this evaluative exercise, there is no statutory requirement, nor indeed imperative, for us to consider matters relating to injurious affection. Whilst we received no submissions from anyone on this point, it seems to us that the experts have simply transported concepts relevant to the Public Works Act and the Electricity Act, which have no legislative basis in this case. This is beyond the scope of our functions under the RMA.

Mr Manning's valuation

[504] In an extremely brief report, Mr Manning assessed the added value of the improvements in existing use were \$630,000. In estimating the effect on value he said this:²⁹⁷

It is my opinion that the cumulative effect of the proposed wind farm with current knowledge to date and subject to the actual outcome effects is as follows:

Cumulative effect	\$639,500
Loss and potential for potential lifestyle subdivision development on rural farm value 2% on land value	\$ 27,000
5% on rural farm value of \$2,170,000	\$108,500
80% of \$630,000 (added value of existing use)	\$504,000

This equates to approximately 22.83% of the value in existing use

[505] Mr Manning accepted that it is extremely difficult to place an estimate of loss or value on the Tipapa property, largely due to the fact that "*it is equally difficult to predict* what the actual effects of the proposed wind farm, both during the construction phase, and the operational phase will be".²⁹⁸



Mr Crighton's opinion

[506] Mr Crighton did not accept Mr Manning's methodology. In fact he described Mr Manning's valuation and report as falling "*woefully short of our profession's reporting and valuation standards*".²⁹⁹ In his opinion, Mr Manning had failed to provide his methodology and did not cite references to support his conclusions. In particular, Mr Manning did not set out why he had assessed 80 per cent of added value as being an appropriate figure. When cross-examined, Mr Manning was unable to substantiate this figure apart from stating that it was a matter for his opinion.

[507] Mr Crighton disagreed with there being any deduction for the loss of potential for lifestyle subdivision development. The evidence established that Mr Carr currently has two small lifestyle blocks on the market. Mr Crighton noted that there were a number of smaller blocks and houses on the market in this location, and that at the time of writing his evidence the current market was described as being very slow. Mr Crighton also noted that this location is *"in the middle of nowhere"* for small lifestyle blocks.³⁰⁰

[508] There was some argument mounted that Tipapa is a "*special value*" property. Mr Crighton disagreed because its location is in his view not unique, and other rural blocks in the area have the same degree of tranquillity.³⁰¹ We agree that Tipapa is likely to be a special value property, but for reasons we express below we do not think this has a bearing on our conclusion.

Conclusions - Tipapa

[509] We agree that Mr Manning's methodology was not particularly sound, and his report did not provide any real analysis of the rationale for the effect on value that he outlined in paragraph [14] of his evidence and report. We found Mr Crighton's evidence to be more thorough and methodologically sound. In fairness to Mr Manning, we have had considerably more evidence than that which would have been made available to him about potentially adverse noise and visual effects. We prefer and accept the evidence of Mr Crighton that there will not be a loss of value to Tipapa.



PROPOSED CONDITIONS OF CONSENT

[510] At the close of the hearing we had four sets of proposed conditions.³⁰²

[511] We have already recorded that the proposed conditions changed throughout the hearing, as is usually the case with large and complex applications. The Court explained to the parties, particularly the submitters who were less familiar with these processes, that the proposed conditions are an integral part of any application.

[512] The proposed conditions from Tipapa and the Society principally addressed an earlier version of the Meridian/HDC agreed conditions. They did not specifically address the CRC's conditions relating to the regional consents. The final version of the Meridian/HDC conditions included modifications accepting several of the Society's requests. Meridian submitted that many of the other details proposed by the Society are not necessary; such as to operate within site boundaries. We agree.

[513] In relation to the Tipapa conditions, we agree with Meridian's submissions that many are either vague, unworkable or unreasonable. Many of the proposed conditions reflected the positions put forward by Mr Carr and would have effectively prevented the wind farm from operating.

[514] We have already addressed many of the proposed conditions of consent in the sections of this decision dealing with the main issues. In some cases we have directed changes to be made.

[515] We now turn to consider some of the other conditions. Before doing so we record that in general we find the sets of conditions proposed by Meridian/HDC and the CRC to be appropriate. For that reason we do not address every alternative detail proposed by the Society and Tipapa as we have found some of those to be inappropriate alternatives. To assist the parties to amend the conditions we have compiled our directions in Appendix 2 to this decision. In this appendix we have provided cross references to relevant paragraphs of this decision. We have also included some additional

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³⁰² Metidian/HDC – Exhibit HGR1 Version 4, 23 October 2012; CRC – CRC Exhibit 1 Version 2, 26 September 2012 and including CRC Attachment 3, 4 October 2012; Tipapa – Tipapa Exhibit 27, 23 October 2012; and the Society – Glenmark Exhibit 10, 12 October 2012. 140

detailed minor amendments to improve workability and which we consider do not require further explanation in the main text of the decision.

Consent lapse period

[516] Meridian seeks a 10 year lapse period for all consents and 35 year duration term for the discharge consents. The 10 year lapse period was contested by the Society and local residents who were concerned about the effects of an extended period of uncertainty. They sought the default period of 5 years. However we are certain that Mrs Marr and Ms Meares reflected the sentiments of the other submitters and local residents (and probably Meridian too) when they said that they would not like to have to go through a re-run of this consent and hearing process again in five or six years time.

[517] In submissions for the Society, Mr Wallace referred to the decision in *Contact Energy Limited v Manawatu-Wanganui Regional Council*³⁰³ where a wind farm was granted consent with a five year lapse period. For Meridian it was submitted that since that decision, various divisions of the Environment Court and Boards of Inquiry had held that a 10 year lapse period was appropriate for a number of wind farms, including Turitea, Hauauru ma Raki and Te Waka. Further, other wind farms (Mill Creek, Mt Cass and Makara) had been consented with lapse periods longer than five years.³⁰⁴ In the case of Mt Cass the applicant sought and was granted an 8 year lapse period.

[518] Mr Muldoon, for Meridian, explained that the 10 year lapse period was sought to provide the necessary flexibility to respond to market uncertainties, including the exchange rate, commodity pricing and electricity demand.³⁰⁵ It was submitted for Meridian that the 10 year lapse period was wholly appropriate given the scale and national importance of the project. They also contended that there was no evidence to suggest that the existing environment of the site would change to such an extent over the next five years to warrant a reconsideration of the effects of the proposal at that time.

[519] Both Councils agreed to the 10 year lapse period and this was reflected in the sets of agreed proposed conditions.



[520] We are of a clear view that five years is too short for a project of this nature and scale. The alternative sought by the applicant was ten years. We note that a 10 year lapse period does not mean that a consent holder can do nothing for ten years if they wish to keep a consent "alive". Section 125 provides that before the lapse date, a consent is to be given effect to, or an application be made to extend the period. This means that some actions have to be taken before, and often well-before, the 10-year date.

[521] After taking into account the submitters' desire not to be engaged in a re-run of these resource consent procedures in the near future we have concluded that a 10-year lapse is appropriate and recognises the requests of all of the parties.

Community Liaison Group and Complaints

[522] The Community Liaison Group (GLG) is a mechanism designed to provide for communication between the consent holder and the local community, particularly if there are problems. In the final set of proposed conditions (23 October) Meridian had accepted most of the changes proposed by the Society in respect of the CLG, except the suggestions that it be established within 3 months of the granting of consent, and that it should be maintained for the life of the wind farm. Meridian proposed that the CLG be initiated no less than three months prior to construction commencing and that the first meeting be no less than two months prior to construction commencing. They also proposed that it could be discontinued if a 75% majority of the CLG voted that it is no longer necessary. Related conditions require the consent holder to maintain a complaints register which is to be available to the consent authority and the CLG upon request.

[523] In general we consider that the CLG-related conditions, as set out in Exhibit HGR1 23 October 2012, are appropriate although we require that they be modified to provide for both of the consent authorities (HDC and CRC) to be involved as appropriate to their responsibilities. We also consider that conditions 88(a) and (b) need to be more certain by identifying the management plans and reports that are to be provided to the CLG.

[524] One area where we are not satisfied that the proposed conditions are appropriate relates to the community fund.



Community Fund

[525] Meridian proposed the establishment of a fund to support projects in the local community. Mr Muldoon outlined Meridian's proposal and also described similar funds operating at some other existing wind farms. In the final set of proposed conditions (23 October) Meridian proposed to contribute \$100,000 over a three-year period from when construction commences; thereafter any annual contribution was to be at the consent holder's discretion. It was also proposed that the CLG determine where, how and when the fund be spent.

[526] For Meridian it was initially submitted that the fund was offered on an *Augier* basis and that funding over a 3-year period was all that was technically offered, although to date Meridian had in practice extended such funding at other wind farm sites. We note that the final proposed conditions, as agreed to by Meridian, include a consent condition in relation to a community fund (condition 89).

[527] There was considerable discussion about the fund during the hearing and we were assisted by Mr Baxter, a local resident and Chairman of the Kate Valley Landfill Community Liaison Group for the past 7 years. We were also supplied with a copy of the procedure for meetings of that group.³⁰⁶ It appears that this document is not a condition of consent but from experience we have with similar groups it is to be highly recommended as a way of clarifying the details of such a group's day-to-day operations.

[528] In the Society's conditions (12 October) they proposed that a separate Community Trust be set up to administer the fund rather than the CLG. They also proposed that the contributions be increased to an initial amount of \$150,000 at the commencement of works, and thereafter an annual contribution of \$50,000 for the life of the wind farm. The payments were to be indexed to the CPI from the date at which the consent is granted. For Tipapa, Mr Carr, sought similar conditions. However no basis for these amounts was provided.

[529] The Joint Statement of Planning Experts records that whether or not the fund needs to be a condition of consent was an unresolved issue. Ms Rigg, for the HDC, supported a condition and sought to link the fund to electricity generation.³⁰⁷ Mr



Gimblett, for Meridian, said that in his opinion it depended on whether or not it is required to provide mitigation of effects or is in some way an essential element of the application. He agreed with Ms Rigg that if, in making an overall decision on the proposal, a fund of that type is to be relied upon in providing some benefit and/or generic mitigation, then it merits a condition and the certainty that provides.³⁰⁸

[530] In determining whether or not a fund is to be part of the consent conditions we note the provisions in the statutory document the NPS – Renewable Electricity Generation, 2011. Section C, headed "Acknowledging the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities" contains two policies. The first, Policy C1, addresses locational, logistical and technical practicalities, mitigation opportunities and adaptive management measures. Policy C2 then goes on to state:

When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decisionmakers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefits the local environment and community affected.

[531] We have already found that many of the adverse effects relate to the construction phase of the wind farm; predicted to be 18 - 24 months duration. These effects are localised and include traffic effects (with the period of greatest activity between 3 - 6 months after commencement), and effects associated with the considerable volumes of earthworks. We have also found that there are some on-going adverse effects once the wind farm is operational that cannot be avoided, remedied or mitigated. Most particularly this relates to the adverse effects on visual amenity for some of the nearby properties. Therefore we find that it is appropriate that a fund to benefit the local environment and community be required as a condition of consent. We consider that such a condition is consistent with Policy C2 of the NPS – Renewable Electricity.

[532] We did not receive any submission from any party about Policy C2 and how it might relate to such a condition. We set out below our thoughts about how much the fund should comprise, the period over which payments are to be made and the way in which it is to be administered, but we have decided that the parties should have the ability to make further submissions about the breakdown of the payments over the first three years and



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the period over which payment should extend before we reach a final view on the matter. To be clear, we are not inviting further submissions on the total amount to be paid over the three year period.

[533] Turning then to some of the details of such a condition, we agree with the Society that the fund should be administered by a Community Trust, or similar entity, that is separate from the CLG. We were influenced in reaching this position by the information and experience from the nearby Kate Valley Landfill.

[534] We also consider that the payments should be staged to recognise the likely timing of the adverse effects: those occurring during construction; and those on-going for the life of the wind farm due to its existence and operation. For these reasons we consider that it would be appropriate for some of the contribution to be paid prior to, or at the date of, construction commencing, and thereafter annually for the life of the wind farm as follows:

- Prior to or at the date of construction commencing = \$50,000;
- Second year = \$35,000;
- Third year = \$15,000.
- For all subsequent years of operation, a contribution of \$15,000 per year be payable.

However we do acknowledge that there have been cases when Meridian has agreed to alter the timing of payments and extended funding, sometimes with higher amounts.³⁰⁹ Therefore we consider that it would be appropriate for the Trust and the consent holder to have the flexibility to agree on alternative payment schedules. Also it may be that the consent holder would decide to contribute more, so the amounts could be the minimum.

[535] We agree with the Society that the amounts should be indexed against the CPI as at the date on which these consents are granted.

[536] Given the HDC's experience with the Kate Valley Landfill fund we consider

⁹ Mr Muldoon, Transcript page 667, lines 2-17

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also invite further submissions on the breakdown of the \$100,000 payment and the additional \$15,000 annual payment.

Decommissioning, performance bond and covenant

[537] The proposed consent conditions include provisions for turbines to be decommissioned and dismantled if they cease to operate for a continuous period of 18 months. A management plan is to be prepared and to include removal of above ground structures and site rehabilitation and revegetation.

[538] The Society proposed an additional comprehensive suite of conditions requiring a performance bond in favour of the HDC for securing compliance with the conditions of consent and securing the completion of decommissioning and rehabilitation. The Society also sought a condition (covenant) to preclude the consent holder extending the wind farm at any time in the future.

[539] In submissions Meridian rejected the Society's proposed conditions relating to a performance bond for three reasons: that remediation of a wind farm does not give rise to significant environmental effects or health and safety concerns such as may occur with mining activities or sanitary landfills; that the residual value in copper and steel is generally commensurate with the cost of its removal so that there is a commercial incentive to remove turbines; and that Mt Cass is the only wind farm with such conditions, possibly as a result of similar provisions applying to the Kate Valley Landfill. In the alternative, Meridian proposed that the consent be made personal to Meridian, or if the Court disagreed with that suggestion then any bond should be limited to the difference between the intrinsic value of the turbines and other components (scrap) and the cost of removal. A monetary value for the latter was not provided.

[540] As for Meridian's suggestion that the consent be made specific to Meridian, we do not consider that to be appropriate, and no real justification was provided. We consider that the usual practice of, for example, land use consents running with the land should apply.

[541] In our view there are some significant differences between the Mt Cass proposal SEALand this Hurunui wind farm proposal, including the landscape classification of Mt Cass and the establishment and management of the "Mt Cass Conservation Management

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Area". We are satisfied that it is not necessary to require a performance bond as proposed by the Society. There are adequate powers under the Act to enforce the conditions of consent. However, we do require the wording of the decommissioning conditions to be amended so that it is clear that the consent holder has responsibility for carrying out any decommissioning and that the consent holder can be required to prepare and execute a Decommissioning Management Plan. The current proposed wording leaves it to the consent holder to advise the consent authority of its intention to decommission the site. We require the conditions to provide for the implementation of the Decommissioning Management Plan.

[542] We also comment that although we understand that the Society's suite of proposed conditions relating to a performance bond reflect those in the Mt Cass proposal, we consider that they are not written with an appropriate degree of certainty, particularly in relation to the amount (quantum) and its review.

[543] On the Society's proposed condition seeking a covenant to preclude any extension of the wind farm in the future: we do not consider that to be appropriate and it was not justified by the Society.

PART 2 MATTERS – EXERCISE OF DISCRETION

Proposed.

[545] Against this, we must balance the positive effects we have found will arise from the proposal. There are economic benefits, particularly during the construction period; benefits associated with meeting the local and regional demand for electricity (for which there is a shortfall) and the need for security of supply. There is also the overwhelming benefit that the proposal is one which involves electricity generation from a renewable source. This is a matter to which we must have particular regard under s7(j) of the Act. In its explanatory note, the NPS – Renewable Electricity outlines that the matters contained within it are matters of national significance, however within the Part 2 hierarchy renewable energy does not appear under s6 but is a matter to which we must have particular regard under s7. The efficient use and development of the wind resource occurring in this area is also relevant in terms of s7(b). Accordingly, in this case there are competing s7 matters which we must weigh in the balance.

[546] Inevitably, as has been noted in a number of wind farm cases, and as is signalled in the NPS- Renewable Electricity, decisions often come down to weighing up the national level benefits and the adverse effects at a local level. In this case we are persuaded that the regional and national benefits associated with the proposal outweigh the remaining significant adverse visual amenity effects that are unable to be mitigated from certain nearby properties. Accordingly we are persuaded to approve the proposal with amended conditions.

[547] We have earlier in this decision stated that we found the conditions proposed by the two Councils to be generally appropriate, subject to amendments outlined in this decision. We expect those suites of conditions to be used as the basis for finalising the amended conditions.

RESULT

[548] The applications for resource consent are granted subject to amended conditions.

[549] We record for the avoidance of doubt, that this decision is final in respect of the confirmation of the grant of the resource consents (on amended conditions) but is interim in respect of the precise wording of the conditions, and in particular the details relating to the Community Fund condition(s).



[550] We direct the Hurunui District Council and the Canterbury Regional Council to submit to the Court amended conditions of consent giving effect to this decision by 17 May 2013. In preparing the amended conditions the Councils are to consult with the other parties, particularly in relation to the condition(s) relating to the Community Fund.

[551] If any party wishes to make submissions in relation to the Community Fund conditions, these are to be filed by **17 May 2013**.

April

[552] Costs are reserved.

 15^{th}

DATED this

day of

2013

For the Court

M Harland Environment Judge



Appendix 1

Submitters who did not appear:³¹⁰

- D Baxter RD Liddell **BA** Christensen T McBree SC Batchelor SA Bonnafoux DJ Bears F Loe PI Croft PH Rogal EJM Wezenburg JM Cottle A Black AJ Goodship SJ Swarbrick A Fox EAC Batchelor **REH** Nicholls S Pearson CS Batchelor HM & RS Sharpe CJ & TW Adler J & J Megaw S Hughes-Games N Stanley CF MacKenzie C Herbert DW King DC Heslop W Hughes-Games AJ & LJ Lowry **M** Fitzsimmons H and M Vanstone ACA Askin JAA Ryan AM Taggart DB and MM Collett DG Stanley LF Meares D & P Rennie SEAL OG and J Higginson

CONAT

AJ Hamilton MP Foster PO & NM Greenwood HJ Kent JE & PC Blatchford T Burnside MA & RJ Lowry JN Petrie DG Maxwell **RT** Abbott JM McLachlan N Ross **DC** Curtis **REF Sloss KP** Stills PFW Boag W Gardener J Gardener BJ Sowden K Sowden HS McLachlan HS & YR Turnbull SM & RB Copeland FA Reid SR & SJ Barnes L Love JM & JA McKone MM Eaton

EM Eaton L Atkinson DB Rich H Savill C Savill P & E Schofield A Humphrey BM & NJ Burgham LC Burton SW Bennett M Jones G Rowe R & J Forrester T Holden KS Dunford **BRG** Yates **G** McWhinnie L Lormans JW Fisher JC Gardner M Ashton PG Lormans G Bianchet R O'Brien P & Y Devine T McLean A & W Harris F Clark AJ Sloss BA McLachland P & P Macfarlane A Wilson **RM** Anderson GP Gillman MJ Steel NC Schultz RA Hunt F & C Hicks **BC** Griffiths L Batchelor LT Platt S Hamilton D & M Fotherington & Owen K Hamilton T Donaldson N McKellow

Section 87F Report, Helena Gerarda Rigg, Appendix 1.

Environment Court Interim Decision No: 2013 NZEnvC Project Hurunui Wind Farm - Schedule of Conditions of Consent to be amended.

Table 1

Exhibit HGR1, Version 4, 23 October 2012 Condition Number	Summary – Directions/ Comments	Decision paragraph reference, where applicable
2	Delete	540
6	Amend to provide for no more than 31 turbines and the deletion of turbines labelled F01 and G01	177, 245
19 (text after 19(c)) 20	Should the paragraph of text after condition 19(c) be part of condition 20? It all seems to relate to turbine testing.	515
23	Provide for a minimum of 4 monitoring locations and for staged wind farm monitoring.	229, 230, 231, 235, 247
26	Clarify when this process is to commence. Identify the individuals and/or addresses, or a mechanism to do so in case these people do not live in the locality in the future.	304, 305
28 - 40	Ensure that these EMP related conditions are the same as, or compatible with, the CRC's conditions. Provide for any appropriate monitoring and reporting of the EMP. Rationalise the two references to weed management in 28(g) & (i).	356, 357, 359
41 - 61	Review and rationalise conditions relating to avifauna. Link 52(a) with 54 & 55. Use consistent wording if appropriate, eg avifauna expert (55) and avian ecologist (60). Provide for appropriate monitoring and reporting (eg. similar to condition 66).	426, 431, 434, 441
45	Amend to include reference to condition 44 as well as condition 43	515
48 & 61	List these two conditions together	443
69 & 70	Provide for any appropriate monitoring and reporting.	379
<u>73(m)</u>	Provide for annual large event at Tipapa	349



87(c)	Provide for all "consent authorities". For example, there may be provision for separate representatives or a combined representative for HDC and CRC.	523
88(a) & (b)	Clarify and list the management plans and reports that are to be provided to the CLG.	523
89	Relocate this condition to be before the heading "Review Conditions". Provide a new heading: "Community Fund". Amend the condition.	531-536
100	Provide for implementation eg. amend to read: "The consent holder must implement the Decommissioning Management Plan and must provide written notice"	541
All conditions	Review and in particular provide for monitoring and reporting. Any consequential amendments.	427

Table 2

CRC Exhibit 1	Summary Directions/Comments	Decision
Version 2, 26		paragraph
September 2012 and		reference,
CRC Attachment 3,		where
4 October 2012.		applicable
•	Clarify Meridian's offer to clear in-line pond	383
	in Cave Creek.	
Schedule 1 General	Confirm if monitoring in Tipapa Stream	385
Condition 19(a)	provided for.	
All conditions	Any consequential amendments	

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Table 5		
Exhibit HGR1	Check for consistency where conditions relate	356, 357, 359,
Version 4,	to the same or similar topics.	515, 547
23 October 2012	Provide one document of consent conditions	
and	for the proposal. Where appropriate this can	•
CRC Exhibit 1	be divided into separate and/or common	
Version 2,	sections to relate to separate consents and/or	
26 September 2012	separate consent authority responsibilities.	· · · ·
and CRC		
Attachment 3,		
4 October 2012.		



Rodney District Council v Eyres Eco-Park Ltd

High Court Auckland 13 June 2005; 13 March 2006 Allan J CIV 2005-485-33

Permitted baseline — Existing use rights — Interim decision — Appeal — Resource Management Act 1991, ss 9, 10, 104(2), 104D.

Eyres Eco-Park Ltd (the respondent) sought subdivision and land use consents to develop a 52.8 ha site within the area of Pakiri and Ocean Beaches, on the north-east coast of the Rodney district. The area was regarded as being of outstanding environmental significance, and the applications concerned non-complying activities. The land was, at all material times, used for farming, and the existing use rights permitted grazing and vegetation clearance. The respondent proposed to cease farming and to develop tourist accommodation that, the respondent claimed, would help to preserve the native vegetation and wetland areas on the site. In the event the applications were refused, the respondent indicated that the farming on the land would be intensified to a level equating with the existing use rights. The Rodney District Council (the appellant) refused the applications and the respondent appealed to the Environment Court.

The Environment Court issued an interim decision that the application for subdivision consents was governed by the law contained in the Resource Management Act 1991 (the Act) as it existed prior to the Resource Management Amendment Act 2003. As the respondent had failed to provide the appropriate documentation, the Court was prevented from granting consent. Despite this decision, the Environment Court made various findings as to the merits of the applications and indicated that consent might well be granted if the procedural deficiencies were remedied. Importantly, the Environment Court determined that it would not apply the statutory test for the permitted baseline contained in s 104(2)of the Act (and introduced by the 2003 amendment) to either the subdivision or the land use application. The appellant appealed against that decision on the basis that, inter alia, the Environment Court had erred in law in applying the common law "permitted baseline" test as opposed to the statutory test contained in s104(2) of the Act. Accordingly, the appellant averred that the Environment Court had wrongly incorporated existing use rights into the "permitted baseline" test. In addition, the

appellant submitted that the respondent's existing use rights had decayed by the fact that the farming activity on the land had reduced over time. The relevant district plan had been amended on a number of occasions since the respondent's existing use rights had first been established, and the appellant submitted that those rights should accordingly have been reassessed at the date of notification of such amendments. In essence, the appellant averred that it was not now possible for the respondent to re-establish intense farming activity on the land and the Environment Court had been wrong to weigh this factor in the balance.

Held (allowing the appeal in part)

1 The High Court had jurisdiction to determine an appeal from an interim decision of the Environment Court if the Environment Court had made a determination in the matter (see para [10]).

Springs Promotion Ltd v Springs Stadium Residents Association Inc [2006] NZRMA 101 applied.

Hahei Developments Ltd v Thames Coromandel District Council [2005] NZRMA 21 applied.

2 The Act was not a code. It must be read alongside the common law. The question as to whether a given provision of the Act must be taken to have over ruled a common law principle was a matter of statutory construction (see para [26]).

3 The Environment Court erred in failing to apply s 104(2) of the Act to the land use applications (see para [54]).

4 Section 104(2) of the Act modified the common law test of the permitted baseline by introducing a discretion as to whether the test was to be applied and, further, by confining the role analysis of the existing environment to an assessment of the receiving environment (see paras [28], [30]).

5 Activities not permitted by the plan were not within the permitted baseline. Existing-use rights were a statutory deviation from the provisions of the relevant plan and, accordingly, did not form part of the permitted baseline (see paras [33], [34], [35], [36]).

6 Existing use rights might however, be part of the receiving environment to be considered pursuant to s 104(1)(a) of the Act, against which a proposal must be measured (see paras [37], [56]).

7 The relevant date for establishing existing-use rights would be the date of notification of the first plan containing a rule with which the existing use would be in contravention. It was not appropriate to reassess those rights at the date of each notification of any plan change. Section 10 of the Act provided for the circumstances in which existing use rights might be lost, and the facts of the present case did not accord with such (see paras [93], [98], [104]).

Springs Promotions Ltd v Springs Stadium Residents Association Inc [2006] 1 NZLR 846; [2006] NZRMA 101. applied.

Russell v Manukau City Council [1996] NZRMA 35 applied.

Other cases mentioned in judgement

Aley v North Shore City Council [1998] NZRMA 361; [1999] 1 NZLR 365.

- Arrigato Investments Ltd v Auckland Regional Council [2002] 1 NZLR 323 (CA).
- Bayley v Manukau City Council [1998] NZRMA 513; [1999] 1 NZLR 568; (1998) ELRNZ 461 (CA).
- Countdown Properties (Northlands) Ltd v Dunedin City Council [1994] NZRMA 145.
- *Environmental Defence Society Inc v Mangonui County Council* (1987) 12 NZTPA 349.
- Kalkman v Thames Coromandel District Council (Environment Court, Thames A 152/02, 24 July 2002, Judge Sheppard).
- Manukau City Council v Trustees of Mangere Lawn Cemetery (1991) 15 NZTPA 58.
- Papatoetoe City v Wedding (1983) 9 NZTPA 430.
- *Royal Forest and Bird Protection Society Inc v W A Habgood Ltd* (1987) 12 NZTPA 76.

Smith Chilcott Ltd v Auckland City Council [2001] 3 NZLR 473 (CA). Stark v Auckland Regional Council [1994] NZRMA 337. Wilson v Selwyn District Council [2005] NZRMA 76.

Appeal

This was an appeal by the Rodney District Council against the interim decision of the Environment Court by Eyres Eco-Park Ltd, the respondent, concerning applications for subdivision and land use consents.

- J F Verry, R B Enright and A W Braggins for Rodney District Council.
- K Littlejohn and L Wallace for Eyres Eco-Park Ltd.

ALLAN J. [1] The north-east Rodney coast, which incorporates Pakiri and Ocean Beaches, falls within the appellant's jurisdiction. The area is regarded as being of outstanding environmental significance and is accordingly protected by stringent planning controls. The coastline concerned is said to represent the last relatively undeveloped stretch of the coastal environment in the region, and an important objective of the appellant's planning instruments is to retain the region's character. The appellant's planning controls extend also to the immediate hinterland; detailed provisions exist for the purpose of ensuring that activities, whether undertaken as of right or pursuant to resource consents, are restricted to those in keeping with the coastal environment itself.

[2] The respondent in this appeal developed a proposal to establish a subdivision on a 52.8 ha site adjacent to the coast, but not itself having a coastal frontage. The proposal involved the subdivision of the land into nine lots. The proposed use of certain of the new lots was that of ecotourism accommodation, although in the first instance the respondent chose in its resource consent application to focus on the subdivision proposal and the identification of suitable building sites. Final proposals for individual buildings would depend upon the conditions upon which subdivisional consent might be granted.

[3] The appellant rejected the proposal. The respondent thereupon appealed to the Environment Court which on 3 December 2004 issued an interim decision in which it held that:

High Court

- (a) Consent could not presently be granted because without modification the application did not fall within the jurisdiction of the Court under s 105(2A) of the Resource Management Act (the Act). That situation resulted in part from the failure of the respondent to lodge certain necessary district and regional consent applications, and to adduce evidence required to afford a comprehensive understanding of the proposal and its effects.
- (b) Nevertheless the application was not without merit and in an amended form it may well satisfy s 105(2A) of the Act, in the light of matters relevant to the exercise of the Court's discretion.

[4] The respondent was invited to report to the Court by 1 February 2005 as to whether the appeal was to be maintained beyond that date, on the basis that further applications were to be made and certain necessary amendments made to the overall proposal. I am informed that the Court was advised that the appeal was to be maintained on that footing.

[5] The appellant council now appeals to this Court from the interim decision of the Environment Court. The primary grounds for appeal are whether the Court erred in law:

- (a) By applying the common law "permitted baseline" test rather than that imposed by s 104(2);
- (b) (consequentially) in having regard to existing use rights as part of its consideration of the permitted baseline;
- (c) by having regard to the permitted activities allowed for under all three district plan instruments, when it should have restricted its inquiry to plan change 55;
- (d) by having regard to the positive effects of the cessation of activities that may be conducted as of right;
- (e) in failing to consider the permitted activities that could take place on other sites;
- (f) by misapplying the provisions of plan change 55 in finding that up to 5000m³ of earthworks and 5000m² – 6000m² of bush removal was allowed for as a permitted activity; and
- (g) in its analysis and application of existing use rights under s 10 of the Act, and in particular in its finding that there is no "legislative consequence" where there is a significant reduction in the intensity and scale of an existing use over time, despite the fact that two relevant changes to the district plan rules occurred over the relevant period.

[6] But Mr Littlejohn for the respondent raised a preliminary jurisdictional issue which it is appropriate to consider at the outset.

Jurisdiction

[7] A right of appeal lies from the Environment Court to the High Court under s 299 of the Act, in respect of any "... decision, report, or recommendation of the Environment Court made in the proceeding". This Court may interfere with the decision of the Environment Court only if it considers that that Court has applied a wrong legal test, or come to a

conclusion without evidence, or one to which, on the evidence, it could not reasonably have come, or took into account matters which it should not have taken into account, or failed to take into account matters which it should have taken into account: *Countdown Properties (Northlands) Ltd v Dunedin City Council* [1994] NZRMA 145; *Manukau City Council v Trustees of Mangere Lawn Cemetery* (1991) 15 NZTPA 58 at p 60. To that Blanchard J would add a requirement that the decision reached be "reasonable" in the sense that it was one that could be arrived at by rational process in accordance with a proper interpretation of the law and upon the evidence: *Stark v Auckland Regional Council* [1994] NZRMA 337 at p 340.

[8] The Environment Court should be given some latitude in reaching findings of fact within its area of expertise: *Environmental Defence Society Inc v Mangonui County Council* (1987) 12 NZTPA 349 at p 353.

[9] Importantly, an error of law must materially affect the result of the decision of the Environment Court before this Court will grant relief: *Royal Forest and Bird Protection Society Inc v W A Habgood Ltd* (1987) 12 NZTPA 76 at pp 81–82.

[10] Mr Littlejohn, for the respondent, argued that even if relevant errors of law are identified they can have no material effect on the eventual outcome of the proceeding because the decision appealed from is of an interim nature only. In effect, he invited the Court to decline to deal with the appeal. I do not consider it appropriate to do that. Even where a decision of the Environment Court is not final, an appeal will lie if that Court has nevertheless made a determination: *Hahei Developments Ltd v Thames Coromandel District Council* [2005] NZRMA 21 at p 33. In *Springs Promotion Ltd v Springs Stadium Residents Association Inc* [2006] NZRMA 101, Randerson J in respect of an appeal brought against an interim enforcement order made in the Environment Court observed at para [11] that resolution of the legal issues raised by the appeal was likely to be helpful to the parties and to the Environment Court in determining the substantive issues which remained to be determined by that Court.

[11] Moreover there have been findings here upon which the Environment Court would probably be regarded as functus officio. Examples identified by Mr Enright were:

- (a) The finding at paras [144] [145] that a grant of consent in this case would not create a precedent because the site itself and the proposal have a uniqueness about them, such that there are clear distinctions between the subject land and this application on the one hand and other potential applicants in the district.
- (b) The directions given in para [170] which are substantial and will undoubtedly have significant consequences for the parties. In that paragraph the Environment Court directs that two lots in the proposal should be deleted and left undeveloped; that there be major amendments to the proposals in respect of two other lots; that the proposed building site for lot 5 should be changed with the site shifting uphill; that the two lots to be left undeveloped

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should be replaced by two other lots where undeveloped areas had formerly been proposed; and that applications ought to be made for consents to the proposed structures and related development, so that decisions and findings on those applications could be factored into the assessment overall.

[12] To those paragraphs can be added para [171] in which the Environment Court describes itself as having reached "various findings (including tentative findings) that we have made on visual, landscape, and some ecological matters \ldots ", paras [35] – [37] in which the Court (effectively by consent) finds that the whole of the proposal should be treated as non-complying, although certain aspects of it might be regarded as discretionary; and para [11] which holds that the ". . . subdivision application must be considered under the Resource Management Act pre-2003 Amendment (s 112(3), and the land use aspects post-2003 Amendment".

[13] The Environment Court has the same powers as a District Court in exercising its civil jurisdiction (s 278(1)). Civil appeals lie from the District Court in respect of interim decisions: s 71 of the District Courts Act 1947. Further, s 299(2) provides that appeals from the Environment Court are to be made in accordance with the High Court Rules. Part 10 of those rules govern such appeals. Rule 702 which falls within Part 10 defines the term "decision" as including: "a finding, order, or judgment made by a decision-maker". That definition is wide enough to catch an interim decision of the character which is the subject of this appeal. On a more practical level, given that the Environment Court is to further consider the appeal, the contents of this judgment may well assist in determining the matter without the need to resort to a second appeal to this Court. That is the point made by Randerson J in the Springs Promotion case. For all of the foregoing reasons I am satisfied that the Court has jurisdiction to entertain this appeal.

The respondent's proposal

[14] The proposal before the Environment Court sought land use and subdivision consents to subdivide the relevant property into some nine lots. Nominated building platforms were proposed for six of the lots. The site contains significant native vegetation and possesses other natural features as well as extensive sea views and several small lakes and wetland areas. From the point of view of the environment, the importance of the site may be gauged from the fact that some 46.2 ha (of 52.8) is classified in the appellant's proposed district plan as a significant natural area.

[15] The Environment Court considered the proposal to be complex and to involve the balancing of two strongly competing public interests, namely on the one hand the need to preserve the remote coastal character of Pakiri Beach from the adverse effects of subdivision and development, and on the other the desirability of protecting the important native vegetation and wetland/lake areas on the site. [16] The respondent contended that the proposal itself would protect native vegetation and natural areas by reason of the limited uses to which the site was to be put. If it came into effect the proposal would lead to the cessation of current farming activities undertaken pursuant to existing use rights, which carried with them rights to graze the land and to clear vegetation. The proposed uses will tend, so the respondent claims, to protect native vegetation on the site to a greater degree than current farming activities permit.

[17] The Environment Court considered that s 6(a) and (c) of the Act applied. Those paragraphs impose upon persons exercising functions and powers under the Act, a duty to recognise and provide for the preservation of the natural character of the coastal environment and the protection of areas of significant indigenous vegetation.

[18] The resource consents for which the respondent applied to the appellant, and which were before the Environment Court, were:

- (a) To subdivide the nine lots in the light of the status of much of the land as a significant natural area, while making special provision for protection of the wetland, and the vesting of certain land as a reserve.
- (b) To undertake earthworks exceeding 50m³ within a significant natural area in order to create vehicle access to the sites on which building was to take place.
- (c) For the use of the dwellings established on certain of the lots for tourist accommodation.
- (d) For lot 7 to comprise some 3.2 ha which exceeded the permissible maximum of 2 ha.
- (e) To provide access to seven of the lots by means of a single right of way.

Of significance is the fact that the respondent did not apply for consent to the removal of native vegetation.

[19] The Environment Court found that overall the proposals contained in the applications fell to be assessed as non-complying activities. In the course of its deliberations it concluded as a matter of law that the provisions of the Act prior to the enactment of the Resource Management Amendment Act 2003 applied to the application for subdivisional consent, but that the Act as amended applied to the application for land use consent. That outcome apparently arises from an analysis of s 112 of the Resource Management Amendment Act 2003, which the Environment Court clearly regarded as being not without its difficulties. There has been no appeal from that jurisdictional ruling.

[20] Accordingly, ss 104 and 104D of the Act, as enacted by s 44 of the Resource Management Amendment Act 2003, apply to the land use applications. As relevant ss 104 and 104D provide:

104. Consideration of applications — (1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to —

- (a) any actual and potential effects on the environment of allowing the activity; and
- (b) any relevant provisions of
 - (i) a national policy statement:
 - (ii) a New Zealand coastal policy statement:
 - (iii) a regional policy statement or proposed regional policy statement:
- . .
- (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

(2) When forming an opinion for the purposes of subs (1)(a), a consent authority may disregard an adverse effect of the activity on the environment if the plan permits an activity with that effect.

104D. Particular restrictions for non-complying activities — (1) Despite any decision made for the purpose of section 93 in relation to minor effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either —

- (a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(b) applies) will be minor; or
- (b) the application is for an activity that will not be contrary to the objectives and policies of
 - (i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or
 - (ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or
 - (iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.

(2) To avoid doubt, section 104(2) applies to the determination of an application for a non-complying activity.

[21] It is these provisions and especially s 104(2) which lie at the heart of the appellant's argument that the Environment Court has made an error of law in its assessment of the appropriate baseline against which the proposal ought to be judged.

Permitted baseline

[22] In essence the appellant contends that the Environment Court has misdirected itself in its identification of the relevant permitted baseline by having regard to what the appellant contended was "the common law test" rather than the provisions of the new s 104(2). The expression "common law test" is derived from the line of cases commencing with *Aley v North Shore City Council* [1998] NZRMA 361 at p 377, and continuing through *Bayley v Manukau City Council* [1999] 1 NZLR 569 (CA) and *Smith Chilcott Ltd v Auckland City Council* [2001] 3 NZLR 473 (CA) to *Arrigato Investments Ltd v Auckland Regional Council* [2002] 1 NZLR 323 (CA).

[23] The term "permitted baseline" refers simply to the status quo position against which the actual and potential effects of a proposed activity must be judged. The cases referred to above were decided in the context of s 104 as it stood prior to the 2003 amendment. Section 104(2), set out above, was introduced by the 2003 amending Act.

[24] The line of authority to which I have referred is neatly summarised by Tipping J in *Arrigato Investments Ltd* at paras [27] – [29] as follows:

[27] In *Bayley v Manukau City Council* this Court considered a closely related issue from the point of view of notification under s 94(2) of the Act. What the Court then held was found to apply equally to the substantive issues arising under ss 104 and 105 – see *Smith Chilcott Ltd v Auckland City Council*. In *Bayley* at p 576 the Court said: The appropriate comparison of the activity for which the consent is sought is with what either is being lawfully done on the land or could be done there as of right.

[28] A little later at p 577, the Court approved what had been said by Salmon J in *Aley v North Shore City Council* [1998] NZRMA 361 at p 377 but with an extension requiring the relevant environmental comparison to be against the environment:

As it exists or as it would exist if the land were used in a manner permitted as of right by the plan.

[29] Thus the permitted baseline in terms of *Bayley*, as supplemented by *Smith Chilcott Ltd*, is the existing environment overlaid with such relevant activity (not being a fanciful activity) as is permitted by the plan. Thus, if the activity permitted by the plan will create some adverse effect on the environment, that adverse effect does not count in the ss 104 and 105 assessments. It is part of the permitted baseline in the sense that it is deemed to be already affecting the environment or, if you like, it is not a relevant adverse effect. The consequence is that only other or further adverse effects emanating from the proposal under consideration are brought to account.

[25] These Court of Appeal authorities required a consent authority to disregard any adverse effects of the proposal that were the same as those arising in the existing environment or those arising from activities (except fanciful activities) already permitted by a plan. The issue which has arisen on this appeal is whether, as Mr Enright contends, the effect of the enactment of s 104(2) is to deprive the Court of Appeal authorities of binding effect, to the extent that they are no longer to be regarded as of assistance in the tasks of identifying the permitted baseline, and of conducting the assessment required by s 104(1)(a). The submission for the appellant is that a consent authority must, post-amendment, direct itself to the statute and not to the common law. That submission is discussed briefly in this section of the judgment, but essentially by way of introduction to the fundamental question of the impact of s 104(2) on the respondent's proposal and the way in which the Environment Court analysed the relevant permitted baseline.

[26] The Act is not a code. Ordinarily, it is to be read alongside the common law. In the end, the question of whether a given provision of the Act must be taken to have over ruled a common law principle becomes a matter of statutory construction. The inter relationship of the Act with the common law was usefully discussed by Randerson J in the *Springs Promotion* case as follows:

[60] Although it is fair to describe the Act as comprehensive, it is going too far, with respect, to describe it as a code if that is intended to mean that it excludes the application of the common law in the area and replaces it with

a set of statutory rules that are the exhaustive and exclusive source of the law. In *Faulkner v Gisborne District Council* [1995] 3 NZLR 622 at p 631, Barker J preferred to describe the Act as representing "an integrated and holistic regime of environmental management" rather than a code. The difficulties in this field are well illustrated by the helpful discussion by Professor Burrows QC in his work *Statute Law in New Zealand* (3rd ed, 2003) ch16 at pp 375 – 383.

[62] Key elements in determining whether the Act provides a complete code on any specific topic are the extent of detail in the relevant provisions; whether the provisions expressly or impliedly leave open the possibility of the application of law from other sources; whether other statutory provisions or rules of common law or equity bear on the issue; and whether there are any other indicators of statutory intention. In the end, it is a matter of statutory construction against the background of the general law.

[27] Adopting that approach, the question is whether s 104(2) must necessarily be taken to have abrogated the approach adopted in successive Court of Appeal authorities.

While the subsection expressly modifies the common law test [28] by enacting a discretion when none formerly existed and now (as I hold below) precludes consideration of the "existing environment" when assessing the permitted baseline (see later discussion of existing use rights in the context of the permitted baseline), there is nothing further to suggest that Parliament intended to enact in s 104(2) a statutory provision intended to take effect in total substitution for the common law. The subsection was enacted by a legislature well apprised of the common law test. Had it intended to supplant the common law entirely, then rather more explicit language might have been expected. Section 104(2) is brief, and appears as a matter of simple statutory construction to be aimed at the introduction of a discretion which did not formerly exist while limiting the permitted baseline to the effects of activities permitted by the plan. To that extent it has modified the common law approach, but there is nothing to suggest that the legislature intended the concept of a "permitted baseline" test to become entirely statutory. After all, it had its genesis in the cases, and the legislature has sought simply to modify the concept by building upon the discussions contained in the authorities.

[29] I am fortified in that approach by the report of the Local Government and Environment Committee in respect of the Resource Management Amendment Bill (No 2) which became the Resource Management Amendment Act 2003, and to which I believe it is appropriate to refer in the light of Mr Enright's contention. The select committee said this:

Permitted baseline is discretionary

The concept of "permitted baseline" has been defined by case law. It is relevant for Councils' decisions about whether the effects of an activity are minor, and whether a person is adversely affected by a proposal. It is relevant to decisions on both notification and the substantive (grant or decline) decisions on consents under the Act.

The permitted baseline defines the environment against which a proposed activity's level of effect is gauged. The permitted baseline comprises the

existing environment and hypothetical activities that would be permitted as of right by the plan.

The Resource Management Amendment Bill 1999 as introduced included a provision to "codify" the permitted baseline, but only in terms of notification of resource consent applications. It was silent on substantive decisions.

Since then the Court of Appeal's decisions in *Smith Chilcott v Auckland City Council* [2001] 3 NZLR 473 and *Arrigato Investments Ltd v Auckland Regional Council* [2002] 1 NZLR 323 have further defined the concept of the permitted baseline.

As currently interpreted, this concept means that councils *must* disregard any adverse effects that are the same as those of activities already permitted. The bill formally introduces the permitted baseline, but clarifies that councils *may*, rather than *must*, take into account the adverse effects of activities on the environment if a plan permits an activity with that effect. We recommend removing reference to proposed plans, to clarify it is only effects occurring as of right that are part of the permitted baseline.

The proposed discretionary wording has been promoted because it:

- Allows for the effects of permitted activities to be considered where appropriate on a case by case basis, but does not require priority to be given to this concept over and above consideration of all effects and the plan as a whole
- Delivers increased flexibility to councils, allowing them to take into account the effects of other permitted activities where they are appropriate, without unnecessarily restricting their discretion or weakening the intent of their plans; accordingly, it avoids the potential for plans to develop in an ad hoc and unmanaged way
- Allows consideration of the effects as a whole and therefore a more informed judgment as to what effects are to count as adverse, rather than the current formulaic approach.

The change, however, fails to address problems caused by having a mandatory baseline in the context of new s 104 (and new s 104A). In this context, mandatory consideration of the permitted baseline for decisions is not necessarily beneficial. Making both tests discretionary should rectify this situation. A mandatory permitted baseline does not offer a balanced approach to considering consent applications. It may also prevent the consent authority from taking into account some of the matters stated in Part II of the Act. We recommend that clause 44 be amended accordingly. This would amend

new s 104 of the principal Act and insert a new s 104A.

[30] The enactment of what became s 104(2) was seen by the committee as conferring flexibility by allowing consent authorities to take into account the effects of other permitted activities where they are appropriate, without necessarily restricting the overall discretion. However, s 104(2) was enacted against the background of an established line of common law authorities. The proposals discussed in the report explicitly refer to the Court of Appeal decisions in *Smith Chilcott v Auckland City Council* and *Arrigato Investments Ltd v Auckland Regional Council* and plainly enough, the committee's proposals were made in the context of an ongoing common law "permitted baseline" test. But s 104(2) does modify the test beyond merely introducing a new statutory discretion, in that it confines the role of analysis of the existing

environment to an assessment of the receiving environment. It is not to be taken into account in an assessment of the permitted baseline (see the discussion below) and this was the real issue which generated the appellant's argument as to the interrelationship of s 104(2) and the Court of Appeal authorities.

Existing use rights under permitted baseline

[31] So the question of the extent to which s 104(2) might have diminished the binding effect of the Court of Appeal authorities was argued in essence as an issue preliminary to the appellant's argument that the Environment Court was in error in its analysis of the effects of existing use rights, when assessing the adverse effects of the proposal. It is therefore necessary to consider the place of existing use rights in respect of both the permitted baseline and the existing environment.

[32] On occasion it has been said that the permitted baseline is the existing environment overlaid with such relevant activity (not being a fanciful activity) as is permitted by the plan, and that the existing environment must necessarily include activities carried on pursuant to existing use rights. That approach is a reflection of the observation of Tipping J in *Arrigato* at (para [29]):

Thus the permitted baseline in terms of *Bayley*, as supplemented by *Smith Chilcott Ltd*, is the existing environment overlaid with such relevant activity (not being a fanciful activity) as is permitted by the plan.

[33] Following the enactment of s 104(2), an argument that activities carried on pursuant to existing use rights nevertheless form part of the permitted baseline, is not available. While previously, existing use rights were considered to be part of the "existing environment" which, coupled with activities permitted by the plan, formed the permitted baseline, analysis of the new subsection no longer supports such an approach.

[34] Section 9(1) of the Act provides that no person may use any land in a manner which contravenes a rule in a district plan or proposed district plan, unless the activity is expressly allowed by a resource consent or there are existing use rights which arise under ss 10 or 10A. Uses which fall within those sections render lawful that which would otherwise not be lawful.

[35] The discretion conferred by s104(2) is confined to adverse effects of activities permitted by "the plan". A "plan" is defined in s 2 of the Act as meaning a "regional plan or a district plan". A "district plan" means an operative plan approved by a territorial authority under the Schedule 1 and includes all operative changes to such a plan and a "regional plan" carries an equivalent meaning.

[36] While an existing use may be carried on as of right, such a use is not by definition a use related to an activity permitted by the plan. In fact, existing use rights are a statutorily preserved deviation from the provisions of the relevant plan. It is a necessary inference that the legislature, in conferring a discretion in respect of activities permitted by the plan, intended that other activities would not be subject to the discretion and would not therefore form part of the permitted baseline. It

would be illogical to determine that a discretion exists to disregard activities permitted by the plan but not other activities within the baseline. The inexorable conclusion is that activities not permitted by the plan are not within the baseline.

[37] Existing use rights, however, still have an important part to play in the assessment of the adverse effects of a proposed activity, because an activity carried on pursuant to existing use rights will of course form part of the receiving environment against which the effects of a proposal will be assessed under s 104(1)(a). Consideration of the impact of a proposal upon the receiving environment, however, must not be confused with an assessment of the permitted baseline.

When considering the overall adverse effect of a proposed [38] activity it is necessary first to consider the character of the receiving environment, as required under s 104(1)(a). The receiving environment of necessity includes activities conducted there pursuant to an existing use right as such activities may be carried on as of right. The adverse effects of a proposed activity, at this point of the analysis, will be those effects that are not already impacting upon the receiving environment. If, after this assessment, any additional adverse effects of the proposal remain for consideration, the permitted baseline will become relevant under s 104(2). The relevant authority at this point has a discretion to disregard any of the remaining adverse effects of the proposed activity on the environment if the plan permits an activity with that effect. If such adverse effects are excluded from consideration, the remaining effects of the proposed activity on the receiving environment must be assessed and may of course ultimately determine whether a resource consent is granted. Section 104(2) does not distinguish between fanciful and non-fanciful permitted activities but that distinction will no doubt have a bearing on the ultimate exercise of the discretion in a given case.

[39] The preceding analysis demonstrates that while existing use rights play an essential role in assessing the adverse effects of an activity on the receiving environment they are not relevant to the identification of the permitted baseline under s 104(2).

[40] It is important to bear in mind, however, that in a given case the character of the environment may be governed entirely by the exercise of existing use rights. In many cases (and this may ultimately prove to be one), the final outcome may well turn on an assessment of the receiving environment, rather than upon the identification of the appropriate permitted baseline.

Two subsidiary arguments

[41] Before moving to a consideration of the decision of the Environment Court, it is necessary to consider two separate arguments mounted by Mr Enright. First he submitted that the Environment Court should have engaged in a balancing exercise between the existing use rights which form part of the receiving environment, and the adverse consequences which flow from the fact that the permitted baseline does not include the activities conducted pursuant to those existing use rights. That approach is unnecessarily artificial. At least in most cases the proper

approach will be similar to that outlined by the Court of Appeal in *Arrigato* at para [38] in the context of the discussion of unimplemented resource consents:

What is permitted as of right by a plan is deemed to be part of the relevant environment. But, beyond that, assessments of the relevant environment and relevant effects are essentially factual matters not to be over-laid by refinements or rules of law.

[42] The Environment Court must properly identify the appropriate permitted baseline, and engage in an assessment of the receiving environment, and in so doing measure the effects of the proposal on that environment. But it is unnecessary for the Court to undertake something akin to a mathematical exercise of the sort which Mr Enright argues to be required.

[43] The second issue argued by Mr Enright is that it is necessary in considering "effects" for the purposes of s 104 as amended, to have regard to activities not only currently undertaken on neighbouring sites, but also those permitted to be undertaken on such sites, and which are not fanciful – using the test employed in *Smith Chilcott*.

[44] That argument was based upon the decision of Fogarty J in *Wilson v Selwyn District Council* [2005] NZRMA 76, released some time after the hearing of the current matter in the Environment Court.

[45] Fogarty J engaged in a detailed analysis of the extent of the "environment" to which a consent authority must have regard in determining an application in respect of a non-complying activity. In general terms, he concluded that it is necessary for a consent authority to have regard to the concept of futurity which lies at the heart of the definition of "sustainable management" in s 5(2) of the Act and points also to the non-exclusive definition of "environment," in s 2. He says it is necessary to consider both the existing environment, including sites other than the subject site, by reference not only to the activities currently undertaken within the environment, but also to activities which may as of right be carried on there, other than those which are "fanciful". I understand that this decision is under appeal.

[46] There is force in Mr Enright's submission. I agree with His Honour's observation at para [78] that: "It would be only in an exceptional case that any application for consent under s 104 would be launched into a planning vacuum over the affected neighbourhood." Having said that, in many cases it will be difficult, if not impossible, to consider the effects on anything except the neighbourhood as it currently exists.

[47] Mr Enright was inclined to be critical of the Environment Court because it did not, in the instant case, require evidence as to the likelihood of neighbouring sites being used for activities currently permitted by the operative plan, but not undertaken at the present time. I am in no position to consider that submission. There is no factual material before this Court which might suggest that an analysis of uses permitted but not presently undertaken on neighbouring sites might be relevant to the Court's function under s 104. Understandably enough, having regard to the material before the Court, Mr Enright did not pursue the issue with any great vigour and I say no more about it.

The Environment Court decision: permitted baseline **[48]** The appellant submits that:

Having found that there were two permitted baseline tests to be applied (one under the common law, for the subdivision consent, and the other being the s 104(2) test for the land use consents), the Court failed to apply the latter statutory test. Instead it applied the common law test only.

[49] Mr Enright points out that at para [57] of the decision the Court refers to the "authoritative statement concerning the permitted baseline in *Arrigato*". It then refers to certain elements of the approach mandated in that case, including the assessment of existing use rights (para [57]), unimplemented resource consents (para [58]), and non-fanciful permitted activities under each of three plans, namely the operative plan, plan change 55 and the proposed plan (paras [59] – [70]). He submits that there is no analysis of the impact of s 104(2) on the assessment which the Environment Court was bound to undertake.

[50] Earlier I have noted that the Court determined that it should consider the application for consent to subdivision under the law as it stood prior to the 2003 Amendment Act, and the application for land use consents in the light of the amended legislation. As the Court noted para [11], that decision gave rise to consequences in respect of the substantive consideration of the permitted baseline which are difficult to resolve.

[51] At para [12] the Court said:

... So far as the permitted baseline comparison is concerned, the law prior to the 2003 Amendment Act is as stated in *Smith Chilcott Ltd v Auckland City Council*, and has a mandatory quality about it, while s 104(2) of the Act as amended from 1 August 2003 establishes a discretion to "*disregard an adverse effect of the activity on the environment if the plan permits an activity with that effect*". One relevant facet of exercising that discretion, we consider, is that because a major part of the proposal overall is the subdivision, and given that the baseline *must* be considered for that, it seems logical and appropriate to consider [sic] baseline for the other somewhat interrelated parts.

[52] It seems that the Court concluded that because the subdivisional aspect of the overall proposal was a major factor, and given that the so-called common law permitted baseline was relevant in that context, then it was "logical and appropriate" to apply the same approach to the land use application which it regarded as "somewhat interrelated". That is, the Court seems to have consciously decided in the interests of coherence, that the same test ought to be applied to all aspects of the application (and the s 104(2) discretion put to one side), despite its decision that the amended legislation applied to some but not to all. **[53]** There appears to be no subsequent analysis of the impact of s 104(2) on the application, although at para [13] the Court notes that:

An interesting question is posed by s 104(2) (post 2003) referring to what the *plan* might permit as opposed to what the *law* might permit. But the Court takes the matter no further.
[54] Section 104(2) is couched in permissive terms. A consent authority may or may not disregard the adverse effects referred to in subs (2). It is trite law that a decision-making body must form a proper appreciation of its decision-making powers and the factors which it is bound by law to take into account in reaching a conclusion. Here, it appears that the Court has chosen, despite its decision to the effect that the application for land use consents falls within the 2003 amending legislation, to proceed under the law as it stood pre-amendment; that is, without considering the impact of s 104(2). In so doing it must be taken to have proceeded in error. While no argument was directed to the question of materiality, it cannot sensibly be suggested that the error could not be material to the Court's decision in the light of my finding that s 104(2) restricts the permitted baseline to activities permitted by the plan.

[55] At para [50] of its decision the Environment Court held that the "existing environment" may be taken into account as forming part of the permitted baseline and that existing use rights, being part of the existing environment, also form part of the permitted baseline. In doing so the Court recorded a concession said to have been made by Mr Enright before that Court, to the effect that existing use rights may form part of the assessment of the permitted baseline. Mr Enright informed me that in so doing, the Environment Court had proceeded under a misapprehension, and I accordingly set that purported concession to one side. But the approach of the Environment Court is perhaps understandable, having regard to its perception of the appellant's stance on the point.

In view of the conclusions to which I have come as to the [56] proper construction and effect of s104(2), the Environment Court's conclusion is not correct for cases which, as here, are governed by the subsection. Following the amendment the permitted baseline is confined to uses permitted by the plan. That does not include activities carried on pursuant to existing use rights. That is not to say of course that existing use rights have no place in the overall assessment of the effects of such uses. Activities carried on pursuant to such rights may well be partly, or even entirely, responsible for defining the character of the receiving environment, in respect of which the effect of a proposal must be measured. It would be simply illogical to exclude from consideration an activity which has been lawfully carried on on a subject site for many years, albeit pursuant to existing use rights. However, the activities concerned fall for consideration as part of the receiving environment and not as part of the permitted baseline.

Assessment of positive effects

[57] The appellant argued that the Court erred by having regard to the positive effects of the contemplated cessation of permitted activities on the site, arising from the greater likelihood, if the proposal gained approval, that native vegetation would be protected. As I understood the argument, the Court had taken into account the positive effect of the cessation of permitted activities on the subject site as part of the permitted baseline, and it was wrong to do so.

[58] It is necessary to bear in mind in respect of that submission, the vital distinction between the identification of the appropriate permitted baseline on the one hand, and matters properly to be taken into account in an assessment of the likely effects on the environment of allowing the activity on the other.

[59] Section 3 of the Act provides that unless the context otherwise requires, the term "effect" includes ". . . any positive or adverse effect". When dealing with an application for resource consent under s 104(1)(a), a consent authority must have regard to ". . . any actual and potential effects on the environment of allowing the activity . . ." Such effects will include both positive and adverse effects (s 3).

[60] Mr Littlejohn did not contend that the Environment Court was entitled to take into account, in its assessment of the appropriate permitted baseline, the positive effects of permitted activities. He was plainly right to do so. The positive effects of allowing an activity are not relevant to the assessment of the permitted baseline: *Kalkman v Thames Coromandel District Council* (Environment Court, Thames A 152/02, 24 July 2002, Judge Sheppard). Accordingly, the issue here is whether the Environment Court has wrongly assessed positive effects as part of the relevant permitted baseline, or whether it has simply and appropriately, discussed the positive effects of the cessation of existing activities in its consideration of the proposal under s 104(1)(a).

[61] Mr Enright identified paras [52] – [54] and [69] – [70] as evidencing an incorrect approach by the Court to an assessment of the permitted baseline. In para [52] the Court refers to evidence to the effect that if consent was not granted, the owners would continue to farm the property and that it may become necessary to increase the intensity of farming activities so as to ensure the property remained financially viable. [62] This paragraph appears under the heading "Existing Use Rights" and is part of an analysis of the nature and extent of those rights. Neither discussion in that paragraph, nor the content of the analysis surrounding it, suggests the Court in para [52] regarded the positive effects of the cessation of an existing activity as part of the permitted baseline.

[63] In para [54] the Court explores the extent of the controls in place with respect to vegetation removal under the various planning instruments discussed in the decision. Nowhere, even by implication, is there a reference in para [54] to the permitted baseline. The paragraph consists of an analysis of existing controls in the context of farming and other activities.

[64] Paragraph [69] is brief and summarises, at least in part, the Court's conclusions regarding farming activities as existing use rights. Again, there is no apparent link to the assessment of the permitted baseline.

[65] Finally, in para [70] the Court reviews evidence as to the possible establishment of other permitted uses on the subject site, but only very briefly. The focus of that paragraph is plainly on the issue of whether certain permitted uses were or were not fanciful. In the "fanciful" category

the Court was inclined to place timber milling and horticulture. Again, the discussion is plainly unrelated to "permitted baseline" issues.

[66] Mr Enright also referred to paras [71], [103] and [124] – [129] which consider the positive effects of cessation of permitted activities, but they do so in a section of the decision headed "Effects on the Environment". It was perfectly proper for the Court to engage in a discussion of positive effects in the course of the assessment it was required to make under s 104(1). Indeed, it was bound to do so. There is no substance in the appellant's argument on this point.

Earthworks and vegetation

[67] The appellant next focused upon the Court's assessment of the proposal with respect to earthworks and the removal of vegetation. The Court noted that the proposal entailed some 5000 m³ of earthworks and the removal of some 5000 m² – 6000 m² of native bush. Each of the transitional plan, plan change 55 and the proposed plan incorporated controls in respect of excavation and vegetation removal.

[68] The Court considered each of these planning instruments in turn. By the time of the hearing in this Court, counsel were agreed that the provisions of s 19 of the Act resulted in plan change 55 relevantly applying to the exclusion of the other two planning instruments. That is because the relevant provisions of plan change 55 were by then beyond challenge. Accordingly, for the purposes of s 104(2) those provisions in plan change 55 are deemed to be the "plan" by virtue of s 19.

[69] Mr Littlejohn accepted that it may have been unnecessary for the Court to have considered (at paras [60] - [63]) the relevant provisions of the transitional plan because plan change 55 prevailed, but he argued that the plans were in materially the same terms and that the Court was not thereby led into material error. I agree. It is doubtful whether the Court, despite its comprehensive review of all three planning instruments, misled itself. At para [35] of the decision it refers to the parties' agreed position that plan change 55 was the dominant document ". . . given that it was the first for rural parts of the district prepared under the RMA, most of its relevant provisions are beyond challenge and the proposed plan has travelled only a modest distance towards becoming operative (in nearly five years)". The Court concluded para [35] by recording its view that "PC 55 must obviously therefore prevail".

[70] The real thrust of Mr Enright's claim that the Court has nevertheless fallen into error arises from his contention that in para [65] of its decision the Court simply misapplied the provisions of plan change 55. Paragraph [65] reads as follows:

[65] The listed activities must also comply with various performance standards in s 3.3 which Mr Scott summarised as including "limits to activities that excavate or deposit topsoil, spoil, soil or other materials to no more than 200 m³" plus the previously cited control that "limits the removal of individual native trees up to 3 metres in height up to a maximum of 500 m²". Accordingly in terms of the permitted baseline analysis the environmental effects of at least some 5000 m³ of earthworks should be taken

into account, together with the effects of $5000m^2 - 6000 m^2$ of native bush removal and the future proposed buildings (eco lodges, dwellings).

Before considering that paragraph, it is necessary to observe [71] that the Court, in para [36] (iv), correctly recorded as a discretionary activity earthworks in excess of 200m³ to create road access and building platforms (under both the operative plan and plan change 55), and native bush clearance over 500 m^2 for building platforms, infrastructure or driveways (under each of the operative plan, plan change 55 and the proposed district plan). At that point the Court had directed itself correctly. [72] The appellant argues that in para [65] the Court has misapplied the provisions of Plan Change 55 by finding that up to 5000m³ of earthworks and $5000m^2 - 6000 m^2$ of bush removal were permitted, when the correct levels were $200m^3$ of earthworks and $500m^2$ of bush clearance. [73] I cannot agree that on any sensible interpretation of para [65] the Court has misdirected itself as is argued. The last sentence of para [65] simply records the self-evident proposition that in the course of "permitted undertaking the necessarv baseline" analysis. the environmental effects of the proposal need to be taken into account. That proposal incorporates earthworks and native bush removal and the construction in the future of certain buildings. It is the content of the proposal, or the detail of the proposed relevant activities, that is recorded in the last sentence of para [65], not the relevant provisions of plan change 55.

Decay of existing use rights

[74] As a second broad ground of appeal, the appellant submitted that the Environment Court had erred in its approach to the assessment of the respondent's existing use rights and asked this Court to refer the relevant question back to the Environment Court with appropriate directions, which would govern the final determination which the Environment Court has yet to make.

[75] The factual background to the appellant's submission may be simply described. Over time the respondent, while continuing to farm its property pursuant to acknowledged existing use rights, has reduced in scale its grazing and consequent vegetation clearance activities. For example, during the 1980s there were 200 - 300 cattle on the property and at an undefined earlier time there were 200 - 300 goats. By 2004 these numbers had reduced to one cow and 35 goats, and there had been a significant reduction in vegetation clearance activities on the site.

[76] The importance of the reduction in the extent to which the respondent has utilised its existing use rights in recent years, lies in certain evidence given by the respondent in the Environment Court. Mrs Clark, who gave evidence for the respondent, indicated that if the respondent's application was not ultimately granted and no other similar opportunities emerged, then the respondent would simply:

... hold onto the property and will have to continue to [farm] it as we have in the past. Ultimately, it will become necessary to increase the intensity of farming so as to ensure the property remains financially viable, which will involve clawing back much of the regenerating scrub and gorse. As the property is zoned for rural activities we would continue to stock the property with cattle, goats and sheep and maintain existing pasture and track areas on the property to facilitate that farming use.

[77] The Environment Court noted that in the absence of existing use rights, the respondent would be subject to significant limitations in respect of the scale of permitted farming activities by reason of the restrictions imposed by plan change 55 and the proposed plan. Those restrictions include limitations on clearance (including by grazing) of native vegetation. Indeed, the Environment Court found that intensive grazing would not be permitted as of right at all on the greater part of the subject site.

[78] Paragraph [56] of the Environment Court's decision reads as follows:

The respondent appeared to contend that the Clark's existing use rights are limited to the current low levels of grazing. However, the comparison that is called for under s 10 is with the character, intensity, and scale of activities prior to notification of the proposed rule which would be contravened were it not for the existing use rights. The vegetation clearance controls had their genesis in the Transitional Plan which started life as a proposed plan in September 1988. Mrs Clark's evidence was that she and her husband had farmed the property for "more than 20 years", and in particular that "through the 1980s we ran 200 to 300 cattle on the property . . . we also had pigs on it from time to time". The other factor of importance is that there does not appear to be a legislative consequence for that. We find that the farming activities can be maintained at a character, intensity and scale more or less as described by Mrs Clark as pertaining in the 1980s.

[79] Mr Enright submits that the Environment Court fell into error in holding in para [56] that "there does not appear to be a legislative consequence for [the lessening of farming and grazing activities on the property]", and that as a matter of law farming activities can be maintained "at a character, intensity and scale more or less as described by Mrs Clark as pertaining in the 1980s".

[80] In essence, the appellant submits that the character, intensity and scale of existing use rights must be reconsidered on the occasion of any notification of a proposed rule which imposes further controls on such uses. In the instant case, it is submitted that the Environment Court was wrong simply to have regard to the rule in the transitional plan of 1988. As well, the appellant submits, the Environment Court ought to have had regard to the rules contained respectively in plan change 55 (notified in 1995), and the proposed plan (notified in 2000). On each of those occasions the character, intensity and scale of the respondent's existing uses ought to have been reassessed by the Environment Court, and if on any such reassessment the Court found there had been a diminution or lessening of the character, intensity and scale of those existing uses, then the respondent would thereafter be limited to existing use rights of the

[81] In other words, the Court must apply a sinking lid policy, with the result that existing use rights may decay over time by reason of a lessening of character, intensity and scale.

[82] The appellant submits that in consequence of the Environment Court's error in approach, it has impermissibly taken into account the possibility that the respondent could simply resume farming activities of the same character, intensity and scale as applied in 1988, if the current application was unsuccessful. The appellant argues that to the contrary, if unsuccessful, the respondent will be limited to activities conducted pursuant to existing use rights at the level prevailing at the time of notification of the proposed plan in 2000, not at 1988 levels. Existing use rights may decay, so the appellant submits – use it or lose it. The time for reassessment, or even for successive reassessments, will be the date of notification of a new or amended rule.

[83] If correct, the appellant's argument reveals a fundamental misunderstanding by the Environment Court of the nature and extent of existing use rights. It is therefore necessary to examine the statutory foundation upon which such rights exist.

[84] Existing use rights are creatures of statute. Sections 9 and 10 of the Act provide respectively (s 10 is reproduced as it stood prior to its most recent amendment on 10 August 2005):

9. Restrictions on use of land — (1) No person may use any land in a manner that contravenes a rule in a district plan or proposed district plan unless the activity is —

- (a) Expressly allowed by a resource consent granted by the territorial authority responsible for the plan; or
- (b) An existing use allowed by section 10 or section 10A.

(2) No person may contravene section 176 or section 178 or section 193 or section 194 (which relate to designations and heritage orders)] unless the prior written consent of the requiring authority concerned is obtained.

(3) No person may use any land in a manner that contravenes a rule in a regional plan or a proposed regional plan unless that activity is —

- (a) Expressly allowed by a resource consent granted by the regional council responsible for the plan; or
- (b) Allowed by section "20A" (certain existing lawful uses allowed).
- (4) In this section, the word "use" in relation to any land means —
- (a) Any use, erection, reconstruction, placement, alteration, extension, removal, or demolition of any structure or part of any structure in, on, under, or over the land; or
- (b) Any excavation, drilling, tunnelling, or other disturbance of the land; or
- (c) Any destruction of, damage to, or disturbance of, the habitats of plants or animals in, on, or under the land; or
- (d) Any deposit of any substance in, on, or under the land; or
- (da) Any entry on to, or passing across, the surface of water in any lake or river; or
- (e) Any other use of land —
- and "may use" has a corresponding meaning.

(5) In subsection (1), "land" includes the surface of water in any lake or river.

(6) Subsection (3) does not apply to the bed of any lake or river.

(7) This section does not apply to any use of the coastal marine area.

(8) The application of this section to overflying by aircraft shall be limited to any noise emission controls that may be prescribed by a territorial authority in relation to the use of airports.

10. Certain existing uses in relation to land protected — (1) Land may be used in a manner that contravenes a rule in a district plan or proposed district plan if —

- (a) Either
 - (i) The use was lawfully established before the rule became operative or the proposed plan was notified; and
 - (ii) The effects of the use are the same or similar in character, intensity, and scale to those which existed before the rule became operative or the proposed plan was notified:
- (b) Or --
 - (i) The use was lawfully established by way of a designation; and
 - (ii) The effects of the use are the same or similar in character, intensity, and scale to those which existed before the designation was removed.

(2) Subject to sections 357 and 358, this section does not apply when a use of land that contravenes a rule in a district plan or a proposed district plan has been discontinued for a continuous period of more than 12 months after the rule in the plan became operative or the proposed plan was notified unless

- (a) An application has been made to the territorial authority within 2 years of the activity first being discontinued; and
- (b) The territorial authority has granted an extension upon being satisfied that
 - (i) The effect of the extension will not be contrary to the objectives and policies of the district plan; and
 - (ii) The applicant has obtained approval from every person who may be adversely affected by the granting of the extension, unless in the authority's opinion it is unreasonable in all the circumstances to require the obtaining of every such approval.

(3) This section does not apply if reconstruction or alteration of, or extension to, any building to which this section applies increases the degree to which the building fails to comply with any rule in a district plan or proposed district plan.

(4) For the avoidance of doubt, this section does not apply to any use of land that is —

- (a) Controlled under section 30(1)(c) (regional control of certain land uses); or
- (b) Restricted under section 12 (coastal marine area); or
- (c) Restricted under section 13 (certain river and lake bed controls).

(5) Nothing in this section limits section 20A (certain existing lawful activities allowed).

(6) In this section, "use of land" has the same meaning as in section 9(4)(a) to (e) (except (da)) and land may be used has a corresponding meaning.

[85] As will be observed s 9 prohibits any person from using any land in a manner which contravenes a rule in a district plan or proposed district plan, unless the activity is expressly allowed by a resource or is "... an existing use allowed by section 10 or section 10A". The effect of s 10 is to permit existing uses of land to continue in the circumstances prescribed in the section, notwithstanding that the use would otherwise contravene a rule in the district plan or proposed district plan.

[86] The policy underlying s 10 is plain enough. It would simply be unfair to require an existing use of land to come to an end or be subject to control where activities have been undertaken and money invested in the legitimate belief that there were no relevant controls at the time. So uses lawfully undertaken before restrictions are notified are, in certain circumstances, not caught by a newly notified rule. But the exemption is not absolute. It will apply only where the effects of the use carried on subsequent to notification of the relevant rule "... are the same or similar in character, intensity, and scale to those which existed before the rule became operative or the proposed plan was notified": s 10(1)(a)(ii).

[87] The appellant's submission is that the words "same" or "similar" are sufficiently broad to catch both a diminution in intensity and scale, as well as an expansion. Accordingly, a reduction in intensity and scale may lead to permanent partial loss of existing use rights.

[88] Mr Enright provided two hypothetical examples. One assumed that farming activities which involved both vegetation clearance and grazing were later diminished by a cessation of vegetation clearance activities. He said that s 10 would thereafter assist in protecting only the grazing uses. A further hypothetical example involved the subdivision of land on which a particular use supported by existing use rights took place. He submitted that the existing use right would be lost in respect of the land subdivided off.

[89] Mr Enright may well be right in respect of the examples cited, but it seems to me that the provisions of s 10(2) would apply to those examples. They do not assist in the analysis necessary to determine the issue posed on this appeal.

The appellant's argument on this issue is not immediately [90] attractive. In a different case it might result in a significant loss of existing use rights where there had been a temporary reduction only, or indeed a complete but temporary cessation of the relevant activity, without any intention of permanent abandonment, simply because a new and more restrictive rule was notified during the period of reduction or cessation. In the present case, for example, notification of such a rule would require, on the appellant's argument, a reassessment of the character, intensity and scale of the respondent's farming activities on the day before notification of the rule. If for a limited period the respondent had ceased to carry any stock on its property, and had temporarily ceased its vegetation clearance activities, then on the appellant's argument, the respondent's existing use rights would be lost altogether, simply because the temporary cessation of farming activities happened to coincide with notification of the rule change.

[91] The appellant's argument appears to sit somewhat uncomfortably with s 10(2) which provides that existing use rights will be lost if the use has been discontinued for a continuous period of more than 12 months. If the appellant's argument is right, then the moratorium which s 10(2) provides, will be overridden by s 10(1) whenever a new rule is notified. Purely as a matter of legislative drafting, that outcome appears not to have been the intention of the legislature.

[92] The recognition of existing use rights under s 10 is intended to protect against the unfairness that would otherwise arise, if a lawfully established use were to be detrimentally affected by a plan change. The requirement under s 10(1)(a)(ii) that the effects of the use must be the same or similar in character, intensity, and scale to those which existed before the rule became operative, is clearly intended to restrict the negative impact of contravening activities on the environment by prohibiting an increase in the scale or intensity of activities undertaken on the site pursuant to existing use rights: see *Papatoetoe City v Wedding* (1983) 9 NZTPA 430.

[93] But the loss of existing use rights in the manner for which the appellant contends would result in the random deprivation of established rights. Clear legislative intention would be needed to justify that outcome. I do not glean that intention from ss 9 and 10. Indeed, the pattern of the legislation is to the contrary.

[94] I am fortified in that conclusion by the judgment of Randerson J in the *Springs Promotion* case. In the course of that judgment His Honour conducts a useful analysis of the nature of existing use rights. In that case Randerson J heard an appeal from an interim enforcement order made in the Environment Court. The second of the three questions of law which the Court was asked to resolve raised a similar issue to that under consideration here. It was framed as follows:

Can existing use rights be relinquished other than by discontinuance in terms of s 10(2) of the Act?

[95] The facts of that case were quite different from the present proceeding. *Springs Promotion* involved allegations by residents living near Western Springs that the promoters of speedway activities at Western Springs were conducting meetings involving noise levels above those lawfully permitted. The promoters claimed that the noise levels attained were lawful by reason of existing use rights, to which they were entitled. Among the responses to that was the argument that such existing use rights (if established) had been relinquished or waived by the promoters and their predecessors and it was no longer possible in law for the existing use rights to be relied upon.

[96] The issues in that case were similar to those arising here, in the sense that in both cases there was a claim that existing use rights have been lost in whole or in part. As was pointed out by Randerson J, an entitlement to rely upon existing use rights arises under s 10, only where two essential conditions are established. They are:

(a) That the relevant land use must have been lawfully established before the relevant law became operative or the proposed plan was notified; (b) The effects of the use must be the same or similar in character, intensity and scale to those which existed before the law became operative or the proposed plan was notified.

[97] As Randerson J holds at para [42], s 10 reflects a statutory policy that the effects of existing uses may not be expanded beyond a level which is the same or similar in character, intensity and scale to those existing before the relevant date.

[98] In my view the relevant date will be the date of notification of the first plan containing a rule with which the existing use would be in contravention. In *Russell v Manukau City Council* [1996] NZRMA 35 at p 41, Elias J (as she then was) said:

The Planning Tribunal took as its starting point the scale and character of the use established in 1972 and protected by s 38A and the existing use provisions of the 1953 and 1977 Acts. That approach seems to me to be entirely correct. The starting point must be the scale, character and intensity of the use at the time it was first lawfully established. After that some reasonable evolution is permitted by the legislation. But the standard against which the relativity permitted by the use of the words "similar", "character", "scale" and "intensity" is to be assessed, is the use established before the changes of controls made it non-conforming. In the scheme of the legislation, that standard will be replaced according to the activity being undertaken lawfully immediately before review of the district scheme (under the old legislation) or publication of a proposed plan (under the new Act). Some development of the use may occur in this manner.

[99] Elias J was dealing with a case in which there had been an increase in the scale and intensity of the relevant use, and so she was not directly concerned with a diminution of scale and intensity such as has occurred here. Nevertheless, she is in my view right to hold that:

... the standard against which the relativity permitted by the use of the words "similar", "character", "scale" and 'intensity' is to be assessed, is the use established before the changes of controls made it non-conforming.

[100] Nothing in the passage from the judgment reproduced above supports the appellant's argument. The circumstances in which existing use rights may be lost as the result of a diminution in character, intensity or scale was not a matter which the Judge was required to address in that case.

[101] I am in agreement with Randerson J at para [63] of the *Springs Promotion* case when he holds that it is clear that ss 9, 10, 10A and 20 of the Act were intended to constitute a code to address the issue of existing use rights. Parliament intended ss 9 and 10 in particular to comprise a comprehensive code dealing with the circumstances in which existing use rights may be established, and those in which such rights may be lost. [102] Existing use rights may be lost where either:

(a) The use has been discontinued for the period prescribed by s 10(2), or

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(b) Changes in the character, intensity and scale of the effects of the use take the case outside the parameters prescribed by s 10(1)(a)(ii).

[103] For the reasons discussed above I do not believe there is any warrant for construing that subsection as applicable to a case such as this where the effects of the use are reduced rather than increased. To uphold the appellant's argument would be to ignore the plain policy of the legislature in making statutory provision for existing use rights. It would be contrary to the scheme of s 10 and give rise to random outcomes governed largely by chance.

[104] In the result I conclude that the approach of the Environment Court in para [56] of its interim decision was correct, when it held that the reduction in intensity and scale of farming activities on the subject site carried no legislative consequence.

[105] That is not to say, however, that a reduction (as distinct from the complete cessation) in the character, intensity and/or scale of the respondent's farming activities can never as a matter of law result in the loss of existing use rights. If the change is such as to bring the use at any given time within the range of permitted uses, then ipso facto, the respondent will at that time simply be carrying on a permitted use rather than utilising its existing use rights. If that situation continues throughout the period prescribed by s 10(2) then the existing use rights would be lost.

Summary

[106] Section 104(2) modifies the so-called common law test by providing for a discretion where none formerly existed, and by limiting the permitted baseline to the effects of activities permitted under the plan. An assessment of the permitted baseline will not of itself include the effect of activities conducted pursuant to existing use rights, rather the effects of such activities are taken into account as part of the assessment of the receiving environment which it is necessary to conduct in terms of s 104(1)(a).

[107] The Environment Court, having concluded that s 104(2) applied to the application for land use consent, failed thereafter to consider that subsection in its analysis of the permitted baseline. Rather, it appears to have had regard to the common law test as articulated in, for example, *Arrigato* in concluding that it was appropriate to include activities carried on pursuant to existing use rights in its assessment of the permitted baseline. In that respect there was a material error which would ordinarily justify an order remitting the appeal back to the Environment Court for reconsideration. However, such an order appears unnecessary in this particular case because the appeal before the Environment Court remains extant and is to be resumed when further procedural steps have been taken and further information obtained. Leave is however reserved to either party to file memoranda dealing with the precise form of relief if formal orders are believed to be appropriate.

[108] The appeal has not established material error on the part of the Environment Court in respect of the following issues:

- (a) The manner in which the Court discussed the three district planning instruments;
- (b) The Court's analysis of the positive effects of the cessation of activities that may be conducted as of right;
- (c) The absence of analysis of the range of permitted activities that could take place on neighbouring sites;
- (d) The Court's consideration of the provisions of plan change 55 relating to the scale of earthworks and bush removal allowed for as a permitted activity; and
- (e) The Court's analysis of existing use rights under s 10 of the Act, and in particular in its finding that there is no "legislative consequence" where there is a significant reduction in the intensity and scale of an existing use over a period during which there were two relevant changes to rules contained in the appellant's planning instruments.

Costs

[109] The appellant has succeeded on some grounds but not on others. Costs are reserved. Counsel may file memoranda if they cannot agree.

Shirley Primary School v Telecom Mobile Communications Ltd

Environment Court Christchurch C 136/98 14 December 1998 Environment Judge Jackson (presiding), Mrs R Grigg and Ms N Burley

Resource consent — Application for consent to establish, operate and maintain cellular radio base station — Site for proposed cellsite immediately adjacent to primary school — Whether cellsite would cause adverse health effects — Application of precautionary principle to consideration whether to grant consent

Evidence — Application for resource consent for mobile phone transmitter — Burden of proof — Standard of proof — Formal standard of proof rejected in favour of persuasive burden on applicant — Assessment of reliability of scientific evidence — Factors to be considered

Evidence — Relevance — Whether subjective psychological fears of members of the community regarding technology used in transmission of radio frequency radiation could be considered — Fears not reasonably based on real risk

Expert evidence — Reliability — Admissibility — Assessment of expert witnesses' evidence — Survey evidence — Reliability more important to weight than admissibility

The applicant ("Telecom") applied to the Christchurch City Council ("the Council") for a resource consent to establish, operate and maintain a cellular radio base station ("cellsite") on a site immediately adjacent to Shirley Primary School ("the school"). The school objected to the application by Telecom. Following a hearing, the Council granted the consent subject to conditions, including a condition limiting the total power flux density of radio frequency radiation ("RFR") emitted from the cellsite. The school appealed against the Council's decision requesting that consent be refused. The hearing of the appeal was adjourned to allow the parties to investigate alternative sites and carry on further discussions. With the leave of the Court, Telecom then lodged a cross-appeal against the condition relating to power flux emissions from the cellsite. The most important issues in the case related to the alleged adverse health effects of operating the cellsite. The four main adverse effects alleged were: the risk of adverse health effects from the RFR emitted from the cellsite; the school's perception of the risks and related psychological adverse effects on the pupils and teachers; adverse visual effects (view of mast and antennae); and reduced financial viability of the school if pupils were withdrawn as a consequence of a resource consent being confirmed.

Held (allowing cross-appeal):

(1) A fundamental aspect of the case was how far Telecom had to go to prove RFR from cellsites was safe. A no risk approach was (logically) impossible. In addition, the Resource Management Act was not a "no risk" statute and therefore it was not the role of the Court to ensure that the cellsite could operate with absolute safety. It did not follow that because the Court could not be sure that there was no risk from RFR from the cellsites, therefore there was a risk and children should not be exposed to it. The risk may have been so very small that it was acceptable, compared with other risks parents exposed their children to daily, and that is what the Court was required to assess. It had to be borne in mind that no party alleging an effect relevant to the Act had to prove causation on the balance of probabilities as in a civil trial.

(2) The purpose and scheme of the Act had implications for the burden and standard of proof and for the assessment of evidence generally. The purpose of the Act — sustainable management — and Part II generally entailed that the Act was forward-looking. It was preventive, precautionary and proactive. The purpose of the Act meant that in every appeal about the grant of a resource consent there was only one ultimate question to be answered, that was: will the purpose of the Act be fulfilled? It was important to recognise that when deciding whether natural and physical resources would be sustainably managed, decision-makers under the Act were usually making decisions about future events. Whether a risk existed was a matter of judgement. The distinction between evaluation and fact finding was of crucial importance under the Act. Almost every case under the Act was concerned about the evaluation of many risks and thus issues as to the standard of proof were even more misconceived in that context. There was no one standard of proof under the Act. The Court had simply to evaluate all of the matters to be taken into account under s 104 on the evidence before it in a rational way, based on the evidence and its experience. The ultimate issue under s 105(1) was a question of evaluation to which the concept of a standard of proof did not apply.

(3) The effect of s 3, especially s 3(f), was that the Court was required to evaluate beyond the balance of probabilities (ie, 50-50) where the risk (even if low) was of high potential impact. Thus how the Court should assess the probability of an event with high impact was affected not only by the objective risk of the impact occurring but also by a necessarily less objective assessment of the nature of the impact (eg, is human health or life at risk?) in the context of all the relevant factors. To fall within s 3(f)as a potential effect of low probability and high potential impact an effect had to be more than simply an hypothesis: there had to be some evidence supporting the hypothesis. (4) In a basic way there was always a persuasive burden resting on an applicant for a resource consent because it was a fundamental requirement of any judicial system that the person who desired the Court to take action had to prove his or her case. There was also a swinging evidential burden in that as the evidence of varying weight developed, the eventual burden of proof would, in accordance with ordinary principles of evidence, remain with or shift to the person who would fail without further evidence. But there were statutory reasons why there was also a legal burden on an applicant for a resource consent. Since the ultimate issue in each case was always whether granting the resource consent would meet the single purpose of sustainable management, even if the Court heard no evidence from anyone other than the applicant it would still be entitled to decline consent. The weight of the burden depended on what aspects of Part II of the Act applied.

(5) Providing a survey produced to the Environment Court was undertaken objectively, usually by a professional agency, and was scientifically based, it would ordinarily be considered a reliable and admissible basis upon which expert evidence could be called.

(6) There was no rigorous reliability threshold under the Resource Management Act. There were only very low thresholds such as the requirement for experts to qualify themselves as such; for evidence to be relevant; and not to be so witless or lengthy as to be vexatious. While the Court retained a discretion to receive (or refuse) anything in evidence that it considered appropriate (or inappropriate) any refusal was only exercised judicially and with extreme caution. If the evidence was relevant then it was usually heard even if unreliable, provided it related to something higher than a "low impact" effect. The issue as to reliability was, under the Act, much more likely to go to the weight to be given to the evidence than to admissibility. In assessing expert evidence the Court had to take into account the following factors: the strength of the qualifications and the duration and quality of the experience of each witness; the reasons for opinions (and their consistency, coherence witness' and each presentation); the objectivity and independence of each witness and the comprehensiveness of their evidence; there was an identification and general acceptance of the science and methodology involved; and, especially for "hard" science, the research or papers referred to by the witnesses in reaching their opinions, with respect to whether the techniques used were reliable, the error rates known and published, the research or papers had been published and subject to peer review, and the research was repeatable (and had been replicated). Not all of those aspects needed to be met — they were criteria for measuring the weight to be given to specific evidence when making findings.

(7) The risk of children or teachers at the school incurring leukaemia or other cancer from RFR emitted from the cellsite was extremely low. There was very tenuous epidemiological evidence of some possible adverse health effects (effects on learning and sleep). On the Court's reasonable subjective assessment of the evidence presented those effects were of very low probability, but the effects may have been of relatively high potential impact. Therefore, there were adverse effects within the meaning of s 3(f) but only in a very weak sense.

(8) If a Council or the Court found that there was an unacceptable risk of adverse physical health effects then it would be likely to refuse consent anyway. If the risk was acceptable then the fears of certain members of the community or even of sufficient people to be regarded as a "community" would have been unlikely to persuade the Council or at least the Court that consent should have been refused, because the individual's or the community's stance would have been unreasonable (but not irrational). Thus, whether fear was an effect which should have been given any weight depended on the assessment of the risk. Here the risk was extremely low. Therefore the psychological effects were unreasonable.

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(9) In relation to the alleged effects, minimal weight was attached to the survey evidence as to social and financial effects. As to visual effects, the tower would not be an undue imposition on the view from the school grounds. There was no visual conflict with surrounding development. Finally, there would be some beneficial effects from the presence of the cellsite (eg, improved mobile phone coverage on the Telecom network). The cellsite was consistent with the relevant planning instruments.

(10) The Resource Management Act was precautionary and thus justified a precautionary approach. Such an approach was inherent in the Act — in particular in s 3(f). The precautionary principle was a subset of the precautionary approach and derived from the Rio Declaration. Reference to principles or policies outside the Act which could already be found inside it were simply confusing. Application of the precautionary principle to the decision under s 105(1) would lead to double-counting of the need for caution.

(11) Balancing all relevant factors, and placing a very heavy weighting under s5(2) of the Act on the need to protect the school community from harmful health effects, the risks to the school community were very low and were acceptable, and accordingly the proposed cellsite would be allowed as achieving the purpose of the Act.

(12) As to the appropriateness of the condition as to power flux emissions from the cellsite, there was no reasonable defect in the relevant New Zealand standard, except perhaps that it was too low at cellsite frequencies. The Council had previously adopted a policy of not imposing this type of limitation, and there was sense in consistency across consents. Imposing a limit undermined the credibility of the applicable standards. Imposing the lower limit suggested that exposures at higher levels did cause adverse health effects. Any such limit was arbitrary, and therefore served no purpose. Finally, this case might have some precedent value, so the standards should not be undermined for no good reason. Weighing those factors, the condition was inappropriate and was deleted.

Cases referred to in judgment:

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AFL-CIO v American Petroleum Institute (1980) 448 US 607 Aquamarine Ltd v Southland Regional Council (Environment Court, C 126/97, 15 December 1997)

Auckland Regional Authority v Mutual Rental Cars (1987) 2 TCLR 141 Baker Boys Ltd v Christchurch City Council [1998] NZRMA 433 Caltex NZ Ltd v Auckland City Council 3 ELRNZ 297 Clyma v Otago Regional Council (Planning Tribunal, W 64/96, 17 June 1996)

Commerce Commission v Griffins Foods Ltd [1997] DCR 799

Commissioner of Police v Ombudsman [1988] 1 NZLR 385

Daubert v Merrell Dow Pharmaceuticals Inc (1993) 509 US 579

Department of Corrections v Dunedin City Council (Environment Court, C 131/97, 22 December 1997)

Dumbar v Gore District Council (Planning Tribunal, W 189/96, 6 December 1996)

Duncan v Thames Coromandel District Council (1980) 7 NZTPA 233

Environmental Defence Society v Manganui County Council [1989] 13 NZTPA 197

Ethyl Corporation v Environment Protection Agency (1976) S.41 F 2d 1 Fernandez v Government of Singapore [1971] 2 All ER 691 (PC)

Forsythe v Rawlinson [1981] RVR 97

General Electric Company v Joiner 118 S.Ct 512

Greenpeace Australia v Redbank Power Company (1994) 86 LGERA 143 Imperial Group Plc v Philip Morris Ltd [1984] RPC 293

Leatch v National Parks and Wildlife Service and Shoalhaven City Council (1993) 81 LGERA 270

Liquigas v Manukau City Council (1983) 9 NZTPA 193

Manos v Waitakere City Council (1993) 2 NZRMA 226

McIntyre v Christchurch City Council [1996] NZRMA 289

Meadow Mushrooms Ltd v Paparua County Council (1977) 6 NZTPA 327 Moore v Ashland Chemical Inc No. 95-20492 (14 Aug 1998)

North Shore City Council v Auckland Regional Council (1996) 2 ELRNZ 297

North Shore City Council v Auckland Regional Council [1997] NZRMA 59

Reserve Mining Co v Environment Protection Agency (1975) 514 F.2d 492 Stark v Auckland Regional Council [1994] NZRMA 126

- Telecom v Christchurch City Council (Planning Tribunal, W165/96, 15 November 1996)
- Trans Power NZ v Rodney District Council (Planning Tribunal, A85/94, 14 November 1994)

Trio Holdings v Marlborough District Council 2 ELRNZ 353

- TV3 Network Services Limited v Waikato District Council [1997] NZRMA 539
- Waitakere City Council v Broadcast Communications Ltd and Others (Planning Tribunal, A116/91, 8 November 1991)
- West Coast Regional Abattoir v Westland County Council (1983) 9 NZTPA 289

World Services New Zealand Ltd v Wellington City Council 1B ELRNZ 32

Resource Management Act 1991

This is an appeal under s 120 of the Act.

- Messrs A Hearn QC and K G Reid for the Shirley Primary School Messrs T C Gould and J Hassan for Telecom Mobile Communications Ltd
- Messrs A C Hughes-Johnson and A Prebble for Christchurch City Council

JUDGE J R JACKSON.

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DECISION

Chapter 1: Introduction

- (1) On 17 October 1995, Telecom Mobile Communications Ltd (since amalgamated into Telecom New Zealand Ltd and in this decision called ("Telecom") applied to the Christchurch City Council ("the Council") for a resource consent under the Resource Management Act 1991 ("the Act" or "the RMA") to establish, operate and maintain a cellular radio base station ("the cellsite") on land at 9 Shirley Road, Christchurch to the rear of Shirley Masonic Lodge. The legal description of the land ("the site") is Part Lot 14 DP 1069.¹
- (2) The site is located near the intersection of Shirley and Hills Roads north of central Christchurch. It is half surrounded by commercial or light industrial premises consistent with the Commercial Service zone in the Council's transitional district plan. The northern and eastern boundaries of the site are shared with the Shirley Primary School ("the school"). The cellsite itself is some 14 metres from the school grounds at the closest point. The nearest classroom is about 45 [metres] to the east of the cellsite. The school currently teaches about 270 children aged between 5 and 10 years.
- (3) Submissions against the proposal were lodged by, amongst other parties, the Shirley Primary School Trustees (called "SPS"). Following a hearing in March 1996, the Council granted a resource consent to Telecom on 12 April 1996, subject to conditions.
- (4) SPS appealed against that decision requesting that consent be refused. In November 1996 the parties jointly asked the Court to defer the hearing of the appeal for six months to allow time to investigate alternative sites and to carry on further discussions. On 12 June 1997 and with the consent of the Court, Telecom lodged its own appeal against condition 4 of the resource consent imposing a limit on the power flux density emitted by the cellsite.
- 1 CT 503/127 Canterbury Land Registry.

- (5) The reasons for Telecom seeking to establish the cellsite on the site are:
 - to improve the distance coverage for handheld phones in the Shirley/Richmond area;
 - to add capacity to a broader Christchurch network to cope with increasing customer demand; and
 - to reduce interference from the network.
- (6) The most visible feature of Telecom's proposal is a 20 metre mast with six antennae at the mast head. There are three sets of two antennae pointing at orientations of 90°, 210° and 330° to the north. The mast height of 20 metres is required to enable the antennae to "see" over objects in the immediate vicinity and to provide the required coverage. Each of the antennae will transmit low level radio frequency ("RF") waves between frequencies of 870 megahertz ("MHz") and 890 MHz with a wavelength of around 34 centimetres. The mast was (prior to this hearing) redesigned to make it thinner and therefore less visible.
- (7) It needs to be borne in mind that RF radiation is just one form of the electro-magnetic radiation ("EMR") which pervades the universe. For example, the earth is bombarded with EMR in the form of gamma rays from the sun (with much less from other stars) all the time. There are other sources of EMR such as x-ray tubes, lights, lasers, radar, microwave ovens, cellphones and transmitters, radio and television tubes and power supplies. A diagram showing the EMR spectrum as we understand it, is shown as Figure 1.²
- (8) The terms used in this decision are, in alphabetical order:

EMF	. ==	Electric, magnetic and electro-magnetic fields
GHz		Gigaherz
Hertz (Hz)	=	Measurement of EMR in cycles per second
MHz		Megahertz (1 MHz = 106 Hz)
mW		Milliwatt (1 mW = 10 μ w)
RFR	=	Radio Frequency Radiation part of the EMR spectrum, below non-ionising frequencies
μW/cm²	=	Microwatts per square centimetre. Loosely, the unit for measuring exposure to RFR, or strictly what is defined as "the power flux density"

- (9) It was common ground that the application for the cellsite was for a non-complying activity under the transitional district plan. Although we did hear evidence and argument about whether the proposal was contrary to the relevant district plans, the most important issues in the case related to the alleged adverse effects of operating the cellsite. The four main adverse effects alleged were:
- 2 Page 73 of this decision.



- the risk of adverse health effects from the RFR emitted from the cellsite;
- the SPS' perception of the risks and related psychological adverse effects on the pupils and teachers;
- adverse visual effects (views of mast and antennae); and
- reduced financial viability of the school if pupils are withdrawn as a consequence of a resource consent being confirmed.
- (10) The evidence ranged from individual statements of fear to "hard" science. The expert evidence itself ranged from the opinions of resource managers and landscape architects to the social science of psychology, to clinical science from physicians and epidemiologists and finally to bio-mechanistic studies.
- (11) We should explain that the hard end of scientific research into the issue of RFR occurs at two general levels, although each one in itself can then be subdivided further. The first general level is

Environment Court

epidemiological studies³. The second level is a study of biological mechanisms. The levels are generally hierarchical (biological mechanisms above epidemiology) in that they are perceived as having increasing power in terms of establishing cause and effect.

- (12) Epidemiology consists at its lowest level of case studies, descriptive studies and professional experience. At a slightly higher level it consists of comparative studies including ecological studies. Higher again are cohort or case control studies and finally at the highest are randomised trials studies). The prime difficulty with (experimental epidemiological studies is that while one such study can show an association between facts, for example between RFR and cancer, it cannot show why or how two facts are causally linked. Epidemiological studies then give way in the perceived hierarchy to the second general level which is of biological or mechanistic studies. These in turn divide into, at a lower level in-vitro studies⁴ and, at the highest level in-vivo studies.⁵
- scientific position is that initial (13) Complicating the experimentation on biological mechanisms is usually on other animal cells (ie not human) — at first in vitro and later in vivo. This raises other questions: for example, can one extrapolate from a study of Chinese Hamster ovary (CHO) cells to human cells? Or from Chinese Hamsters to humans?
- (14) The above paragraphs summarise the issues as most of the evidence and the submissions of counsel identified them. But it does not state the main issue for the school and its concerned parents — which was how could they be sure there was no risk to their children from the cellsite. We will return to that issue later.
- (15) Our decision is set out in the following way. First we summarise the cases for the three parties in Chapters 2-4, noting that the only issue⁶ as between Telecom and the Council is whether the resource consent (if granted) should be subject to the Council's condition. Then because this case raises difficult evidential issues — for example, as to who (if anyone) has the onus of proving that there is no, or little, risk from exposure to RFR at athermal levels — we deal with those issues in Chapter 5. The RMA lists⁷ the matters that need to be taken into account in deciding whether a resource consent should be granted. The relevant parts of the list are identified in Chapters 6-9. We turn to the exercise of our discretion⁸ as to whether a resource consent should be granted in Chapter 10, and we deal with

the study of diseases in human populations. 3

Literally "in glass" meaning test-tube or petri dish studies. Literally "in life" meaning studies of live animals. 4

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The sole subject of Telecom's appeal RMA 429/97. 6

⁷ In s 104(1).

Under s 105(1). 8

Telecom's appeal against condition 4 in Chapter 11. Finally Chapter 12 sets out our final orders determining the appeals.

Chapter 2: The Case for Telecom

- (16) Counsel for Telecom said that two broad issues fall for consideration, these being:
 - (1) whether the Council's decision to grant consent should be confirmed;
 - (2) what conditions should be included in the consent (if granted) and, in particular, what conditions should govern RF emitted from the facility. (This is dealt with in Chapter 11: "Telecom's Appeal against Condition 4").

Adverse effects

(17) Mr Gould, counsel for Telecom, covered each of the adverse effects alleged by the school in turn. Counsel pointed out that in a number of cases dating back to 1991 the Tribunal has ruled that there are no health effects, actual or potential posed by RF emissions from a cellsite. 9 Counsel claimed that nothing has changed since McIntyre and there is no evidence, consistent with accepted scientific opinion, of actual or potential health effects from RF emissions at the levels that will be experienced from the proposed cellsite. The second part of that submission goes to the heart of the case and we return to it later. But the first part of the submission is wrong: there have been two important changes since McIntyre. The first is that three more years have passed and more relevant scientific papers have been published. The second point relates to one of those papers: that by Dr M H Repacholi published in 1997.¹⁰ Dr Repacholi was one of the key witnesses for BellSouth in McIntyre. The Tribunal (as it was) stated:

> The opinion that harmful effects of radio frequency radiation have been established only where accompanied by heat was expressed by Dr M H Repacholi . . .¹¹

and

[Dr Repacholi] gave the opinion that multiple exposures to sub-threshold levels of radio frequency [radiation] have not been found to have any adverse health impact; that exposure to radio frequency fields has not been established to cause cancer; that there is no scientific evidence to suggest that at the level which

⁹ See Waitakere City Council v Broadcast Communications Ltd (Planning Tribunal, A 116/91, 8 November 1991); World Services New Zealand Ltd v Wellington City Council (Planning Tribunal, W 90/93, 21 October 1993), 1B ELRNZ 32; McIntyre v Christchurch City Council [1996] NZRMA 289; Telecom v Christchurch City Council (Planning Tribunal, W 165/96, 15 November 1996).

¹⁰ M H Repacholi et al Lymphomas in Eu-Pim 1 Transgenic Mice Exposed to Pulsed 900 MHz Electromagnetic Fields, Radiation Research 147, p 631-640 ("Repacholi 1997").

¹¹ McIntyre, p 308.

would be emitted from the proposed facility there would be any influence on cancer initiation, promotion, or progression \dots ¹²

Clearly the Tribunal relied on Dr Repacholi's evidence in its finding:

On the totality of the evidence, our finding is that there would not be an actual or potential effect . . . on the environment . . . from the [RFR] that would be emitted by the proposed transmitter.¹³

But Repacholi (1997) states:

I believe this is the first animal study showing a true non-thermal effect.

We can understand why the school might be concerned about the effects of RFR from cellphones after hearing of Dr Repacholi's change of mind.

- (18) As for the claimed psychological effects it was submitted that to the extent that evidence does show genuinely-held anxieties, this will need to be balanced against the facts that the school administration declined Dr Black's offer to speak to the Shirley school children following the council hearing and his offer to provide the school administration with scientific data on the issue. The school also refused access to enable actual RF measurements from a temporary cellsite to be taken at the school by an independent expert during the school holidays.
- (19) A further issue in respect of these anxieties was whether and to what extent the Court should take them into account. Mr Gould submitted that the key issue for determination of those anxieties is whether they are founded on plausible scientific evidence that the transmission of RF signals from the proposed cell site would pose a health risk. Counsel contended that there is no plausible scientific evidence of actual health risks and that the anxieties have been fed by misinformation and misconceptions. He suggested that this is not a basis for allowing the school's appeal; instead public confidence should be fostered and misconceptions addressed. Counsel was of the view that the RFR conditions included in the consent have an important function in this regard. He also submitted that in terms of the Act it is not appropriate to regard a perception or anxiety that an activity will pose a health risk as an adverse effect when there is no plausible scientific evidence that the supposed health risk is real.
- (20) As for the visual amenity issues Mr Gould contended that subjective value judgments about cellsites as an activity have no place in the assessment of visual amenity or amenity value aspects of the proposal. He also said that if claims of adverse psychological effects are rejected then these claims should not be allowed in the back door dressed up as visual amenity
- 12 McIntyre, p 309.

13 McIntyre, p 315.

issues.¹⁴ It was submitted that the visual effects of the proposal are minor and no landscape mitigation planting is required.

Plan and proposed plan issues

- (21) In respect of the transitional plan, counsel submitted that while the plan is silent on radio communication facilities making the proposal technically non-complying, the proposal satisfies all performance standards relevant in the zone, is compatible with commercial and industrial activities expressly contemplated in the zone and does not offend against any objectives and policies. He said that silence on this activity in the plan is understandable given the recent development of cellphones and the cellular network.
- (22) In the case of the proposed plan the activity is discretionary and satisfies all relevant performance standards, and complies with the relevant objectives and policies. It was submitted that the proposed plan accords no special sensitivity to the siting of cellsites near schools.

The search for a site

- (23) Telecom employees Messrs M J Moran and C E Jennings described the need for a cellsite in Shirley and its operation if installed. They also described a search for alternative sites in the area. In particular, after the appeal was lodged, Telecom, with the consent of the school, obtained an adjournment of the Environment Court hearing while a search for alternative sites could take place. In all over 27 sites were investigated by Telecom. Its basic principle was to avoid sites that were surrounded by residences because of the resistance of occupiers to having a cellphone tower near them.
- (24) In cross-examination by Mr Hearn, Mr Moran conceded that it would be possible (but more expensive) to service the area by a number of less powerful "micro units" and thus have no need to establish the cellsite next door to the school.

RFR from cellsites

- (25) Mr M D Gledhill a scientist at the National Radiation Laboratory of the Ministry of Health gave evidence as to the technical characteristics of the proposed cellsite. He gave the Court:
 - An estimate of exposure levels in areas to which the public might have access, including areas within the school grounds.
 - An assessment of whether exposures to RFR around the site would comply with the joint Australian/New Zealand Standard 2772.1 (Int.):1998 Radio Frequency Fields, Part 1; maximum exposure levels - 3 kHz to 300 GHz (called "the ANZ

14 Telecom Ltd v Christchurch City Council (Planning Tribunal, W 165/96, 15 November 1996).

Standard"). Under the ANZ Standard there is a non-occupational¹⁵ exposure limit of 200μ W/cm².

- (26) He described how transmissions from the antennae are moderately directional. Each transmitting antenna emits a fan-shaped beam with the plane of the fan oriented at an angle of 2° below the horizontal extending about 60° on either side of the main transmission axis.
- (27) Mr Gledhill stated that when the cellsite is operating at full power each transmitting antenna will operate at a maximum of 80 watts on its sector. By comparison radio telephone sets in trucks and taxis operate at a power of around 25 watts. TV and radio transmitters operate at continuous powers considerably higher than that. On the Sugarloaf radio mast in Christchurch the total transmitter power is 64,000 watts.
- (28) Exposures to RFR at any point around the transmitter are quantified as the "powerflux density". Mr Gledhill showed that very close to the mast RFR exposures are quite low. As you walk away from the mast along the direction of one of the beam axes, for example eastwards towards the school buildings exposure would increase to a maximum of about 1.4 μ W/cm² (that is 0.7 per cent of the non-occupational limit in the ANZ Standard) at a distance of 23 metres from the mast. Moving further away exposure decreases and then starts to increase again about 40 metres from the mast (at the closest school buildings as it happens) rising to another peak of 1.1 μ W/cm² at a distance of 80 metres from the mast. At greater distances than that the exposure steadily decreases in inverse proportion to the square of the distance from the mast.
- (29) Mr Gledhill also pointed out that there can be an effect of signal reflections so that if the reflector was perfect, such as a large flat metal sheet, the maximum power flux density can be four times that predicted. He then qualified that by stating:

The importance of reflections in affecting exposures to radio frequency radiation should not be overstated. Although levels may fluctuate markedly over relatively short distances, levels averaged over, say, a square area 30 centimetres by 30 centimetres would generally average out to be close to the level estimated from calculations. One difference between [the old standard . . .] and AS/NZ5 2772.1 (Int.): 1998 is that the latter expressly permits such averaging . . . in order to determine a power flux density which is more closely related to possible health effects than a simple point measurement . . .

(30) Mr Gledhill stated in his rebuttal evidence that at worst reflections in the vicinity of the adjacent Department of Social Welfare building might cause the power flux density in "isolated fist size spots" to reach 33μ W/cm². However that did not affect

15 As opposed to "occupational". The meanings seem to be self-evident, but for a more detailed explanation of the term "non-occupational" see *McIntyre v Christchurch City Council*, p 293.

NZRMA

his conclusion that if averaged in the way required by the ANZ Standard, maximum exposures in accessible areas around the site (for example the school grounds) would still only reach about 1.4μ W/cm² (0.7 per cent of the non-occupational exposure limit in the ANZ Standard).

Overview of health effects

- (31) Next for Telecom we heard from Dr D R Black who is a specialist physician in occupational and environmental medicine. Within his general field of expertise he has a specific interest in the biological effects of EMR, in particular non-ionising radiation. He is an independent consultant and is a Director of the New Zealand Institute of Occupational and Environmental Medicine, as well as a Senior Lecturer in Occupational Medicine in the Department of Medicine at Auckland University.
- (32) Dr Black stated that most RF standards, including those used in Australasia are based on those recommended by what is now called the International Commission for Non-ionising Radiation Protection ("ICNIRP").¹⁶ ICNIRP has recently published a new standard for the whole spectrum of non-ionising electromagnetic fields below 300 GHz. That standard was published¹⁷ during the course of the hearing and Dr Black produced a copy for us.
- (33) The ICNIRP standard is based on a specific absorption rate ("SAR")¹⁸ of 0.08 watts per kilogram at VHF and above. However, it also allows for higher power flux densities at 900 MHz¹⁹ which makes the current ANZ Standard conservative by comparison. The ICNIRP standard has changed because it is now understood that human absorption of RFR falls off above 400 MHz which means that higher power flux density would be required to produce an equivalent SAR.
- (34) Dr Black stated that both the ICNIRP and ANZ Standards use the demonstrable and repeatable thermal effects of RFR to determine a definable threshold, which is a rise in cool temperature of 1° centigrade in a live animal. The ANZ Standard is defined at a 1/50th of this threshold. That basic restriction provides for a factor much greater than is required to eliminate the possibility of any thermal effects. Further, because the ANZ Standard does not allow for the established fall and absorption of power at higher frequencies the ANZ Standard becomes almost 21/2 times lower than the internationally accepted and already conservative ICNIRP standard at cellphone frequencies.

16 This is the body that has replaced the International Radiation Protection Association ("IRPA") referred to in McIntyre.

17 Health Physics 88, vol 74, no 4, p 494 – called "the ICNIRP Guidelines".

18 The rate at which energy is absorbed in body tissues. It is a dosimetric measure that has been widely adopted for use at frequencies where absorption produces the most significant biological effects. It is measured in watts per kilogram.

19 It will be recalled that the proposed cellsite is to operate at 870-890MHz.

(35) Turning to the issue of adverse health effects from exposure to RFR Dr Black referred us to the ICNIRP Guidelines²⁰ which state:

The main objective for this publication is to establish guidelines for limiting EMF exposure that will provide protection against known adverse health effects.

He relied on these to show that the ANZ Standard and Telecom's proposal are consistent with the science generally accepted throughout the international scientific community.

- (36) Dr Black stated that he was familiar from his professional experience with the range of health concerns about RFR often raised by people. He said while he could understand why people are concerned about cancer from RFR there is really no cause for concern because non-ionising radiation (which is what RFR is) does not cause cancer. Ionising radiation can cause cancer as it has sufficiently high energy levels to emit particles (free radicals) which break organic chemical bonds causing mutagens which may initiate cancers.
- (37) In its efforts to show that any potential effects from RFR on human beings are very improbable Telecom called two further scientific witnesses who gave complex evidence of considerable length.

Epidemiological evidence

- (38) The epidemiologist called by Telecom was Dr J M Elwood. His primary appointment at present is as Professorial Research Fellow in cancer epidemiology within the Dunedin School of Medicine at the University of Otago. He has an impressive list of academic and professional qualifications. In addition to being an expert on aspects of cancer epidemiology he is also a specialist in the medical assessment of epidemiological evidence. He has published two books on that subject.²¹ Through reviewing published studies he assessed the association between exposure to RF emissions and:
 - cancers;
 - reproductive outcomes;
 - sleep disturbances; and
 - psychomotor deaths in children.
- (39) In relation to cancer he first referred to three "cluster" studies (where the number of cases of an uncommon disease are greater than average) but pointed out that these can have no causal implications since clusters occur by chance.²² At most he considered that a cluster study can raise an hypothesis worth checking.

²⁰ Health Physics 88, vol 74, no 4, p 494.

²¹ Elwood J M Causal Relationships in Medicine (1988) and Elwood J M Critical Appraisal of Epidemiological Studies in Clinical Trials.

²² A cluster is like throwing a dice three times and coming up with three sixes...

- (40) Then he considered four recent studies looking at the incidence of cancer in general populations exposed to television, radio and similar RF emissions. These were:
 - (a) a study at Sutton Coldfield in England [Dolk (1997a)];²³
 - (b) a study of 20 other transmitters in the UK [Dolk (1997b)];²⁴
 - (c) a study in north Sydney, NSW [Hocking (1996)];²⁵
 - (d) a study in San Francisco, USA [(Selvin (1992)].²⁶
- (41) The Sutton Coldfield study [Dolk (1997a)] showed (amongst other things) that for all childhood cancer there were less cancers than expected but there were more leukaemia cases than expected. Neither of those results was statistically significant, ie the results were compatible with no association between cancer (or the lack of it) and RF radiation.
- (42) Dr Elwood described the Dolk (1997b) study as "the most comprehensive such study we have" but concluded that its results were equivocal. He quoted the authors of it as stating:

If there were a true association with radio transmission, the lack of replication of the pattern and magnitude of excesses near Sutton Coldfield may indicate that a simple radial decline exposure model is not sufficient.

(43) Hocking 1996 gave equivocal results for adult leukaemia, negative results for brain cancer in adults and children, but a positive result for leukaemia in children. Dr Elwood saw this as "substantially different" from the result in Dolk 1997b. He also pointed out the authors' own comment:

confounding variables affecting individuals cannot be adjusted for.

and their conclusion:

more detailed studies . . . are required to replicate any association and to look for dose-response relationships before any conclusions can be drawn.²⁷

(44) The Selvin (1992) study was of childhood leukaemias in San Francisco and gave negative results. We observe that if positive studies are seen as evidence that RFR causes cancer, then such negative studies as described in Selvin (1992) can, by the same logic, be seen as showing that exposure to RFR is beneficial in preventing childhood leukaemia. In fact, neither is true. At most a positive study can show an association.

23 J Dolk (1997) Cancer Incidence near radio and television transmitters in Great Britain 1: Sutton Coldfield Transmitter Am J Epidemiol 145, p 1-9 [called Dolk (1997a)].

24 J Dolk (1997) Cancer incidence near radio and television transmitters in Great Britain 2: All high power transmitters AM J Epidemiol 145, p 10-19 [called Dolk (1997b)].

25 B Hocking (1996) Cancer Incidence and mortality and proximity to TV Towers Med J Aust 165, p 601) [called Hocking (1996)].

26 S Selvin (1997) Distance and Risk Measures for the Analysis of Spatial Data: A Study of Childhood Cancers Soc Sci Med 34, 769) [called Selvin (1992)].

27 Hocking (1997), 604 and 605.

- (45) Dr Elwood's conclusions were that the epidemiological evidence does not support a reasonable conclusion that exposure to RFR is a likely cause of human cancer. He considered that the evidence was weak because it is inconsistent; the design of the various studies is not strong; there is a lack of detail in the studies on actual exposures; the studies are limited in their ability to deal with other likely relevant factors; and in some studies there may be biases in the data used.
- (46) Similarly, he considered that in relation to reproductive outcomes there is no increased risk of either spontaneous abortions or congenital malformations in association with the use of RF emitting equipment. As for sleep disturbances he considered that a study at Schwartzenburg in Switzerland ("the Schwartzenburg study"),²⁸ was important and indicated the need for other studies of this nature, but did not demonstrate a causal link between radio frequency and sleep disorders. In relation to the evidence based on the study of the Skrunda station air defence radar transmitter in Latvia (called "the Skrunda Study"),²⁹ he concluded that the limited data made it impossible to conclude that the differences were due to any effect of RF emissions rather than other reasons.
- (47) Dr Elwood then assessed the link between other possible causes and childhood leukaemia. He referred to a recently published study³⁰ of 22,458 children who had died of leukaemia or other types of cancer in England, Wales and Scotland between 1953 and 1980. The result showed relative excesses of leukaemias and other cancers close to five different types of industrial sites which could be considered as having a potential environmental hazard. These sites were:
 - oil refineries and oil storage facilities;
 - factories making or repairing motor cars or car bodies;
 - industrial processes using petroleum products, solvents, paints, plastics and so on;
 - users of kilns and furnaces, such as steel works, power stations, cement makers, brick works, crematoria, and foundries;
 - airfields, railways, motorways and harbours.
- (48) The authors of the study concluded that the most likely hazards were in relationship to chemicals derived from petroleum, or smoke gases and effluent from kilns, furnaces and internal combustion engines. Dr Elwood then stated:

Television transmitters were included in a list of facilities for which negative results were obtained; that is, there was no significant concentration of cancer deaths near such transmitters.

30 Knox and Gilman 1977 Hazard Proximities of Childhood Cancers in Great Britain from 1953 to 1980 Journal of Epidemiology and Community Health, 51, p 151.

²⁸ Altpeter Study on Health Effects of the Shortwave Transmitter Station at Schwartzenburg University of Bern, BEW Publication Series No 55, 1995.

²⁹ Kolodynski AA Motor and Psychological Functions of School Children Living in the area of the Skrunda Radio Location Station in Latvia, (1996) Sc Total Environ, 180, p 87).

My purpose in presenting this evidence is to demonstrate that it is a very complex process to assess a single postulated causal factor, such as radio frequency radiation, in connection to a single disease. Simply listing any association which has been seen in an epidemiological study leads to a large number of varied results... The relevant and crucial question in regard to radio frequency emissions and serious health effects (such as cancer), is not whether there is *any* evidence which suggests a hazard, but whether the *total* available evidence suggests a potential hazard There are results which are consistent with the potential hazard. But there are also limitations to these results, and *considerable results which argue against a hazard*. (Our emphasis.)

Biological evidence

(49) Next we heard from Dr M L Meltz, Professor of Radiology at the University of Texas, Health Science Centre at San Antonio. He is an ionising and non-ionising radiation biologist of extensive academic and professional experience. For the last 28 years he has researched and studied the biological and health effects of ionising radiation, ultraviolet light, anti-cancer, chemo-therapeutic agents and chemical mutagens and carcinogens using in-vitro mammalian cell culture systems. He said:

> Not only very few citizens, but also very few educators, elected officials, business people, and even other scientists know just how much effort has been put into exploring this RF safety issue around the world. I personally am aware, through my voluntary literature review activities, of over 1000 peer reviewed articles dealing with the biological and health effects of radio frequency radiation. There are many more review articles, letters, book chapters, and technical reports dealing with this subject.

- (50) In his evidence he first:
 - presented a number of studies which showed an absence of those biological effects which, had they occurred after RF exposure, would have been closer to signalling a possible adverse health effect;
 - (2) considered studies demonstrating the absence of RF induced toxicity (when excessive heating does not occur);
 - (3) stated the evidence demonstrating the absence of RF induced mutagenic activity; and
 - (4) stated the evidence demonstrating the absence of carcinogenic activity.
- (51) Then he commented on articles in the literature which are "frequently cited to support the idea of an adverse effect of RF exposure". His conclusion on those is that there are serious flaws or technical deficiencies in approach or inconsistencies in their results or over-extension of their interpretation and they cannot be relied on for decision making.
- (52) His overall conclusions were that:

. . . from the available literature, and from my own extensive

efforts to demonstrate that RF exposures are hazardous, ---

- that RF exposures which occur below the New Zealand standard . . . are of no danger to individual health and public health;
- that the same conclusion stands for the higher levels specified for controlled environments . . . ;
- that the accepted, repeatable and credible evidence indicates that without the heating associated with high level exposures, no biological effect has been confirmed as indicating even a potential adverse health effect.

Other evidence

- (53) We also heard from Dr K D Zelas, a specialist psychiatrist with extensive qualifications in the field of child abuse. She is an experienced witness in New Zealand Courts. The effect of her evidence was:
 - (a) that the risk of adverse health effects from the cellsite is nil;
 - (b) that as a consequence of their psychological dependency the children at the school may respond with anxiety to things which adults worry about;
 - (c) parents and teachers have a responsibility not to arouse unwarranted anxiety in children causing them unnecessary distress;
 - (d) if children suffer psychological ill effects, which is likely, that would be a reflection of the response of the principal, teachers and parents to the cellsite. That is, fear would be generated in the children by the adults around them through emotional messages, instruction and information; and
 - (e) that it would be inappropriate to decline consent on the basis of a risk to psychological health since that is preventable.
- (54) Another witness for Telecom was Mr D S Fougere who is the Managing Director of Phoenix Research Ltd, an organisation that conducts surveys in the field of marketing and social research. Mr Fougere's responsibilities, in addition to being the Director, are to design and manage research studies and surveys. He holds a Bachelor of Science in mathematics and statistics and a Bachelor of Arts (honours) in psychology. Mr Fougere was called to give his expert opinion on the survey evidence advanced by Drs Brown and Staite for SPS.
- (55) On visual effects we heard from Mr D J Miskell a landscape architect who is well known to the Court. He pointed out that the site is on a rear section and the base of the mast is not visible from the street. It was important to him that there were no close residential properties with outdoor living areas in the quadrants to the east, south and west of the proposed site where the mast could dominate views from outdoor living areas. He considered the proposal was well sited from a visual viewpoint. He described the site as being within a visually mixed environment: it has light industrial businesses such as the engineering and joinery workshops, and it also has a commercial character in the

form of the shop, car yard and service station. Similarly, the proposed city plan envisages a predominantly industrial character for the site as part of the Business 4 (Suburban Industrial) zone. He considered that the mast would not change the overall character or affect the aesthetic coherence of the area. He also observed and we think there is some truth in this:

There is nothing wrong with the structure itself; it is the activity that people have a problem with.

- (56) The final scientist for Telecom was Ms I L Stout who is an environmental health officer for the Council. In that capacity she gave a report to the Council for its hearing. However because she could not support the condition imposed by the Council which is the subject of the appeal by Telecom (RMA 429/97) she was not called by the Council but, as we have said, by Telecom. Ms Stout was a careful and objective witness. We do not summarise her evidence here not because we found it unconvincing, but because it largely made the same statements of fact that the earlier Telecom witnesses had made in more detail.
- (57) The most useful part of Ms Stout's evidence was her production of a report to the Ministry of Health dated August 1996 ("the Woodward report")³¹. That report was reviewed by four people including two witnesses in this case, Dr Elwood and Dr Hocking. A third reviewer was Dr Repacholi who gave evidence in *McIntyre* and whose papers were referred to in this case on a number of occasions. We found the Woodward report useful and will refer to it again later.
- (58) The resource management consultant called by Telecom was Mr D McMahon who has 13 years' experience. He concluded that the effects of the proposal were minor, and that it is compatible with the objectives and policies of the relevant statutory instruments.

Chapter 3: The Case for Christchurch City Council

- (59) The case for the Council was in two parts: first that Telecom should be granted its consent (thus confirming the Council decision at first instance); and secondly that the condition 4 imposing a power flux density of 6 μ W/cm² at the site boundary (30 metres from the mast) was appropriate.
- (60) As to the first point the Council adopted all of Telecom's evidence. It was Mr Hughes-Johnson's submission for the Council that the SPS's evidence did not meet the basic threshold of reliability for evidence as defined in McIntyre. He submitted that the lynchpin in this case is the guideline in the ANZ Standard. He said that shows that a body of evidence had been assimilated and that people of standing in the scientific

31 A Woodward, M Bates, M Hutt Literature View on the Health Effects of Radiofrequency Radiation.

community had reached certain conclusions. In essence he argued that there are no adverse health effects but submitted that if there are then the Court should consider the following three matters in assessing that:

- the precautionary approach;
- the application of s 3(f);
- whether there was room for a policy of "prudent avoidance".
- (61) As to the second part of the case, namely that the 6 μ W/cm2 in condition 4 was appropriate, he submitted that:
 - (a) the condition is consistent with the ANZ Standard which imposes a limit of 200 μ W/cm² for non-occupational exposure to RFR. One has to read the standard as a whole and that clearly the 6 μ W/cm² limit is a maximum.
 - (b) There is no practical problem for Telecom since its evidence was that it could meet the condition imposed by the Council.
 - (c) The only potential downside is bringing the ANZ Standard into disrepute. But, he submitted, the Court can accurately give reasons for its decision so that does not happen.
- (62) Finally Mr Hughes-Johnson conceded that the Council has adopted a new mode of conditions which do not include a condition like condition 4 in this case. An example is the Telecom decision³² but he submitted that should not be followed here.
- (63) The only witness called for the Council was Mr D Douglas, a resource management planner. He covered the provisions of the transitional plan and the proposed City Plan. On the question of effects he pointed out that there were positive effects from the cellsite in terms of improved coverage to cellphone users in the Shirley/Richmond area. As far as health effects were concerned he conceded that he was not a health expert and his position relied on the evidence of other witnesses. He conceded that there might be psychological effects on the submitters if the cellsite is constructed and used and that there might be consequential financial effects for the school. As far as visual effects were concerned he was satisfied that because the cellsite adjoins the commercial/business zone the effects can be successfully mitigated by the light blueish grey colour of the mast and the proposed tree planting. We will deal with his discussion of the objectives and policies of the plans and plan weighting to the extent necessary when we come to consider relevant matters under s 104. As far as the contentious condition was concerned he was unable to recommend an appropriate condition on RFR levels.

Chapter 4: The Case for the Shirley Primary School

(64) The school's primary position was that consent should be refused to Telecom. As a fallback position, if consent was to be granted then it should be on condition that the power flux density of RFR at the common boundary of the site and the school should not exceed 1 μ W/cm², that is even less than the 6 μ W/cm² limit imposed by the Council's condition 4.

- (65) It was the school's contention that young children are particularly sensitive to RF discharge. Mr Hearn, counsel for the school, submitted that the evidence demonstrated this and that the proposition was accepted in *McIntyre*.³³
- (66) Mr Hearn also submitted that because there will be adverse effects on the environment which are more than minor then consideration should be given to alternative sites as required in the Assessment of Environmental Effects by the Fourth Schedule to the Act. He relied on the evidence from Mr Gledhill (the witness called by Telecom) that it was possible to achieve the required telephone coverage by use of micro-sites, and then submitted it is only cost considerations which are stopping Telecom from using that method.
- (67) Mr Heam said that a policy of "prudent avoidance" and the "precautionary principle" both suggested consent should not be granted. He submitted that the whole of the Woodward Report demonstrates the validity of the reasonable concerns of the school.

Epidemiological evidence

- (68) The epidemiologist called by the school was Dr B Hocking. He is a medical consultant in occupational medicine in Australia. He holds postgraduate qualifications in occupational medicine, public health, general practice and radiation protection. He was a chief medical officer of Telstra for 18 years during which time he gained knowledge and experience regarding health effects of RF radiation. He has published many papers relevant to occupational and public health, including several on the subject of health effects of RF radiation. He (like Dr Black and another witness Dr Beale) is a member of the Australia and New Zealand Standards Committee TE/7.1 which sets the RFR safety standard — currently the ANZ Standard. His evidence discussed two relevant areas: the effects of RFR in causing cancer and the effects on learning.
- (69) He was particularly interesting on the former subject since he was the lead author of the Sydney study (Hocking 1996) of cancer in proximity to TV towers in Sydney. That paper describes an ecological study in which cancer incidence and mortality rates are compared between an inner ring of three municipalities which immediately surround the three TV towers in Sydney and the next ring outside those of six municipalities. The design of the study was on the basis that the TV signal exposure is stronger near the towers and weakens over distance (as an inverse square). The exposure was not measured but calculated to be 8 μ W/cm² at the centre of the towers, 0.2

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 μ W/cm² at a 4 kms radius from the centre of the towers, which roughly encloses the inner ring of municipalities and 0.02 μ W/cm² at a 12 kms distance which is the outer ring limit. The study found an increased risk for childhood leukaemia incidence of 58 per cent, and for mortality an increased risk of 132 per cent in the inner ring compared to the outer ring. Lung cancer risk was not increased. The authors concluded that there is an association between proximity to the TV towers and increased risk of childhood leukaemia incidence and mortality.

- (70) In his evidence, Dr Hocking carefully noted that the study did not prove that RFR was causal and hence harmful, but he pointed out that it was equally true that the study did not show that RFR at low levels for long periods was harmless. He acknowledged that the study had limitations regarding confounders and exposures. For example there may be other possible causes of leukaemia that were not adjusted for — X-radiation and car exhausts are possibilities.
- (71) He then pointed out that there are only two other studies, in his opinion which have looked at long term exposure of civilian populations to RFR The first of these was based on unpublished material from the Honolulu Health Department.³⁴ However, the number of cases in that study was so small as to give no significant results.
- (72) More significantly, there are the two reports by Dolk et al.³⁵. Dr Dolk and her team first examined the cluster of leukaemia and lymphoma cases near the Sutton Coldfield (in England) UHF TV transmitter and VHF FM radio transmitter. Their research concerned an excess risk of adult leukaemia They then examined in their second paper another 20 sites in the UK which also transmitted either UHF TV and/or powerful VHF FM radio. Overall, they did not find the excess noted at Sutton Coldfield and instead found only a slight increase in risk of adult leukaemia.
- (73) In summary, Dr Hocking felt that there was a paucity of epidemiological studies on which to make firmer statements regarding RFR exposures over the long term being harmful or harmless. He conceded that the wavelengths intended for use in the cellsite near the school are about 30cm (950 MHz) which is shorter than TV frequencies and may become even shorter if the mobile phone band changes to 1800 MHz. That may be significant because maximum human absorption of RF waves occur at the longer wavelengths (ie 10 MHz to 400 MHz). But he pointed out that it needs to be borne in mind "that the whole safety standard is set on the basis of avoidance of thermal effects . . . If one part of the spectrum is found to be unsafe then the whole standard is in doubt".

34 Goldsmith Epidemiological evidence of radio frequency radiation effects on health in arbitrary broadcasting and occupational studies (1995) Int J Occup Environ Health, vol 1, p 47.

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(74) He then turned to effects on learning. He regarded the possible effects of RFR on psychological (mental) processes as being particularly relevant to the school and we agree with him about that. He also referred to the Skrunda study. The station was used as an early warning radar station by troops from the former USSR in Latvia for 25 years. It operated at frequencies of 154-162 MHz. The average power at 3.7 km was 3.2 mW/cm². This equates to an exposure of 0.3 μ W/cm2. The authors studied 609 pupils from the Skrunda Valley, some of whom lived in front of the radar and some behind, and compared them with 357 students from a similar rural area without exposure (the control group). They conducted tests of motor function, (tapping, reaction time) attention (seeking numbers in a puzzle), and memory (remembering number sequences). They found Skrunda children who lived in front of the radar had less developed memory and attention, and their reaction times were slower than other children who lived in the Skrunda Valley, and in turn these children did not perform as well as the control group.

(75) He considered the Schwartzenburg study was also of relevance to neural effects from long term low level RFR exposure. The researchers there studied concerns arising about ill health, especially sleep disturbances in the Swiss valley of Schwartzenberg. Dr Hocking's description of the study was as follows:

> In the first phase of the study residents with different levels of exposure were randomly surveyed by keeping a diary over 10 days and a relationship to the transmitter (decreasing by distance) was established, particularly for sleep disturbances. Other complaints such as nervousness were thought to be secondary to loss of sleep.

Dr Hocking stated that the importance of this report was that it described a situation in which RFR exposure was unknowingly (to the exposed parties) stopped and a response (better sleep) occurred. He regarded that result as strongly suggestive of:

a causal effect on neural processes at low levels of RFR exposure.

(76) Dr Hocking observed that while the ANZ Standard gives a table for values of maximum exposure limits for the general public (eg setting non-occupational exposure levels in the mobile phone frequency band at 200 μ W/cm²) those values should not be construed as an absolute standard. The ANZ Standard cautions:

> ... exposure to workers and the public should be kept to the lowest levels that can be achieved consistent with best international contemporary practice and cost-effective achievement of service objectives. and then states:

SUBJECT TO THE CONDITIONS OUTLINED ABOVE
EXPOSURES SHALL BE KEPT TO A MINIMUM³⁶

(77) Dr Hocking concluded by saying that he did not regard the absence of proof as to the mechanism of how low level RFR exposure could harm people, as being a bar to accepting the epidemiological studies he referred to. He pointed out that the case for smoking causing cancer had been demonstrated epidemiologically for decades before "proven molecular mechanisms" were discovered. He acknowledged that the literature regarding RFR and cancer or learning effects is sparse, but said that it is not possible to state that RFR is either "harmful" or "harmless".

Biological evidence

- (78) At the level of biological mechanisms we heard for the school from Dr S F Cleary who is Professor of Physiology and Biophysics at the Medical College of Virginia in Richmond, Virginia USA. Amongst his credentials he holds a Doctorate of Philosophy in Biophysics from New York University. He has taught graduate level courses in biophysics, radiological health and biological effects of non-ionising radiation. He has supervised research on the effects of RF and microwave radiation on mammalian and cell systems for over 30 years.
- (79) Dr Cleary pointed out that until recently all the effects on living systems of exposure to RF or microwave radiation were attributed to radiation induced tissue heating. However, recent studies show in his opinion that there can be harmful changes under non-thermal conditions. He said that the results of such studies had been recently described in ICNIRP papers.³⁷
- (80) He stated:

The overwhelming majority of studies conducted to date have involved acute (ie durations of a few hours or less) high intensity microwave exposure of a few mammalian species to a very limited number of microwave frequencies . . . However, the few animal studies that have reported the effects of long-term low intensity microwave exposure provide evidence of deleterious non-thermally induced alterations.

It is of interest that he did not qualify that last statement. We infer that in Dr Cleary's opinion all of the (few) animal studies provide evidence of adverse effects.

(81) Dr Cleary referred to studies by Szmigielski³⁸ and Szudzinski³⁹ on the potential tumour promoting effect of microwave exposure. Mice were exposed for two hours each day for a period of between three to six months to 2450 MHz microwave radiation at power densities from 5 to 15 mW/cm². The

³⁶ ANZ Standard, para 9(d), p 9. The capitals are in the original.

³⁷ Non-thermal Effects of RF Electromagnetic Fields (ICNIRP 3/97).

³⁸ Szmigielski, S (1982) Bioelectromagnetics 1, p 179; Szmigielski, S Modern Bioelectricity Murino, A Ed; Marcel Dekker: New York, NY, p 861.

³⁹ Szudinski, A (1982) Dermatol Res, 274, p 303.

exposure suggested a tumour-promoting effect. Other evidence along the same lines in experimental animals was reported by Chou et al⁴⁰. In all those studies the microwave exposures were well below the levels that cause tissue heating.

(82) A more recent study referred to by Dr Cleary which has some importance in this case is by Repacholi (1997). In that study mice were exposed to 900 MHz pulse modulated radiation for 30 minutes twice a day for a maximum of 18 months. Dr Cleary stated:

> There was a highly statistically significant doubling of lymphoma incidence in mice exposed to specific absorption rates (SAR's) in the range of 0. 008 W/kg to 4.2 W/kg.

(83) Dr Cleary noted that:

The microwave exposure intensities used in the animal experiments discussed above are most probably higher than anticipated from cellsite radiation emissions.

He did not say if that affected the significance of the results.

(84) Dr Cleary then moved from in vivo experiments to some in vitro studies. He said he had reviewed these in detail in his article Interactions and Biological Fields: Electromagnetic Mechanisms⁴¹. He said that studies carried out under highly precise temperature control — thus ruling out heating as a causative factor in cell alterations -

> provide unambiguous scientific proof that RF and microwave radiation can induce non-thermal changes in cel lphysiological functions, including most significantly the rate of cell division or proliferation and neoplastic transformation.

(85) Finally he referred to five articles of which he is the co-author⁴² and concluded by stating:

> Firstly, an insufficient number of studies have been conducted to determine threshold field intensities for the induction of effects such as altered cell proliferation. Cell studies have involved acute principle Secondly, the term exposures. short dose-reciprocity, a central tenet in cell radiation biology, states that the probability that a radiation induced alteration will occur in a living system is proportional to the product of the exposure intensity and the exposure duration. Therefore cellular effects discussed above would be expected to occur at lower and lower intensities as the duration of exposure is increased. Pending the determination of thresholds for cellular alterations, as well as thresholds for effects on experimental animals, safe microwave exposure limits for humans cannot be defined. [Our emphasis.]

⁴⁰ Chou, C K (1992) Bioelectromagnetics, 13, p 460.

^{41 (1995)} American Chemical Society, p 467.

⁴² Cleary (1990a) Radiation Res, 121, p 38; Cleary (1990b) Bioelectromagnetics, 11, p47; Cleary (1992) Annals of the NY Acad Sci, 649, p166; Cao (1995) Bioelectrochem Bioenerg, 37,p 131; Cleary (1996a) Bioelectrochem Bioenerg, 39, p 1678.

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- (86) For the school we also heard evidence from Dr I Beale, Associate Professor in Experimental Psychology at the University of Auckland. He holds a doctorate of Philosophy and has had 25 years' research and teaching experience in behaviour and experimental neuropsychology. Dr Beale represents the public interest on the joint New Zealand/Australia Standards Committee TE/7 which is revising the standards and recently published the ANZ Standard. His opinion was that the operation of the cellsite could cause adverse health effects in people spending significant amounts of time on the ground and in buildings within 30 metres of the installation.
- (87) Dr Beale referred to the same animal studies mentioned by earlier witnesses and referred to the same epidemiological studies. In addition to his evidence on the direct effects of radiation exposure Dr Beale referred to the psychological evidence on the adverse effects of unacceptable risk. On this he stated:

Between "scientific conservatism" and "play it safe" lies a continuum representing a shifting of the balance between risks and benefits that accrue from the activity that causes the exposure . . . The "play it safe" school points out that, if scientific conservatism prevails, the possible risks are all borne by the public, whereas the economic benefits all go to the industry. This unequal distribution of risks and benefits is just one of a number of so-called "outrage factors" that colour the public's view of risk from radiofrequency radiation exposure. Other factors include the involuntariness of exposure, the perceived unnaturalness of the activity, the newness of the technology, the invisibility of exposure, and the delayed appearance of adverse effects. Risks that involve these factors are called "dread" risks, and people generally regard these risks as unacceptable even if they are unproven.

Surveys

(88) Dr J Brown, a Lecturer in Statistics at the University of Canterbury gave evidence as to a survey she had carried out of caregivers for children currently enrolled at the school. The purpose of the survey was to determine whether caregivers would consider removing their children from the school should the cellsite be constructed. She said that a summary of the responses of the survey, in answer to a question to that effect, was that:

The majority 83 per cent (+/-9 per cent) of the respondents said they would remove their children from the school should a Telecom cellphone tower be erected.

The second question in the survey was:

Does the strength of the signal to be transmitted by the proposed tower make a difference to your decision to remove, or not remove, your child/children from the school?

Her final question was whether there were any more comments.

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The answers ranged from expressing concern: for the safety of their children; over what would become of the school and community; about family stress; and through to fully supporting the cellsite.

(89) Dr A Staite, a psychologist who specialises in resource management and environmental issues, was called by the school to give evidence. Dr Staite informed us that the brief he received from the school's solicitor was to:

- (a) assess the social psychological or human effects of having a cellphone tower in the Shirley Primary School Community;
- (b) assess and document positive and negative effects (if any);
- (c) assess people's beliefs, perceptions and emotional states in respect of the cellphone tower proposal; and
- (d) identify and recommend measures which could be taken to reduce adverse effects (if any are identified) on the local community.
- (90) Dr Staite then went on and gave a literature review on how people judge risk. He identified two separate types of risk; "perceived risk", also called "subjective fear of potential negative effects", and "actual risk" which is also referred to as "proven negative or positive effects" and relates to potential adverse effects of high probability.
- (91) He mentioned a study where Skolbekken (1995)⁴³ during a literature review found that there has been an increase in the use of the term "risk". Skolbekken hypothesised that this ongoing trend (a "risk epidemic") results from developments in science and technology that have changed professional beliefs about the locus of control.
- (92) After considering the literature on perceived risk Dr Staite was of the view that while people's emotions and perceptions should be taken into account in consideration of the cellphone tower, the community's fears and anxieties should not form the sole basis for determining the actual risk of the tower. To do so may "export" modern technology due to the NIMBY ("not in my backyard") syndrome.
- (93) He looked at a study by Walker (1995)⁴⁴ where it was found that members of the public are likely to adopt a subjective interpretation when estimating their personal risks. This may result in the community "misunderstanding or significantly discount(ing) the relevance of (objective) risk assessment conclusion" (ibid) by either being unrealistically positive ("unrealistic optimism phenomenon") or unrealistically negative ("unrealistic pessimism phenomenon"). The first phenomenon is where people estimate their personal risk as lower than the risk estimations made by most other people. The second phenomenon is the opposite, in the face of minimal

43 (1995) The risk epidemic in medical journals Social Science and Medicine, vol 40(3), p 291.

44 (1995) Direct inference, probability, and a conceptual gulf in risk communication Risk Analysis, vol 15(5), p 603.

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actual hazard or risk, people make subjective estimations that their personal risk will be significantly greater than that of other people. Studies have found that gender,⁴⁵ sex and age⁴⁶ can play a part in how people perceive their level of risk or vulnerability.

- (94) Dr Staite spoke of another matter that may contribute to people attributing high risk to something, the "contagion phenomenon". This refers to the impact of people's risk perception of one place (or thing) upon their perception of another place (or thing). He was of the view that there is likely to be both positive and negative cumulative effects ("contagion") resulting from people's perceptions of cell towers at other sites.
- (95) He also expressed the importance of public consultation in the form of "risk communication" and "risk compensating effects" in respect of influencing risk assessment. He regarded the process of communicating "objective risk assessment conclusions" (the data we have about actual proven negative and positive effects and impacts accruing from having a cellphone tower in an urban community) as vital to mitigation of risk. Dr Staite was of the view that communities need to be a part of the democratic process through community consultation, and not be dictated to.
- (96) The largest section of Dr Staite's evidence concerned a study that he had undertaken of the school. It involved a qualitative research method, requiring interviewees (pupils, parents and grandparents) to answer two different types of specific questions; investigative questions (designed to elicit descriptive and objective factual information) and evaluative questions (in interview format to tap the qualitative aspects of the beliefs, perceptions and emotional states of the interviewees). An example from his study of an investigative question is: What would be the social consequences of the cell tower going up even if there are no adverse physical effects? An example of one of his evaluative questions is: Rate the value of . . . health risks to adults, pupils, through cell tower electro-radiation.
- (97) Dr Staite's conclusions were:
 - (1) The cell tower proposal has given rise to present social effects in the form of a "stressed environment or community". There is at present high anxiety at the school which will be having an adverse effect on people's functioning. A future social effect will be a weakening in social cohesiveness.
 - (2) There are strongly held perceptions that the research on EMR is ambivalent, ambiguous and uncertain. People attribute high potential risk to EMR.

⁴⁵ Greenberg M R and Schneider D F (1995) Gender differences in risk perception: effects differ in stressed vs non-stressed environments Risk Analysis, vol 15(4), p 503 46 Reichard D and McGarrity J (1994) Early adolescents' perceptions of relative risk from 10 societal and environmental hazards Journal of Environmental Education, vol 26(1), p 16.

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- (3) There are indicators that future health effects (after the cell tower is erected) will be experienced in the form of "environmental somatisation syndrome" (by which he meant some kind of psycho-somatic effects). He said: "The belief is strong that EMR can potentially cause a range of adverse health effects".
- (4) Many interviewees are already making adaptations and future plans in respect of their lifestyles to cope with the "environmental stressor".
- (5) The effects identified are significant adverse effects on the human environment being the Shirley community, including staff, pupils, parents and grandparents of the school.

Other witnesses

- (98) The principal of the school together with some parents of children attending the school and some past and present teachers of the school gave evidence at the hearing. All these witnesses expressed their concern about the safety of cell towers. The common theme running through their evidence was that there is no evidence that cellsites are completely harmless. Most if not all of them stated that they had read a lot on the issue and were still not convinced that no harm would come from the cellsite.
- (99) Comments from parents about the risk from the proposed cell tower included:

... until there is absolutely clear evidence about the safety of cell towers, the wider community should be extremely cautious about any proposals to erect cell towers in close proximity to schools. (Ms F Adank)

I believe that the effects of the microwave emission from cell towers may not be known for many years yet. Normally, parents adopt an extra cautious approach where their children are concerned. (Ms J Lawrence)

... because Cellular phone technology is very new, I believe that there may still be questions about the safety of cell towers... . I am not prepared to expose my children to the cell tower. (Ms A Morris)

(100) Ms T Harrold who had been a teacher at the school but who left at the end of 1997 gave evidence that she left the school because of the possibility of the cell tower being erected. The assistant principal Ms R Marun, also gave evidence that she was of the view that cell towers should not be sited next to a primary school because there is no evidence they are completely harmless. Mr B Porteous who has been principal of the school for nine years gave evidence as to the amount of research he had done on the issue including consulting experts, reading articles, listening to the radio and watching television programmes. After all his research he said he does not accept there is conclusive evidence that RFR is harmless. He also said "I have understood it to be accepted by all experts in the field

that any risk of exposure is increased for the elderly and the young".

- (101) We also heard compelling evidence of the effect on the school if the tower was erected in terms of what would happen if children, volunteers and teachers left and the picture that was painted, effectively unopposed by Telecom, was a dismal one. If all the pupils and teachers and helpers leave as they said they would, it appears doubtful that the school could survive financially.
- (102) The last evidence for the school which we need to mention specifically is that of Ms D J Lucas, a landscape architect. It appeared to be common ground between her and Mr Miskell — the equivalent witness for Telecom — that no residences would have their view unduly imposed on by the cellsite's tower.
- (103) Ms Lucas stated that:

For children, development of a positive relationship to outdoors and space is generally considered important for well-being as a person. Consideration should therefore be given that the sight of the tower could potentially affect their play and school activities. *If there is a fear of it*, the structure in the visual landscape is highly likely to affect their experience of the landscape of that place. (Our emphasis).

She concluded:

Considering the aesthetic coherence of the tower structure in the proposed context, and the perception of the tower activity, the proposal is assessed as contrary to the requirement for the design elements of a utility to reference existing character and amenity values of a locality.

The presence of the proposed cell tower has the potential to have adverse landscape, visual and amenity effects of considerable significance to those who spend their time within the visual neighbourhood of the proposed structure.

Chapter 5: Evidential Issues Assessment of risk

(104) A fundamental aspect of this case is how far Telecom has to prove RF radiation from cellsites is safe. At one extreme there was a suggestion from SPS, both in submissions and in evidence, that Telecom has to prove that there is no danger. For example, Mr T Nealey, a parent of a child at the school stated in his evidence:

> We should not allow cellphone towers to be erected close to schools until it is proven conclusively that the cellphone towers are 100 per cent safe.

Other examples were given in Chapter 4.

NZRMA Shirley Primary School v Telecom Mobile

- (105) We must explain immediately that we cannot guarantee there is $no \operatorname{risk}^{47}$ from the cellsite. First that is because it is impossible to do so. Everybody lives with some risk every second of their lives. Parents must realise that their children are no exception to that. Children are exposed to significant health risks on their way to and from school, eg the risk of a traffic accident, but also more insidiously from the lead and NOx and CO emissions from vehicles.
- (106) Since life cannot be made completely safe for anybody, a no risk approach is (logically) impossible. There is also authority that the RMA is not a "no risk" statute and therefore it is not the role of this Court to ensure that Telecom's cellsite can operate with absolute safety. In Aquamarine Ltd v Southland Regional Council⁴⁸ the Court stated of a "no risk" regime that:

We do not think this is compatible with the definition of sustainable management in s 5(2) of the Act.

An observation from high authority in another jurisdiction also bears out our approach. In *AFL-CIO v American Petroleum Institute*⁴⁹, the Chief Justice [Burger] of the Supreme Court of the USA stated:

Perfect safety is a chimera; regulation must not strangle human activity in the search for the impossible.

(107) Of course as soon as we say we cannot be sure there is no risk from RF radiation from the cellsites the reaction is sure to be that that means there is a risk and therefore children at the school should not be exposed to it. But it is extremely important to realise that the second part of that sentence does not follow from the first. The risk may be so very small it is acceptable, compared with other risks parents expose their children to daily, and that is what we are to assess.

Submissions of counsel

(108) A number of legal issues relating to evidence was raised by counsel. Some were argued as traditional legal issues as to evidence: the burden of proof and standard of proof, and whether the reliability of evidence goes to admissibility or weight. Other evidential issues related to the meaning of "effect" as defined (inclusively) in s 3 of the Act. Finally we heard submissions as to what should be required of surveys of public opinion, and how we should assess expert evidence generally.

⁴⁷ Risk was usefully defined in the Netherlands in terms that fit with the definition of "effect" in s 3 of the RMA as: "The combination of the probability of occurrence of an undesired event and the possible extent of the event's consequence" as quoted by Mr R Somerville QC in *Risk Assessments and High Dams*" [IPENZ Proceedings (1988), p 4].

^{48 (}Environment Court, C 126/97, 15 December 1997).

^{49 (1980) 448} US 607.

(109) Counsel agreed that there was no burden of proof under the RMA — relying on *McIntyre⁵⁰*. As for the standard of proof, Mr Gould for Telecom, and Mr Hughes-Johnson for the Council said this was "on the balance of probabilities having regard to the gravity of the question".⁵¹ Mr Hearn differed. He said trenchantly in respect of the standard:

to address the issue as on the balance of probabilities is self-evident nonsense....

(110) Turning to the issue of the admissibility versus the weight of evidence, and ostensibly opposing the view of Mr Hearn, counsel for Telecom argued that there should be no question of admissibility in respect of scientific hypotheses. Instead reliability goes to the weight they should be given. In fact we do not understand Mr Hearn to be arguing for such a threshold of admissibility. Rather he was arguing that s 3(f), when inserted into s 5(2)(c) and interpreted in the context of the single purpose of the Act, entailed that the applicant should:

> place before the Court persuasive evidence that there is no possibility of an effect ever coming into being which effect has the possibility of a high potential impact.

In respect of admissibility Mr Hearn pointed out that under the RMA the Court is not bound by the rules of evidence and may "receive anything in evidence that it considers appropriate to receive".⁵² Also noted was the fact that in *McIntyre* none of the evidence was found inadmissible.

(111) Mr Gould quoted from *McIntyre*:

We are confined to evidence probative of the fact, that meets a basic threshold of reliability, and is persuasive to us on the balance of probabilities having regard to the gravity of the question.⁵³

Counsel submitted that this weighing approach is correct and the Court should measure the probative value of the evidence by assessing the value expressed by the scientific community. Mr Gould submitted that approaching the evidence as a weighing exercise would bring it on all fours with the principles expressed in various authorities in *McIntyre* and the United States Supreme Court decision of *General Electric Company et al v Joiner et us.*⁵⁴ Before the Court can consider effects (including potential effects) and their significance in terms of s 104 and Part II the Court must be satisfied as to the reliability and probative value of the evidence claiming that

50 p 306

51 McIntyre, p 307; (See also Trans Power NZ v Rodney District Council (Planning Tribunal, A 85/94, 14 November 1994); Leatch v National Parks and Wildlife Service and Shoalhaven City Council(1993) 81 LGERA 270.

^{52 (}Section 276 of the RMA).

⁵³ McIntyre, p 314.

^{54 118} S.Ct 512; 1997 US Lexis 7503.

such effects exist. This is particularly so when the evidence is of an hypothesis for a potential effect.

- (112) Counsel further submitted that if Mr Hearn was correct in law on the contentions he made about s 3(f) then in any event:
 - (a) There is no evidence with any acceptable basis before the Court of any possibility of an effect ever coming into being, which effect has the possibility of a high potential impact; and
 - (b) The evidence has not left room for reasonable doubt that any harm, or possibility of harm, will arise from RF emissions from the proposed cellsite.
- (113) While we do not agree with everything that Mr Hearn submitted he has made us reconsider the Environment Court approach to evaluation of evidence on resource consent applications — and especially its approach to the "standard of proof".

Purpose and scheme of the Act

- (114) Going back to basic principles of statutory interpretation we consider that the purpose and scheme of the Act have implications for the burden and standard of proof and for the assessment of evidence generally. The purpose of the Act sustainable management⁵⁵ and Part II generally entail that the Act is forward-looking. It is preventative, precautionary and proactive. Various other provisions in the Act suggest how those probabilistic (because looking into the future) criteria should be considered and decided. These include pre-eminently:
 - Section 3 the definition of "effect";
 - Part V the provisions for policy statements and plans;
 - Section 105(2)(b);⁵⁶
 - Section 276.
- (115) The purpose of the Act means that in every appeal about the grant of a resource consent there is only one ultimate question to be answered, that is, will the purpose of the Act be fulfilled? As stated in Caltex NZ Ltd v Auckland City Council⁵⁷ citing North Shore City Council v Auckland Regional Council:

... the Act has a single purpose, and ... an overall broad judgment is needed, allowing for comparison of conflicting considerations, the scale or degree of them, and their relative significance or proportion in the final outcome.⁵⁸

57 (1997) 3 ELRNZ 297.

58 (1996) 2 ELRNZ 297.

⁵⁵ Section 5: generally and in particular the reference to "... the foreseeable needs of future generations".

⁵⁶ The threshold tests as we have to consider them in this case, that is, prior to the 1997 amendment to the RMA (the Resource Management Amendment Act 1997). But s 105(2A) in the amended Act does not appear to impose an entirely new approach to non-complying activities.

(116) It is important to recognise that when deciding whether natural and physical resources will be sustainably managed, decision makers under the Act are usually⁵⁹ making decisions about future events. The decision-maker has:

(a) under s 104(1):

- to decide what the primary facts⁶⁰ are; and
- to evaluate those facts as propositions about the future ("risks" if adverse effects, "chances" if beneficial) usually those propositions are given as the opinions of experts;⁶¹ and
- (b) to carry out a further evaluation when undertaking the weighing and balancing exercise required under s 105(1) to decide the ultimate question.
- (117) There is high authority for the proposition that evaluating future events is a matter of judgment not proof, and thus the standard of proof is not relevant. In *Fernandez v Government* of Singapore⁶² Lord Diplock in giving the opinion of the Privy Council referred to "the balance of probabilities" as:

... a convenient and trite phrase to indicate the degree of certitude which the evidence must have induced in the mind of the Court as to the existence of facts, so as to entitle the Court to treat them as data capable of giving rise to legal consequences. But the phrase is inappropriate when applied not to ascertaining what has already happened but to prophesying what, if it happens at all, can only happen in the future. There is no general rule of English law that when a Court is required, either by statute or at common law, to take account of what may happen in the future and to base legal consequences on the likelihood of its happening, it must ignore any possibility of something happening merely because the odds on its happening are fractionally less than evens.

(118) In Commissioner of Police v Ombudsman⁶³ the Court of Appeal was concerned with the withholding of documents by the police despite a request from the Ombudsman under the Official Information Act 1982 ("the OIA"). The Court had to interpret a forward-looking phrase in the OIA about reasons for withholding information. Section 6 of the OIA states:

Good reason for withholding official information exists, ... if the making available of that information would be likely ... (c) to prejudice the maintenance of the law ...

(119) One issue in the case was whether "likely" in that section (and in s 27(1)(a) OIA) equated to "more likely than not". Cooke P stated:

59 Two exceptions are under Part XII of the Act: declarations as to existing uses, and prosecutions.

60 And secondary (inferred) facts.

61 These two steps come under s 104. In many cases step (b) is the first step if there is no dispute about primary facts.

62 [1971] 2 All ER 691 (PC).

63 [1988] 1 NZLR 385.

To cast on the Department or organisation an onus of showing that on the balance of probabilities a protected interest would be prejudiced would not accord with protecting official information to the extent consistent with the public interest, which is one of the purposes stated in the long title of the Act . . . To require a threat to be established as more likely to eventuate than not would be unreal. It must be enough if there is a serious or real and substantial risk to a protected interest, a risk that might well eventuate. This Court has given "likely" that sense in a line of criminal cases, a recent example of which is R v Piri [1987] 1 NZLR 66.

Whether such a risk exists must be largely a matter of *judgment*. In that sense a reference to onus of proof is not fully apt: compare the observations in *McDonald v Director-General* of Social Security (1984) 1 FCR 354 about the inapplicability of adversary proceedings concepts, such as the onus of proof, in administrative proceedings. (Our emphasis.)⁶⁴

There are a number of important, if difficult, points in that passage including the reminder that in administrative proceedings (such as under the RMA) adversarial concepts may not apply; and that a standard of proof on the balance of probabilities may be unreal.

(120) We respectfully follow the Court of Appeal in holding that whether a risk exists is "a matter of judgment". This distinction between evaluation and fact-finding is of crucial importance under the Act. Almost every case under the Act is concerned about the evaluation of many risks and thus issues as to the standard of proof are even more misconceived. As *Cross on Evidence* states succinctly:

Unfortunately, Judges sometimes apply the balance of probabilities test to evaluations of fact when in truth the test has no part to play.⁶⁵

Burden of proof

(121) While counsel were agreed and the decision in *Commissioner* of Police v Ombudsman might suggest that no party bears the burden of proof in an application for a resource consent, we are not so sure. The answer seems to depend on what is meant by a burden of proof. In a basic way there is always a persuasive burden resting on an applicant for a resource consent because it is:

a fundamental requirement of any judicial system . . . that the person who desires the Court to take action must prove his case. 66

There is also a swinging evidential burden in that:

- 64 At p 391.
- 65 NZ Edition (1996), p 214.

66 Cross & Tapper on Evidence 8th Ed, p 133.

. . .

As the evidence of varying weight develops . . . , the eventual burden of proof will, in accordance with ordinary principles of evidence, remain with or shift to the person who will fail without further evidence.⁶⁷

- (122) But there are statutory reasons why there is also a legal burden on an applicant for a resource consent. Since the ultimate issue in each case is always whether granting the consent will meet the single purpose of sustainable management⁶⁸, even if the Court hears no evidence from anyone other than the applicant it would still be entitled to decline consent.⁶⁹ This might occur, for example, if the face of the application (or the Fourth Schedule Assessment) showed that a matter of national importance or an issue under s 5(2)(a) and (b) or s 8 is raised and not dealt with. This is reinforced by s 276 of the RMA which gives the Court power to call for further evidence. Otherwise the Court would have to decide on the preferred evidence even though that falls short of a reasonable standard in terms of persuading the Court that sustainable management of natural and physical resources would be achieved.
- (123) There is a passage in *Cross and Tapper on Evidence* which identifies the problem (and also the link between the burden and standard of proof):

[T]he normal standard of proof in civil proceedings is proof on the balance of probabilities. It is fundamental to that standard that it involves weighing the evidence to see if the required standard has been achieved. If it has not, the party bearing the persuasive burden loses, however little evidence his opponent has adduced. The effect of [statutory] change [making the persuasive burden neutral between the parties] is that the only standard against which evidence can be weighed is that adduced by the opponent, in other words, if neither party bears the persuasive burden, then, if the case is to be decided at all, the party who adduces the greater amount wins, however little evidence he has adduced. In future in this area a party will win if he has adduced more evidence than his opponent, even though it may not, seen objectively, make his contention more probable than not. This is highly unsatisfactory, . . . "⁷⁰

(124) Fortunately that is not the position under the Act for the general reasons we have given. We note that in *Trans Power NZ Ltd v Rodney District Council*⁷¹ the Planning Tribunal stated:

> The upshot is that the Tribunal has to decide an application for resource consent for the extension to the transmission line which is not now opposed by anyone. Yet the application is not to be granted in default of opposition. The Tribunal has the same

⁶⁷ Donaldson L J in Forsyth v Rawlinson [1981] RVR 97 at 202 and see West Coast Regional Abattoir v Westland County Council (1983) 9 NZTPA 289.

⁶⁸ See Caltex NZ Ltd v Auckland City Council 3 ELRNZ 297.

⁶⁹ Baker Boys Ltd v Christchurch City Council [1998] NZRMA 433.

⁷⁰ The 8th English edition, p 142.

⁷¹ Planning Tribunal, A 85/94, 14 November 1994..

power, duty and discretion as the Council had, and (subject to s 375(1)(b)) may confirm, amend or cancel the Council's decision (see s 290). So, like the Council, the Tribunal has the duty (subject to Part II) to have regard to such of the matters listed in s 104(1) as are applicable to the case; and although the application is not now opposed, it has to exercise its own discretion (subject to s 375(1)(b)) to grant or refuse consent, and if consent is to be granted, decide what conditions (if any) should be imposed (see s 105(1)).

The Tribunal in that case proceeded to consider the evidence and submissions notwithstanding the lack of an opposing case and, after evaluation of all relevant factors, granted consent. (125) In the case of an application for a non-complying activity the threshold tests in s 105(2)(b) suggests a burden of proof resting on the applicant for the resource consent when it refers to the consent authority being "satisfied that . . ." one of the two tests is met. Even if there were no evidence from any other party the consent authority could properly refuse consent. The practice of the Environment Court under the Act where, on an appeal under s 120, it has received a consent memorandum in which a territorial authority reverses its position, is often to require some evidence of the threshold tests having been met⁷² for example by some amendment to the proposal.

Standard of proof

(126) We discussed earlier why the purpose of the Act suggests that to apply an invariable test in respect of any issue that it is to be decided "on the balance of probabilities having regard to the gravity of the issue"⁷³ is inappropriate. The wording of particular sections of the Act supports that view. For example, when s 5(2)(c) refers to:

(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment

— we need to read that with the definition of "effect" in s 3 of the Act. That defines "effect" as including:

(c) Any past present, or *future* effects; and

(e) Any potential effect of high probability; and

(f) Any potential effect of low probability which has a high potential effect. (Our emphasis.)

- (127) The use of the words "future, potential" and "probability" emphasise how the Act asks decision-makers to attempt to look into the future rather than backwards. Of course every predicted future effect is not certain to occur and the practical problem is how to assess the probability of their occurrence
- 72 By formal proof or affidavit or less formally by production of unsworn briefs.
- 73 McIntyre, p 307.

and the further effects if they do. Section 3 assists decision-makers by listing some⁷⁴ of the potential effects to be considered.

- (128) A future effect in s 3(c) is merely one of a very high statistical probability. It is impossible to find as a stone cold 100 per cent fact that <u>any</u> future effect will occur. To take one incontrovertible "future" fact that the sun will rise tomorrow. One day many millions (billions?) of years in the future the sun will (probably) not rise over the observers' horizon it will explode or collapse into a "black hole".
- (129) A particularly important aspect of s 3 is the recognition in para 3(f) that effects of "... low probability but high potential impact" can be taken into account. This allows for the psychological fact that intuitively humans rank probabilities differently according to their assessment of the seriousness of the impact. Consider a dice game. If you win one dollar if the dice rolls a five, but lose the dollar if anything else shows, then you might consider the probability of winning is low (l in 6). Now consider a more serious wager: if your doctor says you have cancer and a 17 per cent (1 in 6) chance of dying within the year you might consider the chance of dying is high even though the mathematical chance is the same in both cases.
- (130) We consider the effect of s 3, especially 3(f), is that the Court is required to evaluate beyond the balance of probabilities (ie 5-50) where the risk (even if low) is of high potential impact. This was expressly recognised in *Trans Power*⁷⁵ where the Court appeared to arrive at a midpoint somewhere between the common law standards for civil and criminal trials when it stated:

The possibility of adverse effects on the health of people who may be exposed to electric and magnetic fields from high voltage power lines has sufficient gravity to deserve a higher standard of proof: However we would not be justified in putting the applicant to a standard of proof beyond reasonable doubt . . .

- (131) Thus how the Court should assess the probability of an event with high impact is affected not only by the objective risk of the impact occurring but also by a necessarily less objective assessment of the nature of the impact (eg is human health or life at risk?) in the context of all the relevant factors.
- (132) Another way of approaching the standard of proof under the Act is to consider what applying a standard of "balance of probabilities" means in this context. At first sight it appears to be either playing with words or introducing a degree of mathematical complexity which cannot be complied with. Applying the usual civil standard of proof test to an alleged effect under s 3(f) entails making a decision about the proof on

74 The definition is inclusive: for others see Baker Boys Ltd v Christchurch City Council [1998] NZRMA 433, 448. 75 Planning Tribunal, A 85/94, 14 November 1994, p 21. the balance of probabilities of a future effect of low probability and high potential impact. There are four possible "probabilities" in that test if one reads "potential" and "future" as implying probabilities.

(133) These issues were raised by counsel for the unsuccessful appellant in *McIntyre*:

Mr Fogarty . . . submitted . . . that one cannot graft a test of "more probable than not" on to the provision in s 3 for an effect of low probability, which includes a proven potential effect.⁷⁶

The Court then decided the issue in this way:

... we have to come to our finding on the basis of the evidence before us, and not on the basis of a possibility that further research might (or might not) show something that has not already been shown by previous research. That would be to decide a different question. It would not be deciding whether, on the balance of probabilities, there would be a potential effect of low probability but high potential impact on the environment. It would be to decide whether there is a potential, even of low probability, that there would be an effect of high potential impact on the environment. We do not understand that to be the question on which we have to make a finding.

- (134) In our view two of the most significant possible interpretations of s 3(f), and we think Parliament may have intended both, are (leaving out the first reference to their "potentiality" ie that they are yet to happen):
 - (i) An effect of low statistical probability⁷⁷ but high impact which research has reliably shown is more than 50 per cent (perhaps 99 per cent or higher) likely to occur to a small sample of the population (hence its low probability as a cause of death for any one individual). Such effects are scientific facts.
 - (ii) An effect of low scientific probability (loosely, as in plausability) but high potential impact. Here there is none of the "certainty" of a scientifically proven fact.

It is the effects covered by interpretation (ii) which concern the appellant in this case. We hold that those are legitimate concerns by virtue of s 3(f).

(135) So we respectfully agree with the Court in *McIntyre* that it is not correct to say that it is impossible to graft a test of more probable than not onto s 3. It is possible to do so. However we make the further point that it is not particularly helpful to do so. To take a hypothetical example: if there is an alleged risk of some adverse effects of one in a million (ie 1 x 106) and the Court assesses the evidence as establishing the risk on the balance of probabilities test then the risk assessed by the Court

^{76 [1996]} NZRMA 289, 304.

⁷⁷ Eg dying in a plane crash which in the USA has been calculated to be 1×10^6 for a person who takes one trip per year, quoted by R M Mitchell in S Breyer *Breaking the Vicious Cycle* (1993), p 5.

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is at least 5 x 107 When the calculation is completed we still have a potential effect of low probability of (assumed) high potential impact on the environment. When the numbers about risk are very small probabilities that vary by less than a factor of 10 do not make much evaluative (or intuitive) difference. So the distinction made in the quoted passage from *McIntyre* tends to be unhelpful for small risks.

- (136) To summarise on the issues of onus and burden of proof under the Act:
 - (1) In all applications for a resource consent there is necessarily a legal persuasive burden of proof on the applicant. The weight of the burden depends on what aspects of Part II of the Act apply.
 - (2) There is a swinging evidential burden on each issue that needs to be determined by the Court as a matter of evaluation.
 - (3) There is no one standard of proof, if that phrase is of any use under the Act. The Court must simply evaluate all the matters to be taken into account under s 104 on the evidence before it in a rational way, based on the evidence and its experience; and giving its reasons for exercising its judgment the way it does.
 - (4) The ultimate issue under s 105(1) is a question of evaluation to which the concept of a standard of proof does not apply.

Surveys

(137) Evidence of a survey was called for SPS. Speaking of one class of surveys — market surveys — in a 1987 decision of the High Court,⁷⁸ Barker J acknowledged that:

> It is now well-settled law within New Zealand that market survey evidence is admissible as proving a public state of mind on a specific question or as proving an external fact, namely that a designated opinion is held by the public or class of the public.

(138) Judge Barker referred to the English case of Imperial Group plc v Philip Morris Ltd⁷⁹ in which the Court set out the requirements for the validity of survey evidence:

1. The interviewees must be selected so as to represent a relevant cross-section of the public;

2. The size must be statistically significant;

3. It must be conducted fairly;

4. All the surveys carried out must be disclosed including the number carried out, how they were conducted, and the totality of the persons involved;

5. The totality of the answers given must be disclosed and made available to the defendant;

6. The questions must not be leading nor should they lead the person answering into a field of speculation he would never

78 Auckland Regional Authority v Mutual Rental Cars (1987) 2 TCLR 141.

79 [1984] RPC 293.

have embarked upon had the question not been put;

7. The exact answers and not some abbreviated form must be recorded:

8. The instructions to the interviewers as to how to carry out the survey must be disclosed; and

9. Where the answers are coded for computer input, the coding instructions must be disclosed.

Justice Barker considered the above criteria a measuring-stick for market survey evidence but was not prepared to say that if evidence fails to meet the criteria it is necessarily inadmissible in New Zealand. In a recent decision of *Commerce Commission v Griffins Foods Ltd*,⁸⁰ the Court addressed the issue of admissibility and after considering New Zealand case law held that:

... providing a market research survey is undertaken objectively, and usually by a professional agency, provided such survey is scientifically based, it should, ordinarily be admissible as a basis upon which expert opinion evidence might be called.

(139) While the psychological and social surveys in this case were not described as "market" surveys, we consider that the same criteria are useful benchmarks for assessing the reliability (or even admissibility) of surveys produced to the Environment Court.

Admissibility and Reliability of Evidence

(140) On the general issues of admissibility and reliability of expert evidence there was substantial disagreement between counsel. In his introduction to those disagreements Mr Hearn submitted that:

concepts such as the threshold of reliability and general acceptance in the scientific community, general consensus of scientist opinion, plausible biological mechanism and so on are not applicable in the RMA.

(141) We agree to a limited extent on one point in that there is no rigorous reliability threshold under the RMA — a concept that developed for the withholding of evidence from the jury. The concept of the Judge as a gatekeeper who stops the jury from hearing unreliable evidence is widespread in the common law jurisdictions. There is a huge debate in the USA over the Judge's gatekeeper role triggered by the Supreme Court's decisions in "toxious tort" cases: Daubert v Merrell Dow Pharmaceuticals Inc⁸¹ and General Electric Ltd v Joiner.⁸² But this debate can be of limited relevance to the Environment Court which in a sense is both Judge and jury. We hold that in the NZ Environment Court there are only very low thresholds

^{80 [1997]} DCR 799.

^{81 (1993) 509} US 579; 125 Ed 2d 469; 113 S CT 2786.

^{82 118} S Ct 512.

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such as the requirement for experts to qualify themselves as such; for evidence to be relevant; and not to be so witless or lengthy as to be vexatious. While the Court retains a discretion⁸³ to receive (or refuse) anything in evidence that it considers appropriate (or inappropriate) any refusal is only exercised judicially and with extreme caution. If the evidence is relevant then it is usually heard even if unreliable, provided it relates to something higher than a "low impact" effect. The issue as to reliability is, under the RMA, much more likely to go to the weight to be given to the evidence, than to admissibility.

- (142) In the end whether an assessment of the reliability of evidence goes to its admissibility or weight may be academic for both a practical and a theoretical reason. The practical reason is that there is no Judge/jury separation in the Environment Court. The theoretical reason is that, especially for an effect of potentially high impact, the tests may be the same or at least very similar. As we have observed, almost all evidence in the Environment Court relates to the future and thus has an hypothetical element. Before an hypothesis can be considered by any Court, there must be a basic minimum of evidence to support it. But in the case of any hypothesis about a high impact risk a scintilla of evidence may be all that needs to be established in the Court's mind to justify the need for rebuttal evidence. In other words that evidence, slight as it may be, is enough to raise a reasonable doubt in the mind.
- (143) However we think Mr Hearn is quite wrong in going as far as he does. The other concepts he wishes to throw out must be crucial to the *weight* to be given to the evidence of the various experts.
- (144) In assessing the expert evidence (including rebuttal and cross-examination) on any issue we have to take into account and evaluate (inter alia) the following factors:
 - (1) the strength of the qualifications and the duration and quality of the experience of each witness;
 - (2) the reasons for each witness' opinions (and their consistency, coherence and presentation);
 - (3) the objectivity and independence of each witness and the comprehensiveness of their evidence for example whether they have identified and taken into account matters which do not favour their opinion;
 - (4) there is an identification of and general acceptance of the science of methodology involved; and
 - (5) Especially for "hard" science the research or papers referred to by the witnesses in reaching their opinions, with respect to whether:⁸⁴
 - (a) the techniques used are reliable;
- 83 Section 276(1)(a) of the RMA.
- 84 Loosely these are the Daubert criteria.

- (b) the error rates are known and published (and the research is shown to be statistically significant);
- (c) the research or papers have been published;
- (d) the research or papers have been subject to peer review;
- (e) the research is repeatable (and has been replicated).
- (145) Not all those aspects or even all parts of them need to be met — they are criteria for measuring the weight to be given to the specific evidence when making findings. Factors (1)-(3) may be the only relevant ones for expert opinions which are only "science" in the softest sense eg town planning and resource management. Factor (4)⁸⁵ comes into play more for the social sciences, physicians, epidemiologists and ecologists. All of factors (1)-(5) are necessary in the evaluation of some ecological evidence and all hard science.
- (146) It must be borne in mind that no party alleging an effect relevant to the Act has to prove causation on the balance of probabilities as in a civil trial (ie in the "toxious tort" sense). That is because:

Questions involving the environment are particularly prone to uncertainty. Technological man has altered his world in ways never before experienced or anticipated The health effects of such alterations are often unknown, sometimes unknowable. While a concerned Congress has passed legislation providing for protection of the public health against gross environmental modifications, the regulators entrusted with the enforcement of such laws have not thereby been endowed with a prescience that removes all doubt from their decision making. Rather, speculation, conflicts, and theoretical extrapolation typify their every action. How else can they act, given a mandate to protect the public health but only a slight or non-existent data base upon which to draw?⁸⁶

That uncertainy entails that:

A risk may be assessed from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections, from imperfect data, or from proactive preliminary data not yet certifiable as "fact".⁸⁷

- (147) The reason we can take into account risks assessed in such a way is the presence of s 3(f) in the Act, as we discussed earlier. To fall within s 3(f) of the Act as a potential effect of low probability and high potential impact an effect must not be simply an hypothesis: there must be some evidence supporting the hypothesis. This evidence may consist of at least one of:
 - (1) consistent sound statistical studies of a human population; or
 - (2) general expert acceptance of the hypothesis; or

86 Ethyl Corporation v Environment Protection Agency (Federal District Court, District Court of Columbia) (1976) S 41 F 2d 1.

87 Reserve Mining Co v EPA 514 F 2d 492 (1975)(8th Circuit of Appeal).

⁸⁵ For an illuminating discussion of all these factors – but (3) and (4) especially – see the dissenting opinion of Circuit Judge Davis in *Moore* v *Ashland Chemical Inc* No 95020492 (14 Aug 1998).

- (3) persuasive animal studies or other bio-mechanistic evidence accompanied by an explanation as to why there is no epidemiological evidence of actual effects in the real world; or
- (4) (possibly) a very persuasive expert opinion.

It is important that the evidence need only fall into one of the categories before the Court will take it into account — if there was evidence falling in all four then the hypothesis would be established "hard" science. As we have attempted to explain, the purpose of s 3(f) and the proactive, precautionary approach of the Act is to act in anticipation where possible.

- (148) For legal purposes a sound statistical (epidemiological) study is one which:
 - (a) uses reliable techniques;
 - (b) establishes its margins of error (and is statistically significant);
 - (c) preferably has been published;
 - (d) has been peer-reviewed; and
 - (e) preferably has been repeated and had its results replicated. It does not have to be generally accepted because the research may be establishing a new concept. Although a scientific theory may be:

generally accepted within the scientific community, that does not mean that a Court in making findings of fact on material of probative value should treat another scientific view outside the mainstream as without substance.⁸⁸

For example, in this case there was a suggestion that "normal" dose-response relationships might not apply to exposure to RFR. There might be resonance phenomena so that if the wavelength of the RFR was a little smaller than the size of human cells (or cell-components) there might be a greatly increased effect on the cell or relevant part. In fact there was not nearly enough evidence of resonance phenomena for us to be persuaded they result from RF radiation. It is unlikely that one study would be sufficient, if only because the ability to repeat the study and its replication are important criteria for credibility.

- (149) There need not be sound statistical evidence of a hypothetical effect if there is general expert (scientific) acceptance that it will occur. Catastrophes such as earthquakes can be predicted but not yet with an accuracy that is practically helpful. If scientists were agreed that a large asteroid might hit the earth humans might prefer to take precautionary action against it rather than wait for Armageddon.
- (150) Persuasive animal studies could support a hypothesis if there is also an explanation as to why there are no symptoms actually demonstrated in human populations. This is conceivable: for

88 Daubert v Merrell Dow Pharmaceuticals Inc 509 US 579; 125 L Ed 2d 469; 113 S Ct 2786.

example there may be a long latency period before any effects become patent. But usually there would need to be at least some epidemiological evidence in support of the studies.

(151) In exceptional cases a very persuasive expert opinion might sufficiently support an hypothesis. This is unlikely to occur in respect of health issues such as we are considering here, but not all potential environmental effects have the same research lavished on them as human health effects. In such cases it might be appropriate to trust an expert notwithstanding lack of statistical evidence, although in such a case one would likely want there to be general acceptance of the methodology used within the scientific discipline involved.

Chapter 6: Adverse Health Effects (s 104(1)(a)) Submissions on adverse health effects

- (152) As will be apparent from our summary of the evidence called for the parties, the issue as to whether exposure of the school community to RFR at athermal levels could induce adverse health effects was traversed both at the epidemiological level and at a bio-mechanistic level and the latter included both in vitro and in vivo studies.
- (153) Counsel made wide-ranging submissions in respect of the evidence on health effects. We trust that the essential points they made are traversed in our consideration of effects that follows. However, one issue was raised in the written submissions that never arose at the hearing at all. Mr Hearn submitted that a quotation from a book by Messrs Garrick and Gekler (an interpretation of Dr Elwood's opinions presented in Elwood (1988)) was inconsistent with Dr Elwood's evidence. In response counsel for Telecom pointed out that this submission is based on two flawed assumptions on which Dr Elwood should have been cross-examined. These assumptions were that:
 - (a) the text properly reflects the views of the Professor; and
 - (b) the interpretation of Garrick and Gekler was fully within the knowledge of Dr Elwood.

We agree that Dr Elwood should have been cross-examined on the passage quoted by Mr Hearn in his final submissions, and in the absence of such cross-examination we are not prepared to find that the quotation affects the credibility of Dr Elwood.

Assessment of the epidemiological evidence

(154) Our assessment of the witnesses on epidemiology is as follows. First, for Telecom Dr Elwood's evidence was carefully constructed and balanced. He satisfied us — subject to any evidence on the other side of the scales and we come to that shortly — that the risks of adverse health effects on humans such as:

- sleep disturbance;
- learning disabilities;
- cancers, specifically childhood leukaemia;
- reproductive difficulties,

are very low indeed. We are reinforced in our conclusions about Dr Elwood's overall carefulness⁸⁹ and objectivity by a passage in cross-examination by Mr Hearn:

Q. Would it be fair to say that means you are looking at [the issue of adverse health effects] on the balance of probabilities, more likely than not?

A. No, I don't think so. The term is used less precisely and my threshold for accepting that there would be a hazard would be much less than the 50 per cent threshold implied by your phrase.

Q. Well there may be argument and submissions about what is the appropriate phrase but I wish to put it to you whether you are saying that in your opinion it is not possible there will be harmful effects?

A. I have already stated that one cannot prove using that term to mean [with] complete certainty the absence of an effect of anything but my opinion is that in the normal use of the word I am as certain as is reasonably possible that there will be no adverse health effects.

That passage shows Dr Elwood was considering potential effects of low probability but high potential impact ie adverse health effects as required by the Act. He was <u>not</u>, as Mr Hearn submitted, applying a "balance of probabilities" test.

(155) As for the SPS witnesses, Dr Beale gave an overview of some epidemiological and bio-mechanistic studies. We are however, concerned with a lack of objectivity and balance in Dr Beale's evidence. He reported some findings from research in a way that supports the hypothesis that exposure to RF radiation causes health problems when the report of the research <u>specifically disclaims</u> such a conclusion. For example of the Skrunda study he wrote in his evidence-in-chief:

thus, the results supported a hypothesis that chronic radiation exposure resulted in impairment of nervous function.

But the authors' own conclusion states:

... at present we can only state that the children living in the exposed zone in front of the Skrunda RLS performed worse in the psychological tests given than the children living behind the RLS and even worse again compared, with the control group. The validity of the statement that the RF field at Skrunda has caused these differences can only be claimed with continuous and accurate assessment of dose, and close to exact standardisation of subjects.⁹⁰

⁸⁹ With two exceptions: he consistently misspelt "Skrunda" as "Skrundra" which is more euphonious to an English speaking ear but wrong; and one or two of his references to exposure levels in studies were incorrect because he used wrong units. 90 Kolodynski et al (1996).

- (156) Dr Beale noted the results of the Sutton Coldfield study but did not point out that it was a cluster study, nor that the authors' conclusion was that "no causal implications regarding radio and TV transmitters can be drawn from this finding, based as it is on a single cluster investigation". ⁹¹
- (157) One point in Dr Beale's evidence was that because 44 out of 66 research papers show "statistically significant effects on some aspect of nervous system or behavioural function" we should regard the risks of the cellsite as unacceptable. There are a number of difficulties with such an approach. First, as Dr Elwood pointed out, the 67 per cent result⁹² referred to by Dr Beale is artificial: the 66 papers referred to investigated many more than 66 effects. Dr Beale himself recognised the other criticisms of relying on the research papers he referred to. He emphasised that the animal studies were not used in setting the ANZ Standard (or at least its predecessor) because:
 - (1) Effects in animals are not necessarily indicative of health problems in humans given equivalent exposure.
 - (2) It is not known how small exposure must be to avoid these effects (ie the threshold for these effects has not been identified).
 - (3) Some of these effects have yet to be confirmed by replication.
 - (4) The mechanism by which radiofrequency exposure could cause such effects is not agreed or well understood.
- (158) He seemed to have, in effect, three reasons for considering such studies might nevertheless be relevant:
 - (a) The old NZ Standard (NZS 6609 now replaced by the ANZ Standard) referred to (only to reject) animal studies published prior to 1985. In cross-examination he accepted that that is unlikely to be correct. He also accepted that the ANZ Standard now in force, on an interim basis, was up to date when published.
 - (b) More recent animal studies especially Dr Repacholi's study suggested adverse health effects might occur. We return to these studies shortly.
 - (c) In conclusion it would seem premature to rule out the possibility that prolonged exposure of humans to cellsite radiation would result in cancers.

This last reason is the no-risk fallacy we referred to at the start of Chapter 5. Any scientist should know that except in a tautological (and therefore uninformative) sense we can never rule out possibilities altogether. The practical issue is always how low is the risk of cancer.

- (159) But we consider that the studies Dr Beale relied on cannot be useful for us for the additional reasons that:
 - Dr Beale's statistics are artificial as we have said;
- 91 Dolk (1997b), p 8.
- 92 44/66 = 66.67 per cent (approx).

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- there may be statistically significant results in the papers not referred to which are negative;
- there is no assessment by Dr Beale of the quality of the studies and results; and
- physiological changes do not necessarily have an adverse health effect.
- (160) As far as Dr Hocking's evidence was concerned, while in some ways we were impressed with his sincerity as a witness there were a number of ways in which he significantly, if unconsciously, showed bias or at least inconsistency in the matters he took into account in reaching his opinion:
 - (a) He acknowledged in his paper⁹³ that confounders had not been adjusted for but in his evidence implied that they had.
 - (b) While he stated that "the number of proven causes of leukaemia are few" he did not acknowledge, or perhaps recognise that the number of factors much more likely to cause leukaemia is considerable (as Dr Elwood demonstrated to our satisfaction).
 - (c) He suggested that different frequency ranges or pulses might have different (adverse) effects, without acknowledging that, if that were true, it would remove the validity of some of the studies he relied on since, as Dr Elwood pointed out: "only results on the precise frequency ranges used in this cell . . . site could be used to predict its effects."
 - (d) He ignored the study of childhood leukaemia in San Francisco.94 That study was thorough, used accepted techniques, was published in a reputable journal and showed negative results.
 - (e) Similarly he stated that a study in Poland was the only study of military personnel working with radar but ignored a US Naval study which came to different conclusions.95 Dr Elwood expressed major concern about bias and inaccuracy of the Polish study⁹⁶ in his evidence-in-chief but Dr Hocking accepted it uncritically.
 - (f) Dr Hocking failed to observe any limitations of the Skrunda study (see para 46 of this decision).
 - (g) Finally Dr Hocking recognised no weaknesses in the Schwartzenburg study (again see para 46). The Woodward Report⁹⁷ points out that:

[S]elf-reported insomnia is a very imprecise measure of sleep quality and is prone to reporting bias.

Nor did he acknowledge the researchers' conclusion that: "the

94 Selvin 1992.

114

95 Robinette et al (1980) Effects upon health of occupational exposure to microwave radiation (radar) Am J Epidemiol 112, p 39-53.

96 Szmigielski (1996) Cancer Morbidity in subjects occupationally exposed to high frequency electromagnetic radiation The Science of the Total Environment 180, p 9-17. 97 p 23.

⁹³ Hocking 1997, p 8.

effect of EMF if really present however, is not very strong

(161) In conclusion, in relation to the epidemiological evidence we hold that the papers relied on by the SPS witnesses are all flawed as to technique and many are biased. The evidence of these two SPS witnesses is weakened by the failure of eye witnesses to acknowledge unequivocally in their evidence the defects in the research on which they rely. Further none of the witnesses for SPS gave a balanced picture to the Court by referring to papers which show a neutral or negative effect on human health from exposure to RFR, let alone explaining how or why such studies — Dolk (1997b), Knox (1977), Selvin (1992), should not be considered.

Assessment of biological/causative evidence

(162) As for the biological causation level of adverse health effects we heard from two witnesses exclusively on this issue, Dr Meltz for Telecom and Dr Cleary for SPS. In addition Dr Beale included a brief section on this issue in his evidence. The most comprehensive and systematic evidence was that of Dr Meltz. He came across as a thorough and sincere witness who gave an objective assessment of all important aspects of his area of research. He was criticised by SPS counsel for making an error in one of his published papers. But he acknowledged it in his evidence-in-chief by referring to the correction in his bibliography. We consider that one calculation error in a paper of Dr Meltz's (he was not the principal author) does not detract from his extensive qualifications and, experience to comment on fundamental scientific methodology used by others in his area of expertise. We have already quoted Dr Meltz' overall conclusions. In summary they were that:

> the accepted, repeated and credible evidence indicates that without the heating associated with high level exposures no biological effect has been confirmed as indicating even a potential adverse health effect.

- (163) Against that Dr Cleary gave us his opinions that:
 - (a) in vivo studies of long-term exposure to low intensity microwaves "provide evidence of deleterious non-thermally induced alterations";
 - (b) in vitro studies provide "unambiguous scientific proof that RF and microwave radiation can induce non-thermal changes in cell physiological functions, including most significantly the rate of cell proliferation".
- (164) The fundamental difference between Dr Meltz and Dr Cleary was that the first referred to both research which suggests there are adverse health effects from long-term exposure to RFR and

98 Altpeter et al (1995) Study on health effects of the shortwave transmitter station of Schwartzenburg, Berne, Switzerland (Major Report) Bundesamt fur Energiewirstschaft (Federal Office of energy), Berne, pp 1-152.

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that which do not. By contrast, Dr Cleary, in his evidence-in-chief, referred only to papers which suggest there are adverse health effects. In cross-examination Dr Cleary was asked:

Would you characterise your evidence as being fair and balanced in terms of an examination of the issue of RF exposure and risk?

He replied:

It is difficult for me to answer the question in terms ... of ... fair and balanced. The information I summarised in my statement of evidence was directed towards a scientific question. Now whether this involves concepts of fairness and balance — I cannot relate to those terms. The information that I summarised again is addressing the issue of non-thermal effect of microwave radiation have been reported in the literature.

- (165) We were concerned about that answer because it sounded evasive. In addition, in so far as his evidence related to the hypothesis that exposure to RFR causes adverse health effects at athermal levels, there are two other aspects he should have looked at:
 - (a) if testing the hypothesis scientifically, he should have looked at the research indicating it is not true, as well as the research indicating that it is; and
 - (b) adequate research should be able to show some sort of dose-response relationship (even if it is not in a straight line).
- (166) Dealing with those points in the context of this case, none of the studies relied on by Dr Cleary show any sort of dose-response relationship — as he acknowledged. Secondly, even if he did not understand what a "fair and balanced" approach to the scientific data would require he should have understood the need to look at data which does not confirm the hypothesis that at certain athermal levels of exposure to RFR adverse health effects will occur. Dr Cleary did not do that.
- (167) In passing we should note that Dr Cleary quotes Dr Repacholi as writing:99

I believe this is the first animal study showing a true non-thermal effect.

That was quoted without any explanation of the apparent inconsistency with the Chou $(1992)^{100}$ study or those of Szmigielski et al. $(1989)^{101}$ already relied on by Dr Cleary.

(168) There have been two recent studies which he did not refer to in his evidence-in-chief. One was by M R Frei et al¹⁰² who exposed 100 cancer prone mice to RFR of 2450 MHz (in circularly polarised waveguides) over 18 months for 20 hours

99 Repacholi (1997).

102 M R Frei et al Chronic exposure of cancer prone mice to low level 2450 MHz radiofrequency radiation Bioelectromagnetics, 19, p 20 [called Frei (1992)].

¹⁰⁰ C K Chou et al (1992) Bioelectromagnetic, 13, p 460-496

¹⁰¹ S Szmigielski et al (1989) Electromagnetic Biointeraction, p 89.

per day. The whole body SAR was 0.3W/kg. Another 100 mice were sham-exposed. According to Dr Meltz the results reported in Frei (1992) were that the chronic exposure did <u>not</u> affect:

- mammary tumour incidence;
- latency to mammary tumour onset;
- mammary tumour growth rate; and
- animal survivorship when compared with the sham-irradiated controls.

When the Frei (1992) paper was referred to Dr Cleary in cross-examination he did not criticise the methodology but said that the experiment it described was conducted under conditions different in terms of frequency of irradiation. While we understand that — the Frei mice were exposed to 2450 MHz as opposed to the 870-890 MHz which the cellsite will emit — that answer is almost a throwaway in that it suggests only evidence of experiments at 870-890 MHz could be relevant. Yet neither Dr Cleary nor any other witness for the school claimed that, presumably because they relied on other studies at different exposures in support of their opinions.

(169) An illustration of why Dr Cleary did not claim that, and another example of Dr Cleary only considering evidence for his hypothesis, was his statement in his written rebuttal evidence relating to the question whether children exhibit heightened sensitivity to adverse health effects from microwave exposure. He said:

> ... there has been a consistent association of residential exposure to 50 or 60 Hz magnetic fields and leukaemia incidence in children. This is not the case for residential exposure of adults to such fields.

There are apparently nine or more studies which show such an association, although these have been criticised for the unreliability of their techniques. A recent study by M.S. Linet et al¹⁰³ and known to Dr Cleary summarised its results as being that the risk of childhood leukaemia was not linked to magnetic fields. Again when that was put to him in cross-examination he said:

I don't think the outcome of one study changes my view in terms of the consistency of the findings.

and, rather inconsistently:

[Linet (1997) should be given] the same weight as placed on all research in this particular area.

We consider a much fairer and more considered assessment of Linet 1997 is in the ICNIRP guidelines¹⁰⁴:

The size of this study is such that its results, combined with those

103 Residential exposure to Magnetic fields and Acute Lymphoblastic Leukemia in Children New England Journal of Medicine 337:1 [Linet (1997)]. 104 p 499. of other studies, would significantly weaken (though not necessarily invalidate) the previously observed association.

Further it needs to be remembered that power lines and electric cabling transmit at extra low frequency (ELF) which is very far from the cellsite frequencies.

- (170) Turning to in vitro research Dr Cleary's own research may show evidence of RFR induced change, but not that it is harmful. However, his studies are nearly incomprehensible to us and despite being given time to file a rebuttal statement and the opportunity to explain his views to us after Dr Meltz's evidence, Dr Cleary failed to articulate his methodology in a way we could understand. Dr Meltz criticised Dr Cleary as redefining science in his description of the cell-cycle of mammalian cells, and that is how it looked to us. Again Dr Cleary did not refer to any paper which showed results consistent with his.
- (171) Dr Cleary concluded that:

recently conducted epidemiological studies as well as studies of microwave radiation effects on experimental animals and on mammalian cells provide consistent and convincing evidence of non-thermal exposure effects.

But we have to consider the limited material that led him to this conclusion. It is also of concern that he referred to epidemiological studies when in his introduction he stated that he would leave those studies to other witnesses, and consistent with that he does not refer in his evidence-in-chief to a single epidemiological study. His final reliance on unspecified epidemiological studies undermines the objectivity of his evidence.

(172) Dr Meltz criticised Repacholi (1997) (mentioned by Dr Cleary for the school) concluding that the study should not have used the methodologies or the strain of mice it did. His criticisms were:

(1) Within one year after initiating treatment with the chemical carcinogen used on the Eµ-Pim 1 strain of mice it has been reported lymphoblastic lymphomas appear in a large number of the animals. However the study by Repacholi et al continued the treatment for up to 18 months. As the animals aged a different type of tumour, a follicular lymphoma (known to occur with age in inbred mice strains), appeared in the mice. With more of those tumours arising in the RF exposed animals the conclusion could be drawn that this was due to RF exposure. It appears to have been overlooked that after one year of the treatment the authors of the study did not see a statistically significant difference in the number of lymphoblastic lymphomas in the RF exposed group as compared to the control group.

(2) There was no positive control treatment group. Without a positive control and without historic negative controls (which would indicate the appearance of follicular lymphomas with age in the mice) the study results (other than the absence of lymphoblastic lymphoma induction) are meaningless.

(3) There should have been a full histopathological examination of all those animals terminated at the end of the study. This may have shown the expression of the follicular lymphoma in a way that may have eliminated any statistical difference between the RF exposed groups and the control groups.

(4) It is important in animal studies to make sure the animals are pathogen free however there was evidence of a lethal renal disease in the mice. The bedding should have been changed more frequently to minimise the stress to the animals due to ammonia build-up and there should not have been five animals in a cage during exposure. Stress can lead to an earlier appearance of follicular lymphomas. Closer monitoring should have occurred so that dead animals could have be removed soon enough to allow successful pathological examinations.

(5) The exposure of each animal in the cage was dependent on reflections and scattered radiation from the other animals in the cage. When animals died, they were removed and not replaced, making the dose to the other animals different than originally calculated

There was no good answer to any of these criticisms from the witnesses for SPS.

(173) Mr Hearn, for SPS, criticised Dr Meltz for only considering a small proportion of the total of bio-mechanistic studies of the effects of exposure to RFR. This criticism has some force especially since Dr Meltz himself had criticised Dr Cleary for only considering ten papers out of 17 referred to in Dr Cleary's evidence-in-chief. However, Dr Meltz himself had considered many more papers and his evidence was balanced in that he went out of his way (so it appeared to us) to examine the research which suggests there may be effects from exposure to RFR.

Is there a significant risk of adverse health effects from the proposed RFR?

- (174) If there are adverse health effects hom the RFR discharge then they can only be effects within s 3(f) of the Act — that is potential effects of low probability but high potential impact. It was common ground that ordinary risk assessment showed "no risk". Applying the tests for s 3(f) effects which we set out in Chapter 5 we find there are hypotheses that exposure of the school community to the proposed RF radiation might cause:
 - leukaemia or other cancers:
 - sleeplessness:
 - learning disorders:
 - harm to foetuses.
- (175) Is there enough evidence to establish these hypotheses to the very limited extent we require to establish them as effects within the meaning of s 3? It will be recalled that the alternative evidential criteria include:

- (2) general acceptance of the hypothesis;
- (3) persuasive animal studies or other bio-mechanistic evidence accompanied by an explanation as to why there is no epidemiological evidence of actual effects in the real world; or
- (4) (possibly) a very persuasive expert opinion.
- (176) No one claimed that there was general acceptance of the idea that RFR causes athermal effects at the intensity emitted by the cellsite. The most that SPS could claim are the careful concessions by Dr Black in his rebuttal evidence. He said:

6. . . Dr Beale states that there are "numerous studies on animals that show adverse effects of brief radiofrequency exposure at levels much lower than the thermal threshold and which appear to be unrelated to the significant whole-body heating that occurs at higher levels of radiation". I agree with that statement. It underscores why Standards are set at a large margin below this "thermal threshold" which occurs at a specific absorption rate ("SAR") of 4 watts per kilogram. For example, the NZ Standard is set at 1/50th of that thermal threshold.

7. The vast majorty of these animal studies show effects which occur at levels above 1/10th of the thermal effect threshold, which accounts for some Standards (like those in the UK and Japan) that are set at this level.

8. It is also important to note that the vast majority of experimental results showing effects at levels below 1/10th of the threshold (ie below 0.4 watts per kilogram) are not studies on whole animals. The effect of a signal falling on an isolated tissue sample is altogether different from that on a whole animal, and accordingly the levels are meaningless in terms of whole body exposure.

We find that Dr Black accurately portrays the general scientific view of the research, for example as portrayed by ICNIRP and, directly to us, by Dr Meltz. There was no expert witness who persuaded us that the mainstream of thought is wrong and that their research is right. So the only doors left open for the finding of adverse health effects from athermal RFR at cellsite levels are the presence of sound epidemiological studies and/or the bio-mechanistic studies.

(177) On the epidemiological evidence given to us we find that all the studies quoted to us as support for the various hypotheses of adverse health effects were flawed¹⁰⁵ although at least the authors of the Sutton Coldfield study¹⁰⁶ admitted the limitations of that study which is why they delayed publication until they published their later study. The leukaemia studies in particular were far less convincing than the studies which showed no significant association between RF discharges and cancer.¹⁰⁷

(178) As for the existence of animal studies these suffered from a number of defects also. There was no attempt to explain why there was no or little epidemiological evidence of actual adverse health effects. In the absence of such explanation the usefulness of animal studies is very doubtful.¹⁰⁸ In addition, as we have already pointed out, the existence of effects does not necessarily mean they are harmful. As Dr Repacholi himself has recently written of animal studies:

It is questionable whether reported "effects", even if substantiated, can be considered to represent evidence of a hazard simply because the significance of the effect for the organism is not understood.

... Not all biological effects of exposure are necessarily hazardous; some may be beneficial under certain conditions.¹⁰⁹

- (179) It was a key part of the school's case that there may be adverse effects within the meaning of s 3(f), that is "potential effects of low probability but high potential impact". As we suggested in Chapter 5, the first use of the word "potential" shows that it is not proven actual effects that need to be considered but also scientifically possible effects established to our satisfaction under the criteria listed in para 147. It is at this point that Mr Gould's submission, that there is no evidence of adverse effects, falls down. We hold:
 - (a) that there is very tenuous epidemiological evidence of some possible adverse health effects (effects on learning and sleep);
 - (b) that on our subjective assessment these effects are of very low probability; and
 - (c) that the effects may be of relatively high potential impact (but not of the devastating impact that cancers would have).

So there are adverse effects within the meaning of s 3(f) but only in a very weak sense.

- (180) In conclusion we hold that:
 - (a) the risk of the schoolchildren or teachers at the school incurring leukaemia or other cancer from RFR emitted by the cellsite is extremely low;
 - (b) the risk to the pupils of exposure to RFR causing sleep disorders or learning disabilities is higher but still very small.¹¹⁰

To avoid confusion we emphasise that this is not a scientific assessment of risk. That is impossible in the present

¹⁰⁷ Selvin (1992); Dolk (1997b), Knox (1977).

¹⁰⁸ There is a significant jurispurdence on this in the USA – see for example: General Electric Ltd v Joiner 118 S Ct 512.

¹⁰⁹ M H Repacholi (1998) Low-Level Exposure to Radio Frequency Electromagnetic Fields Bioelectromagnetics 19, p 1-19.

¹¹⁰ Taking a relatively arbitrary figure, just to give an idea of what we mean: very small = 1 in a million (ie 1 x 106).

state of knowledge. We respectfully agree with ICNIRP that:111

Overall, the literature on athermal effects . . . electromagnetic fields is so complex, the validity of reported effects so poorly established, and the relevance of the effects to human health is so uncertain, that it is impossible to use this body of information as a basis for setting limits on human exposure to these fields.

Our assessment is of the risk which we must assess as an effect (or product of effects) under s 5(2) of the Act. It is a reasonable assessment of the risks on the evidence presented to us.

Chapter 7: Other Effects [s 104(1)(a) continued] Adverse psychological effects

(181) In respect to claimed psychological effects the principal evidence for the school was that of Dr Staite, and to a lesser extent that of Dr Beale. With respect to Dr Staite's evidence Mr Fougere set out the requirements for survey validity (see Chapter 5 above and the discussion of *Imperial Group plc v Philip Morris Ltd*) and then stated that none of the required criteria were met by Dr Staite's survey. Mr Fougere recommended that the Court exercise "extreme caution" in considering this evidence. His main concerns about the survey were:

> (1) The methodology did not describe that the sample used represents any wider community. In fact Dr Staite clearly approved of the concept of focusing on "information-rich" cases — in this case that meant interviewing those with the strongest concerns about the tower. This approach may be correct for research designed to develop a theory but not to make a conclusion on the widespread adverse psychological effects;

> (2) The sample size was small. There were only a few interviews;

(3) There is no copy of all the questions asked in the survey nor all the results obtained. It is not known whether he asked all those interviewed the same questions;

(4) If he did ask all those interviewed the same questions then he was asking standard 3 and 4 pupils very complex questions and it would be safe to assume their comprehension of the questions would be jeopardised;

(5) From the way Dr Staite presented his evidence it was impossible to determine whether the questions he asked in his survey were leading. He says that one question was "What negative psychological states such as anxiety and depression, in your mind, will be experienced by you along with your fear of future illness in respect of the cell tower?" This is a leading question assuming "negative psychological states";

(6) The presentation of results is too unstructured to allow formal evaluation by a third party which is unsatisfactory; and(7) There is no dependable data to make conclusions on

wide-spread effects.

- (182) In Chapter 4 we covered Dr Staite's evidence in some detail to give its flavour but we have to say we are troubled by it. This is not only because of the dubious validity of the survey on which it is based but for other reasons as well. Examining it as a whole and including the cross-examination, it has three rather disconnected parts: a theoretical review of some relevant psychological literature; a long summary of his survey of the parents; and a short final overview. In particular there was little apparent connection between his review and his survey.
- (183) In addition many pages of his evidence about his survey were full of hearsay. He included many comments from parents, teachers and children, sometimes in quite colourful language, giving their perceptions of thec Telecom proposal. As far as his summary was concerned, he did not attempt to link his theoretical evidence with his survey. There was a major implicit assumption that there are adverse effects from the cellsite.
- (184) Telecom's counsel submitted that the Court should be guided by the *Telecom* decision¹¹² where the Court said that it did not think that "social angst and lack of well-being in the community affected by the proposal" was a material consideration in coming to its decision. Counsel also quoted Dr Zelas who said:

... if a child is anxious or fearful of going to school when there is determined to be no "real" reason for this, educators do not propose that the child avoid the perceived threat and remain at home.

- (185) In respect to Dr Staite's assertion that "... a psychological effect did in fact exist in the minds of the people and community" counsel pointed out the criticisms by Dr Zelas and Mr Fougere of Dr Staite's study. Mr Gould also referred to the opinion of Dr Beale that the Shirley community would suffer "indirect effects mediated by stress". He submitted that should be given little weight as the hypothesis lacked any foundation of fact or actual research. In contrast he said there was the evidence of Dr Black and Mr Jennings who made inquiries in schools close to where cell sites are located and found evidence of a lack of anxiety and concern.
- (186) Counsel opined that to the extent that claimed anxieties and fears do exist there is evidence of misinformation and therefore Telecom should be followed and anxieties and fears not founded on any plausible health risks ought not to be taken into account. Counsel submitted that Mr Hearn was not correct in suggesting that it would have been valuable for Dr Zelas to speak to those in the community. The purpose of her evidence was to deal with broad issues not to express opinion on the

state of mind of any person. Mr Hearn cited the case of *Meadow Mushrooms Ltd v Paparua County Council*¹¹³. He referred to the passage¹¹⁴ where the Board¹¹⁵:

... observe[d] that the health of the community, which is one of the factors mentioned in s 18 of the Town and Country Planning Act 1953, is not necessarily restricted to physical health. Whether or not it is psychological there is no question that a large number of the residents of Prebbleton appear to fear methyl-bromide gas and associate illnesses they have suffered with the proximity of that gas. Fear of exposure to a cumulative poison, whether physical damage is or is not caused thereby, is a very real factor in relation to normal health and wellbeing. [Our emphasis.]

Counsel for Telecom submitted that case is different on the key matter at issue: the fact that with cellsites any anxiety is not based on any scientifically plausible health risk.

(187) There is an issue as to whether fear or other psychological effects are effects we can take into account. *Duncan v Thames* Coromandel District Council¹¹⁶ recognised that under the Town and Country Planning Act 1977:

It is proper to pay some regard to fear of the unknown. Fear for safety, and of the unknown, impinges upon psychological health, and that is part of total health.¹¹⁷

That passage was quoted in a leading town planning case under the Town and Country Planning Act on the introduction of LPG tanks to Auckland: *Liquigas v Manakau City Council.*¹¹⁸ That decision stated:

We accept that a land use which causes so great an extent of fear or worry about danger and stress as to affect the mental health of members of the community generally (rather than individual persons who may be more fearful than people generally) may properly be a consideration in land use planning. However, there was no evidence on which we could find such circumstances in this case. We will concern ourselves directly with the question of the safety of the community, in the expectation that if safety is properly provided for, the mental health of the community will not be affected.¹¹⁹

(188) We have to consider whether that is the appropriate approach under the RMA or whether the more robust position adopted in the Telecom¹²⁰ decision is correct when it stated:

social angst and lack of well-being in the community affected by

113 (1977) 6 NZTPA 327.
114 p 333.
115 The Town and Country Planning Board: a predecessor of the Environment Court.
116 (1980) 7 NZTPA 233.
117 p 240.
118 (1983) 9 NZTPA 193.
119 p 218.
120 W 165/96, p 11-12.

the proposal . . . cannot be a material consideration.

(189) One aspect of the Town and Country Planning Act cases (especially Liquigas) which is clear is that the importance of the fear or psychological element is very dependent on the objective assessment of the risk:

> What is called for is an assessment of the risk and the consequences of the proposal before us. In making that assessment we must endeavour to hold a balance between being unduly timorous in the face of danger, however remote, and being callous about other people's safety.¹²¹

- (190) In our view if a Council or the Court finds that there is an unacceptable risk of adverse physical health effects then it is likely to refuse consent anyway. If the risk is acceptable then the fears of certain members of the community or even of sufficient people to be regarded as a "community" would be unlikely to persuade the Council or at least the Court that consent should be refused, because the individual's or the community's stance is unreasonable. It is not irrational as we shall explain later, but it is unreasonable. Thus we do not go quite as far as the Telecom case in saying that fear is not an effect to be taken into account. We consider it is, but whether it is an effect which should be given any weight depends on the assessment of the risk.
- (191) This, as we understand it, was the approach taken in Department of Corrections v Dunedin City Council¹²². That case concerned the location of a periodic detention centre in South Dunedin which was opposed by local businessmen. The Court stated¹²³:

We accept that as a matter of law, the concerns expressed by the several members of the South Dunedin Business Association who gave evidence in this case, can be regarded as giving rise to adverse effects on the environment, if they are substantiated. Consequently, it is relevant to have regard to these concerns and the evidence about them.

The guestion remains however, whether this evidence establishes that there are likely to be such adverse effects on the environment.

We consider the last sentence shows the difference between this case and Meadow Mushrooms as relied on by Mr Hearn. In the latter case the accumulation of heavy metals is a known hazard to humans and other animals. So the fear of that hazard may properly be taken into account. It was different in Department of Corrections where the existence of adverse effects on the environment had yet to be established, and in fact was not.

121 Liquigas, p 220.

122 Environment Court, C 131/97, 22 December 1997.

¹²³ Department of Corrections, p 21.
- (192) To summarise on the psychological evidence on the SPS side we have the evidence of Dr Staite which we find methodologically unreliable, partially incomprehensible (his answers in cross-examination tended to be repetition of psychological jargon) and inconsistent. On the other hand we have Dr Zelas' evidence which, while clearer and consistent, is based on the assumption that there will be no adverse physical health effects from exposure of the school community to RFR. Parents who read her evidence might be offended because it suggests they are irrational in their concems for their children. Dr Zelas' approach seems both a little unfair, and simplistic. We cannot agree that there is no risk to the school community. There is some risk (although very small or extremely small for leukaemia and other cancers).
- (193) In the end we find all the expert psychological evidence unhelpful. We had direct evidence about people's fears of exposure to RFR from enough parents and teachers to be sure that a significant part of the school community is genuinely concerned about, even fearful of, the effects. But whether it is expert evidence or direct evidence of such fears, we have found that such fears can only be given weight if they are reasonably based on real risk.

Social and financial effects

- (194) We have described Dr Brown's evidence as to the probability that parents would withdraw their children from the school. For Telecom, Mr Fougere was highly critical of that evidence. He was of the view that generally her survey failed to comply with the requirements of a proper reliable survey. The first question in Dr Brown's survey was whether parents would consider moving their child from the school, however when she came to interpreting the results she spoke of parents who would move their children. Mr Fougere said that invalidated the remainder of the survey as this same confusion is implicit in the logic of the two questions that followed.
- (195) He was also of the view that the sample was almost certainly biased in that more of those who would consider moving their child(ren) than other parents are likely to have responded to the survey. Mr Fougere considered that since less than half the parents to whom the survey was sent actually replied the potential for bias in the sample (in overstating concern about the tower) is important. Mr Fougere suggested we attach minimal weight to Dr Brown's evidence and we agree. Accordingly the evidence of Mr Shand and Mr Walsey on financial issues which was based on Dr Brown's evidence can also be given little weight.

NZRMA

Visual effects

(196) In relation to visual effects, we accept that subjective value judgments about the safety of cellsites have no place¹²⁴ in the assessment of visual amenity. There is a chimney on the school grounds that will loom larger than the cellsite mast from some viewpoints. Further Ms Lucas, who gave evidence for the school did not appear to have taken into account the new slimmer mast. Her evidence was based on the proposal as put to the Council. We prefer Mr Miskell's evidence over Ms Lucas's both for those reasons and also because we consider the tower will not be an undue imposition on the view from the school grounds. There is no visual conflict with surrounding development. We record that we would not necessarily come to the same conclusions if the cellsite was surrounded by houses. Its scale might then make it completely out of proportion, and therefore inappropriate.

Beneficial effects

(197) Finally we should mention that there will be some beneficial effects eg improved mobile phone coverage on the Telecom network from the presence of the cellsite. As the Telecom witnesses pointed out, the RF spectrum is a limited physical resource under s 5 of the RMA. These advantages would be nearly¹²⁵ insignificant if a scientific assessment of risk showed that there was a real and unacceptable danger to the school community. The advantage of recalling the benefits is that they remind us of the wider context of this application which we should take into account — that is the general exposure of the wider population (including the school community) to RFR from all sources. We will return to this issue in our assessment under s 105(1)(c) of the Act (Chapter 10).

Chapter 8: Statutory Instruments [s 104(1)(d)] The transitional plan

(198) In the city section of the transitional district plan ("the transitional plan") the site is zoned Commercial Service ("C/S"). This zone covers approximately seven separate titles (comprising approximately 5570 m^2) on the north eastern intersection of Hills Road and Shirley Road. Shirley Primary School is located to the north east of the site. It is zoned Residential 1 and designated for "Primary School" purposes. Diagonally opposite the site is a Commercial 1 zone which has been recently developed with a new shopping centre called "The Dates". The zone statement for the C/S zone states:

> These zones generally adjoin shopping centres and are designed to provide for service and small scale industrial activities which

124 See the Telecom decision, W 165/96.

125 The RMA may still require a cost/benefit analysis under ss 5(2)(c) and 7(b).

mainly, although not exclusively, serve local needs and which provide some local employment. These uses are often associated with uses within adjoining Commercial 1 and 2 zones.¹²⁶

- (199) Activities permitted in the C/S zone include administrative, commercial and professional offices, medical and community facilities, service industries, places of assembly, parks and recreation grounds, local taverns, service stations, public utility substations and exchanges.¹²⁷ As the zone rules do not mention radio communication facilities such as the proposed cell site, the proposal is non-complying under s 374(4) of the Act.
- (200) There are a number of performance standards in the C/S zone relating to floor space, visual amenity, sunlight outlook and amenities, access, parking and loading. Height is controlled indirectly by recession planes where the site adjoins two of the residential boundaries of the school.
- (201) The transitional plan sets out what the development of commercial centres shall have regard to in respect of design. The list includes avoiding visual conflict with surrounding residential development and providing landscaping to act as a buffer between residential and non-residential uses where necessary.¹²⁸
- (202) We find that the proposed cellsite sits comfortably within the objectives and policies of the C/S zone of the transitional plan. It is the wire-less equivalent of a public utility such as a telephone exchange which is a permitted activity. As we have found in relation to visual effects there is no conflict with surrounding residential development. We appreciate that the school is zoned "Residential" although as a public work it is obviously not used for residential purposes but we understand the recession planes for the cellsite are met in respect of the school's boundaries.

The proposed plan

- (203) Under the Proposed Christchurch City Plan ("the proposed plan") the site is zoned Business 4 which is a suburban industrial zone. Any activity can establish in this area as a permitted activity providing it complies with all the development standards and all the community standards.¹²⁹ Height is again controlled by recession planes and these are relevant to the two boundaries adjoining cultaral zones.¹³⁰
- (204) Chapter 9 of the proposed plan makes specific provision for utility structures:

Rule 4.2.1 reads:

Application of these rules

126 Transitional Plan, para 43 [p 119].
127 Transitional Plan, Ordinance, 43.1 para 43.1A-F [pp 119-120].
128 Transitional Plan, Scheme Statement, cl 26 [p 23].
129 Proposed Plan, vol 3, R 4.1.1 [p 3/17].
130 Proposed Plan, vol 3, R 4.2.5 [p 3/18].

(a) These rules on utilities replace any zone rules which may otherwise apply to utilities in zones through which utilities pass, or within which they are sited unless specifically stated to the contrary.¹³¹

So rather remarkably, the utilities rules generally replace all other zone rules.

- (205) Under Chapter 9 the facility is a discretionary activity:
 - 4.4.2 Telecommunication and radio communication facilities Any utility is a discretionary activity where it involves any of the following:
 - (a) Erecting any telecommunication or radio communication facility above ground level (including any mast, antenna, tower, or support structure) which is:
 - (i) so designed and operated as to emit microwave or ultra high frequency emissions of any type within any living zone, or within 300 m of the boundary of any living zone
 - (ii) so designed and operated as to emit more than 50 microwatts per square centimetre at any time within any zone or within 300 m of a living zone. ...¹³²

(206) In the "Reasons for Rules" for the utilities it says:

Pending the review of the New Zealand Standard 6609 (1990) in respect to microwave and ultra high frequency emissions, a conservative approach has been adopted having regard to the potential effect of such facilities on the health of persons in the vicinity.¹³³

The proposed plan thus turns risk into a key element when considering the approval of the cellsite as a discretionary activity. Risk is not spelled out clearly as an objective or policy but we assume that an objective or policy about it can be inferred from the reason for the rule stated above. So whether or not the cellsite proposal is consistent with the objectives and policies of the proposed plan depends on whether there is a significant risk to persons in the vicinity of the cellsite. In other words the proposed plan does no more than refocus on the principal issue in the case: whether there is a risk from exposure to RFR at athermal levels.

(207) Little weight should be given to the proposed utilities section of the plan because there are submissions to the Council challenging aspects of the section — including submissions from both appellants in these proceedings.

Chapter 9: Other Matters ($s \ 104(1)(i)$) Introduction

(208) There are a number of other matters we have to consider in this case:

131 Proposed Plan, vol 3 [p 9/21].
132 Proposed Plan, vol 3 [p 9/22].
133 Proposed Plan, vol 3, para 4.6 [p 9/23].

- the application of the ANZ Standard and the ICNIRP Standard whether alternative sites for the cellsite should have been considered, and if so, were adequately covered by Telecom;
- the application of the "precautionary principle"; and
- whether the "prudent avoidance" principle or the policy of "as low as reasonably achievable" ("ALARA") is relevant.

The standards

(209) We have to consider the two new standards both published in 1998. The ANZ Standard¹³⁴ states that the variables considered when developing the safety factors were:

(a) Absorption of electromagnetic energy by humans of various sizes, with particular reference to whole body or partial body resonant absorption of energy.

(b) The lack of knowledge of the relationship between peak SAR and biological effects.

(c) Environmental conditions — the exposure limits should be protective under adverse conditions of temperature, humidity and air movement.

(d) Reflection, focusing and scattering of the incident fields in such a way that enhanced absorption occurs.

(e) Possible altered response of humans taking medicines.

(f) Possible combined effects of RF electromagnetic energy

with chemical or other physical agents in the environment.

(g) The possible effects of modulated microwave fields on the central nervous system and the possible existence of "power" and "frequency" windows for such effects.

(h) Possible non-thermal effects.¹³⁵

This list shows that the Committee which set the standard was aware of the types of (potential) risk which have been raised in this case.

(210) The Foreword then compares the standard with that endorsed by ICNIRP:

At frequencies between 400MHz ond 2GHz the ICNIRP literature gives progressively rising derived levels and thereafter a level which is constant with frequency. This Interim Standard does not, however, follow this methodology and requires a lower and constant level to be met across the entire frequency range above 400MHz. Furthermore, a lower spatial peak SAR is prescribed for all parts of the body except hands, feet, wrists and ankles. This approach was followed because of the existence of ongoing research projects by WHO and public concerns abour RF radiation, particularly from cellphone systems. The higher ICNIRP derived levels in the frequency range above 400MHz are given in this Interim Standard for information only.¹³⁶

The standard itself then states:

134 The ANZ Standard is AS/NS 2772.1 (int): 1998 expires on 5 March 1999. 135 AS/NZS 2772.1 (int): 1998 Part 1, p 25. 136 AS/NZS 2772.1 (int): 1998 (p 4.)

6.1 General

The exposure limits have been developed on the basis of there being a threshold of 4W/kg whole body SAR before any adverse health consequences are likely to appear. Whilst occupational limits are based on reducing exposure by a factor of 10 below the 4W/kg threshold, non-occupational exposure limits are derived from values one fifth (or less) those of cl 5.2 [Clause 5.2 refers to the new limiting values for persons exposed to RF in the course of their occupation]. The non-occupational limit is therefore 0.08W/kg whole body average SAR.¹³⁷

(211) On the issue of whether there could be athermal effects from RF radiation the ANZ Standard states:

The Committee responsible for this Interim Standard considered both thermal and non-thermal effects of RF exposure. The Committee found that, when established scientific literature is used, exposure limits can only be based on thermal effects at frequencies above about 10 MHz. This is consistent with the findings of organisations developing standards in all Western countries. The Committee noted that while some researchers had found effects at body cell levels, there has been no conclusive evidence that such effects constitute a health hazard to humans.¹³⁸

The use of the word "conclusive" in the last sentence is likely to cause some concern about the ANZ Standard amongst lay people. It suggests a very high standard of proof before standards would be altered. For example if there was merely a "significant" but not conclusive evidence of a health hazard would the standard be altered?

- (212) Most causes of cancer (to take one hazard as an example) were initially recognised as a result of epidemiological studies, even though the causes cannot be "proved" by such studies. Bearing that in mind we would have thought that if there are such studies suggesting a link between low-level (ie athermal) chronic RF exposures and cancer then their significance should have been discussed, rather than simply summarising the issue by stating that athermal effects had been considered but that there were no "conclusive" results. Because we consider the public is entitled to ask for action taken under the Act if the impact of the potential hazard is sufficiently severe even if the effect has:
 - not been conclusively proved (including an explanation of the biological mechanism);
 - possibly not even been significantly established at an epiderniological level;
 - the ANZ Standard cannot guide us on this issue.
- (213) Turning to the ICNIRP Standard, the individuals who comprise ICNIRP including Dr Repacholi as Chairman Emeritus explain that:

137 AS/NZS 2772.1 (int): 1998 (p 13). 138 AS/NZS 2772.1 (int): 1998 Foreword (p 4). These guidelines for limiting exposure have been developed following a thorough review of all published scientific literature. The criteria applied in the course of the review were designed to evaluate the credibility of their various reported findings (Repacholi and Stolwijk 1991: Repacholi and Cardis 1997). Only established effects were used as the basis for the proposed exposure restrictions. Induction of cancer from long term EMF exposure was not considered to be established and so these guidelines are based on short-term, immediate health effects such as stimulation of peripheral nerves and muscles, shocks and burns caused by touching conducting objects and elevated tissue temperatures resulting from absorption of energy during exposure to EMF. In the case of potential long-term effects of exposure, such as an increased risk of cancer, ICNIRP concluded that available data are insufficient to provide a basis for setting exposure restrictions, although epidemiological research has provided suggestive, but unconvincing, evidence of an association between possible carcinogenic effects and exposure at levels of 50/60 Hz magnetic flux densities substantially lower than those recommended in these guidelines.

Transient, cellular and tissue responses to EMF exposure have been observed, but with no clear exposure-response relationship. These studies are of limited value in the assessment of health effects because many of the responses have not been demonstrated in-vivo. Thus in-vitro studies alone were not deemed to provide data that could serve as a primary basis for assessing possible health effects of EMF.

(214) The ICNIRP standard was the last word in scientific consensus on the issue of athermal effects from chronic exposure to RFR at the time we heard the case. We are reassured to find that it confirms our findings on the other evidence before us that the risk of adverse health effects on humans of chronic low-level exposure to RFR is very low. Strengthening our reassurance is the fact that at cellphone frequencies the ANZ Standard becomes almost 2½ times lower than the international standard in the ICNIRP guidelines.

Alternative sites

. . .

- (215) In response to the argument by Mr Hearn that Telecom was obliged to consider alternatives, counsel for Telecom responded that there is no onus on Telecom to give evidence or provide information regarding alternative sites unless:
 - (a) A matter of national importance is at issue with regard to the selected site¹³⁹; or
 - (b) There is a likelihood of significant adverse effects cl 1(b) of the Fourth Schedule¹⁴⁰; or

139 TV3 Network Services Ltd v Waikato District Council [1997] NZRMA 539. 140 Trans Power and Dumbar v Gore District Council (Planning Tribunal, W 189/96, 14 November 1996).

- 133
- (c) The activity is a non-complying activity and granting consent for the activity within the zone would reduce public confidence in the administration of the district plan.¹⁴¹
 Counsel for Telecom was of the view that none of these applied.
- (216) Referring to the evidence given on behalf of Telecom by Messrs Moran, Jennings and Gledhill, counsel for Telecom emphasised that in practical terms the proposed site is realistically the only one available to achieve Telecom's service objectives. He also pointed out that in response to questioning from Mr Hearn, Telecom's witnesses, Mr Moran, Mr Gledhill and Dr Black explained that micro cells (as opposed to the macro cells as proposed in this case) as an alternative are not realistic as they are not the correct technology for the engineering purpose sought to be achieved. Further Telecom witnesses, Doctors Elwood, Black and Meltz all denied the contention made by Mr Hearn that the proposed site is "unsuitable" due to its close proximity to a primary school attended by children aged 5-10 with a special sensitivity to RFR discharges. Counsel for Telecom pointed out that in McIntyre consent was granted despite the relative proximity of the site to dwellings and a creche, as the Tribunal found no evidence of effects, actual or potential.

Additional principles and policies

- (217) Mr Gould submitted there are three further matters that arise for consideration under s104(1)(i):
 - the "precautionary principle";
 - the policy of prudent avoidance; and
 - the concept of keeping RFR "as low as reasonably possible".
- (218) Mr Hearn relied on the general "precautionary principle" of environmental law referred to in *McIntyre*. The Court then considered the principle under both s 104(1)(i)¹⁴² and then because it was relevant in its overall evaluation under s 105(1)(c) where it stated:¹⁴³

The influence of the general precautionary principle in the evaluation and ultimate judgment is a matter of discretion. None of the cases supports the application of a formal threshold. Like all elements that contribute to the ultimate judgment, the weight to be given to the precautionary principle would depend on the circumstances. The circumstances would include the extent of present scientific knowledge and the impact of otherwise permitted activities. However we think that in an appropriate case they would also include the gravity of the effects if, despite present uncertainty, they do occur.

141 Stark v Auckland Regional Council [1994] NZRMA 126; Manos v Waitakere City Council (1993) 2 NZRMA 226. 142 McIntyre, p 304. 143 McIntyre, p 305. (219) There is some confusion apparent over the applicability of the precautionary principle. We hold that the correct position is that the RMA is precautionary and thus justifies a precautionary <u>approach</u>.¹⁴⁴ We consider, without deciding, that the precautionary pnnciple is a limited consideration introduced by international law. The precautionary principle, a subset of the precautionary approach, derives from the *Rio Declaration*¹⁴⁵ principle 15 which states:

In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to protect environmental degradation.

- (220) It will be seen that the precautionary approach applies where there is a threat of "serious or irreversible damage" and entails that just because it is not, say, 99 per cent certain that the threat will materialise, or perhaps that the damage will be irreversible, does not mean that no step should be taken to minimise risk. To paraphrase in the language of s 3 of the RMA the principle is, if a potential effect is only of high (and not very high) probability and high potential impact that is no reason for failing to take action to guard against the effect. The position facing us of course is quite different in that the alleged effect is clearly one of low probability and of unknown potential impact.
- (221) The reason we doubt why a wider "precautionary principle" is useful is precisely because a precautionary approach is inherent in the Act. As a result of the wording of s 3(f) — as discussed earlier — we are to have regard to potential effects of low probability but high potential impact. In our view this is precisely what the precautionary approach is about. Nor does the "principle" help (any more than does s 3(f)) by indicating how much weight is to be given to it.
- (222) Reference to principles or policies outside the Act which can already be found inside it is simply confusing. We think Occam's razor should apply and reference to the precautionary principle either eschewed or, if used, should be recognised as a restatement of s 3(f) and the precautionary approach. That position is encouraged by the fact that in this case we were also referred to the "prudent avoidance" policy or principle; and to

145 Rio Declaration on Environment and Development adopted at the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992 [1992] International Legal Materials 876.

¹⁴⁴ Trans Power used the words "precautionary approach" so did the Australian case of Greenpeace Australia v Redbank Power Company (1994) 86 LGERA 143. Other New Zealand cases that have used "approach" rather than "principle" have been cases involving the New Zealand Coastal Policy Statement which specifically mentions a precautionary approach: Clyma v Otago Regional Council W/64/96; North Shore City Council v Auckland Regional Council [1997] NZRMA 9 and Trio Holdings v Marlborough District Council 2 ELRNZ 353.

the ALARA policy ("as low as reasonably achievable"). In our view all of these are simply ways of expressing concern about future effects of low probability (so that we do not know whether they will occur) and high potential (again because we do not know) impact.

(223) In summary, we do not consider it is appropriate to apply the "precautionary principle" or the other policies suggested by witnesses and supported by counsel for three reasons. First a precautionary approach is already implicit in the Act and emerges in the flexibility of the standard of proof applied by the Court and (as we shall see) in the weight given to evidence that has only been "proved" to a low standard (probability). Secondly such a "principle" is an unnecessary complication in an already complex statutory and factual matrix. Thirdly, application of the precautionary principle (or any of the other rules of thumb) to our decision under s 105(1) would lead to double-counting of the need for caution. If the appropriate standard of proof is on a sliding scale between the balance of probabilities and beyond reasonable doubt, depending on the impact of the effect, the fact is that the appropriate caution has been exercised when deciding under s 104(1)(a) what the effects are to be considered under s 105. If the Court applies the another matter under principle" as "precautionary section $104(1)(i)^{146}$ then the need for caution will have been considered twice.

Chapter 10: s 105 Threshold tests

(224) Since the proposed cellsite is deemed to be non-complying¹⁴⁷ we have to consider whether it passes either of the threshold tests in s 105(2)(b). This states:

(2) A consent authority shall not grant a resource consent ---

(b) Notwithstanding any decision made under section 94(2)(a), for a non-complying activity unless it is satisfied that —

- (i) The adverse effects on the environment (other than any effect to which s 104(6) applies) will be minor; or
- (ii) Granting the consent will not be contrary to the objectives and policies of the plan or proposed plan ...

In our extensive coverage of the adverse effects we have already come to the conclusion that none of them are more than minor. Hence the first threshold test is met.

(225) Although we do not strictly need to consider the second threshold test under s 105(2)(b) we find that the proposal is not contrary to the objectives and policies of the proposed City

146 As *McIntyre* suggests at p 305). 147 Section 374 of the RMA.

Environment Court

The ultimate test

(226) Since the application passes the threshold tests we now turn to the exercise of our discretion under s 105(1)(c). The overall test to be applied when exercising that discretion is stated in Baker Boys Ltd v Christchurch City Council¹⁴⁸ as follows:

[109] As for our discretion under s 105(1)(c) we have to make an overall judgment to achieve the single purpose of the Act. This is arrived at by:

- taking into account all the relevant matters identified under s 104;
- avoiding consideration of any irrelevant matters such as those identified in s 104(6) and 104(8);
- giving different weight to the matters identified under s 104 depending on the Court's opinion as to how they are affected by application of s 5(2)(a), (bJ and (c) and ss 6-8 of the Act to the particular facts of the case, and then;
- in the light of the above.

allowing for comparison of conflicting considerations, the scale or degree of them, and their relative significance or proportion in the final outcome." North Shore City Council v Auckland Regional Council (1996) 2 ELRNZ 297.

- (227) Mr Hearn submitted that Part II of the RMA was the essence of this case especially that part of the definition of sustainable management which refers to the health and safety of people and communities.¹⁴⁹ In a sense he is right but then almost every relevant factor under the RMA can be brought back to some part of the definition of sustainable management. However, we do accept that because the health of the people potentially affected by the RFR discharge is an element of sustainable management we must place a great deal of weight on that issue.
- (228) The main factors we have to balance in this case, but overlooking neither the other issues raised, in particular under s 104(1)(i), nor the purpose of the Act, are:
 - (1) The very low risk subjectively but reasonably assessed, of adverse learning effects and/or sleeplessness from exposure of pupils at the school to RF radiation;
 - (2) A very low risk to pregnant women of miscarriages;
 - (3) The extremely low risk of exposure to RFR causing cancer, eg leukaemia in humans;
 - (4) The minor adverse visual effects from the cellsite mast;¹⁵⁰
 - (5) The provisions of the city plans;¹⁵¹

148 [1998] NZRMA 433, para [109].

149 Section 5(2) RMA.

150 Points 1-4 come under s 104(1)(a).

151 Point 5 arises under s 104(1)(d).

- (6) The ANZ Standard, and the ICNIRP standard;
- (7) The fear of some teachers, pupils and parents of RFR;
- (8) The possibility that the school might close (but acknowledging that such a possibility derives from SPS' own actions); and
- (9) The context given by other sources of RFR and public acceptance of them.¹⁵²
- (229) There is nothing else we need to say about considerations (4) and (5) in that list. They are either of little weight or (in the case of the proposed plan) subsumed in later considerations. When allotting the weight to be attached to the key considerations (1)-(3) we have to recognise that there is no objective risk assessment of these because it is common ground that it is impossible, on current knowledge, to say that there is a causal connection between RFR exposure and the adverse effects mentioned, or that there is a dose-response relationship, or that there is a threshold beyond which athermal harm will occur. In the end the weight given by the Court to the issue depends to a substantial extent on how far it is persuaded that there is a risk of really severe injury, or ultimately death.
- (230) Measuring the proposal against the other relevant issues we found first that the cellsite is not contrary to the objectives and policies of the plans. Rather it is recognised by the proposed plan. It is consistent with the ANZ Standard and the ICNIRP standard. Finally, the purpose of the Act is met in that the use by Telecom of its resource (part of the EM spectrum) is managed in a way which enables Telecom and its subscribing community to provide for their wellbeing, while not in any significant way putting at risk the health and safety of children and teachers at the school.
- (231) The last (ninth) consideration the overall circumstances of the case — is important. We have to recognise how much EMR citizens of New Zealand are exposed to both voluntarily and involuntarily. As we pointed out in Chapter 1, everyone in the whole world is exposed to EMR all the time. That includes exposure to the most dangerous EMR which is high-frequency ionising radiation (such as cosmic rays). At lower frequencies there is ultraviolet light and then the narrow band of visible light with frequencies of between 10¹⁴ and 10¹⁵ Hertz. The important and conspicuous EMR we all receive is direct ffom the sun. Sunlight gives each and every living thing a continuous exposure of about $80,000 \ \mu W/cm^2$. Below the frequencies of visible light there is no danger from ionising radiation. This radiation can of course still be dangerous — it contains enough energy to cause hearing or thermal effects. However, greater exposures are needed at lower frequencies to cause those effects.

- (232) So there is nearly nothing special about radio frequency (RF) radiation it is just one of the many forms of EMR that humans have evolved to live with. However, the background natural level of RFR is very low. It is only in the last 100 years that we have become exposed to much more "unnatural" ie human-generated RFR. Now we receive it from televisions, microwave ovens, electric blankets, visual display units and of course cellphones.
- (233) As a link between the adverse (physical) health effects as we have found them, and the psychological effects discussed in Chapter 7 we observe that there is often a large gap between scientists and the public's assessment of risk. Scientists attempt to calculate risk on a probabilistic basis, whereas the public is swayed by other factors or, possibly, by the same factors viewed in a different way. One aspect of this is that:¹⁵³

Most people have considerable difficulty understanding the mathematical probabilities involved in assessing risk... People consistently overestimate small probabilities. What is the likelihood of death by botulism? (One in two million). They underestimate large ones. What is the likelihood of death by diabetes? (One in fifty thousand). People cannot detect inconsistencies in their own risk-related choices.

- (234) There is a useful discussion of the public perceptions of risk in part B of the Woodward Report. Most of the items in the report's list, except for suspicion of multinational companies, were exhibited by one or other of the individual witnesses for the school in this case, for example:
 - concern for vulnerable groups (eg children);
 - uncertainty of knowledge;
 - lack of confidence in the standard-setting process;
 - imposition of involuntary risk;
 - (to which we add) scepticism about scientists.
- (235) In this case there is definitely concern for a vulnerable group — the children who go to the school. But we note that their vulnerability is because they are children not because they are exposed to RFR There was no evidence given to us (only speculation) that children are more vulnerable to exposure to RFR.
- (236) As for uncertainty of knowledge, while it is true that we cannot be 100 per cent sure that RFR does not cause adverse health effects there is no demonstrable basis for saying that it does either. There is so little evidence for an adverse health effect that it cannot be scientifically calculated as a percentage probability in small fractions of a per cent. And it must be remembered that many health effects such as cancers are stochastic. For example, one can expose a group of animals to a known carcinogen and only a percentage of them will get cancer.

153 Justice S Breyer: Breaking the Vicious Circle (1993), p 35.

NZRMA Shirley Primary School v Telecom Mobile

- (237) There are of course well-documented cases of scientists approving technology that turns out later to be harmful, eg thalidomide or growth hormone. The birth defects caused by thalidomide were referred to in this case; and the deaths from Creutzfeldt-Jakob Disease (CJD) transmitted through growth hormone are well known. The public in general and the school in particular are entitled to ask whether microwave RFR could also have unpredicted effects in the future, possibly years into the future. The answer is that it possibly could, but we find that the possibility is very, very remote having assessed all the evidence as carefully and sceptically as we could.
- (238) As for the possibility that the school might suffer financially or even have to shut down, we consider the first is probable. However, that is a problem of SPS' own making. The possibility of closure is also there, but the other side of that argument is that Telecom should find an alternative site. We are satisfied there is no other available site on which Telecom could place the cellsite in the Shirley area, so its options are to keep the cellsite as proposed or move to other technology, eg micro cellsites that are not next to the school. Although the latter would be possible (as Mr Moran for Telecom conceded), we consider it unfair to force Telecom to move to this new (and apparently expensive) technology when the need has not been demonstrated. In the situation as we assess it there is very little (or extremely low) risk to the school from the presence of the cellsite.
- (239) For these reasons, we consider that SPS should have to make the accommodation. If SPS has generated an atmosphere of fear and distrust amongst parents, teachers and pupils then it might have to live with the consequences of that. Having said this, SPS does have a practical remedy available to it in the light of its witness Dr Beale who said in his evidence-in-chief:

... the operation of this cellsite *could* cause adverse health effects in people spending a significant amount of time on the ground and in buildings within 30 metres of the installation. [Our emphasis.]

The obvious answer for those who still consider the cellsite will cause adverse health effects is for the school to fence off and not use the area within 30 m of the cellsite. We consider that step is entirely unnecessary, but obviously it is within the SPS' capacity to undertake and they should do so if they consider that prudence requires it.

(240) To explain why the parents and teachers at the school held some of the opinions they did, counsel for Telecom suggested they had been fed misinformation. We heard insufficient evidence to establish whether that was so, or who may have been responsible. However, the information (as produced to us) circulated to the school and the wider Christchurch community does have a very subjective and unbalanced tone to it. As

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Dr Black pointed out in his evidence there are a number of published fallacies about exposure to RFR and the ANZ Standard controlling such exposure. He mentioned three of these:

For example, it has been said that the Australasian Standard is set at "1/50th of the lowest level at which any harmful effects occur." This is quite wrong because the SAR of 4 watts per kilogram is nothing more than a benchmark. It is a threshold of *effect*, not a threshold of *harm*.

Others who criticise the standard [in the ANZ Standard] of 0.08 W/kg claim that because the standard is based on a heating effect only, it is purely a thermal standard and does not take into account any other possible effects (eg athermal effects). This is also incorrect. The thermal benchmark was chosen only because it is a definite, repeatable level. By setting the non-occupational standard for RF at 1/50th of this thermal benchmark any detectable thermal effects have long vanished. Indeed thermal effects are not observable at 1/5th of 4 watts per kilogram and this level (0.8 watts per kilogram) has formed the basis of some Standards overseas.

Moreover, the [ANZ] Standard takes into account both thermal and non-thermal effects of RF exposure. (Our emphasis.)

(241) In the end we have to say to the members of the school community that we consider they have greatly exaggerated the risks of exposure to RFR. We do not find SPS or the school community to be irrational but we do find that they have assessed Telecom's proposal unreasonably. Perhaps there is a psychological analogy with the risk of an asteroid — we refer to the lines in Les Murray's poem Corniche which read:

The rogue space rock is on course to snuff your world, Sure. But go acute, and its oncoming fills your day.

- (242) Looking at the issue that the wider public is also concerned with — whether exposure to RFR is very safe — we have concluded that the argument over cellsites is different from other health scares such as the fiasco in England over mad cow disease (BSE) and its human equivalent nv CJD. The differences are:
 - So far as we can judge the scientists and doctors who gave evidence to us for Telecom did so honestly and conscious of their responsibilities;
 - RFR is not new it is not like tampering with food by feeding previously vegetarian animals with bits of other animals (the cause of BSE) or the modification of plants by insertion of "alien" genes (the debate over genetic modification);
 - Humans are exposed to RFR (indeed EMR in all its forms) all the time;
 - While the school and its inhabitants may have isolated themselves from other sources of "unnatural" RFR, (microwaves, cellphones, electric blankets etc) the rest of the

community has not. If we are to stop the cellsite from operating where would this issue stop?

- There is international agreement by responsible scientists in the ICNIRP Guidelines that exposure to less than 450µW/cm2 is very likely to be safe; and
- There is no sense of an international conspiracy of scientists hiding information from us (or the public). On the contrary, there appear to be wide attempts to spread information dispassionately (for example via the Woodward Report which we strongly recommend to everyone interested in the issue) and to continue research into various hypotheses about possible adverse health effects.
- (243) In our final balancing of all the factors, we place a very heavy weighting (under s 5(2) RMA) on the need to protect the school community from harmful health effects. In the end we are persuaded to the very high standard that we require, by the evidence of scientists called by Telecom and by the view of ICNIRP, that the risks to the Shirley Primary School community are very low and are acceptable and accordingly we consider that the Telecom proposal should be allowed to proceed as achieving the purpose of the Act.

Chapter 11: Telecom's Appeal as to Condition 4

(244) The appeal by Telecom asserts that condition 4 as inserted by the Council in its decision is neither a necessary or appropriate condition for dealing with RF emissions. The condition reads:

> 4. The total power flux density of radio frequency radiation emitted by the facility, measured in accordance with the principles and methods of measurement set out in Part 2 of NZS 6609:1990:

> (a) at 30 metres from the mast at 2 metres above ground level (in the 90 GN sector) shall not exceed 6 microwatts per square centimetre; and

> (b) in addition at the nearest outside wall of the residence at 222 Hills Road at 2 metres above ground level, if permission from the owner and the occupier can be obtained, shall not exceed 6 microwatts per square centimetre.

- (245) Counsel for Telecom acknowledged that in terms of fostering public confidence, consent conditions can serve a valid purpose but was however of the view that condition 4 (which is similar to the condition imposed in McIntyre) sets an arbitrary limit different from (and much lower than) the ANZ Standard (155. 200 μ W/cm2) and would:
 - (1) serve to undermine public confidence in the ANZ Standard and any standard setting process;
 - (2) contravene the principle of "prudent avoidance" as expressed in that standard;
 - (3) tend to suggest there is a health issue above but not below that level (thereby fostering community anxiety);

- (4) possibly expose the consent holder to jeopardy for technical breach for no environmental purpose; and
- (5) serve no valid purpose under the RMA.
- (246) Dr Black explained that prudent avoidance in the context of the ANZ Standard requires:
 - (a) All other things being equal the way in which people most comfortably behave is to take the apparently safer course of action;
 - (b) RF should be kept as low as possible (notwithstanding the maximum limiting values in the new Standard) but not limited to the point that there is detriment to the desired performance of the installation, or excessive additional cost to the operators;
 - (c) Prudent avoidance can be readily attained with cellphone technology, as the use of "just enough but no more" power is inherent in the basis of technology; and
 - (d) Prudent avoidance is not to place reliance on arbitrary levels, but to require best contemporary practice (as stated in the standard) to achieve minimum exposure. To set specific limits sends the message to the community that there are health effects above that limit.
- (247) Counsel for Telecom was of the view that there was no real inconsistency between how the Woodward Report and Dr Black and other witnesses describe "prudent avoidance", but to the extent inconsistency is perceived, he submitted that the evidence of Dr Black be preferred. This is because the Woodward Report was published in 1996 and although commissioned by the Ministry of Health is not the policy of the Ministry; it did not take into account the ANZ Standard or the 1998 ICNIRP Guidelines; and the authors were not witnesses in this case.
- condition (248) For the Council in support of 4. Mr Hughes-Johnson's submissions have been summarised in Chapter 3 of this decision. For SPS, Mr Hearn argued that, far from justifying the approach to prudent avoidance given by Dr Black a proper understanding of the policy as explained in the Woodward Report would mean that, if the Court was to grant consent it should be subject to a condition that the total power flux density at the boundaries of the school be no more than 1μ W/cm2. Such a condition would provide for certainty, clarity and public confidence in the application of the principle of prudent avoidance.
- (249) For the reasons given in Chapter 9 we are reluctant to apply yet another "principle" not already stated in the Act. We consider the idea of prudent avoidance is simply an aspect of the Act's inherent precautionary approach. Further we are concerned that the ANZ Standard contains the seeds of inconsistency. The recommended conditions of operation for RF discharges can be seen as ways of staying within the standard. Or they can be seen as Dr Black suggested as an aspect of an extra prudent

approach. But if they are seen as the latter then any undermining of the standard is of its own making. There is some discussion of the difficulties with the prudent avoidance and ALARA (as low as reasonable achievable) approaches in the Woodward Report. This reinforces our conviction we should disregard them. As does the fact that the ICNIRP guidelines do not contain any reference to the prudent avoidance principle.

- (250) Turning more directly to the appropriateness of condition 4, we bear in mind that:
 - (1) a precautionary approach is already inherent in the ICNIRP and ANZ Standards:
 - (a) in the ANZ Standard the level for non-occupational exposure to RFR is set at 1/50th of the exposure level at which thermal effects occur,
 - (b) ICNIRP imposes a maximum level of exposure of 0.08 W/kg (which translates to 450µW/cm2) at the cellsite's frequency.
 - (2) we have not considered condition 4 as necessary for mitigation of any effects — principally because we consider the effects of (or the risk which is the combination of them) exposure to RFR to be so minor that they do not require mitigation. Thus any argument over the level is essentially irrelevant so long as the ANZ Standard is met.
- (251) Given that background, and all our findings in the previous chapter we now find that:
 - (a) There is no reasonable defect in the ANZ Standard's non-occupational limit of 200μ W/cm² (or SAR equivalent) except perhaps that it is too low at the cellsite frequencies (see the ICNIRP standard which is equivalent to 450 μ W/cm²);
 - (b) The Council has, in the *Telecom* case and since, adopted a policy of <u>not</u> imposing a "condition 4" type of limitation, and we can see sense in consistency of conditions across consents;
 - (c) Imposing a limit lower than the ANZ Standard would tend to undermine the credibility of the standards;
 - (d) Imposing the lower limit of condition 4 would suggest that exposures of more than 6μ W/cm² do cause adverse health effects.
 - (e) Any limit such as 6µW/cm² is arbitrary and arbitrary figures serve no purpose;
 - (f) The words "SUBJECT TO" in the ANZ Standard mean what they say, that is, any lower figures dictated by prudence or caution are subservient to the ANZ Standard for enforcement purposes¹⁵⁴; and

154 Applying the principle in Environmental Defence Society v Manganui County Council [1989] 13 NZTPA 197, p 202.

- (g) This decision may be referred to by communities elsewhere in New Zealand, so it may have some precedent value. Thus we should not undermine the Standards for no good reason if, as we have found, that the risk of adverse health effects from chronic exposure to athermal RFR at the levels to be emitted from the cellsite is very low.
- (252) Weighing those aspects up, we hold that both condition 4 and SPS' suggested amendment are inappropriate and that condition 4 should be deleted.

Chapter 12: Outcome

- (253) The outcome of these proceedings is that the SPS appeal (RMA 343/96) fails, and the Telecom appeal (RMA 429/97) succeeds. No party sought that costs be reserved, and indeed we consider this an inappropriate case for any order as to costs. Accordingly we make the following orders:
 - Under s 290 of the Act, the decision of the Council granting resource consent is confirmed, except that it is varied by:
 (a) the deletion of condition 4; and
 - (b) corresponding deletions to the remaining conditions where necessary to reflect the deletion of condition 4.
 - (2) There is no order for costs.

BEFORE THE ENVIRONMENT COURT

Decision No. [2015] NZEnvC ()

IN THE MATTER

of an appeal under Sections 120 and 174 of the Resource Management Act 1991 (the Act)

BETWEEN

SUSTAINABLE MATATĀ (ENV-2014-AKL-000103) (ENV-2014-AKL-000109)

Appellant

AND

BAY OF PLENTY REGIONAL COUNCIL

WHAKATĀNE DISTRICT COUNCIL

Respondents

AND

WHAKATÄNE DISTRICT COUNCIL

Applicant

Hearing at:

Tauranga on 27 – 30 January 2015; 9 – 10 February 2015; 13 February 2015 and 16-19 February 2015 Site visit 11 February 2015

Court:



Environment Judge JA Smith - Chair Alternate Environment Judge CL Fox Environment Commissioner JA Hodges Environment Commissioner ACE Leijnen Appearances: VJ Hamm and BL Bailey for Whakatāne District Council as Applicant (the Applicant)

AMB Green and BP Milo for Whakatāne District Council (the District Consent Authority)

RC Zame and RM Boyte for the Bay of Plenty Regional Council (the Regional Council)

Mr N Harris for Sustainable Matatā Incorporated (the Residents' Group)

RB Enright and RJ Haazen for Matatā Lot 6A Papakainga Komiti Incorporated (the Komiti)

D Potter for Ngāti Rangitihi Raupatu Trust Incorporated (the Raupatu Trust)

Date of Decision:

1 2 MAY 2015

DECISION OF THE ENVIRONMENT COURT

- A. The resource consent for discharge to air at Lot 6A is cancelled. The Appeal is allowed to this extent.
- B. The three designations relating to Lot 6A for a Wastewater Treatment Plant, Buffer zone and access are cancelled. The Appeal is allowed to that extent.
- C. The application for designation and discharge consents to air and water relating to the Land Application Field are adjourned to allow the Applicant to consider whether it wishes to pursue consent on appropriate conditions. The Applicant will also need to conclude whether applications for other consents for the Land Application Field have been applied and are being pursued. The applicant is to file a memorandum within twenty (20) working days of the date of this Decision.

D. The balance of the proceedings are adjourned for further directions. Costs are reserved.



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REASONS FOR DECISION

Introduction

[1] For more than a decade the Whakatāne District Council (the District Council) has grappled with whether to reticulate wastewater at Matatā. The debris flow of 2005 interrupted that consideration. From 2008 various further investigations and reports have been prepared.

[2] In 2011 a funding line from the Ministry of Health's Sanitary Works Subsidy Scheme approved a provisional sum of some \$6.7 million, with a later funding line of some \$1.88 million from the Regional Council now shown in its 2014-2015 Annual Plan.

[3] There is funding pressure on the District Council, given that the Works Subsidy Scheme has to be confirmed by 30 June 2015 (unless a further extension is granted), and no request had been made for an extension from the Regional Council by the conclusion of the hearing in February 2015.

[4] Although funding was committed in 2011, the District Council in its capacity as Applicant (the Applicant) did not make application for designation and resource consent until November 2013. The District Council then appointed Independent Commissioners, and a hearing was held 11 and 12 June 2014, with a decision issuing on 16 June 2014, and appeals being filed during July 2014.

[5] Notices of interest were filed through August 2014, with the Court conducting interlocutory steps, commencing a three week hearing on 27 January 2015. The matter has been addressed promptly by the Council appointed commissioners and by the Court, particularly given the Christmas break. In fact, the Applicant and s274 parties felt the Applicant was too precipitous.

[6] Although no application for priority was pursued, the Court convened its first pre-hearing conference in August and set a timetable by the end of September for hearing in January. The delay in making application, and then moving so soon to hearings on appeal, may have affected the preparation of the Applicant's case.



Overview

- [7] The proposal is encapsulated in two "consenting" regimes:
 - (a) a Wastewater Treatment Plant site (the Treatment Plant), proposed to be situated on land just east of Matatā on State Highway 2 known as Lot 6A, Matatā (Lot 6A);
 - (b) a land application field (the LAF) to be sited on District Council reserve on the dune formation several kilometres east of the Tarawera Cut, the current outlet of the Tarawera River.

[8] As we understand the position, the installation of the units on individual properties (grinder units) and the piping work within the public reserve are permitted activities.

[9] Although presented as a simple infrastructural development, significant issues became evident from reading the evidence. Much of the evidence was repeated or did not address the substantive issues in this case, as we will examine in due course.

[10] At Lot 6A the Applicant has resolved to proceed by way of three separate designations in respect of:

(a) the wastewater Treatment Plant itself;

(b) a 20m buffer surrounding that; and

(c) the access road across Lot 6A.

[11] The construction of the plant itself on the Lot 6A land is covered by the designation.

[12] The Regional consents associated with Lot 6A are unclear, but seem to be for a discharge of odour consent only. In addition we were told consents will be required for:

(a) earthworks associated with the construction of the plant;

(b) discharge of stormwater with sediment.

[13] There was no evidence of any intention to discharge wastewater to land at Lot 6A, or that any vegetation clearance is required given the site is in pastoral grasses. There is a designation sought for the LAF covering some four hectares (4 ha) on the District Council dune reserve, with a buffer area beyond that which does not require a consent, nor covered by the designation.

[14] Regional consents relevant to the LAF appear to be:

- (a) the discharge of wastewater to land in circumstances where it may enter water;
- (b) discharge of odour for the pump station;
- (c) land use consent for earthworks consent sought for up to $5500m^{3}$,
- (d) we do not understand how such a resource consent is required at the LAF. This may relate to the access road and Pumphouse, given they are in the coastal environment, but this was not clear; and
- (e) temporary discharge of stormwater containing sediment (again very limited evidence was received); and

[15] In addition we were told consent for *disturbance of land and soil resulting from vegetation clearance* would be required, although an application was yet to be made.

[16] For reasons that will become clear through the course of this decision, the conditions of consent do not clearly identify which consents relate to which site, or the extent to which certain activities, such as earthworks and sediment discharge, are authorised as a result of the designation itself.

[17] The granted Regional Council resource consents on appeal are global, and relate to both sites. It is unclear as to the relationship between the applications, the evidence to this Court and the consents under appeal. For example, we heard no evidence of odour in relation to the LAF pump building. We attach as **Annexure A** consent 67708, to show the significant difficulties which arise.

[18] Given the global nature of the Regional Council consents, it is curious that the Applicant has decided to break down its designation into four components, three of which relate to Lot 6A and one authorising the LAF and its associated pumping works on the Council reserve.

Core issues

Lot 6A

- In relation to Lot 6A, the issues could be summarised as: [19]
 - (a) the designation of Lot 6A and the power of Trustees to enter into an agreement with the Council;
 - (b) whether there was a proper consideration of alternative sites for the Treatment Plant; and
 - (c) the impact of potential odour on any future Papakainga on Lot 6A or Lot 7A.
- [20] We outline each in turn briefly.

The designation of Lot 6A

[21] In respect of Lot 6A, we accept that at the time the designation application was made, occupation rights had not been secured from the Trustees. We acknowledge that the Council did not hold any interest in land at the time of notification of the designation. Accordingly, the designation process was appropriate. However, in considering the requirement for consideration of alternatives under s 71(1) of the Act, the Applicant relies on the fact that it now holds an interest in the land, and thus the Court is not required to consider alternatives.

We will deal with this issue in more detail when we reach our consideration [22] of section 171(1). Suffice it to say the use of a designation process in respect of Māori land was the subject of extensive criticism from Mr Enright for the Komiti. In this particular regard, Mr Enright referred to the Privy Council decision McGuire v Hastings District Council.¹ Although this was a case relating to the powers of the Māori Land Court to issue injunctions in relation to a proposed designation on Māori land, the Privy Council did go on to discuss the RMA, in particular regarding the question of designations. In particular, the Privy Council noted at paragraph [21]:

The Act has a single broad purpose. Nonetheless, in achieving it, all the authorities concerned are bound by certain requirements and these include particular sensitivity to Māori issues. By s6, in achieving the purpose of the Act, all persons exercising functions and powers under it, in relation to managing the use, development and protection of natural and physical resources, shall recognise and provide for various matters of

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[2001] NZRMA 557, paragraph [21]

national importance, including "e[t] the relationship of Mäori and their culture and traditions with their ancestral lands, water sites, waahi tapu (sacred places) and other taonga [treasures]." By s7 particular regard is to be had of a list of environmental factors, beginning with "Kaitiakitanga [a defined term which may be summarised as guardianship of resources by the Māori people of the area]." By s8 the principles of the Treaty of Waitangi are to be taken into account. These are strong directions, to be borne in mind at every stage of the planning process. The Treaty of Waitangi guaranteed Maori the exclusive and undisturbed possession of their lands and estates, forests, fisheries and other properties which they While, as already mentioned, this cannot exclude desired to retain. compulsory acquisition (with proper compensation) for necessary public purposes. It and the other statutory provisions quoted do mean that special regard to Māori interests and values is required in such a policy decisions as determining the routes of roads. Thus, for instance, their Lordships think that if an alternative route not significantly affecting Mäori land, which the owners desire to retain, were reasonably acceptable, even if not ideal, it would accord with the spirit of the legislation to prefer that route. So, too, if there were no pressing need for a new route to link with the motorway because other access was reasonably available.

[emphasis added]

[23] Although all counsel acknowledged that this dicta was still binding on this Court, there was disagreement as to its application in this case, and in particular whether it amounted to the statement from the decision Observation at page 558:

Accordingly, where Māori land was proposed to be significantly affected by a proposed designation, then it would "accord with the spirit of the legislation" for the requiring authority to prefer alternative routes, even if those alternatives were not ideal. The Board also suggested that the need for the project would have to be carefully established in such circumstances as well (see paragraph [21]).

[24] This then moved into a significant attack by the Komiti on the Applicant's selection method that had been utilised to identify Lot 6A. There is a significant disagreement between a number of the beneficial owners of Lot 6A and the Trustees who have the legal responsibility for administering the property (granting leases and the like). Though a collateral attack had been mounted in the Māori Land Court, the Trustees were confirmed as empowered to enter into the lease. This matter has been settled, and for current purposes it was acknowledged that there was a valid lease agreement in place by the time of the hearing.

Consideration of alternative sites for the Treatment Plant

[25] The major focus of the Komiti was on the site selection method for Lot 6A. We discuss this matter at considerable length in due course.

[26] In brief, Mr Enright argued that the selection of this Māori land next to a Māori reservation required particular attention to alternatives.

[27] He attacked the site selection method for the Treatment Plant, describing it as arbitrary and a failure to consider other sites reasonably available. These issues of alternatives and reasonableness were intertwined with historic grievances and Treaty of Waitangi issues. Mr Enright argued that the selection of Lot 6A breached both the Treaty and the Designation objectives, because it was unreasonable, arbitrary and failed to take account of information on Lot 6A and its purposes.

Odour effects

[28] Finally the Komiti, supported by Mr Harris, argued the potential odour effects of the activity would prevent construction of Papakainga on Lot 6A and Lot 7A in the future, and that this:

- (a) prevented the land being used for its clear purpose (intent), and
- (b) was also a breach of the Treaty principles, and
- (c) adversely affected cultural relationships of Māori beneficial owners with this land.

We deal with these issues in detail later in this decision.

The LAF

[29] The LAF has a different range of issues. No witness suggested that there were any odour or visual issues that could not be addressed by conditions. However, issues raised included:

- (a) given the application of the wastewater to the sand dunes, were the levels of contaminants which reach the nearby farm drains and waterways, acceptable?
- (b) cultural impacts.

Again, we outline these briefly.

Wastewater reaching surface water

[30] There is common evidence that discharged wastewater will percolate through the ground and enter groundwater. There was some dispute as to whether some of this would reach the ocean, but there seems to be an acceptance by the majority (if not all) of the wastewater experts that wastewater would travel via groundwater or the Vados zone and enter the farm drains to the south of the LAF.

[31] As the case developed, it became clear that there was some misunderstandings, even by the Applicant, as to the way in which this area functioned. By the end of the hearing the Regional Council had clarified the position as follows:

- (a) historically the Old Rangitaiki Channel (the ORC) (referred to also as the Orini Stream by a number of parties) is either part of or within the bed of the Old Rangitaiki River, which was cut off during land drainage works in the early 1900s. It formerly connected the Rangitaiki and Tarawera rivers, but is now separated from the Rangitaiki, and drains to the Tarawera River;
- (b) the ORC is part of the Rangitaiki drainage system established by statutes in the early 1900s and subsequently protected by transitional provisions in the RMA. This essentially makes the flow of the farm drains (and arguably their pumping) to the ORC a permitted activity. The pumping to surface water is also a permitted activity under Rule 22 of the Bay of Plenty Regional Water and Land Plan (2008);
- (c) over the decades, the ground peat beds adjacent to the water ways have consolidated. This has lowered the general ground level of the paddocks surrounding the drainage channels, of which the ORC is one. This has essentially made the ORC perched above many farm drains;
- (d) This situation was exacerbated by the 1997 Edgecumbe earthquake;
- (e) for current purposes, the ORC water level is higher than that in drains adjacent to the LAF (Robinson's Farm) and water has to be pumped from the drains into the ORC at the position adjacent to the LAF known as SW4;

- (f) the ORC discharges via a controlled structure with a flap gate, meaning water only exits from that channel on the lowering tide, and is closed by the incoming tide. There is an exception to this in that there is a pump available for emergencies. It avoids the ordinary tide action and pumps water directly into the Tarawera River;
- (g) the outlet of the ORC into the Tarawera River is within the Coastal Marine Area (CMA), and the River outlet is several hundred metres from the outlet itself. Bird colonies and inanga hatchery areas are adjacent;
- (h) the Tarawera River itself is subject to significant issues, including wastewater contamination from the wood and paper mills at Edgecumbe/ Kawerau. This has been the subject of a recent appeal and decision, and conditions of consent imposed seeks to reduce the levels of contaminant into that river. This has also led to the creation of the Tarawera Catchment Plan, which does not apply to the CMA area (where the outlet of the ORC is), but the ORC is identified on the plans as the old Rangitaiki Channel and part of the catchment area, as are other farm drains.

[32] The key issue in relation to the LAF is the evidence of the Applicant that, in a worst-case-scenario, there will be no attenuation of nitrogen (\mathbb{N}) and phosphorus (\mathbb{P}) before the wastewater surfaces in the farm drains, and that there could be a significant increase of both N and P being pumped from the farm drains into the ORC and thus entering the Tarawera River.

[33] The evidence for the Applicant is that there would be no ecological change within the ORC, and the impact on the Tarawera River (given the levels of dilution) would make the addition negligible within a very small mixing area (which was undefined).

[34] To add further complication to the situation, extensive restoration work in and around the LAF was intended, with pest treatment. The benefits of this, however, were not quantified and it was not clear from the Applicant's case that they were intending to look at some form of offset for the ecological benefits from this work against the water quality impacts in the ORC. [35] This surface contamination brings into play both the New Zealand Coastal Policy Statement (NZCPS) provisions in relation to the CMA, and the provisions of the new 2014 National Policy Statement for Freshwater Management (Freshwater Policy Statement) and the Tarawera Catchment Plan. Furthermore, that late in the hearing the Court identified that one of the provisions of the Tarawera Catchment Plan *may* prohibit the discharge of increased levels of contaminants from human waste to the ORC.

Cultural impacts

[36] The location of the LAF gives rise to a number of cultural issues beyond potential wastewater contamination. Settlement lands have been revested nearby, including nohonga (fishing sites) near the Tarawera River mouth. The Raupatu Trust was concerned at the potential for disturbance of Māori sites or koiwi. These matters are dealt with in some detail later in this decision.

S290A – the Commissioners' Decision

[37] The Court must have regard to the Commissioners' decision. We have found that decision unhelpful in addressing the many complex issues in this case for the following reasons:

- (a) the submission of the Raupatu Trust was disregarded, with no adequate reasons given. The Commissioners seem to have been under the misapprehension that only oral evidence could be considered;
- (b) the decision was prior to the 2014 Freshwater Policy Statement;
- (c) there is no analysis of issues or reasoning to justify the decision. For example, in the 12-page decision, the analysis of issues suggests

by the conclusion of the hearing there were relatively few matters of significance that remained in contention.

This overlooks the consent authority's obligation to give reasons for its decision under the Act (\$171(3) for designations);

 (d) some conclusions as to the Applicant's case before the Council's Independent Commissioners were different from the Applicant's evidence before us. For example, the Independent Commissioner's decision states:

The water quality and in-stream ecology of the Orini Stream (and subsequently the lower Tarawera River) is unlikely to be affected.



The evidence before us was that there would be a degrading of water quality in the ORC. We accept that the evidence might have been the same before the Commissioners, but subject to weighing given their conclusion that the adverse effects were no more than minor;

(e) many statements are made that requirements are met without any reason provided for such statements.

[38] The Commissioners' decision is heavily reliant on the s 42A report which was not made available to the Court. This does not assist us understanding what applications the Independent Commissioners thought they had before them. The decision is jointly that of the Regional Council and the District Council through a panel of independent hearing commissioners. It is one decision pertaining to all four of the NOR and the resource consent applications. It purports to relate to 5 regional resource consent applications, although it would appear four resource consents were actually applied for.

[39] The decision does not set out the actual NOR or Resource Consent applications. The Regional Council has combined the applications received by it under one reference number (67708) a copy of which is annexed to this decision as **Annexure A**. The District Consent Authority has lumped the NORs under one reference number (DS-2013-8212-00). While the *Wastewater Treatment System* is described in the decision (reference paragraph [2]), this does not set out the matters requiring consent or the relevant status of the various components. In short one cannot see from the decision what the applications before the hearing panel were.

[40] The conditions of consent for regional matters set out their purpose as:

Purpose

- 1. For the purpose of discharging treated wastewater (TWW) by way of
- subsurface irrigation for a wastewater Treatment Plant (Treatment Plant) to the land application field,
- 2. For the purpose of discharging contaminants to air from the Treatment Plant and Land Application Field,
- 3. For the purpose of authorising earthworks associated with the construction of the land application field.

[41] There is confusion among the members of this Court as to whether this constitutes the consents granted, given the statement in the decision at 11.1 of the Commissioners' decision:

We therefore grant the resource consent applications sought by the Whakatāne District Council for the Matatā wastewater treatment system subject to the imposition of the conditions set out in Appendix 2.

[42] This approach has made its way through to the granting of the consents, such that there is one determination pertaining to the NORs (paragraph 11.2) and one determination relating to all of the other resource consents (para11.1). One can then understand how the Independent Commissioners came to a suite of conditions that traverse the various applications. There are instances of uncertainty as to which consent or condition relates to which consent, and whether one is connected to another. The nature of the activities allowed by the resource consents appear in the conditions pertaining to those applications which sets out three purposes. These do not encompass the stormwater discharge consent that was applied for as an addendum (Tab 5 Vol One Common Bundle). The decision refers to a total of five resource consents. There is only evidence of four being applied for.

[43] On one view the consents are void for uncertainty given the applications are vague in the extreme.

[44] Taking the view that a decision cannot grant more than that which has been applied for, the outstanding consents mean that in reality the project cannot be implemented until important pieces of the project are resolved, namely around earthworks, vegetation clearance consents and stormwater management. The issue for the Court is whether these consents are important to understanding the effects of what is proposed. Should they have been considered together? What are the cumulative effects? Are we able to understand the proposal and its effects without them?

Flexibility in applications

[45] A fundamental issue which arises in this case is a desire on the part of the Applicant for maximum flexibility. This is not uncommon; many cases before the Court are prepared on the basis that the final design is not known. In this case there is a desire to use a design-build-operate system, and thus retain maximum flexibility for the successful tenderer.

[46] In many cases there are other contingencies that may lead to variations in the design. The designation process itself recognises this need for flexibility, and utilises the concept of Outline Plans. Nevertheless, the Act recognises that effects which are identified can be dealt with as part of the designation process, and in general consents require sufficient details for the Court to accurately be able to understand the nature and scale of effects created.

[47] In recent years there has been a tendency of consultants to park significant issues utilising the devices of management plans and generalised conditions to address effects. The Court has repeatedly noted its concern that it *must*, in terms of both designations and resource consents, be able to understand both the scale and significance of the various effects. Generalised conditions and an outline Management Plan often do not achieve this outcome.

[48] In this particular case the Applicant has suggested that odour can be addressed by a simple condition that there is no objectionable odour beyond the boundary, supported by an Odour Management Plan. As we will discuss, the difficulty is that there was no design, or possible design, suggested to us that could achieve this, and the exemplar that was given to us of the Maketū Wastewater Treatment Plant demonstrated clearly the contrary position at the time of our site visit when there was objectionable odour beyond the boundary observed.

[49] It is also necessary to point out that the Court has wide experience with these type of developments, including *Puke Coal v Waikato RC*,² and one of its Commissioners is a very experienced wastewater engineer. Evidence in answer to cross-examination and questions by the Court of the relevant odour experts confirmed the Court's concerns that best practice would involve a separate buffer distance of between 100-160m. In the absence of a full and proper design, the concerns of the Court become obvious if there is residential housing intended. In this regard, the Court then turned to whether or not the use of this land for Papakainga can appropriately be taken into account.

[50] The other critical issue for the purposes of this decision is the intent to allow the Nitrogen (N) and Phosphorus (P) contaminants from the treated wastewater to reach surface water with minimal attenuation after discharge. Again, the evidence from the experts is that significant attenuation could be achieved by treating surface water areas, either by special planting, riparian planting or otherwise, turning the area into a wetland or destocking it. Again, the argument of the experts then turned not upon best design or best practice, but rather whether or not an increase in contaminants to the ORC was an adverse effect. There was a conflation of the issues of water quality with ecological effect.

[2014] NZEnvC 223
[51] Another example is the question of vegetation clearance. That could only be relevant to the LAF given Lot 6A is in pastoral grass. It is not mentioned in the regional consents, or in the conditions beyond:

58. During construction of the Land Application Field the consent holder shall:

(a) Ensure that no stripping of grass sward or topsoil is to occur on the land application field.

[52] Yet the Applicant's Assessment of Environmental Effects (AEE) refers to vegetation clearance required (page vii, page 21). However, there is no application for consent or consent granted, and we have no jurisdiction to grant such consent on this appeal. Accordingly, it appears such a consent would be required prior to works commencing.

[53] The Court must confine its consideration to the matters that have been applied for. There is scope for the Court to make a correction where a status identification has been made in error, but it can't expand the scope of the applications.

[54] In applying for resource consents and designations, the Applicant has referred to relevant parts of the AEE filed contemporaneously However, these are large complex chapters and do not always deal with the issues fully. In some cases the relevant chapter does not provide the information sought on the Council application form. One must derive the parameters of the Application from the detail of the AEE. For instance:

- (a) Maximum discharge of wastewater at the LAF is in a Table at Section 5 of the AEE at 605m³. Is that a limit? (ie a condition as to maximum discharge);
- (b) Buildings are described on Lot 6A as being a maximum of 3.5m in height. The height for permitted activities is 7m. Is the height limit in the AEE a condition?
- (c) The AEE shows bunds within the designation for the Treatment Plant. There is no bunding described for the Buffer zone NOR. Yet evidence to the Court suggested bunding within the Buffer zone.
- (d) The bunding is described in the AEE as containment for spills. Yet the conditions of consent has a section headed Wastewater Treatment Plant/Environmental Buffer – (Condition 21(c) could apply to both), thus permitting bunding in the Buffer area.



(e) The AEE limits potential odour discharge to the Pumphouse at the LAF, whereas consent conditions grant an odour discharge consent for the LAF. There was no suggestion of odour elsewhere on the LAF so there may be a simple error.

[55] The Conditions for each application group (ie NOR and resource consents) are encapsulated in the one document for each group. The group then segregates activities, giving scope for anomalies of the type we have discussed. Although we had originally intended to address the conditions of consent in a separate annexure, the redrafting required is simply too onerous for the Court if we are to deliver a timely decision.

[56] Overall the Applications and consent conditions are ambiguous, and would be difficult to enforce. The Independent Commissioner decision relies on the AEE and consent conditions, and as a result is unclear and potentially ultra vires in some respects. Considerable work would be required to generate an appropriate and enforceable set of consent and NOR conditions if consents are to be granted.

[57] Overall, this reinforces a fundamental concern of a lack of information as to the intentions of the Applicant and the effect of the applications. Furthermore the Independent Commissioners' decision is brief in the explanation of issues or reasons for the consented conditions imposed.

Application preparation

[58] We cannot help wonder if this case would have benefitted from mediation. We note the refusal of the Applicant to engage in such mediation. More careful thought should have been given to the issues in front of the Environment Court. These fundamental failures have made this case extremely complex. Whilst we recognise that the process before this Court is iterative there are limits to the extent to which this Court can or should be required to remedy a situation of the Applicant's own creation. Mr Enright submitted the Court should be reluctant to repair major errors and omissions in the Applicant's case.

[59] Many of the issues are not assisted by the way in which the case has been presented to the Court, or the draft conditions of consent prepared. We have found a mis-match between the application for consents and the consents granted. The heavy reference back to AEEs in the original application has made it difficult for the Court to identify what matters have been modified by evidence before the Court, and what matters may remain at large although not identified by any other party. Examples of matters that weren't addressed in any evidence before the Court include:

- (a) the water bore on the waste Treatment Plant site;
- (b) the discharge of sediment-laden contaminants (for which no application seems to have been made, though consent has been granted);
- (c) the question of the quantity of earthworks required; and
- (d) whether the earthworks are within the NoRs or will extend to the Māori roadway, and what the effects will be.

[60] This list is not exhaustive and is intended to indicate the types of problems this Court has had to grapple with in trying to understand these applications.

[61] To the extent that there are conflicts between the AEE documents and the evidence given to this Court, we have taken the evidence before this Court as the most contemporaneous and disregarded the conflicting information in the AEE. We can see no other choice, given that we would otherwise need to examine many hundreds of pages of the AEE where there are apparent conflicts with evidence given to the Court or there has been a modification of proposal or conditions. Accordingly, if consents and NOR were to be granted, reference to the AEE in any conditions would be inappropriate and clearer conditions must be drafted.

The Court's approach

[62] This scene-setting has, of course, been particularly long, but it will be clear that the issues in this case are significant, with some not only regionally important but nationally important. The particular concerns in relation to the Treatment Plant need to be understood in light of the history of land confiscation and re-grants that occurred in the nineteenth century, the subsequent drainage of the confiscated land and the creation of the cuts of the Tarawera and Rangitaiki Rivers. Moreover, the provisions of the Freshwater Policy Statement require interpretation and application in the circumstances and the regional documents applying in this case, and in reference to the NZCPS.

[63] In discussing this matter we have concluded that we need to discuss the various major strands as follows:

(a) historical, including;

- a. history of the area,
- b. history of studies and applications,

(b) procedural, including;

- a. consultation;
- b. designation matters, including consideration of alternatives and reasonable necessity;

(c) matters relating to the wastewater Treatment Plant;

- (d) matters relating to the LAF:
- (e) the relevant National, Regional and District Plans;
- (f) Reserve issues;
- (g) Part 2 evaluation, including the integration of all issues;
- (h) Outcome, Conclusion and Directions.

[64] Within each of those categories significant sub-issues arise. We will address these at the beginning of each section. Because these will all integrate into a decision on the overall proposal, and the various consents and designations, it is appropriate that we draw these various strands together at the end of the decision, rather than trying to reach progressive conclusions. Although we may reach some conclusions on sub-issues, that will nevertheless still require an integrated decision to be reached.

[65] This multi-strand approach might be criticised as appearing to park issues through the decision. We have carefully considered whether it is possible to progressively move through the issues. However, the Court is agreed that the matter is of such complexity that it is to be addressed in this manner to try and ensure we deal effectively with the many issues that have arisen. It is difficult for the Court to find an entirely satisfactory approach that is succinct, yet covers all aspects of key issues. There is a general desire to identify an issue, discuss the matters that bear upon it, and reach a conclusion. In this case, that would lead to many hundreds of pages of decision, and a great deal of repetition.

[66] This means that under each head, a series of issues will be addressed, but final conclusions will be made later in the Decision. This recognises that the RMA process is not a liniar exercise of getting from A to B, but requires integration of many complex issues into a final Decision. Under section 5 of the Act, this Court must be satisfied that the purpose of the Act will be met in confirming the various designations and consents sought.

[67] In doing so, we must evaluate scientific, sociological, cultural, ecological, public health, economic and practical issues across a broad spectrum. We must evaluate these in the context of numerous national, regional and district RMA documents.

[68] Some matters could be considered under all headings, many under more than one. We have tried to adopt a logical and transparent methodology by which our conclusions are justified. In doing so we do not attempt to identify each piece of evidence from the thousands of pages of supporting documents and transcript that are relevant. Some evidence and documents are in conflict, and this has complicated our task. The Court represents a cross-section of skills, but we are nonetheless unanimous in our conclusions and reasoning. Given we appreciate this Decision is likely to be contentious, the Court has jointly signed the decision.

Historical matters

- [69] Historical matters include those from the pre-European period and involve:
 - (a) the original peoples;
 - (b) division and confiscation of the lands in the area;
 - (c) subsequent land grants made to Māori, particularly Lot 6 and Lot 7, and their subsequent subdivision, sale and disposition;
 - (d) Treaty of Waitangi reports;
 - (e) hydrology and geography of this area;
 - (f) the town of Matatā and its relationship to the surrounding area, including debris flows, flood plains and the Tarawera and Rangitaiki Rivers;
 - (g) wastewater Treatment Plant within the area and in particular septic tanks, including:
 - (i) problems with septic tanks;

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(ii) solutions available and the history of investigations and reports prepared by the Council in relation to this issue.

The original peoples

[70] Ngāti Awa (the descendents of Awa) is the earliest recorded iwi in this region.³ Their eponymous ancestor, Awanui-a-Rangi, was the son of Toi-kai-rakau, and he lived in the Eastern Bay of Plenty area well before the major migration fleet from the Pacific.⁴ The Waitangi Tribunal has noted that by the time Mataatua Waka, captained by Toroa, arrived in this district, Toi's many descendents, including Ngāti Awa, populated the region.⁵ The crew of Mataatua intermarried with Te Tini-a-Toi⁶ and the modern tribe Ngāti Awa draw from this combined genealogy to reflect their status as tangata whenua, claiming a sphere of influence that extends south to Ōhiwa Harbour and north-west beyond Matatā to Maketū.⁷ Their names and stories for important land marks remain within the Matatā–Whakatāne district, including the original name for the Tarawera River.

[71] Ngāti Awa intermarried with other waka people including those of the Te Arawa Waka.⁸ Ngāti Tūwharetoa ki Kawerau, for example, while tracing their primary descent lines from Tūwharetoa-i-te-Aupouri, nevertheless have Ngāti Awa genealogy through Tūwharetoa's mother.⁹ While some of his descendants led the migration to Taupo, where that section of the tribe settled, others spread to the coast from Otamarakau to Matatā and at Kawerau.¹⁰ Significant links with the Matatā region remain as Tūwharetoa was a direct descendent of the tohunga Ngātoroirangi, who navigated the Te Arawa Waka under its captain Tama te Kapua.¹¹

[72] Together with the descendants of Tama te Kapua (known as Ngāti Rangitihi) also residing in the Matatā area, they maintain the influence of Te Arawa Waka in this region. Both Tūwharetoa and Ngāti Rangitihi claim tangata whenua status as a result.

- ⁷Ngāti Awa Settlement Act 2005, Acknowledgements [16]
- ⁸ D Potter, Evidence-in-chief, Appendix B, p 1112

¹⁰ Ibid ¹¹Ibid

³ Waitangi Tribunal The Ngāti Awa Report (Wai 46, Legislation Direct, 1999) p 14

⁴ Ibid

⁵ Ibid

Ibid pp 14-15

⁹ Waitangi Tribunal The Ngāti Awa Report (Wai 46, Legislation Direct, 1999) p 19

[73] The Environment Court has previously described the process of settlement at Matatā to Kawerau as follows:

"[25] The local tangata whenua have been in occupation for many centuries, moving into the area through a process of migration augmented by arrivals from the Pacific. The major influx of settlers occurred approximately 700 years ago with the arrival of the Te Arawa waka captained by Tama Te Kapua. The people who trace their origins to that waka include Ngāti Tūwharetoa ki Kawerau who descend from Ngātoroirangi, the tohunga on the waka. Ngātoroirangi is also associated with bringing geothermal fire to Aotearoa and the Tarawera River was named Te Awa o te Atua, literally "The River of the God" in reference to him. Rangitihi was the great, great-grandson of Tama Te Kapua. Rangitihi had eight children and they became "Ngā Pūmanawa e Waru o Te Arawa – The Eight Pulsating Hearts of Te Arawa" thus becoming the core of the Te Arawa Confederation of Tribes. Ngāti Awa enjoys different but related origins.

[26] Descendants of these early peoples settled in the vicinity of Matatā, enjoying a reputation for the quality and quantity of the feasts they were able to provide from the rich bounty of the swamps, rivers and sea. The waters of the river were one of the constants of their life, providing water, food, transport and spiritual connection.

[27] The waters of Te Awa o te Atua at the mouth – the combined waters of the Rangitaiki and Tarawera rivers as they flowed into the sea at Matatā, were their principal food source." ¹²

Division and the confiscation of land

[74] The rise of the Māori King movement from 1856-1858, and the coming of the Pai Marire movement in 1865, would have a profound effect on the settlement of land at Matatā. The Waitangi Tribunal has noted that impact in its $Ng\bar{a}ti Awa$ Raupatu Report (1999).¹³ In 1864, Te Arawa supported and fought for the Crown against Ngāti Awa and other East Coast forces attempting to pass through their lands to fight for the Māori King.¹⁴ Tūwharetoa of Taupo supported Te Arawa at this critical time, but Tūwharetoa ki Kawerau remained neutral.¹⁵

[75] Following the murder of CS Volkner in 1865, Pai Marire leaders attempted to impose a boundary line or aukati over the North Island, across which the Crown and its colonial forces were told not to cross. That line went from Taranaki in the

¹² Marr v Bay of Plenty Regional Council [2011] NZRMA 89, pp 98-99

¹³ Waitangi Tribunal The Ngāti Awa Report (Wai 46, Legislation Direct, 1999) Ch 4; see also Archaeological Assessment of Proposed Matatā Waste Water Scheme, Matatā, Eastern Bay of Plenty (April 2014) Exhibit "H" pp 5-6

¹⁴ Archaeological Assessment of Proposed Matatā Waste Water Scheme, Matatā, Eastern Bay of Plenty (April 2014) Exhibit "H" pp 5-6

⁵ Waitangi Tribunal The Ngāti Awa Report (Wai 46, Legislation Direct, 1999) p 37

west to Cape Runaway in the East.¹⁶ Emboldened by their new faith, adherents in the Eastern Bay of Plenty took part in the sacking of the Te Arawa schooner, the *Mariner*, and the European owned *Kate*. Members of the crew of the *Kate* and passengers including Crown official 'James Fallon' were killed.¹⁷ They were supported by a few members of Ngāti Awa, but Ngāti Rangihouhiri II and Ngāti Hikakino – two northern hapū of Ngāti Awa who lived in the vicinity of Matatā, were among those held responsible.¹⁸

[76] The Crown interpreted these combined actions as acts of rebellion and Ngāti Awa lands, and the lands of others deemed to be rebels were confiscated in 1865-1866 pursuant to the New Zealand Settlements Act 1863.¹⁹ The Eastern Bay of Plenty Confiscation District commenced at the mouth of the Waitahanui River (north of Matatā) travelling along the coast to the Araparapara River, east of Whakatāne and it traversed some miles inland to a point marked by Pūtauaki (Mount Edgecumbe).²⁰ The effect of the confiscation was to extinguish all Māori customary title within that district.

[77] In 1868, a formal survey plan for the township of Richmond (now Matatā) was surveyed from the confiscated land and the township created. It continued as a base for the colonial forces after Te Kooti and his followers attacked Whakatāne.²¹ By 1870, following the withdrawal of troops, many native residents of the district returned. They were joined by a number of Te Arawa groups in 1886, following the Mount Tarawera eruption.²²

[78] By 1870 the port at Te Awa o Te Atua became central to the local economy, until direct cuts to the sea were made for the Rangitaiki River in 1913-1914 and the Tarawera River in 1917.²³ With the Rangitaiki Drainage Scheme, the diversions of

¹⁶ Ngāti Awa Claims Settlement Act 2005, Acknowledgements [25]

¹⁷Ngāti Awa Claims Settlement Act 2005, Acknowledgements [25]; see also Archaeological Assessment of Proposed Matatā Waste Water Scheme, Matatā, Eastern Bay of Plenty (April 2014) Exhibit "H" pp 5-6; Ngāti Awa Claims Settlement Act 2005, Acknowledgements [25]

¹⁸ Waitangi Tribunal The Ngāti Awa Report (Wai 46, Legislation Direct, 1999) Chapter 5

¹⁹ Ibid, Chapter 6

²⁰ Ibid at p $\overline{67}$

²¹ Exhibit "H" Archaeological Assessment of Proposed Matatā Waste Water Scheme, Matatā, Eastern Bay of Plenty (April 2014) pp 6-7

²² D Potter, Evidence-in-chief, Appendix B, p 1114; Māori Land Court Record – 4 Whakatāne Minute Book 42-44 (1888)

²³ Waitangi Tribunal The Ngāti Awa Report (Wai 46, Legislation Direct, 1999), pp 103-108; Exhibit "H" Archaeological Assessment of Proposed Matatā Waste Water Scheme, Matatā, Eastern Bay of Plenty (April 2014) p 7

these two major rivers ensured that much of the swamp land in the catchment was drained for farming and settlement.²⁴

Subsequent land grants made to Māori, particularly Lots 6 and 7 and their subsequent subdivision, sale and disposition

[79] Pursuant to the New Zealand Settlements Act 1863 and the Confiscation of Lands Act 1867, the Compensation Court ascertained and determined to whom land within the confiscation district should be granted. Land was either returned to local loyalist Māori or lands were awarded to other loyalist tribes who assisted the Crown. Land was also retained by the Crown for settlement by Europeans. All grantees received Crown grants. As a result of the work of the Compensation Court, the lands both east and north-west of Matatā along the coast were reallocated.

[80] By the 1880s, the Native Land Court was authorised to administer those titles still in Māori ownership following the enactment of legislation to enlarge its jurisdiction to deal with the Crown grants.²⁵ This was initially necessary to ensure all grantees, and not just those who held the land in trust, were accurately recorded on the titles. It was also given jurisdiction to determine successions where any grantee was deceased.

[81] On the eastern side of Te Awa o Te Atua, Parish of Matatā Allotment 1 was allocated to Ngāti Whakaue. We are not in a position to trace the former titles concerning this block, but today a small part of it is set aside as a Maori reservation for the purposes of a marae and burial ground for the common use and benefit of the Ngāti Umutahi tribe.²⁶ Umutahi Marae is particularly associated with both Ngāti Awa through Te Tarewa and Ngāti Tūwharetoa.²⁷ The Waitangi Tribunal has noted that while Umutahi was a descendent of Tuwharetoa and the left-hand amo (side carving) of the house is of Tuwharetoa-i-te-aupouri, the relationship with Ngāti Awa is demonstrated by the right-hand amo commemorating Awanui-a-rangi, the eponymous ancestor of Ngāti Awa.²⁸ The land upon which the Umutahi Marae is situated is administered by Marae trustees appointed by the Māori Land Court. It will benefit from free reticulation if the Treatment Plant application is granted.

²⁴ Exhibit "H" Archaeological Assessment of Proposed Matatā Waste Water Scheme, Matatā, Eastern

Bay of Plenty (April 2014) p 7 See for example the Native Land Court Act 1886 & 1894 and the Māori Land Claims, Adjustment and Laws Amendment Act 1904

NZ Gazette, 21 May 1987, No 74, p 2251

Waitangi Tribunal Ngāti Awa Report (Wai 46, Legislation Direct, 1999) page 18; see also Application, common bundle Vol 1, 311

Waitangi Tribunal Ngäti Awa Report (Wai 46, Legislation Direct, 1999) page 21

[82] Parish of Matatā Allotment 3 was registered in 1874 in favour of Ngāti Rangitihi. The remnant of this block, formerly Lots 31 and 32 of Allotment 3, (now bearing the appellation Matatā 930) is where the Ngāti Rangitihi Marae (Rangiaohia) is situated, and from the car parking area and urupa the proposed Treatment Plant site can be clearly seen.²⁹ It was gazetted as a Māori reservation in 1974 for the purposes of a marae for the benefit of Ngāti Rangitihi Hapū and people of the district generally, and as such is administered by marae trustees appointed by the Māori Land Court.³⁰ This marae will also benefit from free reticulation if the Treatment Plant application is granted.

[83] The Crown grant for Allotment 6 was registered in June 1877, and it lists the "Ngāti Raukawa Natives" to whom Awa o te Atua lands were awarded "in recompense for military service rendered during the year 1865."³¹ These people were Kiharoa Koha (described as an aboriginal chief) and others. Allotment 6 was subsequently partitioned into Matatā 6A, 6B and 6C in 1913.³² Lots 6B and 6C were sold. The owners also sold Matatā 6A in 1917 to Raharuhi Pururu of Te Arawa.³³ The block was then transferred to Hakopa Haimona in 1920. The block is now Māori land administered as an ahu whenua trust by two trustees, Anthony Olsen and Robert Gardiner. As Māori land it is acknowledged to be taonga of special significance by the Preamble of Te Ture Whenua Māori Act 1993. This block (Lot 6A) is where the Appellant proposes to situate the Treatment Plant.

[84] We were told that, of the 404 beneficial owners of Lot 6A, many are descendents of Hakopa Haimona. We were told he was from Ngāti Tūwharetoa. It was the evidence for the Komiti that 45 owners are deceased and have not been succeeded to. Their estates hold approximately 30% of the total 2384 shares in the block.³⁴ It was also the Komiti's evidence that owners (or descendants of owners) holding approximately 20-25% of the shares in Lot 6Aoppose the application.³⁵ For our purposes, while we are not concerned with the actual figures, we consider the Komiti's evidence indicates that a significant number of beneficial owners oppose the application, a factor we discuss later in this Decision.

²⁹ Māori Land Court Record: 60 Whakatāne Minute Book 20

³⁰ NZ Gazette, 24 Oct 1974, No 106, p 2483; Te Ture Whenua Māori Act 1993, ss 338 & 239; Māori Reservations Regulation 1994

³¹ R. No 135/27

³² Māori Land Court Record - 59 Rotorua Minute Book 144

³³ LTO SA275/265

³⁴ Exhibit "AA"

³⁵ Exhibit "AA"

[85] In terms of Allotment 7, the block was awarded to Ngāti Tūwharetoa ki Taupo represented by Poihipi Tukairangi, Hohepa Tamamutu and Ihakora Kahuao. They were described as aboriginal chiefs from Taupo on the Crown grant registered in June 1877.³⁶ The grant records the names of the Ngāti Tūwharetoa natives to whom Awa o Te Atua lands were awarded "in recompense for military service rendered during the year 1865." Allotment 7 was partitioned in 1917 into Lots 7A and 7B.³⁷ Lot 7B was subsequently sold. It now owned by the Burts. There are 516 beneficial owners of Lot 7A. The beneficial ownership lists for Lot 6A and 7A indicate that the ownership is significantly different, which accords with the blocks being allocated to different tribal groups.

[86] The Ōniao Marae situated on Lot 7A is particularly associated with Tūwharetoa ki Taupo and Te Kooti.³⁸ Mr Olsen indicated that the house was originally located at Otaramuturangi and was moved to Lot 7A as a result of directions from Te Kooti.³⁹ It was gazetted as a Māori reservation in 1971 for the purposes of a meeting place for the benefit of Tūwharetoa peoples, and as such is administered by marae trustees appointed by the Māori Land Court.⁴⁰ As Māori land it is acknowledged to be taonga of special significance by the Preamble of Te Ture Whenua Māori Act 1993.

[87] The description of the beneficiaries of the Ōniao Marae now includes Ngāti Tūwharetoa ki Kawerau (Bay of Plenty). Again, as with Umutahi Marae, the relationship with Ngāti Awa is portrayed in the carvings. The house is called Tūwharetoa, the left-hand amo is called Hikakino (descendent of Tūwharetoa) and the right-hand amo is called Rangihouhiri (Hikakino's son). Both these ancestors depicted on the panels are associated with the hapū of the same names (claimed by Ngāti Awa) who were accused of being in rebellion and whose lands were confiscated. According to the Waitangi Tribunal they "more than any other hapū were deprived of their sacred sites and necessary land for their future wellbeing".⁴¹

[88] As the sea-frontage of Lot 7A is occupied by the marae, only the rear of the block may be used in the future for Papakainga or other cultural uses. The rear of the site has direct and ready views of the Treatment Plant site. Oniao Marae will also

³⁶ R. No 135/27

³⁷Māori Laud Court Record - 63 Rotorua Minute Book 362

³⁸ Mr Haimona, Evidence-in-chief, pages 1155-1167

³⁹ Mr Olsen, Evidence-in-chief, pages 430-431 [42]

⁴⁰ NZ Gazette, 15 July 1971, No 53, p 1430; Te Ture Whenua Māori Act 1993, ss 338 & 239; Māori Reservations Regulation 1994

⁴¹ Waitangi Tribunal Ngāti Awa Report (Wai 46, Legislation Direct, 1999) pages 21, 137-138

benefit from free reticulation if the Treatment Plant application is granted. It is not known what the formal position of the trustees is regarding this application, but 6 trustees are deceased and two of the 5 remaining trustees have opposed it before this Court.

Treaty of Waitangi Reports

[89] There have been at least three reports of the Waitangi Tribunal relating to the Matatā – Whakatāne district. The first and most relevant is the Ngāti Awa Raupatu Report (1999).⁴² That report details the traditional and contemporary history of the region, including the confiscations and the drainage of the Rangitaiki Swamp. The main opinion expressed in the report was that, contrary to the Treaty of Waitangi, ... Ngāti Awa land was confiscated without just cause, and, secondly, that affected hapū were left with insufficient land for their needs.⁴³ The Tribunal recommended that the Crown negotiate settlements with Ngāti Awa and Ngāti Tūwharetoa ki Kawerau (Bay of Plenty). The other two Waitangi Tribunal reports deal with issues concerning cross-claims prior to the introduction of legislation giving effect to the Treaty settlements for these tribes.⁴⁴

[90] The second of these reports, the Ngāti Tūwharetoa ki Kawerau Settlement Cross-Claim Report (2003) concerned Ngāti Rangitihi cross-claims. In that report the Tribunal's key recommendation was to leave the door open for a Ngāti Rangitihi settlement, should their claims be well-founded and internal divisions resolved.⁴⁵ The Crown appears to have had no issue with that, claiming that it has the capacity to provide equal redress to Ngāti Rangitihi. The mandate process for Ngāti Rangitihi commenced in 2014.⁴⁶

[91] The settlements for the other two tribes proceeded and the Ngāti Awa Claims Settlement Act 2005 and the Ngāti Tūwharetoa (Bay of Plenty) Claims Settlement Act 2005 were enacted. The governance entities for Ngāti Awa (Te Runanga o Ngāti Awa) and Ngāti Tūwharetoa (Ngāti Tūwharetoa (BOP) Settlement Trust) have provided CIAs in relation to this application.



⁴² Waitangi Tribunal Ngāti Awa Report (Wai 46, Legislation Direct, 1999)

⁴³ Waitangi Tribunal Ngāti Awa Report (Wai 46, Legislation Direct, 1999) Letter of Transmittal

⁴⁴ Waitangi Tribunal Ngäti Awa Cross-Claims Report (Wai 958, Legislation Direct) and The Ngäti Tuwharetoa ki Kawerau Settlement Cross-Claim Report (Wai 996, Legislation Direct, 2003)

⁴⁵ The Ngāti Tuwharetoa ki Kawerau Settlement Cross-Claim Report (Wai 996, Legislation Direct, 2003) Letter of Transmittal and see pages 34-42

⁴⁶ See Office of Treaty Settlements Web-Site

[92] Te Mana o Ngäti Rangitihi Trust and the Ngāti Rangitihi Raupatu Trust have also provided Cultural Impacts Assessment / Statements (CIA). Te Mana o Ngāti Rangitihi Trust signed a Deed of Mandate in 2014 with the Crown to settle all outstanding Ngāti Rangitihi historical claims.⁴⁷ It is likely that a settlement will be concluded in the near future.

[93] The settlement process is relevant to both the Treatment Plant on Lot 6A and the LAF. The Lot 7A reservation remains the last coastal block at Matatā, held for the collective known as Ngāti Tūwharetoa, where Papakainga may be developed. The only other coastal blocks, obtained under their settlement, comprise a nohonga (fishing site within the vicinity of the Tarawera River mouth) and a reserve Wahieroa adjacent to the land upon which the LAF will be situated.⁴⁸ We discuss these sites in more detail below.

Present day hydrology and geography

[94] Matatā is a small coastal township located approximately 24 kilometres to the north-west of Whakatāne in the Bay of Plenty region. It is situated on a sloping terrace at the base of the Manawhahe Hills. The hills are steep and bush-covered, and rise to 300 metres above sea level. Matatā town itself slopes from an elevation of around 20 metres at the railway line to three metres above sea level at Arawa Street. Part of the town at the western end is built on low-lying coastal dune land.

[95] To the east of Matatā are the low-lying and fertile dairy lands of the Rangitaiki Plains. The general locality immediately to the east is drained by two main rivers, namely the Tarawera and the Rangitaiki Rivers, with the Whakatāne River further east again. Three small streams flow through Matatā itself; the Waitepuru, the Awatarariki and the sporadically flowing Waimea Streams.

[96] The course of the Tarawera River has been modified to provide a direct outlet to the ocean, and the original outlet on the seaward side of Matatā is now a series of lagoons. The course of the Rangitaiki River has also been modified to provide a direct outlet to the ocean, and the original Rangitaiki River bed between the Rangitaiki and Tarawera Rivers has also been modified so that it discharges only to the Tarawera River, with no remaining direct connection to the Rangitaiki River. The modified part of the old river bed was variously referred to during the hearing as the

⁴⁷ See Office of Treaty Settlements Web-Site

⁴⁸ Ngäti Tuwharetoa (Bay of Plenty) Claims Settlement Act 2005

Old Rangitaiki River bed, the Orini Stream and the Bennett's Road Stream. We refer to it as the ORC, in part to avoid confusion with the Orini Stream between the Rangitaiki and Whakatāne Rivers.

[97] The ORC is important to the proposal, in that it is the freshwater receiving environment for groundwater containing treated wastewater from the LAF. It is part of the Rangitaiki Drainage Scheme and passes through land drained by a series of east-west and north-south oriented farm drains. It is controlled by flood gates at its junction with the Tarawera River, with the gates opening on the out-going tide to allow the stream to drain, and closing again on the incoming tide to prevent inundation of the drained farmland, which is now below high tide level. The water level in the ORC is above the surrounding ground level due to consolidation of the local peat soils when the land was drained. Water from the farm drains is pumped into it through a series of pumps along its length.

[98] The land directly to the east of the township, and south of the Matatā lagoons, is characterised by a sand dune ridge running parallel to Thornton Road, with land to the south of the dunes being undulating, and forming part of the Rangitaiki Plains. The proposed site of the Treatment Plant is located on land south of the sand dunes, at an elevation of approximately nine metres above sea level.

The town of Matatā

[99] The town of Matatā (formerly Richmond) was surveyed in 1868 and is at a suburban scale. The railway line is between the headland and the housing. Many houses are on small sites, around 800-1000m², and there are many unbuilt sections. SH 2 splits just after entering Matatā from the north, with the State Highway branch following the headland and rail line to Edgecumbe, the other road to Whakatāne following the frontage of the town facing the lagoon. None of the housing and other facilities (schools, marae etc) have reticulated waste water, although there is reticulated power and water.

[100] The town of Matatā comprises predominantly residential dwellings, with 243 occupied dwellings at the time of the 2006 census and a population of 640 people. In addition, Matatā has three marae, two primary schools, a general store, a pub, a small number of other local retail businesses and a rugby ground. A Department of Conservation camp ground is located on sand dunes on the other side of the lagoons from the Matatā township. [101] The town is underlain by shallow marine, estuarine, alluvial and beach deposits. In 2005 it was severely impacted by several large debris flows generated by intense rainfall within the adjacent hill country. Similar events have occurred in the locality previously.

[102] The village has a largely permanent population with a number of retirees. The costs of the Matatā Lagoon restoration have been visited on the local population by way of special rating. Furthermore, the significant disruption of the 2005 debris flow, which damaged the railway bridge and destroyed a number of houses in the Clem Elliot Drive area, are still evident to the close observer. A number of houses have been rebuilt in the debris flow path on the foredune area.

[103] After the cuts for the Rangitaiki and Tarawera Rivers, the lagoon area in front of the village languished until it was cut off from the Tarawera. Since then the lagoon has reverted to wetland. The surrounding area to Edgecumbe and Tarawera is low lying farmland. Although there are height variations, with land around the village at levels 6-9 metres above sea level, much of the wider area is around 1m above sea level. This means the area is subject to drainage (and pumping in places) to maintain the area as pastoral.

Wastewater treatment within the area, the septic tanks and problems with septic tanks

[104] Wastewater treatment and disposal in Matatā is currently by individual septic tanks and on-site disposal fields. There are approximately 265 existing individual systems. Various surveys of the existing septic tanks have been undertaken over the years, but the evidence did not provide us with a clear picture of their adequacy or the extent or seriousness of problems that have been experienced with them. We were advised that the most recent survey of septic tanks in 2012 showed that 70% did not comply with at least one requirement of the Regional Council's On-Site Effluent Treatment (OSET) Plan and 50% did not comply with two of the seven requirements.

[105] Mrs Krawczyk stated in evidence that in the majority of cases disposal fields are too small, and during questioning, advised that: ⁴⁹

disposal fields were too small and some of the areas are low lying and the issue is really with ground water and the leaking tanks surfacing.

[106] She also stated that: ⁵⁰

The Matatā area is not well suited to septic tank effluent fields due to a high groundwater table in parts and poor soil drainage.

[107] While the evidence indicated there have been some problems associated with individual on-site soakage systems, these were not explained in any quantified way in terms of public health risk or effects on water quality or the environment generally. In addition, a 2011 public health assessment by Institute of Environmental Science and Research Ltd (ESR) and Beca found:

... there is not a compelling case for the introduction of a reticulated sewage disposal system in Matatā on the basis of risk to human health.

[108] The report confirmed that some septic tank systems were not functioning adequately and that:

...quantifying the proportion of properties with issues, and whether these can be adequately rectified will require individual on-site assessments.

[109] The report went on to note that the installation of a reticulated sewerage system would have benefits, including flexibility in land use, enhanced development opportunities and the removal of sewage disposal responsibilities from the local householder, but these would need to be balanced against significant costs.

[110] The evidence of Dr Miller, the Medical Officer of Health, stated that overall the Matatā wastewater scheme as proposed will promote good health, providing increased levels of protection for Matatā and the wider community. Dr Miller considers on-site effluent treatment systems such as septic tanks can be appropriate for small numbers of scattered dwellings that are distant from significant bodies of water, or well above ground water levels, but does not consider Matatā to be a small or remote settlement. Dr Miller disagreed with the findings of the ESR report that

⁴⁹ Transcript, page 51

⁵⁰ Mrs Krawczyk, evidence-in-chief, paragraph [20]

there is no compelling need for a reticulated system on public health grounds and considered the current systems will pose an ongoing risk to public health.

[111] Mr Bradley, a senior wastewater engineer called for the Applicant, highlighted that the existence of a safe, reticulated (piped) water borne sanitary wastewater system: ⁵¹

... is required to protect the public health of the community and that it is well established that the existence of a safe sanitary/wastewater system provides immense benefits to the well being of a community in terms of health and safety.

[112] While we respect the expert opinion on public health issues, we were faced with conflicting views and very little factual information relating to Matatā to assist us in quantifying the risks and benefits. When we sought to understand the environmental benefits, we found the evidence to be largely silent. Responses to our questions did not assist us greatly either, leaving us with some difficulty in understanding the overall benefits of the scheme and how they compare to the proposed additional contaminant loads at the LAF.

[113] Table 11 of the ESR report (Tab 21 of the common bundle) shows E coli levels are generally higher in the downstream monitoring sites of the Waitepuru and Waimea Streams, but this is not consistently the case.

Solutions available and the history of investigations and reports prepared by the Council in relation to this issue

[114] Mr Harris was convinced that septic tanks were a more cost-effective option for this community and that the impost on ratepayers was unreasonable. His view was that the Districh Council had initially accepted the ERS advice, that there was no compelling health reason for a reticulated system, but had subsequently resiled from that position and proceeded with this application.

[115] Mr Harris and others also criticised the District Council for not utilising the Kawerau plant (to which sludge from the Matatä Treatment Plant would go).

[116] Mr Harris expressed suspicion that the construction of this Proposed Treatment Plant may lead to a long-term objective of processing waste from other areas through Matatā. At 15.6.1(g), the Tarawera Catchment Plant identifies possible

⁵¹ Mr Bradley, evidence-in-chief, paragraph [55]

pumping of treated effluent to Matatā and discharge to the Tarawera River mouth. This appears to discuss industrial (Mill) waste, and it is one possibility among many.

[117] In relation to municipal sewage, four alternatives are identified at 15.4.6 of the Tarawera Catchment Plan. Of these, the alternate selected sees Kawerau and Edgecumbe municipal waste transitioning to an alternate discharge method after 2005.

[118] We examine the relevant planning instruments later in the decision under our discussion of the LAF, and here we note that the Tarawera Catchment Plan does seek improvement to water quality. Discharges such as those from the Kawerau Plant are tightly managed under that Plan, with a regime which leads to the prohibition of human sewage entering the Tarawera River. The Tarawera Catchment Plan promotes a shift to land-based treatment and disposal systems. The Whakatāne District Plan also refers to the inadequacies of existing reticulated sewerage systems and encourages a move to best practice. We pick up these matters later in the decision.

[119] In the Opus report of 15 July 2013 on Wastewater Treatment and Management Options, four options were identified at Chapter 4:

- (a) Matatā and Edgecumbe each have independent treatment systems (4.2);
- (b) Treatment and disposal at Kawerau (4.3);
- (c) Treatment for Edgecumbe and Matatā at Matatā with two sub-options:
 - (i) combined effluent discharged via ocean outfall or land application field;
 - two Treatment Plants (Edgecumbe and Matatā) but combined ocean outfall or land application field
- (d) Transfer to Whakatāne

[120] The third scenario is therefore a possibility, but the current Application limits the volume that can be treated, and its source.

[121] For current purposes, we cannot consider what future applications might be filed, but must consider this application on its merits.

[122] Furthermore, and in practical terms, we consider that there are likely to be significant problems with this plant accepting waste from more distant areas, for the following reasons:

- (a) Long pumping lines can lead to septic waste, which is more difficult for this type of system to process.
- (b) The system is sized for a maximum of around 600 homes, and any extension of this is likely to lead to significant problems in obtaining consent, given the limited size of the designations and the sensitivity of the receiving environment.
- (c) There is a significant cost to pumping waste from Kawerau or Edgecumbe to Matatā.

[123] The District Council considered three different methods of wastewater collection for Matatā; a conventional gravity system, a vacuum system and a pressurised small bore diameter pipe system using individual on-site grinder pumps. Various reports were obtained and the grinder pump system adopted. Again this is a question of District Council policy. Our role is to consider whether the applications meet the purpose of the Act and the various documents prepared under it.

Process of assessing alternative sites

[124] At the time the District Council resolved to proceed with a fully reticulated wastewater system for Matatā, the site or sites at which wastewater treatment and disposal would take place were not known. Accordingly, as a matter of practical necessity, the District Council needed to identify and assess the suitability of possible sites for these two activities, regardless of any statutory requirements to consider alternatives under s171 or s105 of the Act. As wastewater Treatment Plants are generally known to have the potential to cause offensive odours beyond the boundary of the plant site from time to time, it would be reasonable for an applicant to anticipate that an assessment of alternative sites under s 171 of the Act might be a statutory requirement.

[125] One of the key objectives of any site assessment and/or selection process (site selection process) must be to first identify sites that, as far as possible, avoid potential adverse effects from natural hazards and to minimise the potential for adverse effects on the environment, as these will be important considerations in any subsequent statutory process under the Act. Put another way, the site selection process is a fundamental building block used to support future decision making. In much the same way that solid or robust house foundations reduce the risk of future problems with the house itself, so a robust site selection process reduces the risk of problems occurring with the site or sites chosen, in terms of suitability for purpose. The converse is also true, that were a site selection process is not robust, there is a greater likelihood of later difficulties, in one form or another, with the selected site.

[126] Further important considerations when undertaking a site selection process are transparency of decision-making, clear recording of the process so that it can be readily understood by others, and mechanisms for reviewing the process if basic assumptions change through initially unforeseen circumstances. In making these comments, we make it clear there is no requirement for an applicant to select the best possible site, or to consider all potentially available sites, but whichever site is eventually selected, it must be able to meet the relevant requirements of the Act.

Scope of the appeal

[127] Jurisdictional issues regarding the nature of this appeal were raised before us. It was argued, for example, that issues such as odour from the Treatment Plant, and some cultural and relationship matters were outside this appeal. This seems to rely on the wording of s274 1(e) and (f), and s274(4B). These sections deal with evidence that can be called only if it is both within the scope of the appeal, and is a matter arising out of the previous proceedings, or on any matter on which the person could have appealed.

[128] Ms Hamm directed this matter at the Raupatu Trust and possibly Mr Harris (although he is the Appellant). We note that the appeal is very broadly worded, and for clarity we conclude that all issues in this hearing were relevant at first instance and are covered in the appeal.

- [129] This case does raise some process issues, the key ones being:
 - (a) whether the Komiti could be a party;
 - (b) consultation; and
 - (c) consideration of alternatives.



The Komiti as a party

[130] Only Mr Harris appealed the decision. The Raupatu Trust and Komiti joined as s274 parties.

[131] The Raupatu Trust had submitted and appeared at the initial hearing. No issue was raised as to their status.

[132] The Komiti had not submitted separately. Some evidence for them was produced by Mr Paterson, but was given no weight by the Council-appointed Commissioners. Nevertheless, the Komiti represents persons (and is an entity under the Act) having an interest greater than the general public. Given they are beneficial owners in Block 6A, and some of 7A as well, their relationship with the land as Māori beneficial owners is recognised by s 6.

[133] Status to appear was not pressed by Ms Hamm, but for clarity we conclude the Komiti is entitled to be a party under s274(1)(d) and (da). None of the restrictions under s308 apply.

Consultation

[134] In terms of s36A of the Act there is no duty to consult when seeking resource consents or notices of requirement, but that provision does not prevent consultation if an applicant or local authority elects to do so. In this case, the District Council elected to consult, and having chosen to do so it was obliged to conduct the process in accordance with well established principles.⁵²

[135] In terms of the broader Matatā community, the application indicates that the District Council commenced consultation with the community in 2004, but that the debris flow disaster in 2005 interrupted the consultation process.⁵³ In June 2012, a questionnaire was sent out to all property owners. The results indicated that 41% of respondents believed that a reticulated system was required, 45% believed that it was not required and 14% did not know. The results of the survey were communicated to the Matatā community by newsletter in June 2012.

 ⁵² See Air New Zealand & Ors v Wellington International Airport [1993] 1 NZLR 671 for principles
 ⁵³ Application for Resource Consent & Notice of Requirements, Common Bundle, Vol 1, Tab 1, page 112.

[136] In March 2013 the District Council made the decision to consider three options for wastewater disposal and proceeded to develop a consultation strategy.⁵⁴ That consultation strategy carried out by the Applicant from 20 May 2013 included:

- Meetings with individual owners of properties neighbouring the Treatment Plant and LAF sites,
- Community Updates newsletters. We understand these were sent to every home in Matatā;
- Community meetings and forums;
- Meetings with key stakeholders;
- Newspaper articles and radio interviews;
- Press releases;
- The Applicant's webpage and social media;
- Annual Plan consultation process
- Field trips.55

[137] We need to comment briefly on the roles of the District Council as both the Applicant and the Consent Authority. Both can consult, but matters become murky where the parties promoting the application are also the consent authority. When it comes to dealing with Māori particularly, there was not clarity as to whether a consultation was by the Applicant or by the Consent Authority. All evidence on consultation was given for the Applicant and it is unclear if the Consent Authority considered any issues for consultation separately.

[138] The Applicant and / or Consenting Authority claims that through the Annual Plan process and the special consultation process, it received 101 submissions in total on the Wastewater Scheme. Of these, 88 were received from the Matatā community. Of the 88 respondents, 84% were in favour of full reticulation, 5% in favour of partial reticulation and 11% did not want any reticulation.⁵⁶

[139] It is not clear to us from the surveys held in 2012 and 2013 whether a majority of residents support full reticulation, but what has been demonstrated is that a significant number of the residents do support it.

⁵⁶ Application for Resource Consent & Notice of Requirements, Common Bundle, Vol 1, Tab 1, page 112

³⁴ Application for Resource Consent & Notice of Requirements, Common Bundle, Vol 2, Tab 7

⁵⁵ Ms Krawczyk, Evidence-in-chief, paragraph [51-53]

[140] In terms of the Māori community of Matatā, it was the evidence for the Applicant that a special consultation strategy was developed for consultation with iwi/hapū represented by:

- Ngāti Rangitihi Te Mana o Ngāti Rangitihi Trust (TMONR) & Ngāti ø Rangitihi Raupatu Trust Incorporated (NRRTI);
- Ngāti Tūwharetoa Ngāti Tūwharetoa (BOP) Settlement Trust (NTST); 0
- Ngāti Awa Te Runanga o Ngāti Awa (TRONA); Ø
- Ngāti Umutahi Umutahi Marae; and ø
- Ngāti Mākino Ngāti Mākino Heritage Trust (NMHT).57

[141] TMONR and the NRRTI both produced separate CIAs. CIAs were produced for Ngāti Awa and Ngāti Tūwharetoa ki Bay of Plenty (Kawerau). Ngāti Mākino left the issues for the local "hau kainga" people (Te Arawa whanaunga/relatives) to address, namely, Ngāti Rangitihi.

[142] In addition, the Applicant's cultural consultant held meetings with iwi representatives, and a plenary session was convened on 2 December 2013 to finalise her draft cultural report.⁵⁸

Consultation with local iwi was conducted but not all interested hapū and [143] beneficial owners were identified. Nor were all cultural issues identified or addressed. In particular the Māori Reservation on Lot 7A and the prospect of Papakainga on Lot 6A do not seem to be addressed, although marked on Council plans used for site selection purposes. Another example relates to the cultural landscape at the LAF site, the impact, if any on the Māori land in the vicinity of the LAF and the concept of Te Mana o te Wai found in the Freshwater Policy Statement given it is a term dependent on tangata whenua values. However, these issues have now been identified as a result of these proceedings and are covered where relevant in this judgment.

[144] In terms of local marae, three on-site consultations took place at Umutahi, Rangiaohia (Rangitihi) and Ōniao (Matatā 7A) between the Applicant representatives, the consultants, and the marae trustees "responsible for property maintenance,

⁵⁷ Ms Krawczyk, Evidence-in-chief, paragraph [54-56]

including for on-site effluent disposal systems" at each marae.⁵⁹ These meetings were held on 5 November 2013 and 26 March 2014.

[145] In terms of Matatā Lot 6A Ahuwhenua Trust, it is common ground that the trustees, Anthony Olsen and Robert Gardiner, were consulted and that they have approved a lease in favour of the Applicant.

[146] The Trustees also attempted to consult the 404 beneficial owners of Lot 6A at meetings organised by the Trustees, held on 21 August 2013 and 10 August 2014.⁶⁰ These publically notified meetings were attended by the Applicant's staff involved with the Treatment Plant and LAF project but no other beneficial owners attended.⁶¹ At a subsequent AGM held on 14 September 2014, the lease proposal was discussed, and of those 20 people present Mr Olsen told us that the majority "appeared to support the lease proposal."⁶² The Komiti have since demonstrated that a reasonable number of owners oppose the application, but that is a different issue and we discuss that further below.

[147] Mr Enright for the Komiti pursued the issue of whether consultation measures were adequately conducted by the Applicant and / or Consent Authority with the owners of Lot 6A, given their default to and reliance on the Trustees to facilitate consultation. We note the usual process for notifying the beneficial owners of Māori land blocks is to send letters to the beneficial owners, for whom addresses can reasonably be ascertained from the Trustees, the Māori Land Court and/or the Electoral Roll.

[148] However, we conclude that sufficient opportunity has now been accorded to Komiti members to express their views on the Treatment Plant and the LAF. We also note that all relevant issues have been identified as a result of these proceedings and are covered where relevant in this decision. In other words, any consultation defects have now been cured by this appeal process.

Consideration of Alternatives

[149] Prior to the 2003 amendments to s 171, when territorial authorities were considering the effects on the environment of allowing the requirement, they were to

⁵⁹ Ibid, paragraph [35]

⁵⁰ Mr Olsen, Evidence-in-chief, paragraph [38-39]

⁵¹ Ibid, paragraph [38-39]

^{52.}Ibid, paragraph [38-39]

have particular regard to whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work in all cases. However, this obligation is now subject to two criteria and s 171(1)(b) now reads as follows:

(b) whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if—
(i) the requiring authority does not have an interest in the land sufficient for undertaking the work; or
(ii) it is likely that the work will have a significant adverse effect on the environment;...

[150] In the case of this designation, two questions arise in relation to s 171(1)(b). The first is whether the District Council as the Applicant, was obliged to give adequate consideration to alternatives. In other words, does this case fall into either of the categories set out in s 171(1)(b)(i) and (ii)? The second is, if they were obliged, did they give adequate consideration to those alternatives?

Must the Territorial Authority consider alternatives?

[151] The Applicant submits that they have a sufficient interest in the land to complete the works. The land for the LAF is on a Council administered recreation reserve. There has also been an agreement to lease entered into with the Responsible Trustees for Matatā Parish Lot 6A Ahu Whenua Trust. This would cover the proposed site of the Treatment Plant itself as well as the buffer and the access road. In terms of access to the LAF, the District Council as both the Applicant and District Consent Authority points to the deed of agreement to create an easement over that land, owned by R and S Robinson Family Trust. This deed is conditional on investigation of risk of contamination and compensation in the event of contamination.

[152] In their submission in reply the Applicant insists that the interest in the land is sufficient to remove the onus in s 171, because the unfulfilled conditions are for the benefit of the District Council and because the agreement to lease attached the final form of lease, so it cannot be argued that the form is not finalised.

[153] The Applicant further submits that the work is not likely to have significant adverse effects and so they are not required to consider alternatives under s 171. In the alternative, they submit that alternatives were extensively assessed and that the consideration of alternatives has been more than adequate. [154] The Regional Council submits that the project will not produce adverse effects and so the Applicant is not required to consider alternatives. In the alternative, they submit that the applicant has considered alternatives. Their submissions do not address whether or not the Applicant has sufficient interest in the Lot to exclude the need to consider alternatives.

[155] The Komiti submits that the Applicant does not have *sufficient interest* in land, pointing out that it is not a tenant and the lease is conditional on the NOR being confirmed. Furthermore, the Komiti submits that there are likely adverse effects from the work. In reference to the *Nelson Intermediate School v Transit New Zealand*⁶³ case, they submit that consideration of alternatives should be conducted early in the process and should be considered by reference to expert evidence. The Komiti submit that the deed regarding the lease was only entered into in December of 2014 and so at the time of the Independent Commissioners' Decision the Applicant did not have any interest in the land whatsoever. They submit that the consideration of alternatives was not genuine and that the appraisal of sites was weighted to ensure a predetermined outcome.

[156] The Raupata Trust submits that the Applicant could not have reasonably excluded certain sites because of a high water table when they did not have a design yet for the Treatment Plant. Their submission is less concerned with the interest in Lot 6A and more with the consideration of alternative methods and the effect that those matters had on site selection. We are mindful that the Court must look at the intended relationship between the two criteria that limit the obligation to consider alternatives under s 171. Was it the intention that, to be excused from the obligation, the requiring authority must possess both a sufficient interest in the land, and be able to show that there will not likely be significant adverse effects? Alternatively, was the bar intended to be lower than that, with one or the other being sufficient to relieve the Requiring Authority of the obligation to consider alternatives?

[157] We note also the obiter comment in the Supreme Court *Environmental Defence Society Inc v King Salmon*⁶⁴ at paragraph [88], where the Court noted (in discussing the NZCPS):

...Moreover the obligation in s8 to have regard to the principles of the Treaty of Waitangi... will have procedural as well as substantive implications, which decision makers must always have in mind, including when giving effect to the NZCPS...

³ *Nelson Intermediate School v Transit New Zealand* [2004] ELRNZ 369 ⁴ [2014] NZRMA 195

[158] We agree with Mr Enright that, when combined with the other citations given, and in light of the commentary in *McGuire v Hastings District Council*,⁶⁵ we should expect a rigorous and robust consideration of alternatives where Māori land (which is limited in this area) has been selected.

[159] This issue was considered by the Board of Inquiry into the *Men's' Prison at Wiri.*⁶⁶ In that case, counsel for Auckland Council and the Manurewa Local Board submitted:

... that an obligation to consider alternatives arises where it is likely that the work will have a significant adverse effect on the environment, regardless of whether or not a requiring authority has the requisite interest in the land. 67

[160] Counsel for the Department of Corrections did not did not disagree and the Board accepted this as the correct interpretation of s 171. The consideration of alternatives is required if either of the prerequisites in s 171(1)(b)(i) and (ii) are met, not both. We agree with the Board's reasoning in that case and adopt it here.

Is it likely that the work will have a significant adverse effect on the environment?

[161] In considering this limb, the question arises as to whether likely significant adverse effects are to be measured before or after mitigation.

[162] As is clear from other parts of this decision, the Court does not agree with the Applicant's submission that there are not likely to be potentially significant adverse environmental effects. This finding alone is enough to oblige the territorial authority to adequately consider alternatives. This makes the discussion of interest in the land sufficient to carry out the works somewhat academic in nature, but given the role that the deed of lease has played in this proceeding the Court will turn to that question now.

Is there interest in the land sufficient for undertaking the work?

[163] At what point does an interest of a sufficient nature have to be acquired in order for it to excuse the requiring authority from the obligation to consider alternatives?

⁶⁵ [2001] NZRMA 557

⁵⁶ Final Report and Decision of the Board of Inquiry into the Proposed Men's Correction Facility at Wiri, September 2011

⁶⁷ Ibid, at paragraph [135]

[164] In this case the Komiti submitted that, although the parties may have been in negotiations at the time of the Independent Commissioners' decision, there was no deed to lease yet and therefore no interest in land. In the *Final Report and Decision of the Board of Inquiry into the Proposed Men's Correction Facility at Wiri* the Board suggests that the consideration of alternatives can be ongoing but *typically it will be undertaken prior to the notification of the NOR*.⁶⁸ Therefore, if an interest in the land is not acquired until after the notice of requirement, it would not typically act to excuse the requiring authority from the obligation to consider alternatives. In this case the deed was not signed until after the NOR was notified and so would not have acted to relieve the requiring authority of their obligation to consider alternatives. That being said, the willingness of the owner to enter into such a deed could be relevant to this site being chosen in preference to other alternative sites.

[165] Regardless of findings on this point, potentially significant adverse effects would oblige the territorial authority to adequately consider alternatives. Assuming there are such potentially significant adverse effects we go on to consider the evaluation of alternatives.

Alternative sites evaluation

[166] In Queenstown Airport Corporation Ltd v Queenstown Lakes District Council⁶⁹ at [18] Whata J set out what is required of an evaluation under s 171(1)(b) of the Act:

[18] The Court observed that the central issue under s 171(1)(b), dealing with the assessment of alternatives, is whether QAC gave adequate consideration to alternative sites, routes or methods. The Court then adopted the principles stated in the final report and decision of the Board of Inquiry into the Upper North Island Grid Upgrade Project as follows:

"a) the focus is on the process, not the outcome: whether the requiring authority has made sufficient investigations of alternatives to satisfy itself of the alternative proposed, rather than acting arbitrarily, or giving only cursory consideration to alternatives. Adequate consideration does not mean exhaustive or meticulous consideration.

b) the question is not whether the best route, site or method has been chosen, nor whether there are more appropriate routes, sites or methods.
c) that there may be routes, sites or methods which may be considered by some (including submitters) to be more suitable is irrelevant.

d) the Act does not entrust to the decision-maker the policy function of deciding the most suitable site; the executive responsibility for selecting the site remains with the requiring authority.

⁶⁸ Final Report and Decision of the Board of Inquiry into the Proposed Men's Correction Facility at Wiri, paragraph [140]
⁶⁹ [2013] NZHC 2347 e) the Act does not require every alternative, however speculative, to have been fully considered; the requiring authority is not required to eliminate speculative alternatives or suppositious options."

[167] When determining whether alternatives have been adequately considered, the question before the Court is narrow. In essence the question is whether or not the decision was reached arbitrarily. The Court is limited to the process that the authority undertook, rather than whether or not *all* alternatives were considered and whether the outcome was the *best* option. The criteria applied in assessing alternatives are policy matters, and therefore rightly a matter for the local authority process.

[168] In *Minhinnick v Minister of Corrections*⁷⁰ the Court had this to say about the requiring authority's choice to limit alternatives considered based on the nature of the property rights that they could acquire:

[235] We find that consideration of properties for the corrections facility site was limited to those whose owners were willing sellers. Where the site suitability factors for a public work limit the range of possible alternatives, compulsory acquisition has sometimes to be considered. But the factors making a site suitable for the corrections facility are not so constraining. A requiring authority might then properly make a policy decision to exclude from consideration properties that would have to be taken compulsorily. The authority is accountable in the political arena for that policy. In such a case the Environment Court, whose role is restricted in the way mentioned in the preceding paragraph, should not substitute a policy of its own.

[169] We have already quoted from both *McGuire* and *King Salmon* on the obligation to consider alternatives and Treaty of Waitangi obligations. Thus, while we acknowledge that the District Council should not exclude land from consideration simply because it is Māori land, the selection of Māori land brings with it the need for a robust and definable selection procedure.

Was the selection of Lot 6A arbitrary?

[170] We had considerable difficulty in understanding the process used by the Applicant to assess alternative sites for treatment and disposal of treated wastewater. No overall summary of the process was provided, and we had to search for and navigate our way through many different documents, briefs of evidence and responses to questioning at the hearing before we were able to understand the process. We had particular difficulty in understanding who had overall responsibility for managing the

⁷⁰ A.043/2004

process, the timeline and sequencing of the process, the basis of certain conclusions and decisions, and the reasons why certain things changed at particular times.

[171] It is clear from the evidence and the supporting documentation presented to us that the Applicant focused on a LAF as its preferred method of returning treated wastewater to the environment. While we are not aware that there was an explicit decision by the Applicant, it is common to all sites considered and in the comparison of the long list of options in Table 6.4 of the AEE (Page 157 of Volume 1 of the common bundle) it is stated that *Discharge to land is Ngāti Rangitihi Iwi's preferred method as outlined in the Iwi Management Plan*.

[172] The Applicant's initial intention was that, where possible, the Treatment Plant should be located within or nearby the LAF. While we consider this to be a reasonable starting point, this was not clear to us from the evidence. Based on the intent to co-locate the Treatment Plant and LAF the Applicant used the slope of the site, ground elevation and size of the site as its criteria for its first broad assessment of potentially suitable sites. These are of obvious relevance for the LAF, but of less relevance to a much smaller Treatment Plant if it was remote from the LAF. An outcome of this initial decision is that the criteria used to select the Treatment Plant site may not be appropriate.

[173] Based on the Applicant's initial intention for co-location, the information shown nn Figure 7 of the Map Book (attached here as Annexure B) is an adequate starting point for a site evaluation process with a LAF and Treatment Plant on the same site or in close proximity to each other. As addressed by questions from the Court, the title on the figure which says it shows sites under consideration 20/08/2013 is incorrect. The information on the plan must have been available prior to the Extraordinary meeting of the Council on 20 May 2013, when it unanimously voted to proceed with a full reticulated wastewater system at Matatā, and only a small number of sites were under consideration by 20 August 2013. In short, those sites were identified on the basis of co-location. However, we do not know who selected them and why certain sites were excluded.

[174] Ms Krawczyk advised that the Applicant decided not to proceed with analysis of sites which were not available. We are still unclear how that decision was reached. There is no evidence of any enquiry in relation to the inclusion to several sites not owned by the Council. In particular, how site P was offered is a mystery rather than Q, R and S etc.

[175] Ms Krawczyk and Mr Shaw obliquely suggested that the sites considered were derived from a map of over 40 sites attached as **Annexure B**. Yet nowhere in the evidence or the voluminous records can we find how these 40 sites were identified, or how the short list of 4 sites considered by URS was reached. Moreover, that shortlist of sites did <u>NOT</u> include Lot 6A.

[176] We found that in addition to Sites A, 8, W and X, site C was listed as being under consideration in the report considered by the Council at its meeting of 20 May 2013. However, this was not carried through to subsequent documents or referred to in evidence. When the Council instructed URS to undertake a more detailed constraints analysis of the four initially shortlisted sites, it included Site P as a site to be considered as a potential Treatment Plant site, but not for a LAF. We have seen no information on the process used or the reasons why P was included. Nevertheless, site P was included in an assessment undertaken by URS New Zeland Ltd (URS) to identify any obvious fatal flaws with the sites from a land use and natural hazards perspective only.

Alternative sites for the waste Treatment Plant

[177] We are left then with a significant issue raised by the Komiti about the selection of Lot 6A for the Treatment Plant only. The AEE produced to the Court makes several statements at 6.5 in relation to treatment and disposal options. Firstly, the options list identifies treatment in a packaged Treatment Plant and LAF in a location close to Matatā. That gives the impression that the Treatment Plant and LAF site were to be co-located. Paragraph 6.5 goes on to say a desktop study was carried out using Geographic Information System (GIS) information to prepare a long-list of possible local land disposal sites as shown in figure 6(2). The criteria used to identify these sites were the slope of the site, ground elevation, and the size of the site.

[178] Following the GIS analysis, the red-hatched sites shown on Annexure B were selected for further evaluation for *treatment and disposal locations*. There is no doubt in our mind that, in this part of the AEE, there is a conflation of the issue of a disposal (LAF) site with a Treatment Plant. Given the use of the singular earlier, the GIS evaluation considered only a single site to co-locate both the Treatment Plant and LAF. Four sites were identified including that where the LAF is now proposed (sites A, W, X, and 8) but not site G (Lot 6A). In fact the table of the long-list options assessment relied on only five sites:

- (a) Sites A and \mathbb{C} ;
- (b) the western inland sites, shown on Annexure B, as W and X; one situated near Waitepuru Stream, the other in a more southerly position near the escarpment;
- (c) site 8, the western dune Recreation Reserve (western reserve site) which in fact encompasses the LAF area within it.

[179] Paragraph 6.6 of the AEE provides different information again, and notes that following the assessment of the long list options in section 6.5 above, the following sites were shortlisted for further consideration

- [180] These are:
 - (a) five potential sites for the Treatment Plant − A, G, W, X and the western reserve site denoted as site 8;
 - (b) four potential sites for the Application Field A, W, X, or the western reserve site denoted as site 8.

[181] We have concluded that the statement is factually incorrect and misleading for the following reasons:

- (a) Site G was not in the long list options in paragraph 6.5, nor is Site P. Both were added later.
- (b) Figure 6.2 shows only A, W, X and 8.
- (c) The list referred to in AEE 6.6 is the shortlist, not the long list of sites.

[182] The Council subsequently instructed URS to undertake additional risk assessment work. A URS memorandum dated 6 September 2013 was prepared at the request of Council to *further develop the register for the technical, constructability, operability and cost risk criteria in addition to the natural hazard risks previously covered. As part of this further assessment, site P was dropped as a potential site and Site G added.* This memorandum addressed a constraints analysis of sites A, 8, W and X and Site G, including Site G for both a Treatment Plant and a LAF.

[183] The GIS analysis undertaken is tabulated in Table 6.7 of the AEE. Site G (Lot 6A) was identified as having the lowest risk score and the lowest weighted criteria score, slightly lower than site 8 (the LAF site).

[184] We were advised by Mr Shaw⁷¹ and Ms Krawczyk that Site \mathbb{P} was dropped after WDC engineers undertook a site visit, which confirmed the site was low lying and therefore prone to flooding.

[185] The inclusion of Site G (Lot 6A) occurred sometime between the dates of the two URS reports, between 17 June and 16 September. We understand this came about as a result of a meeting between the Council and Mr Anthony Olsen in his capacity as CEO of Ngāti Rangitihi on 17 July 2013 when Mr Olsen indicated use of Site G (Lot 6A) might be possible.

[186] There is no explanation within the AEE as to how site G (Lot 6A) was substituted for site P, and the evidence of the witnesses was singularly silent on this issue. Niether was in the original list and the inclusion of either is a mystery. Nevertheless, documents buried in the four volumes of documents provided to this Court do elucidate this issue further. The URS report prepared on 17 June 2013 and disclosed in the second volume of documents at page 571, indicates that the GIS constraints analysis undertaken by URS was limited by instruction to an inspection of five sites for Treatment Plant; A, P, W, X and 8; and four sites for a disposal field; A,W,X and 8. Importantly, site P identified in that report appears to be a different site to site C identified in the AEE. Curiously, site P was selected as the preferred site after the first GIS analysis but removed by August. The reason for the inclusion of P later, and the exclusion of all the other sites from A - Z and 1-12, was not explained.

[187] Mr Enright questioned Ms Krawczyk closely regarding these issues. It appears that at least one of W or X was Māori-owned freehold land. She acknowledged that other plans and notifications to the public prior to September 2013 had indicated other sites, and there was no mention of the property in the vicinity of site G. She described the green areas in Annexure B as based upon land contours, steepness and very general information. Nevertheless she was able to give no insight as to who made that selection and why sites C, G and P were chosen. It is very clear from her answer to a question that G was included after July 2013, after a preliminary discussion with Mr Olsen.

[188] In answer to a question from the Court, Ms Krawczyk confirmed that there is not documentation to establish why \mathbb{C} was removed from the July report and \mathbb{P} substituted (see page 61 of the Transcript). From this we have concluded, and we understand that Ms Krawczyk acknowledged, that there was no overall constraints

⁷¹ Mr Shaw, Evidence-in-chief, paragraph [27]

analysis and URS was simply asked to comparatively evaluate five identified properties. They did so and were then asked in August to substitute site G for site \mathbb{P} , when \mathbb{P} at that time was the most preferred option for a Treatment Plant.

- [189] Accordingly, from this we conclude as facts:
 - (a) There was no overall comparative analysis of the sites identified in Annexure B through any robust selection process. We are not satisfied the original map identified sites for a Treatment Plant only, as opposed to a combined site.
 - (b) The Council officers confirmed that no general enquiries as to availability of land were made. Accordingly the availability of the sites was not tested and cannot be claimed as a valid site selection criterion.
 - (c) There was no comparison between site P, the preferred site selected in round one, with site G, which was substituted for P and became the preferred site in phase 2 August 2013.

[190] The exclusion of \mathbf{P} and the inclusion of \mathbf{G} appear to be unrelated to any explicit analysis. We were not assisted by the evidence of Mr Shaw who stated that the long list of sites was selected on the basis of three GIS criteria; slope, ground elevation and size of site. He then says that in May 2013 A, C, V, W, X and Y were visited. Again, there is no explanation as to why other sites were omitted, for example C is not identified in the initial report. He then goes on to say that five potential sites were selected. The only explanation contained in paragraph [27] of his evidence is that, between phase 1 and phase 2, the applicant undertook a visit to site \mathbf{P} and confirmed that the site was low-lying and therefore prone to flooding.

[191] Curiously, the phase 1 report produced by URS explicitly considered the question of flood hazard, and at page 587 of Volume 2 of the produced documents, as part of the appendix A1 of the GIS layers, site P is shown to be unaffected by the flood extent in 2004. Even more interesting is the fact that Lots 6A (site G) and 7A (site J) are identified in that GIS constraints analysis as being Māori land (Lot 6A) and Māori reservation (Lot 7A) but this is given no particular attention in the overall constraints analysis.

[192] Furthermore, contour maps produced to the Court, although not fully encompassing Area **P**, seemed to show it varying between 2-4 metres in height, compared with surrounding land contour of around 1.

[193] We cannot help but observe that of the 4 sites originally short listed by the Applicant (A, W, X and 8):

- (a) Site A is a well known historical site of cultural significance.
- (b) Two, W and X, are in areas of debris flow reach.
- (c) Site 8 is subject to Tsunami risk.

These matters should have been considered in preparing the original short list.

Was there a proper consideration of alternative sites?

[194] In practical terms the question for this Court is whether the Council properly considered alternative sites for a Treatment Plant. It is quite clear that initial reports were based upon the co-location of the Treatment Plant with the LAF. There is no transparency whatsoever as to how the Council came to identify site G, or in fact site **P**, for a Treatment Plant.

[195] There was no general robust comparative analysis of sites, and in fact G was substituted for **P** again on the instruction of the Council. Looking at the relevant case law as discussed in *Minhinnick v Minister of Corrections*⁷² whether the Council has acted in an arbitrary or cursory way, or in *Takemore Trustees*⁷³ satisfactory or sufficient consideration of alternatives, we have concluded as a fact that there was not a proper consideration of alternative sites for a Treatment Plant. In the evidence before us that selection process appears to have been cursory and arbitrary.

[196] At an earlier time when alternatives were being considered, co-location of both the Treatment Plant and the LAF were clearly the focus. It appears the Council may have entered into the evaluation process with that in mind for site 8. How P was substituted for C in that instruction to URS is a mystery, as is its replacement with site G. There is a failure in the later report to properly identify the land as Māori land, and it is identified as private land, notwithstanding that the earlier report clearly identified it as Māori land with a Māori Reservation next to it.

[197] In *Queenstown Airport*⁷⁴ Whata J indicated that the greater the impact on private land, the more careful the assessment of alternative sites not affecting private



land will need to be. This must be said to be particularly of moment when the land identified is Māori freehold land adjacent to a Māori reservation. In those circumstances we consider that the Privy Council's discussion in *McGuire v Hastings District Council* becomes of particular importance. Even if such an examination needs to be no more robust than that for ordinary freehold land, there is no doubt in our minds that in this case there was a cursory and arbitrary selection of site G, based apparently upon an indication from the Trustee that the site would be available for lease.

[198] We have already identified that the Council might properly reject a site because of difficulties with acquisition, or compulsory purchase in particular circumstances. There was no evidence given to us that Site P had become unavailable, or that many of other sites identified as A to Z or 1 to 12 were unavailable for whatever reason. During the course of this hearing Mr Burt advised the Court that Lots 10-12 were currently on the market for sale. According to Mr Burt this is on higher land, back from the immediate fore-dune area.

[199] It is clear from the GIS constraints analysis overlay that this land was Māori land and was next to a Māori reservation (in terms of that overlay). In the absence of any proper explanation as to how the sites identified on **Annexure B** were narrowed down to the five the subject of the original investigation, or the substitution of **G** for **P**, there is no clear evidence before us as to any robust or clear consideration of alternative sites prior to the decision to notify the Treatment Plant activity on Lot 6A by way of designation.

Conclusions on alternative sites

[200] Ms Hamm's primary position was that, whether or not these alternatives were considered is irrelevant as there was no obligation under s171 to do so. We have already discussed this matter in brief terms. Given our factual conclusions, a few things to us are clear:

- (a) there was not a robust and contestable consideration of alternatives, especially for a standalone Treatment Plant, and site G (Lot 6A) was substituted at a late stage,
- (b) it was already identified as subject to constraints relating to Māori land; and
(c) at the time of the preparation of the application for consent, the Applicant acknowledged the potential for significant odour issues, and proposed that the relevant activities would be entirely covered and fully ventilated, through a biofilter system. There was still clearly potential for significant adverse effects and thus an odour management plan was proposed

We discuss the question of odour effects later, but s 171(1)(b)(ii) uses the [201] wording of significant adverse effects. This wording could either mean before or after mitigation conditions are applied. If before, then the evidence was clear that odour was a potentially significant adverse effect. If it is to be assessed after all mitigation are applied then there is a difficulty in knowing at the time of the application whether alternatives need to be considered. The judgement as to whether the conditions adequately address the effect, so that they are no longer significant, will always be assessed by the consent authority after the evaluation of alternatives has occurred. Thus it would vitiate the requirement to consider alternatives. Given that effects include potential effects, we have concluded that the obligation arose in this case in respect of the Treatment Plant and the LAF to consider alternatives prior to seeking consent. Whilst this seems to have occurred for the most part in respect of the LAF site (cultural issues being an obvious point for further discussion below), the late substitution of site G (Lot 6A) and the exclusion of the majority of alternative sites leads to a considerable issue for the Applicant in relation to the Treatment Plant.

Do the reports as a whole show adequate consideration of alternatives?

[202] Clearly, as we have already noted, ongoing consideration of alternatives can occur, but in circumstances where that might lead to the selection of another site, as in this case, it does not appear that the process that the Applicant adopted is curable before this Court.

[203] We have carefully considered whether, if the matter is looked at on a holistic basis, we can conclude that there has been adequate consideration of alternative sites, even if not in a well-documented fashion. Various sites have been considered and excluded, including areas within the township, site A being the District Council reserve at the western end of Matatā, and for a Treatment Plant at site 8. We also need to keep in mind that the District Council has also acquired an interest in Lot 6A since the time of the notification, and thus would be able to undertake the works on the basis of resource consent. However, we are still left with only a limited understanding of why Lot 6A was chosen over any of the possible alternatives. Thus we find overall that the review of alternatives was cursory and the site selection was arbitrary.

Treaty principles when using Māori land

[204] Mr Enright contended that, because the Applicant and / or the Consent Authority delegated the consultation process to the Trustees of Lot 6A, they did not adequately consult with the owners. As a result of this inadequate consultation process, Mr Enright submitted that the District Council was not in a position to adequately have regard to the principles of the Treaty of Waitangi, particularly the principle of partnership. The District Council thus breached the principles of the Treaty, which are referred to in s 8 of the Act and in the NOR application objectives.⁷⁵ This submission appears to relate to both its role as the Applicant and the Consent Authority.

[205] Mr Enright also referred to the principle of rangātiratanga which together with the principle of partnership raise the following duties:

(a) To be well informed;

(b) To actively protect lands and taonga;

(c) To act with the upmost good faith and reasonableness; and

(d) To promote Māori development.

[206] Considerable evidence was then given in relation to the effects on the beneficial owners and others in respect of the potential establishment of Papakainga on Lot 6A. For current purposes, the evidence was overwhelming, and uncontested, that it had always been intended that one day community facilities and Papakainga housing would be constructed on Lot 6A.

[207] However, despite inquiry by some beneficial owners around 15 years ago no construction has resulted. We also understand that the land has been moribund, given that it is leased to Mr Burt (a neighbour) for the cost of the rate payments and thus has no return to the Trustees or beneficial owners. The position of the Trustees is that by entering into the agreement to lease this land they not only release a sum of money, which can be used in respect of the property, but also provide essential infrastructural facilities at no cost to the Trustees or the beneficial owners. Thus there is a difference

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between the Trustees and the beneficial owners as to whether or not the placement of the wastewater Treatment Plant on this site will enable or disable the establishment of Papakainga housing.

[208] In addition to that, the Komiti and the Raupatu Trust identified issues in relation to both odour and visual impact, which they say are significant and are not adequately addressed by the proposed conditions. We consider these matters below in more detail.

[209] In our view, if regard had been given to the principles of the Treaty of Waitangi, and in particular the duty of active protection of taonga (in this case Māori land) a more fulsome process, including identifying the full history of these blocks, should have identified the cultural and Treaty constraints associated with Lot 6A. This was not done to any transparent degree, as we have had to piece this history together ourselves from the evidence.

[210] The issue is highlighted in *King Salmon* where the Supreme Court stated that the obligation in s 8 *will have procedural as well as substantive implications, which decision-makers must always have in mind.*⁷⁶ As we noted above, we consider that all that was done in terms of consultation with the owners was reasonable and or cured by this appeal process.

[211] What is not clear to us is why the Applicant, knowing the land was Māori land situated next to a Māori reservation, did not undertake a more review of its site selection process, given that even on its own matrix the site had cultural constraints. Thus we agree that the approach to site selection adopted by the Applicant raises issues regarding s 8 in failing to adequately consider the cultural constraints and Treaty principles.

The RMA provisions in relation to the Application

[212] In relation to the applications for regional consents, these are discretionary and s104 guides their consideration:

104 Consideration of applications

38

(1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to <u>Part 2</u>, have regard to-

⁵ Environment Defence Society Inc v The New Zealand King Salmon Company Ltd [2014] NZSC

- (a) any actual and potential effects on the environment of allowing the activity; and
- (b) any relevant provisions of-
 - (i) a national environmental standard:
 - (ii) other regulations:
 - (iii) a national policy statement:
 - (iv) a New Zealand coastal policy statement:
 - (v) a regional policy statement or proposed regional policy statement:
 - (vi) a plan or proposed plan; and
- (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

[213] This will be the focus of consideration of resource consents for both sites.

[214] In relation to the discharge to land consents at the LAF, s105 and 107 are also relevant:

105 Matters relevant to certain applications

- (1) If an application is for a discharge permit or coastal permit to do something that would contravene <u>section 15</u> or <u>section 15B</u>, the consent authority must, in addition to the matters in <u>section 104(1)</u>, have regard to—
 - (a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
 - (b) the applicant's reasons for the proposed choice; and
 - (c) any possible alternative methods of discharge, including discharge into any other receiving environment.
- (2) If an application is for a resource consent for a reclamation, the consent authority must, in addition to the matters in <u>section 104(1)</u>, consider whether an esplanade reserve or esplanade strip is appropriate and, if so, impose a condition under <u>section 108(2)(g)</u> on the resource consent.

107 Restriction on grant of certain discharge permits

- (1) Except as provided in subsection (2), a consent authority shall not grant a discharge permit or a coastal permit to do something that would otherwise contravene <u>section 15</u> or <u>section 15A</u> allowing—
 - (a) the discharge of a contaminant or water into water; or
 - (b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or
 - (ba) the dumping in the coastal marine area from any ship, aircraft, or offshore installation of any waste or other matter that is a contaminant,—

if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:

- (c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:
- (d) any conspicuous change in the colour or visual clarity:
- (e) any emission of objectionable odour:
- (f) the rendering of fresh water unsuitable for consumption by farm animals:

- (g) any significant adverse effects on aquatic life.
- (2) A consent authority may grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or <u>section 15A</u> that may allow any of the effects described in subsection (1) if it is satisfied—
 - that exceptional circumstances justify the granting of the permit; or
 - (b) that the discharge is of a temporary nature; or
 - (c) that the discharge is associated with necessary maintenance work—
 - and that it is consistent with the purpose of this Act to do so.
- (3) In addition to any other conditions imposed under this Act, a discharge permit or coastal permit may include conditions requiring the holder of the permit to undertake such works in such stages throughout the term of the permit as will ensure that upon the expiry of the permit the holder can meet the requirements of subsection (1) and of any relevant regional rules.

[215] These provisions were not the focus of the parties' cases, and many aspects are subsumed within our broader discussion of effects and the relevant plans. However, both sections are mandatory and require us to evaluate the matters in 105(1)(a) to (c). As will be seen, the receiving environment includes the nearby surface drains, the ORC and the Tarawera River, as well as the coastal outlet and foreshore. We also discuss potential environmental offsets, including riparian planting, wetland creation and retrieval of land for dairying.

[216] However, we do not consider that any party was suggesting that any of the criterion s 107(1)(c) to (g) was likely in relation to the LAF. It appears that the Applicant may have assumed that compliance with the s 107(1)(c) to (g) criteria meant s105 was not relevant. There is no basis for that assumption, and although we accept the application at the LAF does not give rise to concerns under s107, it still requires assessment under s104 and s105 for the discharge to land where it makes its way into water under s15(1)(b).

[217] There is no discharge of contaminants to land or water from the Treatment Plant, and accordingly s107 does not apply.

[218] Section 171 provides:

171 Recommendation by territorial authority

- (1) When considering a requirement and any submissions received, a territorial authority must, subject to <u>Part 2</u>, consider the effects on the environment of allowing the requirement, having particular regard to—
 - (a) any relevant provisions of-
 - (i) a national policy statement:
 - (ii) a New Zealand coastal policy statement:

- (iii) a regional policy statement or proposed regional policy statement:
- (iv) a plan or proposed plan; and
- (b) whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if---
 - (i) the requiring authority does not have an interest in the land sufficient for undertaking the work; or
 - (ii) it is likely that the work will have a significant adverse effect on the environment; and
- (c) whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and

(d) any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.

- (2) The territorial authority may recommend to the requiring authority that it—
 - (a) confirm the requirement:
 - (b) modify the requirement:
 - (c) impose conditions:
 - (d) withdraw the requirement.

(3) The territorial authority must give reasons for its recommendation under subsection (2).

[219] This section requires us to consider effects having particular regard to a number of matters. In particular, s 171(1)(b) seems to require us to consider these matters in relation to effects. In relation to odour, this requires the Court to not only consider odour as an effect under s104 in relation to the Regional Air Discharge Consent, but whether the adequate consideration of alternatives has led to any effects in respect of the designation.

[220] Importantly, both the discretionary applications and designation consideration is subject to Part 2 of the Act. Furthermore, both must consider the effects of the activity. We conclude nothing turns on the use of <u>actual or potential</u> <u>effects</u> in s104 compared to <u>effects</u> in s171. The s 3 definition of effects includes actual or potential effects, and accordingly is redundant in s104.

Reasonable necessity

[221] A corollary to alternatives in relation to the designation is 171(1)(c) – whether the designation is reasonably necessary to achieve the objectives of the work. Given the stated overall project objective was stated in 2.1.5.1 of the AEE as:

Overall Project Objective

To work in partnership with the community and Tangata Whenua to achieve a sustainable, long term solution for the collection, treatment and disposal of Matatā's wastewater. The solution shall achieve a high level of public health protection, safeguard the life-supporting capacity of natural resources, be the best practicable option, and meet the following objectives.

[222] Although referred to in the notice as 8.17 of the A.E.E this refers back to 2.1.5.1.

[223] The objectives are as follows:

Environmental Objectives

- To provide the natural character, indigenous biodiversity and visual amenity of the coastal environment.
- To ensure that the water quality of the Tarawera River is not degraded through the land application of treated wastewater.
- To enable the appropriate disposal of treated wastewater by land application rather than discharge to coastal waters.
- To ensure that the visual impact on the environment of the Wastewater Treatment Plant and Land Application Field is minimised.
- To ensure a high level of compliance with recreational, ecological and water quality standards and guidelines, and Regional and District Planning requirements.
- To promote the efficient use and development of natural and physical resources, and if appropriate the sustainable reuse of wastewater products.
- To avoid, remedy or mitigate significant adverse effects on natural and physical environments including communities within those environments.

Social Objectives

- To ensure that the Matatä Wastewater Scheme achieves the greatest practicable protection of public health.
- To ensure the Matată Wastewater Treatment Scheme supports development and growth while continuing to meet the needs of existing residents and wider community including their recreation activities in the area.
- To work in partnership with the community, Project Control Group and key stakeholders to achieve a good understanding of the Matatā Wastewater Consents Project, so as to enable genuine and effective consultation
- To achieve more sustainable wastewater management for the Matatä Community.

Economic Objectives

- To maximise the cost effective use of the Ministry of Health subsidy and BoPRC grant.
- To provide an economically sustainable future Wastewater Scheme which will match the anticipated growth in the area, - i.e. affordable for both the existing and growth communities and businesses now and in the future.
- To promote outcomes that ensure sufficient flexibility to adopt appropriate technology and more sustainable solutions in the future, including treated wastewater reuse, where they provide more effective solutions.

- To apply appropriate technology that will protect public health and meet environmental standards and tangata whenua and community aspirations while achieving lowest whole of life costs.
- To meet the current and future needs of the community in a way that is most cost effective for households and businesses, as required by the LGA.

Tangata Whenua Cultural Objectives further being developed in consultation associated with Cultural Impact Assessment (CIA)

- To recognise and provide for tangata whenua as kaltiaki.
- To work in partnership with tangata whenua to share knowledge and achieve a good understanding of this Project, so as to enable genuine and effective consultation, engagement and participation.

Technical Objectives

- To promote outcomes that ensure sufficient flexibility to adopt new appropriate technology and more sustainable solutions in the future, including treated wastewater reuse where that provides more effective solutions.
- To provide a Scheme that can be maintained and efficiently operated to best practice standards.

[224] In particular we note that the Tangata Whenua Objective includes enabling genuine and effective consultation.

[225] These objectives were not so much disputed in description but their realisation. It was argued:

- (a) There was not a partnership with tangata whenua. The use of this land was not appropriate or in accordance with partnership principles.
- (b) No evidence of public health protection, at least in a quantifiable way. Odour from the Treatment Plant was a public health issue.
- (c) The Treatment Plant did not sustain the Papakainga potential of Lot 6A or Lot 7A. The LAF did not mention the existing water quality of the ORC.
- (d) There was no genuine effective consultation with the beneficial owners of Lot 6A or Lot 7A.
- (e) Mr Harris was of the view that septic tanks remained the best practicable option for waste treatment at Matatā.

[226] In short, the Komiti contended that there was no reasonable need to place this Treatment Plant on Lot 6A, particularly if it had the adverse effects contended. Thus, this argument turns on a connection between alternatives and effects. This is a substantive or evaluative test <u>reasonable</u>, involving questions of appropriateness and balance relevant to our overall evaluation under Part 2.

[227] We now turn to consider the Treatment Plant and its effects.

The Wastewater Treatment Plant Application and Lot 6A

- [228] The Wastewater Scheme consists of three main components, namely:
 - (a) Individual property low pressure grinder pump systems (LPGP) and the pressure sewer collection and wastewater conveyance system.
 - (b) The wastewater treatment system and conveyance to the LAF.
 - (c) The treated wastewater LAF.

[229] Each property, including dwellings, businesses, the camp ground and marae will have its own Grinder Pump system. This consists of an on-site polyethylene or fibreglass chamber with a single grinder pump in it, a piped connection from the house, a small diameter pumping main to the street and various valves and electrical controls. Chambers are constructed mainly below ground, with the top of the access lid typically 100mm above ground, and provide a minimum of 24 hours storage. System design provides very limited opportunity for stormwater to enter the system, which reduces peak flows to the Treatment Plant. The Grinder Pumps will have no discernible odour.

[230] The Council will construct and own the Grinder Pumps, and be responsible for system operation and maintenance, including pump replacement. Electricity costs will be the responsibility of the property owner and the Applicant's consumption expected in the range of \$20.00-\$50.00 a year for individual households. Owners will be responsible for monitoring system alarms and for any system misuse or wilful damage.

[231] From the property boundaries, ground up wastewater will be conveyed to the Treatment Plant by 50 to 100mm welded polyethylene pipes and no booster pumping is expected to be required.

[232] The Treatment Plant will be located as shown on Annexure C. It will be designed and constructed under a design, build and operate contract to meet performance standards specified by the Applicant and the conditions of any designations and resource consents granted. The Treatment Plant will be provided in two stages to serve an ultimate population of approximately 2,200. It will be designed for biological nitrogen removal and with the provision to add additional treatment to

meet more stringent nutrient removal requirements, and to provide UV disinfection to improve bacterial and virus removal, if shown to be necessary in the future.

[233] Key components of the Treatment Plant will be:

- An inlet storage tank or basin to manage flows into the Treatment Plant, which provides flexibility to store flows for a maximum of two hours in the event of a localised power failure at the Treatment Plant, or other emergency;
- An inlet works to remove grit and large solids, with facilities to store and take solid materials off site;
- A biological treatment stage followed by settling to remove sludge solids;
- An aerated sludge storage tank;
- A sludge dewatering facility, with dewatered sludge transported in sealed containers to Kawerau;
- A filter to remove finer solids from the treated wastewater prior to discharge to the LAF;
- Two treated wastewater holding ponds, one of which could be used to store partially treated wastewater in an emergency;
- A range of mechanical, electrical and flow metering equipment, including pumps and provision to connect and/or install standby power generation; and
- A treated wastewater pumping station and an approximately four-kilometre long and approximately 150mm-diameter treated wastewater pipeline to the LAF.

[234] The Treatment Plant will be fully covered and air extracted and treated in bio filters.

[235] A 20 meter buffer area will be provided around the Treatment Plant.

[236] Access to the Treatment Plant will be via a designated road from the existing Māori road.

[237] Approximately 10,000m³ of earthworks will be required to construct the Treatment Plant and access road from Thornton Road to the Treatment Plant. As the

design of the works has not been completed, the actual quantity of earthworks is not known, meaning that any necessary resource consents will need to be applied for at a later time.

The physical features of Lot 6A and the locality

[238] As we noted already earlier in this Decision, the Tarawera and Rangitaiki Rivers originally flowed past Matatā and exited in the area now known as Clem Elliot Drive at the western end of town. Subsequent to the creation of the Cuts and the Rangitaiki Drainage Scheme, the Matatā reach of the river has been closed off, even from the Tarawera. Now, through recent remedial work for the debris flow, it is part of a lagoon system and wetland from the Awateririki Stream towards the Tarawera from which it is cut off. This has meant that the Lot 6A site itself gives the impression of being sand dune near the foreshore, whereas in fact it is landward of the now-Matatā Lagoon, with another fore-dune beyond that to the north that fronts the sea. We attach an overhead photograph of the site with the Treatment Plant identified on it Annexure \mathbb{C} .

[239] State Highway 2 has been constructed on the edge of the lagoon, and Lot 6A rises sharply from that road (which is around 3m above sea level (ASL)) to a peak of 13m ASL. Behind those peaks the area flattens out into a relatively even area for around 100m before dropping down an escarpment around 2-4m to the back part of Lot 6A which is approximately 8-10m ASL. The rolling sand dunes in the front half of Lot 6A are contrasted to the more regular agricultural land at the rear of Lot 6A.

[240] This dune formation carries on from Matatā Township itself and the Rangitihi Marae and Urupa are built on the same fore-dune complex and overlook the rear of Lot 6A. The formation continues through the Burt land, Lot 6A and Lot 7A and then further to the east to the Tarawera River. Behind this dune formation the land drops and is then undulating, regular farmland. It appears to be the edge of the Rangitaiki Swamp in this vicinity. This land is still somewhat higher than other portions of the plain, which seem to be closer to 1-3m than 6m, according to contour data. The Tarawera River and Cut is over a kilometre to the east, and none of the other streams in the area appear to flow through Lot 6A. None of the site is within the flood plain, and we understand that the water table is in general at around less than 2m ASL, and thus well below the level of this property.

[241] Lot 6A itself is a bare site, in pastoral grasses, and shows signs of being irregularly grazed. It is fenced, but beyond this there is little in the way of improvement, trees or other features to the property. To the immediate west is a fenced strip of land, which we have identified as the Māori roadway. Beyond that is land belonging to the Burts, which looks very similar to the subject site and is farmed in the same way. Behind 6A is further land owned by Mr Burt and farmed. Although somewhat slightly lower-lying than the subject site, it still appears to be above the water table and highly productive land. The same can be said of the land to the east of the site; including the area where Mr Burt has a milking shed, barns and farm housing.

[242] To the north of this fronting the State Highway next to Lot 6A, is Lot 7A. The Öniao Marae, which is in fairly poor condition showing little sign of use. There is a house on the eastern side of this property accessed, as far as we can see, from the Burt's tanker track. There are subdivided properties and housing further to the east on the top of the dune ridge overlooking the lagoon and towards the river.

[243] Although State Highway 2 in this vicinity is open road, the noise on Lot 6A is significantly attenuated by the initial dune height, and is not noticeable from the rear of the site, at least at the time we were visiting. There are significant views from Lots 7A and 6A towards the south, particularly towards Mt Edgecumbe (Pūtauaki) and the hills around Matatā. Nevertheless there are partial sea views from the dune ridge on the front of both lots, and it is apparent that other houses on this ridge have been built to take full benefit of the sea, lagoon and river views. The dune ridge prevents northerly views from the rear of Lots 6A and 7A.

[244] Beyond the State Highway, which provides in a broad sense access to these properties, there seems to be little in the way of council infrastructure. It is unclear whether there is water supply, but there is clearly no wastewater treatment to the properties beyond the town boundary. The access to the site from State Highway 2 directly does seem problematic, given that it is a 100km/h zone and there are very steep rises onto the property. Currently there is no vehicular access directly to Lot 6A, and Lot 7A uses an oblique angle to the State Highway – Thornton Road. Improvements to the state highway, to widen it to allow a pull-off area and to turn into site, are likely to be required.

[245] The Māori roadway on the site has not been developed, but appears as a paper road on the title to Lot 6A.⁷⁷ The relevant Native Land Court minutes of 1913

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recording the partition of the block into Lots 6A, 6B and 6C indicate that the roadway was laid off at the same time.⁷⁸ However, no formal order appears to have been drawn for the roadway. Roadways such as this, by virtue of various statutes concerning Māori land, could be laid out upon partition for the benefit and use of the owners of the new parcels of land created.⁷⁹ They were restricted to such owners and/or their invitees unless declared by proclamation to be a public road.⁸⁰ No record of such a proclamation being made has been referred to us. Where there has been no proclamation, they are often referred to as Māori roadways. Given that the Applicant now has a lease, there should be no issues raised regarding rights of access over this roadway.

[246] There was some dispute as to what development is permitted on the Māori roadway, which is currently unformed paddock. TheApplicant's view was that they could construct it as road without further consent. They did acknowledge that, in the event that the earthworks went over the Regional Council limits an earthworks consent would need to be obtained. It also appears that part of the formation would occur in the Coastal Environment overlay in the Regional Plan, which may also trigger a consent requirement, but the evidence was unclear on these matters. We note that the rear portion is already used as a farm access road by Mr Burt, and the formation of this portion of the road on the rear farmland appears to be relatively straightforward.

[247] We do acknowledge the point raised by Mr Potter in his submissions and questions to witnesses, that the front portion of the site, over the ridge dunes, rises very steeply. Again, no dimensions were given, but it appears that the peak is within 50-60m of the road, and the maximum gradient permitted under the plan is some 1:10. The question of the earthworks required to construct this road, and whether they required consent was unresolved at the hearing. It is certainly not part of the application for consent, and Mr Potter argued that such a consent should have been included within this suite so that the full effects of the activity could be considered.

[248] We acknowledge that the front portion of Lot 6A is within the coastal environment, and accordingly we accept that the entry to the Māori roadway would be within the coastal environment and therefore considerations under the NZ Coastal Policy Statement would arise. Any consents necessary have not been sought for this

 ⁷⁸ Māori Land Court Record - 59 Rotorua Minute Book 144 -147 and see in particular Folio 147
⁷⁹ See generally Māori Land Court Record - Butler v NF Fraser & Co Ltd - Mangawhati 3B1 &

Takahiwai (2013 Chief Judge's Minute Book) 59

aspect of the activity, nor can we assume that consent to enable access along the Māori roadway, if required, would necessarily be issued.

[249] It follows logically that we should now discuss, briefly, the access road (subject of a NoR) from the Māori roadway to the proposed wastewater Treatment Plant. Annexure C shows the designations on Lot 6A, including the access way.

[250] The wastewater Treatment Plant is situated on the eastern side of the site because of a fault line that passes through the site. The exact reasons for the access road's placement part way through the rear of Lot 6A were not explained. The Applicant seemed to accept that an alignment along the southern boundary would have less impact upon use of 6A. Although Mr Burt did not object to this course of action, he did note that it was lower-lying, and any liquid escaping from the operations of the plant might pond on his property.

[251] The nearest house to the Treatment Plant site is the Burt farmhouse, which is around 200m from the boundary. Mr Burt's home itself is off State Highway 2, near the Māori roadway, and is around 220m from the site. A map showing the site and the surrounding properties is annexed hereto as **Annexure D** (being Figure 20 from the common bundle). As can be seen, Öniao Marae is also around 200m, and the Ngāti Rangitihi urupa and other residences are beyond 300m, with the Ngāti Rangitihi Marae and nearest residential homes in Matatā itself being beyond the 400m radius shown on **Annexure D**.

[252] For current purposes it would be useful to note that a core issue is the likely adverse effects on any buildings within the 100 and 140m radius, which would include the majority of Lot 6A, part of Lot 7A and some Burt land, all of which is currently used for farming.

The relationship of the site to the coastal environment

[253] The regional plan shows the coastal environment as terminating on the escarpment part way through Lot 6A and adjacent properties – that is probably in the region of 30-50m north of the Treatment Plant and follows the step in the contour visible in Annexure C in the approximate position of the fenceline. We have considered carefully the arguments around coastal environment and the various provisions of the plan.

[254] We acknowledge immediately that there is something arbitrary in identifying a line for the coastal environment, but we acknowledge that the NZCPS requires such an approach. We are unanimous that there is a step-wise change in the nature of the environment from the top of the dunes on 6A to the area of the Treatment Plant. We agree that the area of the dunes is within the coastal environment, whereas the area to the rear is farming in nature and more properly located within the rural area, although it does have some coastal influences. Accordingly we are unable to see any problem in the Regional Council's approach to the coastal environment and adopt that line for the purposes of this case.

Cultural Landscape Issues

[255] Before discussing the potential effects of this proposal, we consider the cultural landscape and issues associated with this location. We note the background to the cultural landscape of this location has been fully canvassed above. However, it is important to reiterate that Lot 6A and Lot 7A are associated with owners and beneficiaries who, through their various genealogical connections, hold these Māori land blocks as taonga and that in the case of Lot 7A it remains the last coastal block of land for Ngāti Tūwharetoa that is available at this time for development.

[256] According to Mr Marks and Mr Tamihana, Trustees of Ōniao Marae, they also consider Lot 7A is pivotal in their role as kaitiaki of Ngāti Tūwharetoa's takutaimoana (coastal zone).

[257] The cultural issues asserted from this landscape include:

- (a) The need to have regard to the integrated nature of the Māori world view. We note Maanu Paul's statement "Noku te Ao, ko te Ao ahau."⁸¹ Loosely translated it means "I am the world and the world is me." That world is translated through the relationships that Māori have with the sky father and earth mother from whom they determine their identity as tangata whenua. We understand him to believe that the land Māori acquire by discovery, conquest and occupation cements that relationship with the natural world.
- (b) A concern for the mauri of the land and the mana or authority of the tangata whenua of both Lot 6A and Lot 7A. This concern relates to the processing of human waste on the land without the necessary ceremonial removal of tapū associated with that waste. When the mauri is affected in

⁸¹ Mr Potter, Evidence-in-chief, Appendix D, page 1137

this way, it was claimed that this would nullify the use of the land for Papakainga. That is essentially because human waste, not generated by the owners, is being processed on the land and thus the earth of the ancestors is being desecrated.

- (c) Impacts of any earthworks on waahi tapu identified in the CIAs and by witnesses before us.
- (d) Impacts on places such as pito (umbilical cords) and taonga burial areas. There was some suggestion that personal items of Tüwharetoa were buried on Lot 6A.
- (e) Proximity to Rangiaohia (Ngāti Rangitihi) Marae and Ōniao Marae, with particular concerns regarding views, sewage overflows/leaks and odour and effects on manuhiri (visitors). The evidence was this could have consequences for the esteem of the marae and the people.
- (f) A reduction in the mana of the ahikaa as kaitiaki to look after the land as a taonga, so that it may be passed onto future generations with the mana o te whenua intact. We accept that mana is an issue and that it goes to the heart of the relationship of the tangata whenua and the owners of Lot 6A with their ancestral lands as well as their role as kaitiaki.

[258] We agree with Mr Mikaere that most issues raised in the evidence can be provided for in conditions. In light of the archaeological evidence produced and the conditions that could be imposed, including the Accidental Discovery Protocol to provide for Koiwi, Taonga Tuturu, Waahi Tapu and Waahi Taonga. We conclude that adequate provision can be made to protect waahi tapu. We could also require of the Applicant that the Trustees of the block and the Komiti be given the right to remove any material on Lot 6A prior to excavation works commencing. We further note that iwi see the benefit of a reticulation system, even if they have not openly supported this application.

Use of Lot 6A and Lot 7A for Papakainga

[259] We have earlier discussed the historical situation in relation to land in this area, and the special relationship of the tangata whenua with this area. We also note that Lot 6A and Lot 7A are remnant of lands utilised by Ngāti Awa, Ngāti Tūwharetoa and Ngāti Rangitihi. Lot 7A is the last vestige of lands formerly held by Tūwharetoa ki Taupo and now set aside for the benefit of all Tūwharetoa peoples which would include Tūwharetoa ki Kawerau - Bay of Plenty. As we have already

discussed, there is different ownership to Lot 6A and Lot 7A. Nevertheless, we acknowledge that they seem to have been seen and utilised by a section of the ahi kaa as a unit.

[260] We also acknowledge that Lot 6A appears previously to have had whare, at least in the forward portion, on or near State Highway 2. There was also discussion of Lots 6A and 7A being utilised for gardens. Given that these were both much larger lots at one time, it is unclear what previous uses relate to the retained land.

[261] The unanimous view of all the witnesses we heard from is that it has been a long-held objective of the land owners to utilise this land for community facilities and Papakainga. The Trustees hold the same view, and the issue between the Trustees and the Komiti appears to be how best to achieve that goal given the current use of the land and the lack of income. Although various investigations into development have occurred, there is no longer any house on Lot 6A, although some witnesses recall one in the area of Lots 6A and7A until the 1950s. We turn now to cultural issues, visual effects and the issue of odour. This we discuss further below and when we consider Part 2 issues.

Cultural effects on the prospects of Papakainga

[262] Various witnesses argued that the presence of the plant, and the potential for odour events, had a cultural impact that made the site unacceptable for Papakainga. This nullifying cultural effect, it was contended, will result in no one being willing to live on either Lots 6A or 7A, once it is realised what Lot 6A is being used for.

[263] While we accept that this potential effect is important we also have cultural evidence from Mr Mikaere and Mr Olsen which indicates that appropriate measures may be taken to overcome the cultural distaste obvious in the evidence before us, whilst still providing for the relationship of the owners and iwi with this ancestral land.

[264] We note that the Treatment Plant itself does not discharge to ground. Accordingly, the alleged cultural offence is mitigated somewhat by this proposal as there will be no discharge from the Treatment Plant unless there is a major failure. We conclude the prospects of a leak are very low and would be detected and remedied immediately. This might include failure of either the piping or the tanks, which is likely to occur only in an extreme event. Any minor leaking is a matter that should be detected by staff and rectified promptly. We see a simple check being to use the boreholes to check there is no contamination of groundwater. The Applicant's experts agreed.

We note that the Applicant had proposed a bund to hold the contents of the [265] plant in a catastrophic failure. That appears to us to be a relatively remote possibility and the bund is an adequate method by which to avoid any adverse effects beyond the site. This means some thought would need to be given to the vehicle entry, to avoid a concentrated escape flow. However, given the area involved is some $5,000m^2$, and over half is unlikely to be built on, any bund for containment is not likely to be high. As we understand the evidence, the bund was intended to use cut-to-fill and create a Buffer. The bund shown in the diagrams produced seem to serve no containment purpose, given one side has no bund. The Applicant's landscape experts saw no particular merit in bunding for landscape purposes. Various plans show the bund within the Treatment Plant designation, or within the Buffer area. However, the application and supporting documents do not seek to use the Buffer designation for bunding. To be effective, any bunding would need to be within the Treatment Plant designation, to contain any escaped fluids. No further evidence was given as to why the whole site needed a containment bund.

Odour effects

[266] It has traditionally been seen as good practice to provide a physical buffer between wastewater Treatment Plants and adjacent sensitive uses to minimise the potential for adverse odour effects on those uses. We acknowledge that some Treatment Plants do exist close to, or even immediately alongside, sensitive uses and we anticipate these would be designed for very high levels of odour control. Whatever those circumstances and controls might be, that does not alter the requirement for us to ensure that any odour effects from the Matatā Treatment Plant are appropriate to the land uses.

[267] In terms of what an appropriate buffer distance might be, we were assisted by responses to our questions by Mr Iremonger (Transcript pages 831 and 832) that the buffer distance approach is *tried and true* and that EPA Victoria has developed a formula to calculate an appropriate buffer distance based on the population served by the Treatment Plant. Mr Iremonger considered that by using the formula, he would expect a buffer distance of between 100 and 140 metres to be appropriate for the Matatā Treatment Plant. We acknowledge this is not the formal position of the Regional Council, but respect Mr Iremonger's professional opinion on this matter. We record his estimates are very much in line with the distance of around 150 metres that we had anticipated would be appropriate based on our own experience. To further consider this matter we referred to the document referenced by Mr Iremonger and this indicated a separation distance of around 150 metres was appropriate for a Treatment Plant the size of the Matatā Plant.

[268] Evidence on odour was given to the Court by two relevant experts, Mr Hveldt and Mr Iremonger. Mr Hveldt's modelling showed relatively low odour plumage from the site. The question, of course, was what assumptions were made for the modelling. The application itself discusses odour effects at paragraph [16.9] of the Assessment of Environmental Effects (AEE) and notes:

The wastewater treatment processes that could produce nuisance odour emissions include the following:

- inlet works;
- anoxic or anaerobic zones of the reactor tanks;
- biological treatment tanks;
- storage facility for treated wastewater;
- treated wastewater pump station;
- sludge consolidation de-watering facility;
- de-watered sludge holding tank.

These components will be covered and the odious air extracted and treated using a biofilter or similar. The biological treatment unit, provided with sufficient aeration, generally has low potential to generate odour. Aeration will or may be supplied with natural processes or mechanically aerated, depending on the final design.

[269] The generality of that description is unhelpful, and led to some confusion on the Court as to precisely what was intended. In answer to queries from the Court, Mr RD Shaw, a water resource engineer, advised that everything was to be covered. Questions then arose as to whether this was in order that all air could be extracted and treated through a biofilter. Unfortunately, as the case progressed, matters did not become any clearer. In answer to questions Mr Hveldt advised:

Our modelling assumes that everything was covered, and everything was extracted to a biofilter. We modelled from the surface of the biofilter.

[270] It was acknowledged by Mr Hveldt and Mr Iremonger that odour escape events occur – not regularly, but not infrequently. It is in the nature of the process that covers are opened for any number of reasons, particularly when there has been a failure of a particular process.

[271] At the time of our visit to the Maketu plant, which was advised to us as an exemplar of the type of design intended here, the sludge cover had been missing for some unknown period of time, and there was a strong and objectionable odour at and near the plant. If there had been residential buildings within 100m, and lower speed winds, it is more than likely that there would have been odour complaints. There was also evidence at the time of our Maketu visit that the emergency dump pond had been previously used, but we are unclear what odour was associated with that. It also appeared that there may have been a number of problems during the commissioning period leading to the release of odour. We note that that Maketu plant is largely uncovered, with only the inlet structures and sludge de-watering elements and aeration compressors covered.

[272] Under questioning, both Mr Hveldt and Mr Iremonger recognised that the 100-150m buffer has the advantage of dealing with these short-term odour releases, which they acknowledged could be problematic in proximity to residential areas. It is clear that both Mr Hveldt and Mr Iremonger prepared their evidence on the basis that this was farmland, and that there were no receptors within 150m of the plant. Mr Hveldt was unhappy with the concept of defining the FIDOL factor location as assuming a residential standard of amenity would need to be maintained at the buffer boundary. This strengthens our conclusion that, as currently proposed, there are likely to be occasions of significant adverse effects of odour if any residential buildings are built within 100m to 150m of the plant.

[273] Given no such residences could be erected without obtaining resource consent, Ms Hamm for the Applicant suggested that we should disregard such a potential effect, notwithstanding the agreement of the Council to provide services to such buildings if they are consented and erected. In doing so she turned the Court's attention to the decision of *Queensland-Lakes District Council v Hawthorn*⁸² and its definition of existing environment.

Is potential Papakainga part of the existing environment for receiving odour impacts?

[274] This brings us to the question as to whether or not cultural expectations, as they lead to a relationship between Māori and their land as a taonga, should be seen as part of the existing environment. We accept Mr Enright's submission that the *Hawthorn* decision was not focussed on this issue, and cannot be seen as deciding

² (2006) NZRMA 424

that such cultural relationship and expectations are not part of the existing environment.

[275] Clearly, construction of Papakainga would require consent as a discretionary activity. We have therefore concluded that we are not able to take into account Papakainga itself as a part of the existing environment. Nevertheless, we acknowledge that the impact of such odour upon the clear objective of the owners to develop Papakainga and community facilities on this site is a cultural effect which can and must be taken into account under the Act. It would clearly impact on the relationship of those persons with this residue land holding, particularly for its stated purpose as Papakainga and community facilities.

Conclusion on odour effects

[276] We conclude that a failure could occur where the air isn't going through the biofilter, or there is some failure of the biofilter. Mr Hveldt later confirmed that the modelling was done on the basis that the system was working properly, and that there was no odour escaping, ie *all* air had been treated through the biofilter. Mr Hveldt acknowledged that there were problems with covers being removed or doors being opened, extraction fans failing, and bio filters failing.

[277] Given that there was no further evidence advanced as to *how* these contingencies were to be covered, the question then left for the Court is if a building wasn't used to cover the plant, how would the items be covered when any maintenance work (particularly when there had been a failure of a particular item), was being undertaken? Otherwise, in those events where an odour pulse is released, it is uncontrolled and has not been modelled.

[278] We acknowledge Mr Iremonger's concession in questions that a buffer zone of 100-150m is good practice. We agree entirely. That does not mean that a Treatment Plant could not be compatible with housing, if unusual steps were taken to reduce the prospect of propagation of odour.

[279] One way would be to include all the elements of the plant within a building. That would enable an air handling and treatment system that would mean that all elements could be processed and air quality maintained through a single biofilter system. It may be theoretically conceivable to design a system other than a building that would cover all elements of the plant (one assumes including the emergency pond) and provide some form of either reticulated air handling or individual extraction or biofilter mechanisms for each element.

[280] Accordingly we have concluded that:

- (a) without a suitable design for covers and biofilter extraction, there will, from time to time, be objectionable odours at the boundary of the Treatment Plant;
- (b) the buffer zone is inadequate to provide any amelioration of such odour and a separation distance of between 100-150m is appropriate.
- (c) There could be significant practical difficulties in fully enclosing the Treatment Plant in a building as the Applicant has limited the maximum height to 3.5 m.
- (d) This will affect the relationship of the beneficial owners of this land with the land when the clear, common expectation and understanding is that the land is available for community use and Papakainga at some time in the future.

[281] Given the unwillingness of the Applicant to provide any detailed design that might satisfy us that this issue can be overcome, we presently see this as a major impediment, giving rise to significant adverse effects and thus relevant to the question and determination of alternatives under s171(1)(1).

[282] We should finally mention that sludge trucks would be removing material on a regular basis (once or twice a week) to the Kawerau plant, and the issue of ensuring that these are air-tight and do not drip is critical. Odour effects along the roadway and State Highway would have a significantly wider potential impact, as would failure to seal any trucks used to pick up waste material.

Visual effects

[283] Our site visit made it very clear that there were views over the Treatment Plant at Lot 6A from the Ngāti Rangitihi Marae, several hundred metres to the west, and its adjoining urupa and parking area. Similarly, on Lot 7A from the top of the dune behind Ōniao Marae (not on the marae itself), clear views can be obtained over the Treatment Plant area. All of the rear portion of Lot 7A would have a clear view into the Treatment Plant. Some buildings on the upper portion of Lot 6A and all of the rear area adjacent to the Treatment Plant would have views of the Plant.

[284] We were unable to consider the effects of the roading given the lack of any application for consent, but it appears that this may also create some significant visual effects, particularly if there needs to be a major cut to obtain appropriate gradients from the State Highway over the initial portion of the site. Towards the rear of the site it is likely that the current ground levels would be largely maintained, but the roadway itself would be relatively clear, as would any waste trucks using it.

[285] By the end of the hearing the Applicant had modified its position to suggest that one possible approach would be to utilise a landscape plan for the whole of Lot 6A, which would enable planting to occur that would not only screen the plant, but would provide amenity improvements to the site as a whole, in the event that Papakainga or community facilities were eventually constructed.

[286] From the Court's perspective this would also enable consideration to be given as to whether or not intermediate planting should be provided on the roadway to screen views from Ngāti Rangitihi Marae and the urupa towards the site, and whether other planting elsewhere on Lot 6A may provide strategic relief from views into the site, for example from the land behind the marae. Given the fact that the frontage to the State Highway is higher than the area for the Treatment Plant, intermediate planting provides the opportunity to obscure (partly or wholly) views of the plant and/or building in which the plant is contained. There would be nothing unusual in such an approach given the wide-ranging use of both shelter belts and planting surrounding other buildings in this area.

[287] We acknowledge the thoughtful evidence of the landscape witnesses on these matters and consider, on the basis of a landscape plan covering the whole of Lot 6A and the roadway and accessway, that conditions could be imposed that would render any continuing visual effects minimal.

[288] We have concluded that the visual effects can be addressed by a comprehensive development and planting plan, which takes into account the potential for Papakainga on the site, and that other measures can be incorporated into the conditions to address these concerns.

[289] Intermediate planting between the Ngāti Rangitihi Marae and urupa, the rear of the Ōniao marae on Lot 7A, and the Burt dwelling, would all have the effect of ameliorating views towards this area, and thus mitigating the effects. We appreciate that a building may have more visual effect than elements of the plan itself. The question as to whether piping, as opposed to the bare face of a building, have visual effect is a matter of personal choice, and in the end no witnesses expressed strong views one way of the other on this issue.

Benefits of reticulation to Marae

[290] There was much evidence given to us that the installation of infrastructure and the promise to connect Papakainga was of no real benefit to the owners or beneficial owners. We do not agree. We have concluded that the ability to connect to a wastewater system, to obtain water, and to have the roading placed along the length of the site is a considerable advantage to the owners of the property and would enable the construction of Papakainga, other community facilities such as a camp ground, with relative ease. When this is added to proposals for a comprehensive landscape development plan for the site, there are significant advantages. The question for this Court, which we will need to evaluate as part of the overall exercise, is whether those benefits are sufficient to overcome the potential adverse effect of odour from the property. In this regard we will discuss potential mitigation conditions beyond those proffered by the Applicant later in this decision.

Evaluation of effects

[291] Overall, our concern is that the odour from the plant is a probable intermittent effect of this activity. Although the Applicant frequently stated that there will be no odour, the reality is somewhat different. Mr Iremonger, for the Regional Council, acknowledged that a buffer zone, of between 100-140m is utilised by most councils for good reason. There are exceedences, and this gives an opportunity to avoid or minimise adverse effects. He expressed increasing concern when the concept of having a building with full extraction system was altered to one without a building and full extraction. Even with full covering and exhaust treatment system he acknowledged that there was the potential for actions of individual workers to allow odour to escape.

[292] We have considered carefully the concept of covering various tanks and / or ponds. Though we had understood originally that there was an undertaking that all of

these areas would have the air extracted, and that this is what was stated in the AEE, we are not now clear that the Applicant intends that course of action. The Applicant did not outline a full building solution to cover and extract odour. Otherwise the placement of covers over odorous materials creates an additional concentration of any odour. If the cover is removed then the odour escapes.

[293] Overall we have concluded that the prospect of periodic significant odours arising from this site is clear. Although the Applicant's proposals would mitigate this effect they would not avoid it, and accordingly we must assume that there would be escape of objectionable odour beyond the 20m buffer from time to time. As rural land, the effect of this is not likely to be significant on the nearest houses (some 200m away). However, it represents a significant constraint to the construction of Papakainga within 150 metres of the Treatment Plant. To date we have not seen any mitigation sufficient to satisfy the Court that this activity can be conducted without periodic significant adverse effects of the Treatment Plant on that relationship and legitimate expectation for Papakainga.

Additional matters

Management of surplus excavated material

[294] There was a clear cultural preference to retain the excavated soils on the site and the Applicant intends to do so. Depending on the depth of excavation on the site, there may be considerable material required to be disposed of. At this stage there is no particular arrangement with the Trustees of 6A for the use of that fill on the site. It would appear that if there was sufficient material, there may be benefits in building up 6A more evenly to enable Papakainga, housing and other uses. That is a matter we would expect to be subject to conditions if consent is to be granted.

The linking of the three designations

[295] The Court has a significant concern as to the breaking up of these three designations in the way proposed, and the potential to operate some designations but not all. It appears to us that this would need to be addressed by requiring as a condition precedent of all designations that all other designations were also utilised as a unit. Of course difficulties arise in respect of, for example, the access way where the parties may in the end determine to adopt an alternative access way and not utilise the designation. Alternatively, this Court might move the designation to the rear of

the site – that is a matter that would need to be addressed by way of conditions if consent is appropriate.

Groundwater bores for monitoring and water supply

[296] It was noted at least one bore has been placed on site, and we were told by experts that this could easily be used for groundwater monitoring to ensure that there were no leaks to groundwater from the wastewater Treatment Plant. We believe such conditions to be essential and we understand they may now have been included in the proposed conditions.

[297] So far as taking of water is concerned, this is mentioned in the AEE but there was no discussion by witnesses of this. Given there is no evidence on the issue we are unable to consider this matter further.

The Land Application Field (LAF)

[298] The proposed LAF is located on the coastal dunes to the east of Matatā. The dunes rise to approximately six metres above sea level, and form an undulating plateau that extends approximately 150 metres inland from the beach. The back dunes drop sharply to farmland that has an elevation of approximately 1m above mean sea level (ASL) and is relatively flat.⁸³ The pasture extends approximately 300m to the south before it meets the ORC.

[299] The proposed LAF is located on top of fine medium dune sands that extend to 6.5-7.5 metres below the surface and are underlain by pumicsous/rhyolitic sediments comprising predominantly coarse sands and fine gravels. In the fore dune and beach area tidal fluctuation and wave run-up creates groundwater levels in excess of mean sea level near the beach. As groundwater beneath the farmland is approximately one metre below mean sea level, the ground water flow direction under the LAF is inland towards the farm drains.

[300] The Orini River formerly flowed from the Whakatāne River, parallel with the dunes, through to the Rangitaiki River. The Rangitaiki then flowed to the north, then parallel to the ocean (ORC) before joining with the Tarawera River to the west and exiting in front of Matatā.

Mr Kirk, Evidence-in-chief, paragraph [12]

[301] It was suggested by the Regional Council that there may still be some hydraulic connection between the Rangitaiki River and the remnant ORC, but no examination of this has been undertaken. Nor was there a suggestion that there was any significant amount of groundwater finding its way through that channel, given that most of the water is introduced from the farm drainage system. The ORC is either gravity fed from farm drains or, in some cases, such as the Robinsons farm to which the LAF is adjacent, pumped up to the ORC. This is essentially now a perched channel in the middle of the farm paddocks in this area. It is covered by the Tarawera Catchment Plan, and is also part of the Rangitaiki Drainage Scheme.

[302] The Robinson farm paddocks are in the former river bed, as are its surrounding wetlands, and lie between 1 and 2m ASL. This area has always been identified as wetland and swampy, and it was clear to us from our site inspection that, without constant pumping, it would be likely to revert to that condition quickly. We were told it is not stocked in winter and can have standing water in the paddocks.

[303] Given that the area to the west of the Tarawera in front of Matatā is now in wetland-lagoons, we suspect that the Robinson Farm would naturally revert to a similar condition. We have already noted that the water in the ORC flows from east to west, and exits through a flap-gate structure and pump structure at the Tarawera River.

[304] The LAF will have an area of approximately 4.6 hectares, and will be located on sand dunes within the Western Recreation Reserve as shown on Figure 6 in the bundle of drawings. Treated wastewater is expected to be discharged by subsurface drip irrigation at a depth of up to 300mm below ground, with distribution pipes installed by mole plough. No vegetation clearance is planned. Final details will be determined by the contractor in accordance with a design/build/operate contract. The system will include filters, control valves, a flushing return pumping station and associated rising main (to return chlorinated water used to flush the system to the Treatment Plant), security and communications.

[305] No stripping of grass sward or topsoil is to occur at the LAF site, and the ground cover of the dunes is to be protected as far as possible. Approximately four kilometres of irrigation pipe and associated components will be used, in addition to distribution mains, sub-mains and flushing pipelines. The flushing pumping station will be approximately 1.8m x 1.8m by 1.8m, and partially buried to minimise visual effects. A new access road, approximately 600m long by 6m wide, will be

constructed to connect with the existing access road on the adjoining property. The total volume of earthworks for the LAF and access road will be $5,500m^3$, of which $4,900m^3$ is within an Erosion Hazard Zone.

[306] Treated wastewater will be applied at a rate of 30mm per day, which at the maximum design wastewater volume of $605m^3$ per day will require an application area of 2 hectares. The total irrigation area available is approximately four hectares, which provides capacity to rest disposal areas on a seven day on/seven day off basis.

Cultural landscape in the vicinity of the LAF

[307] As noted above the LAF is situated on the eastern side of the Tarawera River within the fore-dune formation. All the tangata whenua tribes have claimed this area as culturally important to them. The importance of the LAF area is understood by Māori in the context of their history, culture, land ownership and activities centred upon water resources.

[308] We start by noting that on the western shore of the Tarawera River mouth are the Ngāti Awa and Ngāti Tūwharetoa nohonga (occupation site for lawful food-gathering and fishing), both respectively 1 hectare in size, returned to the tribes through the Ngāti Awa and the Ngāti Tūwharetoa treaty settlements in 2005.⁸⁴ The Ngāti Awa and the Ngāti Tūwharetoa nohonga are within the Department of Conservation Te Awa o Te Atua Wild-life Reserve at the river mouth.⁸⁵ Once Ngāti Rangitihi settle their Waitangi claim it is likely that they will also receive a nohonga in this area.⁸⁶

[309] The settled tribes have statutory acknowledgements for their relationship with the Tarawera River and the Rangitaiki River.⁸⁷ In terms of the Tarawera River, both tribes have different stories concerning their creation and how they were named. These different stories are recorded in those statutory acknowledgements.⁸⁸ However, for our purposes we note that both statutory acknowledgements include what we have

⁸⁴ Ngāti Awa Claims Settlement Act 2005, Schedule 2 & s 92; Ngāti Tūwharetoa (Bay of Plenty) Claims Settlement Act 2005 Schedule 2 & s 75

⁸⁵ Application, common bundle Vol 1, page 326

⁸⁶ Waitangi Tribunal The Ngāti Tuwharetoa Ki Kawerau Settlement Cross-Claim Report (Wai 996, Legislation Direct, 2003) pages 34-42

³⁷ Ngāti Awa Claims Settlement Act 2005, Schedules 11 & 12; Ngāti Tüwharetoa (Bay of Plenty) Claims Settlement Act 2005 Schedules 7 & 8

 ⁸⁸ Ngāti Awa Claims Settlement Act 2005, Schedule 12; Ngāti Tūwharetoa (Bay of Plenty) Claims
Settlement Act 2005 Schedule 8

called the ORC, due to its fresh water content, whether it is a stream or modified watercourse.⁸⁹ Once Ngāti Rangitihi settle it is likely that they will also receive such a statutory acknowledgement.

[310] On the eastern side of the river is the cemetery, Otaramuturangi urupa (set apart as a Māori reservation under Te Ture Whenua Māori Act 1993) and in which Ngāti Rangitihi, Ngāti Awa and Ngāti Tūwharetoa have an interest.⁹⁰

[311] The cemetery abuts land owned by Ngāti Awa which was returned to them pursuant to the Ngāti Awa Claims Settlement Act 2005. That land is known as Te Toangapoto.⁹¹ It is depicted on early maps of the area.⁹² The land is land-locked and is classified as a reserve subject to s 17 of the Reserves Act 1977.⁹³ Ngāti Awa wishes to have access via the informal road along the coast formalised, if the LAF proceeds.⁹⁴ The Pt Allotment 273 Rangitaiki Parish Recreation Reserve upon which the LAF will be situated is immediately adjacent to and bordering this land along the coastal dunes.

[312] Ngāti Tūwharetoa also has a block in the coastal dunes known as Te Wahieroa south-east of the LAF. It was returned as part of their settlement in 2005.^{95.} It is also adjacent to the Pt Allotment 273 Rangitaiki Parish Recreation Reserve upon which the LAF will be situated.⁹⁶ Te Waihieroa is depicted on early maps of the area.⁹⁷ The land is classified as a reserve subject to s 17 of the Reserves Act 1977.⁹⁸ Waihieroa was described by the Waitangi Tribunal as the point midway between the mouths of the Tarawera and Rangitaiki Rivers, where hapū with joint whakapapa to Ngāti Awa and Ngāti Tūwharetoa demonstrated customary allegiance to both iwi.⁹⁹ It was a significant landing place for many waka, an ancient canoe-building and maraesite and mahinga kai (food-gathering) area.¹⁰⁰

⁸⁹ Ibid

⁹⁰ Application, common bundle Vol 1, p 341 for Ngāti Rangitihi, p 328 for Ngāti Awa; p 345 for Ngāti Tūwharetoa

⁹¹ Ngāti Awa Claims Settlement Act 2005, Schedule 1; Proposed Matatā Wastewater Scheme - Map Book, Figure 6

⁹² see also Exhibit "K" Map 3

⁹³ Ngāti Awa Claims Settlement Act 2005, s 32

⁹⁴ Application, common bundle Vol 1, pp 325, 329

⁹⁵ Ngāti Tuwharetoa (Bay of Plenty) Claims Settlement Act 2005, Schedule 1; Exhibit "J" Map 1 & 2; and see Proposed Matatā Wastewater Scheme - Map Book, Figure 6

 ⁹⁶ Proposed Matatā Wastewater Scheme - Map Book Map 6; Application, common bundle Vol 1, p 345
⁹⁷ see also Exhibit "K" Maps 3 & 4 and Exhibit "J" Maps 1 & 2

⁹⁸ Ngāti Tuwharetoa (Bay of Plenty) Claims Settlement Act 2005, s 28

⁹⁹ Waitangi Tribunal The Ngāti Awa Report (Wai 46, Legislation Direct, 1999) p 20

¹⁰⁰ Waitangi Tribunal The Ngäti Tuwharetoa ki Kawerau Settlement Cross-Claim Report (Wai 46, Legislation Direct, 1999) p 38

[313] Effectively this means that the Whakatāne District Council Reserve and LAF site is between both the Ngāti Awa and Ngāti Tūwharetoa settlement lands. Given the District Plan requires the Treaty settlements to be identified, it is curious that the reference in the AEE simply identifies the Treaty statutory acknowledgements, not the re-vesting.

[314] In addition, we note that the land directly opposite the current access via the bridge and road access to the Robinson property leading to the LAF site, and at V15/1209 in the archaeological evidence, is referred to as the Matatā Pā.¹⁰¹ This pā along with the Omarupotiki Pā (now on the opposite side of the ORC facing the Te Toangapoto block – in evidence as V15/1020) were once Ngāti Awa island pā and are now (after drainage) Māori land blocks.¹⁰² Having checked the Māori Land Court record, the first block is Lot 102 Parish of Matatā and the second is Lot 100 & 101 Parish of Matatā.¹⁰³ These blocks were awarded back to "Loyal Natives" under the Confiscated Lands Act 1867.¹⁰⁴

[315] Given the topography of the area, any contaminants in groundwater from the LAF that may be discharged into the ORC will flow through Lot 100 & 101 Parish of Matatā toward the Tarawera River or it could flow back upstream.¹⁰⁵

Effects of the LAF

[316] The issues for the LAF can be separated into two themes:

- (a) cultural issues; and
- (b) potential impact on surface waters, particularly the ORC and Tarawera River.

Cultural issues

[317] There are four issues raised relating to the LAF, being:

¹⁰¹ Exhibit "H" Archaeological Assessment of Proposed Matatā Waste Water Scheme, Matatā, Eastern Bay of Plenty (April 2014) p 10; and see Māori Land Court Record - Lot 102 Parish of Matatā

¹⁰² Waitangi Tribunal The Ngäti Awa Report (Wai 46, Legislation Direct, 1999) p 61; see also Exhibit "K" Maps 3 & 4 and Exhibit "J" Map 1; Ngäti Awa Claims Settlement Act 2005, Schedule 12; Application, common bundle Vol 2, p 632, and see Māori Land Court Record Lot 100 & 101 Parish of Matatā

¹⁰³ LINZ Identifier 308871 & LINZ Identifier 308885

 ¹⁰⁴ LINZ Identifier 308871, attached plan 16052; see also Waitangi Tribunal The Ngāti Awa Report
(Wai 46, Legislation Direct, 1999) p 82

¹⁰⁵ Proposed Matatā Wastewater Scheme - Map Book, Figure 2

- (a) original names;
- (b) food gathering and fishing sites;
- (c) potential earthwork impacts on cultural sites and koiwi; and
- (d) views from nearby Maori land

<u>Original names</u>

[318] All the iwi of the Tarawera Catchment wanted the original place names used for the ORC, Wahieroa, Te Toangapoto, Te Awa o te Atua or Tarawera River.¹⁰⁶ The Applicant has agreed to this and we would require this in the conditions if the consent is granted.

Food gathering and fishing sites

[319] In terms of food gathering sites, there was no evidence that the ORC has been used for food gathering. Food-gathering in the main occurs on the Tarawera River or at the mouth. Given the importance of the nohonga for the iwi at the river mouth, the inanga hatchery and the clear terms of the NZCPS, we conclude that improving the discharges from ORC will provide benefits for food-gathering and fishing.

Avoiding significant cultural sites and Koiwi

[320] The area adjacent to the Tarawera River to the west of this particular site has been identified as the urupa – Otaramuturangi. Immediately next to it is Te Toangapoto, the LAF site and then Te Wahieroa. Opposite the LAF and in the vicinity are the two Māori land blocks. We would require the Applicant to make every effort to avoid any disturbance of these sites.

[321] In terms of koiwi, Mr Potter raised the question of whether or not koiwi are buried within this area of fore-dune across the subject site. The view of the Raupatu Trust is that the proper course is to use ground-penetrating radar to identify these and ensure that they are either left undisturbed or, if they must be disturbed, that they are removed in a culturally appropriate way.

¹⁰⁶ Ms Hughes, Evidence-in-chief, paragraph [36]

[322] The Applicant has proposed a discovery protocol, which has been agreed to at an iwi level, but is not accepted by the Raupatu Trust. Mr Potter summarised their position as a concern that the people using the digger will not be looking to see what they are disturbing, even if somebody is on site as a cultural advisor.

[323] We have carefully considered these concerns and have concluded that we can accommodate that issue through conditions. We note the Applicant recognises the need to properly train operators and all workers in this area, and there is an extensive induction process intended to ensure that the workers doing this work are aware of what to look for, and their obligations under the resource consents and in terms of cultural protocols. Although the wording of the cultural protocol might be improved, it is clear that its intent is to recognise and provide for the relationship of the various iwi to this area, to ensure that a proper procedure is adopted, firstly to identify any matters of cultural interest, and secondly to ensure that they are treated in a culturally appropriate way.

[324] Given the limited impact of the LAF field, we are satisfied that these matters are currently addressed by the application without the need for further conditions. Any potential adverse effects would be minimal, given these conditions.

Views from Te Toangapoto and Te Wahieroa to the LAF site

[325] In terms of the request for some screening of Te Toangapoto and Te Wahieroa, we consider that this may be achieved by appropriate planting of species such as Thornton Manuka in keeping with the environment and we will require a new landscape plan to be developed with Ngāti Awa and Ngāti Tūwharetoa to discuss the details.

Groundwater

[326] The Applicant's case was prepared on the basis that there would be full attenuation of all human pathological substances before the wastewater reached the first intercept drain, which we understand to be in the position approximately of BH806 or the lateral drain between SW3 and SW2. Refer to Annexure E (figure 8).

[327] We are told that wastewater travelling from the LAF through the dunes and surfacing by whatever means at those positions is likely to have been at least one year

from discharge, and accordingly any pathogens would have died well before reaching that exit point.

[328] However, both the expert witnesses for the Applicant made an assumption that there would be no attenuation of Nitrogen (\mathbb{N}) or Phosphorus (\mathbb{P}) in that process. They recognised that:

- (a) this was a worst case scenario, and most wastewater would have travelled a further distance through the ground before surfacing;
- (b) given that the wastewater was placed in the root zone it is likely that some N or P would be caught up in that plant growth;
- (c) bacterial and other adsorption characteristics of the sand would develop over a period of time, and likely utilise some of the N and P;
- (d) as a result they would expect some attenuation of N but probably little in respect of P.

[329] The end result of these formulations was to achieve contaminant of N and P at the levels of contaminants in the drain water being discharged to the ORC and other locations downstream shown in the Table 5 from Dr Chen's evidence as follows:

Table 5 Estimated contributions of TN and TP from treated wastewater into the aquatic receiving environment.										
Parameter	Treated Wastewater	Groundwater		Surface Drainage Network		Orini Stream				ANZECC 2000 Guidelines Trigger Level
		Background	Impacted	Background	Impacted	Current background	Impacted (within 20m radius of discharge point)	Impacted further upstream or downstream (assuming 6:1 dilution)	Impacted further upstream or downstream (assuming 20:1 dilution)	Lowland rivers, slightly disturbed ecosystem in New Zealand
TN (mg/L)	15	0.2-1.5	10-11	0.3-1.5	2.5-3.5	1.5-2.0	2.25-3.05	1.92-2.58	1.62-2.18	0.614
TP (mg/L)	10	0.02-0.1	7	0.05-0.2	1.5-2.0	0.05-0.16	0.5-0.75	0.30-0.49	0.12-0.26	0.033

[330] It is clear that the estimated level of discharge, in particular of N and P is a significant increase over the current level. It is acknowledged that there would be an adverse impact on water quality in the ORC; however the position for the Applicant is that the water quality levels for N and P particularly are already above those of the ANZEC guideline levels. Given that they are below the new national freshwater policy, and that there was no effect on ecology, their view is that the increase in discharge was acceptable.

[331] In short, the water discharged from the drains to the ORC would represent a significant increase in contaminants, N and P. As we set out later this appears to fly in the face of the various planning documents relating to this area that seek variously improvement in water quality, reduction in contaminants and maintenance of water quality.

Is the LAF the best practicable option?

[332] It was suggested that increased contaminants to the ORC was the best practicable option. However, the relevant Applicant and Council witnesses acknowledged that the treatment of surface waters within the Robinson farmland would lead to a significant improvement in the N and P levels. In fact one witness commented that the exclusion of stock from this area would, in itself, lead to a significant improvement.

[333] From this we conclude that best practice in this case would be that the farm area between the LAF and the ORC be retired from farming and allowed to revert to wetland. That is clearly not within the scope of any application before the Court at the current time, and the land is not subject to any right by the Applicant to undertake such work. The scale of the work necessary to attenuate the extra N and P from the LAF is also unclear. No specific evidence was given to us as to what portion of the site would need to be retired from farming and/or planted in wetland to achieve maintenance or improvement of the N and P levels from the Robinson farmland.

[334] Some witnesses suggested that even a wetland planting at the toe of the dunes, say 5-10m deep, would improve the water quality entering the farm drains and thus being pumped into the ORC. Furthermore, it appears that riparian planting, at least along the main lateral drain, and along the drain leading to the pump, may also have some beneficial effect even if stock remain on the paddocks. Again, there was no quantification of this so we are unable to reach a firm conclusion as to what level of work would be required on this land before existing discharge levels of nutrients could be maintained or improved.

[335] However we conclude that there are options available to treat wastewater reaching the surface. Given there is already a lease in place for the LAF with the Robinson family we had no explanation as to why the treatment discussed could not be undertaken.

Does the level of the nutrients in the ORC matter?

[336] As we have already noted, the ORC is already enriched over ANZEC guideline values, and the stream itself is not limited for plant growth as to either N or P. In short it is a poor quality arterial drainage channel and discharges into the Tarawera River several hundred metres from its outlet to the sea. In broad terms, the volume of the Tarawera River is so great that the dilution of the ORC waters would result in no detectable change after reasonable mixing. There seems to be an assumption that its discharge so close to the river outlet means it can be discounted as an impact on the river

[337] Again, the question of reasonable mixing was one that was not explicit, and we are unclear whether this means 1-metre, 10-metres or some other figure. Nevertheless, the clear evidence was that given the current condition of the Tarawera River there would be no more than a negligible impact upon the water quality, after such reasonable mixing. The water is likely to exit fairly immediately to sea. We make the point that this position was strengthened after further information was obtained about the drainage works. It appears that the drainage channel releases during the outgoing tide and closes on the incoming tide. Although we acknowledge that some waters mixed with the river water would be driven up the channel before the flap gate closes, the majority of water would leave the channel during the outgoing tide.

The impacts on the Tarawera River

[338] The Tarawera River is already significantly compromised due to other contamination, notably the pulp and paper mills. This matter was subject to a separate decision by the Environment Court several years ago, and the Court consented to the discharges on the basis of an improving water quality regime during the 35 year period of the consent. As well as this, the Catchment Plan seeks to improve inputs generally, and this involves issues relating to the Edgecumbe and the Kawerau wastewater Treatment Plant and other discharge points, including from the Rangitikei Catchment System.

[339] We were told that there would be no ecological impact on the inanga hatchery just adjacent to the outlet, or on the bird colony on the opposite bank. Furthermore, given the negligible impact on water quality generally within the Tarawera River, any stream waters that are discharged on an incoming tide and are driven up the Tarawera River or the channel are unlikely to have any discernible differences from the Tarawera River generally. It is clear that there are already increased nutrient levels in the river, including N and P, and lignite leads to a dark colouring of the river and accordingly limits light penetration.

[340] Nevertheless this estuarine area is very important, as is the confluence of the River with the sea. This is evident by the Department of Conservation areas adjacent, birdlife and inanga hatchery. We are told of its cultural importance although a remnant of the Te Awa o te Atua.

Conclusions as to impacts on the Tarawera River

[341] It is the Applicant's case that there would be no discernible impact on the river's water quality after reasonable mixing. Provided there was a condition to that effect, and that the mixing zone is reasonable and avoids the inanga hatchery, bird breeding colony and nohonga areas, then we can conclude that the impact upon the coastal marine area and, in fact, the sea and shore, would be negligible.

[342] The issue that arises, however, is if the Tarawera Catchment is generally improved, and the ORC discharge may in those circumstances compromise the quality of the Tarawera River. It is difficult to imagine that this would be so, given the dilution levels involved, but nevertheless it was acknowledged by the Applicant that the Regional Council had the power to review the consent if the Tarawera Catchment Plan or other plans affecting the river imposed a higher standard. Although we acknowledge that Councils have this power, it has been rarely exercised in practice. Our preference would be to see an explicit provision requiring the consent be reviewed in the event that a new catchment plan is imposed that has a higher standard than that currently applying to the Tarawera River catchment, or the CMA within this particular area.

[343] Provided the above condition is imposed, the issue is the impact upon the ORC rather than the Tarawera River. Given our views that there are methods that would improve the water quality being pumped into the ORC, particularly through wetland or riparian planting, and even removal of stock, we are at this stage not convinced that it is not possible to reduce the level of N and P entering the ORC to levels close to or better than those of the current discharge. We conclude that impacts would be avoided if there was an improvement in the N and P levels being pumped
from this part of the Robinson farm to the ORC. We conclude this is technically and practicably feasible.

Is the discharge prohibited?

[344] One possibility raised by the plans, in particular rule 15.8.4(r) of the Tarawera Catchment Plan, is whether the discharge to the ORC is a prohibited activity. Chapter 15.8.4(r) provides:

Except for the provisions of the operative Onsite Effluent Treatment Regional Plan, and for the provisions of the Kawerau Township and Edgecumbe Township set out in (a)-(d) of this rule, and the provisions of Rule 15.8.4(x), all new or existing discharges of human sewerage or contaminants derived from human sewerage into surface water within the Tarawera River catchment will become a prohibited activity on the date on which this regional plan becomes operative.

[345] Chapter 15.8.4(x) provides for discharge of human sewage from the Kawerau township into surface water in exceptional circumstances. No-one suggested the other exceptions applied to this application.

[346] The context of this rule is explained in 15.4.6, which deals directly with sewage discharges. After noting the cultural objections, it notes:

While some liquid wastes, including this sewage, may be treated to a higher degree before being discharged, this does not overcome the adverse effect of these discharges on the Mauri life force of a water body, unless the waste has first been passed through the cleansing properties of earth.

[347] Of course, this provision does not assist us with the question of what is a discharge to surface water.

Discharge to a water body

[348] The primary position for the Applicant was the discharge was to ground in circumstances where it then joined groundwater and/or flowed through sand before joining surface water near the Robinson's farm drains. On the other hand, the Catchment Plan identifies particularly high phosphorus levels at Matatā, and includes a comment on nitrogen:¹⁰⁷

It is apparent, therefore, that any effluent treatment measures that reduce the discharge of dissolved nutrients, particularly ammonium nitrogen, to

¹⁰⁷ Under figure 14, page 159 Tarawera Catchment Plan

the Tarawera River, will benefit the oxygen supply of the lower reach of the Tarawera River.

[349] It is also recognised in the Catchment Plan 15.4.10(a) that nutrient sources from agricultural sources are difficult to control. As consents officer for the Regional Council, it was Miss JL Hollis's view that the overall concern of this aspect of the plan was towards direct discharge to surface water, rather than indirect discharge through ground.

[350] We have discussed the general purport of the Catchment Plan already, and we have concluded that the plan is particularly focussed on nutrients reaching the Tarawera River. The wording of the Rule 15.1.8(r) is ambivalent; it is not clear from its wording whether it is intended to apply to indirect as well as direct discharges. The use of the words *contaminants derived from human sewage* may be indicative that it is dealing with indirect discharges. On the other hand, as Ms Hamm submitted *it could clearly be suggesting that the direct discharge of water after it had been through a waste Treatment Plant to surface water would not be permissible.*

[351] It is in this regard that, from the Court's perspective, the real concern is that the Applicant has presented evidence on the basis that there would be no attenuation of N or P from its discharge in the LAF to its appearance in the surface waters of the drain. Our view overall is that it *must* be the intent of this rule of the Catchment Plan that there be further attenuation for indirect discharge to surface water. In answer to questions, some of the witnesses acknowledged that there probably would be attenuation, both through utilisation within the root zone by plants, and also with the bacterial and other adsorption that would occur in the sands. Overall, however, it is difficult for us to reach a conclusion that this would not amount to an un-attenuated discharge unless we can be satisfied that there will be a reduction.

[352] On balance, we have concluded that the methodology to achieve that is easily available to the Council and the landowner by adopting a riparian planting, wetland, or stock reduction approach, or a combination of these. Provided we were satisfied that there is reasonable attenuation of N and P, we would agree that the rule on its face is not intended to catch every contaminant derived from human sewage, even after treatment. It is the lack of any attenuation proposed in respect of N or P that creates the Court's difficulty.

[353] So far as the degree of attenuation to be achieved once discharged to ground at the LAF, we would have thought that this needs to be at a reasonable level. We would expect something in the order of one half by the time of discharge to the ORC but no direct evidence as to the appropriate attenuation that would ensure this is not an indirect discharge was given. An example of an unacceptable indirect discharge might be where a waste treatment discharge was put through a chamber of earth prior to discharge to a river or poured on a rock. The rule cannot be intended to be circumvented so readily, and ground-based discharge seems to be based on the assumption that there will be reasonable attenuation, if not total attenuation, through the earth.

Modification of the wastewater discharge to ground

[354] In addition to the methods we have already discussed, we did ask questions around whether or not the discharge to ground through the LAF at 300mm underground was necessary. It appeared to be accepted by the experts that if discharge was made to surface, this would mean greater uptake of N and P by vegetation. We accept there may be difficulties with interference of the hardware by animals or people. The major concern of the Consent Authority however, was that this, as public reserve land, should still be available for public access and surface discharge would compromise that. Given the lack of evidence from the Applicant, we will not consider this possibility further given the sites proximity to Māori land and the possibility of cultural issues and Reserves Act 1977 issues arising.

The application of the various statutory documents

[355] We have considered all the planning instruments which we were directed to and we list them here for completeness:

- National Policy Statement for Freshwater Management 2014 (National Freshwater Policy)
- New Zealand Coastal Policy Statement 2010 (NZ Coastal Policy)
- Bay of Plenty Regional Policy Statement 2014 (Regional Policy Statement)
- Bay of Plenty Regional Water and Land Plan 2008 (Water and Land Plan)
- Bay of Plenty Air Plan 2003 (Air Plan)
- Regional Plan for the Tarawera River Catchment 2004 (Tarawera Catchment Plan)

- Regional Coastal Environment Plan 2003 (Coastal Plan) (and proposed Coastal Plan)
- Off-Site Effluent Treatment Regional Plan 2006 (OSETRP)
- Operative (2012) and Proposed Whakatāne District Plan (2013) (District Plan)

[356] Given that there is no discharge from the Treatment Plant, and it is outside the coastal environment, the National and Regional documents are of limited relevance. Overall, however, the LAF application matter is impacted significantly by two particular factors. The first is the relationship between the Freshwater Policy Statement and the NZCPS, given that the water from the ORC enters into the Tarawera, which is within the CMA. The second major issue is that the ORC is within the Tarawera Catchment area, and therefore subject to the Tarawera Region Catchment Plan.

[357] Both policy statements have a similar overall thrust: towards maintenance and enhancement of values. However, the different wording can lead to some confusion in cases such as the present, where waters of the Tarawera move from Freshwater to the CMA.

[358] We acknowledge that the Regional Coastal Plan has been notified to address recent changes to the NZCPS, but these changes are yet to be resolved. In relation to the Freshwater Policy Statement, no regional policy statement or plans are yet in prospect.

[359] We will now examine both national documents to identify the interrelationship for this case.

[360] The Freshwater Policy Statement is new, but nevertheless is intended to give explicit application of the Act to freshwater. It contains a number of objectives and policies that seek to maintain or improve the quality of fresh water. The NZCPS is, of course, also of significant importance in the hierarchy of documents, as confirmed by the Supreme Court in *King Salmon*.¹⁰⁸ Objective 1 of the NZCPS provides inter alia:

Maintaining coastal water quality and enhancing it where it has deteriorated from what would otherwise be its natural condition with significant adverse effects on ecology and habitat because of discharges associated with human activity.

⁸ [2014] NZRMA 195

[361] We have not set out our full examination of each instrument here because that is simply not necessary given the overlap and common theme to many. We have ordered the following section with the higher order documents first, consistent with their hierarchical relationship. We have spent some time on the national policy instruments, particularly the Freshwater Policy Statement, as this document is key to parts of our decision, and being very new has not made its way to be reflected in the lower order documents.

Freshwater Policy Statement

[362] The national significance of fresh water and Te Mana o te Wai is set out at page 6 of the Freshwater Policy Statement. It states:

This national policy statement is about recognising the national significance of fresh water for all New Zealanders and Te Mana o te Wai. A range of community and tāngata whenua values, including those identified as appropriate from Appendix 1, may collectively recognise the national significance of fresh water and Te Mana o te Wai as a whole. The aggregation of community and tāngata whenua values and the ability of fresh water to provide for them over time recognises the national significance of fresh water and Te Mana o te Wai.

[363] The Bay of Plenty Regional Plan requires amendment to reflect the Freshwater Policy Statement, and we were told that process is underway. Objective A1 concerns safeguarding the life supporting capacity, ecosystem and indigenous species including their ecosystems. It also concerns safeguarding the health of people and communities at least as affected by secondary contact with freshwater.

[364] Objective A2 requires that the overall quality of freshwater within a region is maintained or improved while, particularly relevant to this application at subsection(c), improving the quality of freshwater in bodies that have been degraded by human activities to the point of being over-allocated.

[365] The term over-allocated is defined and relies on freshwater objectives being set for management units. Thus, until a regional plan is established in accordance with the requirements of the Freshwater Policy Statement, we don't know precisely what allocation level we are working with. We note an allocation refers to both quantity and quality (see definitions in the Freshwater Policy Statement).

[366] Policy A3(b) sees Regional Councils in preparing Regional Plans, where permissible:

...making rules requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water

We conclude permissible is a reference to permissible in terms of the Objectives of the Freshwater Policy Statement and RMA.

[367] Policy A4 sets out directions under s55 RMA which provides an interim arrangement until the Councils have carried out the necessary changes to their regional plans. Subsection 1 requires¹⁰⁹:

 When considering any application for a discharge the consent authority must have regard to the following matters:

 a. the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and
 b. the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.

[emphasis added]

[368] Objective CA1 indicates that the approach to be taken in establishing objectives for fresh water will recognise regional and local circumstances as well as being nationally consistent. The scheme of the framework is set out in Policy CA1 which indicates that a regional council is to identify freshwater management units that include all freshwater bodies within its region. This then would include the ORC.

[369] Without getting in too much detail, Policy CA3 requires the Regional Council to set freshwater objectives for compulsory values set out in appendices Freshwater Policy Statement, and these values must not go below the national bottom lines except where this is caused by naturally occurring processes (or there is existing infrastructure which are to be listed in an appendix not yet added).

[370] Objective D1 concerns Tangata Whenua roles and interests, which talks of providing for the involvement of iwi and hapū to ensure tangata whenua values and interests are identified and reflected in freshwater management.

¹⁰⁹ Subsection (4) indicates Subsection 1 applies and subsection (5) indicates subsection (2) does not apply because the applications were lodged prior to the date the Freshwater Policy Statement took effect being 1 August 2014 (ie 28 days after gazette notice 4 July 2014)

National values and uses for freshwater are set at Appendix 1. There are Compulsory National Values and Additional National Values. The compulsory values address the maintenance of ecological processes, biodiversity and resilience to change and matters to be taken into account for a healthy freshwater ecosystem including the management of contaminants and changes in freshwater chemistry,

excessive nutrients, algal blooms low oxygen and invasive species and essential

[372] This instrument is relevant to the LAF proposal. It is apparent the ORC is degraded by human activities. Whether it is considered over-allocated to a point where a freshwater objective is no longer being met is a moot point. The Freshwater Policy Statement defines Freshwater Objective as being a description of an intended environmental outcome in a freshwater management unit. A Freshwater Management Unit is defined as meaning the quality of the fresh water at the time the regional council commences the process of setting or reviewing freshwater objectives and limits in accordance with Policy A1, Policy B1, and Policies CA1-CA4. While the Regional Council has commenced this process the outcome is unknown and some way off. On this basis we rely on what is available to us now and that is contained in the Water and Land Plan and the Tarawera Catchment Plan.

[373] We conclude that the ORC is over-allocated because the regional documents provide a clear direction towards reduction of contaminants and enhancement. Further, the ORC, through its interaction with the Tarawera River, is contributing to the reduction of health and mauri of that river. These compulsory values would seem to put the ORC clearly in the frame of the directives of the Freshwater Policy Statement for maintenance and enhancement. It would not meet Objective A1(a) of the Freshwater Policy Statement. As a contributor to the Tarawera it must fall under A2, which signals *maintained* or *improved*.

[374] The question of the use of the word overall in A2 is an issue. It would seem the Applicant relies on an interpretation that, provided the quality in the region is maintained or improved overall, consent to reduce the quality in one area may be appropriate. In other words an overs and unders approach. We need to be careful confirming that this is indeed the interpretation to be given to this objective. Could it be simply an adjective referring to the overall goal to maintain/ not let things slip backwards? The Freshwater Policy Statement references this overall quality to the region. The region is clearly made up of more than one catchment.

[371]

habitat.

[375] Reference to Part 2 of the Act is instructive in understanding this wording. The Act has a single purpose expressed in Section 5 and interpreted in Part 2 and the various documents prepared under it. The hierarchy requires that there must be a consistency in documents achieving the overall purpose of the Act and superior documents. In this regard the overall purpose phrase used in the National Freshwater Policy must be referable to Section 5 subsection (2)(a), (b) and (c). It would be contrary to the Act for the National Freshwater Policy to mean that individual catchments could fail to meet (a), (b) and (c). Further, there are the Regional Council's functions as set out in s30 RMA, the most relevant parts for current purposes, we set out here:

30 Functions of regional councils under this Act

(1) Every regional council shall have the following functions for the purpose of giving effect to this Act in its region:

(a) the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region:

(b) the preparation of objectives and policies in relation to any actual or potential effects of the use, development, or protection of land which are of regional significance:

(c) the control of the use of land for the purpose of-

(i) soil conservation:

(ii) the <u>maintenance and enhancement of the quality of water in</u> water bodies and coastal water:

(iii) the maintenance of the quantity of water in water bodies and coastal water:

(iiia) the <u>maintenance and enhancement of ecosystems in water</u> bodies and coastal water:

(iv) the avoidance or mitigation of natural hazards:

(v) the prevention or mitigation of any adverse effects of the

storage, use, disposal, or transportation of hazardous

substances:....

(f) the control of discharges of contaminants into or onto land, air, or water and discharges of water into water:....

[emphasis added]

This section indicates towards maintenance or improvement of all water bodies:

[376] The ORC is highly eutrophic. It does not meet objective A1(a) of the Freshwater Policy Statement. We were told further nutrients will not increase its ecological limitations. We were told there is an upper limit to that situation but the proposal would be below this. The suggestion then is that the stream is so ecologically compromised that the further addition of nutrients to certain limits will not make the ecological situation significantly worse.

[377] In relation to the interim provisions which the Regional Council must apply (Policy A4) adverse effects from contamination under A4(1) are to be avoided. Under A4(2) it needs to be both *feasible and dependable* that any more than a minor adverse effect is avoided. This raises the issue of cumulative effects and long term effects. Once we consider the primary objective to safeguard the life supporting capacity and sheet this home to Part 2 and the Regional Council's functions, we conclude that maintenance at least must be assumed. Adding to an existing background level albeit degraded, will not achieve maintenance.

[378] By increasing the level of contamination of the ORC, there is the potential for the overall input from this source to the Tarawera River to increase and therefore to have a negative impact on the river. We have accepted beyond an undefined area of reasonable mixing and provided certain areas are outside the mixing zone then that risk is negligible.

[379] Concerns were raised by iwi over possible contamination of freshwater and groundwater. Those impacts are confirmed by expert evidence. There is no indication in the evidence of how the Te Mana o te Wai aspect of the National Freshwater Policy (and Objective D1) is to be addressed. In terms of cultural effects as discussed elsewhere, this would need to be addressed in order to meet Part 6 RMA matters which clearly seem to be enshrined in the Freshwater Policy Statement.

Does the Freshwater Policy Statement mean that contamination of water can occur to the Appendix 2 levels?

[380] Given the overall thrust of the documents, the proposition that increased pollution of the ORC, increased discharges of N and P, are acceptable seems counterintuitive. The Applicant points to the fact that the discharges, although an increase over current discharges, and in excess of the ANZEC guidelines are nevertheless lower than those set out in the 2^{nd} Schedule to the Freshwater Policy Statement.

[381] If the suggestion is that the Freshwater Policy Statement provides some permit to drive to the bottom line, or a licence to pollute, then that concept is entirely rejected by the Court. Schedule 2 needs to be read in the context of the NZCPS, the Freshwater Policy Statement as a whole, Part 2 of the Act, and the other documents related to it. As we say, overall, the NZCPS and other documents seek to maintain and improve water quality and reduce discharge of contaminants to waterways.

[382] We expected some form of nutrient or water balance argument. However, in this case the evidence as to reduction in discharges to water from the septic tanks in

Matatā was very general. The general information was that there was little, if any, attenuation through the septic tank system and its discharging to soil, particularly in respect of N and P. But there was no particular suggestion that septic tank discharges were reaching surface water with significant levels of N and P. There was some evidence of water quality around Matatā, and this did show particularly elevated areas in the lagoon area adjacent to the Matatā Hotel. However, a note to these reports indicated that a nearby owner had been discharging sewage directly to the stream, and this may explain the elevated levels. One of the other higher levels was at the upstream end of the Waitepuru Stream, above any areas of residential activity. We can only assume, therefore, that the level of contamination in that reach was due to other causes rather than human sewage.

[383] We undertook the site visit to better understand whether or not septic tanks might be generally concluded as discharging to the lagoon and/or streams. Unfortunately, the results of our site visit did not assist in this understanding. The majority of Matatā is on higher land – probably created by former debris flow, and/or collapse of the escarpment. We would need detailed evidence on groundwater, permeability and testing to have any certainty about potential contamination of waterways from septic tanks.

[384] The lagoon itself is a wetland, and would deal with N and P relatively efficiently. Certainly since the lagoon rehabilitation after the 2005 debris flow, this area has significantly improved, and the wetlands appeared in good condition, with the area functioning largely in accordance with the development concept.

[385] The land rises fairly steeply from the State Highway and the businesses and houses fronting it, and there was no evidence given that septic tank waters in these higher areas would necessarily reach groundwater or the lagoon via groundwater. Rangitihi Marae has a complex treatment system and field disposal system on the slope above State Highway 2, only 50 or so metres from the lagoon, and there was no evidence given of contamination from that either.

[386] We conclude, as a general principle, that the wastewater Treatment Plant will significantly reduce N nutrient contaminant levels, but will have more limited effects in terms of reducing P. We have no information on which we can quantify the benefit from the removal of that waste from the septic tanks when compared to its addition to the ORC. Although we accept as a basic principle that with the reduction in the contaminant levels, improvement or maintenance of the waterways might be

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seen on a catchment or wider basis than the ORC, and include Matatā, or even the catchment area, there was no evidence on which we were able to reach a positive conclusion of benefits. We do accept, as did the planners for the parties, that there is a general benefit in the removal of septic tank waste and its processing this through a wastewater Treatment Plant. However this does not enable us to reach any firm conclusion as to whether the increase in nutrients into the ORC is balanced by a reduction in nutrients reaching groundwater or surface water elsewhere.

[387] So far as the NZCPS is concerned we accept that no contaminants are likely to reach the coastal waters via the groundwater directly. The impacts on the coastal waters of the Tarawera River are likely to be negligible.

Te Mana o te Wai and the LAF

[388] The Freshwater Policy Statement records the following as matters of national significance:¹¹⁰

This national policy statement is about recognising the national significance of fresh water for all New Zealanders and Te Mana o te Wai.

A range of community and tangata whenua values, including those identified as appropriate from Appendix 1, may collectively recognise the national significance of fresh water and Te Mana o te Wai as a whole. The aggregation of community and tangata whenua values and the ability of fresh water to provide for them over time recognises the national significance of fresh water and Te Mana o te Wai.

[389] We considered the Matatā community values concerning water by considering their responses to this application under the heading Consultation above. We note that a significant number of the community support full reticulation.

[390] We have also addressed the particular matters raised by the Appellant in this decision, and consider that in total community values have been addressed. What we have not yet completed is an analysis of what additional tangata whenua values may be relevant and what those might add to Te Mana o Te Wai and the aggregation of values concerning freshwater in the Tarawera catchment. We note the term is not defined in the Freshwater Policy Statement, but it includes, but not limited to, those values as appropriate from Appendix 1.

[391] We also note the Preamble, the objectives and, in particular, Objective D1 and Appendix 1, must add to the term. The Preamble records that addressing tangata

¹¹⁰ Freshwater Policy Statement-FM 2014

whenua values and interests across all the well-beings in the Freshwater Policy Statement, and including iwi and hapū in the overall management of the well-beings are key to meeting obligations under the Treaty of Waitangi. In addition, it records that freshwater objectives for a range of tāngata whenua values are intended to recognise Te Mana o te Wai. It records that iwi and hapū recognise the importance of freshwater and that they have reciprocal obligations as kaitiaki to protect freshwater quality.

[392] The values listed in Appendix 1 all incorporate aspects of tangata whenua values, and the term "mauri" is used in relation to the first three national values Under Objective D1 local authorities must take reasonable steps to involve iwi and hapū in the management of fresh water and ecosystems. They must also work with iwi and hapū to identify any additional tangata whenua values and interests in fresh water and freshwater ecosystems, and reflect those in their management and decision-making for the region.

[393] Ms Hamm also helpfully referred to the document *Proposed Amendments to the National Policy Statement for Freshwater Management 2011 – A Discussion Document.*¹¹¹ That document, under the heading "Articulating tangata whenua values" states that the term represents "the innate relationship" between the first three national values (now reflected in Appendix 1 of the Freshwater Policy Statement). Before the Freshwater Policy Statement was promulgated it was a term that referred to the "inherent mana of water".

[394] We were also referred to Exhibit "R" which was produced by the Minister for the Environment pursuant to s52(3) (c) of the RMA. Under that provision the Minister is required to produce a summary of recommendations and a summary of decisions made on the Freshwater Policy Statement. According to the *Summary*, the key reason for the decision to include the new term Te Mana o Te Wai related, in the Minister's view, to the *need for regional variation in the expression of tāngata whenua values*. Thus the Minister believed *that a flexible and high level approach was needed*.¹¹² Since that date there have been attempts to restrict the ambit of the term through draft guidelines. However, as Mr Mikaere agreed, the term must include more than mauri and thus the definition of Te Mana o te Wai in the *Ministry for the*

¹¹¹ Exhibit Q

¹² National Policy Statement for Freshwater Management 2014 – Summary of Recommendations and Minister for the Environment's Decision, Exhibit R, page 6

Environment's Draft Guidelines on the National Fresh Water Policy Statement was deficient.¹¹³

[395] Taking all these documents together we have concluded that the term can only be fully taken into account by reference to any additional local tangata whenua values that aggregated with community values add to those already articulated in the Freshwater Policy Statement.

[396] In attempting to understand what those are and given that caring for the mauri of the waters in the catchment was an important issue for the local iwi, we have also asked what the relationship of te Mana o te Wai is with the term mauri. In this respect we were first assisted by the evidence given by Dr Daniel Hikuroa. He advised the following: ¹¹⁴

In terms of a key definition of mauri, a key one is derived from the Reverend Maori Marsden where he ... suggests that mauri is present in land, forests, waters and all the life they support. Together with natural phenomena such as mist, wind and rocks they all possess mauri. Clive Barlow talks about mauri as being the binding force between the physical and the spiritual. ... It is the life energy force or unique life essence that gives being and form to all things in the universe.

[397] Dr Hikuroa noted that as mauri occurs very early in the stages of the genealogical table of Māori cosmogony, it is the force that *inter-penetrates all things* to bind and knit them together and as the various elements diversify, mauri acts as the bonding element creating unity and diversity.¹¹⁵ In other words, mauri is associated with the beginning of all matter in its various forms.

[398] Whilst he was not so comfortable defining the expression mana, he considered that mauri has a relationship with mana.¹¹⁶ In terms of the Freshwater Policy Statement, he suggested that Te Mana o Te Wai would need to be defined by reference to tāngata whenua values and from a mātauranga Māori (Māori knowledge) base which was context specific.¹¹⁷ His view was that in order for Te Mana o Te Wai to be accurately taken into account, it would have to come down to the mana of the tangata whenua.¹¹⁸ Thus if the mauri of a catchment was negatively impacted, so therefore the mana was impacted. If efforts are made to restore the mauri of the

¹¹³ Mr Mikaere, Transcript, page 632

¹¹⁴ Dr Hikuroa, Evidence-in-chief, Transcript pages 719-720

¹¹⁵ Ibid page 720

¹¹⁶ Ibid, page 721

¹¹⁷ Ibid, page 721

¹¹⁸ Ibid, pages 721-722

waters, that would in turn, restore the mana of the people.¹¹⁹ It was his view that one is not separate from the other as they are inextricably linked.¹²⁰

[399] Consistent with Dr Hikaroa's views on Māori cosmology, Maanu Paul noted that Te Mana o Te Wai refers to Te Kauwaerunga (the celestial/heavenly world) and Te Kauwaeraro (the terrestrial/physical world) which are inter-connected.¹²¹ Water has within it, he explained, the potential to link the celestial and terrestrial worlds and the whakapapa between Ranginui and Papatuanuku, the sky father and the earth mother.¹²² For the Ngāti Awa people, as river people, they imbued their rivers with mana and mauri.¹²³ Where degraded, such as the ORC, it was his view that the mauri can be ... returned in an enhanced position, is not destroyed, it is in abeyance until it can come back to its original condition. He stated:¹²⁴*

The mauri cannot be destroyed because the Te Mana o Te Wai, the power of the water is maintained by the people and as long as Ngāti Awa people live the mauri of the Orini will continue to live because it is the people who give the mana ... that results in the mauri, which is essential to think, to understand as Dr Dan Hikuroa said, it is the tangata i roto i te whenua, the people who are in the land who determine the mauri.

[400] When asked to clarify whether he was giving expert cultural evidence for both Ngāti Awa and Ngāti Rangitihi on this issue, he confirmed that he was.¹²⁵

[401] In terms of Ngāti Tūwharetoa, the evidence we have came from Ms Vercoe who opined that mauri can never be modified by man as it is from the celestial realm.¹²⁶ In terms of water, mauri included *the currents, the water flow, the gravitational pull, everything that is not visible, it's intangible ... life forces.*¹²⁷ She described mana as the quality control tool in the physical world.¹²⁸ But, she explained, this form of management could only be assigned to those who were endowed with esoteric knowledge, namely tohunga, because they had the skills to mediate tapu – tapu being the link that tied the heavenly and physical worlds together.¹²⁹ Tohunga generally undertook such work for the benefit of their people.

- ¹²² Ibid, page 1033
- ¹²³Mr Paul, pages 1033-1034
- ¹²⁴ Ibid, page 1033

¹¹⁹ Ibid, pages 722-724

¹²⁰ Ibid, page 724

¹²¹ Mr Paul, Evidence-in-chief, Transcript, page 1034

¹²⁵ Ibid page 1042, line [25]

¹²⁶ Mr Vercoe, Questions from the bench, Transcript pages 992-993

¹²⁷ Ibid, page 993

¹²⁸ Ibid, pages 992-993

¹²⁹ Ibid, pages 992-993

[402] It is at this juncture where the evidence of Mr Paul and Ms Vercoe demonstrate that there is a relational aspect to the term Te Mana o te Wai that is central to tāngata whenua values and their kaitiakitanga responsibilities. This relational aspect is consistent with Mr Mikaere's view when he linked Te Mana o te Wai with the identity of tangata whenua and particular water-bodies, noting the use of water bodies in tribal pepeha (proverbs).¹³⁰ He agreed that the term means something more than *mauri* and that it encapsulates the entire water body, including the banks and beds.¹³¹ Thus we find that there is a relational value which is an additional value associated with Te Mana o te Wai in the Tarawera Catchment.

[403] This relational value was recorded in the evidence of Ms Hughes, the cultural advisor for the Applicant, who noted that the various iwi voiced concerns for all the water bodies within the Tarawera catchment, including the ORC. This concern was expressed in the interim CIAs provided by those iwi who responded before the hydrological evidence was released.¹³² After the hydrological evidence became available to them, all affected iwi continued to indicate that they wanted the Applicant to prevent wastewater seepage or discharge into water, including salt water.¹³³ Their approach is consistent with what is recorded of their values concerning water in Chapter 8 of the Catchment Plan.

[404] The implications for this Court, relate to the Applicant's need for a consent for the discharge of treated wastewater into land, in circumstances that may result in the treated wastewater entering water. We note the evidence concerning the potential N and P loading into the groundwater was not expressed clearly in the hydrological evidence until the hearing, and we doubt the iwi were fully appraised of the issue.

[405] While not a wastewater seepage or discharge into water per se, we consider from the views expressed in evidence before us including the CIAs and in the Catchment Plan, that all of the iwi would consider that the mauri of the waters, would be affected by this proposal given the certainty that there will be some nutrient and phosphorus loadings discharged into the ORC and from there into the Tarawera River.



 ¹³⁰ Mr Mikaere, Questions from the bench, Transcript pages 630-631
 ¹³¹ Ibid page 632

133 Ibid, paragraph [36]

¹³² Ms Hughes, Evidence-in-chief, pp 464-465 [26]

NZ Coastal Policy Statement

[406] The purpose of the NZ Coastal Policy is to state policies in order to achieve the purpose of the Act in relation to the coastal environment of New Zealand. The coastal environment has characteristics, qualities and uses that mean there are particular challenges in promoting sustainable management. These include:¹³⁴

The coast has particular importance to tangata whenua, including as kaitiaki

Continuing decline in species, habitats and ecosystems in the coastal environment under pressures from subdivision and use, vegetation clearance, loss of intertidal areas, plant and animal pests, poor water quality, and sedimentation in estuaries and the coastal marine area

[407] The lower reaches of the Tarawera River below the Thornton Road Bridge are within the Coastal Marine Area (CMA) boundary. The ORC feeds into the lower reaches of the Tarawera River below this point therefore directly into the CMA and approximately 450m from the rivers confluence with the Pacific Ocean.

[408] The application of the NZCPS relevant here includes:¹³⁵

...a consent authority, when considering an application for a resource consent and any submissions received, must, subject to Part 2 of the Act, have regard to, amongst other things, any relevant provisions of this NZ Coastal Policy (section 104(1)(b)(iv) refers);

when considering a requirement for a designation and any submissions received, a territorial authority must, subject to Part 2 of the Act, consider the effects on the environment of allowing the requirement, having particular regard to, amongst other things, any relevant provisions of this NZ Coastal Policy (sections 168A(3)(a)(ii) and 171(1)(a)(ii) refer);

[409] Objective 1 is concerned with safeguarding the integrity, form, functioning and resilience of the coastal environment and sustaining its ecosystems, including marine and intertidal areas, estuaries, dunes and land by:

- maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;
- protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and

¹³⁴ NZCPS Preamble

NZCPS 2010 Application of Policy Statement, page 7

 maintaining coastal water quality and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.

[410] Objective 2 concerns the preservation of the natural character and protection of natural features and landscapes. The LAF site is within the coastal environment being a coastal sand dune which we were advised comprises a threatened land environment and an endangered ecosystem. This objective encourages restoration of the coastal environment and introduces the principles of the Treaty of Waitangi and the obligations concerning kaitiakitanga for tangata whenua, incorporating Mātauranga Māori into sustainable management practices and recognising and protecting characteristics of the coastal environment that are of special value to tangata whenua. This relationship is further set out in Policy 2 of the NZCPS.

[411] Objective 4 is to maintain and enhance the public open space qualities and recreation opportunities of the coastal environment. We note the LAF site is a Recreation Reserve. Objective 5 concerns management of coastal hazard risk.

[412] Perhaps most relevantly Objective 6 is an enabling objective which seeks to enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that amongst other things

- the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;
- some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;
- functionally some uses and developments can only be located on the coast or in the coastal marine area;
- the protection of habitats of living marine resources contributes to the social, economic and cultural wellbeing of people and communities;
- the potential to protect, use, and develop natural and physical resources in the coastal marine area should not be compromised by activities on land;



 the proportion of the coastal marine area under any formal protection is small and therefore management under the Act is an important means by which the natural resources of the coastal marine area can be protected;

[413] Policy 4 refers to integrated management of natural and physical resources in the coastal environment and activities that affect the coastal environment.

[414] Moving to Policy 7 (not ignoring the relevance of the other policies) a Strategic Planning policy that sets out what is required when preparing regional policy statements and plans. These documents are required to consider where, how and when to provide for future residential, rural residential, settlement, urban development and other activities in the coastal environment at a regional and district level, and amongst other things (at subsection (2)):

Identify in regional policy statements, and plans, coastal processes, resources or values that are under threat or at significant risk from adverse cumulative effects.

Include provisions in plans to manage these effects. Where practicable, in plans, set thresholds (including zones, standards or targets), or specify acceptable limits to change, to assist in determining when activities causing adverse cumulative effects are to be avoided

[415] As with the Freshwater Policy Statement, this instrument is relevant to the LAF proposal. We have not set out all of the objectives and policies relevant to the matters before us here but have considered them. The LAF is not an activity that by its nature needs to be located in a coastal environment. It has the potential to compromise the recreation/public open space function of the site and we have recognised this in our commentary later concerning the Reserves Act1 1977. We understand that the intention is for the public to continue to be able to enter the site and for signage to be installed explaining its use. We question the practicality and realistic use of the site for recreation purposes.

[416] However, the site is covered with predominantly exotic species and the proposal provides an opportunity to improve upon this with the planting of natives being enabled through the application of the LAF "water" and managed restorative planting. We also note it is fenced and we were told little use of it is made for recreational purposes other than passing by it to reach or enjoy the coastal foreshore.

[417] In addition, management of the greater dune area is proposed as part of the application with a draft Restoration Plan prepared by Wildlands and incorporated in the draft conditions put before the Court. That could be considered as an off-set

mitigation but was not offered for that purpose. We do not know the reality of this work given the ownership of the adjacent dune areas and what agreements may or may not be in place in that respect. We have not been able to place a great importance on this restorative project as it does not directly relate to the freshwater environmental impacts which we find to be a significant potentially adverse feature of the LAF.

[418] The retirement of the LAF from grazing albeit that is used for such purposes for limited periods of the year only, will also provide for the opportunity to enhance the ecological characteristics of the dunes and perhaps make this area more resilient and encourage biodiversity.

[419] There is no potential for contaminants to enter the coastal environment/sea directly based on the hydrological characteristics described to us.

[420] The remaining concern in terms of potential contaminants within the coastal environment and the CMA in particular, is the discharge of the ORC into the Tarawera River. That confluence is a sensitive area with inanga and bird ecological breading communities. Objective 1 of the NZCPS seeks to safeguard the coastal environment by in particular:

... maintaining coastal water quality and enhancing it where it has deteriorated from what would otherwise be its natural condition with significant adverse effects on ecology and natural habitat, because of discharges associated with human activity.

The Tarawera is such a coastal environment where the ORC discharges and thus the emphasis on its enhancement.

[421] We have discussed the issue of potential cultural effects including koiwi in relation to the LAF.

[422] The project as a whole will enable the Matatā community to provide for their social, economic, and cultural wellbeing and their health and safety through an improved wastewater treatment system which will address current needs and growth. However, this needs to be balanced against the matters set out in Objective 6 and as we comment above there are important sensitivities around the LAF site and the LAF operation which need to be addressed.

Conclusions on National Policy Statements

[423] We conclude from this evidence in relation to freshwater policy that wastewater seepage or discharge from the LAF into surface water is not acceptable to tangata whenua, and increased N and P will affect their relational values associated with Te Mana o te Wai in the catchment. These values are more consistent with the improvement and enhancement of the ORC and require adequate mitigation.

[424] Nevertheless, we acknowledge both policy documents overall seek to improve existing contamination. We conclude that the National Policy Documents would be met if:

- (a) human wastewater is significantly attenuated;
- (b) all e-coli are removed;
- (c) levels of N and P discharged to the ORC are reduced;

Regional Policy Statement

[425] The LAF is (Map 25 Appendix I) located on the Thornton Dunes within the Coastal Environment and is within a High Natural Character Area. The attributes for which are set out in Appendix J of the document. This particular High Natural Character Area encompasses the dunes from the Rangitaiki River to the Tarawera River. It includes the Tarawera River from the sea up to the Thornton Road Bridge and therefore the confluence of it and the ORC.

[426] Objective 2 requires the preservation, restoration and, where appropriate, enhancement of the natural character and ecological functioning of the coastal environment. It relies on a series of implementation methods many of which are to be enshrined in regional plan and district plan controls.

[427] Section 2.9 deals with water quality and land use. Objectives 27 and 29 are particularly relevant requiring the quality of the mauri of water in the region to be maintained and where necessary to meet identified values to be enhanced. Land use activities are to be undertaken within the capability of the land and integrated with wider environmental values including the capacity of receiving waters to assimilate discharges.

[428] Section 2.6 of the Regional Policy Statement addresses iwi resource management. Relevant objectives include:

Objective 13

Kaitiakitanga is recognised and the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) are systematically taken into account in the practice of resource management

Objective 15

Water, land, coastal and geothermal resource management decisions have regard to iwi and hapü resource management planning documents

Objective 16

Multiple-owned Maori land is developed and used in a manner that enables Maori to provide for their social, economic and cultural well-being and their health and safety, while maintaining and safeguarding its mauri

Objective 17

The mauri of water, land, air and geothermal resources is safeguarded and where it is degraded, where appropriate, it is enhanced over time

[429] The resource management issues of significance to iwi authorities taken up in the objectives and policies of the Regional Policy Statement need to be reflected in the lower order planning instruments and also in the practice adopted by consent authorities in the consideration of applications for resource consent and NOR. These issues are particularly on point relative to this project in respect of both sites.

[430] These objectives relating to kaitiakitanga require a positive action. Kaitiakitanga has not been recognised in the proposals as they were presented to the Court. Consultation is identified in the Plan as a part of meeting this objective but the nature of the account taken of kaitiatikanga connects from the start of a proposal, through planning, to its implementation. In situations which involve particular sensitivities to Māori such as the cultural characteristics of a site and the health of natural resources such as waterways, this is not a matter of just accidental discovery protocols but requires a positive action to include this practice in consenting decisions. For example, the Court is familiar with conditions in other projects where technical peer review regimes have been imbedded in the consent conditions (for instance water quality management) with iwi representation on the peer review panel. Receiving a monitoring report is part of the action required but we have not found a mechanism proposed for addressing good practice in accordance with Māori kaitiakitanga obligations.

[431] Objective 16 of the Regional Policy Statement goes to the aspirations for the owners of the land at lots 6A and 7A. This is an issue which is at the heart of their concerns with the proposed Treatment Plant in particular. The objective poses the

question as to whether the social, economic and cultural well-being of these persons is enabled. We have addressed that in detail elsewhere.

[432] We were told the mauri of the ORC has been adversely affected and we could see that for ourselves when we visited the LAF site. This concern holds true for the Tarawera River too. The Regional Policy Statement indicates that where degradation has occurred *where appropriate* this should be enhanced over time. We see this as a direction picked up in the Catchment Plan which we come to later.

[433] Issues around the physical sensitivity of the LAF site are addressed in the application and we anticipate can be avoided or mitigated. This includes the hazard implications of the site and this was a not a particular matter advanced in evidence. Restoration in terms of planting is a practical mitigation although plant species suitable to combine with the LAF operation are limited. The site is however, in poor condition as far as natural flora is concerned so the proposal can be said to promote objectives around restoration. However, matters concerning the discharge and whether that can be said to be *within the capacity of receiving waters to assimilate* have not been addressed to the satisfaction of the Court, as set out elsewhere. There is a prospect though with further mitigation this concern can be addressed.

Water and Land Plan

[434] The Water and Land Plan is a key instrument in the consideration of the proposal as it implements the higher order documents in this environmental subject area. Several resource consents are required under it. These relate to site works in preparation for the Treatment Plant and the LAF and discharge to land and water at the LAF. There are, as we have indicated elsewhere, some resource consents that have been either overlooked or simply left to be applied for later. Some of these consents form a critical aspect of the proposals. They are needed to implement the activities. The earthworks at the Treatment Plant site are a good example. In addition, the provision of access to the Treatment Plant designations is key to that part of the project.

[435] This Plan carries through the objectives concerning Māori interests and Treaty principles. We do not propose to repeat those here. The Plan drills down into the detail of how the higher order documents are to be achieved. It provides specific methodologies for achieving them. It addresses integrated management of land and water. One of the issues identified is the degradation of waterways through natural

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processes and human intervention, particularly to do with agricultural processes. Objectives 8 and 9 deal with this issue of integrated management. Objective 10 deals with the stewardship of natural resources which (amongst other things) sustains the life supporting capacity of soil, water and ecosystems.

[436] Objective 13 is particularly relevant to the LAF and requires that the water quality in rivers and streams is *maintained or improved* to meet the Water Quality Classifications set in the Water Quality Classification Map, and sets out relevant environmental outcomes. The ORC is classified *Drain Water Quality* and the Lower Tarawera *Fish Purposes*. The environmental outcomes listed from (a) to (h) as part of that objective do not appear to directly relate to either of these water bodies. However, the Drain Water Quality terminology is picked up within the Plan where at Schedule 5 *Maintenance Areas of River Schemes and Drainage Schemes* (Map 14) the ORC is shown to be within the *Rangitaiki Drainage Scheme Maintenance Area*. This qualification affects the application of the rules at Chapter 9 of the Plan. Objectives 15 to 19 appear relevant although not all of these were set out in the table appended to Mr Scrafton's evidence in chief. They are reproduced below:

Objective 15: Maintenance of high quality groundwater.

Objective 16: Degraded groundwater quality is improved where appropriate.

Objective 17: Riparian margins are appropriately managed to protect and enhance their soil conservation, water quality and heritage values.

Objective 18: Achieve the sustainable management of riparian margins (excluding artificial watercourses, and ephemeral flowpaths), which may include retirement, in the following priority catchments:...¹³⁶

Objective 19: Protect vulnerable areas from erosion.

[437] Policies which follow seek to *maintain or improve water quality* in streams and rivers to meet their Water Quality Classification. Policy 21 is to manage land and water resources within an integrated catchment management framework to amongst other things:

k) Promote and encourage the adoption of sustainable land management practices that are appropriate to the environmental characteristics and limitations of the site to:

(v) Take into account the assimilative capacity of the soil

(vii) Maintain or improve the protective function of coastal sand dunes.
(viii) Manage land and water resources according to realistic management goals that are appropriate to the existing environmental quality and heritage values (including ecosystem values) of the location.

¹³⁶ The list at Objective 18 is not relevant to this site.

[438] These objectives and policies translate into rules that allow the discharge of water from a pumped drainage area such as the receiving environment from the LAF, to discharge to surface water as a permitted activity subject to some conditions (Rule 22) and relevantly:

(a) The discharge shall not cause the effects listed in (i) to (v), as measured at a downstream distance of three (3) times the width of the stream or river at the point of discharge:
(i) The production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials.
(ii) Any conspicuous change in the colour or visual clarity, except where the discharge is from peat soils.
(iii) Any emission of objectionable odour.
(iv) The rendering of fresh water unsuitable for consumption by farm animals.
(v) Any more than minor adverse effects on aquatic life.

[439] It is unclear however, whether this would allow for water not associated with drainage per se to be discharged through the same system. Rule 37 captures the following as Discretionary Activities:

Any:

1 Discharge of a contaminant to water.

2 Discharge of water to water.

3 <u>Discharge of a contaminant onto or into land in circumstances which</u> may result in the contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water.

4 Discharge of a contaminant from any industrial or trade premises onto or into land

that is not:

(a) Permitted by a rule in this regional plan.

(b) Permitted by a rule in any other Bay of Plenty regional plan.

(c) Prohibited by a rule in this regional plan.

(d) Restricted discretionary status by a rule in this regional plan.

(e) Controlled status by a rule in this regional plan.

[emphasis added]

[440] The Applicant considers that the discharge which makes its way through land to water to then be pumped into the ORC is permitted by Rule 22. The discharge pathway from application at the LAF is through the sand dune and emerges in the farm drain (water). Water by definition (page 443 of the Plan) would include the open farm drainage system. That part at least was acknowledged as requiring consent and has been included in the subject of these proceedings.

[441] As discussed already, that water will then pass to the ORC with an elevated concentration of N and P. This phenomenon would mean that that discharge would lower the quality of the water of the ORC and has a consequential potential impact on the Tarawera River. So while the discharge at the farm drain might be controlled,

passage beyond that, it is suggested, is not. We have difficulty seeing how that would fit with the overall thesis of the objectives and policies within which these rules sit. Our analysis is provided elsewhere where we have examined the likely environmental effects anticipated and how these might be addressed.

[442] Further we note the caveats on the nature of the permitted discharge at Rule 22 and suggest that the cumulative effect of the proposal could have an impact on some of those measurable outcomes. It is the Court's view that overall the objective and policy guidance is at a minimum to seek to maintain water quality. We also refer to Objective 18 which seems to seek to obtain some improvement.

Tarawera Catchment Plan

[443] This Plan embodies many of the objectives and policies that we have already discussed but it is focused on the Tarawera Catchment, which includes both sites and the ORC to its mouth. Beyond that point the Tarawera River is within the CMA, and thus addressed by the Regional Coastal Plan. Thus it is the ORC and the LAF which are the focus of our discussion here. This location is described as the catchment of the Lower Reach of the Tarawera River.

[444] The justification for this Plan is set out at section 1.3 where Environment Bay of Plenty (the Regional Council) sets out the following reasons which contributed the desirability of having such a Plan.

(a) Significant conflicts in terms of differences in attitude between industry and community groups as to the level of protection required for Tarawera River water quality.

(b) Significant community demand for the protection of the Tarawera River by a continued reduction in the discharge of contaminants into the river.(c) Significant concerns expressed by tangata whenua on the effects of contaminant discharge to the river.

(d) The need expressed by community survey to actively restore the deteriorated state of water quality in the Lower Reach of the Tarawera River.

[445] These reasons provide some understanding of the focus of the Plan. Section 4.8 identifies a number of iwi planning documents which the Regional Council had regard to in the preparation of this Plan. These are:

 Tūwharetoa Ki Kawerau Strategic Plan – Te Runanga o Tūwharetoa Ki Kawerau

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- Issues for Ngāti Awa regarding participation in Statutory Resource Management Planning – Te Runanga o Ngāti Awa Trust Board
- Ngāti Awa Policy Statement Tarawera River Te Runanga o Ngāti Awa Trust Board
- Ngāti Tikanga Tiaki I Te Taiao Māori Environmental Management in the Bay of Plenty; consultants report for the Operative Bay of Plenty Regional Policy Statement

[446] The Tarawera Catchment Plan was prepared against a background of community concerns that amongst other things including the lower reaches of the Tarawera River being degraded by discharges. Further, in respect of identified resource management issues of significance to Māori, there was concern for the lack of care and respect for the mauri and continued degrading and use of river water to transport or treat contaminants. Specifically the iwi indicated that the discharge of human bodily waste, either untreated or treated, to local water bodies must cease.¹³⁷

[447] Map 6¹³⁸ describes the Lower Tarawera Environment and the ORC is described as an Artificial Watercourse Open to Fish Passage. Various standards (relating to oxygen, colour and clarity, toxicity, temperature and pH) are set in the rules pertaining to its qualities and all of its tributaries (except drains) to protect aquatic life. Relevant objectives include:

13.5.2(a) Protection, maintenance and enhancement of the life supporting capacity of surface water bodies in the Tarawera River catchment.

13.5.2(b) Protection, maintenance and enhancement of the indigenous vegetation, habitat and migration pathways of the remnant wetlands, lakes, rivers and their margins in the Tarawera River catchment.

[448] Policies which follow include:

13.5.3(a) To ensure that the natural character of wetlands, lakes, rivers and their margins is not further degraded but is enhanced or protected from inappropriate subdivision, use and development.

13.5.3(b) To ensure that wetland, river and riparian values are provided for when maintaining and establishing drainage systems.

[449] Specific provisions relating to surface water are found at Chapter 15 of the Plan. The Plan specifically addresses the history, options and ongoing management of the sewage discharges within the Tarawera catchment (15.4.6). The tenor of those provisions is to reduce and eventually remove sewage discharges. However, the

¹³⁷ TRCP Chapter 9, section 9.2

¹³⁸ TRCP Chapter 13, Map 6, Page 101

regime applying to drains differs from that applying to other waterways. The following is set out at Clause 15.5.5 under the section of the Plan discussing water quality standards:

Drains and Canals and Wetlands on the Rangitaiki Plains Environment Bay of Plenty does not consider that the water quality of the wetlands in the lower river catchment, or the drains and canals on the Rangitaiki Plains, require managing through the imposition of water quality standards. Environment Bay of Plenty favours the prohibition of all discharges to wetlands, other than those associated with controlling wetlands water levels, facilitating fish passage, and eradicating plant pests.

[450] The relevant objective is 15.8.2 set out below:

15.8.2 Objective

Enhance surface water quality in the Tarawera catchment to a level which safeguards the life supporting capacity of the water and meets the reasonable needs of people and communities, especially:

(a) <u>Reduction</u> in the production of waste and <u>discharge of contaminants</u> throughout the catchment; and

(b) The maintenance of "Fish Spawning" water quality standards in the Upper Reach of the Tarawera River and its tributaries; and

(c) The establishment of "Fish Purposes" water quality standards in the Lower Reach of the Tarawera River; and

(d) The conservation of lakes and tributaries in their Natural State; and

(e) The enhancement of the water quality in Lake Okaro to that suitable for contact recreation; and

(f) To recognise that staged changes in industrial processes and waste treatment systems will be necessary to achieve the water quality goals of this regional plan.

(g) Unless there are exceptional circumstances there shall be no discharge of sewage into the surface water of the Tarawera River.

[emphasis added]

[451] More relevant policies (15.8.3) which follow from this objective include:

15.8.3(a) To establish a range of surface water quality classes that provide standards for the management of surface water bodies in the catchment. The purposes of these classifications are as follows:

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(iii) The quality of water in the tributaries of the Tarawera Lakes, the tributaries of the Tarawera River, excluding the canals and drains and wetlands on the Rangitaiki Plains, and the Upper Reach of the Tarawera River will be managed for fish spawning purposes (FSUT) (see Rule 15.8.4(f).

(iv) The quality of water in the Lower Reach of the Tarawera River will be managed for fish purposes (FPLT) (see Rule 15.8.4(h)).

15.8.3(b) To promote reduction of contaminant discharges into the Tarawera River

15.8.3(c) To reduce the discharge of contaminants into wetlands, canals and drains on the Rangitaiki Plains.

15.8.3(e) To encourage dischargers to avoid, remedy or mitigate any actual or potential adverse effects arising from their direct or indirect discharge of contaminants into water by:

(a) <u>Limiting and reducing</u> quantities and concentrations of discharged contaminants, in particular, contaminants which can reduce the life supporting capacity of aquatic ecosystems.

(b) <u>Promoting discharges to land</u> in preference to discharges into water in areas of the catchment of the Tarawera River where groundwater is not vulnerable to adverse effects from resulting contaminants *and where runoff of contaminants into water can be controlled.*

(c) <u>Reducing</u> adverse effects from <u>non-point-source discharges</u> of contaminants to water bodies by supporting and <u>promoting appropriate</u> <u>land and riparian management practices</u>, and discouraging the application of sprays and fertilisers adjacent to or over surface water bodies.

[emphasis added]

15.8.3(n) To encourage a reduction in human sewage discharges into the

Tarawera River or its tributaries 15.8.3(o) To discourage and eventually prevent the degrading of the purity of water caused by the discharge of human sewage by:

(a) encouraging the use of sewage treatment systems designed in consultation with tangata whenua to enhance or restore the mauri of receiving water;

(b) prohibiting any new sewage discharges to surface water;(c) encouraging a shift to land based sewage treatment and disposal systems;

15.8.3(p) To encourage communities to develop land based treatment systems for sewage disposal.

15.8.3(q) To encourage the grant of consents for the discharge of treated sewage to land.

15.8.3(r) To allow the discharge of sewage to the Tarawera River and to its tributaries only in exceptional circumstances where no other practicable options are available, but limited in time to the duration of those circumstances.

[452] We have set out these provisions in some detail because they provide a finer grain of guidance for freshwater management relative to the LAF and they also relate to the project as a whole. As we have mentioned earlier, Ms Hollis in her evidence in chief opined that rule 15.8.4(r) *was not intended* to prohibit the discharge of treated wastewater to land in circumstances where it may enter water. We have discussed this rule earlier.

[453] If we take a look at the theme of the Tarawera Catchment Plan there is a clear direction towards reduction and enhancement of degraded waterways. This includes drains. The key objective (15.8.2) and the policies we have referred to above, indicate that this kind of discharge is to be discouraged.

[454] The Plan makes it clear that discharges to land should be promoted. However it does place a caveat on that by seeking to reduce adverse effects from nonpoint-source discharges of contaminants to water bodies by promoting appropriate land and riparian management practices. This policy has not been addressed in the proposal and as a result the likely adverse effect of the LAF on the ORC has not been mitigated. We pick up on this issue elsewhere in the decision with a view to considering whether this issue is able to be addressed.

[455] As we have indicated above, the mauri of the ORC as it currently exists is already compromised. We do not understand this to be an issue in dispute. It follows then that any further degradation or restriction on the ability of that situation to be remedied would be contrary to the objectives and thrust of this Plan. Therefore we would need to see a positive move towards reduction to confirm that this Plan has been satisfied.

Coastal Plan

[456] There is in place a proposed Regional Coastal Environment Plan (2014) and the period for further submissions on it closed on 1 December 2014. For present purposes it was generally agreed given the weight that be attributed to the proposed plan this early in the process, the operative plan is most relevant here. We note that the operative plan has been updated in reference to the latest NZCPS as required under sections 55 and 57 of the RMA.

[457] We were referred to the Natural Character, Tangata Whenua Interests and Coastal Hazards sections of this plan. Many of these provisions mimic those of the other instruments we have already referred to. Matters worth discussing further are those related to natural character and coastal hazards where it clear that:

- The Council has recognised the dune system upon which the LAF is to be located as an area that requires protecting and that cumulative adverse effects upon these areas should be avoided (Objective 4.2.2 and Policy 4.2.3(c)) and that natural character must be restored where appropriate in areas where it has degraded.
- There should be no increase in the total physical risk from coastal hazards (Objective 11.2.2) and features that provide natural hazard protection such as dunes should be protected
- Matters concerning Māori are consistent throughout the Plans.

On-Site effluent Treatment Regional Plan 2006

[458] Mr Scrafton addressed this plan on the basis that it provides objectives and policies related to the management of on-site effluent treatment, and sets the background to the existing environment for the Matatā community which is currently serviced in this way. We do not consider we need to address this plan any further other than to say we have considered it and note that the Matatā community is identified in it as a *confirmed reticulation zone* on the basis that sewerage reticulation of the community will be completed by 1 December 2018. New development would enable better use of the urban land in Matatā given no onsite treatment system would be required if there was a reticulated sewer. We understand the beneficial use of the land resource that might follow although we were not provided with any specific evidence of it.

District Plan

District Plan operative

[459] Our attention was drawn to Objectives LRS1, LSR2, LRS6 and LRS7 and more relevant policies related to these objectives which appear to be the overarching objectives and policies in the Plan from which the finer grained specific objectives and policies flow. At this level we specifically note the intent of Objective LRS1 which seeks to avoid, remedy or mitigate the adverse effects of *incompatible use* and development on natural and physical resources. Its policies address separation as a tool and discourage location where reverse sensitivity issues might arise.

[460] LSR2 is particularly relevant:

To maintain and enhance the traditions, lifestyle and cultural identity of Māori

[emphasis added]

[461] Amongst the policies which follow this objective is the directive to maintain the mauri of water and other natural resources of significance to tangata whenua when considering the effects of subdivision, use and development.

[462] Objective LRS6 deals (relevant to these proceedings) with the maintenance and enhancement of public access along the coast and sets out a number of policies which promote this. Policy 2 however, sets out circumstances where access might be restricted and here we note specifically the need to *protect* areas of significant indigenous vegetation and habitat, *protect* cultural values, and *protect* public health and safety.

[463] Objective LRS7 deals with managing residential growth and this is directed towards encouraging infill (we take to mean increasing the intensity of development on lots which already have a house) and housing in identified growth areas where infrastructure /reticulation is provided.

[464] More specific objectives are found in the Built Environment section of the plan (2.2) where we note in addition to BE2, BE1 would appear relevant. Objective BE1 seeks to maintain and enhance the visual character of rural environs and the policies which follow address matters such as the visual effect of structures relative to their location, size, height, bulk and materials and seek to ensure physical separation of dwellings. In the explanation for these provisions of the plan we note the following passage:

...The focus on physically separating dwellings, but not other buildings, recognises that a dwelling is often the trigger for other buildings. On land without a dwelling, few buildings are usually constructed. Non-residential buildings are unlikely to have more than a minor effect on the visual character of a rural area. The rural character is defined in Section 2.2.1.1.

Particular land activities can be visually intrusive, justifying some form of landscaping or screening. Sensitive locations are not to be compromised by visually intrusive activities....

[465] BE2 seeks the maintenance and enhancement of the health and safety of people and communities from nuisance effects. The policies which follow include to avoid, remedy or mitigate the adverse effects of intrusive noise, odour, glare or vibration. The policies also address dust suppression during construction and earthworks and also from vehicle access and parking and manoeuvring areas. In the explanation for these provisions of the plan we note the following passage:

The Council is seeking to avoid, remedy or mitigate nuisance and adverse environmental effects in rural areas so as to maintain a healthy, safe working and living environment.

The Council's policy is to control intrusive noise, glare and vibration to the extent necessary to avoid, remedy or mitigate adverse effects on the health and safety of people and communities. In addition, the District Council has a limited and defined role in respect of odour and dust suppression...

It is acknowledged that the rural environment includes activities such as farming, forestry or aggregate extraction which will generate nuisance effects at times. There are also activities near rural zones which can generate infrequent nuisance effects...



[466] Specifically in relation to sewage disposal Objective BE8 and its single policy are relevant. These are set out below for completeness.

Objective BE8

To prevent uncontrolled or unauthorised disposal of stormwater, wastewater and sewage into the environment.

Policy 1

To ensure stormwater, sewage and other wastewater is detained, collected or removed from a lot or a site without causing an adverse effect on the natural environment or to other property, or to people.

[467] Policy 5 is particularly relevant to the Treatment Plant site and access formation to it. We set out the policy below.

Avoid, remedy or mitigate the adverse effects of earthworks associated with development and ensure the integration of earthworks with the natural landform and vegetation patterns

[468] The provisions of the plan related to natural hazards are also relevant although we did not find that this issue was particularly contentious (we do note the earthquake vulnerability of the Treatment Plant site and the vulnerability of the LAF to tsunami and coastal erosion). The sites are also part of a rural landscape where Objective LS2 and its related policies seek to maintain the character and diversity. Objectives and policies (CE1 and policies 1 and 3) are specific to the coastal environment. This objective seeks to preserve the natural character of the coastal environment and protect it from inappropriate subdivision, use and development. The LAF site is clearly in focus for this section of the plan (2.8.3). The policies which follow include a requirement to *maintain and enhance the natural ecology* of the coastal environment.

[469] Finally and specific to works and network utilities (2.6). The District Council has acknowledged in this plan the inadequacies of existing reticulated sewerage systems. In the discussion around these facilities (2.6.1.2) the district plan indicates Council will adopt the best practicable option over time to improve environmental performance. Our understanding here is that this proposal is considered a best practicable option given the community characteristics and the particular methodology adopted. Objective WNU1 provides for the Council to facilitate the development, operation and maintenance of works and network utilities throughout the district, while avoiding, remedying or mitigating adverse effects on the environment. Policies 1 and 3 associated with this objective were highlighted and they require Council to consider the benefits derived from a proposal and technical requirements to enable efficiency, and to ensure adverse environmental effects are addressed.

District Plan Proposed

[470] The Proposed Whakatāne District Plan was notified in June 2013 and although the submission period has closed and hearings are underway we were advised by Mr McGhie (Team Leader - Consents Planning Whakatāne District Council) that no decisions relevant to these proceedings have been made. However there are provisions at Chapter 15: Indigenous Biodiversity, rules 15.2.1 (1-14) and 15.2.2 and Chapter 16: heritage rules 16.2.1 (1-10) that have immediate effect. This means that the SIB status takes immediate effect. However, a number of submissions have been received on both these areas of the proposed plan so they currently carry little weight.

[471] Both of the two sites subject to the designations are zoned *Rural Coastal* in this Plan and the LAF site is located in an area covered by a coastal protection overlay zone. It is shown as being subject to erosion risk and inundation however the actual LAF site is apparently outside both these risk areas.

[472] The LAF is also identified as within a *Significant Amenity Landscape* and a *Significant Indigenous Biodiversity Site* (SIB) (Thornton Dunes). We were told that the policy framework for the two sites is very similar and Mr McGhie identified two areas where the proposed plan does not have equivalents in the operative plan. These are:

- Objective CP1 and policies 1 and 2 (addressing natural character).
- Objective IB1 and IB2 and policies 1 and 2 for each which address the maintenance and enhancement of the full range of indigenous habitat and ecosystems and the retention and protection of identified indigenous vegetation and habitats of indigenous fauna from adverse effects of land use changes.

These provisions seem to provide more consolidation around the protection regime set out in the older plan.

[473] The separation of incompatible uses is one of the foundations of the zoning tool used for the drafting of district plan documents. Other tools include the setting of estandards which limit generated effects so that differing activities can co-exist. In this

case, the general accepted practice of a buffer to account for the mitigation of odour has not been part of the proposal before us. We can understand that this may be so because the general thesis of the Plan is for there to be rural activities on the Treatment Plant site. There are activities (as acknowledged in the Plan where is deals with rural amenity) which generate effects that might be acceptable in rural areas but may not be acceptable in residential/urban areas. Odour is one of these generated effects from certain farming activities.

[474] However, the site condition here is complicated by the nature of the ownership of both the subject site and its neighbour where Māori Land expectations for the utilisation of their lands needs to be taken into account. The Applicant has been aware of those expectations, and for potential complaints about the Treatment Plant. We have addressed odour in our discussion on the environmental effects and it can be seen in relation to the provisions of the District Plan this issue is not satisfied in many ways including the actual potential for the adverse emission of odour as well as the hindrance to the maintenance and enhancement of the traditions, and relationship of Māori with their ancestral lands. The Applicant's response has been to require a non-complaint covenant in its Deed of Lease for Lot 6A. Such a clause does not avoid the potential adverse effects on Lot 6A, or Lot 7A, and the legitimate expectations of the beneficial owners.

[475] The use of the sand dune area for the LAF clearly has the potential to restrict public access to this area even though we were told foot access would be permitted. However, in a practical sense we doubt the practicality of this as we were also told of signage which would warn persons of its potential health risks and the area will be enclosed by a fence. On the positive side, the access to the foreshore will be restricted to defined locations so that this area can, with the assistance of a weed management and a planting program, be restored with indigenous plants. This feature of the proposal will enhance the environmental outcome in respect of the dune site. We consider that on balance, the use of this site (if the discharge issues can be addressed) will not be contrary to the scheme of the objectives in both the operative and proposed District Plan.

[476] We do not consider that all of the aspects of this proposal have been brought before us in a manner that we are able to make an informed decision in respect of the Treatment Plant. Particularly this relates to the effects of the formation of access to the Treatment Plant site and effect that may have on the character of the area. Further, we have not been provided with a clear understanding of mitigation measures so that we can understand the impact of building(s) which might be employed to mitigate odour for instance. It is unclear to us in these respects whether the Treatment Plant on site 6A will meet the objectives and policies around maintenance and enhancement of the rural character, although we accept that the planting buffer must have a positive impact.

[477] We acknowledge that once sewage is reticulated that it is likely the objectives guiding residential growth will be further realised and this is a positive contribution of the project.

[478] We also acknowledge that in the general scheme of the provision of sewerage systems this project demonstrates best practice compared to existing facilities in the district. However, some of the adverse environmental effects have not been adequately addressed in respect of the Treatment Plant (protocols for excavation, incomplete details for implementation, lack of appropriate and dependable odour management), and in respect of the LAF concerning mitigation measures for discharges to fresh water. We have addressed these effects elsewhere. In light of that assessment the Treatment Plant cannot fulfil the objectives of the District Plan (nor the proposed plan). We conclude though, that with further attenuation of the LAF discharge and improved protocols regarding ground disturbance this part of the proposal is consistent with and in some cases promotes objectives and policies of the District Plan.

Iwi Management Plans

[479] We were not made aware of the specifics of iwi management plans, which it would seem do exist and would likely be relevant to this project. We understand the proponents reliance on cultural impact reports and consultation to address matters likely canvassed in these plans. We have addressed the cultural impacts and the efficacy of the consultation elsewhere in this decision.

Overall Conclusion Planning Instruments

[480] As noted we have also integrated our discussion on parts of the various planning instruments as we have considered the effects related to certain subject areas of the proposal. This has been necessary due to the approach taken in this decision given its complexity and the numerous issues. What is clear is that the purpose of the proposal is consistent with aspects of the community's aspirations as set out in the

Tarawera Catchment Plan and the District Plan to better manage the treatment of sewage. That is an intended positive environmental objective of the consents being sought. However that does not of itself outweigh the negative effects to sustainable management of the environment as we have set out elsewhere and which are clearly articulated in the relevant plans.

[481] It is clear that a number of documents are relevant to the application of Part 2, and the consideration of this application for land discharge. These include the NZCPS, the Freshwater Policy Statement, Regional Policy Statement, and the various plans including the Land and Water Plan, Coastal Plan, Tarawera Catchment Plan.

[482] Overall, it can be seen that these various documents point towards:

- (a) a cautious approach to constraints within the coastal environment;
- (b) a desire to maintain and enhance water quality and reduce contaminants in water;
- (c) a desire to improve the natural ecology, particularly of coastal dunes and wetlands.

Reserves Act 1977

[483] We were told the LAF site is within a Recreation Reserve. The Reserves Act 1977 provides:

17 Recreation reserves

(1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as recreation reserves, for the purpose of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor recreational activities, including recreational tracks in the countryside.

(2) It is hereby further declared that, having regard to the general purposes specified in subsection (1), every recreation reserve shall be so administered under the appropriate provisions of this Act that—

(a) the public shall have freedom of entry and access to the reserve, subject to the specific powers conferred on the administering body by sections 53 and 54, to any bylaws under this Act applying to the reserve, and to such conditions and restrictions as the administering body considers to be necessary for the protection and general well-being of the reserve and for the protection and control of the public using it:
(b) where scenic, historic, archaeological, biological, geological, or other scientific features or indigenous flora or fauna or wildlife shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve:
provided that nothing in this subsection shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Heritage New Zealand Pouhere Taonga Act 2014:

(c) those qualities of the reserve which contribute to the pleasantness, harmony, and cohesion of the natural **environment and to the better use and enjoyment** of the reserve **shall be conserved**:

(d) to the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.

[emphasis added]

[484] Given this is a recreation reserve, the activities that can be conducted there are prescribed by ss17, 53 and 54, together with any relevant bylaws. We note that the LAF will only occupy some 4ha of what was described as a 385 hectare reserve. However, we see various titles, and there was no explanation as to what made up the larger reserve, and whether this includes the lands returned to iwi under the Treaty settlements.

[485] Some activities require prior ministerial approval, including leasing the site (except for farm grazing or afforestation) (s 53(1)). The Court expressed some concern at the hearing as to whether the LAF could be located in a recreation reserve without ministerial approval.

[486] The site is gazetted (January 1975, page 17) as recreation reserve with no special conditions. We conclude that a ministerial consent may be required, but that would not prevent a resource consent being issued with a condition that any consent for the activity on the recreation reserve would be obtained prior to the activity commencing. Such a condition would need to be inserted.

[487] Public access to and along the coastal marine area is of considerable importance under 6(e), but it was not suggested the LAF would affect this. The reasons for this are that the LAF is already fenced on the seaward side to allow leased grazing. Beyond the fence there is a flat area 20-40m to the top of the seaward dunes and then a similar distance to high water. There is access along the entire beachfront, and behind the seaward dunes in this area. On our site visit we noted vehicles using an informal track between the foredunes and the fence. That enables ready access along the coastal Marine Area, and there is access to this area both at the Tarawera Mouth (several kilometres west) and at various points to the east, including the Cut for the Rangitaiki River.

Part 2 issues

[488] Some issues in this case arise directly as a function of Part 2, including the question of economic impact and the health and welfare of the local community. Unsurprisingly, there are different views on these issues.

[489] Many section 6, 7 and 8 issues have been part of the evaluation of this proposal or are captured by the many statutory documents affecting the sites or catchment. Given our conclusion that the proposed Treatment Plant is not in the coastal environment, s 6(a) bears upon the consideration of the LAF as it affects the Coast and rivers. We accept the proposal would only have minimal effects on natural character, particularly if the N and P discharge to the ORC was reduced. The land surface and coastal margin will not be affected provided conditions are imposed on the discharge to land consent and regarding vegetation.

[490] We accept that s 6(b) and (c) will not apply on the facts, provided significant vegetation is protected as proposed by the Applicant.

[491] We have discussed s 6(d) in relation to the LAF, and these issues do not arise on Lot 6A. We conclude that access will be maintained with the proposal.

[492] Both s 6(f) and s 6(g) are marginally relevant, depending on one's view as to whether Lot 6A or 7A represent historic heritage. Adequate protection of koiwi is provided by the Protocols.

[493] This leaves the question of 6(e) and the relationship of Māori with Lot 6A, Lot 7A, the ORC, the Tarawera River, the coast and the area around the LAF. We conclude there is very strong evidence of that relationship recognised in ownership of Lot 6A and Lot 7A and the vesting of land in the immediate vicinity of the LAF. The new Freshwater Policy Statement, the Tarawera Catchment Plan and other statutory documents also recognise the relationship of tangata whenua with the waters. These relationships have been the focus of much of this case, and remain the dominating influence in relation to both sites.

[494] Mr Harris, for Sustainable Matatā, believes the local community is having foisted on it a very expensive system, which will be expensive to maintain and will mean that all Matatā residents will be required to pay rate payments in respect of wastewater for not only their own services but those within the rest of the district into the foreseeable future. He considers that that is an impost that residents in Matatā can ill afford. He says that it would be better to spend a significantly smaller sum of money (unspecified) on upgrading individual septic tank systems to modern requirements as required. Mr Harris acknowledges that there may be difficulties with the payment of public monies for individual property owners, and also recognises that some individual owners may be faced with significant costs of installing appropriate treatment systems depending on their personal situation.

[495] The role of the Court is not to make a policy decision on what is the appropriate wastewater treatment system for Matatā. This is a matter that is properly be addressed by the ratepayers and the District Council, and the concern of this Court under the Act is to be satisfied that the proposal put before it meets both the purpose of the Act and various documents prepared under it, in particular the designation objectives. To this end, our enquiry is not to decide which is the best alternative under s 171(1)(1)(b), but rather whether there has been adequate consideration of the alternatives. That can include alternative sites for the Treatment Plant in certain circumstances. These factors are part of our overall evaluation subject to Part 2 of the Act.

[496] We do note, however, the evidence of the Applicant in this case that the impost on individual ratepayers was being kept to a minimum by spreading the cost over the entire district. We also note that, of the estimated \$12m in costs, over \$8m appears to have been sourced from the regional council and central government.

[497] Most of the parties before us agreed that, in principle, a reticulated system had significant advantages. It does appear to us that the significant advantage of a reticulated system is being able to impose controls over the outlet and treatment of the wastewater, rather than having to deal on an ad hoc basis with multiple systems that may be of different ages and stages. Non compliance of septic tanks may have significant impacts on individual landowners. To that end, we were initially concerned about the grinder systems on each property, but we were told by the Council that those would be owned and maintained by the Council, and only in exceptional circumstances (such as deliberate interference) would they be looking to the landowner to meet costs. It was acknowledged that the landowners would need to pay the cost of power in respect of each in addition to the wastewater rates assessment. [498] Overall we were unable to find in this argument anything that convinced us that there was any disabling effect of a reticulation scheme. We note that it is not opposed by the majority, and it seems to us that it will have advantages to the population generally. While we remain unconvinced that this will allow any major extension of Matatā it nevertheless does ensure that any additional properties built or subdivided will be part of a reticulated and controlled scheme.

Enabling the community

[499] Section 5 seeks to enable people and communities. It is sometimes helpful to analyse the Part 2 criteria in terms of the various parties that are enabled or not enabled through the proposal. It might be argued that a designation is not subject to the same evaluation, yet s171 does state that it is subject to Part 2 of the Act. In those circumstances we conclude that the Court is still obliged to consider whether it is satisfied that the purpose of the Act is being met.

[500] Does this application enable the social, economic, health and safety needs of the community? There are broad arguments it does, but it is difficult to evaluate the relative significance of this enabling given the lack of evidence. Thus the broad social benefit of a reticulated waste system must be considered against the impost on beneficial landowners of Lot 6A, the failure to properly consider alternative sites and the potential effects on surface water from the LAF site. The task has proved very difficult because of the need to sift through background documents to evaluate evidence, and the significant number of issues only partially considered. The Commissioners' decision issued four days after the hearing is unhelpful.

Evaluation of the Designation

[501] Although the objective of a designation is clearly an important factor, in the end we have concluded that the purpose of the Act must also be met. In this regard, in respect of the designation itself, we conclude that with some potential amendments to the designation of the LAF, it could meet the purpose of the Act, and we could be satisfied that the designation should be confirmed.

[502] Key to this is whether the impact of N and P on the ORC (and thus the Tarawera River) can be improved.

[503] In respect of Lot 6A, the situation is somewhat more problematic. As we have discussed in some detail, the issue comes down to whether or not we can be satisfied that the beneficial owners of that lot and Lot 7A will be able to establish Papakainga in future, or whether it will constitute a restriction on the land's use in the future. If this is impeded, that has a direct impact on the relationship of Māori with their Taonga (land).

[504] In the end we are satisfied that the issues of visual effects could be met by the imposition of appropriate conditions in relation to a site planting scheme and any associated fencing of the areas to be stocked in due course.

[505] So far as the question of odour is concerned, we have discussed this in some detail and reached the conclusion that, without some adequate control of odour at its source, offensive odour is likely beyond the boundary of the designation/s. Although we accept that residential amenity is not part of the current physical environment, we see it as a cultural issue relating to the appropriateness of the activity on the site, and the clear and continuing objective of having Papakainga on both Lot 6A and Lot 7A.

[506] To date, the evidence has not satisfied us that there would be no offensive odour beyond the boundary. At the end of the case, and in light of the Applicant's submissions, we are in significant doubt as to whether or not the proposed condition of no objectionable odour at the boundary could be met at all, and conclude that Mr Iremonger's view that a 100-140m buffer would be required to achieve that level of confidence is correct.

Outcome

[507] When we look at this matter under Part 2, the principle of a reticulated system for Matatā is a positive benefit, although no specific evidence weighing those benefits has been given. However, provided N and P reaching the ORC from the LAF can be attenuated, we would consider that there would be an overall benefit.

[508] That would require some specific proposals in respect of one or more of the following:

(b) riparian planting and/or wetlands; and

(c) retirement of paddocks from stock.

[509] Further evidence should then be able to demonstrate an attenuation of nutrient levels entering the ORC from the farm drains, which would then satisfy us that the broad objectives of the Freshwater Policy Statement and the regional documents could be met. Collaterally, this would accord with the Tarawera Catchment Plan and satisfy us that the intent of Rule 15.8.4(r) is being met.

[510] In relation to the Treatment Plant on Lot 6A, we conclude that the cultural relationship is not enabled by the proposal. To that extent we see the reticulation of the three marae and in particular for any future construction on Lot 6A as a positive benefit. Nevertheless, on the basis of the evidence currently before us, it appears to us that significant adverse effects from odour could occur, and that the risk would be unacceptable in terms of any residential activity within 150m of the plant, more particularly in respect of any relationship of the beneficial owners of Lot 6A and Lot 7A with their residual lands.

[511] The Applicant's evidence in this area was variable, with the original proposal suggesting that the operation would be fully covered and ventilated, but the Applicant in final reply indicating that covers would be installed with no mention of how those would be ventilated and the odour reduced. Questions of maintenance or problems with the system were not addressed in any detail, and in particular:

- How would the elements of the plant be covered and odour extracted?
- How would items be serviced while avoiding the emission of any odour?
- How would odour effects of Treatment Plant upsets be managed?

[512] We are not satisfied that potential effects can be avoided. The condition proposed does nothing to assist in that regard. Odour would be a significant adverse effect on any Papakainga within a radius of 100-150 metres. It may have significant adverse effect from time to time beyond that. No design solution has been given to satisfy us that the odour effects will be avoided beyond the Buffer area. When combined with the other cultural factors the Designation and resource consent/s for Lot 6A must be cancelled.

[513] Overall the Applicant's case suffered from a lack of careful thought in its preparation, and an assumption that generic conditions would sufficiently control effects. The concern from the Court's point of view is how, in fact, such effects would be avoided, as opposed to mitigated. We also have considerable issues with the wording of the conditions. We do not go into these in detail simply because the conditions would need to be settled once a proposal is accepted.

[514] Having reached the conclusion that there are significant adverse effects, which are not fully addressed by the application, s 171(1)(b) would then require the consideration of alternatives. There was a clear failure to adequately consider alternative sites for the Treatment Plant. The effect of this has been to identify this site for the development of a Treatment Plant without regard to the clear expectation of development for Papakainga on Lot 6A and 7A, or the effect that this Treatment Plant will have on the relationship of the beneficial owners of both Lot 6A and Lot 7A. This Māori land was identified by URS in its June 2013 report, but was ignored in the later analysis.

[515] The Applicant's evidence-in-chief before us did not take into account this relationship or expectation for Papakainga development in respect of this land. Even if the Applicant is not required to consider alternatives, it is quite clear that the Court is able to take into account all effects under s171. The question of alternatives is merely an element of that. In that regard, we reach the conclusion that there is potential for odour to impact upon the beneficial owners of both Lot 6A and Lot 7A, which is a significant effect. The failure to properly consider alternatives go to our conclusion that we are not satisfied the Lot 6A proposal meets the purpose of the Act.

[516] This cultural input can, in any event, be considered under s 104(1)(c) – other relevant matters. We have a broad discretion to include other matters that bear upon sustainable management. We include the potential Papakainga and community facilities as part of that analysis.

[517] Whichever methodology we adopt, we have concluded unanimously, after significant consideration as to whether the matter can be remedied by the Applicant, that Lot 6A designation for the Treatment Plant cannot be granted. It follows that the designation for the buffer area, which essentially is simply vegetation and therefore permitted, serves no purpose without the plant, as does the access road. We note in respect of the access road that it itself has an effect currently in bisecting the rear of the site, and by connecting to a road which currently appears to require a consent

before it can be constructed. There is no utility in granting these designations in the absence of the plant designation and comment that we saw little utility in having separate designation for these elements in any event. Given the current lease arrangements between the Council and the Trustees, the access and buffer zone elements could be constructed in any event without a designation, given they appear to be permitted activities.

[518] We accept that an appropriately designed, operated and sited wastewater treatment system, based on grinder pump reticulation, Treatment Plant and LAF, is an appropriate system for Matatā. But Lot 6A is not an appropriate site for a Treatment Plant and the LAF has potential indirect adverse effects on the ORC that need to be addressed.

[519] Accordingly we have concluded that all three designations for the Treatment Plant site on Lot 6A must fail. Given our conclusions in respect of effects we are not satisfied with the granting of regional consent for the odour release on the properties. To the extent that there are other consents either relevant or interpolated within the broad range of consents sought, we conclude that these should be refused also. Given the lack of any clarity in both applications, and the consents granted, we say this out of caution.

Comments

[520] Given the conclusion of this Court, we again reiterate, as we have several times through this decision, that we see a reticulated system of the type suggested by the Applicant as generally desirable. We are minded to grant consent for the LAF in principle, subject to being satisfied as to the reduction of N and P to the ORC, and the redrafting and extension of other conditions.

[521] We give the Applicant an opportunity to consider, on a proper basis, alternative sites for the wastewater Treatment Plant. If a proper constraints analysis was conducted, we suspect that there are several sites around Matatā which would be appropriate.

[522] It may be that the various subsidies could be continued while a process for an alternative Treatment Plan site was entered into. Matters could be expedited even by way of a direct referral. We would expect any alternative site to factor in a separation from residential activity and/or Māori land around 150m buffer zone, with more thought given to the potential design of the site to minimise odour. We would suspect that such alternative site may even be achieved by consensus, given the position of almost all parties before us as to benefits of a reticulated system. We acknowledge that this does not address directly Mr Harris's concern about costs to the local community, but we have already noted that this aspect of his appeal is not supported by this Court.

Directions

[523] We direct that the Applicant is to advise within **twenty working days** if it wishes to finalise the Designation and consent conditions in respect of the LAF, in which case it should seek further directions from the Court for timing. We adjourn that aspect of the case.

[524] The resource consents and designations are cancelled in relation to the Treatment Plant. This appeal is allowed only to the extent set out in this decision. We particularly note that this does not endorse Mr Harris's position in respect of the question of financial matters or the necessity for a reticulated scheme.

[525] Costs are reserved for directions in due course.

SIGNED at AUCKLAND this 2015

For the Court JA Smith Environment Judge

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JA Hodges Environment Commissioner

C L LOX

C Fox Alternate Environment Judge

ACE Leijnen Environment Commissioner

Annexure List:

Annexure A Consent 67708;

Annexure B Figure 7 Map Book prepared for Whakatāne District Council evidence; Annexure C Figure 3 Map Book prepared for Whakatāne District Council evidence; Annexure D Figure 20 Map Book prepared for Whakatāne District Council evidence; Annexure E Figure 8 Map Book prepared for Whakatāne District Council evidence.

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Conditions of consent for the Matatā wastewater treatment system

(67708)

Purpose

- 1. For the purpose of discharging treated wastewater (TWW) by way of sub-surface irrigation from a wastewater treatment plant (WWTP) to the land application field.
- 2. For the purpose of discharging contaminants to air from the WWTP and land application field.
- For the purpose of authorising earthworks associated with the construction of the land application field and access road.

Location

4. Wastewater Treatment Plant and Land Application Field located at Thornton Road, Matatä.

Quantity and Rate of Wastewater

- 5. The daily quantity of TWW discharged to the sub-surface irrigation shall be no more than 605 cubic metres per day, at an average application depth no greater than 30 millimetres per day, averaged
- over a period of one calendar month.

Volume of Earthworks

6. Earthworks under this consent shall not exceed a total cut and fill volume of 5,500 cubic metres.

Earthworks Location

7. Within Pt Allotment 273 Rangitaiki Parish Recreation Reserve and Allotment 109 Rangitaiki PSH BLK V Awaateatua SD, as shown on plan number C03.

Map Reference

- 8. Discharge of TWW at or about map reference NZTM 1935533 5798943.
- Discharge of contaminants to air at or about map reference NZTM 1935181 5799150 and NZTM 1931281 5799263.

Legal Description

- 10. WWTP site: Allotment 6A Matata Parish
- 11. Land application field: Pt Allotment 273 Rangitaiki Parish Recreation Reserve

Earthworks - Notifying the Regional Council

- 12. No less than ten working days prior to undertaking any earthworks as authorised under this consent, the consent holder shall submit a Site Management Plan to the Chief Executive of the Bay of Plenty Regional Council (Regional Council) (or delegate) for approval. This management plan will include, but not be limited to:
 - a. A plan of earthworks showing cut and fill locations and volumes.
 - b. How sediment, stormwater and erosion will be controlled and contained, noting that as this is a sandy soil site winter earthworks are encouraged.
 - c. How the groundcover of the dunes will be protected.
 - d. Site Plan.
 - e. Drainage Plan.
 - f. Areas to be cut and filled.
 - g. Total works area expected to be disturbed.
- 13. No less than five working days prior to the overall start of works under this consent, the consent holder shall request (in writing) a site meeting between the principal site contractor and the Chief Executive of the Regional Council (or delegate). Notification at this time shall include details of who is to be responsible for site management and compliance with consent conditions.

14. The consent holder shall notify the Chief Executive of the Regional Council (or delegate) in writing no less than five working days before the completion of Earthworks under this consent, prior to the removal of erosion and sediment controls.

Discharge - Notifying the Regional Council

15. No less than five working days prior to the first TWW discharge from the WWTP under this consent, the consent holder shall request (in writing) a site meeting between the principal site manager and the Chief Executive of the Regional Council (or delegate). Notification at this time shall include details of who is to be responsible for site management and compliance with consent conditions.

Notification of Medical Officer of Health

16. The consent holder shall notify the Medical Officer of Health should any part of the activity set out in the document 'Matatā Wastewater Scheme: Resource Consents and Notices of Requirement Assessment of Effects on the Environment, Application Edition, November 2013' be subject to any significant change that may have an effect on public health.

Written Approvals

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- 17. The following conditions requiring written approvals from the Chief Executive of the Regional Council (or delegate) shall be obtained before any works or discharges commence:
 - a. Condition 12 relating to earthworks;
 - b. Conditions 23, relating to discharges of TWW.

Wastewater Treatment Plant and Land Application Field

- 18. The location of the WWTP and land application field shall be as shown on plan number A02.
- 19. There shall be no above ground discharge or spray irrigation of wastewater, treated or untreated, from the WWTP or within the land application field.
- 20. Treated wastewater discharge to land shall be by way of sub-surface drip lines placed at a minimum depth of 200mm and maximum depth of 300mm below the ground surface.
- 21. The consent holder shall ensure that the physical works authorised under this consent are completed within a period of no longer than 15 months following their commencement.
- 22. The consent holder shall ensure there is no activity undertaken on top of the land application field that may cause damage to the disposal system (e.g. stock grazing, deep rooting trees or vehicle parking etc.).

Operation and Management Plan

- 23. The consent holder shall submit a Draft Operations and Management Plan for WWTP and land application field to the Chief Executive of the Regional Council (or delegate), no less than one month prior to the installation of the system, for approval by the Chief Executive of the Regional Council. The consent holder shall consult with the Medical Officer of Health and seek feedback on the draft Operations and Management Plan prior to submitting to the Regional Council. The draft Operations and Management Plan shall include the results of any consultation undertaken in developing the draft Operations and Management Plan. The Operations and Management Plan shall include as a minimum the following details:
 - a. Location and Design of WWTP and TWW land application field:
 - i. Plans detailing the key components and location of the WWTP;
 - ii. Detailed design drawings; including depth and length of the land application field, layout of the land application field and reticulation within it;
 - iii. Methodology for calculation and verification of the land application field's loading rate;
 - iv. An explanation of the operation of the land application field, including field resting;
 - v. Wastewater Treatment Plant process flow diagram;
 - vi. Location and specification of groundwater monitoring wells, including depth; and
 - vii. Maintenance specifications for both the WWTP and land application field.

- b. Soil monitoring within the land application field:
 - i. Details of the monitoring methodology of the land application field soils, including:
 - 1. Five yearly soil quality monitoring; and
 - 2. Location, depth, frequency of sampling, dates and constituents as required in Condition 45.
- c. Operation of WWTP and land application field:
 - Onsite responsibilities, including names and contact telephone numbers for operational staff and a 24 hour contact telephone number;
 - ii. Protocols for sampling, sample handling and analysis;
 - iii. Protocols for cycling land application fields;
 - iv. Maintenance schedules for all components of the WWTP and land application field;
 - v. An Environmental Risk Management Plan, including identification of potential issues, including spill and breakdown, location in the system where these may occur, issue indicators, and response plans. These should include measures to notify the Medical Officer of Health as soon as practical where a spill or breakdown occurs that may have a public health risk, including the notification of the measures being implemented to mitigate the occurrence and associated public health risk;
 - vi. Storage and handling procedures for any chemicals to be stored on-site as part of the WWTP process; and
 - vii. Timelines for any reviews associated with the operation of the WWTP and discharge field.
- d. Odour Management Plan for the WWTP and land application field, including as a minimum:
 - i. The purpose of the odour management plan,
 - ii. Full process description and identification of potential sources of odour,
 - iii. Methods of odour mitigation and operation procedures,
 - iv. Biofilter (or alternative odour device that would achieve the same level of odour control) management and maintenance frequency,
 - A description of the routine inspection, monitoring and maintenance procedures to be undertaken to ensure effective WWTP operation and compliance with resource consent conditions;
 - vi. Key system parameters to be monitored remotely,
 - vii. System review and reporting procedures,
- viii. Details of back up options and contingency plans and procedures, including spill, overflow and breakdown response plans; and
- ix. Details of the odour complaints procedure (including the provision of odour diaries to neighbouring property owners on request), record keeping and response procedure.
- e. Avian Botulism Management Plan for the surface water drainage network immediately to the south of the land application field and/or Bennett Rd Stream:
 - i. Surveillance actions to detect an outbreak of Avian Botulism;
 - ii. Actions (for example, collecting and removing dead or dying birds) that the consent holder shall undertake should there be an outbreak of Avian Botulism including proactively participating with Fish and Game New Zealand, Eastern Region; and
 - iii. Monitoring and mitigation measures.
- 24. The final Operations and Management Plan shall be submitted to the Chief Executive of the Regional Council (or delegate) for approval within three months of the completion of the initial sampling period as described in condition 32. The Operations and Management Plan shall be reviewed by the consent holder at least every three years and if revised shall be submitted to the Chief Executive of the Regional Council (or delegate).

Baseline Receiving Water Monitoring

- 25. At least one month before any discharge of TWW from the WWTP the consent holder shall supply the Chief Executive of the Regional Council (or delegate) no less than 12 months' worth of monthly water quality monitoring results from surface water bodies likely to receive resurfacing discharged TWW. These sampling locations shall be located generally as detailed in the Plan number C03.
- 26. Surface water monitoring results as required under Condition 25 shall be sampled and tested for:
 - i. Dissolved Oxygen (g/m3)
 - ii. Electrical conductivity
 - iii. pH
 - iv. Chloride (g/m³)
 - v. Total nitrogen (g/m³)
 - vi. Nitrite and nitrate nitrogen (g/m3)
 - vii. Total ammoniacal nitrogen (g/m³)
 - viii. Total phosphorous (g/m³)
 - ix. Dissolved reactive phosphorous (g/m³)
 - x. E. coli (cfu/100mL)
- 27. At least one month before any discharge of TWW from the WWTP, the consent holder shall supply the Chief Executive of the Regional Council (or delegate) no less than 12 months' worth of quarterly groundwater quality monitoring results from the groundwater bodies likely to receive discharged TWW. These sampling locations shall be located generally as detailed in the Plan number C03.
- 28. Groundwater monitoring results as required under Condition 27 shall be sampled and tested for:
 - i. Groundwater level (metres below ground level)
 - ii. Water temperature
 - iii. Dissolved Oxygen (g/m3)
 - iv. Electrical conductivity
 - v. pH
 - vi. Chloride (g/m³)
 - vii. Total nitrogen (g/m³)
 - viii. Nitrite and nitrate nitrogen (g/m3)
 - ix. Total ammoniacal nitrogen (g/m³)
 - x. Total phosphorous (g/m³)
 - xi. Dissolved reactive phosphorous (g/m³)
 - xii. E. coli (cfu/100mL)
- 29. The installation of monitoring bores in Condition 27 shall be undertaken in consultation with a suitably qualified and experienced hydrogeologist to ensure correct specification relative to the depth and construction of the well.
- 30. Results from Conditions 26 and 28 shall be submitted in writing to the Chief Executive of the Regional Council (or delegate) and the consent holder must obtain written receipt from the Chief Executive of the Regional Council (or delegate).

Initial Sampling of Treated Wastewater

31. For no less than four weeks immediately following the commencement of the TWW discharge from the WWTP, or for no less than 4 weeks if required under condition 38, results from samples taken from the WWTP (after all treatment processes and prior to discharge to the land application field) shall be taken twice weekly (measured as a grab TWW sample for E. coli and a 24 hour flow proportioned TWW sample for other parameters) for the parameters set out below:

- . i. Total nitrogen (g/m³)
- ii. Total ammoniacal nitrogen (g/m³)
- iii. Nitrite and nitrate nitrogen (g/m³)
- iv. Total phosphorous (g/m³)
- v. Total suspended solids (g/m³)
- vi. $cBOD_5 (g/m^3)$
- vii. pH
- viii. E. coli (cfu/100mL)
- 32. On receipt of three weeks consecutive results verifying the TWW to be within the parameters defined in Table A of Condition 35, the initial sampling period will be considered over and operational sampling of TWW shall commence. Should this condition not be achieved within six months following the commencement of the TWW discharge from the WWTP, the Regional Council may undertake a review as described in Condition 97.

Operational Sampling of Treated Wastewater

- 33. Following completion of the initial sampling period for the WWTP as provided in Condition 31, the consent holder shall take samples of the TWW from the WWTP (after all treatment processes prior to discharge to the land application field) once per week. Samples shall be measured using a grab TWW sample for E.coli and 24 hour flow proportioned TWW sample for other parameters, and shall be analysed by laboratory analysis for the following:
 - i. Total nitrogen (g/m³)
 - ii. Total ammoniacal nitrogen (g/m³)
 - iii. Nitrite and nitrate nitrogen (g/m3)
 - iv. Total phosphorous (g/m³)
 - v. Total suspended solids (g/m³)
 - vi. cBOD₅ (g/m³)
 - vii. pH
 - viii. E. coli (cfu/100mL)
- 34. The total daily volume from the WWTP to the land application field shall also be recorded on a daily basis taken at approximately the same time each day.
- 35. Following completion of the initial sampling period for the WWTP as provided in Condition 31, the TWW discharged into the sub-surface discharge system shall not exceed the limits specified in Table A when determined as setout in condition 33 for the ten out of twelve consecutive samples, taken weekly and measured as 24 hour flow proportioned TWW samples;

Process Performence Reremèter	Unit:	10 out of 12 Consecutive Samples Compliance Umit
cBOD ₅	g/m ³	30
NH4-N	g/m ³	5
NO ₂ -N + NO ₃ -N	g/m ³	10
TN	g/m ³	15
ТР	g/m ³	10
Suspended Solids	g/m ³	30
рН	ຣບ	6.5 - 7.5 (outside of. range)

Table A - TWW Limits

- 36. If the concentration of E.coli measured under Condition 33 exceeds 100,000 cfu/100ml the consent holder shall, within 7 days, commence weekly monitoring of the groundwater bores for E.coli levels, in order to confirm compliance with trigger levels set out under of Condition 46. If compliance with the trigger levels set in Condition 46 is demonstrated for 3 consecutive weeks the consent holder shall revert to groundwater monitoring at the frequencies set out in the Sampling Plan provided under Condition 46.
- 37. Laboratory analyses as required under conditions 26, 28, 31, and 33 shall be carried out as set out in the latest edition of "Standard Methods for the Examination of Water and Wastewater' - APHA -AWWA - WPCF or such other method as may be approved by the Chief Executive of the Regional Council (or delegate).
- 38. If under Condition 35 sample results exceed one of the specifications listed in Table A (as measured in accordance with Condition 33 and 37) the consent holder shall recommence sampling as required under Condition 31 to again satisfy Condition 32. In the event that Condition 31 cannot be satisfied following such an event, the Chief Executive of the Regional Council (or delegate) may trigger a review of the monitoring conditions in accordance with Condition 97.
- 39. The consent holder shall keep records verifying conditions 32, 34, 35, 36 and 37. These records shall be made available immediately upon request to the Chief Executive of the Regional Council (or delegate).

Soil Monitoring

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- 40. At least one month before the first discharge of TWW to the land application field the consent holder shall submit to the Regional Council soil sample results for parameters as defined in Condition 45.
- 41. Samples taken for Condition 45 shall be taken at a depth below where the discharge drip lines will be situated and shall consist of random composite samples from no less than one sample per hectare or part thereof within the discharge field.
- 42. As part of the Operations and Management Plan to be submitted by the consent holder in accordance with Condition 23, the consent holder shall submit a Soil Monitoring Plan to the Chief Executive of the Regional Council (or delegate) for approval. The plan shall include how five-yearly soil analysis results for the parameters defined in Condition 45 shall be obtained and any associated methodologies.
- 43. Soil sampling shall be conducted once every five years in accordance with the soil monitoring as required under Condition 23.
- 44. Results from Condition 45 are to be submitted in writing to the Chief Executive of the Regional Council (or delegate) and the consent holder must obtain written receipt from the Chief Executive of the Regional Council (or delegate).
- 45. Soil sampling shall involve the following parameters:
 - i. Nitrate nitrogen
 - ii. Ammoniacal nitrogen
 - iii. Total nitrogen
 - iv. Total organic carbon
 - v. Organic matter
 - vi. Phosphorus
 - vii. Total Sodium
 - viii. Calcium
 - ix. Potassium
 - x. Soluble salts
 - xi. Cation exchange capacity



Receiving Water Sampling

- 46. Following the completion of the baseline monitoring in accordance with Conditions 26 and 28, all monitoring results shall be forwarded to the Regional Council and a Sampling Plan shall be submitted to the Chief Executive of the Regional Council (or delegate) for approval. This Sampling Plan shall determine the sampling frequency and methodology used to ensure that any groundwater body and surface water body likely to receive discharged TWW is monitored for the duration of this consent, and for the provision of monitoring results to the Regional Council. The Sampling Plan shall specify the location of a minimum of four monitoring bores which are to be provided with at least one upgradient and one downgradient of the land application field, and a minimum of five surface water sampling points, as shown generally in the Plan number C03. These groundwater and surface water samples shall as a minimum be sampled quarterly. The results of this monitoring may be reduced by approval of the Chief Executive of the Regional Council (or delegate) on receipt of each Review Report. The Sampling Plan shall also provide trigger levels for the monitored parameters as specified in Conditions 48 and 49, to be approved by the Chief Executive of the Regional Council (or delegate).
- 47. In order to monitor any potential effect on groundwater seaward of the proposed land application field the consent holder shall specify in the Sampling Plan required through Condition 46 a requirement for a minimum of two monitoring bores on the seaward side of the proposed land application field, as generally shown in Plan C03 as monitoring bores BH804 and BH810. The two seaward bores shall be sampled quarterly including as a minimum one sample collected between the months of June to August. The results of this monitoring shall be reviewed in the Review Report required by condition 96 and the frequency of monitoring may be reduced by approval of the Chief Executive of the Regional Council (or delegate) on receipt of each Review Report.
- 48. Surface water samples required under the Sampling Plan required by Condition 46 shall be tested for:
 - i. Dissolved Oxygen (g/m³) (as measured by an appropriate method to detect the minimum diurnal dissolved oxygen concentration)
 - ii. Electrical conductivity
 - iii. pH
 - iv. Chloride (g/m3)
 - v. Total Nitrogen (g/m³)
 - vi. Nitrate and nitrite nitrogen (g/m³)
 - vii. Ammoniacal Nitrogen (g/m³)
 - viii. Total Phosphorus (g/m³)
 - ix. Dissolved reactive phosphorus (g/m³)
 - x. E.coli cfu/100ml
- 49. Groundwater samples required under the Sampling Plan required by Condition 46 and 47 shall be tested for:
 - i. Groundwater level (metres below ground level)
 - ii. Water temperature
 - iii. Dissolved Oxygen (g/m3)
 - iv. Electrical conductivity
 - v. pH
 - vi. Chloride (g/m³)
 - vii. Total Nitrogen (g/m³)
 - viii. Nitrate and nitrite nitrogen (g/m³)
 - ix. Total ammoniacal Nitrogen (g/m³)
 - x. Total Phosphorus (g/m³)

- xi. Dissolved reactive phosphorus (g/m^3)
- xii. E.coli cfu/100ml
- 50. Groundwater samples required by Condition 46 and 47 shall be sampled for the parameters listed in Condition 49 and shall not exceed the groundwater quality trigger values established in Condition 46.
- 51. In the event that a single sample of the groundwater exceeds the trigger levels as established in Condition 46, the consent holder shall:
 - i. Immediately notify the Chief Executive of the Regional Council (or delegate) in writing; and
 - ii. Resample the groundwater immediately
- 52. In the event that three consecutive samples of the groundwater exceed the trigger levels as established in Condition 46, the consent holder shall formulate a Remediation Plan. The Remediation Plan shall:
 - i. Address the exceedances; and
 - ii. Initiate an investigation into reasons for the exceedances and include remedial actions which may include, but not be limited to, alternative or upgraded treatment methods, changes to the management and operation of the treatment plant and ultraviolet disinfection system, changes to the alarming and monitoring of key process units, and/or improvements to the designated land application field.

The Remediation Plan shall be submitted to the Chief Executive of the Regional Council (or delegate) within 6 weeks of the first exceedance occurring.

- 53. In addition to the specific requirements of Condition 52, if the groundwater monitoring required under Condition 46 demonstrates any exceedance of the trigger levels for three consecutive results, the consent holder shall commence weekly monitoring of flowing surface water in the receiving streams for the parameters set out in Condition 48.
- 54. If any solution specified in the Remediation Plan does not result in the groundwater quality complying with the trigger levels set out in Condition 46 within 6 months after the Remediation Plan being submitted to the Regional Council, the Regional Council may then trigger a review of the consent conditions in accordance with Condition 97.

Wastewater Treatment Plant and Land Application Field Maintenance

55. The WWTP and land application field shall be operated and maintained generally in accordance with the Operations and Management Plan required under Conditions 23 and 24 at all times, to the satisfaction of the Chief Executive of the Regional Council (or delegate), provided such requirements or "satisfaction" does not affect the consent holder's ability to meet the conditions of this consent.

Reporting

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56. All sampling and monitoring results and records as required by the Operations and Management Plan and consent conditions from 1 July to 30 June of each year shall be compiled into an annual report. The annual report shall discuss sampling and monitoring results and trends, exceedances and actions taken, site management, complaints and how these have been addressed, and any areas where improvement is required. The annual report shall be submitted (in writing) to the Chief Executive of the Regional Council (or delegate) before the 31 of July of each year.

Note: For the avoidance of doubt the consent holder shall publish the annual report on their publically accessible website within two weeks of the annual report being provided to the Regional Council.

Earthworks

- 57. Construction and earthworks shall be carried out in accordance with the information submitted with the Site Management Plan as required under Condition 12.
- 58. During the construction of the land application field the consent holder shall:
 - a. Ensure that no stripping of grass sward or topsoil is to occur on the land application field;

- b. Protect the groundcover of the dunes as far as possible within the land application field;
- c. Minimise excavation to lay pipelines within the land application field. The preference is for pipelines to be laid using mole plough pipe laying method or similar;
- d. Ensure that vehicles use only the formal roadway off Thornton Road for access to the land application site.
- 59. The consent holder shall ensure that only cleanfill is deposited on site. For the purposes of this consent, the definition of cleanfill shall include only materials such as clay, soil, rock; or concrete, and brick.
- 60. No physical works associated with the construction of the Land Application Field shall occur within 5m of any kanuka vegetation
- 61. The consent holder shall ensure that the earthworks authorised under this consent are completed within a period of no longer than 12 weeks following their commencement.
- 62. The consent holder shall ensure that all exposed areas of earth resulting from works associated with this consent are effectively stabilised against erosion, by vegetative cover or other methods, as soon as practicable following the completion of works, to the satisfaction of the Chief Executive of the Regional Council (or delegate).

Temporary Signage

- 63. Prior to the commencement of works under this consent, the consent holder shall erect a prominent sign adjacent to the main entrance to the site, and maintain it throughout the period of the works. The sign shall clearly display, as a minimum, the following information:
 - a. The consent holder;
 - b. A 24 hour contact telephone number for the consent holder or appointed agent;
 - c. A clear explanation that the contact telephone number is for the purpose of receiving complaints and information from the public about dust nuisance or any other problem resulting from the exercise of this consent.

Erosion and Sediment Control

- 64. The consent holder shall ensure that all erosion and sediment controls detailed in the Site Management Plan as required under condition 12 and implemented on site comply with specifications set out in Bay of Plenty Regional Council Guideline No. 2010/01 - "Erosion and Sediment Control Guidelines for Land Disturbing Activities" or its successor.
- 65. All erosion and sediment controls shall be installed prior to the commencement of earthworks.
- 66. The consent holder shall ensure that all practicable measures are taken to the satisfaction of the Chief Executive of the Regional Council (or delegate) to ensure that no material is tracked off site.
- 67. The consent holder shall divert uncontaminated catchment runoff away from the area of earthworks.
- 68. The consent holder shall ensure that where runoff controls (such as diversion channels, bunds, contour drains etc.), have slopes greater than 2%, then the runoff controls shall be protected from erosion by the use of geotextile materials, rock or other suitable materials.

Dust Control

- 69. The consent holder shall adopt a proactive strategy for dust control, specifically by complying with the principles of dust management as set out in section 3.4 of Environment Bay of Plenty Guideline No. 2010/01 – "Erosion and Sediment Control Guidelines for Land Disturbing Activities" or its successor, so as to prevent a dust nuisance from occurring beyond the property boundary.
- 70. The consent holder shall ensure that an adequate supply of water for dust control and an effective means for applying that quantity of water, is available on site at all times during construction and until such time as the site is fully stabilised.
- 71. The consent holder shall ensure that soil moisture levels are monitored at all times when a earthworks are being carried out, and at the end of every working day.

- 72. The consent holder shall ensure that, at all times, the soil moisture level of exposed areas is sufficient, under prevailing wind conditions, to prevent dust generated by normal earthmoving operations from remaining airborne beyond the boundary of the work site.
- 73. The consent holder shall ensure that, at the end of every working day until such time as the site is fully stabilised, the soil moisture level of exposed areas is sufficient to prevent a dust nuisance occurring beyond the boundary of the works site.
- 74. The consent holder shall ensure that, outside of normal working hours, staff are available on-call to operate the water application system for dust suppression.
- 75. In the event that wind conditions render dust control impracticable, the consent holder shall ensure that any machinery generating airborne dust ceases to operate until such time as effective dust control can be re-established.
- 76. Notwithstanding conditions 69 to 75 above, the consent holder shall undertake additional or alternative dust control measures to the satisfaction of the Chief Executive of the Regional Council (or delegate), as directed.

Erosion and Sediment Control Maintenance

- 77. The consent holder shall ensure that the erosion and sediment controls, spillways and associated erosion protection devices and dust controls are inspected and maintained in an effective capacity at all times during works and until the site is stabilised in accordance with condition 62 of this consent.
- 78. The consent holder shall ensure that, as far as practicable, any necessary maintenance of erosion and sediment controls identified by inspection under condition 77 or by Regional Council staff is completed within 24 hours.
- 79. Accumulated sediment shall be removed from the sediment retention devices before sediment levels reach 25% of that device's volume.
- 80. The consent holder shall ensure that sediment removed from the sediment retention device is placed in a stable position where it cannot re-enter the device or enter any water body.
- 81. The consent holder shall ensure that all-weather machinery access is maintained to any sediment retention pond.

Erosion and Sediment Control Monitoring and Reporting

- 82. The consent holder shall ensure that the erosion and sediment controls are inspected:
 - a. at least weekly during the duration of construction works; and
 - within 24 hours of each rainstorm event which is likely to impair the function or performance of the erosion and sediment controls.
- 83. The consent holder shall maintain records of:
 - a. the date and time of every inspection of erosion and sediment controls on the site; and
 - b. the date, time and description of any maintenance work carried out.
- 84. The consent holder shall forward a copy of records required by condition 82 to the Chief Executive of the Regional Council (or delegate) within 48 hours of the Chief Executive of the Regional Council (or delegate's) request.

Reinstatement and Restoration

- 85. The consent holder shall ensure that the ground surface within the land application field following earthworks is left in a standard of reinstatement similar to that of the adjacent undisturbed areas of the site.
- 86. No later than thirty (30) working days prior to the commencement of the discharge of TWW from the WWTP the consent holder shall submit a Restoration Plan to the Chief Executive of the Regional Council (or delegate) for approval. The Restoration Plan shall be prepared in general accordance with application supporting document 9, and shall include:

- Restoration planting for the land application field and the wider designation area (as shown on plan titled 'Restoration Area for Proposed Matată Wastewater Land Application Field', reference 01 1503);
- b. The permanent retirement from grazing, and the provision of weed and pest control, for the Western Whakatāne Coastal Recreation Reserve between the Tarawera River and Walker Road (of which the land application field and wider designation area are part of); and
- c. Management of the dunes between the Tarawera River and Thornton Road suitable to achieve a predominantly indigenous habitat.

The restoration plan shall be prepared by a suitably qualified person, and shall include the following details:

- a. A planting plan, detailing species lists and spacing's, utilising eco sourced indigenous species where possible;
- b. Weed control measures;
- c. Any temporary fencing requirements;
- d. Animal pest management measures; and
- e. Monitoring procedures.
- 87. The consent holder shall ensure that the land application field, dunes and Western Whakatāne Coastal Recreation Reserve (between the Tarawera River and Walker Road) are managed in accordance with the requirements of the Restoration Plan.

Air Quality

- 88. The consent holder shall design, operate, manage and maintain the WWTP in a manner that shall not result in any objectionable odours at or beyond the designated boundary of the wastewater treatment plant environmental protection buffer as shown on plan titled 'Site Survey', prepared by Harrison Grierson, drawing number 135173-SS03 rev. C.
- 89. The consent holder shall operate, manage and maintain the land application field in a manner that shall not result in any objectionable odours at or beyond the boundary of the designated boundary of the land application field as shown on plan titled 'Site Survey Extent of Effluent Field, prepared by Harrison Grierson, drawing number 1357173-SS05, rev. B.
- 90. The consent holder shall maintain and keep a Complaints Register for all complaints made about the treatment and discharge operations that relate to air discharges received by the consent holder. The Register shall record:
 - a. The date, time and duration of the event/incident that has resulted in the complaint;
 - b. The name, phone number and address of the complainant, unless the complainant refuses to supply these details;
 - c. The location of the complainant when the event/incident was detected;
 - d. The possible cause of the incident;
 - e. The weather conditions and wind direction at the site when the incident allegedly occurred, if significant to the complaint;
 - f. Any corrective action undertaken by the consent holder in response to the complaint.
- 91. The Complaints Register shall be made available to the Chief Executive of the Regional Council (or delegate) at all reasonable times. Complaints which may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Chief Executive of the Regional Council (or delegate) within 5 working days of the complaint being received.

The consent holder shall notify the Chief Executive of the Regional Council (or delegate) of any incident, including power, mechanical or process failure, leading to a significant emission of odour from the plant, within 24 hours of the incident being brought to the attention of the consent holder, or the next working day. A written report shall be forwarded to the Chief Executive of the Regional Council (or delegate) within seven working days of the event occurring describing the incident, the reasons for it occurring, its consequences (including the nature of any complaints), the measures

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taken to remedy or mitigate its effects, and any measures taken to prevent a recurrence of the event, including any changes proposed to the Operation and Management Plan.

Surface Water Flow Monitoring

- 92. The consent holder shall liaise with the Rivers Programme Leader, Regional Council to collect data from the Robinsons pump station in order to determine the water flow being pumped from the farm drainage system (Robinsons Farm or subsequent property) into the Bennett Road Stream (Old Rangitaiki Canal). These data shall be collected according to the following parameters:
 - a. Pump data will be collected on a monthly basis for 12 months prior to any discharge of TWW from the WWTP to the land application field to determine a baseline flow.
 - b. Pump data will be collected on a monthly basis for a period of 2 years following commencement of the discharge of TWW from the WWTP to the land application field.

Note: The Rivers Programme Leader, Regional Council shall provide access to the Robinsons pump station so that monitoring equipment can be installed at the consent holder's cost.

- 93. The consent holder shall install a temporary flow monitoring gauge in the Bennett Road Stream (Old Rangitaiki Canal) at a location to be agreed with the Regional Council (proposed location Robinsons or subsequent property owner milking shed access bridge approximately 400m to the west of the Robinsons pump station discharge) in order to determine water flows within the Bennett Road Stream (Old Rangitaiki Canal). These data shall be collected according to the following parameters:
 - a. Flow data will be collected on a monthly basis for 12 months prior to any discharge of TWW from the WWTP to the land application field to determine a baseline flow.
 - b. Flow data will be collected on a monthly basis for a period of 2 years following commencement of the discharge of TWW from the WWTP to the land application field.
- 94. All data collected will be provided to the Regional Council and Fish and Game New Zealand, Eastern Region, by 31 July of each year that data is collected.

Permanent Signage

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95. For the duration of this consent, the consent holder shall install and maintain appropriate signage on the formal access point to the wastewater treatment plant site and at appropriate locations around the perimeter of the land application field warning that treated wastewater is discharged to the land. The consent holder shall seek comment and agreement on the proposed wording, size and placement of signs from the Medical Officer of Health for both sites and from Fish and Game New Zealand, Eastern Region, in terms of the land application field. Written confirmation of the signage wording, size and placement shall be provided to the Chief Executive of the Regional Council (or delegate) no less than one month prior to commencement of the TWW discharge.

Whakatāne District Council Reviéw Report 🛛 😁

- 96. The consent holder shall submit to the Chief Executive of the Regional Council (or delegate) a Review Report no later than 31 July 2020, and thereafter at six yearly intervals, for the duration of the consents. As a minimum, the Report shall:
 - a. Address ongoing compliance with the conditions of the consent and, in particular, any reported non-compliance with consent conditions;
 - b. Include an assessment of compliance/consistency with any relevant national or regional water quality policies, standards or guidelines in effect at the time;
 - c. A summary of the monitoring undertaken as required through conditions 46 and 47 including an assessment of whether the sampling frequency can be reduced or not;
 - d. A summary of any residual actual or potential adverse environmental effects of the discharge of TWW, irrespective of whether those environmental effects are in accordance with the conditions of this consent; and
 - e. The appropriateness of monitoring indicators and monitoring methods including reference to any appropriate new monitoring indicators and/or guidelines.

Review of Conditions

97. The Regional Council may:

- a. on the anniversary of the commencement of the consent; or
- within six months of receipt of any report submitted to the Regional Council under any condition of this consent or any report required as a result of compliance monitoring by Council; or
- within 6 months of completion of any compliance monitoring carried out by the Regional Council, which shows that the Matata wastewater treatment scheme is a substantiated source of odour complaints; or
- d. where condition 32 cannot be satisfied as set out in condition 35; or
- e. in the circumstances contemplated by condition 54.

serve notice on the consent holder of its intention to review the conditions of this consent, under s128 of the Resource Management Act 1991.

- 98. The purposes of this review may include:
 - To modify any required monitoring/reporting and/or specify additional monitoring/reporting and/or change the monitoring/reporting frequency required to address any identified adverse effects;
 - b. To assess, and if necessary to address, any identified adverse effects of any of the discharged treated wastewater on ground or surface waters;
 - c. To assess and if necessary to review current discharge limits and controls;
 - d. To require the consent holder to adopt the best practicable option in accordance with section 128(1)(a)(ii) of the Resource Management Act 1991;
 - To ensure that management practices at the site are consistent with any provisions or restrictions that are required to be implemented by the Regional Council for any National Environmental Standards (NES);
 - f. assess the need for treatment of air discharges from any part of the Matata wastewater treatment scheme;
 - g. impose monitoring and discharge control conditions relating to odour discharges; and
 - h. To require further works to be carried out on the WWTP or land application field, or to require further treatment components within the WWTP or land application field. The requirement would be after six months of a Remediation Plan being triggered under condition 51 or no solution has been reached which enables the operation of the WWTP and land application field in full compliance with consent conditions.

Accidental Discovery Protocol

- 99. A Taonga Tuturu Monitor shall be employed by Whakatāne District Council to monitor, act in accord with the Accidental Discovery Protocol (attachment A to this consent) and report any discoveries during earthworks.
- 100. The following procedures will be adopted in the event that koiwi or taonga are unearthed or are reasonably suspected to have been unearthed during the course of construction.
 - a. Immediately when it becomes apparent or is suspected by workers at the site that koiwi or taonga have been uncovered, all activity in the immediate area will cease.
 - b. The construction plant operator will act with caution by shutting down all machinery or activity in the immediate area to ensure that köiwi or taonga remain untouched as far as possible in the circumstances and shall notify the Site Construction Manager or the on-site supervisor.
 - c. The Site Construction Manager or on-site Supervisor shall take immediate steps to secure the area in a way that ensures that koiwi or taonga remain untouched as far as possible inthe circumstances and shall notify the Taonga Tuturu Monitor.

101. The Taonga Tuturu Monitor will:

- a. Seek advice from kaumātua from Te Mana o Ngāti Rangitihi Trust (TMoNRT), Ngāti Rangitihi Raupatu Trust (NRRT), Ngāti Tuwharetoa BOP Settlement Trust (NTST) and Te Rūnanga o Ngāti Awa (TRONA) to guide and advise Site Managers and any other parties as to the appropriate course of action to be taken and the identity of persons to involve as appropriate to the circumstances.
- b. Upon the advice of iwi contacts from kaumätua from TMoNRT, NRRT, NTST and TRONA and an archaeologist from Heritage New Zealand providing a description of the find and seeking their advice as to whether they consider it necessary to immediately request kaumätua, Pukenga, an archaeologist and/or the NZ Police attendance at the scene.
- c. Ensure the find area is secure and available for inspection by Kaumātua, Pukenga, an archaeologist and/or the NZ Police and for photographic recording by the archaeologist should a decision be reached to request attendance at the scene.
- d. In the event it is considered by the Taonga Tuturu Monitor and archaeologist unnecessary for kaumātua, Pukenga and the NZ Police to attend the scene, the Taonga tuturu Monitor and archaeologist will:
 - i. Record, photograph and report the potential findspot including reasons why attendance was not required.
 - ii. Take photographs of the find site to share with iwi and others and ensure the archaeologist and site manager have recorded GPS co-ordinates for the site should it be confirmed by the archaeologist the site is a newly discovered site.
 - iii. Take photographic records of any taonga tuturu and the find spot.
 - iv. Collect and retain custody of any koiwi in a suitable receptacle to be located at until the completion of the works upon which time iwi will hui to deliberate on the appropriate place for re-interment of koiwi.
- e. Upon the discovery of taonga tuturu the Taonga Tuturu Monitor and archaeologist shall:
 - i. Photograph the taonga and findspot and record the circumstances of the find.
 - ii. In compliance with the Protected Objects Act 2007, register the taonga tuturu with the Senior Advisor Heritage Operations at the Ministry for Culture and Heritage, and with each iwi. The Archaeologist will seek from the Ministry for Culture and Heritage approval to place the taonga tuturu into the interim custody of the Whakatāne Museum in order to enable subsequent claims for custodianship and ownership to be lodged by iwi with the Ministry of Culture & Heritage (in compliance with Taonga Tuturu Protocols between settled iwi and the Ministry) while also providing for the enablement of processes under the Protected Objects Act 2007 that require decisions from the Maori Land Court as to custody and ownership in perpetuity.
- 102. In the event of a significant find and consequential attendance at the scene the Site Construction . Manager shall ensure that kaumătua, Pukenga, the archaeologist and Taonga Tuturu Monitor are given the opportunity to undertake karakia (prayer) and any such other cultural ceremonies and activities at the site and affected workers, in accordance with tikanga Māori.
- 103. Activity in the immediate area will remain halted until kaumātua, the Police and Historic Places Trust (as the case may be) have given approval for operation in that area to recommence. In the event that rua (caves), pits or other archaeological features are discovered, a comprehensive report, inclusive of photographs are to be taken and labelled by an archaeologist with copies sent to TMONRT, NRRT, NTST and TRONA and Heritage New Zealand, NZ Archaeological Association File-keeper and the Heritage Co-ordinator at the Bay of Plenty Regional Council.
- 104. At the conclusion of the proposed works a Hui-A- lwi will be convened by the Taonga Tuturu Monitor at the expense of the Whakatāne District Council at which reports on any discovery of koiwi and or taonga tuturu will be provided including the location of protected objects and koiwi held in the interim custody of the Whakatāne Museum. The purpose of the hui will be to:
 - a. Provide for the Taonga tuturu monitor to request iwi deliberation, decision-making and implementation for the re-interment of koiwi.

- b. Be informed of the process required by the Protected Objects Act 2007 administered by the Ministry for Culture and Heritage and determined by the Maori Land Court to enable iwi to make claims for ownership and custodianship in perpetuity for taonga tuturu.
- 105. The Whakatāne District Council will cover all expenses relating to the implementation of the Accidental Discovery Protocol including those incurred by kaumātua, Pukenga, the archaeologist and iwi attendees.

Term of Consent

106. This consent shall expire 35 years from the date that this consent was granted.

Resource Management Charges

107. The consent holder shall pay the Bay of Plenty Regional Council such administrative charges as are fixed from time to times by the Regional Council in accordance with section 36 of the Resource Management Act 1991.

Advice Notes

- 1. The Regional Council is able to provide contact details for the relevant iwi authority.
- Unless otherwise stated all notification and reporting required by this consent shall be directed (in writing) to the Pollution Prevention Manager, the Bay of Plenty Regional Council, PO Box 364, Whakatāne or fax 0800 368 329 or email notify@envbop.govt.nz, this notification shall include the consent number 65977.
- 3. The consent holder is responsible for ensuring that all contractors carrying out works under this consent are made aware of the relevant consent conditions, plans and associated documents.
- 4. For clarity, the pre-operational documents and meetings and their due timeframes as detailed in these conditions are set out below. Note this list is not exhaustive and there may be a requirement for ongoing periodical submission of documents arising from the approved Operations and Management Plan, sampling plans, or other plans or documents.

Condition	Description	Due	
25	Receiving water monitoring results and analysis	1 month prior to first TWW discharge, to be commenced at least 12 months prior to due date.	
46	Receiving water sampling plan	1 month prior to first TWW discharge, to be provided with water monitoring results	
12	Earthworks site management plan	10 days prior to earthworks commencement	
13	Earthworks site meeting	5 days prior to earthworks commencement	
15	Discharge site meeting	5 days prior to first discharge	
23	Draft Operations and Management Plan	1 month prior to system installation	
24	Final Operations and Management Plan	3 months following completion of initial sampling period	
85	Restoration plan	6 weeks (30 working days) prior to first discharge	



Plan A02 – Location of Matatä Wastewater Treatment Plant Land Application Sites









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WHAKATANE District Council

Annexure E .









Annexure D







Annexure C

Page 3

Figure 7: Parcels Identified for GIS Constraints Analysis







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BEFORE THE EXPERT CONSENTING PANEL

CONCERNING THE TE ARA TUPUA – NGĀ ŪRANGA KI PITO-ONE – SHARED PATH

IN THE MATTER of the of the Covid–19 Recovery (Fast–Track Consenting) Act 2020 (Act) and the deliberations and final decision of the Expert Consenting Panel appointed under Clauses 2, 3, and 4 of Schedule 5 of the Act to consider applications for consents and notices of requirement for the Te Ara Tupua – Ngā Ūranga Ki Pito-one Shared Path by NZ Transport Agency (Waka Ko Tahi)

EXPERT CONSENTING PANEL Alan Webb (Chair)

Miria Pomare - Accredited Independent RMA Commissioner (Member)

David McMahon – Accredited Independent RMA Commissioner (Member)

11 December 2020

UNDER CLAUSE 17(4) OF SCHEDULE 6 TO THE ACT

COMMENTS RECEIVED

DETAILS OF ANY HEARING IFNo hearing was held (refer clause 20, Schedule 6HELD UNDER CLAUSE 21 OFto the Act)SCHEDULE 6 OF THE ACT:

DATE OF HEARING IF HELD: Nil

Date of decision: 5 February 2021 - Date of issue: 5 February 2021

RECORD OF DECISION OF THE EXPERT CONSENTING PANEL UNDER CLAUSE 37 OF SCHEDULE 6 OF THE ACT

MINOR CORRECTIONS TO RESOURCE CONSENT AND NOTICES OF REQUIREMENT UNDER CLAUSE 40 OF SCHEDULE 6 OF THE ACT – 8 MARCH 2021
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PART A: EXECUTIVE SUMMARY

- 1. This Expert Consenting Panel (**Panel**) was appointed on 2 November 2020 to consider an application by New Zealand Transport Agency (**Waka Kotahi**) to construct a shared (walking/cycleway) pathway between Ngā Ūranga and Pito-One (**Project**).¹
- 2. This Project is for the final component of the largest single shared pathway in the Wellington region running between Wellington and Lower Hutt (**Te Ara Tupua**) and will connect the existing southern and northern ends of Te Ara Tupua between Ngā Ūranga and Pito-one and Melling.
- 3. This part of Te Ara Tupua runs along the seaward edge of the Wellington-Hutt Valley Railway line after it crosses from the landward side of that railway line at Nga-Uranga and back to the landward side again at Pito-One.
- 4. The Project is a listed Project in Schedule 2 of the Covid-19 Recovery (Fast Track Consenting) Act 2019 (Act).
- 5. To undertake the Project Waka Kotahi has applied for:
 - a) Two notices of requirement for a designation one in respect of the Wellington City Council (WCC) and one in respect of the Hutt City Council (HCC) for works on land within their jurisdiction; and
 - b) Various applications for regional and district resource consents under the City of Lower Hutt District Plan (HCDP) and the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS) (together the Applications).
- 6. In support of the Applications, Waka Kotahi has provided:
 - a) A comprehensive assessment of environmental effects;
 - b) A full set of technical reports;
 - c) Draft conditions; and
 - d) Associated plans and drawings (Application Documents).
- 7. The Panel recognises that this Project will provide significant positive effects for the Wellington region and nationally. However, the Project will occur in the coastal environment and moreover, Waka Kotahi candidly acknowledge that:

The most serious adverse effects relate to the permanent occupation and habitat loss in the CMA as a result of the Project footprint. This effect will be permanent and is

¹ This is a listed project in Schedule 2 of the Act.

unavoidable.²

- 8. The Panel has therefore considered this issue very carefully given that we "may" decline any application that, with or without conditions, is "inconsistent with" the New Zealand Coastal Policy Statement (NZCPS).³
- 9. The Panel's assessment involved seeking assistance on issues relating to marine ecology and coastal process and seeking legal advice on how to interpret the phrase "inconsistent with" and the application of specific policies in the NZCPS.
- 10. The Panel warmly thanks those experts and counsel for their timely assistance. The Act imposes demanding temporal limits on receiving information and assessing it, and the Panel acknowledges the hard and urgent work put into preparation of that advice.
- 11. Finally, the Panel acknowledges the extremely high quality of the Application Documents and of the continuing work undertaken by consultants engaged by Waka Kotahi which has been provided in a timely fashion. The Panel also respectfully observes that Waka Kotahi's consultation with Mana Whenua to investigate, understand and address cultural values and interests is an exemplar of how that should occur, and the results reflect that.

Decisions by the Panel

- 12. The Panel grants the applications for resource consent described in Appendix 1, subject to the conditions expressed in that Appendix.
- 13. The Panel confirms the notices of requirement described in Appendix 1, subject to the conditions expressed in that Appendix.
- 14. There are two additional plans that are to be filed by way of the Outline Plan process, under clause 33(7)(b) of Schedule 6 of the Act and s176A of the RMA, namely the:
 - a) Construction Noise and Vibration Management Plan (CNVMP); and
 - b) Cultural and Environmental Design Plan (CEDP).

² AEE Section 17 Ecology – Overview.

³ Clause 34(1)(a) of Schedule 6 of the Act. Other grounds include the application being inconsistent with any national policy statement or with s6 of the Act.

PART B: INTRODUCTION

- 15. The Project will provide a 4.5 km long shared path between Nga Uranga and Pito-One, mainly along a 5m wide shared path on newly created land and coastal structures on the seaward side of the Hutt Valley Railway Line. There will be a varied coastal edge to enable resilience against the coastal environment, reflect the natural landscape, avoid sensitive habitat areas, provide for cultural expression and to enhance amenity.
- 16. Associated with the shared path will be bridges at either end across the railway line connecting with the landward sections of the existing pathway.
- 17. There will also be a significant upgrade of the Honiana Te Puni Reserve (**Reserve**) including new cultural facilities and the construction of two new integrated club buildings to replace the existing buildings.
- 18. There will be two construction yards, one at each end of the Project.
- 19. A detailed business case was completed by Waka Kotahi in August 2015 which built on an earlier draft. The draft business case recognised that providing a cycling/pedestrian connection between Wellington and the Hutt Valley is not "straight forward" because of significant, well-reasoned practical issues (existing infrastructure, coastal structures, security of adjoining properties, etc). The detailed business case therefore considered alternatives and the Panel is satisfied that assessment (effectively excluding two roadside options) is well reasoned, robust and objectively reasonable.⁴
- 20. The Project completion date is still finally to be resolved and will be dependent on the appointment of contractors.

PART C: PROCESS ADOPTED BY THE PANEL

21. The role of any expert Panel appointed under the Act has been described by the Panel Convener⁵ (Convener) in the decision on the Matawii Water Storage Reservoir at Kaikohe dated 27 October 2020, which was also a listed project (Matawii Decision). At paragraph [12] of that decision the Convener stated:

Because this decision is the first to issue under this legislation, we will describe in more detail than will be necessary in subsequent decisions, the workings of the Act in processing listed projects.

- 22. The Panel respectfully adopts the description set out (mainly) at paragraphs [12] [43] of the Matawii Decision.
- 23. There are several key parts of the Act which will be referred to throughout this Decision, but of paramount importance is Schedule 6 of the Act titled "Applications and decision

⁴ See AEE Chapter 9: Consideration of Alternatives.

⁵ His Honour Judge Newhook, appointed by the Minister under clause 2 of Schedule 5 to the Act.

making for listed projects and referred projects "(Schedule 6).

Procedural

24. The Panel records the following matters.

Meetings/Site Visits

- 25. The Panel met and conducted site visits as follows:
 - a) 10 November 2020 (meeting);
 - b) 27 November 2020 (site visit/meeting);
 - c) 16 December 2020 (meeting); and
 - d) 22 December 2020 (site visit/meeting).
- 26. There was also a Zoom teleconference held on Tuesday 19 January 2021.⁶

Invitations to Comment

- 27. By letters dated 20 November 2020 the Panel invited comments on the Project from those parties listed in Clause 17(4) of Schedule 6.
- 28. The Panel also invited comments from parties under Clause 17(5) of Schedule 6.7
- 29. In accordance with Clause 18(1) of Schedule 6, responses were required by 11 December 2020.
- 30. Those comments were sent to Waka Kotahi and, in accordance with Clause 19 of Schedule 6, the Panel required its response by 18 December 2020.
- 31. The comments received have all been considered by the Panel.

Further Information from Waka Kotahi

- 32. The Panel sought the following further information from Waka Kotahi:
 - a) By letter dated 27 November 2020 the Panel sought further information from Waka Kotahi about how the crime prevention guidelines had been incorporated into the design for the Project. The response was provided by Waka Kotahi on 9 December 2020 and has been considered by the Panel;
 - b) By letter dated 7 December 2020 the Panel sought information to clarify which version of the Environmental Institute of Australia and New Zealand Ecological

⁶ Panel member Miria Pomare was not available for this teleconference.

⁷ These parties are listed at Appendix 2 to this Decision.

Impact Assessment Guidelines were used for the ecological assessment. The response was also provided by Waka Kotahi on 9 December 2020 and has been considered by the Panel;

- c) By letter dated 23 December 2020 the Panel sought information in relation to various matters relating to the proposed management plan framework, offsetting and compensation proposed and the NESFM 2020. The response was provided by Waka Kotahi on 13 January 2021 and has been considered by the Panel; and
- d) By letter dated 15 January 2021 the Panel sought further information from Waka Kotahi to seek clarification on the consents required for the mussel bed programme or other components of the offset proposals and mitigation and compensation proposals. The response was provided by Waka Kotahi on 19 January 2021 and has been considered by the Panel.⁸

Further Reports to the Panel

- 33. Given the significance of coastal marine ecology environment issue and its pivotal nature to our decision making, the Panel directed the EPA to commission reports⁹ from:
 - a) Mr Jim Dahm on coastal processes; and
 - b) Dr Gary Bramley on ecological issues.
- 34. The experts were asked to review the process by which each of Waka Kotahi's relevant technical assessments were undertaken so that the Panel could be satisfied that each assessment was objectively reasonable and could be relied on.
- 35. The ecological report for example relied on an assessment against the *Environment Institute of Australia and New Zealand Ecological Impact Assessment Guidelines 2018*¹⁰ (**EIANZ Guidelines**) (which the Panel were not familiar with) and the Panel also wanted to ensure that the environmental offset and compensation proposed by Waka Kotahi was to an appropriate standard.
- 36. Notwithstanding the Panel's lack of familiarity with the EIANZ Guidelines, the Waka Kotahi technical reports appeared to the Panel to be of high quality. Therefore, given the limited time available for any further reports to be prepared, the Panel requested that the commissioned reports were in the nature of a peer review of the two technical assessment reports produced in support of the Applications.¹¹
- 37. Dr Bramley accompanied the Panel on its site visit on 22 December 2020.

⁸ All the further info requests and responses are on the EPA website here: <u>https://www.epa.govt.nz/fast-track-</u> <u>consenting/listed-projects/te-ara-tupua/application/</u>

⁹ Relying on its powers in clause 25 (1)(b) of Schedule 6.

¹⁰ There was a typographical error on page 213 of the AEE which referred to the 2015 Guidelines.

¹¹ Ecological report authored by Boffa Miskell and Coastal Processes report authored by NIWA.

- 38. Dr Bramley authored a memorandum to the Panel from The Ecology Company dated 18 January 2021 (Ecology Company Report) and a further report on conditions dated 1 February 2021 (2nd Ecology Company Report).
- 39. Mr Dahm authored a memorandum from Economos to the Panel dated 20 January 2021 (Economos Report).
- 40. All those reports have been considered by the Panel in preparing this Decision.

<u>Hearing</u>

41. The Panel did not conduct a hearing.

Assistance with Conditions

42. The Panel sought assistance with conditions from Mr Mark St Clair at Hill Young Cooper (**HYC**). The Panel comments on the work by HYC in Parts E and G of this Decision below.

PART D: MANA WHENUA

- 43. The Panel considers it is important to record at some length issues relevant to Mana Whenua. This is not required to resolve issues, but to explain that the Project is located within a coastal environment that is highly significant to Mana Whenua as explained in the detailed cultural history of the area in the cultural impact assessment (**CIA**) that formed part of the Application Documents. The CIA was carefully considered by the Panel.¹²
- 44. The Panel will draw on the following discussion further when it considers the Project against the Principles of the Treaty of Waitangi in Part F of this Decision.

Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui) of the Te Whanganui-a-Tara area

- 45. Taranaki Whānui are those people who descend from one or more of the recognised Tipuna of:
 - a) Te Ati Awa;
 - b) Taranaki;
 - c) Ngati Ruanui;
 - d) Ngati Tama;
 - e) Ngati Mutunga; and

¹² Contained in Technical Report 6: Cultural Impact Assessment – also refer to AEE Chapter 5: Description of existing environment.

- f) Other iwi from the Taranaki area.
- 46. The iwi that make up Taranaki Whānui migrated to the Wellington area in the 1820s through to the 1830s and have maintained permanent occupation since that period. The "rohe" (tribal area) of Taranaki Whānui is centred around Te Whanganui-a-Tara including the Harbour and its surrounding environs. The Project traverses areas with strong associations to the Te Ati Awa people where kainga and papakainga, mara kai and mahinga kai were established, albeit they have now been subsumed by urban development.

<u>Ngāti Toa Rangatira</u>

47. Ngāti Toa Rangatira (**Ngāti Toa**) descend from the Tainui waka which made landfall at Kawhia on the West Coast of the North Island in around 1350. Ngāti Toa remained domiciled there for centuries before migrating to Cook Strait in the early 1820s. Ngāti Toa's area of interest spans Cook Strait, the lower North Island from Rangitikei in the north (including Kapiti Coast, Hutt Valley and Wellington and Kapiti and Mana Islands), large areas of the Marlborough Sounds and much of the northern part of the South Island. The traditional interests and associations of Ngāti Toa include Te Whanganui– a-Tara, as has been formally acknowledged by the Crown in Treaty settlement legislation.

<u>Honiana Te Puni Reserve</u>

- 48. The Honiana Te Puni Reserve (**Reserve**) was vested in the Trustees of the Port Nicholson Block Settlement Trust (**PNBST**) by s60 of the Port Nicholson Block (Taranaki Whānui ki te Upoko o te Ika) Claim Settlement Act 2009. Whilst this area is now a designated local purpose reserve under the Reserves Act 1977 and is managed by the HCC, mana whenua retain a significant association with that area, including the environs of Pito-One Pa with its gardens and burial grounds.
- 49. It is noteworthy that the cultural impacts (including cultural benefits) of the Project will be largely concentrated at the Reserve. Whilst Taranaki Whānui do not utilise the Reserve currently for cultural or other purposes, and there are no indications it was occupied by historical cultural buildings, the Project provides an opportunity for enhancing mana whenua connections to the Reserve.¹³
- 50. The Panel notes that Waka Kotahi has not sought to designate the Reserve but has sought resource consents that are necessary for the Project.
- 51. The coastal marine area (CMA) holds significant cultural interest, as does the general wider environment throughout the Project.

¹³ See AEE Chapters 3 and 4 for a description of the Project works.

Mana Whenua Steering Group

- 52. Waka Kotahi's discussions with mana whenua commenced in 2012. A major milestone was the creation of the Mana Whenua Steering Group (**MWSG**) which, with the agreement of the PNBST, will represent the interests of mana whenua as partners of Waka Kotahi throughout the Project's concept development, consenting, detailed design and construction phases. The MWSG currently comprises three Taranaki Whānui representatives and two Waka Kotahi representatives. Ngāti Toa have a standing invitation to join the MWSG. Ngāti Toa have asked to be kept informed about the Project so they can provide feedback (including reviewing and endorsing the CIA and commenting on conditions). Ngāti Toa have indicated they will join the MWSG as the Project moves towards implementation.
- 53. The MWSG prepared and adopted a kaitiaki strategy and principles for the Project to guide its physical design. These developed into the Te Ara Tupua Kaitiaki Principles which were subsequently adopted by the CIA authors as a mechanism to identify both tangible and intangible cultural effects of the Project. Continued engagement by Waka Kotahi with mana whenua resulted in a clearer understanding of the cultural aspirations of the Project and desired environmental outcomes, with a view to both enhancing the traditional relationship of mana whenua with the area while also mitigating any adverse cultural effects.
- 54. On 13 July 2020 the MWSG undertook further pre-lodgement iwi engagement with a hui at Te Tatau o Te Po Marae where the following key themes and areas of importance were identified:
 - a) Inclusion of Ngāti Tawhirikura and Te Ati Awa identity and narratives within the Project's design;
 - b) Including controls for climate change and monitoring the environment in conditions;
 - c) Tikanga and kawa when naming the bridge, sports club building and Whare listed in the Application Documents;
 - d) Materials to be used and their life expectancy along the shared path and Reserve;
 - e) Physical maintenance of the shared pathway and Reserve and a need to ensure rubbish collection;
 - f) Effects of dredging associated with the construction of the shared pathway;
 - g) Appropriate rental to be paid by clubs using the Reserve;
 - h) Incorporation of more wahine elements into the Project design; and
 - i) Iwi members were eager to be involved in creating carvings and artwork for the

Project.

- 55. There was ultimately unanimous acceptance and support from those at the hui for the Project as presented by the MWSG. Following minor modifications to the CIA, Ngāti Toa provided an endorsement of the CIA and proposed conditions and was supportive of the key themes identified from the hui that will guide cultural input into the design and structure of the Project.
- 56. The Panel notes that kaitiaki strategy is important, as it was informed by the findings of the engagement sessions with mana whenua and resulted in a set of principles that were used to guide the development of the Project, create a foundation on which intangible impacts can start to be understood, and provide a mechanism for mana whenua interests to be provided for.
- 57. It is also noteworthy that the CIA was unanimously adopted, as it articulated the values that are important to mana whenua and the impact of the Project upon those values. The CIA addresses four key themes:
 - a) Partnership;
 - b) Environmental protection;
 - c) Cultural expression/visibility; and
 - d) Tikanga.
- 58. Tikanga, in particular, will be provided for moving forward through the development of a Mana Whenua Values Plan (**MWVP**) which is one of the conditions discussed in Part E and Part G of this Decision.
- 59. Waka Kotahi's partnership approach to consulting and engaging with mana whenua throughout the initial phase of the Project has, in the Panel's view, been a resounding success. Mana whenua have a holistic and deep relationship to all aspects of the environment (water, land and air) and in this case are particularly concerned to ensure that their traditional relationship with Te Whanganui–a–Tara is recognised and provided for through the design and implementation of the Project. The Panel takes comfort in knowing that while some adverse environmental and cultural effects on the Harbour are unavoidable, the Project has had a significant positive impact on mana whenua values as a result of the development of Te Ara Tupua Kaitiaki Principles and their adoption by Waka Kotahi as key tools to guide the Project's design and consenting process. Cultural design, narratives and whakapapa have been embodied throughout the design of the Project to lift and enhance the visibility of mana whenua and provide cultural expression throughout the area.
- 60. However, and importantly, the engagement has not stopped, and ongoing impacts will be managed through a conditions framework that provides for:

- a) The continuation of the MWSG;
- b) Defined protocols for input and review of the MWSG during the Project's detailed design process;
- c) Defined protocols for input and review from the MWSG during the development of environmental management and monitoring plans; and
- d) The development of **MWVP**.
- 61. Mana whenua matters are referred to again in the Panel's assessment of Waka Kotahi's obligations under s6 of the Act in Part F of this Decision.

PART E: EVALUATION OF EFFECTS

- 62. The Act establishes an alternative consenting regime for RMA resource consent applications and notices of requirements for both listed and referred projects. This Project is a listed project¹⁴ and the process for assessing the Applications relating to the Project is contained in Part 2 of Schedule 6 of the Act.¹⁵
- 63. The Act's purpose is set out in section 4:¹⁶

The purpose of this Act is to urgently promote employment to support New Zealand's recovery from the economic and social impacts of Covid-19 and to support the certainty of ongoing investment across New Zealand, while continuing to promote the sustainable management of natural and physical resources.

- 64. Section 19 of the Act provides a series of criteria to determine whether a project meets the purpose of the Act. However, as commented on the Matawii Decision, this Panel has assumed that those criteria were considered by the Minister when deciding whether the Project would be listed in Schedule 2 and, because it was listed, those criteria have been met. Waka Kotahi has commented on the Act's section 19 criteria¹⁷ and the Panel has nevertheless considered those comments.
- 65. The relationship between the Act and the RMA is set out in section 12 of the Act.
- 66. While assessment of the Project under the Act reflects that required under the RMA; in that there must be an assessment of effects, and consideration of a project against relevant national, regional and district planning documents; there are critical differences in how the results of those assessments can be applied.
- 67. At the simplest level, the Panel <u>may</u> only decline this Project "with or without conditions", if it is "inconsistent with" either a National Policy Statement (**NPS**), including the NZCPS,

¹⁴ See Schedule 2 of the Act.

¹⁵ Clauses 29 and 33 of Schedule 6.

¹⁶ Section 4.

¹⁷ Chapter 26 of the AEE: Statutory Assessment at pp 316 - 319.

or section 6 of the Act which requires that the Panel must perform its functions and exercise its powers in a manner that is consistent with the principles of the Principles of the Treaty of Waitangi and Treaty settlements.

- 68. Even then, any inconsistency does not require the Panel to decline the Applications. The use of the word "may" in clause 34(1) of Schedule 6 provides the Panel with the discretionary power to still approve them.
- 69. The matters the Panel shall have regard to when assessing applications for resource consent or notices of requirement for listed projects are set out at Clauses 29 and 33 of Schedule 6 respectively. Those clauses contain all the matters one would expect for an assessment carried out under the RMA:- indeed the assessment is subject to Part 2 of the RMA. These clauses also refer specifically to NPS's and to the principles of the Treaty of Waitangi and Treaty settlements.
- 70. However, (apart from inconsistency with NPS's and the principles of the Treaty of Waitangi and Treaty settlements) any adverse outcomes arising from the Panel's assessment of these matters can only inform the Panel about what conditions should be imposed.
- 71. The Panel also notes the additional matters for consideration for the notices of requirement (**NOR**) i.e. whether there has been adequate consideration of alternative sites routes or methods; and whether the work and designations are reasonably necessary for Waka Kotahi to achieve its objectives as a requiring authority which as above, have been satisfactorily addressed by Waka Kotahi.¹⁸
- 72. The Panel therefore starts its assessment of the Applications with an assessment of the actual and potential effects of the Project.¹⁹ In so doing it will consider the comments received and the conditions proposed by Waka Kotahi.
- 73. The Panel also makes the further observations.
- 74. In this case, there are a significant number of national, regional and district plans²⁰ that are relevant as follows:
 - a) National Policy Statements in this case the National Policy Statement for Freshwater Management 2020 (NPSFM); the National Policy Statement on Urban Development 2020 (NPSUD); and the NZCPS;
 - b) National Environmental Standards (**NES**) the NESCS; and the Resource Management (National Environmental Standards for Air Quality) Regulations 2004;
 - c) Plans Regional Coastal Plan for the Wellington Region; Regional Freshwater Plan;

¹⁸ Clauses 33(2)(b) and (c) of Schedule 6 respectively.

¹⁹ Clause 29(1) and 33(2) of Schedule 6

²⁰ Clauses 29(2) and 33(3) of Schedule 6

Regional Plan for Discharges to Land; Proposed Natural Resources Plan; Wellington City District Plan; and City of Lower Hutt District Plan.

- 75. There has been a fulsome assessment of the provisions of those documents by Waka Kotahi.²¹ As one would expect, there is considerable overlap and intersection between the relevant provisions. Waka Kotahi also provided a table of other matters it considers relevant to our assessment of this Project at Table 26–2 of the AEE.²²
- 76. The Panel accepts that assessment as robust and unless expressly stated otherwise, adopts it.

Assessment of Effects

77. The Panel's assessment uses the headings used by Waka Kotahi in Part G of the AEE.²³ The Panel has also borne in mind Waka Kotahi's approach to the management of environmental effects outlined in Part H of the AEE and, as necessary, has commented on relevant conditions. The Panel has separately commented on the workability and appropriateness of the condition framework in Part G of this Decision.

<u>Traffic</u>

- 78. A significant amount of work has been undertaken by Waka Kotahi on traffic and transport effects. Three technical reports were commissioned and a separate Chapter in two parts was been included within the AEE.²⁴
- 79. Consequently, the Panel proposes to deal with this matter only briefly. This is not because traffic and transportation effects are unimportant, but rather because the Panel agrees with Waka Kotahi's assessment that:

The Project will deliver significant positive transport effects primarily related to:

- Significantly improved accessibility and connections for walkers and cyclists seeking to travel between Wellington and the Hutt Valley;
- Improvements to safety as cyclists (and pedestrians) will no longer be required to utilise the SH 2 shoulder; and
- A slight reduction in congestion in SH 2 due to mode shift.²⁵
- 80. The Panel also acknowledges and takes confidence from the fact that these conclusions are shared by the parties with a transportation interest who commented on the proposal in response to the request from the Panel.

²¹ See Chapter 26 of the AEE: Statutory Assessment and to a lesser extent the separate document: Analysis of Legal Framework

²² See AEE Chapter 26: Statutory Assessment at pp 349 - 353.

²³ The Panel expressly records that Chapter G is a summary only of the relevant Technical Reports produced by Waka Kotahi in support of the Project. Where necessary the Technical Reports are referred to as well.

²⁴ See Technical Report 1: Strategic Transport Assessment; Technical Report 2: Shared Path Demand Assessment and Design Review; and Technical Report 3: Integrated Transportation Assessment.

²⁵ See AEE page 152.

- 81. These positive effects are balanced against temporary adverse effects from construction and the like. However, the Panel considers such effects can be properly avoided, remedied or mitigated through adequate construction management plans which are addressed in the conditions.
- 82. The key conditions are GC.1 CT.2, CT 4 and CC2.

<u>Resilience</u>

- 83. The Panel considered this issue in terms of the ability of the Project to improve the resilience of the existing Nga Uranga to Pito-One transport corridor, as well as resilience of the structures created by the Project itself.
- 84. These issues have been considered both in a technical report and a separate Chapter of the AEE.²⁶
- 85. The Panel agrees with and adopts the resilience assessment prepared by Waka Kotahi. It realistically recognised that the existing transport corridor is highly vulnerable to adverse effects from a variety of natural hazards and operational or maintenance disruption events. There is no question in the Panel's mind that the new coastal structures to be built as part of the Project will enhance the resilience of that transport corridor and its operation, particularly by enabling and facilitating a mode shift for corridor users to alternative transport modes such as cycling and walking in the normal course of events, and the provision of an alternative access route in the event of a significant disruption to the existing transport corridor.
- 86. There are no particular conditions relevant to this issue.

Economics

- 87. The economic benefits of the Project are detailed in Waka Kotahi's Technical Report 1: Strategic Transport Assessment.
- 88. The issue of economics is closely related to the core purpose of the Act: ...to urgently promote employment and support New Zealand's recovery from the economic and social impacts of Covid-19...²⁷
- 89. Waka Kotahi estimates that during construction there will be direct and indirect employment benefits resulting in approximately 125 direct jobs and approximately 300 indirect jobs. Waka Kotahi estimates the Project is anticipated to generate net economic benefits of approximately \$190,000,000.²⁸
- 90. Whilst the Panel accepts these are approximate figures only, the Panel accepts that there

²⁶ See Technical Report 4: Natural Hazards and Resilience and AEE Chapter 2: Development of the Project.

²⁷ See section 4 of the Act.

²⁸ See AEE page 173.

is more likely to be a net positive economic effect than either a neutral or negative economic effect.

91. There are no particular conditions relevant to this issue.

Recreation and Health

- 92. Unsurprisingly, Waka Kotahi have provided extensive information on the recreational and health benefits of the Project.²⁹
- 93. Given the wealth of information provided by Waka Kotahi, the Panel considers it to be relatively self-evident that the benefits from the Project claimed by Waka Kotahi are realistic.
- 94. Parties have commented on the need to observe safety protocols to separate cyclists and pedestrians, and for various measures to assist users of the pathway with shading, repair areas and such like. The Panel endorses such comments as being sensible and practical.
- 95. The key conditions are HP.2 and HP.4

<u>Social</u>

- 96. The Panel was interested in Waka Kotahi's approach to this issue given that it focused on the potential social effects related to the construction and operation of the Project. Waka Kotahi carefully balanced those potential adverse effects against the significant recreation and health benefits discussed above.
- 97. Waka Kotahi's assessment of social effects was guided by the International Association of Impact (IAIA) Guidelines and the Waka Kotahi Social Impact Guide 2016, which was developed within the IAIA Guidelines.
- 98. Waka Kotahi considered four key areas:
 - a) People's way of life;
 - b) Their community;
 - c) Their quality of the living environment and amenity; and
 - d) Health and wellbeing
- 99. After understanding those issues, Waka Kotahi then discussed measures to manage potential adverse social effects.

²⁹ See Technical Report 5: Recreation Review: Effects Assessment and Future Recreation Values and AEE Chapter 3: Description of Project.

- 100. Waka Kotahi ultimately concluded that social effects during construction were best managed through ongoing and regular communication with communities and stakeholders as well as by managing physical effects such as traffic and noise. Importantly, Waka Kotahi's proposed conditions framework includes both a communications plan and a construction management plan.
- 101. The Panel acknowledges the strong link between these issues and the Project's design elements that address intangible cultural values discussed in the Project CIA and elsewhere in this Decision.
- 102. Once again, the Panel considers this matter has been responsibly addressed by Waka Kotahi.
- 103. The relevant conditions aim to ensure ongoing and timely communication with communities and stakeholders through:
 - a) A Project Liaison Group to provide a forum to share information and receive feedback;
 - b) A Project Liaison Person as a single point of contact for residents;
 - c) The preparation of a Communications Plan setting out how the public and stakeholders will be communicated with during construction; and
 - d) The formalisation of a complaints and response process (and monitoring thereof).
- 104. Adherence to controls such as noise and vibration management strategies, environmental controls and traffic management (which will all be detailed in appropriate management plans) is ensured through condition GA14.

Landscape, Natural Character and Visual

- 105. The Project is located largely in the CMA and the coastal environment and the Panel accepts that it is a dynamic and heavily modified environment. The Panel accepts that there are positive and negative effects of the Project on natural character and landscape. On one hand, the Project will increase the visual dominance of a transport corridor, but on the other, it will at the same time reverse some of the even more adverse (particularly visual) effects of past development. In addition, there will be temporary adverse effects on natural character and landscape during construction.
- 106. Waka Kotahi commissioned a technical report providing an assessment of landscape, natural character and visual effects.³⁰ As well, Waka Kotahi provided a suite of photos and montages from which the Panel considers it can obtain a realistic visualisation of the Project once construction is completed.

³⁰ See Technical Report 8: Landscape, Visual and Natural Character Effects Assessment.

- 107. Chapter 3 of the AEE³¹ describes the three sectors of the Project and Technical Report 8 undertakes an assessment of each sector. There is substantive overlap between the assessments and Waka Kotahi has concluded that:
 - a) In Sectors 1 and 2 (Nga Uranga Interchange to Honiana Te Puni Reserve), there will be temporary adverse effects associated with construction, but that ultimately the landscape, visual and natural character effects will be significantly positive; and
 - b) In Sector 3 (Honiana Te Puni Reserve to P2M connection i.e the existing part of Te Ara Tupua), the temporary adverse effects will be very low or moderate, but positive effects will continue well past construction as a result of improved connections and access to the coastal environment, resurfacing of the Korokoro Stream Bridge and landscape planning. The Project also provides for the construction of a Whare, permanent relocation of the Tawharau Pods and cultural sculptures.
- 108. The Panel agrees with this assessment.
- 109. The relevant conditions are contained in GC.1 which require Waka Kotahi to deliver tailored features for each sector. The conditions aim to ensure matters such as providing a naturalised coastal edge, actively avoiding existing natural features as far as practicable, highlighting and marking sites of significance to mana whenua and enhancing the legibility of the coastal landscape through varied scaled ūranga, are all delivered. This includes new buildings, new structures and surfaces, and a high quality of landscaping and signage treatment.

Water and Air Quality

- 110. Waka Kotahi considers that with the measures proposed during construction, the effects of the Project on water and air quality will be minor and that with best practice construction management required by a construction management plan, dust and odour effects will be negligible.
- 111. The water quality conditions are spread throughout the conditions and require specific procedures and construction methods to be implemented to manage potential adverse effects arising from all works in the CMA. These will be set out in a Coastal Works CEMP and ESCP. The ESCP will be required to include methods and practices to be implemented on site to minimise and mitigate the effects of erosion, sediment generation, and sediment yield on Te Whanganui-a-Tara and any freshwater habitats in vicinity of the works.
- 112. Air quality is subject to conditions in CC.2(e), CC.3, CL.2(f)(iv). During construction, best practice construction management will be employed to control dust effects at nearby receptors, especially those located within 50m of project works areas and users of the

³¹ Chapter 3: Description of the Project.

road and rail corridor. The CEMP will include routine dust and odour monitoring.

- 113. Interestingly, one of the significant positive effects of the Project is that by moving cyclists further away from SH2, there will be an ongoing positive effect of reduced contact with vehicle emissions for users of the shared pathway.
- 114. While the Panel accepts Waka Kotahi's water and air quality effects assessments, it is mindful that, particularly in relation to water quality, the level of effects will be dependent on robust CEMP and ESCP documents and ongoing monitoring. This has been a focus for the Panel in assessing and refining the conditions proposed by Waka Kotahi.

Noise and Vibration & Contaminated Land

- 115. The Panel addresses these two issues together.
- 116. Waka Kotahi commissioned an assessment of noise and vibration effects.³² The Panel agrees with the conclusions of the technical reporting that:
 - a) The Project will not result in any significant noise or vibration effects; and
 - b) Whilst eight potentially contaminated sites have been identified within and adjoining the Project area, the proposed contaminated land management plan will ensure that any effects of working in or near such sites during construction will be less than minor.
- 117. The noise/vibration conditions in CNV.1 CNV.5. require the construction noise and vibration effects to be managed through a CNVMP, prepared by the constructing contractor, prior to works commencing. The CNVMP will be required to meet the requirements prescribed in NZS 6803.
- 118. In addition, a Construction Noise and Vibration Schedule addressing the matters set out in Technical Report 12 will be required where noise and vibration criteria limits are predicted to be exceeded for a sustained period or by a large margin.
- 119. The contaminated land conditions are CL.1 and CL.2 which require the Contaminated Land Management Plan to contain procedures for works in areas known to be contaminated. In addition, the CEMP will detail procedures for the refuelling and maintenance of plant and equipment to avoid discharges of fuels or lubricants to watercourses or the CMA, measures to manage the storage of hazardous materials and contingency procedures to manage accidental spills during construction.

³² See Technical Report 12: Noise and Vibration.

<u>Historic Heritage</u>

- 120. Waka Kotahi commissioned a historic heritage assessment technical report³³ as well as separately identifying sites that may be of Maori origin and significant to Maori for their spiritual and traditional values as part of the CIA.³⁴
- 121. Whilst that assessment determined that the Project is unlikely to adversely affect heritage sites, Waka Kotahi has responsibly promoted an accidental discovery protocol for implementation during construction. As well, an archaeological authority will be sought for the Project from Heritage New Zealand Pouhere Taonga.
- 122. The relevant conditions are AH.1 and AH.2

Coastal Processes

- 123. As noted previously, the Project is situated in the coastal environment, albeit in an environment that has been extensively modified, particularly by the construction of SH2 and the railway. Notwithstanding the significant work to be undertaken in the CMA; including the revetment, sea walls, groynes and offshore habitats; Waka Kotahi claim there will only be minor changes to the coastal physical processes in and around the Project area. As well, the structures have been designed to be resilient to sea level rise, including for example that the revetment can be upgraded as necessary in the future. Some design features from the Project (groynes and placing of rocks at the base of sea walls) will assist in retaining remnant beaches which are currently vulnerable to the effects of sea level rise. Waka Kotahi consider that if the package of design proposals is implemented, the adverse effects from the construction and operation of the Project on coastal and physical processes will be negligible to minor.
- 124. This assessment is endorsed in the Economos Report which also concluded that:

The Project in fact contains some quite useful and innovative initiatives in this respect.³⁵

- 125. The Economos Report also agreed that the proposed conditions are reasonable and appropriate.
- 126. The Economos Report does however sound a note of caution regarding cumulative effects of the Project. Mr Dahm considered that in future other activity should be considered including:
 - a) Enhancement and restoration of existing remnant coastal margin ecosystems;
 - b) Restoration and recovery of lost coastal margin ecosystems where reasonably practicable; and

³³ See Technical Report 13: Historic Heritage Assessment.

³⁴ See Technical Report 6: Cultural Impact Assessment.

³⁵ Economos Report Page 1

- c) Ecosystem creation.
- 127. The Panel acknowledges the suggestions from Mr Dahm but proceeds on the basis that any effects from the Project on coastal processes will be less than minor.
- 128. The relevant conditions are GC.1 and CA.1, CA.8, CA.9.2 and EM.24A which cover a variety of matters including: construction techniques; types of materials; and the location of structures associated with works in the CMA. In addition, the Panel notes that:
 - a) The Coastal Works CEMP will detail the salvage and placement of shingle beach material during construction; and
 - b) A pre-construction survey will be undertaken for all remnant beach areas as part of the Coastal Works CEMP.

Marine Ecology

- 129. The Project's potential effects on marine ecology are of critical importance to the Panel's assessment.
- 130. The Waka Kotahi information on this issue was included in the Application Documents:
 - a) Technical Report 9: Ecological Assessment (Ecological Assessment);
 - b) The AEE Part G, at Chapter 17 Ecology;
 - c) Addendum to Ecological Assessment dated 18 December 2020 (Ecological Addendum);³⁶ and
 - d) Variously throughout the Application Documents in Waka Kotahi's consideration of the matters in Clauses 29 and 33 of Schedule 6.
- 131. Three of the parties invited to comment had a strong interest in this issue: Forest and Bird (**F&B**); the Director-General of Conservation (**DGC**); and Greater Wellington Regional Council (**GWRC**).³⁷ The Panel appreciates their comments which have been considered together with Waka Kotahi's response.
- 132. Dr Bramley has also reviewed that information and provided his Ecology Company Report to the Panel.
- 133. All of this information has been considered by the Panel.
- 134. One issue that immediately arose for the Panel was trying to rationalise the information

³⁶ Received in response to comments from parties.

 $^{^{37}}$ The Panel was required to seek to invite comment from F&B and DGC pursuant to clause 17(4)(i)(j) of Schedule 6 to the Act.

provided by Waka Kotahi and the other parties to ensure that the same data was being compared. By way of example, when looking at the loss of a habitat (shingle beaches) percentages of loss were provided for the environment comprising the Project footprint as well as for the Wellington Harbour and even the "South Coast". As well, percentages of loss and/or concerns were discussed for the just the area above MHWS, as well as the intertidal areas.

- 135. Then, on top of this, the comparisons of areas lost as percentages were based on mapping of the marine environment of the Wellington Harbour that is only 33% complete.³⁸
- 136. There was also some implied criticism of Waka Kotahi about the level of consultation once the Project shifted from the RMA process to the Act's process, and some suggestion that Waka Kotahi's sampling methods were inadequate when they had apparently been agreed previously.
- 137. It therefore became difficult for the Panel to discern what conclusions could be relied on.
- 138. The Panel intends no criticism of any party in making these observations. The information has all been incredibly insightful and helpful. The Panel simply records that receipt of concentrated data provided in this manner has provided logistical challenges.
- 139. The Panel was therefore also very interested in the analysis of the information provided by Dr Bramley and based on all this information we set out our findings below.
- 140. As above, the assessment by Waka Kotahi was undertaken using the EIANZ Guidelines. The Panel was not familiar with the use of the EIANZ Guidelines but Dr Bramley has confirmed that they are an appropriate method for assessment in this case. Furthermore, Dr Bramley confirmed that the assessment by Waka Kotahi was conducted in an objectively reasonable way and the assessment conclusions are reasonable based on the methodology employed, which in turn is consistent with best practice given the constraints involved. Therefore, the Panel considers the ecological assessment by Waka Kotahi (including the Ecological Addendum produced in response to comments from other parties) as an appropriate starting point for the assessment of effects on marine ecology.
- 141. Secondly, Dr Bramley considers that the appropriate "environment" to consider is the Wellington Harbour.
- 142. Waka Kotahi assessed the effects of the Project using both the Project footprint³⁹ and the Wellington Harbour. Both the DGC and GWRC indicated that they are of the opinion that the level of effects with respect to marine habitats should be at the Wellington

³⁸ See Waka Kotahi Ecological Addendum, page 9, footnote 6.

³⁹ For example, the passage about adverse effects in the Executive Summary above was at the Project footprint scale.

Harbour scale. F&B has however assessed the marine ecology effects at the Project footprint scale.

143. However, Dr Bramley considers undertaking the assessment at the Project footprint scale:40

Is the most reductionist approach and would almost certainly result in all or almost all effects being regarded as either high or very high i.e. requiring offset and compensation with a goal of a net gain in biodiversity as the appropriate management response for every species and habitat. When one considers the descriptors for the EIANZ framework ... it is clear that the focus of the framework is effects at the population (or natural range) level, which suggests that adopting an overly reductionist approach is unhelpful, except in those cases where the local (project scale) population is a significant portion of the regional or national population (or extent in the case of habitats). That is not the case with respect to the species and habitats affected by the Te Ara Tupua.

- 144. The EIANZ Guidelines state that low and very low level of effects "should not normally be of concern, although normal design, construction and operational care should be exercised to minimise adverse effects".⁴¹ In other words, for very low or low effects specific offsets are not considered necessary. The EIANZ Guidelines recommend that projects with moderate or high levels of effect require careful management of those effects, including consideration of offsetting with the goal of no net loss, and projects with a very high level of effects should be avoided, and where they cannot be avoided a net biodiversity gain via offsetting or compensation is considered an appropriate outcome.
- 145. The level of effects on marine ecology (excluding marine habitats) for the Project range from low to very low at the Wellington Harbour scale. On that basis, offsetting and compensation are not required under the EIANZ Guidelines.⁴²
- 146. In terms of marine habitat, the focus is on the shingle beaches. They are important both because they provide a habitat for variable oystercatchers and because they are a threatened habitat in their own right.⁴³
- 147. Within the Project footprint, two of the eight shingle beaches will be lost. Therefore, the loss of feeding habitat for the variable oyster catcher is most noticeable at the Project footprint scale (not the Wellington Harbour scale).
- 148. On the Wellington Harbour scale, this loss would result in a (small about 0.06ha above MHWS) permanent reduction in the total amount of shingle beach habitat.
- 149. A maximum of six of the 728 birds recorded regionally were recorded as using the shingle beaches within the Project footprint during the surveys undertaken for the

⁴⁰ The Ecology Company Report at pp5 and 6

⁴¹ See EIANZ Guidelines at page 84.

⁴² Waka Kotahi has nevertheless provided a comprehensive offset/compensation/mitigation package

⁴³ This is the habitat above MHWS.

Project. Those birds were only recorded at the beaches that are to remain. The Waka Kotahi Ecological Addendum concluded that the shingle beach habitats that are to remain are the areas of highest value for oyster catchers, including confirmed nesting habitat. There were no records of the birds foraging at the two areas of shingle beach that will be lost. The Waka Kotahi Ecological Addendum concluded that those areas only provided very limited foraging opportunities for those birds.

- 150. Nevertheless, in the Ecological Addendum, in response to comments, Waka Kotahi offered to provide additional habitat in the form of coastal blocks with rock pools. These will be designed (and enforced by way of condition) to replace a portion of the potential feeding habitat for oyster catchers removed by the Project with a potentially better habitat.
- 151. Dr Bramley consequently considered that the suggestion that the effects on oyster catchers from the Project will be low is most likely correct.
- 152. Dr Bramley also concluded that after considering the proposed mitigation, offset and compensation as proposed in the Ecological Addendum, the adverse effects on marine habitat from the loss of two shingle beaches will also be low at the scale of Wellington Harbour. Whilst the Panel accepts that at the level of the Project footprint the loss of marine habitats (particularly shingle beaches) is significant, making decisions based on that conservative assessment would be inconsistent with the EIANZ framework.
- 153. The next topic for consideration is whether the offset and compensation matters proposed are appropriate.
- 154. The Ecological Addendum set out an amended offsetting and compensation package as follows:
 - a) Creating living sea walls (60m²);
 - b) Dune vegetation and enhancement at Pito-One Beach (0.8ha);
 - c) Tidal pools and coastal blocks, to be incorporated within the new revetment (1,216m²);
 - d) Deploying mussel beds (6ha);44
 - e) Marine pest management, to keep the new coastal structures free of marine pests for the 35 year duration of the consent; and
 - f) Extra replenishment of the shingle beaches that are along the alignment but

⁴⁴ The Ecological Addendum changed the offsetting and compensation package by deleting the stormwater proposal and replacing it with this particular measure. However, SW mitigation will be reinstated in the event that the mussel beds fail.

outside the Project footprint to be carried out during the construction period in accordance with a beach nourishment plan.

- 155. The Ecological Addendum also proposed a mammalian predator control programme. If that is to form part of the offsetting and compensation package it could benefit all the coastal sea birds using the area, particularly for breeding.
- 156. Of the above (a), (c) and (f) meet the requirement of like for like offsets. Dr Bramley noted if pest control was implemented it would also represent offsetting. Items (b) and (d) are more correctly regarded as compensation.
- 157. In Dr Bramley's opinion (e) represents good management practice and should not be considered offset or compensation, but rather a form of mitigation.
- 158. Waka Kotahi say that the offset and compensation package will produce a net gain of marine habitat of 27%. Whilst this is arguable given that 6ha of mussel bed and the offshore roosting habitats will be replacing another type of soft sediment marine habitat, there is still considerable uncertainty about the ability to create mussel beds. Indeed, Waka Kotahi have proposed stormwater treatment from an 11ha catchment as a "back up" compensation proposal if the mussel beds cannot be deployed. Accordingly, we agree with Dr Bramley that the claim of a 27% net gain is spurious because it relies on an untested assumption relating to mussel beds.
- 159. Notwithstanding the above, Dr Bramley concluded that:
 - a) The Project will have low or very low adverse effects on species and habitats affected at the Wellington Harbour scale;
 - b) At this level the EIANZ Guidelines do not require offsetting as a management response;
 - c) Waka Kotahi have nevertheless proposed an offset and compensation package;
 - d) While the outcome for biodiversity is unknown, at the Wellington Harbour scale, this package is likely to result in a very minor loss of marine biodiversity depending on the success of the mussel beds (if they are successful the effect will be neutral); and
 - e) There could be some further refinement of the conditions, especially around methods and frequency of monitoring, and the specifics of intended outcomes. The use of ecological management plans could assist as well.
- 160. Dr Bramley made suggestions as to further appropriate conditions to ensure the effects on marine ecology are kept within the bounds of his assessment. The Panel considers it can reasonably rely on Dr Bramley's conclusions and finds accordingly. The Panel adopted his suggested additional conditions in its revised package of conditions sent to Waka Kotahi and the parties for comment.

- 161. The consequence of these findings about the effects on marine ecology will be discussed again as part of the Panel's discussion of Policies 10 and 11 of the NZCPS and section 6 of the Act in Part F of this Decision.
- 162. In the 2nd Ecology Company Report, Dr Bramley reviewed comments on conditions provided by the parties. That report has been relied on by the Panel.
- 163. The relevant conditions are spread throughout the conditions package and involves a suite of management plans including a Coastal Works Construction Management Plan) that are to be prepared and implemented by Waka Kotahi.

Summary of Effects

- 164. There are obvious benefits from the Project including:
 - a) Increased numbers of commuter cyclists using the corridor;
 - b) Lower accident rates for cyclists along the corridor;
 - c) Increased numbers of pedestrians, runners and recreational/tourism-related cyclists using the corridor;
 - d) Resilience for the transport corridor;
 - e) Maintaining or improving journey times for commuting cyclists; and
 - f) Providing a transport corridor that offers resilience against natural events.
- 165. The Project is estimated to provide approximately 125 direct jobs and 300 indirect jobs.
- 166. The Panel notes that these outcomes also support the Government Policy Statement on Land Transport 2018/19 - 2027/28 and its strategic priorities of safety, access, environmental benefits, and value for money. The Panel also notes that the project fits within the Wellington Regional Land Transport Plan 2015 setting out the strategic direction for land transport in the Wellington region over the next 10 - 30 years where in the Project is identified as a "priority one" project.
- 167. Against those benefits, there are adverse effects arising from habitat loss in the CMA as identified above.

PART F: NATIONAL POLICY CONSIDERATIONS

- 168. In the light of the above assessment, the Panel now considers whether the Project, with or without conditions, would be inconsistent with any NPS, particularly the NZCPS, or the principles of the Treaty of Waitangi or Treaty Settlements.
- 169. There is a preliminary legal issue to address.

Preliminary Legal Issue

- 170. Given the potential effects on marine ecology as discussed above and given also that the Panel may decline the Applications if they are "inconsistent with" a NPS or section 6 of the Act with or without conditions, the Panel has considered carefully how the phrase "inconsistent with" should be interpreted and applied.⁴⁵ The following discussion focusses on the Panel's assessment of the NZCPS.
- 171. The Panel has considered the following issues:
 - a) What do the words "inconsistent with" mean, as used in Clause 34(1)(a) of Schedule 6;
 - b) Does an application have to be "inconsistent with" the NZCPS as a whole, or just with a particular provision;
 - c) How the obligation to "avoid" (in Policy 11 of the NZCPS) is to be considered and applied if compensation and/or offsetting and/or mitigation of effects is proposed.

The phrase "inconsistent with"

- 172. The phrase "inconsistent with" is not defined in the publications: Words and Phrases Legally Defined or the New Zealand Law Dictionary.
- 173. The word "inconsistent" is defined in the New Shorter Oxford English Dictionary including as follows:

Not in keeping, discordant, at variance.

174. The New Zealand Oxford Dictionary includes the following definition:

Not in keeping with; discordant, incompatible with.

175. The phrase "inconsistent with" has been the subject of judicial comment both by the Court of Appeal⁴⁶ and the Environment Court. The Panel notes that in the *Canterbury Regional Councilv Waimakariri District Council* & *Pegasus* case⁴⁷, the Environment Court stated at paragraph [79] that the:

... expression "inconsistent" should be read as meaning "not in keeping; discordant; or incompatible".

176. Waka Kotahi in their Analysis of Legal Framework document considered that the phrase

⁴⁵ The Panel sought independent legal advice on this issue from Brookfields.

⁴⁶ New Zealand Meat Processors v Alliance Freezing Co (Southland) Ltd [1991] NZLR 143

^{47 (2002) 8} ELRNZ 53.

"inconsistent with":48

Indicates that the Panel may only decline approval for a listed project if granting it *would not align to a relatively high degree* with national policy statements or with the obligations in s6 on the Panel to act in a manner that is consistent with the principles of the Treaty of Waitangi and Treaty settlements.

- 177. Neither the Panel, nor Brookfields, have been able to identify any case authority endorsing an approach which attributes a meaning of inconsistent with as "would not align to a relatively high degree" as postulated by Waka Kotahi.
- 178. The Panel has proceeded on the basis of the meaning given by the Court of Appeal and Environment Court essentially adopting the dictionary definition as "not in keeping; discordant; or incompatible". In adopting this position, the Panel is aware of the statutory obligation under section 5 of the Interpretation Act 1999 that the Act must be read in the light of its purpose.

Is an overall approach required?

- 179. The next question is whether the Act requires an "overall" approach to the NZCPS. In other words, whether the Project can be "inconsistent with" the NZCPS if it is inconsistent with only one or two NZCPS Policies. The Panel considers that it can. The Supreme Court decision in *King Salmon* found that the overall approach taken to the NZCPS by decision makers prior to its decision was not correct. Rather, due to the directive wording of Policies 13(a) and 15(a) (the relevant NZCPS Policies in that case) those Policies had to be given effect to in their terms.
- 180. Accordingly, the Panel proceeds on the basis that the Applications can be declined if they are inconsistent with a directive policy in the NZCPS, such as Policy 11, which imposes a prescriptive requirement to avoid adverse effects. The Panel considers that approach to be consistent with the *King Salmon* decision.
- 181. In a consenting context, the Panel considers this approach is supported by the Court of Appeal in the subsequent decision *RJ Davidson Family Trust v Marlborough District Council*⁴⁹ which (in summary) held that resort to Part 2 of the RMA could not occur in order to subvert a clearly relevant restriction in one of the policies in the NZCPS as that approach would be contrary to the decision in *King Salmon*.
- 182. This approach has also been adopted by the Environment Court in the context of section 104D(1)(b) of the RMA. For example, in the Akaroa Civic Trust v Christchurch City Council case ⁵⁰ the Environment Court said:

Conversely, a proposal may be consistent with and achieve all bar one of the relevant objectives and policies in a district plan. But if it is contrary to a policy which is, when the

⁴⁸ At paragraph 52.

^{49 (2018) 20} ELRNZ 367, at [71].

⁵⁰ [2010] NZE MVC 110 at paragraph 74.

plan is read as a whole, very important and central to the proposal before the consent authority, it may be open to the consent authority to find the proposal is contrary to the objectives and policies under s104D.

- 183. The Panel notes that the High Court has also found that a proposal that was contrary to a single objective in a district plan was sufficient for the proposal to have failed section 104D(1)(b).⁵¹
- 184. Policies 10 and 11 of the NZCPS are directly relevant for consideration by the Panel in this case. Accordingly, the Panel proceeded on the basis that if the Applications are inconsistent with either of those Policies, applying the tests set out above, then power to decline the Applications arises.

Approach to mitigation/offset and/or compensation

- 185. The next question is how to interpret and apply Policies 10 and 11 of the NZCPS, in the light of the compensation, offsets and/or mitigation offered.
- 186. This issue was squarely addressed by the High Court in *Royal Forest and Bird Protection* Society of New Zealand Inc v Buller District Council.⁵² That decision stated that:
 - a) Compensation and offsets are different things;
 - b) Mitigation is different again, because unlike offsets or compensation, only mitigation occurs at the point of impact; and
 - c) Offsets or compensation can be seen as a positive new effect to be taken into account.
- 187. The Panel acknowledges and adopts these three High Court findings.

Other cases

- 188. Finally, the Panel has reviewed whether any previous cases have interpreted and implied both Policies 10 and 11 of the NZCPS.
- 189. The Panel cannot find any cases dealing directly with Policy 10 of the NZCPS. The Panel has reviewed three cases dealing with Policy 11.⁵³ In all those cases the Court adopted a precautionary approach to the application of Policy 11. In two of those cases consent was declined. Of course, the facts of those cases were quite different, but the Panel acknowledges and follows the general approach outlined in them, particularly adopting a cautionary approach.

⁵¹ Queenstown Central Ltd v Queenstown Lakes District Council [2013] NZRMA 239 at [126] - [127].

⁵² [2013] NZHC 1346, [2013] NZRMA 293.

⁵³ *RJ Davidson Family Trust* v *Marlborough District Council* [2018] NZCA 316; *A Pierau* v *Auckland Council* [2017] NZMVC 090; and *A Burgoyne/Te Taumata o Taumata Ngāti Kuir Research Trust* v *Northland Regional Council* [2019] NZE MVC 028.

190. Turning to the Act itself, the Panel notes its purpose is set out in section 4 as follows:

The purpose of this Act is to urgently promote employment to support New Zealand's recovery from the economic and social impacts of Covid-19 and to support the certainty of ongoing investment across New Zealand, while continuing to promote the sustainable management of natural and physical resources.

191. While the meaning of sustainable management is not set out in the Act, it is of course set out in section 5(2) of the RMA as:

Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural wellbeing and for their health and safety while-

- (a) Sustaining the potential of natural and physical resources (excluding minerals), to meet the reasonably foreseeable needs of future generations; and
- (b) Safeguarding the life-supporting capacity of air, water, soil and
- (c) eco systems; and
- (d) Avoiding, remedying or mitigating any adverse effects of activities on the environment.
- 192. For the purposes of this decision the Panel adopts that RMA definition.

National Policy Statements/Treaty of Waitangi and Treaty Settlements

193. The Panel now considers the relevant NPS's and s6 of the Act.

National Policy Statement for Urban Development 2020 and the National Policy Statement for Freshwater Management 2020

- 194. These are very new NPS's. The NPSUD came into effect on 20 August 2020 and the NPSFM came into effect of 3 September 2020.
- 195. The NPSUD broadly requires planned growth resulting in a well-functioning urban environment that will enable all people and communities to provide for their social, economic and cultural wellbeing and for their health and safety now and into the future.⁵⁴
- 196. The NPSUD seeks to achieve this through local authorities and infrastructure providers in particular (like Waka Kotahi) working in a collaborative planning manner⁵⁵ and that specific attention is paid to the Treaty of Waitangi.⁵⁶
- 197. Objective 8 of the NPSUD also directs that New Zealand's urban environments should be resilient to the effects of climate change.

⁵⁴ See MPSUD Objective 1.

⁵⁵ See Policy 1 and Policy 10 MPSUD.

⁵⁶ See Objective 5 and Policy 9 MPSUD.

- 198. The Panel considers that the Project is not inconsistent with the NPSUD.
- 199. The Objective of the NPSFM is:

To ensure that natural and physical resources are managed in a way that prioritises:

- a) First, the health and well-being of water bodies and fresh water ecosystems;
- b) Second, the health needs of people (such as drinking water); and
- c) Third, the ability of people in communities to provide for their social, economic, and cultural well-being, now and in the future.
- 200. There are 15 Policies in support of this broad Objective. Of those Waka Kotahi has identified Policies 1, 2, 7, 8, 9 and 15 as being relevant to the Project. Waka Kotahi has assessed the freshwater values in the vicinity of the Project footprint as part of its ecological assessment.⁵⁷ which identified seven streams/catchments for assessment. There are no wetlands affected by the Project.
- 201. The Project includes the extension of culverts that convey intermittent and perennial streams under the existing transport corridor and the upgrading of the existing bridge over the Korokoro Stream. No resource consents are triggered by these works.
- 202. Overall, Waka Kotahi assessed that the Project will only have minimal effect on the streams and freshwater values.
- 203. The Panel does not consider that the Project will be inconsistent with the NPSFM.

New Zealand Coastal Policy Statement

204. The purpose of the NZCPS is to:58

... state policies in order to achieve the purpose of the Act [RMA] in relation to the coastal environment of New Zealand.

- 205. Clearly, the NZCPS is not designed to prevent all works in the coastal environment. In this case, the Project will result in many positive effects. There will, however, be some adverse effects rated as "low" against the EIANZ Guidelines.
- 206. Waka Kotahi has analysed the NZCPS at length.⁵⁹ The Panel adopts the formula used by Waka Kotahi at Chapter 26.2.1.1 of the AEE⁶⁰ which discusses relevant NZCPS Objectives and Policies. That said, the Panel will discuss Policy 11 first followed by Policy 10.

⁵⁷ See Technical Report 9: Ecological Assessment.

⁵⁸ Preamble to NZCPS.

⁵⁹ See Chapter 26 Statutory Assessment at 26.2.1.1 which concludes that the Project will not be inconsistent with the NZCPS.

⁶⁰ See pp 286 - 300.

NZCPS Policy 11 – Indigenous Biological Diversity

- 207. Species which are regarded as threatened or at risk are captured by NZCPS Policy 11(a)(i) or 11(a)(ii), whilst indigenous habitats are captured by Policy 11(a)(iii) or 11(b)(iii).
- 208. The only species captured by NZCPS Policy 11(a)(i) or 11(a)(ii) relevant to the Project are listed in Table 11 of the Ecological Assessment.⁶¹
- 209. The only one of those species for which an adverse effect has been identified is the variable oyster catcher (as discussed above under our heading of Marine Ecology). That assessment identified that the adverse effect is at the scale of the Project footprint, not at the scale of Wellington Harbour, which is inconsistent with the approach under the EIANZ Guidelines.
- 210. In Dr Bramley's opinion:

It is unlikely that any of the six oyster catchers present within the project footprint would be so severely affected by the proposal that death would result, since they seldom use the area to be removed and would have additional foraging habitat provided. At the regional scale (728 birds) no adverse effect on oyster catcher population could be realistically expected. In the event that predator control forms part of the proposal the effect would likely be a net gain. With respect to oyster catchers the proposal is consistent with policy 11(a)(i), and policy 11(a)(iii) does not apply because they are not regarded as threatened by the IUCN (oyster catchers IUCN status is "least concern").

- 211. The Panel agrees with and adopts Dr Bramley's conclusion.
- 212. Policy 11(b)(iii) of the NZCPS relates to effects on indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification. Within the Project footprint this includes intertidal zones, rocky reef systems and shingle beaches.
- 213. Indigenous ecosystems are not defined in the RMA but are essentially a biological community of interacting organisms and the physical environment in which they live.⁶²
- 214. The ecosystems of most concern within the Project footprint are the shingle beaches. Dr Bramley set out how Manaaki Whenua define shingle beaches, which includes a physical environment and a description of the species and ecological communities present.⁶³
- 215. The Ecological Assessment and Ecological Addendum make it clear that shingle beaches affected by the Project are mostly lacking in the indigenous species and communities described by Manaaki Whenua. Accordingly, what is being lost by the removal of those beaches is simply the opportunity for restoration of indigenous ecosystems rather than

⁶¹ See Technical Report 9: *Ecological Assessment* at pp 41 and 42.

⁶² See the Ecology Company Report at page 11.

⁶³ The Ecology Company memorandum dated 18 January 2021 at page 12.

destruction of an existing indigenous ecosystem.

- 216. The DGC consider that only the back part of the beach habitats are an ecosystem which should be regarded as threatened.
- 217. The amount of shingle beach in this category to be removed is 0.06ha. On the basis that Policy 11(b)(iii) requires avoidance of significant adverse effects and avoidance, remedy or mitigation of other adverse effects of activities on indigenous ecosystems and given that there are no threatened or endangered species of plant identified as occurring within the habitat to be removed, the effect on the biotic element of the ecosystem is negligible. It is not known what percentage of Wellington Harbour shingle beaches the removal constitutes (the Ecological Addendum suggests 0.45% below MHWS but that is based on incomplete mapping).
- 218. Accordingly, Dr Bramley concluded that the Project is consistent with Policy 11(b)(iii) of the NZCPS. The Panel adopts his conclusion.

Policy 10 - Reclamation

- 219. Policy 10(1) of the NZCPS requires reclamation in the CMA to be avoided unless the tests in clauses (a) (d) of that Policy are met.
- 220. There is overlap under Policy 10(1)(a) and (c) with the requirements for NOR's to demonstrate that land is not available outside the CMA as part of the consideration of alternatives. This issue was expressly addressed by Waka Kotahi in Chapter 9 of the AEE: *Consideration of alternatives*. The Panel is satisfied that the assessment of alternative land-based options demonstrated that, of the limited existing land available along SH2 and the Hutt Valley railway line, there is neither sufficient nor suitable land for the Project to be satisfactorily completed in those locations.
- 221. The Panel also considers that the matters in Policy 10(1)(b) and (d) can be met i.e. that Waka Kotahi has demonstrated that the Project can only occur in the adjacent CMA, that the Project has regional and national benefits.
- 222. The matters set out in Policy 10(2) have been adequately considered in the Waka Kotahi AEE referred to above including: the effects of climate; the shape of the reclamation; the use of materials in the reclamation; providing public access; the ability to remedy or mitigate adverse effects on the coastal environment; the cultural landscapes and sites of significance to tangata whenua; and the ability to avoid consequential erosion accretion and other natural hazards.
- 223. The Panel also considers that the AEE adequately addresses issues relevant to NZCPS Policies 10(3) and 10(4).
- 224. Overall, the Panel is satisfied that the Project is not inconsistent with Policy 10 of the NZCPS.

Coastal Environment

225. Waka Kotahi says the Project is consistent with Objective 1 and Policies 1, 3 and 4 of the NZCPS. The reason cited being that the Project design has been influenced by the coastal environment and that adverse effects are to be offset by an environmental compensation package.

Natural Character

- 226. Waka Kotahi's assessment relates to Objective 2 and Policies 13, 14 and 15 and acknowledges that the Project occurs within the coastal environment.
- 227. As discussed above, the Panel considers that the adverse effects on landscape and natural character are acceptable. The reasons given by Waka Kotahi as to why the Project is consistent with the Objective and Policies noted above, are largely the same as those given in the landscape and natural character assessment described above and accepted by the Panel.

Treaty of Waitangi (te Tiriti O Waitangi)

- 228. Waka Kotahi's assessment relates to Objective 3 and Policy 2 of the NZCPS (the Treaty of Waitangi, tangata whenua and Māori heritage) which require the principles of the Treaty of Waitangi to be taken into account.
- 229. Once again, for the reasons stated above, the Panel considers the Project appropriately emphasises the important role of mana whenua in the management of the coastal environment, taking into account the Treaty principles and therefore is consistent with that Objective and Policy. This will also be discussed further below.

Public Open Space and Walking Access

- 230. Waka Kotahi's assessment relates to NZCPS Objective 4 and Policies 18, 19 and 20.
- 231. The Panel accepts that assessment and agrees that the Project is consistent with that Objective and those Policies.

Coastal Hazards

- 232. Waka Kotahi's assessment relates to NZCPS Objective 5 and Policies 24, 25, 26 and 27.
- 233. The Panel considered these issues under the earlier heading of Resilience. The Panel accepts that Waka Kotahi has identified the relevant coastal hazards and that the design of the Project caters for the hazards that will likely occur. The Panel considers the Project is consistent with this Objective and the Policies.

Use and Development

234. Waka Kotahi's assessment relates to NZCPS Objective 6 and Policy 6.

- 235. It largely repeats the assessment of recreation benefits and the consideration of alternatives.
- 236. The Panel accepts that assessment and considers the Project to be consistent with this Objective and this Policy.

Land held under other Acts

237. Waka Kotahi's assessment relates to Policy 5 of the NZCPS and has a focus on the Reserve. The Panel accepts that the Project is consistent with this Policy.

Water Quality

- 238. Waka Kotahi's assessment relates to NZCPS Objective 1 and Polices 21, 22 and 23.
- 239. The Panel has already recorded that it considers that with appropriate conditions, any potential adverse effects on water quality can be appropriately managed.
- 240. The Panel considers the Project is consistent with this Objective and those Policies.

Heritage

241. Waka Kotahi's assessment relates to NZCPS Objective 6 and Policy 17. The Panel refers to its earlier comments in relation to Historic Heritage and considers that the Project is consistent with this Objective and those Policies.

Overall finding on NZCPS

242. Accordingly, the Panel finds that the Project, with the relevant conditions, is not inconsistent with the NZCPS.

Treaty of Waitangi

243. Section 6 of the Act expressly provides that in achieving the purpose of the Act:

All persons performing functions and exercising powers under it must act in a manner that is consistent with -

- a) The principles of the Treaty of Waitangi; and
- b) Treaty settlements.
- 244. The Panel notes that these obligations are imposed on the Panel itself, as opposed to Waka Kotahi as the applicant. However, the Panel has taken the time to set out above, the procedures followed by Waka Kotahi to develop the Project in partnership with mana whenua to reflect the Crown-Māori partnership formalised by the Treaty of Waitangi and achieve adherence to its principles.
- 245. In respect of Treaty settlements, there are two relevant matters:

- a) There are two statutory acknowledgements over Te Whanganui-a-Tara, in favour of Taranaki Whānui and Ngāti Toa Rangatira; and
- b) The Project involves a temporary occupation of the Reserve which is land returned to Taranaki Whānui through its Treaty settlement.
- 246. There has been no suggestion from mana whenua that the Project is inconsistent with the principles of the Treaty or any Treaty settlements. Indeed, quite the opposite is apparent as set out in Part D of this Decision. The Panel notes the letters of support from Taranaki Whānui ki Te Upoko o Te Ika and Te Runanga o Toa Rangatira at Appendix A of the AEE.
- 247. The Panel also notes that the Act requires the Panel to have regard to any resource management matters and any applicable planning document prepared by a customary marine title group under the Marine and Coastal Area (Takutai Moana) Act 2011.
- 248. Waka Kotahi sought the views of the applicants for customary marine title. The Panel also issued invitations to comment from those groups.⁶⁴ The Panel received comment from two MACA claimant groups Te Rūnanga o Toa Rangatira (the iwi authority for Ngāti Toa Rangatira) and Te Atiawa ki te Upoko o Te Ika a Maui Potiki Trust (closely affiliated with Taranaki Whānui, with whom Waka kotahi is partnering in respect of the Project). Both groups expressed their support for the Project.
- 249. The statutory acknowledgements given by the Crown within relevant Treaty settlements acknowledge the special cultural significance of Te Whanganui-a-Tara to the tangata whenua, Taranaki Whānui and Ngāti Toa Rangatira, which were set out in their "statements of association" provided by each iwi in the CIA. Such acknowledgements have been appropriately addressed in the Project AEE by Waka Kotahi and have been considered by the Panel.
- 250. Therefore, whilst the Project will have potential adverse effects on Te Whanganui-a-Tara, including reclaiming 0.83ha and permanently occupying a larger area, the Project will also give rise to significant benefits for mana whenua though reconnecting them with this part of Te Whanganui-a-Tara and allowing their traditional, historical, cultural and spiritual associations with Te Whanganui-a-Tara to be celebrated and rekindled.
- 251. Furthermore, the long-term partnership formed by Waka Kotahi with mana whenua for the delivery of the Project will continue to ensure that the Project is undertaken in a culturally appropriate way that is consistent with the ethos of kaitiakitanga and which benefits both the environment and all people (particularly mana whenua) who will continue to frequent the area for recreational or cultural purposes into the future.
- 252. For these reasons, the Panel finds that the Project is not inconsistent with the principles

⁶⁴ The Panel notes that the Minister for Treaty of Waitangi Negotiations, Hon Andrew little suggested comments be sought from such claimants as well in his response to the invitation to comment.
of the Treaty of Waitangi or with Treaty settlements.

Conclusion on national policy statements

- 253. For these reasons the Panel finds that the granting the Applications, with conditions, would not be inconsistent with any relevant NPS or s6 of the Act.
- 254. The Panel therefore does not have any power to decline the Applications.

PART G: CONDITIONS

- 255. Waka Kotahi included a set of conditions in the Application Documents.
- 256. The sensitive nature of the Project occurring in the CMA, combined with the Panel's inability to decline the Applications, has demanded a comprehensive suite of conditions to ensure that all potential adverse effects are avoided, remedied or mitigated or that resilient and proper offset and/or compensation measures are adopted and will be implemented in a timely and controlled fashion.
- 257. The Panel sought assistance with the formulation of the final set of conditions from Mr St Clair of HYC. The Panel thanks Mr St Clair for his timely and pragmatic reports.
- 258. A feature of the conditions proposed by Waka Kotahi was a heavy reliance on management plans. This is understandable due to the nature of some of the work to be undertaken in the CMA as mitigation, offset or compensation.
- 259. Waka Kotahi proposed that some of the management plans would be certified by the council(s) while others would be filed with the council(s) for information purposes.
- 260. Those proposed to be certified were:
 - a) Contaminated Land Management Plan;
 - b) Ecology Management Plan;
 - c) Construction Erosion and Sediment Control Plan;
 - d) Site Specific Erosion and Sediment Control Plan; and
 - e) Coastal Works Construction and Environmental Management Plan.
- 261. Those proposed to be for information only were:
 - a) Mana Whenua Values Plan;
 - b) Construction Environmental Management Plan;
 - c) North Construction Yard Reinstatement Plan;

- d) Enabling Works CEMP;
- e) Communications Plan;
- f) Construction Traffic Management Plan; and
- g) Smeagol climoi Translocation Plan.
- 262. The Panel notes that such an approach has been used by Waka Kotahi in the Te Ahu a Tauranga Manawatu Tararua Highway and, subject to the further observations below, the Panel considers such an approach is appropriate here.
- 263. However, in this case Waka Kotahi did not provide any draft management plans these are timetabled for production in the conditions. While that approach is also accepted, it meant the Panel had to ensure that the matters to be addressed by the management plans would in fact address all the potential effects identified.
- 264. To assist the Panel with that task Mr St Clair undertook a "gap analysis" ⁶⁵ to determine whether the conditions and the management plans would in fact avoid, remedy or mitigate the potential adverse effects identified above. The gap analysis identified some areas where further refinements were necessary.
- 265. In respect of the management plans Mr St Clair advised that the key tenets of a "fit for purpose" management plan condition are:
 - a) A requirement to prepare it by a suitably qualified person;
 - b) A clear objective, a stated scope and performance management requirements;
 - c) Specification of a process for council certification;
 - d) Specification of process for amending a certified plan; and
 - e) A requirement to comply with the management plan once certified.
- 266. Assessing the Waka Kotahi management plan conditions against these tenets revealed that some improvements were required:
 - a) The management plans were not uniformly referenced between the various management plans, outline plans, reinstatement plans, design master plans, and values plans. Further, Condition GC.2 only required management plans to be prepared by suitably qualified persons. It was unclear to the Panel whether the other types of plans (design master, reinstatement etc) were meant to be addressed by the same condition. In accordance with Ms St Clair's 'key tenets' the Panel has

⁶⁵ This analysis included both the 18 December 2020 - Appendix B Planning /conditions report by Lesley Hopkins and updated proposed conditions), and the further amendments in the 13 January 2021 response from Waka Kotahi.

required that all plans and actions should be prepared by a suitably qualified person;

- b) Condition PC.5 set out the certification process for particular management plans, how the plans are to be amended, how they may be submitted in parts and the timeframes for such processes. However, the Panel observed that the condition does not provide a sufficiently clear pathway for a situation where a management plan is not certified by the council and it is required to be amended and re-lodged;
- c) There are environmental standards within the conditions relating to the preparation of management plans. The advice of Mr St Clair was that is not considered best practice as any such standards should be in standalone conditions. Accordingly, and to the extent possible within the condition's framework, the Panel (with the assistance of Mr St Clair) amended the relevant conditions to separate environmental standards from the requirements for management plans; and
- d) The Panel observed (and addressed) the absence of any condition requiring compliance with the latest certified management plans.
- 267. The final conditions have been altered by the Panel to reflect these matters.
- 268. The review by Mr St Clair also identified where other improvements could be made to the conditions by:
 - a) Cross referencing between conditions;
 - b) Including a s 128 review condition for those consents related to the operational aspects of the project;
 - c) Clarification of construction phase and operations phase conditions; and
 - d) Providing more specificity about monitoring and reporting and identification of what information has been filed since the Application Documents were submitted.
- 269. Mr St Clair recommended amendments to the conditions to address these matters. The Panel has adopted all his recommendations without exception. In conformance with clause 36 of Schedule 6, the amended conditions were distributed to Waka Kotahi and the other parties who made earlier comments on the application with a request for comments to be received by 27 January 2021.
- 270. Waka Kotahi and six parties⁶⁶ provided comments on the draft conditions within the specified timeframe. Many of the comments related to typographical and numbering errors, cross referencing and clarification of timeframes and administrative matters, which we generally found helpful.

⁶⁶ Department of Conservation, Hutt City Council, Wellington City Council, Heritage New Zealand Pouhere Taonga, Greater Wellington Reginal Council, Taranaki Whānui ki Te Upoko o Te Ika

- 271. The Panel notes that some issues raised by the parties fall outside the jurisdiction of the Panel to consider.
- 272. The Panel carefully considered the more substantive matters raised by the parties, and, in respect of marine ecology effects, the Panel sought further expert assistance from Dr Bramley.⁶⁷
- 273. Some suggestions from the parties have been incorporated into the final conditions. The Panel has not included conditions or amendments that would: extend the level of compensation beyond that proffered by Waka Kotahi; provide a reservation of discretion; or duplicate provisions that have already been addressed by the parties or indeed us. In addition, the Panel considered that suggested amendments that had the potential to substantially prolong the construction period for the Project would not align with the purpose of the Act.
- 274. The Panel considers that the Beach Nourishment Plan now proposed by Waka Kotahi in response to comments should be included in the conditions and be subject to certification.
- 275. There are two additional plans that are to be filed by way of the Outline Plan process under clause 33(7)(b) of Schedule 6 of the Act and s176A of the RMA, namely the:
 - a) Construction Noise and Vibration Management Plan (CNVMP); and
 - b) Cultural and Environmental Design Plan (CEDP).

Summary of conditions

276. Based on the above analysis and the Panel's amendments to the conditions proposed by Waka Kotahi, the Panel is of the view that final set of conditions adopted by them and included in Appendix 1 are practical and feasible.

PART H: FINAL DECISION

- 277. The Panel grants the applications for resource consent described in Appendix 1 and confirms the notices of requirement described in Appendix 1, both subject to the conditions expressed in that Appendix.
- 278. Two additional plans are to be filed by way of the Outline Plan process under clause 33(7)(b) of Schedule 6 of the Act and s176A of the RMA, namely the:
 - a) Construction Noise and Vibration Management Plan (CNVMP); and
 - b) Cultural and Environmental Design Plan (CEDP).
- 279. The complete record of consents, notices of requirement and conditions is set out in

⁶⁷ The Ecology Company memorandum dated 1 February 2021.

Appendix 1 to this Decision.

280. As required by Clause 38 of Schedule 6, the Panel refers to Clause 45 of Schedule 6 which provides a 15-day period for appeal after the persons entitled to appeal (as listed in Clause 44 of Schedule 6) are notified of this Decision.

DATED 5 February 2021

Alan Webb (Chair)

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David McMahon (Member)

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Miria Pomare (Member)

APPENDIX 1

Designation and resource consent conditions

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INDEX OF DESIGNATIONS AND RESOURCE CONSENTS

Ref	Notice of requirement	Lapse date ⁶⁸	Conditions			
	Construction and Operational					
NOR 1	Designation to construct, operate, and maintain a shared path and associated infrastructure (within Wellington City).	2 years after the date on which it is included in the WCDP. (GC.3)	GC.1 - GC.2 PC.2 - PC.4, PC.6 - PC.14 CC.1, CC.2, CC.4 - CC.5A MW.1 - MW.5A AH.1 - AH.2 CNV.1 - CNV.5 CT.1 - CT.4 LV.1 - LV.4			
NOR 2	Designation to construct, operate, and maintain a shared path and associated infrastructure (within the City of Lower Hutt).	2 years after the date on which it is included in the HCDP. (GC.3)	GC.1 - GC.2 PC.2 - PC.4, PC.6 - PC.14 CC.1, CC.2, CC.4 - CC.5A MW.1 - MW.5A AH.1 - AH.2 CNV.1 - CNV.5 CT.1 - CT.4 LV.1 - LV.4			

⁶⁸ Lapse date in accordance with COVID-19 Recovery (Fast-track Consenting) Act 2020 Schedule 6 Clause 37 (7).

Ref	Resource consents	Detail	Expiry date	General conditions	Specific conditions	
	Construction					
RC.1	Land use (s9) – NESCS (WCC)	Disturbance of contaminated soils within Wellington City.	10 years (GC.5)	GC.1 – GC.2, GC.4	PC.1, PC.5 - PC.14 CC.1, CC.2, CC.4- CC.5A MW.1 - MW.5A AH.1 - AH.2 CL.1 - CL.3	
RC.2	Land use (s9) - NESCS (HCC)	Disturbance of contaminated soils within the City of Lower Hutt.	10 years (GC.5)	GC.1 – GC.2, GC.4	PC.1, PC.5 - PC.14 CC.1, CC.2, CC.4 - CC.5A MW.1 - MW.5A AH.1 - AH.2 CL.1 - CL.3	
RC.3	Land use (s9(2)) – Land disturbance activities (GWRC)	The use of land, and the associated discharge of sediment-laden runoff into water or onto or into land where it may enter water from earthworks over 3,000m ² (Project-wide).	10 years (GC.5)	GC.1 – GC.2, GC.4	PC.1 – PC.14 CC.1 – CC.6 MW.1 – MW.5A AH.1 – AH.2 EW.1 – EW.10	

Ref	Resource consents	Detail	Expiry date	General conditions	Specific conditions
RC.4	Land use (s9) – Land use (HCC)	 Construction works at Honiana Te Puni Reserve including: Earthworks within the Special Recreation Zone; Formation and use of the Northern Construction Yard; Repurposing of the Wellington Water Ski Clubhouse as a temporary site office for construction; and Demolition of the existing Wellington Rowing Association Shed and Wellington Water Ski Clubhouse. 	10 years (GC.5)	GC.1 – GC.2, GC.4	PC.5 - PC.14 CC.1 - CC.5A MW.1 - MW.5A AH.1 -AH.2 HTP.1 - HTP.9 CNV.1 - CNV.5 CT.1 - CT.4
		Construction and Operat	tional		
RC.5	Land use (s9) – land use (HCC)	 Permanent works at Honiana Te Puni Reserve including: Earthworks within the Special Recreation Zone. Integrated Clubs Building and associated parking area; Tāwharau Pods for various uses including small scale retail activities; Whare; and Sculptures. 	Unlimited	GC.1 – GC.2, GC.4, GC.6A	PC.5 - PC.14 CC.1 - CC.5A MW.1 - MW.5A AH.1 -AH.2 HTP.1 - HTP.9 CNV.1 - CNV.5 CT.1 - CT.4 LV.1 - LV.4

Ref	Resource consents	Detail	Expiry date	General conditions	Specific conditions
		Construction			
RC.6	Coastal permit (s12, s14, s15) (GWRC) – Construction activities in the CMA and temporary occupation and associated discharge of contaminants.	 Works associated with the Shared Path including: Modifications to the existing rock revetment including partial replacement and alteration; Placement and use of temporary structures; Destruction, damage, disturbance or deposition; Reclamation in the CMA; Placement of new seawalls, groynes and rock revetment; Discharges to land and water outside Areas of Significant Conservation Value during construction; Construction of offshore habitats; and Addition to existing seawalls for living seawalls at Frank Kitts Park and Greta Point. 	10 Years (GC.5)	GC.1 – GC.2, GC.4	PC.1, PC.5 - PC.14 CC.1 - CC.6 MW.1 - MW.5A CA.1, CA.2, <u>CA.3⁶⁹</u> ,CA.4 - CA.16 EM.1 - EM.23 LV.1 - LV.4

⁶⁹ Specific conditions for RC.6 amended on 8 March 2021

Ref	Resource consents	Detail	Expiry date	General conditions	Specific conditions
RC.7	Water permit (s14) (GWRC) - Dewatering and excavation affecting the Hutt Valley Aquifer System/Zone.	Geotechnical investigations within the Hutt Valley aquifer zone where the depth of the bore below ground level/seabed exceeds 5m. Construction and excavation activities deeper than 5m below ground level in the Hutt Valley aquifer system associated with the Shared Path Bridge and seawalls. Dewatering associated with construction of the Shared Path Bridge in the Hutt Valley aquifer system.	10 years (GC.5)	GC.1, GC.4	PC.1, PC.5 - PC.14 CC.1, CC.2, CC.4 - CC.6 MW.1 - MW.5A DG.1, DG.2
RC.8	Discharge permit (s15) (GWRC) – Discharge of contaminants.	Discharge of contaminants (including fill material) onto water or onto or into land where it may enter water land;	10 years (GC.5)	GC.1 – GC.2, GC.4	PC.1, PC.5 - PC.14 CC.1, CC.2, CC.4 - CC.5A MW.1 - MW.5A EW.1 - EW.10
		Operational			
RC.9	Activities on new land (s89(2) of the RMA) (WCC)	Activities on new land area to be created between existing MHWS and future MHWS - Wellington City, including operation and maintenance of Shared Path.	Unlimited duration	GC.4, GC.6A	LV.1 – LV.4
RC.10	Activities on new land to be created (s89(2) of the RMA) (HCC)	Activities on new land area to be created between existing MHWS and future MHWS – Hutt City, including operation and maintenance of Shared Path.	Unlimited duration	GC.4, GC.6A	LV.1 – LV.4

Ref	Resource consents	Detail	Expiry date	General conditions	Specific conditions
RC.11	Coastal permit (s12) - Permanent occupation and associated use.	Occupation and use of space in the CMA for permanent structures associated with the Project; seawalls, rock revetment, groynes, culvert extensions; offshore habitats and living seawalls.	35 years (GC.6)	GC.1, GC.4, GC.6A	CA.2, <u>CA.3⁷⁰,</u> CA.17 EM.4A, EM.7 – EM.10, EM.16
RC.12	Discharge Permit (s15) (GWRC) – Discharge of contaminants into or onto land or water from the Shared Path.	Discharge of stormwater from the Shared Path, including stormwater that may be contaminated, into water or onto or into land where it may enter water.	35 years (GC.6)	GC.1 – GC.2, GC.4, GC.6A	
RC.13	Discharge Permit (s15) (GWRC) – Discharge of contaminants into or onto land or water from Honiana Te Puni Reserve.	Discharge of stormwater from parking areas, buildings and other impervious areas at Honiana Te Puni Reserve including stormwater that may be contaminated, into water or onto or into land where it may enter water.	35 years (GC.6)	GC.1 – GC.2, GC.4, GC.6A	SW.1, SW.2

⁷⁰ Specific conditions for RC.11 amended on 8 March 2021

DEFINITIONS AND EXPLANATION OF TERMS

The table below defines the acronyms and terms used in the conditions.

Abbreviation/term	Meaning/definition	
AEE	The Assessment of Effects on the Environment for the Ngā Ūranga ki Pito-One Shared Path section of Te Ara Tupua.	
Application	The notices of requirement and applications for resource consents and supporting information for the Ngā Ūranga ki Pito-One Shared Path section of Te Ara Tupua dated 12 October 2020.	
BNMP	Beach Nourishment Management Plan	
CEDF	Cultural and Environmental Design Framework	
CEDMP	Cultural and Environmental Design Master Plan	
СЕМР	Construction Environmental Management Plan	
Certification	Certification is confirmation from a council that a management plan meets the requirements of the conditions of the consents or designation that relate to it.	
CLMP	Contaminated Land Management Plan	
СМА	Coastal Marine Area	
CNVMP	Construction Noise and Vibration Management Plan	
Completion of Construction	When construction of the Project (or the relevant part of the Project) is complete and it is available for use.	
Construction Works	Activities undertaken to construct the Project under these designations/resource consents, excluding Enabling Works.	
Construction yards	The Southern Construction Yard at Ngā Ūranga Interchange and the Northern Construction Yard at Honiana Te Puni Reserve.	
Detailed design	Develops the indicative design (for consenting) to a stage where the design is refined and plans are set.	
DOC	Department of Conservation	
ЕМР	Ecology Management Plan	
Enabling Works	Includes the following and similar activities:	
	• geotechnical investigations (including in the CMA) and land investigations, including formation of access on land for investigations;	

Abbreviation/term	Meaning/definition	
	 modification of potential penguin habitat; establishing site yards, site offices, site entrances and fencing; constructing site access roads; demolition and removal of buildings and structures; relocation of services; and establishing mitigation and ecology offset or compensation measures (such as erosion and sediment control measures, earth bunds and planting). 	
ESCP	Erosion and Sediment Control Plan	
GWRC	Greater Wellington Regional Council	
НСС	Hutt City Council	
HCDP	City of Lower Hutt District Plan	
HNZPT	Heritage New Zealand Pouhere Taonga	
Integrated Clubs Building	A new combined club building for both the Wellington Rowing Association and Wellington Water-ski Club.	
Mahinga kai	A food gathering place.	
Manager	The Manager - Resource Consents, of the relevant council, or authorised delegate.	
MHWS	Mean High Water Springs	
MLWS	Mean Low Water Springs	
MPI	Ministry of Primary Industries	
MWSG	The Mana Whenua Steering Group established under Condition MW.1.	
MWVP	Mana Whenua Values Plan	
NESCS	Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.	
NOR	Notice(s) of requirement	
Offshore habitat	A man-made offshore habitat that will provide habitat for various avifauna species.	
Outline Plan	An outline plan prepared in accordance with section 176A of the RMA.	
PLG	Project Liaison Group	

Abbreviation/term	Meaning/definition
Project	The construction, operation and maintenance of the Ngā Ūranga ki Pito-One Shared Path section of Te Ara Tupua, and associated works.
Project Liaison Person	The person or persons appointed by the Requiring Authority / Consent Holder to be the main and readily accessible point of contact for persons wanting information about the Project or affected by the construction work.
Requiring Authority	New Zealand Transport Agency
RMA	Resource Management Act 1991
Rock revetment	Rock armoured embankment that forms the seaward edge of the shared path and provides protection from coastal processes.
Sculptures	The two sculptures located at Honiana Te Puni Reserve.
Shared Path	A shared use path for pedestrians, cyclists and other active modes between the Ngauranga Interchange (Ngā Ūranga at the junction of State Highway 1 (SH1) and State Highway 2 (SH2)) and just south of the Pito-One Railway Station.
SQEP	A suitably qualified environmental practitioner for the purposes of the assessment of contaminated land (Guidance on what is expected of the SQEP is provided in the <i>NESCS Users' Guide 2012</i>).
SSESCP	Site Specific Erosion and Sediment Control Plan
Start of Construction	The time when Construction Works (excluding Enabling Works), or works referred to in a specific condition, start.
Suitably Qualified Person	A person (or persons) who can provide sufficient evidence to demonstrate their suitability and competence in the relevant field of expertise.
Tāwharau Pods	Pod structures that will provide for cultural expression and cultural and community uses.
Ūranga (landings)	Areas where the design incorporates two landing types to provide for a varied and more naturalised shape to the rock revetment; in long and cross section.
Waka Kotahi	Waka Kotahi NZ Transport Agency
WCC	Wellington City Council
WCDP	Wellington City District Plan

Abbreviation/term	Meaning/definition
Whare	A new building that will be constructed in the western portion of Honiana Te Puni Reserve (subject to landowner confirmation and approval) for the purpose of providing for cultural activities.
WRCP	Wellington Regional Coastal Plan

SUMMARY OF PLANS IDENTIFIED IN CONDITIONS



Figure 1: Summary of plans identified in the condition set

CONDITIONS

Guide to reading the conditions

The conditions are identified as follows:

Set of proposed conditions	Numbering format
General conditions	GC
Pre-construction conditions	РС
Mana whenua	MW
Archaeology and heritage	АН
Honiana Te Puni Reserve	НТР
General construction conditions	СС
Construction noise and vibration	CNV
Construction traffic	СТ
Contaminated land	CL
Urban design, landscape, visual and natural character	LV
Ecological management	EM
Earthworks and land disturbance	EW
Coastal activities	СА
Stormwater	SW
Drilling	DG

General conditions (GC)

Ref	Condition
Standard	l conditions
GC.1	(a) Except as provided for in the conditions below and subject to final design, the Project shall be undertaken in general accordance with the following plans and information submitted with the Application dated 12 October 2020, the applicant's response to clause 25 of Schedule 6 to the COVID-19 Recovery (Fast-track Consenting) Act 2020 requests for further information dated 20 November 2020, 9 December 2020, 13 January 2021 and 19 January 2021, and the applicant's Response to Comments dated 18 December 2020, and in particular the following documents:

Ref	Condition			
	 (i) Chapter 3: Description of the Project and Chapter 4: Construction of the Project in the <i>Te Ara Tupua Assessment of Effects on the Environment Report</i> dated 30 September 2020; 			
	(ii) The following plan sets in Volume 3: Drawing Set:			
	(i) General arrangement drawings; and			
	(ii) Typical cross sections.			
	(b) Where there may be an inconsistency between the documents listed in clause (a) above and the requirements of these conditions, these conditions shall prevail.			
	(c) Where there is inconsistency between the documents listed in clause $(a)_{\tau}$ provided by the applicant as part of the application for resource consent and notice of requirement, the applicant's responses to the clause 25 of Schedule 6 requests for further information, and information and plans provided through the Response to Comments, the most recent plans and information prevail.			
GC.1A	The Project shall be undertaken in accordance with the most recent version of the following plans:			
	(a) Contaminated Land Management Plan prepared and certified in accordance with Condition CL.1;			
	(b) Ecology Management Plan prepared and certified in accordance with Condition EM.1, including the following:			
	(i) Predator Control Plan			
	(ii) Biodiversity Offset Management Plan			
	(iii) Mussel Bed Management Plan			
	(c) Construction Erosion and Sediment Control Plan prepared and certified in accordance with Condition EW.3;			
	(d) Site Specific Erosion and Sediment Control Plan prepared and certified in accordance with Condition EW.5;			
	(e) Coastal Works Construction and Environment <u>al⁷¹</u> Management Plan prepared and certified in accordance with Condition CA.7;			
	(f) Smeagol climoi Translocation Plan prepared in accordance with Condition EM.23;			
	(g) Beach Nourishment Management Plan prepared and certified in accordance with Condition CA.6A;			
	(h) Mana Whenua Values Plan prepared in accordance with Condition MW.4;			

⁷¹ Condition GC.1A amended on 8 March 2021

Ref	Condition				
	(i) Construction Environmental Management Plan prepared in accordance with Condition CC.1;				
	(j) Northern Construction Yard Reinstatement Plan prepared in accordance with Condition HTP.4;				
	(k) Communications Plan prepared in accordance with Condition PC.7; and				
	(I) Construction Traffic Management Plan prepared in accordance with Condition CT.1.				
GC.1B	 a) A copy of the plans and these designation and resource consent conditions shall be kept either electronically or in hard copy on-site at all times that Enabling Works and Construction Works are being undertaken. b) The consent holder shall make contractors aware of the requirement to comply with these conditions, including through the implementation of the plans. 				
GC.1C	All earthmoving machinery, pumps, generators and ancillary equipment shall be operated so that spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery services and maintenance.				
GC.2	The preparation of all plans and all actions required by these conditions shall be undertaken by a Suitably Qualified Person.				
Designati	ion lapse				
GC.3	In accordance with clause 37(7) of Schedule 6 to the COVID-19 Recovery (Fast- track Consenting) Act 2020, the designation shall lapse if not given effect to within two years from the date on which it is included in the Wellington City District Plan/Hutt City District Plan under section 175 of the RMA.				
Consent	lapse and expiry				
GC.4	Pursuant to clause 37(7) of Schedule 6 to the COVID-19 Recovery (Fast-track Consenting) Act 2020, the consents numbers RC.1, RC.2, RC.3, RC.4, RC.5, RC.6, RC.7, RC.8. RC.9, RC.10. RC.11, RC.12, and RC.13 shall lapse two years from the date of their commencement unless they have been given effect to, surrendered or been cancelled at an earlier date.				
GC.5	Pursuant to section 125(1) of the RMA, the consents numbers RC.1, RC.2, RC.3, RC.4, RC.6, RC.7, and RC.8 shall expire 10 years from the date of their commencement unless they have been surrendered or been cancelled at an earlier date.				

Ref	Condition	
GC.6	Pursuant to section 125(1) of the RMA, the consents numbers RC.11, RC.12, and RC.13 shall expire 35 years from the date of their commencement unless they have been surrendered or been cancelled at an earlier date.	
Review o	f Conditions	
GC.6A	a) The GWRC or HCC or WCC may, under section 128 of the Resource Management Act 1991 (Act), initiate a review of any or all conditions of the relevant operational resource consents listed in the <i>Index of designations and</i> <i>resource consents</i> , within the months of August and September of every third year following the commencement of Construction Works, for the duration of the resource consents.	
	(b) A review of conditions under clause (a) is to deal with any adverse effect on the environment that may arise from the exercise of these resource consents.	
	(c) A review of conditions under clause (a) may allow for the consideration of the following:	
	(i) the modification of monitoring activities, including the frequency of the monitoring; and	
	(ii) the deletion, amendment or addition of new conditions as necessary to avoid, remedy, or mitigate any adverse effects.	

Pre-construction conditions (PC)

Ref	Cor	Condition		
Pre-construction site meeting				
PC.1	(a)	No less than twenty (20) working days prior to the anticipated Start of Construction, a pre-construction site meeting shall be arranged with appropriate representation from Waka Kotahi, the Councils' monitoring teams and the primary contractor. Representatives of KiwiRail and the Mana Whenua Steering Group shall also be invited to attend.		
	(b)	The purpose of the pre-construction site meeting is to share information in respect of the works methods, erosion and sediment controls, management plan requirements and compliance with the conditions of the resource consents.		
	(c)	The pre-construction meeting shall discuss the works methodology so that all relevant parties are aware of the relevant conditions of the resource consents.		

Ref	Condition				
	Advice note: Infrastructure owned by KiwRail is located within and adjacent to the Project footprint. Approval from KiwiRail as landowner (e.g. Deed of Grant and access permits) and Requiring Authority approval for work in designated land is required prior to any works on rail land. These approvals will likely include appropriate notification timeframes and access protocols for work on KiwiRail land.				
Outline P	lan(s) of Works (designation)			
PC.2	An Outline Plan (or Plans) shall be submitted for the Project, in accordance with section 176A of the RMA.				
	An Outline Plan may be submitted in parts or in stages to address particular works or Project stages.				
PC.3	The mar	he Outline Plan (or Plans) shall include the following plans (as relevant to the nanagement of effects for that work or Project stage):			
	(a)	Construction Noise and Vibration Management Plan (CNVMP); and			
	(b)	Cultural and Environmental Design Master Plan (CEDMP).			
PC.4	(a)	Following submission of the Outline Plans(s), the CNVMP and CEDMP may be amended if necessary, to reflect any changes in design, construction methods or management of effects. Any amendments to the plans are to be discussed with and submitted to the Manager for information without the need for a further Outline Plan process unless those amendments once implemented would result in a materially different outcome to that described in the original Outline Plan.			
	(b)	Where the CNVMP or CEDMP was prepared in consultation with other parties, any material changes to that plan shall be prepared in consultation with those same parties.			
Managem	nent	plans (resource consents)			
PC.5	(a)	The management plans listed in (b) shall be submitted to the Manager at least twenty (20) working days prior to the anticipated Start of Construction (unless otherwise specified) for certification. The certification process shall be confined to confirming that the Management Plan adequately gives effect to the relevant condition(s).			
	(b)	The following plans shall be submitted for certification:			
		(i) Contaminated Land Management Plan;			
		(ii) Ecology Management Plan;			

Ref	Condition				
		(iii) Construction Erosion and Sediment Control Plan;			
		(iv) Site Specific Erosion and Sediment Control Plan;			
		(v) Coastal Works Construction and Environmental Management Plan; and			
		(vi) Beach Nourishment Management Plan.			
	(c)	If twenty (20) working days have passed since the management plan has been provided to the Manager under clause (a) above, and the consent holder has not received a response from the Manager, the Management Plan shall be deemed to be certified.			
	(d) If the Manager(s') response is that they are not able to certify the Management Plan the consent holder shall request that the Manage provide reasons and recommendations for changes to the manager in writing. The consent holder shall consider any of the reasons an recommendation of the Manager(s) and resubmit an amended Man- Plan to be certified.				
	(e)	If the consent holder has not received a response from the Manager within five (5) working days of the date of resubmission under clause (d) above, the amended Management Plan will be deemed to be certified.			
	(f)	Any certified management plan may be amended, if necessary, to reflect any changes in design, construction methods or management of effects without the need for certification, where;			
		i) the amendment/s have no, or a de minimis adverse effect on the environment, or is a change that results in an improved environmental outcome; or			
		ii) the amendment is an administrative change, including nominating personnel; and			
		iii) the revised Management Plan is provided to the Manager and, within ten (10) working days of receiving the revised Management Plan, the Manager has not advised in writing that the amendment shall be certified under clause (b) – (e) on the basis that the amendment/s do not meet the requirements of clauses (f)(i) or (f)(ii).			
	(g) Except as provided for in clause (f), amendments to management pl be certified in writing by the Manager prior to the commencement of ar which the amended management plan(s) relate.				
	(h) Ara	All management plans shall describe how they have taken into account the Te Tupua Kaitiaki Principles set out in Attachment C of these conditions.			
	(i) Notwithstanding the timeframes specified in (a) above and elsewhere in these conditions in respect of the provision of management plans and other materials				

Ref	Condition				
	for certification, the Start of Construction may occur as soon as the relevant management plans and / or other materials are certified or deemed to be certified.				
	Advice notes:				
	The Contaminated Land Management Plan will be submitted for certification to the Manager, HCC and the Manager, WCC. The other management plans listed in this condition will be submitted for certification to the Manager, GWRC.				
It is anticipated that the construction of the Integrated Clubs Building i Te Puni Reserve will commence in advance of other works. Activity spec management plans will be prepared for those works as provided by thi condition.					
Commun	ication, engagement and social				
Liaison p	erson				
PC.6	A Project Liaison Person (or persons) shall be appointed for the duration of Enabling Works and Construction Works to be the main and readily accessible point of contact for persons interested in, or affected by, Construction Works.				
	The Project Liaison Person's contact details shall be readily available via the Project website and they shall be contactable at all times during Construction Works.				
Commun	ications Plan				
PC.7	(a) Prior to the Start of Construction, a Communications Plan shall be prepared for the construction phase of the Project.				
	(b) The purpose of the Communications Plan is to set out how the public and stakeholders (including directly affected and adjacent owners and occupiers of land) will be communicated with throughout the Construction Works.				
	(c) The Communications Plan shall be submitted to the Manager for information at least twenty (20) working days prior to the anticipated Start of Construction.				
PC.8	The Communications Plan shall include:				
	(a) Contact details of the Project Liaison Person;				
	(b) A list of stakeholders who will be communicated with;				
	(c) Details of communication activities proposed;				

Ref	Condition		
	(d) Details of the Project website, or equivalent virtual information source, for providing information to the public;		
	(e) Details of the complaint management process including who is responsible for responding, how responses will be provided and the timeframes within which the responses will be provided.		
	(f) Linkages to consultation set out in other conditions where relevant; and		
	(g) The process for ongoing review and amendment of the plan to maintain its currency.		
PC.8A	If the Communications Plan required by Condition PC.7 is amended or updated, the revised Communications Plan shall be submitted to the Manager for information within five (5) working days of the update being made.		
Project L	ison Group		
PC.9	(a) Prior to the start of Detailed Design, and at least three months prior to the anticipated Start of Construction, a Project Liaison Group (PLG) shall be established.		
	(b) The PLG shall hold regular meetings at a frequency agreed by the PLG.		
	(c) The PLG shall be dis-established following the Completion of Construction.		
PC.10	The purpose of the PLG is:		
	(a) To provide a forum to share information on the Project design, programme and condition implementation; and		
	(b) For the parties listed in Condition PC.11 to raise issues of concern or identify opportunities for the Project team to respond to.		
PC.11	The PLG shall include the following parties from the Project team:		
	(a) The Project Liaison Person;		
	(b) A representative from Waka Kotahi; and		
	(c) A representative of the construction contractor.		
	A representative(s) from the following entities shall be invited to participate in the PLG:		
	(a) GWRC, WCC and HCC;		
	(b) MWSG;		
	(c) DOC;		

Ref	Condition			
	(d)	Royal Forest & Bird Protection Society of New Zealand Inc;		
	(e)	KiwiRail;		
	(f)	Wellington Water Ski Club;		
	(g)	Wellington Rowing Association; and		
	(h)	One or more Wellington and Hutt cycling and walking groups.		
Complair	nts m	anagement		
PC.12	A re shal	A record of any complaints received in respect of the Project Construction Works shall be maintained during Construction Works.		
	The	record shall include:		
	(a)	The name, phone number and address (if known) of the complainant (unless the complainant wishes to remain anonymous);		
	(b)	Nature of the complaint;		
	(c)	The date and time of the complaint, and the location, date and time of the alleged event giving rise to the complaint;		
	(d)	The weather conditions at the time of the complaint (as far as practicable), including wind direction and approximate wind speed if the complaint relates to air quality, odour or noise and where weather conditions are relevant to the nature of the complaint;		
	(e)	Any other activities in the area, unrelated to the Project, that may have contributed to the complaint, such as construction undertaken by other parties, fires, traffic accidents or any unusual conditions;		
	(f)	Measures taken to respond to the complaint or confirmation of no action if deemed appropriate;		
	(g)	The outcome of the investigation into the complaint; and		
	(h)	A record of the response provided to the complainant.		
PC.13	(a) The consent holder shall notify the Manager of any complaint received that relates to the activities authorised by these resource consents and notices of requirement as soon as reasonably practicable and no longer than two (2) working days after receiving the complaint.			
	(b) The consent holder shall respond to any complainant as soon as reasonab practicable and within five (5) working days by advising the Manager and complainant of the outcome of the consent holder's investigation and all measures taken, or proposed to be taken, to respond to the complaint.			

Ref	Condition
PC.14	The record of complaints shall be made available to the Manager upon request.

General construction conditions (CC)

Ref	Condition				
Construc	Construction Environmental Management Plan				
CC.1	(a) A pr	Construction Environmental Management Plan (CEMP) shall be prepared ior to the Start of Construction.			
	(b) Th co pc	ne purpose of the CEMP is to confirm the management procedures and instruction methods to be used, in order to avoid, remedy or mitigate otential adverse effects arising from construction activities.			
	(c) Th tw	ne CEMP shall be submitted to the Manager for information at least renty (20) working days prior to the Start of Construction.			
CC.2	The CEMP shall be prepared having regard to the <i>NZ Transport Agency's Guideline for preparing Environmental and Social Management Plans (April and shall include the following:</i>				
	(a)	The roles and responsibilities of staff and contractors;			
	(b)	Details of the site or Project manager and the Project Liaison Person, including their contact details (phone and email address);			
	(c)	The Construction Works programme and the staging approach;			
	(d)	The Construction Works methodology including proposed hours of work, and site layouts (including construction yards), locations of refuelling activities, procedures for the refuelling and maintenance of plant and equipment and construction lighting;			
	(e)	Methods for controlling dust and the removal of debris and demolition or construction materials from public roads, paths or places;			
	(f)	Methods for routine dust and odour monitoring;			
	(g)	Methods to address the safety, integrity, protection and (where necessary) the relocation of existing network utilities. This shall include any specific measures agreed with the asset owner including:			
		i. Continued access to assets during construction for maintenance;			
		ii. Identification of network utilities prior to and detailed design and construction works;			

Ref	Condition	
		iii. Agreement on any protection, diversion or replacement of assets affected by the permanent works;
		 iv. Identification of assets on construction plans and appropriate physical indicators showing surveyed locations;
		 v. Informing all persons working on the site of the presence and location of network utilities and the restrictions in place in relation to those network utilities;
		vi. Access to assets during construction for maintenance and operation;
	(h)	Methods to provide access to existing network utilities for owners and operators during construction;
	(i)	Methods of providing for the health and safety of the general public, including training for site personnel about risks posed to active users;
	(j)	Methods for inspections, incident management and reporting in accordance with Condition EW.7A and EW.7B;
	(k)	Methods to inform and train all persons working on the site of potential environmental issues and how to avoid remedy or mitigate any potential adverse effects; and
	(I)	Methods for amending and updating the CEMP as required.
CC.3	The CEMP shall include methods for management of air quality throughout the construction period, in accordance with the <i>Good Practice Guide for Assessing and Managing Dust</i> , Ministry for Environment, 2016 and the <i>Good Practice Guide for Assessing and Managing Odour</i> , Ministry for Environment, 2016, or any subsequent versions.	
CC.4	The CEMP shall demonstrate how it links with other management plans prepared in accordance with these conditions to manage the effects of the Project.	
CC.4A	If the CEMP required by Condition CC.1 is amended or updated, the revised CEMP shall be submitted to the Manager for information within five (5) working days of the update being made.	
CC.5	(a) Wh be Wo	ere Enabling Works (that are not otherwise permitted activities) are to undertaken prior to the anticipated Start of Construction, an Enabling rks CEMP shall be prepared prior to the start of the Enabling Works.
	(b) The spe	e purpose of the Enabling Works CEMP is to address the matters ecified in Conditions CC.1 and CC.2 (as relevant to the Enabling Works).

Ref	Condition
	(c) The Enabling Works CEMP shall be submitted to the Manager for information at least ten (10) working days prior to the Enabling Works starting.
CC.5A	If the Enabling Works CEMP required by Condition CC.5 is amended or updated, the revised Enabling Works CEMP shall be submitted to the Manager within five (5) working days of the update being made.
CC.6	A Coastal CEMP shall be prepared for all works in the CMA, in accordance with Condition CA.9.

Mana whenua (MW)

Ref	Condition	
Mana Whe	nua S	teering Group
MW.1	(a)	Prior to the start of Detailed Design, and at least three months prior to the anticipated Start of Construction, the requiring authority/consent holder shall invite mana whenua to establish a Mana Whenua Steering Group (MWSG) for the Project. The following parties shall be invited to include representatives on the MWSG:
		 Port Nicholson Block Settlement Trust, on behalf of Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui); and
		(ii) Te Rūnanga o Toa Rangatira Incorporated, on behalf of Ngāti Toa Rangatira.
	(b)	The purpose of the MWSG is to:
		(i) Facilitate ongoing engagement with mana whenua in respect of the activities authorised by these designations and resource consents;
		(ii) Provide an opportunity for mana whenua to provide kaitiaki inputs into the Project as set out in condition MW.3; and
		(iii) Ensure appropriate tikanga and kawa (customary practices and protocols) are being applied throughout the development and implementation of the Project.
MW.2	The MWSG shall be invited to hold regular meetings (monthly) throughout the Construction Works until at least six months after Completion of Construction.	
MW.3	The	MWSG shall be invited to participate in the following:

Ref	Condition	
	(a)	Development of the Project design to incorporate cultural values into elements such as:
		(i) Cultural expression in artwork on Shared Path features such as the Shared Path Bridge and in landscape works and plantings,
		(ii) Implementation of biodiversity mitigation, offset, or compensation measures; and
		(iii) Signage describing local features and the history of the area.
	(b)	Development of the Communications Plan with respect to methods of engaging with iwi and hapū;
	(c)	Preparation of the Accidental Discovery Protocol (as required by Condition AH.1 and AH.2) and any updates to this Protocol;
	(d)	Development and implementation of agreed cultural protocols / tikanga appropriate to stages of the works or activities (for example: blessings, accidental discoveries, vegetation clearance, relocation of native fauna);
	(e)	Development of cultural indicators covering matters such as (but not limited to) traditional association, mahinga kai and cultural stream health measures; and
	(f)	The development and implementation of a Mana Whenua Values Plan.
Mana Whe	nua V	alues Plan
MW.4	(a)	A Mana Whenua Values Plan (MWVP) shall be prepared for the construction phase of the Project by a Suitably Qualified Person identified in consultation with the MWSG.
	(b)	The purpose of the MWVP is to set out the agreed cultural monitoring requirements and measures, related to the Te Ara Tupua Kaitiaki Principles (Attachment C of these conditions), to be implemented during construction activities, to acknowledge the historic and living cultural values of the area to mana whenua and to minimise potential adverse effects on these values.
	(c)	The MWVP shall be submitted to the Manager for information at least twenty (20) working days prior to the anticipated Start of Construction.
MW.5	The	MWVP shall include:
	(a)	Site dedications or cultural interpretation to be undertaken prior to Start of Construction in areas identified as having significance to mana whenua;
	(b)	Cultural protocols and procedures for cultural inductions;

Ref	Condition	
	(c)	A description of specific monitoring activities to be undertaken prior to or during construction, including for example preconstruction surveys and monitoring of taonga species;
	(d)	Confirmation of the roles and responsibilities of personnel in respect of clauses (a) to (c);
	(e)	Opportunities to reuse natural materials, and to participate in activities (e.g. including planting, translocation, ecology monitoring etc);
	(f)	Consideration of potential effects on taonga species, or other species of significance to mana whenua; and
	(g)	Any other matters or measures to avoid or mitigate potential adverse effects on mana whenua values, customs and practices.
MW.5A	If the MWV days	e MWVP required by Condition MW.5 is amended or updated, the revised P shall be submitted to the Manager for information within five (5) working of the update being made.

Archaeology and heritage (AH)

Ref	Condition		
Archaeol	Archaeology and heritage		
AH.1	 (a) For activities and areas of the Project not covered by an Archaeological Authority granted under the Heritage New Zealand Pouhere Taonga Act 2014, an Accidental Discovery Protocol shall be prepared for any accidental archaeological discoveries which occur during Construction Works. (b) Where an Archaeological Authority has not been granted prior to the Start of Construction, an Accidental Discovery Protocol shall be submitted to the Manager 		
	and the Regional Archaeologist, Central Region, HNZPT for information twenty (20) working days prior to the Start of Construction.		
AH.2	The Accidental Discovery Protocol shall be consistent with the <i>NZ Transport Agency Minimum Standard P45 Accidental Archaeological Discovery Specification</i> , or any subsequent version.		
	The Accidental Discovery Protocol shall be prepared in consultation with mana whenua and modified as necessary to reflect the site-specific Project detail.		

Honiana Te Puni Reserve (HTP)

Ref	Condition		
Honiana	Te Puni Reserve: Integrated Clubs Building and parking area		
HTP.1	(a) At least twenty (20) working days prior to the anticipated Start of Construction of the Integrated Clubs Building and associated parking area, design drawings shall be submitted to the Manager for certification. The following details shall be provided:		
	i. Site plan showing the location of the building, access and parking plan;		
	 Elevations and building plans showing the final design of the building; and 		
	iii. Details of landscape works and lighting.		
	The certification is to confirm that the design is in general accordance with the information specified in Condition GC.1.		
	(b) If twenty (20) working days have passed since the design drawings have been provided to the Manager under clause (a) above, and the consent holder has not received a response from the Manager, the design drawings shall be deemed to be certified.		
	 (c) If the Manager(s') response is that they are not able to certify the design drawings the consent holder shall request that the Manager(s) provide reasons and recommendations for changes to the design drawings in writing. The consent holder shall consider any of the reasons and recommendation of the Manager(s) and resubmit an amended set of design drawings to be certified. 		
	(d) If the consent holder has not received a response from the Manager within five (5) working days of the date of resubmission under clause (c) above, the design drawings will be deemed to be certified.		
HTP.2	Subject to the approval of the Port Nicholson Block Settlement Trust (Landowner) and Hutt City Council (Reserve Administrator), the Integrated Clubs Building and parking area shall be completed and available for use prior to commencing site works to establish the Northern Construction Yard.		
Honiana	Te Puni Reserve: Notification		
HTP.3	The Manager shall be notified at least five (5) working days prior to the start of works at the Honiana Te Puni Reserve.		

Ref	Condition		
Honiana	Te Puni Reserve: Northern Construction Yard – Site Reinstatement		
HTP.4	(a) At least twenty (20) working days prior to the start of the reinstatement of the Northern Construction Yard, a Northern Construction Yard Reinstatement Plan shall be prepared and submitted to the Manager for information.		
	(b) The purpose of the Northern Construction Yard Reinstatement Plan is to demonstrate how the Honiana Te Puni Reserve area used for construction will be reinstated at the Completion of Construction.		
	(c) The Northern Construction Yard Reinstatement Plan shall include details of the following matters:		
	(i) Relocation of the Tāwharau Pods to the western side of the Reserve (if they are to be relocated);		
	(ii) Construction and/or relocation of the Sculptures (if the Sculptures are to be constructed/relocated);		
	(iii) Construction of the Whare (if the Whare is to be constructed);		
	(iv) Formation of the reinforced grass access to the waka ramp;		
	(v) Decommissioning of the Project construction yard; and		
	(vi) Development and upgrade of a number of paths within the Reserve.		
	(d) The Northern Construction Yard Reinstatement Plan shall be prepared in consultation with representatives of Port Nicholson Block Settlement Trust (Landowner) and Hutt City Council (Reserve Administrator).		
HTP.4A	If the Northern Construction Yard Reinstatement Plan_required by Condition HTP.4 is amended or updated, the revised Northern Construction Yard Reinstatement Plan shall be submitted to the Manager for information within five (5) working days of the update being made.		
Honiana Te Puni Reserve: Tāwharau Pods, Whare and associated car parking at Honiana Te Puni Reserve			
HTP.5	(a) At least twenty (20) working days prior to the anticipated Start of Construction of the temporary Tāwharau Pods, design drawings shall be submitted to the Manager for certification. The following details shall be provided:		
	i. Site plan showing the location of the pods;		
	ii. Elevations and plans showing the final design of the pods; and		
	iii. Detailed description of the use of the pods, the nature of the activities and the hours of operation.		

Ref	Condition		
	(b) The certification is to confirm that the location and design is in general accordance with the information specified in Condition GC.1.		
	(c) If twenty (20) working days have passed since the design drawings have been provided to the Manager under clause (a) above, and the consent holder has not received a response from the Manager, the design drawings shall be deemed to be certified.		
	 (d) If the Manager(s') response is that they are not able to certify the design drawings the consent holder shall request that the Manager(s) provide reasons and recommendations for changes to the design drawings in writing. The consent holder shall consider any of the reasons and recommendation of the Manager(s) and resubmit an amended set of design drawings to be certified. 		
	(e) If the consent holder has not received a response from the Manager within five (5) working days of the date of resubmission under clause (d) above, the design drawings will be deemed to be certified.		
HTP.6	(a) If the Tāwharau Pods are to be relocated from a temporary location on the eastern side of the Reserve to a permanent location on the western side of the Reserve, the Manager shall be notified least twenty (20) working days prior to the relocation.		
	(b) The Manager shall be provided with design drawings for the new location of the Tāwharau Pods, including:		
	i. Site plan showing the location of the pods, access and parking plan;		
	ii. Elevations and plans showing the final design of the pods;		
	iii. Details of landscape works and lighting; and		
	iv. Detailed description of the use of the pods, the nature of the activities and the hours of operation.		
HTP.7	(a) At least twenty (20) working days prior to the anticipated Start of Construction of the Whare and associated car parking, design drawings shall be submitted to the Manager for certification. The following details shall be provided:		
	i. Site plan showing the location of the Whare access and parking;		
	 Elevations and building plans showing the final design of the building; and 		
	iii. Details of landscape works and lighting.		
	(b) The certification is to confirm that the location and design is in general accordance with the information specified in Condition GC.1.		

Ref	Condition	
	(c) If twenty (20) working days have passed since the design drawings have been provided to the Manager under clause (a) above, and the consent holder has not received a response from the Manager, the design drawings shall be deemed to be certified.	
	 (d) If the Manager(s') response is that they are not able to certify the design drawings the consent holder shall request that the Manager(s) provide reasons and recommendations for changes to the design drawings in writing. The consent holder shall consider any of the reasons and recommendation of the Manager(s) and resubmit an amended set of design drawings to be certified. 	
	(e) If the consent holder has not received a response from the Manager within five (5) working days of the date of resubmission under clause (d) above, the design drawings will be deemed to be certified.	
HTP.8	The construction of the Integrated Clubs Building and parking area, Tāwharau Pods, Whare and associated car parking at Honiana Te Puni Reserve shall be in general accordance with the design drawings certified by the Manager.	
HTP.9	(a) Any relocation of the Tāwharau Pods to the western side of the Reserve shall occur within three years of the decommissioning of the Northern Construction Yard.	
	(b) The Whare and associated car parking at Honiana Te Puni Reserve shall (if they are to be constructed) be commenced within three years of the decommissioning of the Northern Construction Yard.	

Construction noise (CNV)

Ref	Condition						
Construction noise and vibration management plan							
CNV.1	(a)	A CNVMP shall be prepared prior to the Start of Construction.					
	(b)	The purpose of the CNVMP is to provide a framework for the development and implementation of the best practicable option for the management of construction noise and vibration effects, and to minimise any exceedance of the construction noise and vibration criteria set out in Conditions CNV.3 and CNV.4 as far as practicable.					
	(c)	The CNVMP shall address noise and vibration from Project construction activities on land (including at Honiana Te Puni Reserve) and in the CMA.					
Ref	Condition						
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	(d) The CNVMP shall be submitted as part of the relevant Outline Plan in accordance with the process set out in Condition PC.2 - PC.4. A copy of the CNVMP shall be provided to GWRC for information.						
CNV.2	The CNVMP shall <i>Standard NZS680</i> the Waka Kotahi <i>guide (version 1.</i>	be prepared in accor 03:1999 'Acoustics - State highway constr 1, 2019), or any subs	rdance with Ann <i>Construction N</i> <i>uction and mai</i> requent version	nex E2 of the A loise' (NZS 680 Intenance noise	<i>lew Zealand 3:1999)</i> and and vibration		
Construc	tion noise and vib	ration – general requi	irements				
CNV.3	Construction noise shall be measured and assessed in accordance with NZS 6803:1999 <i>Acoustics - Construction Noise</i> and shall comply, as far as practicable, with the construction noise criteria in Table CNV.1. Table CNV.1: Construction noise criteria						
	Day of week	Time period	LAeq	LAFmax			
	Occupied Resident	tial and other noise sens	itive buildings				
	Weekday	0630h – 0730h	55 dB	75 dB			
		0730h – 1800h	70 dB	85 dB			
		1800h - 2000h	65 dB	80 dB			
		2000h - 0630h	45 dB	75 dB			
	Saturday	0630h – 0730h	55 45 dB	75 dB			
		0730h – 1800h	70 dB	85 dB			
		1800h - 2000h	45 dB	75 dB			
		2000h - 0630h	45 dB	75 dB			
	Sunday and	0630h – 0730h	45 dB	75 dB			
	Public Holidays	0730h - 1800h	55 dB	85 dB			
		1800h - 2000h	45 dB	75 dB			
		2000h - 0630h	45 dB	75 dB			
	Industrial and corr	Industrial and commercial					
	All	0730h - 1800h	70 dB	B			
		1800h - 0730h	75 dB	_			
CNV.4	 (a) Construction vibration shall be measured in accordance with ISO 4866:2010 Mechanical vibration and shock – Vibration of fixed structures – Guidelines for the measurement of vibrations and evaluation of their effects on structures. 						

Ref	Condition							
	 (b) The Catego practicable. exceeds the manage con constructio (c) If measured Category B affected bu by a Suitable 	ry A criteria in Table C If measured or predic Category A criteria, a nstruction vibration du n building condition su I or predicted vibration criteria those activities ildings are assessed, r y Qualified Person.	NV.2 shall be o ted vibration fo Suitably Quali- uring those acti- urveys shall be from construc- s shall only pro nonitored and	complied with a rom constructio fied Person sha vities, and pre- undertaken. ction activities e ceed if vibratio mitigated as ree	s far as on activities Il assess and and post- exceeds the n effects on commended			
	Receiver			Category B				
	Occupied PPFs	Night-time 2000h- 0630h	0.3mm/s ppv	1mm/s ppv				
		Daytime 0630h - 2000h	1mm/s ppv	5mm/s ppv				
	Other occupied buildings	Daytime 0630h - 2000h	2mm/s ppv	5mm/s ppv				
	All other buildings	Vibration - transient	5mm/s ppv	BS 5228–2* Table B2				
		Vibration – continuous		BS 5228–2* 50% of table B2 values				
	*BS 5228-2:2009 'Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration'							
Schedule	dules to the CNVMP							
CNV.5	(a) If noise or v exceed the Schedule to the Waka Ko vibration ge	ibration from a construction activity is measured or predicted to criteria in Conditions CNV.3 or CNV.4 at a nearby receiver, a the CNVMP for that activity shall be prepared in accordance with otahi <i>State highway construction and maintenance noise and</i> <i>nide (version 1.1, 2019)</i> or any subsequent version.						
	(b) The purpos option for t constructio CNVMP.	The purpose of a Schedule to the CNVMP is to set out the best practicable option for the management of noise and/or vibration effects for a specific construction activity and/or location beyond those measures set out in the CNVMP.						
	(c) The Schedu	The Schedule shall identify:						
	(i) activity location, start and finish dates;							

Ref	Condition
	(ii) the nearest neighbours to the activity;
	(iii) a location plan for the activity;
	(iv) predicted noise/vibration levels and best practicable option mitigation for the activity and/or location;
	(v) communication and consultation with the affected neighbours; and
	(vi) location, times and type of monitoring.
	(d) A copy of the any Schedule to the CNVMP shall be provided to GWRC for information.

Construction traffic (CT)

Ref	Condition			
Construc	tion Traffic Management Plan			
CT.1	(a) A Construction Traffic Management Plan (CTMP) shall be prepared prior to the Start of Construction.			
	(b) The purpose of the CTMP is to manage construction traffic during Construction Works to:			
	 Protect public safety including the safe passage and connectivity for pedestrians and cyclists; 			
	 Manage effects on road users, public transport users, pedestrians and cyclists; and 			
	(iii) Manage effects on property access.			
	(c) The CTMP shall be submitted to the Manager for information twenty (20) working days prior to the Start of Construction.			
CT.1A	If the CTMP required by Condition CT.1 is amended or updated, the revised CTMP shall be submitted to the Manager for information within five (5) working days of the update being made.			
СТ.2	The CTMP shall be consistent with the version of the <i>NZ Transport Agency Code of Practice for Temporary Traffic Management</i> which applies at the time the CTMP is prepared.			
СТ.3	The CTMP shall identify how the purpose of the CTMP will be achieved and shall include:			

Ref	Cond	lition
	(a)	Where road capacity may be significantly affected by temporary traffic management, potential effects of the capacity reduction, and proposed measures to minimise delays;
	(b)	Measures to avoid road closures and restrictions on vehicle, bus, pedestrian and cycle movements;
	(c)	Site access routes and access points for heavy vehicles;
	(d)	Temporary traffic management measures required to manage impacts on road users and existing pedestrian and cycle paths;
	(e)	Measures to maintain, where practicable, safe and clearly marked pedestrian and cyclist access on roads, footpaths and other facilities adjacent to the Construction Works. Where detours are necessary to provide such access, these shall be sealed and the shortest and most convenient detours shall be provided, as is practicable and safe;
	(f)	Provision for safe and efficient access of construction vehicles to and from construction site(s);
	(g)	Measures that will be used to communicate traffic management measures to affected road users, pedestrians, cyclists and other stakeholders;
	(h)	Measures to minimise contractor parking on local roads including provision of construction staff parking within the Project footprint;
	(i)	Details of staff training and induction regarding the safety of pedestrians and cyclists during construction and the specific access requirements in Condition CT.4;
	(j)	Measures to notify users of the existing shared path of any changes to that facility; and
	(k)	Auditing, monitoring and reporting requirements in accordance with the <i>Code of Practice for Temporary Traffic Management</i> .
СТ.4	Heav Cons Espla purpo	y vehicles over 7 tonne are restricted from entering or exiting the Southern truction Yard (to or from SH2) or Northern Construction Yard (to or from The nade) between 0700–0900, Monday to Friday except for the following oses:
	(a) (a)	Where, due to unforeseen circumstances, it is necessary to complete an activity that has commenced;
	(b) I	In cases of emergency.
	Advio <i>the e</i>	ce note: This condition does not restrict vehicle movements associated with existing KiwiRail yard and KiwiRail operations at Ngā Ūranga.

Contaminated land (CL)

Ref	Cond	lition		
CL.1	(a)	Prior to excavation in areas of known or potentially contaminated land, a Suitably Qualified Environmental Practitioner (SQEP) shall be engaged to prepare a Contaminated Land Management Plan (CLMP).		
	(b)	The purpose of the CLMP is to detail the procedures to be implemented during Construction Works to control the disturbance and movement of identified contaminated, or potentially contaminated soils. These procedures shall cover management of health, safety and potential environmental risk from contaminated land associated with the Project.		
	(c)	The CLMP shall be submitted to the Manager for certification at least twenty (20) working days prior to the anticipated start of excavation of known or potentially contaminated land in accordance with the process set out in Condition PC.5.		
CL.2	The CLMP shall include:			
	(a)	A summary of Preliminary Site Investigation information and overview of the Project methodology as relevant to works in known or potentially contaminated sites;		
	(b)	Summary of any soil sampling works undertaken;		
	(c)	Roles and responsibilities of the parties involved in the land disturbance activities, including the SQEP;		
	(d)	Methods for soil testing at potentially contaminated sites;		
	(e)	Potential and known hazards arising from contamination (if present);		
	(f)	Specific management methods developed for construction earthworks in potentially contaminated soils including;		
		(i) On site soil management practices;		
		(ii) Off-site soil transport and disposal;		
		(iii) Personal protection and monitoring; and		
		 (iv) Management of dust and odour including details of where measures are covered in other plans. 		
	(g)	Contingency measures in the event of accidental/unexpected discovery (asbestos, unknown fill, odour, staining etc); and		
	(h)	Post-construction controls (if required).		
CL.3	Any s SQEP	ampling and testing of contamination on the site shall be overseen by a . All sampling shall be undertaken in accordance with the Ministry for the		

Ref	Condition
	Environment's <i>Contaminated Land Management Guidelines No. 5 Site</i> Investigation and Analysis of Soils (Revised 2011).

Urban design, landscape, visual and natural character (LV)

Ref	Condition			
Cultural and	l Env	ironmental Design Master Plan		
LV.1	(a)	A CEDMP shall be prepared prior to the Start of Construction.		
	(b)	The purpose of the CEDMP is to integrate the Project's permanent works into the surrounding landscape and urban context, and integrate the cultural and environmental elements of the Project.		
	(c)	The CEDMP shall demonstrate how the Te Ara Tupua Kaitiaki Principles (Attachment C of these conditions) and the Waka Kotahi Landscape and Urban Design Principles, Design Themes, and Design Outcomes in the Project's CEDF dated 22 September 2020 have been taken into account in the development of the design concepts.		
	(d)	The CEDMP shall be prepared having regard to:		
		(i) the Draft Masterplan in the Project's CEDF;		
		 (ii) the NZ Transport Agency Urban Design Guidelines: Bridging the Gap (2013) or any subsequent updated version; 		
		(iii) the NZ Transport Agency <i>Landscape Guidelines (2013)</i> or any subsequent updated version; and		
		(iv) the EMP prepared in accordance with Condition EM.1 of the resource consents granted for the Project.		
	(e)	The CEDMP shall be submitted as part of the relevant Outline Plan in accordance with the process set out in Condition PC.2 - PC.4. A copy of the CEDMP shall be provided to GWRC for information.		
LV.2	(a)	The CEDMP shall be prepared in consultation with:		
		(i) the MWSG;		
		(ii) KiwiRail;		
		(iii) Hutt City Council for land within the City of Lower Hutt;		
		(iv) Wellington City Council for land within Wellington City; and		
		(v) Greater Wellington Regional Council for the CMA.		

Ref	Con	Condition		
	(b)	Ar be ex be	ny comments and inputs received from the parties listed above shall e summarised within the CEDMP or supporting document, along with planation of where any comments or suggestions have, or have not, een incorporated and, if not incorporated, the reasons why.	
LV.3	The	CEDN	/P shall include:	
	(a)	A con conc detai	ncept plan – this shall depict the overall landscape and urban design ept, and explain the rationale for the landscape and urban design ils if different from the CEDF;	
	(b)	Land	scape and urban design details - these shall cover the following:	
		i.	All major structures including the Shared Path Bridge, retaining walls and seawalls;	
		ii.	Landscape treatment of the new coastal edge including ūranga, rock revetment; seawalls and groynes;	
		iii.	Shared Path furniture – elements such as lighting, signs, balustrades, seats, fences, access gates and rubbish bins;	
		iv.	Architecture and landscape treatment of habitat screens;	
		v.	The concept design and location for sculptures in Honiana Te Puni Reserve;	
		vi.	Features (such as signage) for the purpose of identifying and interpreting cultural heritage, built heritage, archaeology, geological heritage and ecology;	
		vii.	Signage detailing the ecological value of avifauna and encouraging path users not to disturb birds;	
		viii.	Signage notifying the public of specific hazards (e.g. tsunami evacuation routes) in the Project area; and	
		ix.	Consideration of:	
			 Crime Prevention Through Environmental Design principles, including the outcomes of an audit of the design by a Suitably Qualified Person; and 	
			 Safety in Design (SID) and Maintenance in Design requirements, including the outcomes of these, including the outcomes of an audit of the design by a Suitably Qualified Person. 	
LV.4	The	CEDN	IP shall include the following planting details:	

Ref	Condition		
	(a)	Proposed planting including plant species, plant/grass mixes, spacing/densities, sizes (at the time of planting) and layout and planting methods;	
	(b)	Planting programme – the staging of planting in relation to the construction programme which shall, as far as practicable, include provision for planting within each planting season following completion of works in each stage of the Project;	
	(c)	Detailed specifications relating to (but not limited to) the following:	
		(i) Pest plant control and clearance;	
		(ii) Ground preparation (sub-soil preparation, top soiling and growing medium);	
		(iii) Mulching;	
		 (iv) Plant sourcing and planting, including hydroseeding and grassing; and 	
		(v) Plant species that provide habitat and food resources for the native lizard population in accordance with Condition EM.3(f).	
	(d)	A maintenance regime for new planting, which shall apply for the 5 years following that planting being undertaken including the replacement of any failed plantings.	
	The the EM. rest	planting details shall be aligned with and support the measures set out in EMP required by the resource consents granted for the Project (Condition 1) including the specific planting to be undertaken in the coastal dune coration area (Condition EM.19 – EM.21).	

Ecological management (EM)

Ref	Condition			
Ecology Management Plan – General				
EM.1	(a) An Ecology Management Plan (EMP) shall be prepared prior to the Start of Construction.			
	(b) The purpose of the EMP is to set out the specific management procedures, monitoring, and measures to avoid, remedy, mitigate, offset and compensate for impacts from construction activities on ecological values, including by achieving the standards in the relevant conditions of these resource consents.			

Ref	Condition	
	(c) The EMP shall be submitted to the Manager for certification in accordance with the process set out in Condition PC.5.	
	(d) The EMP shall detail the requirements for permits under the Wildlife Act 1953 that apply to all coastal birds and lizards.	
EM.2	(a) The EMP shall be prepared in consultation with:	
	(i) The MWSG;	
	(ii) DOC;	
	(iii) Greater Wellington Regional Council;	
	(iv) Hutt City Council, for land in Hutt City;	
	(v) Wellington City Council, for land in Wellington City; and	
	(vi) KiwiRail.	
	(b) Any comments and inputs received from the parties listed above shall be summarised within the EMP or supporting document, along with explanation of where any comments or suggestions have, or have not, been incorporated and, if not incorporated, the reasons why.	
Herpetofaur	na	
EM.2A	(a) Where reasonably practicable, clearance of areas of lizard habitat as identified on the map in Attachment A of these conditions shall be avoided.	
	(b) Where the removal of lizard habitat in (a) cannot be avoided, the methods to salvage and relocate lizards immediately prior to vegetation/habitat clearance will be undertaken in accordance with Condition EM.3(d).	
EM.3	The EMP shall include the following information in relation to herpetofauna:	
	(a) A description of the lizard habitats present within the Project footprint;	
	(b) Lizard species potentially present;	
	(c) Roles and responsibilities for lizard management;	
	(d) Measures proposed to avoid, remedy and mitigate adverse effects on resident native lizard populations, including:	
	(i) vegetation clearance and construction protocols;	
	(ii) methodology for lizard capture;	
	(iii) details of release sites;	

Ref	Condition			
	(iv) details for post release monitoring; and			
	(v) timetable for implementation.			
	(e) Procedures for incidental discovery of lizards during works; and			
	(f) Details of planting that provides habitat and food resources for native lizards.			
Fish Passage	e			
EM.4	The extension of the four culverts, namely the Gilberd Bush culvert extension, the Waihinahina culvert extension, and the Un-named stream 1 and 2 (at approximate chainages 1790 and 2339) culvert extensions which convey flows from the intermittent and perennial streams shall be designed and installed in accordance with the National Institute of Water and Atmospheric Research <i>New Zealand Fish Passage Guidelines April 2018</i> unless otherwise agreed with the Manager.			
EM.4A	Following Completion of Construction, fish passage through the culvert extensions listed in Condition EM.4 shall be provided and maintained at all times in accordance with the guidelines in EM.4 unless otherwise agreed with the Manager.			
Coastal bird	ls			
EM.5	Project works in the CMA shall be designed to achieve the following in relation to coastal avifauna:			
	 (a) Encourage long-term retention of shingle beaches by placing salvaged shingle beach material during construction, constructing six seawalls with rip rap along the coastal edge of the Shared Path and groynes at locations where they would support long-term survival of the retained beaches; and (b) Minimise the effects of disturbance on birds at shingle beaches by 			
	providing habitat screens at each seawall alongside shingle beaches.			
EM.6A	If modification of the potential penguin habitat identified on the map in Attachment E is undertaken to discourage penguins from nesting within the Project area, the following shall apply:			
	 (a) Within the 24 hours prior to any penguin habitat modification works, a penguin detector dog shall confirm the presence or absence of active nests or moulting penguins; and 			

Ref	Condition				
	(b) The modification of potential penguin habitat shall be undertaken during the period between 1 March to 15 June (i.e. the non-breeding and non- moulting season); or				
	(c) Outside of the period in (b), habitat modification works can be undertaken where nesting or moulting penguins are confirmed to not be present.				
	<i>Advice note: The penguin habitat modification works could include infilling and/or netting of potential nesting habitat.</i>				
EM.6B	The EMP shall contain the following in relation to coastal avifauna:				
	(a) Measures proposed to avoid potential adverse effects of Enabling Works and Construction Works on penguin, including:				
	 (i) Details of potential penguin habitat including the location of that potential habitat as identified on the map in Attachment E and a description of the characteristics of the potential habitat; 				
	 (ii) Results of a field survey of the Project footprint undertaken by a Suitably Qualified Person to confirm the location of the potential habitat area(s); 				
	(iii) A pre-construction survey of rocky infauna at shingle beaches under the Project footprint as per Condition EM.23				
	(iv) The frequency of on-going checks for nesting or moulting birds;				
	(v) Details of the 20 nesting boxes incorporated into the Piki Wahine Point ūranga for nesting penguins and the natural boulders for the revetment material.				
	(b) Measures proposed to avoid potential adverse effects of Enabling Works and Construction Works on variable oystercatcher, including:				
	 (i) Details of potential variable oystercatcher habitat including the location as identified on the map in Attachment E and a map or description of the characteristics of potential habitat; 				
	(ii) Results of field a survey undertaken by a Suitably QualifiedPerson to confirm the identified area(s);				
	(iii) If works are to occur within 20 metres of an area identified as potential variable oystercatcher nesting habitat during the breeding season (being the period from 1 September to 30 March), a Suitably Qualified Person shall check for the presence of active nests immediately prior to the works; and				

Ref	Condition		
	(iv) If an active nest is discovered in an area within 20 metres of the work site(s), works within this 20 metre buffer shall be delayed and no person or machinery shall enter the buffer area until nesting is complete.		
	(c) Details of the number and design of tall structures such as wooden poles incorporated into the ūranga designs to provide safe roosting habitat for species such as shags and gulls.		
	(d) Methods to place salvaged beach material during construction including placing material at the back of the beach and the toe of the seawall, and by placing material by hand to minimise habitat disturbance; and		
	(e) Roles and responsibilities for coastal avifauna management.		
	Advice note: The breeding and moulting season for penguin is 16 June to 28 / 29 February and the breeding season for variable oyster catcher is 1 Sept to 30 March.		
EM.6C	 (a) Within the 24 hours prior to each Enabling Works or each Construction Works activity undertaken between 1 July to 30 March <u>16 June to 28/29</u> <u>February⁷²</u>, a penguin detector dog shall confirm the presence or absence of active nests or moulting penguin; 		
	(b) If an active nest or moulting penguin is discovered in an area within 20 metres of the work site(s), works within this 20 metre buffer shall be delayed and no person or machinery shall enter the buffer area until nesting or moulting is complete; and		
	(c) If an active nest or moulting penguin is discovered in an area within 20 metres of the work site(s), fortnightly monitoring shall be undertaken to confirm whether nesting or moulting is ongoing at the site until nesting or moulting is complete.		
EM.6D	During construction of the revetment, a Suitably Qualified Person shall provide ecological input into seawall construction and placement of those boulders for the purpose of providing suitable penguin habitat, and in particular burrows.		
EM.7	Prior to operation of the Shared Path, signage shall be installed which advises that any dogs shall be restrained and confined to the formed Shared Path.		

⁷² Condition EM.6C(a) amended on 8 March 2021

Ref	Condition		
EM.7A	The consent holder shall undertake <u>Bb</u> est endeavours shall be used to establish a legal mechanism <u>requiring</u> ⁷³ that dogs must be restrained and confined to the formed Shared Path. Advice note: The legal mechanism could include WCC and HCC policy and bylaws for dog control.		
EM.8	 (a) In addition to regular maintenance of the Shared Path, and subject to compliance with the consent holder's health and safety obligations, a sixmonthly clean-up shall be undertaken. (b) The clean-up shall include: Removing visible accumulated rubbish debris within the rock revetment and coastal foreshore that can adversely affect coastal avifauna and other marine life, including discarded fishing gear; and A Marine Invasive Species Control Programme for the structures permitted to occupy part of the CMA by these consents which shall include: Six monthly intertidal and subtidal surveys to record the presence/absence of invasive marine organisms; and The removal of any invasive marine organisms identified during the survey. (c) The Marine Invasive Species Control Programme shall be prepared in consultation with MPI. (d) Details of the Marine Invasive Species Control Programme shall be previded to the Manager within three months of operation of the Shared Path. (e) Records of the six monthly surveys, including details of the clean-up areas, duration and the overall volume of rubbish debris and invasive marine organisms removed during clean-ups, shall be made available to the Manager up or request. 		
Predator co	marine invasive Species Control Programme shall be reported to MPI.		
i i cuator co			

⁷³ Condition EM.7A amended on 8 March 2021

Ref	Con	Condition		
EM.9	(a)	A predator control programme shall be implemented during construction and operation of the Project for a duration of 35 years. The programme shall be detailed in a Predator Control Plan included as part of the EMP. The purpose of the Predator Control Plan is to protect coastal birds (particularly nesting birds) from predation by rodents and mustelids.		
	(b)	The	Predator Control Plan shall include the following information:	
		(i)	Details of ownership and management of the Shared Path and associated assets;	
		(ii)	Locations of penguin nesting boxes at Piki Wahine Point ūranga and other nesting birds along and adjacent to the Shared Path which exist at the time that the Predator Control Plan is prepared;	
		(iii)	Locations of all nesting areas for variable oystercatcher;	
		(iv)	Areas along and adjacent to the Shared Path, including the provision of a map showing where predator control is required;	
		(v)	The target pest species;	
		(vi)	Predator control measures to be used;	
		(vii)	The frequency of pest management activities;	
		(viii)	Opportunities to co-ordinate with predator control programmes being undertaken by other parties in areas near the Project;	
		(ix)	Monitoring frequency and methods;	
		(x)	Adaptation to respond to outcomes of monitoring; and	
		(xi)	Trigger levels above which pest control measures will be increased.	
EM.10	The Predator Control Plan shall be prepared in consultation with the parties listed in Condition EM.2.			
Offshore ha	bitat	s for b	pirds	
EM.11	Prio site pro loca Con	Prior to finalising the design of the offshore habitats, a survey of the proposed sites shall be undertaken to confirm the nature of the seabed habitats in the proposed offshore habitat locations. The survey shall inform the specific location of each offshore habitat taking into account the requirements in Condition EM.12 and EM.13.		
EM.12	Offshore bird habitats shall be designed and constructed to achieve the following:			

Ref	Condition			
	 (a) Provide an area for roosting birds by constructing four offshore bird habitats; 			
	(b) Avoid disturbance to roosting birds during the construction and operational phases of the Project by locating the offshore bird habitats a minimum of 40 metres from the low tide mark on the toe of the revetment;			
	 Provide useable area for roosting birds outside the splash zone by providing a surface area for each offshore bird habitat of approximately 10m² at least 1.5 m above MHWS; 			
	(d) Provide undisturbed roosting habitat throughout the life of the Project by designing the offshore habitats to allow an additional 1m above MHWS for sea level rise (i.e. a total height of 2.5m above MHWS as calculated at time of design to account for (c) and (d));			
	(e) Provide habitat for the key species (gulls, terns, shag and variable oystercatcher) by using natural riprap; and			
	(f) Minimise disturbance to roosting birds by discouraging people from landing on or being in close proximity to the offshore habitats (e.g. signage on the offshore habitats).			
EM.13	The offshore bird habitats shall be located generally as shown in the drawing listed in Condition GC.1 and specifically shall be located:			
	 (a) Outside of areas of high value marine habitat including rocky reef / cobble / macroalgae identified; 			
	(b) In areas where there are no natural rock outcrops or headlands;			
	 Away from the existing rowing and waka ama course as identified in Attachment D of these conditions; 			
	(d) In proximity (but no closer than 40m) to areas of the coastal edge used as roosting habitat prior to the Project; and			
	 (e) At least one offshore habitat shall be located in proximity to Karanga Point which has been identified as a nesting site for variable oystercatcher. 			
	Advice note: The design of the offshore habitats shall be certified in accordance with Condition CA.3 (coastal design).			
EM.14	If the requirements in EM.13 are unable to be achieved, the offshore habitat design may be varied if agreed with the Manager. Any variation to the			

Ref	Condition		
	requirements in EM.13(a) – (e) shall be developed in consultation with GWRC, DOC and the MWSG.		
EM.15	(a) At least two of the offshore habitats, one in the north and one in the south, shall be created prior to the Start of Construction between chainage 1500m and 4000m. The location of the offshore habitats and the chainages are shown on the drawings referenced in Condition GC.1.		
	(b) The remaining offshore habitats shall be created prior to Completion of Construction.		
	(c) Timing of construction of the offshore habitats shall be confirmed in the CEMP and EMP.		
	Advice note: In the context of this condition Start of Construction excludes works undertaken for the purpose of investigating or constructing the offshore habitats.		
Intertidal ro	k pools and subtidal concrete armour units		
EM.15A	(a) The rock revetment and offshore bird habitats shall incorporate concrete intertidal rock pools and subtidal concrete armour units designed to create water retaining features that provide habitat for a high diversity of marine species.		
	(b) The rock pools and armour units shall be designed and constructed to achieve the following:		
	i. A minimum hard shore surface area of 486m ² from the rockpools positioned in clusters at varying heights between MHWS and MLWS and having a pool depth designed to provide for foraging by variable oyster catchers;		
	ii. A minimum hard shore surface area of 730m ² from the subtidal concrete armour units positioned below MLWS;		
	(c) The methods for the placement of the rock pools and armour units shall be detailed in the Coastal Works CEMP required by Condition CA.9; and		
	(d) Detailed design and drawings for the rock pools and subtidal concrete armour units shall be submitted to the manager for certification in accordance with Condition CA.3.		
	(e) The EMP shall detail the methods, timing, and frequency of monitoring of the water retaining features that provide habitat for marine species, for the purpose of recording their performance. Monitoring shall be carried		

Ref	Condition		
	out for a period of two years following the placement of the rock pools and subtidal concrete armour units.		
Living Seawa	alls		
EM.16	(a) Living seawalls with a total area of at least 60m ² shall be installed at Frank Kitts Park and Greta Point prior to the Completion of Construction, to address the effects of Construction Works in the CMA on marine ecology.		
	(b) The living seawalls shall be designed to achieve the following outcomes:		
	(i) Increase in biodiversity of organisms in those locations; and		
	(ii) Increase the complexity of intertidal habitat on existing seawalls for organisms that attach to rocks and structures.		
	(c) The EMP shall include a Biodiversity Offset Management Plan for the Living Seawalls. The purpose of the Biodiversity Offset Management Plan for the Living Seawalls is to implement clauses (a) and (b) of this condition.		
	(d) The Biodiversity Offset Management Plan shall include the following information:		
	(i) The specific location(s) where the living seawalls are to be installed;		
	(ii) Baseline information on indigenous biodiversity at the recipient sites;		
	(iii) Areas of living seawall to be created;		
	(iv) Proposed maintenance measures to maintain the outcome set out in (a) above; and		
	(v) Details of monitoring at least six monthly for the first two years following installation of the Living Seawalls and five yearly thereafter.		
	(e) The installation of the Living Seawalls is subject to the grant of landowner and/or asset owner approval for works in sites that are not owned by the consent holder. If landowner and / or asset owner approval is unable to be obtained for access to the proposed sites, alternative locations or an alternative method to compensate for the loss of marine ecology shall be identified and implemented in consultation with the Manager.		

Ref	Condition			
	Adv with	Advice note: The design of the living seawalls shall be certified in accordance with Condition CA.3 (coastal design).		
Treatment o	of sto	rmwater from State Highway 2		
EM.17	(a)	Condition EM.17 (b) – (f) apply only if:		
		 (i) The consent holder does not within two years of the dates of these consents obtain any additional statutory authorisations necessary to implement the proposed mussel bed seeding provided for in Condition EM.22; or 		
		 (ii) The trial mussel bed established in accordance with Condition EM.22 is demonstrated by the report required by Condition EM.22 (e) to be unsuccessful. 		
	(b)	Stormwater treatment shall be implemented for a minimum of 11.5 ha of formed carriageway and road shoulder catchment area of the existing state highway network that drains to Te Whanganui-a-Tara.		
	(c)	The proposed stormwater treatment shall be designed to achieve an annual average reduction of Total Suspended Solids, of at least 75%.		
	(d)	Stormwater shall be treated in accordance with the Waka Kotahi <i>Stormwater Treatment Standard for State Highway Infrastructure 2010</i> , or equivalent industry standard methods.		
	(e)	Details of the proposed stormwater treatment measures shall be submitted to the Manager, including:		
		(i) Methods to be used to achieve the standard in (b) (c) above;		
		 (ii) Where relevant, the location and area for the installation and operation of devices; 		
		(iii) Where relevant, proposed operational and maintenance measures to maintain the design performance in (b) <u>(c)⁷⁴</u> above; and		
		 (iv) If any other authorisations are required for installation of the stormwater treatment measures, the timing to secure these authorisations. 		
	(f)	The purpose of submitting the details of the stormwater treatment measures is to confirm that the design can achieve the treatment requirements set out in (b).		
	Adv con	vice note: This condition should be read together with Condition EM.22. The sent holder must implement the stormwater treatment measures described		

⁷⁴ Condition EM.17 amended on 8 March 2021

Ref	Condition		
	in this condition, as a contingency only if it does not obtain and necessary statutory authorisations for the mussel bed seeding proposal in a timely fashion, or if the mussel bed seeding trial is shown to be unsuccessful.		
EM.18	If the requirements in EM.17(a)(b) and (b) (c) ⁷⁵ are unable to be achieved, the treatment of stormwater may be varied if agreed by the Manager. Any variation to the requirements shall be developed in consultation with GWRC, DOC and the MWSG.		
Coastal dun	e vegetation restoration		
EM.19	(a) Coastal dune vegetation shall be planted on approximately 0.8 ha of the Pito-One foreshore located between the Settlers Museum and Hikoikoi Reserve on the Pito-One foreshore as identified in Attachment B of these conditions, shall be established prior to the Completion of Construction, and maintained for five years following planting.		
	(b) The restoration shall be designed to establish coastal dune vegetation and enhance resilience and integrity of a naturally rare ecosystem.		
	(c) Plants for coastal dune restoration shall be sourced from the Wellington ecological district, or the Sounds Wellington ecological region.		
	(d) The coastal dune vegetation restoration is subject to the grant of landowner approval for works and other necessary approvals. If landowner approval is unable to be obtained for access to the proposed site, alternative locations or an alternative method to compensate for the loss of marine ecology shall be identified and implemented in consultation with the Manager.		
EM.20	Prior to design of the coastal dune restoration, a vegetation survey of the existing area between the Settlers Museum and Hikoikoi Reserve shall be undertaken, and areas of existing vegetation mapped. This survey shall be used to inform design of the coastal dune vegetation restoration.		
EM.21	The EMP shall include the following details for the coastal dune revegetation:		
	(a) The area to be restored;		
	 (b) The plants to be used for dune restoration including spinifex (<i>Spinifex sericeus</i>) and pingao (<i>Ficinia spiralis</i>); 		
	(c) Procedures for carrying out the revegetation;		

⁷⁵ Condition EM.18 amended on 8 March 2021

Ref	Condition		
	 (d) Opportunities to co-ordinate with revegetation programmes being undertaken by other parties in area; 		
	(e) How the planted vegetation will be maintained for five years, including pest plant control and replacement of any failed plantings;		
	(f) Monitoring frequency and methods;		
	(g) Adaptation to respond to outcomes of monitoring; and		
	(h) Trigger levels above which pest control measures will be increased.		
Mussel bed	s in the Wellington Harbour		
EM.22	(a) This condition is subject to Condition EM.17(a).		
	(b) The EMP shall include (or be updated to include, once all necessary statutory authorisations are obtained) details of mussel beds to be seeded at locations in Te Whanganui-a-Tara to address effects of Construction Works in the CMA on marine ecology.		
	(c) The mussel beds shall be designed to create a large area or a series of small areas of subtidal habitat that involves, as a minimum, 60 tonnes of green-lipped mussels that will be incrementally deposited over an area of at least 6 hectares.		
	(d) The EMP shall include a Mussel Bed Management Plan which shall contain the following information:		
	 Details of a study undertaken to inform site selection, deployment method, and measures of success including a review showing where soft sediment mussel beds were formally present in Te Whanganui- a-Tara; 		
	ii. A map showing the location of the mussel beds at an appropriate scale;		
	iii. The results of a baseline survey of the seabed conditions at the proposed mussel bed location(s) including that a soft sediment environment is present and detailing the marine plants and animals that are found at and immediately adjacent to the proposed site;		
	iv. Details of the consultation that has occurred regarding the development of the Mussel Bed Management Plan including consultation with the MWSG and DOC;		

Ref	Condition
	 Measures to prevent any transfer and spread of invasive marine species between sites including any requirements and approvals from MPI;
	vi. Details of a trial involving the placement of mussels at a proposed mussel bed site including:
	a. The location for the mussel bed trial;
	b. The volume of mussels to be deposited;
	c. Details of the monitoring to occur which will be on a quarterly basis over a period of 12 months;
	 The specific measures of success for the trial mussel bed that demonstrate that mussels are being colonised and used by a diverse range of marine species;
	vii. Details for the creation of the remaining mussel beds;
	viii. Details of monitoring that will occur at least six monthly for a period of 5 years, for the purpose of confirming and recording the establishment of the mussel beds as a habitat for a diverse range of species. An annual report detailing the results of the monitoring shall be provided to GWRC and DOC.
EM.22A	(a) The consent holder will use its best endeavours to promptly obtain any additional statutory authorisations necessary to implement the proposed mussel bed programme, and subsequently to commence a 12 month trial mussel bed establishment programme within 9 months of commencement of resource consent RC.6.
	(i) If the 12 month trial is unsuccessful, Condition EM.17(b)-(f) apply.
	(ii) If any additional statutory authorisations necessary to implement the proposed mussel bed programme set out in Condition EM.22 are not obtained within two years of the commencement date of these consents, Condition EM.17(b)-(f) apply.
	(b) A report detailing the results of the 12-month mussel bed trial, prepared in consultation with the MWSG, shall be provided to GWRC and DOC within 1 month of the final monitoring of the trial. The report shall include a determination as to the success of the trial in achieving the measures of success in (a) above in relation to EM.22(d)(vi)(d).

Ref	Condition			
Pre–constru	ction	survey of rocky infauna		
EM.23	(a)	Prior to any Enabling Works or Construction Works at shingle beaches, a pre-construction survey of rocky infauna at shingle beaches under the Project footprint shall be undertaken. The purpose of the survey is to identify if any Smeagol <i>climoi</i> are present so that these can be translocated to unaffected shingle habitat.		
	(b)	The method for sampling of rocky infauna shall be set out in the EMP.		
	(c)	The results of the survey required by clause (a) shall be provided to GWRC and DOC within 4 weeks of completion of the assessment.		
	(d)	If any Smeagol <i>climoi</i> are identified by the survey, they shall be translocated by removing and redistributing the shingles, within which it is present, to an appropriate unaffected shingle habitat by hand, in accordance with the Smeagol <i>climoi</i> Translocation Plan detailed in clauses (e)–(f).		
	(e)	The methods for the translocation will be set out in a Smeagol <i>climoi</i> Translocation Plan developed by a Suitably Qualified Person in consultation with DOC. A copy of the Smeagol <i>climoi</i> Translocation Plan will be provided to GWRC for information prior to any translocation occurring.		
	(f)	The Smeagol <i>climoi</i> Translocation Plan shall detail the frequency and methods of monitoring of Smeagol <i>climoi</i> to occur six monthly for a period of 2 years post translocation event. Any translocation of Smeagol <i>climoi</i> shall be undertaken prior to works affecting the shingle beach habitat.		

Earthworks and land disturbance (EW)

Ref	Condition	
Erosion and sediment control measures		
EW.1	All practicable measures shall be taken during construction to reduce to the smallest amount practicable erosion and the discharge of sediment beyond the footprint of the Project.	
EW.2	Erosion and sediment control measures shall be implemented throughout Construction Works. They shall be constructed and maintained to operate and perform in accordance with <i>Erosion and Sediment Control Guidelines for the</i>	

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Ref	Condition		
	<i>Wellington Region (2002)</i> and any amendments to these guidelines, except where a higher standard is detailed in the conditions below in which case the higher standard shall apply.		
Erosion and S	Sediment Control Plans		
EW.3	(a) A Construction Erosion and Sediment Control Plan (ESCP) shall be prepared prior to the Start of Construction.		
	(b) The purpose of the ESCP is to set out measures to be implemented during construction to meet the requirements of EW.1.		
	(c) The ESCP shall be submitted to the Manager for certification at least twenty (20) working days prior to the anticipated Start of Construction in accordance with the process set out in Condition PC.5.		
EW.4	The ESCP shall be prepared in accordance with the <i>Erosion and Sediment</i> <i>Control Guidelines for the Wellington Region Greater Wellington Regional</i> <i>Council (2002)</i> and any amendments to these guidelines.		
	The ESCP shall be appropriate to the scale, location and type of earthworks and include:		
	 (a) Details of erosion and sediment controls including supporting information (calculations and design drawings); 		
	(b) For works in the CMA south of Karanga Point, measures to minimise the resuspension of potentially contaminated sediments;		
	(c) Links to contaminated land measures set out in the CLMP;		
	 (d) Identification of the persons with defined roles and responsibilities to monitor compliance with the ESCP; 		
	(e) Monitoring and maintenance requirements;		
	(f) Identification of when specific work areas / activities will require the preparation of a Site Specific ESCP (SSESCP) to a greater level of detail than outlined in the ESCP; and		
	(g) A procedure to establish and define minor changes to erosion and sediment control, which would not require either a SSESCP or further certification by the Manager prior to implementation.		
EW.5	(a) SSESCP(s) shall be prepared for the specific work areas / activities identified in the ESCP.		

Ref	Con	ndition	
	(b)	The p sedin area	ourpose of the SSESCPs is to provide details for erosion and nent control measures to be implemented within a specific work or for a particular activity.
	(c)	The S desig accor <i>Wellin</i> amen	SESCPs are to be limited to technical erosion and sediment control n and construction methodology and shall be prepared in dance with the <i>Erosion and Sediment Control Guidelines for the</i> <i>ngton Region Greater Wellington Regional Council</i> (2002) and any dments to these guidelines; and
	(d)	The S five (or act the e amen	SESCP shall be submitted to the Manager for certification at least 5) working days prior to earthworks associated with the specific area tivity in accordance with the process set out in Condition PC.5, with exception that the timeframe set out in Condition PC.5 (c) is ded to five (5) working days in respect of the SSECP.
EW.6	Witł unti set	h the e il the E out in	xception of Enabling Works, no earthworks activity shall commence SCP or relevant SSESCP is certified in accordance with the process Condition PC.5.
Inspection, in	ncide	nts an	d monitoring
EW.7	(a)	Durin inspe coast erosic of rai	Ig Construction Works, erosion and sediment controls shall be cted on a weekly basis and within 24 hours of each storm and/or al event that is likely to impair the function or performance of the on and sediment controls. A storm event is where more than 6mm nfall is measured in 1 hour or 20mm in 24 hours.
	(b)	lnspe recor	ctions shall be carried out in accordance with the certified ESCP and ds shall be maintained which detail:
		(i)	The location of the monitoring undertaken;
		(ii)	The time and date the monitoring was undertaken;
		(iii)	The weather, wave and tide conditions at the time of monitoring;
		(iv)	The performance criteria measured;
		(v)	The erosion and sediment controls that required maintenance;
		(vi)	The maintenance actions which were completed;
		(vii)	The time when the maintenance was completed; and
		(viii)	Areas of non-compliance with the ESCP, the reasons for the non- compliance and any action taken to remedy the non-compliance (if any).

Ref	Condition		
	(c)	This information shall be made available to the Manager upon request.	
EW.7A	(a)	If an incident occurs for which there is no incident procedure set out in these conditions the process outlined below in (b) – (d) shall apply.	
	(b)	The consent holder shall notify the Manager as soon as practicable after identifying that any contaminants (including sediment) have been released during the construction of the Project and entered the CMA de to any of the following:	
		 Discharges from non-stabilised areas that are not treated by erosion and sediment control measures required under this consent; 	
		(ii) Failure of any erosion and sediment control measures;	
		(iii) Discharge of any hazardous substances, including cement; and	
		 (iv) Failure of any temporary stream diversion for the construction of culverts; 	
	(c)	If any of the incidents specified in (b) occur, the consent holder shall:	
		 Establish control measures, where these have failed or have not been implemented in accordance with the relevant management plan, as soon as practicable; 	
		 (ii) Liaise with the Manager to establish what remediation or rehabilitation is required and whether such remediation or rehabilitation is practical to implement; 	
		(iii) Carry out any agreed remedial action; and	
		(iv) Maintain a record of the incident, which shall include the date and time of the incident, the nature, manner and cause of the release of the contaminants, weather conditions at the time of the incident, the steps taken to contain any further release, and the steps to remedy any adverse ecological effects on the CMA.	
	(d)	The notification in (b) shall be either by telephone or email, or via an alternative method as agreed with the Manager.	
EW.7B	(a)	In the event of either a failure of erosion and sediment control devices or where a storm event exceeds the design volume of the device, and where the discharge is to the CMA, a suitably qualified ecologist shall be notified within 24 hours, who shall then inspect the relevant area to determine whether there has been a significant adverse effect on the affected area's ecological values.	

Ref	Condition		
	(b) The consent holder shall prepare a report on the effects of the failure and any recommended measures that may be required to remedy the effects. The report shall be submitted to the Manager for approval within five (5) working days of the event.		
	(c) The consent holder shall ensure that after reasonable mixing no further serious impacts shall occur within the receiving environment.		
	(d) Any remedial measures shall be implemented within ten (10) working days of the approval of the Manager.		
Stabilisation	and decommissioning		
EW.8	The site shall be stabilised against erosion as soon as practicable, and in a progressive manner, as earthworks are completed over various areas of the site.		
EW.9	Upon completion of earthworks on the Project site, all areas of bare earth shall be permanently stabilised against erosion, in accordance with the certified ESCP.		
EW.10	(a) Erosion and sediment control measures shall only be removed:		
	 (i) when the corresponding catchment area has been permanently stabilised; or 		
	(ii) in accordance with a certified SSESCP.		
	(b) The removal of an erosion and sediment control device shall only occur after consultation and the receipt of written advice from the Manager. Such advice shall be based on information provided by the consent holder in relation to the quality of discharged water and the receiving environment and the adequacy of soil stabilisation and/or covering vegetation.		
	(c) If ten (10) working days have passed since a written request is made to the Manager to remove an erosion and sediment control device and the Manager has not provided a written response, then the device may be removed.		

Coastal activities (CA)

Ref

Condition

Design details - coastal

Ref	Condition			
CA.1	The temporary occupation of the CMA during construction is limited to the areas and structures identified in the drawings listed in Condition GC.1, or as otherwise certified by the Manager.			
CA.2	The right to permanently occupy the CMA is limited to the areas and structures identified in the detailed design certified by the Manager in accordance with Condition CA.3.			
CA.3	(a) At least twenty (20) working days prior to the anticipated Start of Construction in the CMA, the detailed designs and drawings (including plans of reclamation areas, rock pools and amour units, cross sections, elevations, permanent and temporary structures) shall be submitted to the Manager for certification. The purpose of the certification is to confirm that the design is in general accordance with the information listed in Condition GC.1 and the requirements of the relevant consent conditions.			
	(b) If twenty (20) working days have passed since the detailed designs and drawings have been provided to the Manager under clause (a) above, and the consent holder has not received a response from the Manager, the design drawings shall be deemed to be certified.			
	 (c) If the Manager(s') response is that they are not able to certify the detailed design and drawings the consent holder shall request that the Manager(s) provide reasons and recommendations for changes to the design drawings in writing. The consent holder shall consider any of the reasons and recommendation of the Manager(s) and resubmit an amended set of detailed design and drawings to be certified. 			
	(d) If the consent holder has not received a response from the Manager within five (5) working days of the date of resubmission under clause (c) above, the detailed design and drawings will be deemed to be certified.			
CA.4	The detailed design of permanent works in the CMA shall:			
	(a) Be in general accordance with the information listed in Condition GC.1; and			
	(b) Occur in parallel with development of the CEDMP prepared in accordance with Condition LV.1 and the Ecology Management Plan prepared in accordance with Condition EM.1.			
CA.5	The detailed design of the permanent works in the CMA shall achieve the following outcomes:			
	(a) Enhance public access to and along the coastal edge for pedestrians and cyclists;			

Ref	Condition			
	(b)	A varied coastal edge through the use of rock revetment, ūranga, seawalls and groynes;		
	(c)	Use of vertical seawalls rather than the rock revetment at shingle beaches;		
	(d)	Minimise adverse effects on coastal processes such as water flow patterns, erosion or potential for increased sedimentation;		
	(e)	Bird habitat enhancement and provision of bird roosting areas;		
	(f)	Design for the effects of climate change including sea level rise; and		
	(g)	Design for long-term durability, ease of maintenance access, and to minimise ongoing operation and maintenance requirements.		
Replenis	nmer	nt of Shingle Beaches		
CA.6	(a)	Beach replenishment shall be undertaken during the construction period at the shingle beaches located along the Project alignment but outside the Project footprint to protect or enhance these areas.		
	(b)	During detailed design, investigations shall be undertaken by a Suitably Qualified Person in consultation with an ecologist to identify:		
		 Existing shingle beach material composition (native or weathering revetment) and grain size grading; 		
		ii. Beach material supply rates;		
		iii. Stockpile and deposition areas and arrangements;		
	(c)	The purpose of the investigation is to identify an approximate portion of shingle beach material which is currently being supplied from the weathering revetment and would therefore be lost once the existing revetment is replaced;		
	(d)	The investigations shall be used to inform the detailed design of the groynes and the location, volume and grading of any beach material, and when and where this material is to be placed; and		
	(e)	The material to be used for the beach replenishment shall be sourced from areas within the Project footprint or an external source with suitable and compatible sediment properties.		
	Adı are EM.	vice note: the methods to salvage and place beach material during construction set out in the Coastal Works CEMP (Condition CA.9) and the EMP (Condition 6A).		
CA.6A	(a) Prior to any beach replenishment works, a Beach Nourishment Management Plan (BNMP) shall be prepared.			

Ref	Condition		
	(b) The purpose of the BNMP is to set out the methods for placement of material to protect or enhance the shingle beaches during construction of the Project while avoiding adverse ecological effects.		
	(c) The BNMP shall be prepared by a suitably qualified and experienced coastal processes specialist and ecologist.		
	(d) The BNMP shall be submitted to the Manager for certification at least twenty (20) working days prior to the anticipated start of any beach replenishment works in accordance with the process set out in Condition PC.5.		
	(e) The BNMP shall include:		
	 Details of any lizard salvage operations for areas above MHWS and covering the relevant matters in Condition EM.3 (Herpetofauna); 		
	 Details of measures to minimise the potential to block stream/culvert outlets with replenishment material; 		
	iii. The timing of nourishment outside of the breeding seasons if birds have been reported breeding on the beaches; and		
	iv. The monitoring of beach area and volume (via aerial surveying of beaches or similar suitable technique) to confirm that the deposited material has been suitably redistributed over the beaches before subsequent rounds of nourishment commence.		
Coastal V	Vorks Construction and Environmental Management Plan		
CA.7	(a) Prior to Start of Construction in the CMA, a Coastal Works CEMP shall be prepared.		
	(b) The purpose of the Coastal Works CEMP is to confirm the proposed methodology for works in the CMA and to set out the specific management procedures and construction methods to be undertaken in order to manage potential adverse effects arising from those works.		
	(c) The Coastal Works CEMP shall be submitted to the Manager for certification at least twenty (20) working days prior to the anticipated Start of Construction in the CMA in accordance with the process set out in Condition PC.5.		
CA.8	All works in the CMA shall be carried out in accordance with the Coastal Works CEMP and ESCP and any SSESCPs prepared in accordance with Conditions EW.3 and EW.5.		

Ref	Condition			
CA.9	In addition to the details required by Condition CC.2, the Coastal Works CEMP shall include the following information:			
	(a)	(a) Confirmation of the construction methodology, including:		
		(i)	The process for demolition and removal of existing structures;	
		(ii)	The methods to minimise the discharge of fine sediments to the CMA (e.g. clean material specified at source, floating silt curtains and geotextile fabric);	
		(iii)	Identification of all construction access points to the CMA and along the foreshore;	
		(iv)	The methods for the salvage and placement of shingle beach material during construction. These shall be consistent with the methods in the EMP required by Condition EM.6B;	
		(v)	The methods for the placement of the rock pools and armour units required by Condition EM.15A.	
		(vi)	The methods for the pre-construction survey for all remnant beach areas. These shall be consistent with the methods in the EMP required by Condition EM.23.	
		(vii)	Details of all temporary structures in the CMA and their associated construction methodology including the expected duration of occupation;	
		(viii)	Procedures for the refuelling, maintenance and storage of machinery to avoid discharges of fuels or lubricants to the CMA;	
		(ix)	Site clean-up following Completion of Construction; and	
		(x)	Linkages to the CNVMP with details of measures to manage noise and vibration;	
	(b)	Detai chem mate these	Is of the quantities, sources and physical (textural and geological) and nical (bulk chemistry and leaching potential) characteristics of fill rials for the Construction Works in the CMA and the method(s) by which e materials will be deposited; and	
	(c)	Detai CMA	Is of all practicable steps to be taken to minimise disturbance of the during the Construction Works.	
CA.10	The Manager shall be notified at least twenty (20) working days prior to the Start of Construction in the CMA.			

Ref	Condition
CA.11	The construction site shall be maintained in good order and any damage and disturbance of the foreshore or seabed caused by plant and equipment during construction shall be remedied as far as practicable.
CA.12	Within forty (40) working days following Completion of Construction in the CMA, all erosion and sediment control measures, construction materials and temporary staging shall be removed from the CMA in accordance with the certified Coastal Works CEMP.
Notificati	ion – Harbour Master
CA.13	At least twenty (20) working days prior to the Start of Construction in the CMA, the Wellington Harbour Master shall be notified in writing of the following:
	 (a) Details of any construction activities expected to occur below MHWS that do not involve construction from land;
	(b) Details of any activities involving offshore construction and disturbance of harbour signs and structures; and
	(c) The proposed date of Start of Construction in the CMA.
CA.14	The Wellington Harbour Master shall be consulted in regard to any lighting, mile markers or navigational aids required for the temporary and/or permanent structures in the CMA or the removal of any existing navigation infrastructure.
As–Built	Plans and Survey – Coastal
CA.15	Within three months of Completion of Construction in the CMA, a complete set of As-Built Plans shall be provided to the Manager. The As-Built Plans shall include a location plan, a plan which shows the area of coastal occupation, structure dimensions and cross-sections-,-including the replenished beaches.
CA.16	A survey plan shall be prepared that shows and defines the areas of land that has been reclaimed, including the location and the position of replenished beaches above MHWS and all boundaries in accordance with the requirements of section 245 of the RMA.
Maintena	ince of Structures
CA.17	The structures permitted to occupy part of the CMA by this consent shall be maintained in good and sound condition, and any repairs and reinstatements that are necessary shall be made, subject to obtaining any necessary resource consents or other approvals, if required.

Operational stormwater - Honiana Te Puni Reserve (SW)

Ref	Condition		
SW.1	The operational stormwater management system for new impervious areas at Honiana Te Puni Reserve shall be designed to achieve an annual average reduction of Total Suspended Solids, of at least 75% and reduce other contaminants from stormwater runoff discharging to the receiving environment.		
SW.1A	(a) At least twenty (20) working days prior to the anticipated Start of Construction of new impervious areas at Honiana Te Puni Reserve, design details of the proposed stormwater treatment measures shall be submitted to the Manager for certification.		
	(b) The certification is to confirm that the design is in general accordance with the information specified in Condition SW.1.		
	(c) If twenty (20) working days have passed since the design details have been provided to the Manager under clause (a) above, and the consent holder has not received a response from the Manager, the design details of the proposed stormwater treatment measures shall be deemed to be certified.		
	(d) If the Manager(s') response is that they are not able to certify the design drawings the consent holder shall request that the Manager(s) provide reasons and recommendations for changes to the design details of the proposed stormwater treatment measures in writing. The consent holder shall consider any of the reasons and recommendation of the Manager(s) and resubmit amended design details to be certified.		
	 (e) If the consent holder has not received a response from the Manager within five (5) working days of the date of resubmission under clause (d) above, the design details of the proposed stormwater treatment measures will be deemed to be certified. 		
SW.2	The stormwater management system shall be operated and maintained to achieve the design performance standard in Condition SW.1 above.		

Drilling (DG)

Ref	Condition
DG.1	Bore log forms for geotechnical investigations shall be submitted to GWRC within 1 month of the physical investigation being completed.
DG.2	The geotechnical investigations shall occur in accordance with drilling standard <i>NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock</i> .

ATTACHMENT A – AREAS OF LIZARD HABITAT



ATTACHMENT B – DUNE RESTORATION AREA







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Living Seawall (proposed location)
 SH2 Stormwater Treatment
 Foreshore Revegetation

Ngà Ūranga ki Pito-One Shared Path Proposed Measures to Address Residual Effects

> Date: 01 October 2020 | Revision: 1 Plan prepared for the NZ Transport Agency by Boffs Miskell Umited Project Manager, Leigh Bull@boffamilitell.co.rz | Drawn: HHu | Checked: Life

Map 11

ATTACHMENT C – TE ARA TUPUA KAITIAKI PRINCIPLES

Te Ara Tupua Kaitiaki Principles

The Te Ara Tupua Kaitiaki Principles developed during 2020 in consultation with Taranaki Whānui advisors and the Mana Whenua Steering Group are:

"Ranginui – the connection to the various spiritual realms of the great and vast heavens, the source of light and understanding, growth and ultimate link to the celestial family

Mouri – The mouri of Te Ara Tupua – the living relationship between the ngahere, the cliffs, the water ways, hinemoana and everything that lives within that environment have their own individual and interdependent vitality

Wai Tai, Wai Māori –Nga wai tuku kiri tai noa atu ki hinemoana – the connection between the springs, streams, aquifers, rivers and all waterways that bring with them their life, mouri and mana which eventually mingles together with Hinemoana

Ahua – The character of Te Ara Tupua is seen, the beauty, the mystique, the wonder, the wild and rawness – the identity of Te Ara Tupua endures beyond the present through capturing and captivating the hearts and minds of the few and the many

Tātai Whakapapa – The history, the connections, the relationships and friendships – they shape the land and the people

Whānau – The care of manuhiri and people is embedded in the identity of Te Ara Tupua seeking to ensure a strong sense of connection imbuing a strong sense of responsibility towards Te Ara Tupua

Mana Whenua –Te Ara Tupua is seen as a living piece of the identity of Mana Whenua who take pride in this space, taking on the obligation of care, responsibility and giving life to its history and story

Papatūānuku – The mountains, the cliffs, the landforms, the geology, ngahere, trees, birds – they all need each other to exist".

ATTACHMENT D – EXISTING ROWING COURSE


ATTACHMENT E – POTENTIAL PENGUIN AND VARIABLE OYSTERCATCHER HABITAT



APPENDIX 2

Comments received on the application and notices of requirement

On 20 November 2020 the panel invited comments on the application and notices of requirement. Comments closed on 11 December 2020

A total of 25 comments were received from:

Minister for Land Information - Hon Damien O'Connor

Minister for Māori Crown Relations Te Arawhiti - Hon Kelvin Davis

Minister for Treaty of Waitangi Negotiations - Hon Andrew Little

Cycle Wellington

Department of Conservation

Employers and Manufacturers Association

Generation Zero

Great Harbour Way Te Aranui o Pōneke Trust

Greater Wellington Regional Council

Heritage New Zealand Pouhere Taonga

Hutt City Council

Hutt Cycle Network and others

KiwiRail Holdings Ltd

Living Street Aotearoa

New Zealand Infrastructure Commission Te Waihanga

New Zealand Fish and Game Council

Powerco Limited

Royal Forest and Bird Protection Society of New Zealand Inc

Taranaki Whānui Port Nicholson Block Settlement Trust

Te Ātiawa ki te Upoko o Te Ika ā Māui Pōtiki Trust

Te Rūnanga o Toa Rangatira

Wellington City Council and Wellington Waterfront Ltd

Wellington Rowing Association

Wellington Water Limited

Wellington Water Ski Club

On 18 December 2020, Waka Kotahi NZ Transport Agency (NZTA) responded to the comments from the invited parties.

Comments received on the draft conditions

On 20 January 2021 the panel invited comments on the draft conditions from Waka Kotahi NZ Transport Agency and every person or group that provided comments in response to the invitation to comment on the application and notices of requirement.

A total of 7 comments were received from:

Waka Kotahi NZ Transport Agency Department of Conservation Greater Wellington Regional Council Heritage New Zealand Pouhere Taonga Hutt City Council

Taranaki Whānui Port Nicholson Block Settlement Trust

Wellington City Council

On 30 January 2021, Taranaki Whānui Port Nicholson Block Settlement Trust provided a supplementary comment to its original comment on the draft conditions.

BEFORE THE ENVIRONMENT COURT

Decision No. [2011] NZEnvC 402

IN THE MATTER of appeals under Section 120 of the Resource Management Act 1991 (the Act)

BETWEEN

TE RUNANGA O NGAI TE RANGI IWI TRUST

(ENV-2010-AKL-000185)

S TUAHAKARAINA ON BEHALF OF TE TAUMATA O NGA TE POTIKI (ENV-2010-AKL-000189)

NGATI RUAHINE & L WAAKA

(ENV-2010-AKL-000192)

Appellants

AND

BAY OF PLENTY COUNCIL

ENTY REGIONAL

Respondent

PORT OF TAURANGA LIMITED

Applicant

Hearing:

At Tauranga, 4 – 8 April, 11/12 April, 18 – 21 April, 26 April, 14/15 November 2011

Court:

Environment Judge J A Smith Deputy Chief Maori Land Court Judge C Fox Environment Commissioner A J Sutherland Environment Commissioner H M Beaumont



Te Runanga o Ngai Te Rangi Iwi Trust & Ors v Bay of Plenty Regional Council (Decision).doc (rp)

Appearances: Ms V J Hamm and Ms M Paddison for Port of Tauranga Limited (the Port)

Mr P H Cooney and Ms R Zame for Bay of Plenty Regional Council (the Regional Council)

Mr J P Koning and Mr C Manuel for Te Runanga O Ngai Te Rangi Iwi Trust (**Ngai Te Rangi**)

Ms H J R Rollison for Ngati Ruahine and others

Ms R S Tuahakaraina for herself

Date of Decision: 21 December 2011

RECOMMENDATIONS TO THE MINISTER OF CONSERVATION AND DECISIONS OF THE ENVIRONMENT COURT

A. The Court recommends to the Minister of Conservation that the restricted coastal activities be granted appropriate consents subject to Conditions being finalised and approved by this Court, as set out in the Court's Reasons for Recommendations, and the Draft Conditions attached as "C" for the following activities:

Consent 65806

- (a) Under sections 12(1)(c) and 12(1)(e) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional Coastal Environment Plan to undertake a restricted coastal activity being to disturb the seabed of Tauranga harbour by dredging; and
- (b) Under sections 12(1)(d) and 15A(1)(a) of the Resource Management Act 1991 and Rule 14.2.4(za) of the Bay of Plenty Regional Coastal Environment Plan to undertake a restricted coastal activity being to deposit dredged material in the coastal marine area; and
- (c) Under section 12(2)(b) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional



Coastal Environment Plan to undertake a restricted coastal activity being to remove dredged material from the coastal marine area; and

- (d) Under sections 12(1)(c) and 12(1)(e) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional Environment Plan to undertake a restricted coastal activity being to disturb the seabed of Tauranga Harbour by maintenance dredging.
- B. The Court confirms consents being granted, subject to Conditions of Consent being finalised and approved by this Court as set out in the Court's Reasons for Decision and Draft Conditions for the following activities:

Consent 65807

- (a) Under section 15(1)(a) of the Resource Management Act 1991 and Rule 9.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan to undertake a discretionary activity being to diffusely discharge sediment and sediment laden water to Tauranga Harbour during dredging; and
- (b) Under sections 12(1)(d) and 15A(1)(a) of the Resource Management Act 1991 and Rule 14.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan to undertake a discretionary activity being to deposit boulders and to carry out beach nourishment in the coastal marine area; and
- (c) Under section 14(1)(2) of the Resource Management Act 1991 and Rule 10.2.4(d) of the Bay of Plenty Regional Coastal Environment Plan to undertake a discretionary activity being to take coastal water during dredging.
- C. The Port is to liaise with other parties and circulate Proposed Draft Conditions within 30 working days:
 - 1. A Consent Memorandum agreeing a set of conditions is to be forwarded to the Court by the Port within a further 30 days. If such a Consent Memorandum cannot be agreed between the parties then all parties are to file comments on the Port's proposed draft conditions within a further 20 working days;
 - 2. The Port and the Council may submit a joint memorandum within the above 20 days should they wish to do so.



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D. Any application for costs to be filed within 50 working days. Any replies to be filed a further 10 working days thereafter.

REASONS FOR RECOMMENDATIONS AND DECISION

Introduction

[1] How do we integrate the competing interests of the Port of Tauranga (the Port) seeking to widen and deepen the entrance to its entry channel to accommodate larger ships, while recognising and providing for the legitimate cultural concerns and relationship of relevant local iwi who have an interest in Mauao (Mt Maunganui), Panepane Point on Matakana Island, and the large pipi beds in and around the entrance to the wider harbour of Tauranga Moana known as Te Awanui?

[2] In this decision we examine these questions in the context of the Resource Management Act (the Act), and consider a breadth of scientific, cultural and metaphysical concerns. This case highlights many of the tensions inherent in the Act and the need to exercise careful value judgments in order to achieve sustainable management as that term is defined in the Act.

[3] As was noted by the Privy Council in *McGuire v Hastings District Council*¹

21. ... The Act has a single broad purpose. Nonetheless, in achieving it, all the authorities concerned are bound by certain requirements and these include particular sensitivity to Maori issues ... While, as already mentioned, this cannot exclude compulsory acquisition (with proper compensation) for necessary public purposes, it and the other statutory provisions quoted do mean that special regard to Maori interests and values is required in such policy decisions as determining the routes of roads.

[4] In considering this case, the Court has had regard to the implications of the Privy Council decision paragraphs $[28] \& [29]^2$ for the protection of Maori land rights under the Act, and the appropriate composition of the Court in such cases. Commissioner Sutherland brings to the Court extensive experience and reputation in the area of harbour hydrodynamics. Commissioner Beaumont brings scientific expertise. The Court also

² These noted the use of Alternate Environment Judges from the Maori Land Court



¹ [2001] NZRMA 557 (PC) at [21]

includes Deputy Chief Maori Land Court Judge Fox to ensure cultural issues are considered and addressed.

The Context of the Application

[5] The Port of Tauranga is accessed via the Pacific Ocean through an entrance between Mauao and Matakana Island (more particularly Panepane Point). Beyond the entrance is a wide harbour (Tauranga Moana, or more particularly Te Awanui) as shown on the attached General Map marked **A**, with the Port located largely along the Mt Maunganui Spit between Tauranga and Mt Maunganui. The shipping channel runs from Panepane Point directly to the wharves at Mt Maunganui. It then runs alongside these wharves directly to the Sulphur Point wharves and Stella Passage, the entrance to the southern or upper harbour.

- [6] There are two other significant channels in the harbour:
 - [a] the Western Channel, running east/west to the south of Matakana and Rangiaea Islands; and
 - [b] the Otumoetai Channel, extending westwards from Sulphur Point. Together with the shipping channel, these channels bound a shallow section of the harbour known as Centre Bank or Te Paritaha. This area has portions exposed at low tide and contains extensive pipi beds.

[7] We will discuss the history of Maori occupation in this area shortly. Suffice for current purposes to note that the area has been extensively occupied by various iwi for many centuries. Other iwi have also had ability to access the area by agreement with local iwi. Mauao is a central element of the oral tradition of all local iwi, as is Tauranga Moana. As well as a marker for all residents in the area, Mauao also has major cultural and ritual significance for Maori. Mauao has been vested in trustees for local iwi for the last few years in recognition of its general importance to Maori.

[8] The Port utilises only a part of Te Awanui, namely a reach to the main entrance at Panepane Point and then a reach across Pilot Bay to the Mt Maunganui wharves (known as Cutter Channel) and then a long section alongside the wharves (known as the Maunganui Roads). In more recent years the Port has developed container facilities on



the Tauranga side of Maunganui Roads (Stella Passage) and is seeking to extend those to provide for larger ships and more container handling. The current access for shipping to the wharves is provided by resource consents which have been granted to allow dredging to depths of up to 14.1m in the outer channels (the Entrance Channel and part of the Cutter Channel) and to 12.9m in the inner channels (for the remainder of the Cutter Channel, Maunganui Roads as well as the Stella Passage).

[9] The earlier deepening and widening of the entrance channel altered part of Tanea Shelf, at the sub-tidal part of Mauao adjacent to the entrance. It is also clear that the continued dredging to maintain channel depth has had an impact on the pipi beds within the entrance channel and, to a lesser extent, on the sides of the entry channel.

[10] There have been a significant number of historical changes to the harbour as a result of the Port activity, including the construction of the wharves, the reclamation and subsequent construction of the container facilities on the Tauranga side at Sulphur Point, and the widening and deepening of the channels. Other changes in and around the harbour include the building of the causeway and harbour crossing, development of the roading network and of Tauranga City, and an increase in agricultural and forestry activity.

[11] Many witnesses for the appellants gave evidence as to the nature of historical changes to the harbour environment and the deterioration in water quality and the kaimoana resources, attributing some or all of the blame for them to the Port. This was strenuously denied by the Port and its witnesses, which indicates something of the background tone to this hearing.

[12] The recent report of the Waitangi Tribunal on Tauranga Harbour claims (WAI 215) was cited to us by many of the appellants' witnesses. Although urging us to exercise caution in its application, the Port and Regional Council eventually acknowledged that:

- [a] the report could be referred to by the Court;
- [b] the Court could consider the factual and other conclusions as persuasive; and



[c] that caution should be exercised where conflicting evidence was before the Court.

[13] In this case the factual history was not contested by the applicant or the Regional Council. We quote from the report where we consider it summarises evidence given to us, is uncontested, or summarises legal positions upheld by superior courts.

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HISTORY

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[14] The Tauranga Harbour has been a source of unrest for many generations of Maori. It has reached the point now, that the Waitangi Tribunal (WAI 215) noted:

... The understandable result has been that some Tauranga Māori have become so frustrated that they themselves are no longer engaging with local authorities in the necessary spirit of good faith, and willingness to compromise, that must characterise the Treaty partnership.³

[15] This is not a result of a single event but a culmination of a number of events where the Waitangi Tribunal recently held that:

... it cannot be consistent with the principles of the Treaty to strip Māori of possession of their Taonga by 'tacit application of presumptions of English law of which Māori knew nothing'.⁴

[16] Tauranga was one of the first areas settled by Maori in New Zealand. Tauranga was blessed with a mild climate and a range of available resources, access to these resources ensured that Maori thrived in the area:

... The entire Tauranga district, estimated at 290,000 acres, was included in the confiscation proclamation of 1865. Of this area, the Crown retained a 50,000 acre area known as the 'confiscated block'. Though the land outside the 50,000 acre block was returned to Māori between 1865 and 1886, most of this land was quickly lost from Māori ownership as well. The Crown purchased some 90,000 acres within the district known as the Te Puna-Katikati block and a further area of 'returned land', estimated at 75,000 acres, was sold to the Crown or private purchasers. By 1886, Tauranga Maori retained only an estimated 75,000 acres of relatively poor quality land and this was no longer held under customary title.⁵

...

⁵ Waitangi Tribunal, *WAI 215: Te Raupatu o Tauranga Moana: Report on the Tauranga Confiscation Claims* (2004), Waitangi Tribunal Website www.waitangi-tribunal.govt.nz, Summary pages



³ Waitangi Tribunal, WAI 215: Tauranga Moana ; 1886-2006, p. 623

⁴ Ibid, p. 607

... The land loss of Tauranga Māori in the late nineteenth century was considerable. Added to the effects of the raupatu, that loss forms a critical backdrop to understand the impact of Crown policies and practices in the century or so that followed.⁶

... As a consequence of the Raupatu and its aftermath, Māori communities in the Tauranga area were confined to reserves on the coastline around Tauranga Moana; to a handful of blocks of land around the eastern end of the harbour and to some slightly larger blocks in the hill country running into the Kaimai ranges.⁷

[17] Maori therefore had to adapt and became reliant on the sea and rivers to sustain themselves in the area:

... During the early intercourse of Europeans with New Zealand[,] Tauranga became of much consequence as a port.⁸

[18] This was due to the location of Tauranga between Auckland and Wellington and the ability for a safe, all-weather, deep water berth to be utilised:

... by the 1880s, Māori and the Crown had assumed distinctly contrary positions as to who rightfully possessed and controlled the foreshore and seabed – positions that remain today. In Tauranga, these differences emerged over the question of who possessed and controlled Tauranga Moana. In practice, the Crown settled this question by passing a series of Acts that vested authority in bodies entirely composed of Pākehā settlers. With these Acts, possession and authority over Tauranga Moana passed from Tauranga Māori, without consultation ... Their Harbour was under the direct jurisdiction of the Tauranga Harbour Board, and its control was backed by the full authority of the Crown. Henceforth, Tauranga Māori would struggle to assert their Treaty rights to participate in the management of the harbour before the Crown; the question of ownership was foreclosed.⁹

Therefore,

... Tauranga Māori lost the great majority of their ancestral lands. Even so, they [did not and] have not lost their association with those many places and environments, which remain the source of their cultural identity.¹⁰

... The development of the Port had several components; the construction of the Mount Maunganui deep-water wharf, the construction of the Sulphur Point container terminal, the dredging of shipping channels, and the harbour bridge.¹¹

¹¹ Ibid, p. 534



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⁶ Waitangi Tribunal, WAI 215: Tauranga Moana ; 1886-2006, p. 837

⁷ Ibid, p. 6

⁸ Ibid, p. 509

⁹ Ibid, p. 516

¹⁰ Ibid, p. 490

[19] The drive to develop a deep-water international port within Tauranga Harbour gathered momentum in the mid-twentieth century as the region's economy boomed, especially the forestry industry.

[20] From 1915, there was a burst of activity around the harbour. The government was at the forefront of this activity, but withdrew when it became clear that dredging was pointless because the channel filled with silt as fast as it cleared. The Harbour Board took over, and in 1923, the Stella Passage was dredged and the Cutter Channel deepened.¹²

[21] In 1925, the Harbour Board received government approval for a concrete wharf to replace the Mount Maunganui railway wharf that had fallen into disrepair. During this time, there were several reclamations in the Sulphur Point area.¹³

... The next round of major harbour works, starting in 1968 focused on Sulphur Point. The decision to reclaim land here was crucial; it created the twin port structure (Sulphur Point and Mount Maunganui) and dictated transport networks.¹⁴

[22] The actual development of the Port was extraordinarily rapid. The Government was to design and construct the port, and pass control over to the Tauranga Harbour Board after the initial phases were completed. An official's committee called for the work to be declared in the national interest so that construction could be accelerated. The fast tracking of the construction may have contributed to potential adverse effects being overlooked; this resulted in:

... Siltation caused by port construction, transport infrastructure, and agricultural development ... detrimentally affect[ing] the ecology of the harbour and its fisheries.¹⁵

... Estuaries, rivers, streams, and wetlands at the harbour edge - all areas providing rich and easily accessible food supplies for Tauranga Māori - have been impacted \dots^{16} ,

most notably the once vibrant pipi beds.

- ¹² Ibid, p. 531
- ¹³ Ibid, p. 531
- ¹⁴ Ibid, p. 535
- ¹⁵ Ibid, p. 565
- ¹⁶ Ibid, p. 540



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[23] These developments were recorded as being in the national interest but seemed to overlook Maoris' beliefs and as such:

... the port and airport developments resulted in much of their whareroa land being lost to public works, with only limited compensation – it is relevant to note here that the Crown in fact took more land than it needed and sold off the excess for considerable profit.¹⁷

[24] These sales did little to strengthen the belief that the land was needed for the national interest and created a feeling of distrust and animosity between iwi and the Port authorities, which is still evident today:

The expansion of Tauranga City to the east was done without consideration for the history of raupatu in the region: the eastern end of the harbour was precisely where much of the remaining Māori land was situated. Māori were not involved in key public works and planning decisions in Tauranga, and their interests and concerns were not protected. The result was that, from 1886 to 2006, at least 4961 acres of Māori land was taken for public works in Tauranga.¹⁸

[25] Reclamation has affected more than the Harbour itself, it has impacted on the expression of Maori customs and beliefs as well, including their right to protect their lands.

[26] Not only were the fertile lands that Maori had once possessed taken from them, but during the period from 1886-1991, Tauranga Harbour and other waterways were polluted by numerous discharges, including sewage and stormwater outfalls, septic tank seepage, urban runoff, rubbish tip seepage, agricultural runoff and industrial wastes. As a result *bacterial contamination of rivers and streams was a serious problem in Tauranga by the mid-1990s*.¹⁹

[27] Maori have always opposed such pollution as any harmful discharge into the harbour, or into the key waterways such as the Wairoa, is culturally unacceptable.²⁰ This had a lasting effect on Tauranga Maori unable to sustain their traditional way of life, and unable to utilise their taonga as a base for economic development.²¹ Effectively:

- ¹⁷ Ibid, p. 838
- ¹⁸ Ibid, p. 852
- ¹⁹ Ibid, p. 545
- ²⁰ Ibid, p. 559
- ²¹ Ibid, p. 854



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Māori customary or aboriginal title to rivers and waterways in Tauranga has been displaced through a combination of the raupatu and the application of introduced law in New Zealand.²²

[28] As is evident from the history of Tauranga, development of the Port is always going to create disagreement and resentment between parties and this appeal is not going to solve that. As the Waitangi Tribunal has stated:

... We note that Tauranga Māori retain ownership of ancestral lands with water frontage at numerous places around Tauranga Harbour. However, it is not our role to determine as a matter of law whether these lands include the foreshore or the seabed ...²³

This Court notes the Tribunal's finding that,

... in usurping ownership over Tauranga Moana and presuming to delegate ownership to other entities, the Crown has committed a number of Treaty breaches.²⁴

[29] This Court cannot undo past wrongs but it can to a limited extent mitigate the damage caused through conditions that address cumulative effects.

[30] The Waitangi Tribunal recommended that:

... Where the wider public also have a strong interest in taonga, as is the case with the harbour, significant waterways, and the native forests of Kaimai Range, we recommend that the Crown explore possibilities for joint management between local government and Māori.

We are also concerned at the evidence of resource loss and environmental degradation, particularly in relation to the harbour and waterways. We therefore recommend that the Crown, in conjunction with the tangata whenua, investigate the possibilities for remedial action, and that the Crown contributes towards to the costs of any projects identified.²⁵

[31] This should be the focus and main aspiration for the future running and development of the Port of Tauranga. We can see no reason in principle, why local government and the Port Company cannot partner in restoration projects. These benefit all users including tangata whenua.

- ²² Ibid, p. 518
- ²³ Ibid, p. 607
 - ²⁴ Ibid, p. 608
 - ²⁵ Ibid, p. 862



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THE CURRENT APPLICATION

- [32] The current application seeks to:
 - [a] Deepen²⁶ the entrance channel as far as the midpoint of the Cutter Channel from 14.1m to 17.4m, a deepening of some 3.3m. The deepening includes part of the Tanea Shelf:
 - [b] Widen the channel in Number 2 Reach by removing 32m of Tanea Shelf;
 - [c] Deepen the inner section of Cutter Channel and Mt Maunganui Roads from 12.9m to 16m, a deepening of 3.1m and a widening of those channels by up to 115m, the widening varies depending on its position along the channel;
 - [d] Create a defined turning basin adjacent to Sulphur Point. This will involve the widening and deepening of the Stella Passage and a portion of the Otumoetai Channel to 16m.

[33] All the various works are shown on Plan marked \mathbf{A} and annexed hereto. We note, in particular, that a temporary storage and extraction site near Sulphur Point is intended to provide a site for storage of sand material prior to its permanent extraction and use ashore.

[34] As can be seen, in addition to the main channels, there is a side channel to the Number 1 Reach which is dredged to 10.4m.

[35] For the sake of understanding the impact of the proposal, also annexed hereto and marked \mathbf{B} is a further map showing in more detail the areas to be dredged in relation to existing morphology and the pipi beds. It can be seen that the widening of the entry towards Mauao will involve removing composite boulder material, and it is intended that this be utilised to create artificial reefs further inshore. The dredging of the pipi beds is unavoidable to achieve the finished depth in the Cutter Channel and Number 2 Reach. The pipi will not survive deposition in the offshore disposal area.

²⁶ Water depths are measured from chart datum which corresponds with the lowest astronomical tide



[36] It is acknowledged that there will be impacts on Tanea Shelf (Mauao) and the Central Bank pipi bed (Te Paritaha). These areas are recognised as having cultural values and are part of a Mataitai Reserve managed by tangata kaitiaki, which we will discuss in due course.

[37] The proposal sought capital dredging of approximately 15 million cubic metres of material and the ability to remove some 10 million cubic metres of that from the coastal system. These activities involve restricted coastal activities, and also discretionary activities under the Bay of Plenty Regional Coastal Environment Plan.

[38] The larger channels will be maintained by maintenance dredging which will involve;

- [a] Beach replenishment within Pilot Bay and on the ocean beaches, as appropriate;
- [b] Deeper water off-shore disposal (removal from the coastal sediment transport system) near areas marked H on appropriate maps (annexed hereto and marked A);
- [c] The removal of some of the sand, for sale and other purposes.

[39] Maintenance dredging was calculated to be in the order of 180,000 to 200,000m³ per annum after capital dredging.

THE PROCESS

[40] This application did not have an auspicious beginning. The Port, for unexplained reasons, decided to repeat the dredging application, updating for the new width and depth, they had made in 1989 prior to the enactment of the Resource Management Act 1991. Around one month prior to the hearing of the application before the Council, the Port was advised that it needed to at least consult with tangata whenua.

[41] Unsurprisingly, tangata whenua were both surprised and disappointed at the way in which the Port consulted well after the application was filed. Tangata whenua sought more time to consult on several occasions. The Port agreed to several deferments and



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then refused further adjournments, and the matter proceeded to a hearing. Various elements of the tangata whenua were unhappy with both that process and the outcome which granted consent. They then appealed to this Court. The Port declined mediation and sought an early hearing.

[42] The Port's expert witnesses acknowledge that this process was less than ideal (which we regard as a massive understatement). During this hearing the Court attempted on a number of occasions to encourage meaningful dialogue between the various iwi, the Port and the Regional Council. We are satisfied that the Regional Council has clearly recognised the issues arising in this case and sought to encourage some accommodation between the parties.

[43] While the parties were willing to attend hui, the end result has been that the parties have agreed to disagree and have sought an outcome imposed by this Court. While it is this Court's duty to make a decision in respect of such an application, the importance of the decisions to be made in this case for both the Port and tangata whenua cannot be underestimated. They concern not only the economic, but the ecological and cultural welfare of this area into the foreseeable future. They involve competing values and potentially incompatible uses in part of Te Awanui. This Court would have preferred that the participants had a hand in integrating and managing the allocation of space and resources within the harbour, rather than having decisions imposed on them by the Court.

[44] We are particularly sensitive to the fact that this is not the only matter relating to Tauranga Moana which is currently being determined. The Crown and various iwi groups are currently in negotiation relating to Treaty of Waitangi Tribunal claims given the second interim Treaty of Waitangi report for Tauranga Moana (WAI 215) released in 2010. Some of those claims relate to the activities of the Port from 1920s to 1960s which resulted in some adverse findings by the Waitangi Tribunal relating to the Port's acquisition of land and use of facilities.

[45] That the Port would file an application without any prior consultation with iwi tends to reinforce perceptions, currently raw because of the Treaty of Waitangi process, of ignoring the legitimate cultural concerns of local iwi in pursuit of economic outcomes. It has been a general theme of this case that the Port does not deny the cultural concerns of iwi, but simply reiterates the economic importance of their application being granted. Given the minimal amount of mitigation/compensation originally proposed, it seemed to



be assumed by the Port that the economic benefits would outweigh, or trump, any concerns under Sections 6, 7 and 8 of the Act in relation to Maori cultural values in this case.

[46] At the final sessions of the hearing held on 14th and 15th November 2010, the Port closed in a very different way. Concerns with Te Paritaha and Mauao were not only recognised but proposals were made to defer works until necessary and to fund a Trust to advance Te Awanui on a series of fronts. The new proposals are important and meaningful in recognising and providing for the relationship of iwi and hapu with Te Awanui and Mauao. We will discuss these proposals as part of the applicant's package in due course. It is regrettable that such proposals were not explored with iwi at an earlier stage.

Activity Status

[47] These applications predated removal of restricted coastal activities from the Coastal Plan and these require ministerial approval. This applies to the applicant's proposed activities from Consent 65806. The applicant listed these activities as follows:

Consent 65806

- (a) Under sections 12(1)(c) and 12(1)(e) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional Coastal Environment Plan to undertake a restricted coastal activity being to disturb the seabed of Tauranga harbour by dredging; and
- (b) Under sections 12(1)(d) and 15A(1)(a) of the Resource Management Act 1991 and Rule 14.2.4(za) of the Bay of Plenty Regional Council Coastal Environment Plan to undertake a restricted coastal activity being to deposit dredged material in the coastal marine area; and
- (c) Under section 12(2)(b) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional Coastal Environment Plan to undertake a restricted coastal activity being to remove dredged material from the coastal marine area; and
- (d) Under sections 12(1)(c) and 12(1)(e) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional Environment Plan to undertake a discretionary activity being to disturb the seabed of Tauranga Harbour by maintenance dredging.



[48] Consent 65807 is subject to direct decision of this Court. The applicant listed these activities as follows:

Consent 65807

- (a) Under section 15(1)(a) of the Resource Management Act 1991 and Rule 9.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan to undertake a discretionary activity being to diffusely discharge sediment and sediment laden water to Tauranga Harbour during dredging; and
- (b) Under sections 12(1)(d) and 15A(1)(a) of the Resource Management Act 1991 and **Rule 14.2.4(b)** of the Bay of Plenty Regional Coastal Environment Plan to undertake a discretionary activity being to carry out beach nourishment in the coastal marine area; and
- (c) Under section 14(1)(2) of the Resource Management Act 1991 and Rule 10.2.4(d) of the Bay of Plenty Regional Coastal Environment Plan to undertake a discretionary activity being to take coastal water during dredging.
- [49] The rules are shown in the following tabulated form:

Rule Number	Zone	Classification	Description of Activity
14.2.4(z)	All zones	Discretionary Restricted Coastal Activity	Disturbance of (including removal of sand, shingle, shell, or other natural material from) the foreshore or seabed which:
			 Is not maintenance dredging, or
			 Is not explicitly provided for by Rule 14.2.4(y), or
			 Is not prohibited by another rule, and
			 Is in volumes greater than 50,000 cubic metres, or
			 Is extracted from areas equal to or greater than 4 hectares, or
			• Extends 1,000 metres or more over the foreshore or seabed.



Rule Number	Zone	Classification	Description of Activity
14.2.4(za)	All zones	Discretionary Restricted Coastal Activity	 Deposition of any material on the foreshore or seabed which: Is not explicitly provided for by rules 14.2.4(t) or 14.2.4(u), or Is not prohibited by another rule, and Is greater than 50,000 cubic metres in any 12 month period.
Rule Number	Zone	Classification	Description of Activity
10.2.4(d)	All zones	Discretionary Activity	The taking of coastal water from within harbours or estuaries at rates or quantities greater than 15 cubic metres a day.
Rule Number	Zone	Classification	Description of Activity
14.2.4(b)	All zones	Discretionary Activity	Any disturbance of, deposition on, dredging of, or removal of sand shingle and shell, from the foreshore or seabed, not expressly provided for or prohibited by the other rules of this plan.

Rule Number	Zone	Classification	Description of Activity
9.2.4(b)	All zones	Discretionary Activity	Any discharge except as expressly prohibited by other rules in this plan.

The Activity Status of the Reef

[50] There is a concern as to whether the deposition of the boulders within the onshore area to the east of Tanea Shelf is a prohibited activity as it is located within the Port Zone. Mr Lawrence, the planner for the opposing parties noted that the reef was to be preferentially sited within the Port Zone. It is acknowledged that deposition of the boulders outside the Port Zone (i.e. at the eastern end of the Pilot Bay Reef) is a discretionary activity. It also seems to be common ground that if a reef is to be established, the best position for it was adjacent to the area of Tanea Shelf which is to be affected.



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[51] The boulders selected for placement to create the artificial reef are a resource in exactly the same way as clean sands used for beach renourishment. We agree with Mr Kemble that these boulders are not waste products and should not be characterised as spoil. Accordingly, the placement of these boulders does not trigger Rule 14.2.4(x) prohibiting the disposal of spoil within the Port Zone.

[52] Mr Cooney submitted that Rule 14.2.4(b) captured the placement of boulders as it provides for all disturbances of the foreshore and seabed not specifically covered by any other rule.²⁷ He rejected the suggestion by Mr Koning that this rule only related to *sand*, *shingle and shell*.²⁸

[53] We accept the submission of Mr Cooney that Rule 14.2.4(b) operates as a *catch all* rule and provides for the deposition of boulders in the Coastal Marine Area as a discretionary activity. While not the best example of Chancery drafting, it is clear from the policy context and rule framework that 14.2.4(b) is not limited to activities relating only to *sand, shingle and shells*.

[54] Accordingly, this activity is to be included alongside the beach replenishment authorised by Rule 14.2.4(b) in Consent 65807.

Activity of Maintenance Dredging

[55] Another issue which arises is whether maintenance dredging is a discretionary activity, as granted by the Commissioners, or a discretionary restricted coastal activity. Rule 14.2.4(z) might apply, however that rule appears to specifically exclude maintenance dredging. Mr Kemble was of the view that this exclusion related to the definition in the Regional Coastal Environment Plan Schedule One (drawn from the New Zealand Coastal Policy Statement 1994) S1.6 which confines maintenance dredging to that necessary to *maintain water depths to previously approved levels*.

[56] As new levels are being approved Mr Kemble argued that this was not maintenance dredging in accordance with the definition in the Plan. The other planners agreed and thus 14.2.4(z) applies and the activity is a restricted coastal activity.²⁹

²⁹ Joint Statement of Fraser, Lawrence and Kemble, 25 March 2011, at [3.8]



²⁷ Cooney Opening submissions at [16]

²⁸ Transcript at 136

[57] If the maintenance dredging were not covered by Rule 14.2.4(z) we agree that it would be covered by Rule 14.2.4(b) and would be part of the discretionary consents package, as they were originally granted by the Commissioners' decision. We conclude that we should include maintenance dredging in the restricted coastal activities recommendation out of caution.

[58] Mr Kemble considered the removal of or damage to indigenous vegetation present on the seabed to be a discretionary activity under Rule 14.2.4(j).³⁰ However, no such application for consent was received either in the first instance or as part of these proceedings. We note that the dredging carried out under Rule 14.2.4(z) includes the *removal of sand, shingle, shell or other natural material* and we have interpreted this to include both plant and animal material. The evidence from the various witnesses and our evaluation of these applications have considered the dredging to remove all such material and assessed the effects accordingly. This matter of the possible need for an additional consent was not further discussed during the hearing and nor was it the subject of crossexamination. We invite the Port and the Regional Council to address the issue of whether or not the removal of plant material should be specifically addressed and added to Consent 65807.

[59] Accordingly, we conclude that given the applications are for discretionary restricted coastal activities and discretionary activities, Section 104 of the Act guides this Court to consider the actual and potential effects of allowing the activity. In addition, the Court must consider relevant provisions of the New Zealand Coastal Policy Statement 2010 (NZCPS), the Regional Policy Statement, the Regional Coastal Environment Plan and other regional plans, and the District Plans. The Court may also consider any other matters it considers relevant, and we shall discuss:

- [a] Mataitai area;
- [b] Waitangi Tribunal issues; and
- [c] Ongoing relationship.



³⁰ Kemble, EIC, at [3.1]

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THE COURT'S APPROACH

- [60] The Court intends to approach this decision in the following way:
 - [a] Discussing the proposal as presented to the Court in final closing. Where necessary, in the course of the decision, we shall discuss earlier iterations of the application as it assists or explains the actions of the parties in the case;
 - [b] Consider effects including:
 - Hydrodynamic Effects
 - Morphological Effects
 - Ecological Effects
 - Cultural Effects
 - Economic Effects
 - [c] Evaluate under Part 2 of the Act
 - [d] Conclusion

CONCERNS ABOUT CHANNEL DIMENSIONS

[61] In opening, the Port of Tauranga said it sought consents for capital and maintenance dredging to deepen and widen the existing channels within Tauranga Harbour (the Port Zone) to enable the Port to accept bigger vessels, up to 7,000 Twenty Foot Equivalent Units (TEU). Initially there was some confusion and inconsistency in the applicant's evidence as to what was meant by the term TEU.

[62] A report produced by the NZ Shippers' Council, known as The Big Ships Report,³¹ distinguishes between slot (or nominal) TEUs, which are based on volume and loaded capacity TEUs, which are TEUs at 14 metric tons per TEU. The report's conclusion that it is logical for two ports (one of which is Tauranga) to invest to become

³¹ The Question of Bigger Ships, New Zealand Shippers Council, August 2010



7,000-TEU-ship-capable within five years (from the 2010 date of the report) is clearly referring to slot capacity.

[63] Despite its reference to a 7,000 TEU ship in its counsel's opening, the applicant seeks enlarged channel dimensions based upon the results of model tests of a vessel 347m long with a draught of 14.5m and a beam of 42.92m. These dimensions are those of a Post-Panamax vessel, the Susan Maersk, which, we were told, was listed in the 2007 version of the Sea-web data base as having a slot capacity of 7,000 TEU and a laden capacity of 6,600 TEU (14t).³² The Port, in its evidence, referred to the modelled vessel as being of 7,000 TEU.

[64] However, the current version of the Sea-web data base shows the Susan Maersk having the same dimensions, the same laden capacity of 6,600 TEU (14t), but with a slot capacity of 8,160 TEU.³³ These dimensions and TEU ratings correspond with those given in the 2010 Big Ships Report at Table 3.

[65] We acknowledge that the important aspects of a vessel when considering an appropriately sized channel are its physical dimensions. It has been unfortunate, and led to some confusion, that the Port described its modelled vessels in terms of the one parameter (an unimportant one in this instance) that was changed by the international data base for reasons that remain unknown.

[66] A second concern to the Court was that a witness called by the Port authority originally said that only 0.5m clearance for the keel needed to be provided. Captain Drake, also for the Port, believed a much larger clearance was necessary.

[67] Captain Drake's explanation to this Court was that a 20% allowance was required to give a satisfactory comfort or safety margin in large seas.

[68] Captain Drake was recalled after another witness for the applicant, Mr A Boyle, suggested considerably less clearance (0.5m) was required. What is clear to this Court is that whether or not 2m or 3.3m is removed from the channel entry, dredging will be required which will alter the existing benthic environment. Given that situation, we are satisfied that little turns upon whether or not a 20% clearance is provided for or simply

³³ Captain Drake, Third brief of Evidence, at [6] and Appendix B



³² Captain Drake, Third brief of Evidence, at [4] and Appendix A

something in the order of 1 - 2m. We note that almost all Post-Panamax vessels have a draught between 14m and 15.5m. Although it is likely that even larger vessels could make port based upon their draught, other key issues are the vessel's beam and its length.

[69] The entry to the Tauranga Harbour involves an S bend approach. The vessel on an original bearing towards Panepane Point (Number 1 Reach) must then change direction, firstly to make Number 2 Reach, then to enter Cutter Channel, and subsequently Maunganui Roads and Stella Passage. Given the tidal flow at the entrance, it is necessary for vessels to be making good speed to maintain steerage. Tide and wind can have an impact on the movement of a vessel if speed is lost. As the speed increases the vessel sinks in the water – referred to as *squat*. As the vessel makes each turn, the vessel may heel and thus sections of the hull are lower in the water as the vessel changes direction – referred to as *squat heel*.³⁴

[70] As the vessel makes each turn it sweeps over an area largely determined by the length of the vessel. The extra channel width required is thus essentially to cater for the change from the 300m length of vessels maximum to the 340m provided in the modelled vessel. Although Captain Drake acknowledged that such a vessel could make port on the current channel width (if dredged to the new depth), he was seriously concerned about safety margins.

[71] Safety margins are built into the modelling to provide for untoward events. Nevertheless, it is clear that if events, such as engine cut-out during entry occurs, there is still a risk of the vessel running aground, whatever the design of the Port entry. Wind and tide situations are likely to be the determinant of the outcome in such a major event.

[72] Also the design was predicated upon there being no tug assistance for entry to the harbour, relying upon pilotage only. As was conceded by Captain Drake, the question of vessel safety is always under review and it is always possible that the Harbour Master may require more significant safety steps in the event large ships do begin to visit the Port.

[73] Finally, we should note that this application is not the first application for the deepening or widening of the Port, and there has been some experience with previous



³⁴ Transcript at 548 - 588

dredging campaigns and projects to create artificial reefs just inside the entrance near Mauao, re-seeding pipi, and with deposition sites.

EFFECTS

Hydrodynamic Effects

[74] We heard extensive evidence as to the effects a larger dredged channel and its maintenance would have on the hydrodynamics, including sediment transport, within the harbour, around its entrance and offshore at proposed disposal sites. Experts who presented evidence were:

- [a] Dr W P de Lange from the Department of Earth and Ocean Sciences at the University of Waikato for the Port of Tauranga;
- [b] Dr P Kench, a coastal consultant from the University of Auckland for the Port of Tauranga;
- [c] Dr P J McComb, a physical oceanographer for the Regional Council; and
- [d] Mr J Dahm, a coastal scientist for Te Runanga o Ngai Te Rangi Iwi Trust

[75] In addition to their own evidence the experts filed a joint statement in which considerable agreement was noted together with a number of points of disagreement. We consider each of these in later sections.

[76] The experts' views were based on current and earlier numerical model studies, field studies within and adjacent to the harbour over many years by staff and students of the University of Waikato and documentation of the effects of the 1991/92 capital dredging of the existing shipping channel and its subsequent maintenance. The court accepts this body of knowledge is an appropriate basis for predicting possible effects from the proposed dredging and channel maintenance.

Numerical Modelling

[77] Dr de Lange described in detail the use of the numerical model 3DD to examine the flow regimes for the existing and proposed bathymetries. This model provides



information on flow velocities and water depths as functions of time. It does not model sediment transport.

[78] The area modelled extended from the start of the Entrance Channel through to the southern end of Stella Passage and included part of the Western Channel. Time series data from the model for the existing and proposed bathymetries were compared at 18 locations across the modelled area for spring and neap tides.

[79] In their joint report the experts agreed:³⁵

2.1 The numerical model was properly calibrated and verified, and the results represent a reliable snapshot of the harbour hydrodynamics for the predredging and post-dredging bathymetries simulated.

Further, they agreed:³⁶

- 2.2 The model results can be used to make inferences regarding changes to the harbour hydrodynamics consequent on the proposed dredging.
- [80] We therefore accept the use of the 3DD model and the results obtained from it.

[81] Numerical modelling of sediment transport within and from and to the harbour formed part of The Tauranga Harbour Study carried out in 1984/85. This established the annual sediment flux through the entrance to be in the order of 1Mm^3 /yr with negligible contribution coming from the upper harbour (above Stella Passage). More recent sediment transport modelling with updated models could not be successfully validated and thus the results were not considered as part of the evidence for the present hearing. The field data collected in connection with this modelling did form part of Dr de Lange's evidence.

[82] In making his predictions of changes to the sediment transport regime Dr de Lange relied principally on past studies of the harbour. There have been many such studies since the 1970's including the major Tauranga Harbour Study of 1984/85. The most recent study referred to by Dr de Lange is the Tauranga Harbour Sediment Study by NIWA in 2009/10. In his review of Dr de Lange's evidence Dr Kench states that:³⁷

³⁷ Kench, EIC, at [11]



³⁵ Joint Statement, 1 April 2011, at [2.1]

³⁶ Ibid, at [2.2]

11. ... these studies have provided a high resolution understanding of the natural and anthropogenic impacts on the harbour ...

[83] Dr de Lange also used the results from the 3DD model to infer possible changes in the sediment transport regime. This could only be done qualitatively. Dr McComb was critical of this approach preferring to have seen a robust numerical model study. He did acknowledge that the 3DD model provides qualitative indications of potential sediment transport based on changes to the flow regime. Dr Kench also expressed concern over the paucity of quantitative evidence on sediment transport changes but conceded that the lack of a numerical model of sediment transport is not a weakness in the evidence presented.

[84] In response to these concerns Dr de Lange determined approximate sediment volumes associated with the predicted hydrodynamic changes by considering the changes observed following the 1991/92 dredging. His volumes are given as the maximum expected increase/decrease in sediment volumes per year. We found this helpful in gaining an understanding of possible changes to bathymetry and sediment fluxes.

[85] A review by NIWA for the Regional Council (appended to Dr de Lange's rebuttal evidence) concluded:³⁸

The use of the hydrodynamic model results to make largely qualitative statements about the potential effects on sediment transport is reasonable.

[86] We find that the approaches used to predict both hydrodynamic and geomorphic changes in the harbour and at its entrance to be appropriate.

Summary: Hydrodynamic Effects

- [87] The 3DD model results were undisputed. They may be summarised as:
 - [a] <u>Velocities</u> increases will occur around Panepane Point (minor to significant); in the deeper areas over Centre Bank and in the Otumoetai Channel (both minor). There will be no changes in the upper harbour, at Matakana and Motuopohi Islands and on the open coastline. Reductions



in velocities will occur from the entrance channel all the way up to and including Stella Passage and over the ebb shields on Centre Bank;

- [b] <u>Water levels</u> increases in maximum water levels of up to 0.02m at spring tides and up to 0.01m at neap tides will occur from Number 2 Reach through to Stella Passage. There will be no change in maximum water levels outside the harbour;
- [c] <u>Tidal phase</u> the tidal curve will be advanced by up to 5 minutes within the harbour;
- [d] <u>Tidal prism</u> the will be a small increase in the tidal prism.

[88] The expert evidence is that the changes in maximum water levels and the tidal parameters are of no consequence. We consider them no further. The changes in velocities are important as they may give rise to changes in sediment transport patterns and thus patterns of erosion, deposition and accretion.

Morphological Effects

[89] Dr de Lange's conclusions as to the effects that may arise from the proposed dredging can be summarised as:

- [a] <u>Increased deposition</u> up to 15,000m³/yr in the entrance channel will require increased maintenance dredging; minor increases with minor consequences for maintenance dredging in Cutter Channel, Maunganui Roads, the turning basin and the lower Western Channel; of fine sediments in Stella Passage which will have significant implications for maintenance dredging;
- [b] <u>Increased erosion</u> in the Otumoetai Channel up to 1000m³/yr which is considered to be minor;
- [c] <u>Reduced erosion</u> in Pilot Bay of approximately 50m³/yr which is considered negligible;



- [d] Subsumed by natural variability on the ebb tidal delta where changes are governed by sediment supply and wave climate; at Panepane Point where measured historical fluctuations in the shoreline exceed expected changes from the dredging; on the shallow areas of Centre Bank where velocity changes between calm and windy conditions exceed by two orders of magnitude the predicted changes in velocity;
- [e] <u>No impact</u> in Number 2 Reach due to the presence of scour resistant material and the expected velocities' competence to transport all available sand and silt material; in the upper harbour; on the open coast however there may be some effects arising from the disposal sites.

[90] The experts addressed the question: Will the capital dredging result in geomorphic changes that differ substantially from those summarised in the AEE and in evidence presented on behalf of the Port of Tauranga? In their joint statement they agreed that for regions other than the ebb tide delta the changes as summarised were reasonable. The ebb tide delta they agreed was the region of greatest uncertainty and the area likely to be most impacted.

[91] Mr Dahm, in general, accepted and concurred with the evidence of Dr de Lange. However he also concurred with the concerns raised by Dr Kench and Dr McComb. He listed these concerns as:

- [a] The potential impact on the ebb tide delta and adjacent Matakana foreshore;
- [b] The potential for serious maintenance dredging requirements with the widening of Number 2 Reach on its western side; and
- [c] The conclusion that the impacts of the proposed entrance channel are within the range of historic dynamic variability.

[92] We agree these are matters of concern and now address them. These concerns are linked to the possibility of the volumes of maintenance dredging approaching the supply of sediment to the harbour by littoral drift and onshore transport. If this occurs less



sediment will be transported on the ebb tide thus causing changes on the ebb tide delta and the adjacent beaches.

Maintenance Dredging

[93] Estimates of past annual average dredged volumes were given by a number of witnesses. The experts, in their joint statement, agreed $160,000m^3/yr$ was an appropriate baseline against which to assess the increased dredging requirements. We note this figure is at the upper end of Mr Thompson's estimate of 50 to 70% of the currently consented annual average dredging limit of $240,000m^3/yr$ and see no reason to dispute it.

[94] Dr de Lange's evidence that the expected increase in annual average dredging volumes would be approximately 15% was accepted by the experts. A total annual average value of 184,000m³/yr is thus expected. This volume, the experts agreed, is not likely to generate adverse effects. However, they recognised the uncertainties surrounding possible adverse impacts on the ebb tide delta and adjoining beaches by agreeing a trigger level of 185,000m³/ yr of maintenance dredging averaged over 5 to 6 years which if exceeded would indicate the potential for such effects.

[95] A further concern recognised by the experts is that rapid shoaling may occur in Number 2 Reach which will then be difficult to maintain at its dredged depth.

[96] The proposed conditions for Coastal Consent 65806 address these concerns as follows:

- [a] Limiting the volume of maintenance dredging to 185,000m³/yr averaged over a rolling 5-year period (Condition 5.3);
- [b] Requiring annual bathymetric and topographic surveys of the ebb tide delta and adjacent shorelines (Condition 12.3);
- [c] Giving the Regional Council power to give notice of its intention to review the monitoring conditions:
 - [i] Within the three months of receiving each of the above surveys (Condition 16.1); and



- [ii] During June of 2013, 2016, 2019 and 2023 (Condition 16.3).
- [d] Requiring a report if the specified dredging depths cannot be maintained within the 185,000m³/yr annual average dredged volume (Condition 14.5).

[97] We see this approach as appropriate but will require any final set of conditions to reflect the matters set out below.

[98] During the five years following commencement of Coastal Consent 65806 the Port will investigate and seek consent for disposal site(s) that may be required to avoid, remedy or mitigate morphological changes that may occur on the ebb tide delta or adjacent shorelines as a result of the maintenance dredging. A condition (Condition XX) should be drafted accordingly. Should Condition 14.5 be triggered, a disposal site will then be available.

- [99] Condition 14.5(c) should then be amended to read:
 - (c) Assess whether any of the sites identified under Condition XX are required to and adjacent coastal areas.

[100] It was suggested in evidence that should Matakana shoreline excursions extend beyond the range defined by the 1925 and 1992 shorelines the Port be required to take remedial action. We agree and would require an appropriate condition. This would follow Condition 12.3 and could read:

Should the Matakana shoreline retreat beyond the 1925 shoreline the Chief Executive of the Regional Council shall direct the consent holder to deposit material at the site(s) identified under Condition XX.

[101] With the trigger mechanisms as described, the ability of the Regional Council to intervene and our proposed additions we are satisfied that the conditions provide a sufficiently cautionary approach to harbour bathymetry.

Stella Passage

[102] Witnesses discussed adverse effects on the upper harbour (south of Stella Passage) which, in their view, have occurred as a result of the establishment of the wharves at Mount Maunganui and Sulphur Point. Of particular concern was erosion at the



Whareroa Marae which was linked to the dredging of Stella Passage. In their joint statement the experts recorded their disagreement over the existence of this link.

[103] There have also been other major works in the vicinity including a causeway and bridge, a marina and a roading network which would all have influenced the sediment transport regime of the upper harbour. There is no evidence before us which might separate out the effects attributable to these works from those arising from activities associated with the port. Fortunately we do not have to enter such a debate. Our task is to consider effects that may arise from the current proposal, including any that may be seen as cumulative.

[104] Dr de Lange asserts that modern littoral sediments do not form a significant component of the upper harbour sediments. Mr Dahm's evidence is that dredging of Stella Passage has *entirely cut off sand supply* to the upper harbour. His view is that there is no longer any sand supply into the upper harbour from the wider harbour. If this is the case then the proposal cannot have any effect on the passage of sediment to the upper harbour. Mr Dahm produced no evidence to back his view.

[105] We prefer Dr de Lange's evidence that littoral sediments are not a significant component of upper harbour sediments and note that the original dredging of Stella Passage would have reduced the transport capacity of flood tides through the passage. We are thus confident that there is now little transfer of sediment from the wider harbour into the upper harbour, which is in keeping, although not entirely in accord, with Mr Dahm's view.

[106] Accordingly, we conclude that the proposal will have a negligible effect on flood tide sediment transport through Stella Passage and thus on erosion at Whareroa Marae.

[107] Nevertheless, there is provision for the deposition of clean suitable sand for beach renourishment adjacent to the Whareroa Marae if required by the Tangata Whenua Reference Group and approved by the Chief Executive of the Regional Council (Condition 10.10 of Coastal Consent 65806). We endorse this provision.

[108] Witnesses suggested that the dredged sands could also be used in part for environmental restoration work at other locations around the harbour. Beach renourishment and provision of high tide bird roosts were mentioned. No plans for such



work are before us. Although such renourishment works may be desirable we endorse Advice Note 5 which records the importance of compatibility of material, hydrological processes, ecological values, cultural values and the determination of any adverse effects. Any such works will require consents and are beyond the scope of this decision.

Current Disposal of Dredged Material at Existing Sites

[109] Port of Tauranga has six consented sites for the disposal of material dredged under the current maintenance dredging programme. Three are near shore sites in 5 to 15m of water. One is off Main Beach, Site A, with Sites B and C being off Marine Parade. Sites D and G are offshore in 20 to 35m of water and site F is in Pilot Bay. A further site, Site E adjacent to the Sulphur Point wharves in Stella Passage may be used for temporary storage of material before its removal and sale. The volume is limited to $100,000m^3/annum$.

[110] Material from the current maintenance dredging programme suitable for beach renourishment can be deposited in Sites A, B, C and F if requested by the Regional Council which monitors the state of the adjacent beaches. From Sites A, B and C the material moves naturally towards the beaches. As the bulk of this material is derived from the Entrance Channel the process is essentially one of passing the littoral drift material across the harbour entrance. Material from Site F is pumped onto Pilot Bay beach.

[111] Material with a high-shell content or with a silt content greater than 5% and very fine sands, all of which are unsuitable for beach renourishment, are deposited in Sites D and G. Currently these sites are receiving only minor amounts of maintenance dredging namely that material judged unsuitable for beach renourishment. This material is lost from the littoral system.

[112] Some material can be removed and sold, and this was being pursued by the Port at the commencement of the hearing.



Material from Capital Dredging

[113] It is proposed to deposit material from the capital dredging (approximately 15Mm³) in Site H of 900ha which encompasses and enlarges Sites D and G. Together these latter sites have a combined area of approximately 550ha in 20 to 35m of water.

[114] Consent Condition 10.4 of Proposed Consent 65806 requires the Port to, as far as practicable, ensure that the dredged material is spread over the entire disposal site so as to keep the resultant mound as low as possible. For 15 Mm³ over 900ha the height would be 1.67m.

[115] It is likely that the mound in places may be up to 2m in height, some 7% of the water depth. Dr de Lange acknowledges such a mound may cause wave refraction. On the basis of calculations he believes the associated increases in wave energy at points on the coast line will have minimal impact. No issue was taken with this and we accept it.

[116] Dr de Lange believes the consent conditions imposed by the commissioners to control the disposal of sediment at site H are reasonable and will minimise any adverse impacts. The monitoring requirements are appropriate and practical in his view. This was not disputed by the other experts. The Commissioners' conditions have been carried through into the tabled conditions before us. With the exception of Condition 10.3 of Consent 65806, which we agree should be deleted, we see them as appropriate and sufficient.

[117] The loss to the coastal system of in situ sand material through the capital dredging proposal was of concern to Mr Dahm. Up to 10 Mm^3 may be lost. This loss he conceded, since it is largely in situ material, is unlikely to be *noticed* by the wider harbour and beach sediment system apart from the effects associated with the resulting larger channels. He questioned whether the removal of these sands from the active harbour and beach systems is an appropriate or efficient use of this natural material. The experts recorded their disagreement on this point.

[118] For their part Port of Tauranga has sought consent to place some of the medium to coarse sand ashore where it can be sold and/or used for beneficial purposes. These could include inner harbour beach renourishment or use on roading projects. Mr Thompson expects areas of channels may be sporadically dredged to bring quantities ashore as



required. Proposed Condition 10.1 of Consent 65806 limits this material to a total of 1 Mm^3 .

[119] Mr Dahm recommended disposal of the capital dredging material at nearshore locations between Mount Maunganui and Maketu from which it would naturally renourish adjacent beaches thereby increasing the resilience of the coastal system to future climate changes. His indicative calculations suggested beach widths would increase by 40 to 50m between Mount Maunganui and the Maketu Estuary, a distance of some 28km.

[120] In response to this suggestion Mr Thompson estimated extra costs to be at least \$24M to place the sand in this manner. Further the trailer/suction dredge to be used for the capital dredging can only deposit material in water depths greater than 10m. There will then be additional costs of \$18M to pump the material ashore. While we appreciate the benefits to be gained by the increased beach resilience that may result from such placement, we have no evidence as to its practicality nor a request for any consents that may be required. We take the matter no further.

[121] Capital dredging will involve extraction of natural materials from their in situ position. They are thus uncontaminated. This was not challenged and we accept there will be no contamination effects from capital dredging.

[122] Mr Thompson states the capital dredging is likely to be done in phases to match requirements of the vessels visiting the port. Effects associated with the dredging operation occur only when the dredging occurs and are related to the magnitude of the dredging. Thus phasing the dredging will give rise to a series of the same, albeit smaller, effects over a longer time scale. Dr de Lange and Dr Grace (from an ecological view point) both conclude there are no additional adverse effects arising from phasing the capital dredging. This was not disputed and we accept it. As noted elsewhere, if consent is granted we would require the capital dredging to be done in at least two stages.

Material from Maintenance Dredging

[123] Maintenance dredging and disposal methods will be the same as those currently used, and as described above. Increased areas will be involved and there will be


increased quantities. An increase of 15% to 184,000m³/yr is anticipated by the experts in their joint statement.

[124] No one has suggested that the expected increase of 15% in volume of the maintenance dredging will have any noticeable effect on the existing situation within the harbour. Nor has the possibility of cumulative effects arising from the increase been advanced.

[125] Mr Dahm observes the volume of maintenance dredging represents a net loss from the volume of sediment being actively transferred around within the flood and ebb tide delta systems. This is true for the material to be deposited at Site H (the former Sites D and G). That deposited at Sites A and B will be returned to the littoral system as beach renourishment. That deposited at Site F will be returned to the sediments in Pilot Bay. Deposition at these sites is to be done under the direction of the Regional Council who will control the volumes returned to the littoral system and Pilot Bay.

[126] Tabled Condition 10.11 allows a total of 1 Mm^3 to be removed from the coastal system. If this is to be by way of Site E then it must be made clear that Conditions 10.5, 10.6 and 10.7 also apply to the disposal of maintenance dredging.

[127] There is the possibility that sediments accumulating in the dredged channels and later removed by maintenance dredging could be contaminated. Port of Tauranga has been aware of this and carried out investigations to determine if the sediments removed to date by maintenance dredging have been contaminated. Their tests show the sediments to be *in good health* with respect to heavy metals and not otherwise contaminated above background levels. Conditions 13.1 and 13.2 address this issue in an appropriate way and we endorse them.

Turbidity Effects on Water Quality

[128] Suspended sediments and thus turbidity are inevitable consequences of dredging. Associated adverse effects are deposition of fine sediments affecting benthic communities and degradation of water quality. Effects on water quality are discussed here. Those on benthic communities are discussed in a subsequent section.



[129] The severity of these effects is determined by the composition of the dredged sediments, the dredging technique employed and the nature of the currents which disperse the resultant sediment plume. The sediments to be dredged range from sands through silts to cohesive material which will include clays. Turbidity effects will be minimised by selecting the dredging method best suited to the sediment size being dredged. Trailer suction dredging will be used for the sandy materials. These are found in the Entrance Channel, Cutter Channel and in Maunganui Roads. A digger excavator will be used for the finer sediments in Stella Passage and on Tanea Shelf where steep batters will be encountered.

Geomorphological Effects in the Harbour

[130] Possible changes in water quality within the harbour as a result of turbidity plumes were addressed by a number of witnesses. Dr Grace expressed the majority view when he wrote:³⁹

200. ... I do not consider the proposal will adversely affect water quality in the harbour and that water quality standards set out in the Thirteenth Schedule of the Regional Coastal Environment Plan will be achieved after reasonable mixing has occurred.

[131] Dr Coffey, a scientist for Te Runanga o Ngai Te Iwi Trust, while not disputing this, believed a robust monitoring programme should be carried out.

[132] Proposed Conditions 10 and 11 of Consent 65807 address turbidity and monitoring issues. We find them confusing and difficult to interpret. In particular, are the locations in Condition 10.1 to be the same as those in Condition 11.2? In Condition 11.2, how can a site be 200m from the dredged area but adjacent to an active operating dredge? Is the dredged area that shown blue hatched on Plan 324-97? We cannot interpret Condition 10.2. The Council and the Port are strongly urged to redraft these conditions with an emphasis on consistency between the monitoring conditions and those setting the turbidity limits.

[133] In a rewritten Condition 10.1 we recommend placing a limit on the maximum change in turbidity at the Aerodrome Bridge when Stella Passage is being dredged.



³⁹ Grace, EIC, at [200]

[134] Dr de Lange suggested it is more effective to measure turbidity continuously at two sites – the Harbour Bridge and Number 7 beacon, which is on the edge of Cutter Channel just north of Salisbury Wharf. The former is to give a control over turbidity in the upper harbour principally in the vicinity of the sea grass beds while the latter is to give control over turbidity on Centre Bank and in the Entrance Channel.

[135] Condition 11.10 of Proposed Consent 65807 invites the Port to submit a Continuous Turbidity Monitoring Plan for approval.

[136] Such a plan⁴⁰ has been prepared by the Port and based on conditions imposed on dredging consents at the Port of Melbourne. The plan nominates turbidity values which if exceeded require actions by the Port. These range, depending upon the measured turbidity, from investigating the cause of the rise in turbidity to ceasing dredging.

[137] This approach to managing turbidity levels is appropriate. However, Dr de Lange's comment that natural turbidity levels in parts of the harbour exceed the Melbourne limits set in the plan suggests further work needs to be done to set realistic turbidity limits. We can offer no comment as to what these limits might be but they should be set once a better understanding of natural fluctuations in turbidity is obtained. It may well be that such an approach is inappropriate for this harbour.

[138] Monitoring before and after the 1992 dredging showed no issues arose from turbidity plumes in the Entrance Channel, Cutter Channel or Maunganui Roads. Fine sediments from Stella Passage dispersed into Waipu Bay during flood tides and onto Centre Bank during ebb tides. This dredging was done with a suction dredge. Mr Park, a Senior Environmental Scientist for the Regional Council, reported that no significant ecological damage resulted from these plumes.

[139] Later studies on plume dispersal from dredging in Stella Passage using a bargemounted digger suggested turbidity levels returned to ambient levels within 500m downstream of the dredge. It is this dredging method that is proposed for Stella Passage and thus Dr de Lange believes turbidity levels in the vicinity of sea grass beds, the closest of which are 600m from the dredging, area will not be affected. Dr Coffey expressed some doubt about this and considered that a programme to monitor the cover and health



⁴⁰ Thompson, EIC, Appendix C

of the sea grass beds should be implemented. We note that should plumes reach the sea grass areas dredging can be restricted to occur on the ebb tides only.

[140] Dredged material will be deposited at Site E in Stella Passage and Site F in Pilot Bay. That in Site E will subsequently be pumped ashore for sale and that in Site F will be pumped ashore for beach renourishment. No witness questioned these operations or raised any issues with them. Condition 10.6 of Proposed Consent 65806 limits deposition at Site E to sediments with less than 5% by weight of silt material.

[141] With respect to the pipi beds on Te Paritaha, Dr Grace, a consultant ecologist for the Port, believed that any sediment plume arising from dredging in Stella Passage would be so dispersed when it reached the area that it would not pose a threat to the pipi population. This was not disputed by Dr Coffey. Should continuous turbidity monitoring be done at Number 7 Beacon it will provide the data necessary to instigate any remedial actions, including ceasing dredging, that may be required under the Continuous Turbidity Monitoring Plan.

[142] We find on the basis of the 1991/92 dredging experience, the further test on plume dispersion from Stella Passage, the option of dredging on the ebb tide only and the proposed limitation on disposal of fine sediments at Site E that there will be no unacceptable physical effects on water quality in the harbour arising from turbidity plumes generated by the proposed dredging. However, we do require better wording for the monitoring and control conditions as requested above.

Effects outside the Harbour

[143] Turbidity increases are expected as dredged material is released and falls through the water column. They may also occur if material disperses from the disposal site through the action of waves and currents.

[144] During previous disposal events increased turbidity from releasing sandy material was short-lived and of limited extent with no long term effects on the water column. Some surface discolouration occurred when silt and clay material from Stella Passage was released. Dr de Lange's evidence is that the discolouration lasted only a few minutes.



[145] The current proposal is much greater in scope (three times) than the 1992 capital dredging. One expects perhaps three times as many disposal operations. The interval between operations will necessarily be similar to that of the earlier dredging and the operations will occur for a longer time. Accordingly, we conclude the increases in turbidity (decreases in water quality) and their duration will be similar to those arising from earlier dredging. Although there will be more operations there will be no cumulative effects on water quality and thus no long term effects on the water column.

[146] Currents in the vicinity of the disposal Site H have been shown to have mean speeds of 0.2m/s with a recorded maximum of 0.3m/s which is approaching the threshold velocity for sand sized non-cohesive sediments. Larger speeds resulting in turbidity plumes can be expected under severe storm conditions. Dr de Lange suggests wave heights of 2m or more would be necessary. Cyclone Fergus was one such event. The current directions are such that material will be transported alongshore.

[147] The mobility of the finer sediments is to be controlled by requiring any material with more than 25% by weight of silt or smaller sized material to be placed on the seaward (deeper) side of the disposal site. Initially it was proposed to cap these finer silts with coarser sands as soon as practical. However Mr Dahm did not favour mixing the sediments in this manner. While he acknowledged that strong coastal storms may disturb these sediments, he considered that any plume would disperse quickly and would not cause any problems.⁴¹ Any associated turbidity is limited by Condition 10.3 of Consent 65807 and its possible effects on reef biota are to be monitored under Condition 12.7 of Consent 65806. We endorse this approach.

[148] Turbidity plumes will occur in Sites A, B, and C as material from these sites is expected to migrate towards the shore for beach renourishment. The material will be chosen to be compatible with the beach material and thus of sand size. Most of the transport will therefore be in the lower portions of the water column and not visible. All parties favoured beach renourishment and we assume, accept any resultant degradation of water quality.

[149] Disposal of dredged material will increase turbidity within the water column during release of the material. The effects will be of short duration and have no lasting



⁴¹ Transcript at 896-897

effect on water quality. At Site H the disposal mound will be stable except under storm conditions. Turbidity plumes from the inshore sites will renourish the adjacent beaches.

ECOLOGICAL EFFECTS

Evidence

[150] We heard from three ecologists, Dr Roger Grace, a marine biologist with some 20 years experience of the ecology of the Port of Tauranga; Dr Brian Coffey, a scientist with 30 years experience in aquatic biology; and Mr Stephen Park, a marine ecologist who has been involved in work with the Tauranga harbour since 1990. The ecologists had participated in an expert conference prior to the hearing and produced a comprehensive and helpful document.

The Tauranga Harbour Environment

[151] Te Awanui is a large harbour with wide sand and mud flats supporting extensive shellfish beds and some seagrass beds, with occasional infestation by sea lettuce. The rocky shores and reefs of the Mt Maunganui coast, Moturiki, and Motuotau islands are areas of significant conservation value (ASCV). They are the only mainland rocky reefs in the Waikato and Bay of Plenty areas and are a valuable source of kaimoana. Small and expanding mangroves are found in some sheltered upper harbour areas. Sediment and nutrient inputs from the surrounding land and rising global temperatures have contributed to the increased seasonal abundance of sea lettuce and the expanding mangrove areas.⁴²

[152] Development of the port over time has altered both the foreshore, through reclamation and wharves, and the seabed, by dredging. Development of the Mt Maunganui wharf area resulted in the complete loss of the natural shoreline from Whareroa to Pilot Beach and the Sulphur Point reclamation removed high value (ecologically and for kaimoana) intertidal areas and a substantial bird roost.⁴³ The Stella Passage, Maunganui Roads and Cutter Channel are regularly dredged and hence occupied by fast growing opportunistic species with little chance to develop a stable or mature ecology.⁴⁴ In marked contrast, the wharves have very high biodiversity values with a rich and diverse ecology. They act as settling areas for juvenile crayfish which can be found

- ⁴² Grace, EIC, at [21 [26]
- 43 Grace, rebuttal, at [34] [35]
- ⁴⁴ Grace, EIC, at [71] [72]



in large numbers over the summer months. Dr Grace observed that few crayfish stay and he expected that they would move to the reefs, in the harbour entrance or off-shore, a more suitable habitat for larger crayfish. He attributed the low numbers on the reefs to harvesting pressure.⁴⁵

[153] A number of witnesses gave evidence of the deterioration in the water quality and kaimoana resources of Te Awanui over many decades. Dr Grace noted the impact of urban development in and around Tauranga City, changes to land use in the region and the escalating demands from a growing population. The importance of the various activities impacting the harbour depended on the location and history. He acknowledged that some losses were directly attributable to Port of Tauranga activities.⁴⁶ Dr Grace and Dr Park⁴⁷ considered the upper harbour areas to be mostly influenced by land clearance and agricultural practices. For the offshore areas and islands over-harvesting had the biggest impact with many popular seafood species being seriously depleted.⁴⁸ Dr Grace also noted the impacts of the collapse of the Ruahihi dam, sewage disposal, the railway embankment and expressway, and the inadequate management of fisheries (including finfish, crayfish, paua, scallops and mussels).⁴⁹

[154] There are five habitats of particular interest in this case:

- [a] Sandy areas off-shore – where the dredged material will be placed;
- Seagrass beds within the harbour which can be affected by high [b] turbidity;
- [c] The pipi beds of Te Paritaha, an important kaimoana resource, located on a sand bank to the west of the channel and close to the Port area -a 100mwide swath will be dredged when widening and deepening the channel;
- [d] The deep gorge of the Entrance Channel between Mauao and Panepane Point - the channel is to be dredged and deepened; and

⁴⁹ Grace, Rebuttal at [13] and [35]



 ⁴⁵ Grace, EIC, at [84] - [91]
 ⁴⁶ Grace, rebuttal at [12]

⁴⁷ Transcript at 490

⁴⁸ Grace, EIC at [216] and transcript at 280

[e] The Tanea Shelf, a rocky reef area, along the western side of Mauao adjacent to the Entrance Channel – rocks and boulders are to be removed and the papa rock excavated to widen and deepen the channel.

Off-shore Disposal Sites

[155] The ecologists were agreed that the information from the 1991/92 dredging programme demonstrated that impacts on the off-shore disposal sites were minor and short-lived. The proposed benthic monitoring programme of the sandy off-shore sites and ongoing observational monitoring of the ecology of the rocky reefs off Motuotau were considered to be adequate.⁵⁰

Seagrass Beds

[156] Dr Coffey noted that seagrass beds were once more widespread in the harbour but now only occurred in intertidal areas due to insufficient light penetration through more turbid water.⁵¹ He also noted their sensitivity to oils spills and emphasised the importance of monitoring both turbidity and hydrocarbons. Seagrass beds support a diverse range of animals and are important as habitat for juvenile fish.⁵²

[157] There are small areas of seagrass south of the harbour bridge and offshore from the Whareroa marae. Dr Grace considered these to be too far away (the closest being 600m up harbour from a dredging site) to be affected by the dredging and Dr Coffey commented that the conditions with respect to turbidity were *onerous* and adequate to protect the seagrass beds.⁵³ During cross-examination Dr Grace acknowledged that fine sediments had affected the seagrass beds during the 1991/92 dredging campaign. However, he maintained that the proposed new dredging method would not produce such high levels of turbidity and a repeat of such contamination was not possible.⁵⁴

[158] Given the dredging method chosen, and the amended conditions imposed with respect to turbidity levels, we find that the seagrass beds would not be adversely affected by the proposed dredging.

⁵⁴ Transcript, at [256]



⁵⁰ Joint Statement of ecologists, 3 April 2011, at [6]

⁵¹ Joint Statement of ecologists, 3 April 2011, at [7]

⁵² Transcript, at [817] – [818]

⁵³ Grace, EIC, at [93] - [95] and [172], and Joint Statement at [7]

Pipi Beds of Te Paritaha

[159] Pipi are widely distributed and are the most abundant of the bivalves within the harbour.⁵⁵ Pipi have been the main focus of the ecologists as they are an important species within the ecosystem, of value as kaimoana and a good indicator species – being particularly sensitive to turbidity or poisoning effects. If pipi are present there will be a healthy assemblage of other organisms that are associated with them in clean shell and coarse sand environments.⁵⁶ The ecologists were all agreed that the extent of the disturbance of the intertidal exposed parts of the pipi beds would be very small and the effect on the ability to harvest pipi would be inconsequential.⁵⁷

[160] Te Paritaha, located on the Centre Bank, to the west of the dredged Port channels, is the largest single pipi bed within the harbour. Dr Grace had mapped the areas of moderate or high density but noted that pipi were patchy in their distribution.⁵⁸ He considered the pipi beds in the southern harbour to be a significant habitat of indigenous fauna.⁵⁹ He explained that pipi are found in shallow water, accessible at low tide, and to depths of around 36m in the bottom of the channels.⁶⁰ Dr Park noted that beds of edible pipi occur on sand banks east of the Omokoroa peninsula and further up the harbour, although at lower densities and smaller size. The distribution pattern is repeated in the northern end of the harbour which also provides larvae for recruitment. Dr Park agreed with Dr Grace that the Centre Bank was a valued location for collecting pipi however he considered the more accessible Wairoa estuary entrance to be the most popular. The beds at Te Puna estuary are also heavily utilised.⁶¹

[161] The dredging would remove sand, and all marine life present, along a 90m to 100m wide swath of the eastern edge of Te Paritaha. The remaining sand would slump to form a batter along the new channel edge. Initially Dr Grace had estimated that 5% to 10% of the area of low tide access to pipi would be affected by dredging and slumping.⁶² After more detailed mapping Dr Grace considered that just a tiny fraction of the dried bank would be affected and plenty of large pipi would still be available.⁶³ While the pipi

⁶³ Grace, Rebuttal, at [51] and map at Appendix C



⁵⁵ Transcript, at [487]

⁵⁶ Transcript, at [467]
⁵⁶ Transcript, at [283] and [819]
⁵⁷ Joint Statement of ecologists, 3 April 2011, at [8]
⁵⁸ Grace, EIC, at [166]
⁵⁹ Grace, EIC, at [167]
⁶⁰ Transcript, at [267]

⁶⁰ Transcript, at 247

⁶¹ Park, EIC, at [2.2]

⁶² Grace, EIC, at [183]

removed by dredging would die (they do not survive in open ocean sites) a certain number are expected to survive the slumping process and re-establish a bed on the batter.⁶⁴ He considered juvenile pipi to be very happy in mobile sands and would not be affected at all in the slumped area.⁶⁵ Dr Grace noted that sand was continuing to build up on the Centre Bank and this was expected to continue following the dredging. As a result he anticipated a net increase in accessible pipi habitat at low tide.⁶⁶ Dr Park similarly observed that the area of Te Paritaha has been shoaling and making beds more and more accessible for harvesting over the years.⁶⁷

[162] In response to questions from the Court Dr Grace explained that the dredged areas may well revert to pipi beds in the future, depending on the frequency of maintenance dredging, although he was unsure as to the quality of any newly established pipi beds. Dr Park and Dr Grace confirmed that pipi had been observed in areas of ongoing maintenance dredging although they were unsure of the extent of pipi beds before and after the 1991/1992 dredging campaign. Dr Park noted that the shellfish beds are dynamic and move around.⁶⁸ He agreed that pipi would re-colonise in the vicinity of Te Paritaha following the dredging saying that the habitat was not lost but would suffer a significant short term disruption. He noted that in some areas of the harbour, such as the Stella Passage, the habitat had been lost to pipi as the slow currents and fine sediments were unsuitable.⁶⁹ Dr Coffey noted that areas subject to regular maintenance dredging would not recover to a stable *climax* community but would be colonised by opportunistic taxa, including pipi, with small class sizes.⁷⁰

[163] As partial mitigation Dr Grace anticipated moving some pipi to an area about 100m to the south west of the area to be dredged. While no detail of the methods have been decided he suggested it could be done using a small scallop dredge.⁷¹ Dr Coffey did not consider it was possible to relocate shellfish without stressing the communities to which they were added. For example broken or injured pipi might attract predators. He considered the plants and animals within the footprint of the dredging should be sacrificed and efforts put into enhancing habitat, particularly the water quality.⁷²

⁷² Transcript, at [804]



⁶⁴ Transcript, at [249] and [525]

⁶⁵ Transcript, at [263] - [264]

⁶⁶ Grace, EIC, at [62] and [229] ⁶⁷ Transcript, at [508]

⁶⁸ Transcript, at [284] and [288] (Grace); [506] – [508] (Park)

⁶⁹ Transcript, at [488], [507] and [529]

⁷⁰ Coffey, EIC, at [79] ⁷¹ Grace, EIC, at [238] and Transcript at [268]

[164] When asked to confirm his agreement that the effects on the ability to collect pipi from the Centre Bank were inconsequential Dr Coffey added three riders - that the supply of spat does not decrease, there is no change in water quality, and the recreational take and natural predation remain constant.⁷³ Sexually mature pipi are found throughout the harbour with the larger and more vigorous individuals being found at greater depths down the subtidal channels.⁷⁴ The ecologists were agreed that the Entrance Channel is an important source of spat for Te Paritaha and we address this issue in the next section. We have already found that water quality, particularly turbidity is adequately controlled by the dredging methods and conditions requiring monitoring against trigger levels with appropriate management responses. The pressure from the recreational take is a matter outside of the effects of this proposal. Natural predation is unlikely to be affected by this proposal although we note the potential effect if relocation of pipi were to be attempted.

[165] Given that very little of Te Paritaha is to be dredged, and most of the impact on the more accessible areas of pipi is from slumping, we agree with Dr Coffey that such relocation is likely to do more harm than good and should not be attempted.

The Entrance Channel and Gorge

[166] The channel between Matakana Island and Mt Maunganui reaches a depth of 36m so much of it will not be disturbed by dredging. Dr Grace described the shell lag, a stable substrate of dead pipi shells that armours the sea floor. Large numbers of adult pipi live in the channel, inaccessible to people seeking to harvest them, providing a reservoir of breeding stock and an abundant source of pipi larvae to replenish stocks within the harbour.⁷⁵ During cross examination Dr Grace agreed that some 50% of the shell lag between Matakana Island and Mt Maunganui would be removed. He considered the remaining pipi to be plenty to maintain the shallow beds within the harbour and noted the presence of other mature pipi in the Western Channel and to the west of Te Paritaha.⁷⁶ Similarly, Dr Park had no concerns that the removal of these pipi would affect recruitment given the large number of pipi throughout the harbour, including those at the northern end.⁷⁷ In response to questions from the Court on his experience of the 1991/92 dredging campaign Dr Park noted that recruitment to dredged areas was variable and

⁷³ Transcript, at [793] – [794]
⁷⁴ Transcript, at [793]
⁷⁵ Grace, EIC, at [59] to [63]
⁷⁶ Transcript, at [261]
⁷⁷ Transcript, at [497] and [512]



depended on the supply of spat - juveniles could turn up the next day or take a year or two to establish.78

[167] Dr Coffey agreed that large numbers of adult pipi at depths below 17.4m in the entrance channel should ensure a large reservoir of breeding stock and an abundant source of pipi larvae available to replenish stocks within Te Awanui. However, he was concerned that coarse mobile sand could replace or cover the shell lag within entrance channel.⁷⁹ Dr Dahm addressed this point and concurred with Dr de Lange that the fierce currents on the ebb tide would take the sand seaward and no blanketing by mobile sand would occur. He expected a shell lag to re-establish over time.⁸⁰

Overall Findings on Pipi

[168] We accept that the loss of pipi is small in scale and would have no long-term discernable effect on the extensive and widely dispersed pipi population of the harbour as a whole. At a local level the dredging and slumping along the edge of Te Paritaha is a temporary disruption and the habitat is disturbed rather than destroyed. The dredged areas are expected to recover quickly, with re-colonisation by pipi and other species, as a result of natural processes within the harbour. While the area disturbed is substantial the impact is minor in the context of the size of this pipi bed and inconsequential with respect to the ability to gather pipi. The dredging in the Entrance Channel will remove some shell lag and mature pipi important to the lifecycle of the pipi beds within the harbour. However, the remaining areas of shell lag would provide an adequate supply of spat and the shell lag itself is expected to recover, albeit more slowly than pipi beds in a sandy substrate.

[169] However, as acknowledged by the ecologists, the evaluation of the significance of these effects on pipi does not end with the scientific assessment. The impact must also be considered in the context of the cultural importance of Te Paritaha and its value to local iwi. That consideration comes later in this decision.

⁷⁹ Coffey, EIC, at [70] - [74] ⁸⁰ Transcript at [901]-[902]



⁷⁸ Transcript, at [528]

The Tanea Shelf

[170] The rocky shelf to the southwest of Mauao formerly extended out into the shipping channel. It is a rich and diverse habitat with rounded stable boulders providing crevices for kaimoana species such as kina and crayfish. Sections of the shelf were removed by dynamiting in the early days of the Port development and further boulders removed during the 1992 channel widening programme. Many of these boulders were relocated to form an artificial reef in Pilot Bay where they provide a good substrate for a range of animal and plant species.⁸¹ Dr Grace described the Pilot Bay reef as a great success with marine life recovering to a rich biodiversity within two years of boulder placement. He noted more voids and holes suitable for crayfish than on natural boulder reefs and the popularity of the reef as a fishing spot.⁸² During cross-examination Dr Grace acknowledged that few crayfish had been observed on the Pilot Bay reef. However, he considered the habitat to have recovered and lack of kaimoana species to be influenced by the fishing take.⁸³

[171] The entrance is to be widened by 32m at Tanea Shelf by dredging and excavating a crust of slighted cemented sand strewn with boulders, with some areas of overlying silt and sand.⁸⁴ The work would disturb a rich marine community. The larger boulders would be placed in shallower water further inshore towards Mauao, with any excess boulders going to the Pilot Bay reef.⁸⁵ The ecologists were agreed that the excavated area would provide a similar habitat to that there at present and the re-stacked boulders (at a depth of 2 to 4m) would provide a better habitat for kina and crayfish than exists there at present.⁸⁶ Dr Grace considered the new boulder reef at Tanea Shelf would offer better and more accessible (by snorkel) habitat than the Pilot Bay reef within approximately two years of boulder placement.⁸⁷ He agreed that the new reef might not increase crayfish numbers unless there was better control of the harvest pressure within the Mataitai Reserve, explaining that juvenile crayfish prefer to settle where there is already a population of adult crayfish.⁸⁸

⁸⁸ Transcript at 270-271



⁸¹ Grace, EIC, at [39] - [46]

⁸² Grace, EIC, at [49] - [58] ⁸³ Transcript, at [254]

⁸⁴ Reynish, EIC, at [39]

⁸⁵ Grace, EIC, at [190] - [192]

⁸⁶ Joint statement of ecologists 3 April 2011 at [1]

⁸⁷ Transcript at 265

[172] We accept the evidence of the ecologists that the ecosystem of the excavated portion of the Tanea shelf will recover to a similar type and quality. The new boulder reef will provide better habitat for kaimoana species, including kina and crayfish. Marine species would establish naturally and a mature community is expected after approximately two years. The new boulder reef is in shallow water and more accessible to divers seeking to gather kaimoana. The success and potential benefits of this new reef for kaimoana species are likely to be dependent on the ability to manage harvesting pressure, particularly for crayfish.

[173] Given the longer timeframe for recovery of the reef communities compared to the shellfish beds of the sand banks, we conclude that the excavation of Tanea Shelf should be carried out in one single operation. The timing of this excavation is addressed later in this decision. We conclude that the effects on the ecology are minimal and the construction of the shallow reef would be a potential benefit for kaimoana species such as kina and crayfish.

CULTURAL EFFECTS

[174] Mauao also known as Maunganui, stands as a sentinel looking out over the Pacific ocean, Te Moana a Toi. We were told Mauao was a victim of unrequited love, so he asked to be pulled by the patupaiarehe (fairy people) during the night from the Hautere forest to the sea so he could drown himself. At dawn he was caught by the sun before he could accomplish his task, thus the name Mauao which means *caught by the dawn*. He has since *forever stood tall at the entrance of the harbour*. Mr Awanuiarangi Black explained that the ancient name Maunganui, was given by Tamateaarikinui of the Takitimu canoe. He named it after the ancient mountain in Hawaiki climbed by the God Tane on his quest in search of nga kete wananga (the ancient baskets of knowledge).

[175] Mauao or Maunganui is associated with several ancestors from Hawaiki who undertook rituals and ceremonies or built alters (tuahu) on their arrival in this area so that settlement could take place. Thus it has historical importance and a deep cultural and spiritual significance which, we were advised, extends from the ocean floor (including Tanea Shelf) to its peak.

[176] Te Awanui (big river) is the name of the channel or body of water that runs from the mouth of the Waimapu River to the base of Mauao. This was the traditional path that



was created when Mauao was moved to the sea. The name is also used to refer to the entire Tauranga Harbour. Mr Charlie Tawhiao stressed that Te Awanui is important in terms of the tribes' identities. According to him they discuss it as an *identifier* and as an *integral part* of their territory, inextricably linked to their health and welfare.

Ancestral Relationship and Heritage Values

[177] Mr Hauata Palmer, a kaumatua of Ngai Te Rangi, advised that Mauao is the sacred mountain for all tangata whenua of Tauranga Moana who are themselves linked by whakapapa (genealogy). It is, he claimed, *the most sacred landmark in the Tauranga area and has significant historical value for us*. In Mr Tuanau's opinion, it is the most *sacrosanct place of all Tauranga Moana*. Mr Morehu Ngatoko Rahipere noted the mountain holds much history and that there were battles fought on the mountain. Thus it is considered a waahi tapu. Mauao Historic Reserve and Mauao Recreation Reserve are registered waahi tapu on the New Zealand Historic Places Trust Register of Historic Places, Historic Areas, Waahi Tapu and Waahi Tapu Areas.

[178] Te Awanui is considered a symbol of tribal identity, mana and rangatiratanga. It is this harbour that physically links all the tribes of Tauranga to each other, as demonstrated to us through the production and translation by Mr Awanuiarangi Black of the waiata (song) Tu Mokemoke.

The Cultural Landscape

[179] The relationship of the tangata whenua to these iconic features was demonstrated to this Court, through evidence of:

- [a] tribal names such as Nga Papaka o Rangataua (the Crabs of Rangataua used to describe certain hapu of the Rangataua area) and place names such as Te Paritaha o Te Awanui (the tidal bank of Te Awanui), Tauranga Moana (the anchorage, resting place, fishing ground);
- [b] tribal waiata/moeatea (songs) and haka;



- [c] expressions of kaitiakitanga manifest through stories of human deeds and activities or by stories of taniwha and sea kaitiaki such as stingrays and certain species of shark and fish;
- [d] associated customary or cultural practices;
- [e] tribal histories such as those concerning Kuia Rock and the Ruahine sand bank and other stories; and
- [f] oratory.

[180] To the tangata whenua, these cultural sites have a mauri (or life essence) binding each member of the tribes through mana (prestige), tapu (sacredness), and whakapapa (genealogy) to these sites and the early ancestors of the canoes who discovered them. It is these links from the past to the present that create the relationship the tribes have with their ancestral lands and waters.

[181] The nature of the relationship the tribes have with Te Awanui was perhaps best captured in the expression provided by Mr Hauata Palmer, *Ko au te Moana, ko te Moana ko au*, or *I am the sea - the sea is me*. He used this saying when he explained that the marine environment has been their source of sustenance, recreation and spiritual wellbeing. In terms of its fisheries the relationship of Maori with their relatives of the sea was captured in a similar way when Hori Tupaea, a chief of Ngai Te Rangi, stated in ancient times, *Ko au te patiki, ko te patiki ko au* or *I am the flounder - the flounder is me*.

[182] Mr John Te Kira Toma advised that Te Awanui was and remains a major settlement area and he named in excess of 45 places dotted around its margins which were villages, pa sites or marae.

[183] In practical terms the stretch of Te Awanui affected by the Port of Tauranga's application to dredge along the shipping channel was used, and continues to be used, as a customary harvesting area, as a waka route and as a place to find rongoa (health remedies).

[184] We were told that the kai of a region reflects the mana of the people of that region. Te Awanui was and remains a major food source for the Tauranga tribes,



jealously guarded and protected. The previous abundance of the fishery in the harbour is well documented and an example from the evidence relates to Taiaho, another Ngai Te Rangi chief, who once said of Te Awanui, *Kaore koe e mate kai ana, anei taku mara kai* which when translated means, *You will never be hungry for here is my food garden*. The entire area surrounding Mauao has also been an important customary food gathering site.

[185] Spiritually, Mauao and Te Awanui remain for the tribes, the passage way to Hawaiki. It is through these waters that the spirits of the dead leave on the outgoing current, past Panepane Point on the southern end of Matakana Island, out into the Bay of Plenty, to Tuhua and then on to the ancient homeland - Hawaiki. Evidence of this pathway taken by the ancestral spirits of the appellants was provided by Reon Roger Tuanu and Mr Matiu Dickson through waiata and prose.

Other Sites of Significance

[186] The entire area known as Te Paritaha o Te Awanui and the Number 2 Reach of the shipping channel are considered an important spawning area and nursery for juvenile pipi. The evidence was that from ancient times to the present, it has been considered an important fishery for the tribes and their identity and their way of life. The pipi are considered a taonga species, with evidence that the appellants consider that they have whakapapa (genealogy) linking them directly to the environment, the sand, the sea and to the pipi. Mr Olsen explained this Maori world view:⁸⁹

22. ... as a holistic framework in which all things both animate and inanimate are connected through a web of kinship. Thus all things are deemed to have a life force/mauri. It is the principle of mauri that determines environmental and cultural well-being, for Māori the protection of mauri (spiritual integrity) is paramount.

[187] Mr Morehu Ngatoko Rahipere (born in 1927) told us that it was and continues to be a significant mahinga kai (food gathering area). According to him, the name Te Paritaha o Te Awanui is derived from its position in reference to Mauao. At one time prior to the port development at Sulphur Point, Te Paritaha was much larger and easily accessed by foot. Now it may only be accessed by boat.

[188] Mr Brendon Taingahue gave evidence that he collected pipi from Te Paritaha when he was younger and he continues to do so today. It was his view that is still a



⁸⁹ Olsen, EIC, at [22]

plentiful source of pipi for the tangata whenua and we note this accords with the ecological evidence in these proceedings. It seems that the Bay of Plenty District Health Board monitors shellfish health under a programme called Toi Te Ora. Results from monitoring indicate that shell contamination occurs at various places around the harbour thus increasing the significance of Te Paritaha as a customary fishery.

[189] We also heard evidence that kina has been harvested at the entrance to the Harbour where the species is, we were told, abundant at around 20 feet down. Mr Graeme Borrell believes these beds of kina are the main breeding stocks for that species. There was limited scientific evidence on this point, however. What we can be certain of is that mussels are collected at the entrance to the harbour and on rocks at the foot of Mauao along with kina, paua and koura.

[190] Ms Antoine Coffin referred to traditions associated with Panepane Point (or Te Panepane o Raumati). These traditions concern the beheading of Raumati who, according to her account, was responsible for the burning of the Te Arawa Waka. In seeking revenge, Hatupatu of Te Arawa with his brothers fought Raumati and his kin at the base of Mauao and overcame him after facing off towards Panepane Point. Mr Matiu Dickson referred to a waiata that commemorates the sacred nature of this site and likens the sounds of the tides to the falling of tears for those buried there. Panepane, we were told by Ms Coffin, is still revered today by Matakana Islanders and descendents of Raumati living at Wairoa-Bethlehem.

Kaitiakitanga

[191] To nurture their relationship with Te Awanui, we were told that over many centuries the tribes developed management practices and customs to preserve the resources of the area. As kaitiaki, they used tikanga and kawa (rules/customary practices and rituals) to moderate and manage the tapu aspects of the relationship with these sites and waters and the resources to be found there. These tikanga, according to several witnesses, can be sourced to the gifting of the first fish-hook from Tangaroa who imposed conditions on its use. These rules included:

- [a] requirements to practice karakia (prayer and incantations);
- [b] the return of the first fish caught in reciprocity for his initial gift; and



These rules, it was contended, continue to pervade the appellants' fishing practices to this day.

[192] According to the report attached to the evidence of Mr Anthony Fisher (Appendix B), the Tauranga Moana tribes acted as guardians of the domain of Tangaroa and the sea creatures who were his kin. The evidence before us touching on the subject, noted that management included the imposition of rahui or prohibitions against harvesting, restrictions on take, preservation and propagation of sea resources and harvesting done in line with the Maori lunar calendar which prohibited or permitted harvesting certain species at various times of the year.

[193] The ability to protect and manage these ancestral resources as kaitiaki is considered important, because it discharges the tikanga obligation of the appellants to future generations. An example from the evidence of Mr Anthony Fisher relates to the *Ngati Te Rangi Resource Management Plan (1995)* he developed and its first whakatauki or proverb exalting the people to care for their tribal domain including the feet of Mauao.

[194] Management also ensures other cultural practices and values which underpin the way of life of the appellants can continue. Such practices and values include manaakitanga (ensuring there is kaimoana to fed manuhiri or visitors and whanaunga or extended family not resident in Tauranga). In so providing, the mana and prestige of the Tauranga Moana tribes is upheld. There is major whakama or embarrassment when no kaimoana can be provided in accordance with this custom.

[195] Thus, settlement and fishing and gathering remain tangible expressions of the identity of Tauranga Moana tribes and the relationship they enjoy with the physical and metaphysical aspects of Mauao and Te Awanui and their surrounds.

Te Awanui – The Fishery

[196] The *Te Awanui Tauranga Harbour Iwi Management Plan (2008)*⁹⁰ notes that kaimoana was gathered from these waters on a seasonal basis. The authors reflect on the use of Te Awanui as a fishery noting that seasonal harvesting was and remains a feature



⁹⁰ At pages 59 - 61

of the traditional and contemporary way of life of the tribes of Tauranga Moana. The evidence we heard was that people gathered and still gather kaimoana such as kina, koura (crayfish), paua, pipi, tuangi, papaka (crabs), kukuroa (horse mussels), titiko and they fished and continue to fish the species to be found in the harbour and its oceanic surrounds.

[197] We received evidence demonstrating such use from ancient times, during the 20th Century and continuing into the present. In particular we note the report of Robert A. McClean,⁹¹ produced by Te Timatanga Neil Te Kani, recording the importance of these fisheries for sustaining Maori living in the area. In addition, the importance of Te Awanui as a fishery was addressed by several witnesses including:

- Mr Hauata Palmer, who told us about their connection and dependence on Te Awanui as a food source, whilst explaining their tikanga as applied to these fisheries.
- Mr Charlie Tawhiao, who explained that eating food from Te Awanui was about continuing their traditions and cultural practices and reconfirming their ancient and long-standing links with Te Awanui and Tauranga Moana.
- Mr Penetaka Brian Dickson explained that there are cultural obligations that the tribes must meet to maintain their mana over the waters that surround Mauao and Te Awanui. Having the ability to manage the resources of Te Awanui, as an expression of their rangatiratanga and kaitiakitanga, is an essential component in meeting their cultural obligations.
 - Mr Brendon Taingahue described how he wants his children to collect kaimoana from Te Awanui so as to *reaffirm their connection to Te Awanui* by gathering pipi at Te Paritaha o Te Awanui and kina, paua and other kaimoana at Mauao, for this he advised, was a fundamental part of what it means to be Ngai Te Rangi.

⁹¹ Tauranga Moana – Fisheries, Reclamation, And Foreshore Overview Report (April 1999, Vol 1)



- Mr Anthony Fisher recorded the stories of elders who could recall families travelling from Waipu Bay, Matapihi, to camp at Waikorire (Pilot Bay) below the base of Mauao to gather kaimoana and to harvest karaka berries from karaka tress that once thrived on the base of the mountain.
- Mr Hori Ross and Ngaroimata Ngatai Cavill advised that foreshore from Whareroa to Mauao was completely sandy prior to the development of the Port. It was the main walkway to Mauao and along this foreshore people gathered shellfish such as pipi, pupu, koikota and tupa.
- Mr John Te Kira Toma noted that Te Awanui was a place to meet and enjoy and practice whakawhanaungatanga (rekindling familial relationships).
- Mr Reon Roger Tuanau advised that the important thing about kaimoana was the practice, the tikanga and the kawa associated with this resource and the pride and the learning derived from engaging in harvesting it.

Impacts of Development on Te Awanui

[198] After referring to the continuing ability to gather kaimoana and to fish, nearly all the witnesses for the appellants complained about the impacts of urbanisation and port and industrial development on Te Awanui. These changes, aggravated by land use changes within the catchment, have led in their view to the degradation and diminishment of Te Awanui and its fisheries. There has also been a discernible decline in shell-fish and fish stocks, with a large number of witnesses concerned that the abundance of kaimoana previously associated with Tauranga Moana is no more.

[199] A summary of how these adverse effects impact upon the appellants comes from the *Te Awanui Tauranga Harbour Iwi Management Plan* $(2008)^{92}$ where the impacts of any destruction of cultural sites was described as follows:

5.1.1 Pressures on Significant Cultural Sites

Significant cultural sites form an integral part of Māori life. These areas can include kai gathering areas, mahinga mataitai, wahi tapu, wahi taonga and wahi tupuna. They give Māori reference points for direction and growth and ensure stable cultural development. Removal or destruction of these sites are a major



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issue for whanau, hapu and iwi and threatens the integrity of our tribal identity and growth ...

Environmental Management

[200] To give modern day expression to their rangatiratanga and kaitiaki obligations to work on restoring the mauri of Te Awanui, the iwi of Tauranga Moana have worked together on the *Te Awanui Tauranga Harbour Iwi Management Plan (2008)*. According to Kia Maia Ellis, the purpose of this plan was to address the significant concern they had around the ongoing impact of urban and industrial development on Te Awanui. It was a way for the tangata whenua to have a voice under Sections 61, 66 and 74(2A) of the Resource Management Act 1991.

Fisheries Management

[201] As kaitiaki, the Tauranga Moana tribes aspire to co-manage their rohe moana (traditional sea domain). This area includes Te Awanui. We were told that they attempt to do so in accordance with their tikanga underpinned by the values of manakitanga (hospitality), whakawhanaungatanga (cause to establish familial relationships), whakapapa (genealogy) and aroha (love or respect). In giving expression to these values they have established or worked with the Ministry of Fisheries (now Ministry of Agriculture and Fisheries) to establish:

- [a] The Tauranga Moana Iwi Customary Fisheries Charitable Trust with two representatives from each of the three iwi and invited representatives, one representative from Tuhua and one from Te Puni Kokiri. The Trust was represented before us by the Chairman, Mr Penetaka Brian Dickson. The Trust aims to:
 - [i] provide for the education of fishing and environmental management based on Maori cultural values;
 - [ii] produce educational resource material on the Maori relationship with Papatuanuku and Tangaroa;



- [iii] promote research into Maori cultural and scientific tikanga; and
- [iv] educate and promote the culture and history of Maori customary environmental and fisheries tikanga.

It provided a cultural impact assessment on the proposed channel deepening, widening and dredging.

- [b] Tangata kaitiaki positions appointed under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 so as, we were told, to uphold the mana over their customary fishing rights and resources in their rohe moana. Tangata kaitiaki have authority to grant applications for customary harvesting; and
- [c] A mataitai under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 was approved by Minister of Fisheries and is known as Te Maunga o Mauao Mataitai Reserve. A letter dated 25 August 2008 from the Minister declaring the establishment of the reserve was filed. In addition, notice of the establishment of the reserve was published in the New Zealand Gazette on 28 August 2008, effective from 25 September 2008. This was also produced for these proceedings by Mr Penetaka Brian Dickson, who aside from being the Chair of the Tauranga Moana Iwi Customary Fisheries Trust, is also Chair of the Te Maunga o Mauao Mataitai Reserve. According to Mr Dickson, the area was chosen because of its *historical* and traditional significance in providing sustenance to the tribes. The Reserve covers an area of approximately 6 km² which includes the waters surrounding Mauao, Moturiki and Motuotau Islands and part of the Tauranga Harbour and thus will be directly affected by the proposed consents. Commercial fishing is excluded from this area and recreational fishing restricted for certain species, such as mussels or kutae. The Reserve is an inshore area where, we were advised, paua, kina, kutae, pupu and koura can be gathered. The well known areas are Te Paritaha o



Te Awanui for pipi and tuangi and Mauao, Moturiki Island and Motuotau for kina, paua, kutae and koura.

The Iwi of Tauranga Moana

[202] Ngai Te Rangi and representatives from Nga Ruahine and Ngai Tamarawaho of Ngati Ranginui and one representative from Nga Potiki appeal from the decision of the Hearing Panel dated 31 May 2010 granting Consents 65806 and 65807 to allow dredging of that part of the harbour used as a shipping lane impacting in particular on Mauao and Tanea Shelf, Panepane Point, Te Paritaha o te Awanui and Te Kuia Rock.

Ngai Te Rangi

[203] Te Runanga o Ngai Te Rangi Trust was established in 2007. There are 11 Ngai Te Rangi marae, with each having a representative on the Runanga. These marae are named in the evidence of Mr Charlie Tawhiao and are located on strategic sites adjacent to Te Awanui and costal foreshore, with a large number on Matakana Island. At the last census in 2006, approximately 12,600 people identified as Ngai Te Rangi with around 42% living in Tauranga. It is those living in Tauranga that represent the ahi kaa of the tribe. Mr Graeme Borrell advised that it is the role of ahi kaa to protect these sites, their waters and their resources, particularly their fisheries.

[204] Ngai Te Rangi are descendants of those who arrived from Hawaiki, principally on the Mataatua canoe. They have whakapapa with Ngati Ranginui and Waitaha who were in occupation when Ngai Te Rangi arrived in this district from the East Coast.

[205] We received evidence about the importance of the relationship that Ngai Te Rangi has with Mauao and Te Awanui and how these were inextricably bound to their identity and mana as a tribe, when witnesses before us proclaimed their pepeha (tribal proverb):

Ko Mauao te Maunga Ko Tauranga te Moana Ko Mataatua te waka Ko Ngai te Rangi te iwi Tihei Mauri Ora Mauao is the mountain Tauranga is the sea Mataatua is the canoe Ngai te Rangi is the tribe Thus the life force is awakened



[206] Mr Anthony Fisher, who interviewed over sixty elders of Ngai Te Rangi for research he completed, noted that Tauranga Harbour was and continues to be one of *the primary cultural markers and a source of mana and identity, in terms of physical landscape, cultural relationship and spiritual relationship* and that their way of life, and hence, their culture, practices, and traditions were strongly influenced by, and linked to, *Te Awanui.*

[207] Ms Rongokahira Sandra Tuhakaraina of Nga Potiki, a hapu of Ngai Te Rangi, who is one of the appellants also gave some evidence of her hapu relationship with Mauao and its surrounds.

Ngati Ranginui

[208] Ngati Ranginui descend from those who arrived in Aotearoa on the Takitimu canoe. The people of Ngati Ranginui comprised several hapu whose rangatiratanga is respected by their central tribal authority. Thus in this Court, Ngati Ranginui was represented by several witnesses from hapu or sub-tribes such as Ngai Tamarawaho and Ngati Ruahine. Mr Morehu Ngatoko Rahipere demonstrated the importance of Mauao and Te Awanui to his tribe in his evidence summarised as follows:

Ko Mauao, ko Puwhenua oku Maunga	Mauao and Puwhenua are my mountains
Ko te Awanui toku moana	Te Awanui is my sea
Ko Takitimu toku waka	Takitimu is my canoe
Ko Ngati Ranginui toku iwi	Ngati Ranginui are my people
Ko Ngai Tamarawaho toku hapu	Ngai Tamarawaho is my sub-tribe
Ko Huria toku marae	Huria is my marae

[209] The ancient nature of the relationship enjoyed by Ngati Ranginui with Mauao was described by Mr Reon Roger Tuanu, who told the Court that the rangatira of Takitimu canoe, Tamatea Arikinui, *ascended Mauao and through karakia he imbued the mauri into Mauao for his people and their descendents*. In specific terms, he planted the mauri of the wananga (traditional learning) of Rehutai and Hukatai under the rock Tirikawa known today as North rock. Mr Antoine Coffin added that he also planted harakeke at the summit and conducted rituals to open up the lands for occupation. Mr Lance Waaka added to the evidence by providing the full tradition associated with Mauao.



Ngati Pukenga

[210] Although not appellants, our review would not be complete without acknowledging Ngati Pukenga's relationship to Tauranga Moana. This iwi descend from the ancestors of Mataatua canoe. The evidence of Mr Anthony Fisher informs us that Ngati Pukenga were a nomadic mercenary-type tribe who fought and lived in many areas of the North Island. They were hired for their prowess as warriors. However, Ngati Pukenga eventually settled at Rangataua with Nga Potiki and Ngati He and collectively they are referred to as Nga Papaka o Rangataua – the Crabs of Rangataua. Mr Awanuiarangi Black gave evidence before this Court as a cultural expert for Nga Ruahine but he is also a member of Ngati Pukenga. In speaking of the importance of Mauao, he referred to the mountain and its surrounds as *powerful esoteric places*. In his view, the depth of history that pertains to Mauao is extensive and it was a key area within Tauranga embodying an abundance of knowledge like no other. In terms of Te Awanui, he referred to late Hohua Tutengaehe (once a recognised spokesman from this area) and his understanding that the full name for this water-body was Te Awanuiarangi, the name of the celestial pathway, between heaven and earth.

Cultural Evidence for the Appellants

[211] We were told by witnesses for the appellants that the significant historical and cultural status of these sites and waters and their relationship with these must, in accordance with their tikanga, be protected.

[212] Whilst acknowledging that the mauri of Te Awanui has been diminished by previous reclamation works, dredging of the harbour, pollution, over-fishing and numerous other impacts that flow from the industrial use, urban sprawl and land use changes around the harbour, they contend their relationship remains as does their mana, rangatiratanga and kaitiakitanga over the sites. As Mr Black put it, they have a *intergenerational responsibility* to their ancestors and grandchildren *to preserve in the best state possible an environment that will be a fruitful resource for future generations*.

[213] The appellants believe that the cumulative effects of these previous impacts, which have all occurred following the confiscation of their lands and a number of public works takings, combined with the effects of the proposed dredging, widening and deepening of the shipping channel, will further undermine their relationship,



kaitiakitanga, cultural values and traditional and cultural practices associated with Mauao and Te Awanui. Mr Koning counsel for Ngai Te Rangi, submitted that the proposed dredging, when added to previous cumulative effects, represents a tipping point in terms of the Maori relationship with Te Awanui and Mauao. He also contended that previous cumulative effects have already degraded the mauri of Te Awanui and Mauao which has resulted in lasting impacts on the mana of Ngai Te Rangi. The Port's proposal will degrade the mauri of Mauao and Te Awanui even further and adversely affect Ngai Te Rangi. Ms Rolleston for Nga Ruahine, contended that the Port's proposal represents a significant cumulative physical adverse effect on areas of immense spiritual and cultural value, with adverse effects affecting the relationship of Nga Ruahine to Te Awanui and Mauao.

[214] Ngai Te Rangi further claim that the Port fails to understand the true nature of the deep association between them and Te Awanui, reducing that relationship to nothing more than one based on the harbour as a source of kaimoana and describing any other cultural effects as residual. They contend that while Mauao and Te Awanui are important sites for kaimoana, these also serve, according to them, as an anchor nourishing their history, traditions, identity and mana. Dredging, widening, and deepening the shipping channel, will result in significant adverse cultural effects.

[215] We have discerned from submissions and the evidence the following potential cultural effects:

- [a] There will be interference with the sacred nature of Mauao, the ancestral mountain of all the tribes of Tauranga Moana by the widening of channels and partial removal of Tanea Shelf;
- [b] Panepane Point (an important significant historic waahi tapu site) could be affected by the Matakana shoreline moving beyond its observed historical range resulting in scouring of this point;
- [c] An immediate loss of pipi, and possibly other species such as kina, which by tikanga and tradition contravenes the genealogical associations of the tribes with Tangaroa and his sea creatures. This reduction will occur with no guarantee of these species, particularly those not surveyed, being restored to current stock levels;



- [d] There will be an impact on the connection the tribes have with Te Awanui and Mauao. Mr Anthony Fisher for example, was concerned that for every generation of Ngai Te Rangi, developments within the harbour have caused loss in terms of their connection to the harbour and that the Port's proposal would add further to that loss;
- [e] There will be a small change in water velocity and tidal levels of Te Awanui causing a further disruption of the natural rhythm and processes of Te Awanuiarangi, the original pathway of Mauao as he was dragged to the sea, and the waters through which their dead return to Hawaiki;
- [f] There will be some loss of tikanga and matauranga (knowledge) including place names associated with the sites destroyed by the dredging, widening and deepening of the shipping channel. Mr Awanuiarangi Black listed specific fishing grounds that could be affected as:
 - Taurangaiti
 - Paritaniwha
 - Matangangara
 - Tutakiroto
 - Patukaramea
 - Puhirere
 - Rewa

He also suggested that the proposed dredging, widening and deepening would impact on the sandbank named Ruahine, where the Tainui canoe beached.

[g] Te Paritaha o Te Awanui, Panepane Point, Waikorire (Pilot Bay) and Tanea Shelf of Mauao will be directly affected by the proposed removal of material from Te Awanui, with resulting effects on the cultural relationship with Te Awanui and recreational activities;



- [h] There will be the marginalisation of the rangatiratanga and kaitiakitanga of the appellants by over-riding the management regime of the Tauranga Moana Iwi Customary Fisheries Charitable Trust, tangata kaitiaki and their management of Te Maunga o Mauao Mataitai Reserve under the *Fisheries (Kaimoana Customary Fishing) Regulations 1998*; and
- [i] There will be an impact on the ancestral relationship, mana and identity of the Tauranga Moana tribes with Te Awanui and Mauao.

[216] Counsel further submitted that these adverse effects cannot be avoided, or adequately remedied or mitigated. In fact, given the tikanga of the tribes and the associated responsibilities they must discharge in relation Te Awanui and Mauao to protect these for future generations, they are unlikely to agree to any dredging of Te Awanui, Te Paritaha o Te Awanui, Tanea Shelf or any other reach of the Port shipping channel, a matter Mr Koning acknowledged. However, he also agreed that should this Court grant consent, Ngai Te Rangi would consider participating in the implementation of any conditions imposed.

Cultural Evidence for the Port

[217] The Port of Tauranga called Mr Buddy Mikaere, a consultant specialising in dealing with Maori cultural issues. Mr Mikaere noted that for the Port there is no debate as to the cultural importance of Te Awanui and Mauao to tangata whenua, or the emotional ties that people have to its waters and surrounds as an integral part of their tribal identity. The evidence of the appellants in this regard is not challenged.

[218] There is no argument from his perspective that the operations of the Port take place within a cultural landscape or that there are archaeological sites of significance in that landscape, or that reference needs to be made to the cultural landscape in dealing with tangata whenua.

[219] But on his review of the evidence, the main elements of the cultural landscape are Mauao, Te Kuia Rock, Tanea Shelf, Te Paritaha, Panepane, North Rock, Moturiki and Motuotau, most of which are not impacted by the dredging. The only aspects of the cultural landscape affected, in his view, are Te Paritaha, Tanea Shelf and Panepane Point.



Those effects will be modification of the seabed in respect of Te Paritaha and Tanea Shelf and possible risk of scouring at Panepane Point.

[220] In respect of these sites, the proposal to dredge so as to deepen and widen the shipping channel would result in cultural impacts on the harbour on two counts. He stated:⁹³

- 21. ... The first and what appears to be the main issue is the loss of a highly valued kai moana resource that has been of significant importance to all Tauranga Moana iwi and hapu over many generations. Associated with this issue is the potential for other traditional food gathering areas to be impacted upon as well.
- 22. The second ground is found in the potential to impact on sites of significance within or adjoining the project footprint.

[221] He concedes there will be impacts on cultural values associated with Te Paritaha o Te Awanui, Tanea Shelf and Panepane Point.

[222] In terms of Panepane Point, Mr Mikaere, pointed to Dr de Lange's evidence demonstrating that the point is a dynamic spit area and that the shoreline has fluctuated widely since traditional times but particularly from 1922-1995. We note that the experts have all agreed that the ebb tide delta is the region of greatest uncertainty of the Port's application to dredge, widen and deepen the shipping channel and there may be some effect on Panepane Point. In terms of the historical significance of Panepane Point as the place where Raumati was killed by Hatupatu, he noted that the dynamic nature of the shoreline has caused accretion and thus the killing would have taken place well inland of the current shoreline.

[223] In terms of the modification of Tanea Shelf and Te Paritaha, he considered that as there will be no visual impact, given modification happens under water, and as proper mitigation measures have been advanced by the Port to deal with habitat loss, he considered that cultural landscape values will remain unchanged. He further suggested that traditionally, Maori had no *qualms in modifying the landscape to fit their needs*. He considered that Mr Coffin's evidence likening the modification of the seabed at Tanea Shelf as akin to *cutting the toes of Mauao* as a modern day gloss. Mr Mikaere considers that the remedial measures proposed by the Port will mitigate these impacts and thus the impacts are acceptable.

⁹³ Mikaere, EIC, at [21] – [22]



[224] As to the appellants' belief that there will be impacts on the mauri and health of Te Awanui, he opined that the Port Zone has been heavily modified and is no longer in a pristine state. Thus the belief of the appellants that the mauri of the harbour will be diminished should not be determinative of the issues before this Court. Rather, the Court should recognise that the mauri of Te Awanui has historically been impacted, and that while it may be further diminished during the project, the mauri and health of the harbour will be subsequently enhanced by the proposed conditions offered by the Port.

[225] But, Mr Mikaere considers that much of the evidence of the appellants raises historical Treaty of Waitangi issues that have limited relevance to these appeals and should be balanced against the very real economic benefits that the Port represents for the region. Alternatively, the evidence raises issues concerning historical environmental effects from urban and industrial development, historical harbour works, the development of the harbour bridge and causeway, over harvesting of the fisheries, and a number of other factors. Some of the suggested remedial actions, including potential comanagement regimes that may be adopted for the future management of the harbour as a result of a Treaty of Waitangi settlement, as addressed in the evidence of Mr Tukuroirangi Morgan, are all matters that have nothing to do with the Port's current application. In fact on the conditions advanced, an element of co-management is achieved.

[226] Mr Mikaere concluded that there are very strong cultural elements attached to these appeals, with which he has every sympathy. But on an objective level, all the proper planning, ecological, environmental and associated requirements are met and, he opined, in some cases very *innovative ways have been found to address the tangata whenua concerns to a level which is unmatched in my previous experience with harbour and marine developments*.

[227] Counsel for the Port, Ms Hamm submitted that the evidence of Mr Mikaere, coupled with the evidence of the scientific experts called by the Port, indicate that the coastal and ecological effects on Mauao (Tanea Shelf) and Te Paritaha are adequately addressed by the proposed conditions of consent. While Panepane Point may be affected by flow increase around the spit and flow on the south-western side of Matakana Island, the area is expected to continue fluctuating within the historical limits of 1922-1995 shorelines. In addition, while there may be some short term effects on ecology and habitat, these effects will be mitigated by the suite of conditions offered by the Port,



including the Kaimoana Restoration Plan. Finally, she contended that any residual cultural and spiritual effects have been addressed more comprehensively by the Port's proposed conditions as offered when closing its case for these appeals.

Conclusions on Cultural Effects

[228] The undisputed evidence before the Court is that Mauao and Te Awanui and their surrounds are iconic lands and waters of great historic and cultural significance to the tribes of Tauranga Moana. We also understand that their relationship with these features including Te Paritaha o te Awanui, Panepane Point and Mauao including Tanea Shelf, is an ancestral and historical one that extends back to settling of Aotearoa by their ancestors from Hawaiki, and for Ngai Te Rangi after arriving in the Tauranga region from the East Coast.

[229] We note that the appellants consider that Mauao and Te Awanui are indivisible and inextricably linked thus any effect on any aspect of these features, will affect the whole. From their perspective, there are cultural effects that flow from dredging, deepening and widening the shipping channel that will impact on all of Tauranga Moana. Thus they have identified a number of cultural effects that relate to the entire harbour and its oceanic surrounds.

[230] However, and based on all the evidence, we consider it is the appellants' concerns about the impacts of the dredging on those parts of Te Awanui relating to Te Paritaha o te Awanui, the ebb tide delta and Panepane Point, and Mauao at Tanea Shelf, including the associated fisheries and habitats that are directly relevant to the appeals. We also consider their concerns about the impacts on the management of customary fisheries by local tribal tangata kaitiaki and their management of Te Maunga o Mauao Mataitai Reserve established under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 and the Fisheries (Kaimoana Customary Fishing) Regulations 1998.

[231] The mataitai, Mr Koning submitted, *has its own legal status as an expression of the Crown's continuing treaty obligations* to Tauranga Moana iwi. We agree with this position and we note that section 10 of the Treaty of Waitangi (Fishing Claims) Settlement Act 1992 and the Fisheries (Kaimoana Customary Fishing) Regulations 1998 record that the Crown agreed in 1992 to recognise and provide for customary food gathering and the special relationship between tangata whenua and <u>places</u> of importance



for customary food gathering (including Tauranga ika and mahinga mataitai). It was established after the Minister of Fisheries was satisfied, inter alia, that there was a special relationship between tangata whenua and the proposed mataitai reserve. In addition he needed to be satisfied that the mataitai reserve was an identified traditional fishing ground and of a size appropriate to effective management by tangata whenua. The Mauao Mataitai Reserve is managed in practice by tangata kaitiaki, and no person may engage in commercial fishing in the reserve.

[232] We consider that the law on mataitai reserves clearly reflects the interests of the Crown and Maori to provide for customary food gathering <u>and</u> the special relationship between tangata whenua and places of customary food gathering importance such as Te Paritaha o te Awanui, Mauao, and the general area within the shipping channel captured within the boundary of the reserve. Thus we reject Ms Hamm's argument that the reserve is predominantly about addressing the sustainability of the fishing resource in areas of significance to iwi for customary food gathering. Rather, the mataitai reserve was established to recognise and provide for the special relationship tangata whenua have with this area.

[233] We conclude as much because of the emphasis in the legislation on the relationship with such places. Thus, the impact of the proposal to dredge, widen and deepen the channel on the mataitai reserve is directly relevant to our Part 2 analysis, and we consider that there will be significant adverse cultural effects on the exercise of the kaitiakitanga and rangatiratanga of the appellants as a result. These impacts we have provided for in our proposed conditions.

[234] The Port's evidence indicates that any other effects on the broader Tauranga Moana (Harbour and Bay of Plenty), other than within the footprint of the project, will be minimal. Within the project footprint, it is these features that the Port acknowledges will be physically affected with a resulting need to avoid, mitigate or remedy any resulting cultural effects. The need to consider these effects relates to Section 104 of the Act which requires that we must have regard to any actual or potential effects on the environment.

[235] As noted previously in this decision, Section 104 of the Act also requires we have regard to a range of Policy Statements and Plans and any other matter we consider relevant and reasonably necessary to determine the application. There are also a number



of policies in the New Zealand Coastal Policy Statement, the Regional Policy Statement, the Regional Coastal Plan and other Regional and District Plans that complement Part 2 of the Act as agreed by the planning experts at their conference. These policies *inter alia* recognise the kaitiaki status of tangata whenua and require those exercising powers and functions to avoid, remedy or mitigate adverse effects on sites, resources and areas of significance to tangata whenua.

[236] In cases involving Maori issues, we are also required to have regard to the relevant provisions of Part 2, namely Sections 6(e) and 6(f), 7(a) and 8. Under Section 6(e) of the Act:

6 Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for a number of matters of national importance:

•••

- (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:
- (f) the protection of historic heritage from inappropriate subdivision, use, and development.

[237] In terms of Section 6(e) and (f) of the Act, we find that Mauao, Te Awanui and their surrounds are the ancestral lands and waters of the tribes of Tauranga Moana and their respective hapu. Their relationship and their culture and traditions with this land and waters and associated taonga such as the fisheries, turns on their historic, spiritual and cultural associations and values. We also find these features form part of their historical heritage. We note that there will be an impact on their ancestral relationship, their culture and traditions including the mana and identity of the Tauranga Moana tribes with Te Awanui and Mauao. We consider that will also be some effect on their historic heritage values associated with Mauao and Te Awanui.

[238] Under Section 7(a) of the Act and to achieve the purpose of the RMA:

7 Other matters

... all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to-

- (a) kaitiakitanga:
- ••



[239] There is no dispute that the Tauranga Moana tribes and their hapu are the kaitiaki of these features in terms of Section 7 and thus we must have regard to their kaitiakitanga.

[240] We also note that in achieving the purpose of the Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). As the tribes of Tauranga Moana have recognised kaitiakitanga and mana whenua over Mauao and Te Awanui, we must take into account the relevant principles of the Treaty of Waitangi in reaching our decision, which we consider to be:

- [a] the principle of reciprocity the exchange of the right to govern for the benefit of all New Zealanders in return for the protection of rangatiratanga referred to as partnership;
- [b] the duty of active protection of Maori interests; and
- [c] the principle of mutual benefit.

[241] In practical terms our findings above mean that we accept the evidence of the appellants that there will be the following cultural effects. We consider these effects to be more than minimal (de minimis) and as such, must be avoided, remedied or mitigated to achieve an acceptable level of effect under Section 5 of the Act. These cultural effects are:

- [a] the interference with Mauao by the channel widening at Tanea Shelf;
- [b] the potential effects on Panepane Point that could be affected by the Matakana shoreline moving beyond its observed historical range;
- [c] the damage to Te Paritaha and the immediate loss of pipi and other kaimoana such as kina and paua, titiko etc;
- [d] potentially some loss of tikanga and matauranga (knowledge); and



[e] the limitation on the rangatiratanga and kaitiakitanga exercised by the appellants under the management regime of the Tauranga Moana Iwi Customary Fisheries Charitable Trust, tangata kaitiaki and their management of Te Maunga o Mauao Mataitai Reserve under the Fisheries (Kaimoana Customary Fishing) Regulations 1998.

[242] We must also consider these cultural effects alongside the undisputed evidence of the Port of Tauranga that it is of national and regional economic significance. We are also convinced that its ability to develop further will ensure its continued relevance to exporters who rely on efficient and cost effective access to international markets. Such access is increasingly dependent on bigger shipping vessels with expanded container capacity

Consideration of Alternatives

[243] In cases such as this the Court is entitled to have regard to questions of alternatives. As the High Court noted in *Meridian Energy Ltd v Central Otago District Council (Lammermoor)*⁹⁴, although the test is not mandatory, it will clearly be more likely to arise in circumstances where matters under Section 6 arise.

[244] We accept that there are no alternative methods or routes which would allow for the deepening of the channel with lesser effects. The issue in this case is simply whether the depth and the width sought are required i.e. is the full extent of this alteration achieving sustainable management.

[245] The further modification of Tanea Shelf is to provide a safety margin for vessels of between 300m and 350m in length. The Maersk S Class at 350m is not a vessel identified as being one likely to utilise the Port in the next 10 years. Thus, the question must arise as to whether or not the effect on Tanea Shelf and on the Mauri of Mauao is justified and whether it can be delayed or avoided.

[246] We see there may be advantages in delaying widening of the channel at Tanea Shelf. It may be that vessels requiring the widening do not appear in New Zealand until late in the consented period of 15 years. If they do appear they may be more manoeuvrable or there may be appropriate assistance by way of large tugs. A delay


would also give each party more time to appreciate the positions of other parties and work towards a better solution.

[247] Against this are the reasons advanced by the Port for doing the widening early and establishing new habitat on the proposed reef. This has advantages for kaimoana gatherers who would have improved access to the resource offered by a shallow reef community.

[248] Our conclusion is that the widening should be delayed as long as possible and thus the dredging done in at least two stages.

[249] Condition 9 of Proposed Condition 65806 requires the dredging to be done in at least two stages. This is appropriate but we require the wording to be as follows:

Stage 1

- 9.2 To cater for a Post-Panamax vessel of 5000 or 6000 TEU (slot) capacity vessel with a maximum draft of 13.5m the Consent Holder shall:
 - (a) Model the Stage 1 vessel on a ship handling simulator to determine the extent of widening and deepening required to the shipping channels with no widening at Tanea Shelf.
 - (b) Provide details of the results of the modelling to the Regional Council and the TWRG.
 - (c) Carry out the dredging required to meet the channel dimensions determined by the modelling carried out in accordance with Condition 9.2(a).

Subsequent Stages

- 9.3 To cater for a vessel larger than dredged for in a previous stage, the Consent Holder will:
 - (a) Model the vessel on a ship handling simulator to determine the extent of widening and deepening required to the shipping channels.
 - (b) Provide details of the results of the modelling to the Regional Council and the TWRG.
 - (c) Carry out the dredging required to meet the channel dimensions determined by the modelling carried out in accordance with Condition 9.3(a). Should this require widening at Tanea Shelf this may be done to the extent authorised by this consent (32 metres).

Final Stage

9.4 To cater for a vessel of similar design parameters to those used in the application document entitled *Assessment of Environmental Effects for*





Port of Tauranga Limited Channel Deepening and Widening February 2009, the shipping channels shall be deepened and widened in accordance with the parameters set out in conditions 2, 3 and 5 of this resource consent, and no further modelling will be necessary.

[250] Table 3 of the Big Ships Report shows vessels of 5,000 to 6,000 TEU (slot) capacity to have lengths up to 300m and beams up to 40.0m. We expect the vessel modelled under Condition 9.2(a) will not exceed these dimensions.

[251] Several parties suggested another alternative was that Tauranga Port not be used for big ships. We reject this alternative for several reasons:

- [a] It would not provide for the efficient use of the existing Port infrastructure;
- [b] It is not for this Court to make decisions as to which ports should or should not cater for big ships; and
- [c] If a consent cannot be granted without unacceptable impacts then it should be refused rather than suggesting another port is more appropriate.

THE PLANNING DOCUMENTS

New Zealand Coastal Policy Statement

[252] Gazetted on 4 November 2010, this Statement is clearly relevant to this application. There does not appear to be any dispute about the key factors of the Policy Statement, and the relevance of Objective 2 (with respect to natural character and natural features), Objective 3 (tangata whenua as Kaitiaki) and Objective 4 (public access and recreation) is acknowledged in this case.

[253] Objective 6 provides for development and use while recognising a whole series of values, almost all of which were at play in this case. In particular, the first bullet point:

Objective 6

• the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;



[254] It might be said that the 2010 Coastal Policy Statement is more supportive of the Port's activities than the earlier one with the addition of Policy 6(1)(a):

a. recognise that the provision of infrastructure ... are activities important to the social, economic and cultural well-being of people and communities; ...

[255] The Ports are of course specifically recognised in Policy 9 which requires that the Court:

Policy 9: Ports

Recognise that a sustainable national transport system requires an efficient national network of safe ports, servicing national and international shipping, with efficient connections with other transport modes ...

[256] This must be balanced against the other policies within the provisions, including those relating to biological diversity, kaitiakitanga, preservation of natural character, natural features and natural landscapes, historic heritage, public access, and water quality. Although arguably it could be said that the 2010 Policy is intended to provide for greater levels of development within the already developed coastal area, at least in respect of infrastructure and energy works, this proposition was not put by the parties in this case.

[257] On balance we have concluded that the 2010 Policy Statement is an attempt to more explicitly state the tensions which are inherent within Part 2 of the Act. They are more generally discussed therein than in the 1994 Policy Statement. In other words, the question of important infrastructure within the coastal environment is always a matter that the Court has had regard to as is evidenced in *New Zealand Rail v Marlborough District Council*⁹⁵, and the 2010 Policy Statement is a more explicit statement of the various issues which need to be integrated in reaching a decision in respect of the coastal environment.

[258] Some of these policies might in the circumstances of a particular case be irreconcilable. It may not be possible, for example, to preserve the natural character of the coastal environment while providing for the future infrastructural requirements of the Port. Nevertheless, in reaching an integrated decision it is the Court's duty to seek an outcome of sustainable management. Looked at in terms of the modified utilitarianism principles of John Stewart Mill, it would be seeking to maximise the benefits to all sectors of society while minimising the detriments. If viewed in this way, we consider



⁹⁵ [1993] 2 NZLR 641

that the New Zealand Coastal Policy Statement accords with the objectives of sustainable management of Part 2 of the Act and fits well the various considerations under Section 6, 7 and 8.

[259] The questions therefore of inappropriate development, which we will address shortly under Section 6, result in conclusions involving the balance we have just discussed.

[260] Importantly, Objective 3 intends to explicitly recognise the status of tangata whenua as kaitiaki of the coastal environment and provide for involvement in its management. As has already been identified in this case, a fundamental problem with this application was the failure to identify the relevant parties who had an interest in the harbour, and identify and address impacts upon them. Although consultation is not mandatory, it is difficult to see how the applicant could have addressed these issues without doing so. In fact, as consultation has continued in the case, the applicant's proposals in this regard have also become more consistent with that identified in the Coastal Policy Statement and the outcome sought in Part 2 of the Act.

The Regional Documents Generally

[261] The Regional Coastal Environment Plan and the Operative Bay of Plenty Policy Statement address both the Port and Harbour. This includes not only the area of Te Awanui, but Mauao itself and Matakana Island. The following is accepted by all the parties:

- [a] Parts of Mauao, the seaward coastline of Matakana Island and Motutau Island are deemed to be sites of significance (on land);
- [b] The shorelines of Mt Maunganui and Matakana Island are sensitive to coastal hazards;
- [c] The seaward margins of Mauao and Matakana, the Mt Maunganui coastline and surrounding Moturiki and Motutau Islands are Areas of Significant Conservation or Cultural Value (ASCV). Deposition Site H is not within the ASCV. All of the near shore replenishment site A and parts of B and C are located within the ASCV;



- [d] Mauao, Moturiki and Motutau Islands and the Harbour are outstanding landscapes and natural features, while Matakana Island is a regionally significant feature and landscape;
- [e] Two mooring areas are apparent; one in Pilot Bay and the other in the Port Zone adjacent to the Cutter Channel. Planning Map 11B does not show ASCV 4 extending into the portion of the harbour directly affected by the proposal. However, the accompanying text does make reference to areas outside of those shown in the Planning Map 11B and appears to discuss the values associated with the harbour generally. For example, the 3rd Schedule to the Regional Coastal Environment Plan notes that Sulphur Point provides one of the most important roosts for wading birds in the harbour and the 14th Schedule states that Tauranga Moana is rich in cultural heritage sites. Pilot Bay is specifically cited amongst a number of other sites as being of particular significance to Ngai Te Rangi.

[262] In addition to the Regional Coastal Environment Plan identifications we have discussed above, the Regional Policy Statement does discuss generally:

- [a] Matakana Island as a community landmark, while Mauao and the Harbour are identified as prominent landmarks;
- [b] The Port is identified as a major international link for the Bay of Plenty Region and a major component of the region's economy; and
- [c] The Harbour is recognised as an outstanding wildlife habitat in an area of exceptional botanical conservation values. While it notes that these values have been degraded by inappropriate activities, the RPS points to environmental improvements having been made through the protection of intertidal flats, the reductions of sewage and industrial discharges.

The Recognition for the Port

[263] It was not argued by any party that the regional documents did not recognise the importance of the Port for its economic activity and the importance of the Port being able to remain open for continuing trade. This is recognised not only in the regional



documents by the existence of the Port Zone, but by provisions that discuss the Port and its activities. As well as this, the Port holds a series of consents including those we have discussed for earlier widening and deepening activities.

[264] By the same token, as we have already recognised both the Regional Policy Statement and the Regional Coastal Environment Plan recognise the environmental and cultural importance of the various features of the harbour, including Mauao, Matakana Island and Te Awanui. When it comes to how tensions between these elements are addressed, unfortunately, the Regional Coastal Environmental Plan recognises the tension and requires them to be resolved without providing any particular criteria.

[265] We now turn to consider in slightly more detail the provisions relating to this application.

The Ngai Te Rangi Iwi Resource Management Plan (Te Awanui Tauranga Harbour Iwi Management Plan 2008)

[266] This Plan prepared in 2008 is intended to avoid reactive responses to resource consent applications or issues and policies that affect iwi and hapu⁹⁶. It identifies in some detail Te Awanui and the values associated with it. It specifically refers to the Act and Sections 61, 66 and 74 (see Chapters 4.2). At Chapter 5.1.2 it moves directly to discuss the questions of dredging. It sets out Objectives and Policies which are directly relevant to this application. The Introduction to these Objectives and Policies reads:

The need to balance economic and urban growth with cultural and environmental sustainability is increasingly apparent. The impacts of dredging that have caused and continue to cause detriment to the relationship with tangata whenua have with Te Awanui need to be taken into account and provided for.

OBJECTIVES

- 1. To protect and enhance the kaimoana, ecology and habitats of the harbour, from the adverse effects of dredging.
- 2. To provide mitigation for the erosive impacts contributed by harbour dredging in culturally significant areas of land within the harbour margins.

POLICIES

1. All dredging activity within the harbour must not adversely affect mahinga kai sites of Te Awanui.

⁹⁶ See Objective 3, first bullet point



- 2. As a condition of resource consent, monitoring of the effects of dredging is that of the consent holder. Monitoring reports must be made available to iwi and hapü.
- 3. Identified mahinga kai areas must be afforded legal protection from dredging activity within Te Awanui.
- 4. Tangata whenua must have input into the decision-making process through appropriate mandated representatives with regard to all dredging activities carried out within Te Awanui.
- 5. Any proposed dredging of the seabed of Te Awanui must be endorsed by tangata whenua. Any opposition to dredging by iwi will be made within reasonable grounds.
- 6. Dredged materials should be made available for the restoration and maintenance to areas susceptible to erosion as a mitigation measure, especially in those areas of high significance to tangata whenua.

SPECIFIC POLICIES

- The pipi bed known by tangata whenua as Te Paritaha o Te Awanui, has been a food basket to tangata whenua pre-European settlement until now. Any proposed dredging activity in this area must avoid, remedy or mitigate any potential adverse affects as determined by tangata whenua.
- 2. The sandbank area on Matakana Island known as Panepane has longstanding historical and traditional importance to tangata whenua. Any proposed dredging activity in this area must avoid, remedy or mitigate any potential adverse affects as determined by tangata whenua.

[267] The intended action includes forming a relationship with Environment Bay of Plenty and the Port. Chapter 5.9 goes on to discuss the Fisheries Management, and this clearly includes the area now covered by the Mataitai Reserve. This again repeats the desire to ensure sustainability for mahinga kai and to ensure the capacity of tangata whenua to participate in fisheries management.

[268] Mr Kemble understood that the dredging works are intended to be within the Port Zone. He did notice that there was a drafting error and that the location of the Zone was to be corrected so that it sits over the Entrance Channel. He notes that sediment disposal areas are not identified as being within Coastal Habitat Preservation, Harbour Development or Port Zones, and accordingly, they are zoned Coastal Marine Area.

The Regional Coastal Environment Plan

[269] Section 3.3.2(b) of the Regional Coastal Environment Plan introduces the Port Zone:

3.3.2(b) Port Zone

The purposes of the Port Zone are to:



- (a) Enable efficient use of existing port area, so that the regional community may meet its social and economic needs;
- (b) Concentrate major new structural development in an area already modified ...

[270] The Eighth Schedule of the Regional Coastal Environment Plan has an Outline Development Plan. However, this does not contemplate the extent of works subject to this application. For example, dredging volumes in the Eighth Schedule are some 5.6Mm³, approximately one-third of the volumes now sought.

[271] The Coastal Management Zone introduced by Section 3.3.2(d) of the Regional Coastal Environment Plan manages activities on a case-by-case basis. The Zone supports a variety of notable environmental values, but notes that developments are considered on an individual basis. There is no doubt that in accordance with Section 4.1 of the Regional Coastal Environment Plan, the Harbour Zone at the Port and some areas are developed to a significant degree.

[272] Chapter 4 of the Regional Coastal Environment Plan recognises the need for further development in the Port Zone and suggests that it is appropriate that the remaining natural character give way to development where necessary. Although Mr Kemble draws some consolation from the alignments of the current dredged channels with those proposed, reference to the Eighth Schedule shows that the relative detailed information as to the intentions in this regard, there is no indication of an intention to deepen or widen the channels and the works described there appear to be works that have largely already been undertaken, if not completed.

[273] Chapter 23.2 of the Regional Coastal Environment Plan is a useful summation of the anticipated environmental results. It is clear on the one hand that the natural and physical resources of the harbour, including the Port, are intended to be sustainably managed. In our view, there is no doubt that this anticipated further works where the role of tangata whenua is recognised and provided for, and natural character was protected where possible.

[274] Policy 6.2.3 deals with the ecological effects, and it is clear that these are part of the balance that must be undertaken. Section 6.2.5 seeks further research on wildlife and botanical values in the coastal environment. The recognition of the Mataitai Reserve is



also a matter directly relevant to the role of tangata whenua and the obligations of the Port as it relates to its development.

[275] Overall, we do not think there was anything in the Regional Coastal Environment Plan which prohibits the further development of the Port. There is however a clear expectation for consideration and partnership in relation to further development of the Port, particularly with tangata whenua and taking into account the natural resources and values of Te Awanui.

[276] Chapter 8 discusses extensively tangata whenua interests. Chapter 8.2 contains three critical objectives:

- 8.2.2(a) The involvement of tangata whenua in management of the coastal environment.
- 8.2.2(b) The protection of the characteristics of the coastal environment of special spiritual, cultural and historical significance to tangata whenua,
- 8.2.2(c) Sustaining the mauri of coastal resources.

Policies 8.2.3(c) clearly identify the Fourteenth Schedule areas (including Mauao etc.):

8.2.3(c) To avoid, remedy or mitigate adverse effects on resources or areas of special spiritual, historical or cultural significance to tangata whenua. This includes, but is not limited to, those areas and values identified in the maps and Fourteenth Schedule – Areas of Significant Cultural Value.

[277] Methods of Implementation 8.2.4 includes protecting sites, resources etc. in the consent process 8.2.4(c). Although protection is expressed in absolute terms, the Plan must be read in the context of the tension between Chapter 4 and Chapter 8. We do not see any priority afforded to the Port over matters such as those in Chapter 8.

[278] Importantly, the Regional Coastal Environment Plan does not give carte blanche to the Port based upon its economic value, but requires the integration of a complex series of issues to reach a conclusion as to whether consents are appropriate. Key elements of that relate not only to detailed consideration of natural resources, but also to the extent of partnership and consideration of tangata whenua issues.



[279] The key question can variously be posed as to whether or not this particular development is inappropriate (Policy 6.2.1 - Key Issue), how the special spiritual, cultural and historic significance to tangata whenua are to be protected, including the involvement of tangata whenua and their continuing role.

[280] In considering the application of these various policy provisions, Mr Kemble and Mr Mikaere concluded that the proposal would result in adverse cultural and heritage effects. The question then turned to where some of the more tangible effects (i.e. those on kaimoana), were being adequately avoided, remedied or mitigated, and how the less tangible (the relationship) could be adequately recognised and provided for. Mr Kemble correctly records that the hearing committee found that the proposal would significantly adversely affect the cultural and spiritual relationship which tangata whenua have with the area of interest, and this effect could not be avoided or fully remedied or mitigated. He agreed with that conclusion and that some of the concepts and their consent conditions would go some way toward avoiding, remedying and mitigating those effects.

The Operative and Proposed Bay of Plenty Policy Statement

[281] The Regional Policy Statement is expressed in broad terms. The Proposed Policy Statement is still at an early stage having been notified in November 2010. Again, it contains relatively broad statements of relevance in this case, and is more detailed than the current Regional Policy Statement. But again, it highlights issues of natural character and habitats, landscape features and historic heritage. It also notes the special relationship tangata whenua have with the coastal environment. It notes the contribution made by the Port to the social and economic well-being of the region.

[282] Section 2.3 applies to Energy and Infrastructure, and on the face of it, appears to deal specifically with infrastructure such as the commercial Port operations. Benefits are to be recognised (Policy E1 4B). Policy E1 5B appears to give priority to the avoidance of effects associated with upgrades to regionally significant infrastructure where they could impact upon a matter of national importance. However, where a situation arises where they could not be avoided i.e. the impact upon Mauao affecting the relationship of tangata whenua with the sites of cultural and historic heritage, then it appears that the provisions would still fall back to consideration under Section 5 and Part 2 of the Act. Mr Kemble also acknowledges that Objective 6, being the avoidance and prevention of adverse effects, cannot be achieved in this case in all areas. There may be a wording



conflict with Policy E1 5B. Sections 2.6.1 to 2.6.9 again, spend some time dealing with the Treaty of Waitangi principles, and also the role of tangata whenua in resource management matters.

[283] Chapters 15 & 16 of the Operative Policy Statement deal with Historic Heritage and Indigenous Ecosystems. These reflect sensitivity to Maori issues including relationships (see Chapter 15.3.1(b)(vi)). Criteria are set out in Appendix 4 *Maori Culture and Traditions*. There is an emphasis on Protection of Historic Heritage and Outstanding Natural Features from (inter alia) inappropriate development.

[284] Similar provisions for Indigenous Ecosystems refer us to criteria – Appendix F – Criteria for assessing specified matters in the Bay of Plenty region, Sets 1 & 3. There is also general recognition of iwi and hapu concerns in Chapter 4 of the Policy Statement.

[285] Overall, it must be said that all of the regional documents are consistent with an approach involving tangata whenua and decision-making relating to critical matters of significance. There is no doubt at all that all the regional plans see Te Awanui and Mauao as matters of regional significance.

Commissioners' Decision

[286] Pursuant to Section 290A of the Act, we have regard to the Commissioners' decision. They have acknowledged the impact on tangata whenua. In particular, the commissioners recognised a key issue was whether the relationship of tangata whenua to the area was recognised and provided for as well as issues relating to effects and the overall integration required under the Act. They accepted *that the relationship with Te Awanui and Mauao is significantly affected by this proposal.*

[287] The commissioners concluded that in the round the consent would promote sustainable management. Although not explicit, they seem to see:

- [a] an appropriate relationship between tangata whenua and the Port;
- [b] adequate conditions of consent;
- [c] meaningful engagement by the Port; and



[d] tangata whenua's role in influencing timing of the works,

as leading to that integrated decision.

[288] While acknowledging active protection and partnership as applicable Treaty principles, they seem to see these fulfilled in the four approaches we have identified.

[289] We reach a similar conclusion with strengthened conditions and in clear expectation of active engagement and partnership in the future of Te Awanui.

Part 2 of the Act

[290] We acknowledge that Part 2 of the Act is concerned with sustainable management which enables people and communities to provide for their social, economic and cultural well-being, and for their health and safety. All counsel acknowledged that this was not only the Port and the general community of Tauranga, but included each of the hapu and iwi, and other specialised groups interested in ecological and environmental matters.

[291] In identifying certain matters of national importance, it is clear that these are of significance in reaching a decision under the Act. Both historic heritage and the relationship of iwi and hapu, to areas of cultural significance are elements of that. Also elements of natural character and outstanding natural landscapes are influenced and relevant under Sections 6(a),(b) and (c).

[292] By the conclusion of the case, the Port's set of conditions proffered in closing represented a relatively sophisticated approach to the various issues arising in this case. Some conditions were intended to remedy adverse effects, such as impacts on kaimoana. Others were intended to be mitigatory or compensatory in a broader sense, for example compensating for the loss of the pipi beds by the enhancement of kaimoana generally within the harbour.

[293] In proposing a Trust in respect of Te Awanui, the Port was recognising that the relationship of tangata whenua to Te Awanui and Mauao needed to be recognised and provided for, given that clearly the alteration of Tanea Shelf, and to a lesser extent, Te Paritaha, would interfere with that relationship. The principle of partnership derived from the Treaty of Waitangi and reflected in many of the aspects of the Regional Coastal



Environment Plan and the Regional Policy Statement, is sought to be encouraged by the mechanism of the Trust. We note that the Ngai Te Rangi Management Plan itself recognises the need for dialogue and agreement between key stakeholders, the Regional Council, the Port and tangata whenua. The creation of yet another Trust creates layers involving the trustees of Mauao, the Mataitai Reserve, and now a new Trust. We recognise that until a more formal regional relationship can be entered into, which might incorporate all these bodies, the Trust would at least have a broad mandate to improve the relationship between Te Awanui and Mauao for the benefit of tangata whenua.

[294] On the other hand, we do not consider that it would directly compensate for the alteration of Tanea Shelf which has an effect upon Mauao (seen as an ancestor in terms of the history of all local iwi). To that end we consider that if a consent is otherwise appropriate, there would need to be some direct compensation to the trustees of the Mauao reserve to enable them to undertake some improvements to the reserve as compensation or mitigation. This compensation is related to the works on Tanea Shelf rather than the dredging as a whole, and accordingly, we consider it appropriate that a sum of \$50,000 per annum should be paid from the time when the applicant commences works at Tanea Shelf for 5 years.

[295] The objective of the payment would be to give the trustees some particular ability to address the impacts of the dredging on that side of Mauao. This may involve works to improve the pa sites and middens on the nearby hillside. The use of the monies is a matter for the trustees.

[296] Some on the Court were concerned as to whether or not the relationship and historic heritage were being fully recognised and/or protected from inappropriate development by these measures.

[297] However, under Section 8 of the Act we must take into account the principles of the Treaty of Waitangi which we have previously identified in this decision. Two of which are the principles of partnership and mutual benefit. To that extent, we acknowledge that this hearing is in the context of extensive discussions relating to Te Awanui, including Waitangi Tribunal Claim WAI 215. In the context of this, we are all reasonably confident that on-going discussions between the parties will be necessary and that the type of partnership envisaged in the Regional Plan and the Act can be advanced. In that regard, we note that the Council appears committed to this type of process and has



appointed a staff member specifically to try and achieve the type of outcomes we are now discussing. There is enormous potential for ecological gains in Te Awanui, particularly with riparian improvements, reduction of sedimentation, control of nutrients from farming, kaimoana preservation projects and the like. We also detect that beneath the stated positions of the parties in this case, there is a real desire to see a significant improvement within the Te Awanui.

[298] On balance, taking into account those developments, we all conclude that the proposed conditions offered by the Port during the closing of its case and as varied in this decision, adequately avoid, mitigate or remedy all these cultural effects. We accept that the appellants' view of Mauao and Te Awanui as their tipuna or ancestors, and that they cannot as a matter of tikanga, ever agree to the Port's application. But, and as a number of cases including *Whangamata Maori Committee v Waikato Regional Council*⁹⁷ indicate, the provisions of Part 2 of the Act dealing with Maori interests where well founded in the evidence, give no veto power over developments under the Act. Rather, these interests must be balanced against the other matters listed in Part 2 and the overriding purpose of the Act under Section 5 to promote the sustainable management of natural and physical resources.

[299] We do, however, reject the submissions made for the Port that only physical effects must be taken into account by this Court, as clearly cultural effects include a range of impacts including those that may affect historic, traditional, and spiritual aspects of the relationship Maori have with their ancestral lands, waters, waahi tapu and other taonga, and their kaitiakitanga. Ms Hamm in opening submitted that there was a requirement for conclusive evidence of adverse effects before we could conclude that a cultural relationship is not provided for under Section 6(e) of the Act. She argued that there must be physical adverse impact on the values underpinning the iwi relationship.

[300] Ms Hamm then relied on *Sea-Tow Limited v Auckland Regional Council*⁹⁸ to support this proposition. That citation concerned whether belief of an adverse effect amounts to an adverse effect. She also quoted the Ngawha Prison case generally as to whether beliefs could be regarded as a natural and physical resource.





[301] It is unclear whether Ms Hamm still adhered to this position in closing. Certainly, the impact on relationships is now accepted although the closing still discusses impacts on cultural and spiritual values.

[302] We conclude that the Port opening missed entirely the basic premise of the appellants' cases. Namely, that they have a long established, well-recognised, and vital relationship with Te Awanui and Mauao, Te Paritaha and Panepane.

[303] It was accepted, and we have concluded, that the modification to these areas will adversely impact on that relationship. The Port's original opening case did not even acknowledge the rangitiratanga of iwi. This focuses under Section 5 of the Act in two ways:

- [a] Enabling the cultural values of tangata whenua by recognising and providing for the relationship (Section 6(e)); and
- [b] Avoiding, remedying or mitigating any adverse impact on that relationship to such an extent that we are satisfied the application with conditions meets the purpose of the Act.

[304] The Act does not dismiss relationships or metaphysical issues at all, as is noted in *Bleakley v Environmental Risk Management Authority*⁹⁹ and confirmed in *Friends & community of Ngawha Incorporated v Minister of Corrections*.¹⁰⁰ The Act manages natural and physical resources to enable people and communities to achieve, to the fullest extent possible when balanced with other factors, their social, economic and cultural well-being. Social and cultural well-being may, in a particular case, involve relationships and metaphysical factors, particularly under provisions such as Section 6(e) of the Act.

[305] We have concluded that Ms Hamm's proposition in opening is too simplistic. Small physical changes may have more serious consequential effects on historic, traditional and spiritual aspects of the relationship Maori have with their lands, waters, waahi tapu and other taonga.

⁹⁹ [2001] 3 NZLR 213 (HC)
¹⁰⁰ [2002] NZRMA 401 at [41]



Integrated Decision under Part 2

[306] The proposal to delay works to the Tanea Shelf has convinced the Court to unanimously recommend and consent the Port's proposal, with a number of amendments to both the proposal and conditions. The delay enables the question of requirement and benefits to be directly assessed prior to the works being commenced. Given that this assessment would be peer reviewed, it would give an opportunity for tangata whenua to offer alternatives that might achieve a similar result, yet gives certainty to the Port that there is a consent which can be implemented if it is required. From the Court's perspective, it is likely that works to alter Tanea Shelf will not be undertaken for at least 7 years, and accordingly, requiring that notice of such works cannot be given for at least 5 years from the commencement of these consents, and then requiring 2 years of consultation and investigation to ascertain whether there are any alternatives, and whether those alternatives might be viable. This period might be reduced to one year if all parties consent. During that period of up to 7 years, both the Mataitai Reserve and the Trust will have co-operated with the Port and undertaken improvement works.

[307] We are very hopeful that on-going dialogue between the Council, tangata whenua and the Port will lead to a much clearer understanding of each party's obligations given the co-operation required into the future. This may result in a general consensus as to future development.

[308] There is no doubt that this case concerns important infrastructural and economic benefits, with adverse impacts upon the relationship of tangata whenua with key features of the environment, particularly Mauao and Te Awanui. That relationship and the historic heritage involved, particularly with Mauao, are matters of national importance under Sections 6(e) and (f) under Part 2 of the Act.

[309] To justify modification of the harbour, the application needs to be of sufficient moment. In this case, the application relates to the operation of one of New Zealand's key ports and the largest export port. It is clear that ongoing containerisation is going to lead to bigger ships visiting New Zealand, and it is likely that within the next 15 years this Port may have to widen and deepen its entrance in order to allow these big ships to visit.



[310] The applicant has now agreed to defer the actual work on Tanea Shelf until the requirement to cater for big ships in this harbour is clear. We are satisfied that the conditions we have now proposed would give sufficient certainty that the works were required, and that other alternatives had been considered. There is the prospect that either technological change or discussions between the parties in the next few years might reveal other alternatives not yet considered.

[311] In reaching the conclusion that recommendations should be made and consents granted, we have taken into account the now comprehensive conditions. We have also proposed a further condition (with its financial consequences) upon the Port in relation to payment to the Trustees for the Mauao reserve.

OUTCOME

[312] For the reasons we have stated in some considerable detail, we would recommend and grant consent subject to the conditions generally in accordance with those annexed hereto, but modified as outlined in this decision, and specifically with amendments to require:

- [a] Notice for alterations to Tanea Shelf shall not be given for at least five years;
- [b] That at the time of notification, the parties would then enter into a process of consultation, generation of alternatives, and peer review of the decision to ascertain if the widening of Tanea Shelf is still appropriate. That process will engage at least one year of discussion and consultation, and then up to one year for further peer reviews and investigation if required, subject to the fact that all relevant parties could consent to a course of action after one year;
- [c] That upon commencement of the works on Tanea Shelf, the Port shall pay to the Trustees for the Mauao Reserve the sum of \$50,000 per annum, for five years. The payment shall be immediately due, and further payments due for a further four years on the annual anniversary of the first payment.



Final Comment

[313] We cannot leave this case without commentary on the proposition that iwi and hapu had not engaged constructively in resolving this appeal.

[314] We recognise the deep insult to the mana of some kaumatua from the way in which this application came to their notice. This was clearly seen as hurtful and disrespecting of their rangatiratanga. Seen from their perspective, it was yet another slap in the history of offence, rehearsed so recently before the Waitangi Tribunal. The Port appears to have been oblivious to the effect and interpretation of their actions when applying for their consents. The Port saw itself as being fair in delaying the Council hearing and attempting to consult. We accept that by the end of the case the Port had a better understanding of how it should be forging a relationship with tangata whenua.

[315] This case highlights to us the yawning chasm in cultural insight sometimes displayed by major infrastructural companies. The Port should have a Cultural Liaison Officer, or such persons, on retainer. This position would never have arisen if the Port had sought early cultural advice. Mr Mikaere was retained after the Council decision and prior to the Court hearing. That was far too late.

[316] For our part we have concluded that the Regional Coastal Environment Plan contemplates a major infrastructural applicant preparing and filing an application after extensive discussion with tangata whenua, and probably, with some level of understanding as to how on-going issues relating to Te Awanui should be addressed. Some 20 years after the enactment of the Resource Management Act, it is surprising that an infrastructural company of the size of the Port would not have been aware of its obligations in terms of the Regional Coastal Environment Plan, the New Zealand Coastal Policy Statement 2010 and the Act.

[317] During the course of this hearing, the Port has done a great deal to try and address this situation. However, we feel obliged to note that further examples of applications made without proper approach and consideration of the requirements of the relevant national and regional documents could lead to refusals of applications for consent.

[318] Put simply, a publicly listed company working in a highly sensitive area identified in all relevant national and regional documents, cannot purport that it has no obligation to



consider tangata whenua issues or consult with the relevant parties. This is not the case of a small business having no specific provisions and regional plans relating to it. This is the case of a major infrastructural company which has been dealing with these issues constantly for the last 50 to 60 years since its inception, and prior to that, the Harbour Board. To pretend that these matters are not being addressed through the Waitangi Tribunal (and having repercussions to on-going operations), is not in our view a reasonable position to take.

Directions

[319] The Port is to liaise with other parties and circulate Proposed Draft Conditions within 30 working days:

- [a] A Consent Memorandum agreeing a set of conditions is to be forwarded to the Court by the Port within a further 30 days. If such a Consent Memorandum cannot be agreed between the parties then all parties are to file comments on the Port's proposed draft conditions within a further 20 working days;
- [b] The Port and the Council may submit a joint memorandum within the above 20 days should they wish to do so.

[320] We consider that the appellants have preliminary grounds to seek costs against the Port, notwithstanding the outcome.

[321] Any application for costs to be filed within 50 working days. Replies 10 working days thereafter.

DATED at AUCKLAND this

21 ST day of December 2011

For the Court J A Smith Environment Court Judge







Conditions for coastal consent No. 65806

Appendix C

PORT OF TAURANGA LIMITED

A coastal consent

- (a) Under sections 12(1)(c) and 12(1)(e) of the Resource Management Act 1991 and Rule 14,2.4(z) of the Bay of Plenty Regional Coastal Environment Plan to undertake a Restricted Coastal Activity being to Disturb the Seabed of Tauranga Harbour by Dredging; and
- (b) Under sections 12(1)(d) and 15A(1)(a) of the Resource Management Act 1991 and Rule 14.2.4(za) of the Bay of Plenty Regional Coastal Environment Plan to undertake a Restricted Coastal Activity being to Deposit Dredged Material in the Coastal Marine Area; and
- (c) Under section 12(2)(b) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional Coastal Environment Plan to undertake a Restricted Coastal Activity being to Remove Dredged Material from the Coastal Marine Area; and
- (d) Under sections 12(1)(c) and 12(1)(e) of the Resource Management Act 1991 and Rule 14.2.4(z) of the Bay of Plenty Regional Coastal Environment Plan to undertake a Discretionary Activity being to Disturb the Seabed of Tauranga Harbour by Maintenance Dredging;

subject to the following conditions:

1 Purpose of this Coastal Consent

To authorise and set conditions for the dredging of material from the coastal marine area to deepen and widen and maintain the navigation channels of the Port of Tauranga. This consent also authorises the deposition of dredged material at an offshore disposal site and the removal of dredged material from the coastal marine area. The Consent Holder shall carry out the works authorised by this consent in stages, provided that the widening at Tanea Shelf is completed in the first stage, in accordance with condition 9.

2 Locations

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Tauranga Harbour shipping channels, entrance and deposition sites as shown on:

- The Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for* 14.5m Container Vessels Dredged Shipping Channels and referenced as B.O.P.R.C. Plan Number RC 65806/1; and
 - The Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for* 14.5m Container Vessels Spoil Disposal Sites and referenced as B.O.P.R.C. Plan Number RC 65806/2; and



The Port of Tauranga plan entitled Widening and Deepening Shipping Channels for 0 14.5m Container Vessels New Channel Boundaries and Dimensions and referenced as B.O.P.R.C. Plan Number RC 65806/3

Map References 3

Name of Area	Approximate NZMS 260 map references (midpoint)
Entrance Channel and No.2 Reach	U14:8980-9310
Cutter Channel	U14:9010-9080
Maunganui Roads	U14:9080-8980
Stella Passage	U14:9054-8838
Deposit Site H	U14:9414-9386

Legal Description 4

Seabed (Tauranga District).

5 Quantity of Excavation

5.1 The quantity of material removed from the coastal marine area for capital dredging purposes shall not exceed the volume required to achieve the following depths (from Chart Datum):

Locality	Works	Approximate volume (million cubic metres)
Entrance Channel and No.2 Reach	Deepen to 17.4 metres	5.9
Tanéa Shelf	Deepen to 17.4 metres and widen by 32 metres	• 0.4
Cutter Channel	Deepen to 16.0 metres and widen by 115 metres	7.0
Maunganui Roads	Deepen to 16.0 metres and widen by 50 metres Create turning basin 16.0 metres deep and 200 metres by 200 meters	0.4
Stella Passage	Deepen to 16,0 metres	1.3

5.2 The total quantity of material removed for maintenance dredging purposes shall not exceed 185,000 cubic metres per year, averaged over a 5 year rolling period, and material shall only be removed for the purpose of maintaining the depths set out in condition 5.1 above (from Chart Datum).

Notification 6

The Consent Holder shall notify (in writing) the Chief Executive of the Regional Council or 6.1 delegate, and the Tangata Whenua Reference Group, of its intention to commence dredging no less than 20 working days prior to each dredging operation. Notice shall include as a minimum;



The modelling results obtained in accordance with condition 9;

The area to be dredged;

The depth(s) proposed to be achieved;

- An assessment of dredging volumes and whether those volumes consist of capital dredging or maintenance dredging;
- An assessment of the material types expected to be dredged;
- The expected duration of the dredging operation;
- A plan for the disposal of dredged materials;
- The name and contact details of the person with responsibility for supervising the works.
- 6.2 At least 10 working days prior to the start of dredging the Consent Holder shall notify (in writing) the Coastguard and the Tauranga Harbourmaster and shall place notices in the Bay of Plenty Times advising the general public of the following;
 - The intention to start dredging;
 - The area to be dredged;
 - The period during which dredging is expected to occur; and
 - Any restrictions that will apply to navigation during the dredging.

7 Relationship with Tangata Whenua

- 7.1 The relationship of Tangata Whenua with Te Awanui Tauranga Harbour (including Mauao) is to be recognised and provided for by the Consent Holder through:
 - the establishment of a trust and a Tangata Whenua Reference Group (TWRG) and the Te Awanui Scholarship Programme, and the preparation of a Kaimoana Restoration Programme (under this condition),
 - a requirement for all work at Tanea Shelf (Mauao) to be performed in one operation (conditions 1 and 9),
 - provision for ceremonies prior to carrying out capital dredging operations under the consent, if deemed appropriate by iwi and hapu (condition 8.1)
 - a minimum separation distance from Te Kuia Rock (condition 8.5),
 - provision for renourishment of the beach at Whareroa Marae (conditions 10.1 and 10.10),
 - provision for the TWRG to assist in settling the final position of the boulder placement plan at Tanea Shelf / Mauao (condition 10.9), and
 - requirement for an environmental bond (condition 20).

New Trust to be established

set 9^F A Rrior to carrying out any works under this consent, the Consent Holder shall settle and provide funding for a new trust to mitigate for adverse effects on cultural and spiritual values, which have not been directly avoided. The trust deed shall have the following resource management purposes:

- (a) To provide an appropriate mechanism through which the Consent Holder can recognise the relevant lwi and Hapu as kaitiaki of Te Awanui Tauranga Harbour and the importance of Te Awanui, including Mauao and Te Paritaha to Tangata Whenua; and
- (b) To provide an appropriate mechanism through which Tauranga Moana lwi and Hapu and the Consent Holder can form an enduring relationship and engage with each other directly and equally; and
- (c) To set priorities and allocate funding for projects within Te Awanui Tauranga Harbour including particularly projects to be implemented by the Tauranga Moana Iwi Customary Fisheries Trust and the Mauao Trust.
- 7.3 The Consent Holder shall contribute to the trust the following funds:
 - (a) An initial fund of \$500,000; and
 - (b) Ongoing annual payments of \$50,000 per annum, up until five years have elapsed after completion of all capital dredging authorised by this consent.
- 7.4 In settling the trust, the consent holder shall:
 - (a) Determine the name of the trust in consultation with Tauranga Moana lwi and Hapu;
 - (b) Provide for the ability for the trust to regulate its own procedures;
 - (c) Invite four Tangata Whenua trustees to be appointed to the trust to represent:
 - Ngai Te Rangi;
 - Ngati Ranginui;
 - Ngati Pukenga;
 - The Tauranga Moana Iwi Customary Fisheries Trust;
 - (d) Appoint two trustees representing the Consent Holder;
 - (e) Provide meeting space for meetings of the trust and secretarial support for the trust;
 - (f) Provide for the trust to set priorities (and any criteria) for applications for funding from the trust;
 - (g) Provide for the trust to make recommendations to the Consent Holder on the appointment of the Tangata Whenua Reference Group required by this condition of this consent.



Tangata Whenua Reference Group

- 7.5 The Consent Holder shall, before commencing any dredging and disposal activities authorised by this consent, and on the recommendation of the trust to be established in accordance with conditions 7.2-7.4 of this consent, invite members of the Hapu, lwi and the Tauranga Moana lwi Customary Fisheries Trust to join a Tangata Whenua Reference Group. The purpose of this group is (but not limited) to:
 - (a) Recognise the relevant lwi and Hapu as kaitiaki of Te Awanui Tauranga Harbour and the importance of Te Awanui, including Mauao and Te Paritaha to Tangata Whenua; and
 - (b) Enable the free flow of information between the Consent Holder and the Tangata Whenua of the Tauranga Moana in respect of activities carried out under this consent; and
 - (c) Acknowledge, enable and provide for the value of hapu traditional environmental knowledge of Te Awanui with respect to all relevant research, planning and decision making processes in relation to this consent; and
 - (d) Provide a forum for discussion between Tangata Whenua and the Consent Holder of any other matters considered relevant by the parties, including the appropriate ongoing monitoring that should be undertaken by the Consent Holder as required by conditions of this consent.
- 7.6 The Consent Holder shall:
 - (a) Prior to preparation of the Kaimoana Restoration Programme (in accordance with this condition), any CTMP (in accordance with condition 11 of Coastal Consent No. 65807), and the Tanea Shelf (Mauao) boulder replacement plan (in accordance with condition 10.9 of this consent); and
 - (b) Prior to, and at least once per month when dredging and disposal activities are being undertaken in accordance with this resource consent and Coastal Consent No. 65807; and
 - (c) When results of monitoring activities are to be submitted to the Regional Council in accordance with this consent or Coastal Consent No. 65807,
 - convene a meeting with the Tangata Whenua Reference Group to discuss and seek advice from the Group on any cultural issues that may arise as a result of preparation of such documents, undertaking such activities or the results of monitoring. Any information shall be provided to the Tangata Whenua Reference Group sufficiently in advance of the meeting so that the Group has time to review and consider it prior to the meeting.
- 7.7 The Consent Holder shall take into account issues raised by the Tangata Whenua Reference Group when preparing such plans or commencing such activities, and shall provide a report to the Group and Chief Executive of the Regional Council summarising the advice received from the Group and how the issues raised have been taken into account in preparing such plans. Where it has not been possible to provide for the issues set the Consent Holder shall state its reasons in the report. The Consent Holder shall submit the report and copies of the plan or proposal prepared, to the Group for consideration and any further comments, prior to submitting the plan to the Chief

Executive of the Regional Council or delegate for approval, if required by the conditions of consent, or undertaking the activities.

- 7.8 Notwithstanding Conditions 7.5 to 7.7 the Consent Holder shall, at least once per calendar year, convene a meeting with representatives of the Bay of Plenty Regional Council and the Tangata Whenua Reference Group to discuss any matter relating to the exercise and monitoring of this consent. At this time the Consent Holder shall in addition to any matters relating to the exercise and monitoring of this consent. At this consent, use its best endeavours to inform the Tangata Whenua Reference Group of the likely dredging to be undertaken in the following year.
- 7.9 The Consent Holder shall keep minutes of the meetings held in accordance with Conditions 7.5-7.8 and shall forward them to all attendees and to the Regional Council.
- 7.10 The meetings required by Conditions 7.5-7.8 need not occur if the Tangata Whenua Reference Group advise the Consent Holder (Condition 7.5) or the Bay of Plenty Regional Council (Condition 7.8) that the meeting is not required.
- 7.11 The Consent Holder shall provide final copies of the plans and proposals prepared in accordance with Conditions 7.6-7.7 to the Tangata Whenua Reference Group concurrently with them being submitted to the Bay of Plenty Regional Council.

Kaimoana Restoration Programme

- 7.12 Prior to carrying out any works under this consent, the Consent Holder shall develop a **Kaimoana Restoration Programme (KRP)**. The purpose of the KRP is to determine and mitigate the actual and potential loss of accessible kaimoana by identifying methods and techniques to ensure the ability of Tangata Whenua to collect the kaimoana species that are affected by the works authorised by the consents is maintained. The KRP will:
 - Take into account the results of the monitoring undertaken in accordance with this consent.
 - Develop research and monitoring criteria to remedy or mitigate the effects on kaimoana.
 - Include baseline surveys to identify the abundance and diversity of kaimoana of the areas close by and affected by the proposed dredging, comprising Te Paritaha o Te Awanui, Mauao rocky reefs (Tanea Shelf), Motuotau and Moturiki Islands and surrounding rocky reefs.
 - Include annual monitoring of the main kaimoana species, their locations, abundance, size health and harvesting pressure within the vicinity of dredging and disposal sites comprising Te Paritaha o Te Awanui, Mauao, Tanea Shelf, Motuotau and Moturiki Islands and surrounding rocky reefs.

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est pration projects within the KRP shall include the following;

- A research project to be established to determine the feasibility of reseeding in alternative areas to provide an area equivalent to the area of accessible pipis lost through the dredging. The research project to commence as soon as the KRP has been developed. If the conclusion of the research project is that such reseeding is feasible, then work on such reseeding shall commence immediately. Annual monitoring surveys of the reseeded area shall then be carried out to record the success of the reseeding.
- Enhance existing kaimoana population in the vicinity of Tanea Shelf by extending and enhancing the rocky habitat area and reseeding if possible.
- 7.14 The programme described above in 7.12 and 7.13 shall:
 - (a) Be developed in conjunction with the Tangata Whenua Reference Group (unless that Group advises that it does not wish to have any input into the programme in which case the Consent Holder must prepare a KRP and submit it to the Chief Executive of the Bay of Plenty Regional Council for approval); and
 - (b) Continue for a period of five (5) years after the completion of the capital dredging,

and the Consent Holder shall undertake work to the value of \$50,000 per annum, up until five years have elapsed after completion of all capital dredging authorised by this consent.

Te Awanui Scholarship Programme

- 7.15 The Consent Holder shall, before commencing any dredging and disposal activities authorised by this consent, establish a new Te Awanui Scholarship Programme for students who are descendants of Tauranga Moana Iwi and Hapu. The programme shall continue for the term of this consent and shall:
 - Provide total funding of \$4,500 per annum which will be allocated to a maximum of three students in any one year;
 - Provide that the recipients of the scholarship funding must be pursuing studies in the Resource Management / Environmental Science / Marine Studies area; and
 - Be administered in conjunction with the TWRG (should it wish to assist in administering the programme).

8 Dredging Works

8.1 Prior to carrying out any capital dredging operation under this consent, the Consent Holder shall provide an opportunity for representatives of the relevant lwi and Hapu to carry out a ceremony or ceremonies at the site of the dredging operation, Tanea Shelf (Mauao) or Te Paritaha (Centre Bank) as the case may be, as may be deemed to be appropriate by the relevant lwi and Hapu, prior to the carrying out of any capital dredging operations. The Consent Holder shall confirm by notice in writing to the Chief Executive of the Regional Council or delegate that the opportunity to carry out a ceremony or ceremonies has been given and that a ceremony or ceremonies has been carried out

All works associated with the dredging operation authorised by this consent shall be carried out generally as detailed in the application, specifically *Chapter 3.0 – Project Description – Dredging Options* of the application document entitled Assessment of

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Environmental Effects for Port of Tauranga Limited Channel Deepening and Widening February 2009 and the further information regarding maintenance dredging submitted on 1 March 2010 and entitled Maintenance Dredging.

- 8.3 In the event that a significant proportion (greater than 5% by weight) of the material dredged is found to be silt, the Consent Holder shall employ an appropriate dredging method to minimise the turbidity effects in the vicinity of the works.
- 8.4 The Consent Holder shall ensure that no contaminants, including fuel oils, are permitted to enter the harbour waters as a result of these works.
- 8.5 The Consent Holder shall ensure that a minimum distance of 100 metres is maintained between any dredging activity and Te Kuia Rock.

9 Staged Dredging

9.1 The dredging works authorised by this consent shall be carried out in at least two stages as required by this condition 9.

Stage 1

- 9.2 To cater for a Post-Panamax vessel of 5000 to 6000 TEU (slot) capacity with a maximum draft of 13.5 metres ("Stage 1 Vessel"), the Consent Holder shall carry out the dredging as follows:
 - (a) Model the Stage 1 Vessel on a ship handling simulator to determine the extent of widening and deepening required to the shipping channels (assuming the widening of Tanea Shelf by 32 metres).
 - (b) Provide details of the results of the modelling to the Regional Council and the TWRG.
 - (c) Carry out, as part of Stage 1, the widening of Tanea Shelf to the extent authorised by this consent (32 metres).
 - (d) Remove material from Te Paritaha to widen the channels only to the extent that it is required to safely accommodate the Stage 1 Vessel as determined by the modelling carried out in accordance with condition 9.2(a).

Subsequent Stages

- 9.3 To cater for a vessel larger than dredged for in a previous stage, the Consent Holder will carry out the dredging as follows:
 - (a) Model the vessel on a ship handling simulator to determine the extent of widening and deepening required to the shipping channels.
 - (b) Provide details of the results of the modelling to the Regional Council and the TWRG.

(c) ENVIRONN CUUPT OF

Remove material from Te Paritaha to widen the channels only to the extent that it is required to safely accommodate the vessel as determined by the modelling carried out in accordance with condition 9.3(a).

Final Stage

9.4 To cater for a vessel of similar design parameters to those used in the application document entitled *Assessment of Environmental Effects for Port of Tauranga Limited Channel Deepening and Widening February 2009*, the shipping channels shall be deepened and widened in accordance with the parameters set out in conditions 2, 3 and 5 of this resource consent, and no further modelling will be necessary.

10 Disposal of Dredged Material

Capital Dredging

- 10.1 All material, with the exception of boulders removed from Tanea Shelf, may be deposited at "Site H" as shown on the Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for 14.5m Container Vessels Spoil Disposal Sites* and referenced as B.O.P.R.C. Plan Number RC 65806/2. In addition:
 - Up to 1 million cubic metres of material (in total) may be removed from the coastal marine area; and
 - Clean suitable sand may be deposited for beach nourishment outside the Whareroa Marae as authorised by consent 04 0198; if requested by the Tangata Whenua Reference Group and approved by the Chief Executive of the Regional Council or delegate (see Advice Note 5).
- 10.2 When material is deposited at "Site H" material with a high (greater than 25% by weight) proportion of silt shall be dumped on the seaward side of the new disposal site, generally in the area shown on the Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for 14.5 m Container Vessels Spoil Disposal Sites* and referenced as B.O.P.R.C. Plan Number RC 65806/2 as "Site H2".
- 10.3 When material is deposited at "Site H" material with a high (greater than 25% by weight) proportion of silt the Consent Holder shall endeavour to ensure that that material is covered with sand as soon as practicable.

[Port of Tauranga Ltd is agreeable to deletion of this requirement as suggested by Dahm.]

- 10.4 When material is deposited at "Site H" the Consent Holder shall ensure, as far as practicable, that the material is spread over the disposal area to ensure that the mound created by deposition is as low as possible.
- 10.5 Material may be removed from the coastal marine area temporarily using "Site E" as shown on the Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for 14.5m Container Vessels Spoil Disposal Sites* and referenced as B.O.P.R.C. Plan Number RC 65806/2.
- 10.6 The Consent Holder shall ensure that material deposited at "Site E" shall have a composition comprising less than 5% silt by weight.

10.7 Deposition of sand within "Site E" shall not result in a build up of sediment within the SEAL OF 72, harbour bed such that navigation is restricted.



- 10.8 Despite conditions 10.1 to 10.7 above the Consent Holder shall deposit specified volumes of material at Sites A, B, C, F and/or on Panepane Point if so directed by the Chief Executive of the Regional Council or delegate (see Advice Note 4).
- 10.9 The Consent Holder shall ensure that boulders removed from **Tanea Shelf / Mauao** shall be placed in an area adjacent to the area dredged. A plan of the area of placement shall be developed in consultation with the TWRG and submitted to the Chief Executive Officer of the Regional Council, or delegate for approval, prior to carrying out the work at Tanea. Shelf.

Maintenance Dredging

- 10.10 All clean suitable sand shall be deposited at Disposal Sites A, B, C authorised by consents 60077 and 60078. In addition, clean suitable sand may be deposited for beach nourishment outside the Whareroa Marae as authorised by consent 04 0198, if requested by the Tangata Whenua Reference Group and approved by the Chief Executive of the Regional Council or delegate (see Advice Note 5). Clean suitable sand is sand which:
 - Has a low (less than 25% by weight) proportion of silt; and/or
 - Does not exceed guideline contamination level ER-L values as set out in Conditions 13.1 and 13.2 of this resource consent.
- 10.11 All other material may be deposited at established dump sites as authorised by consents 40157, 60077, 60078, 60079, 60080, 60083 and/or 65806 or up to 1 million cubic metres of material (in total) may be removed from the coastal marine area.
- 10.12 Despite Conditions 10.10 and 10.11 above, the Consent Holder shall deposit specified volumes of material at Sites A, B, C, F and/or on Panepane Point if so directed by the Chief Executive of the Regional Council or delegate (see Advice Note 4).
- 10.13 Despite Conditions 10.10 and 10.12 above, material removed from the coastal marine area may be used for beach nourishment only with the written approval of the Chief Executive of the Regional Council or delegate (see Advice Note 5).

11 Water Quality

11.1 The diffuse discharge associated with dredging and deposition operations shall be undertaken in accordance with the conditions of Consent No 65807.

12 Monitoring

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- 12.1 The Consent Holder shall carry out bathymetric surveys at all dredge sites both immediately prior to and immediately after dredging. The bathymetric survey should be sufficient to enable an assessment of the volume of material dredged.
- 12.2 The Consent Holder shall annually for the first five years following capital dredging carry out bathymetric surveys of the harbour floor between the seaward extent of the dredged area and Tauranga Harbour Bridge, of Centre Banks and of Matakana Banks in sufficient detail to determine whether there have been changes in the harbour floor as a result of the dredging.

The Consent Holder shall, for the duration of this consent, carry out **bathymetric and** topographic survey (between high and low water) of the subtidal and intertidal regions in agarea encompassing the full extent of the ebb tide delta and the adjacent coastline prior

to the capital dredging and **annually** thereafter. The survey procedures shall provide data of sufficient accuracy and density to enable volumetric and morphological analysis to determine whether changes are occurring to the ebb tide delta and/or adjacent coastline **as a result of the exercise of this consent 65806 and consent 65807.** The Consent Holder shall provide an annual report prepared by a suitably qualified person to the Chief Executive of the Regional Council or delegate and the Tangata Whenua Reference Group, detailing the extent of progressive or dynamic changes observed to the ebb tide delta and/or adjacent coastline. In the event that **progressive** changes to the ebb tide delta and/or adjacent coastline are confirmed by the monitoring, the Consent Holder must immediately notify, in writing, the Chief Executive of the Regional Council or delegate, and the Tangata Whenua Reference Group.

- 12.4 The Consent Holder shall undertake bathymetric profiles at 200 metre spacings over the disposal "Site H" before and after any deposition operations. Side scan or multi beam sonar surveys covering all of deposition "Site H" shall be done once after a major capital deposition event, and once every 250,000 cubic metres of deposition for maintenance dredging.
- 12.5 The Consent Holder shall, for each month that the deposition operation continues, take a sample from the hopper of the dredge disposal vessel and analyse the sample for proportion of silt content by weight.
- 12.6 The Consent Holder shall undertake the sampling required under Condition 12.5, in such a manner that a sample representative of the sediment to be deposited is obtained.
- 12.7 The Consent Holder shall undertake bi-annual surveys, at a minimum of three sites near Motuotau Island, to monitor the potential impact of dredge spoil dumping on reef biota. The minimum objective is to carry out a photographic and video transect survey at the established monitoring sites near Motuotau Island.
- 12.8 Prior to carrying out dredging under the authority of this consent the Consent Holder shall submit for certification to the Chief Executive of the Regional Council, or delegate, a programme outlining proposed monitoring of morphological change of Panepane Point (see Advice Note 6). The monitoring programme shall, as a minimum, include the following information:
 - Preferred monitoring methodology; and
 - An annual shoreline survey, and
 - Proposed timing and frequency of monitoring (see Advice Note 7).
- 12.9 The Consent Holder shall carry out the monitoring in the monitoring programme required by Condition 12.8 as certified by the Chief Executive of the Regional Council, or delegate.
- 12.10 The Consent Holder shall undertake a biological study of the deposition grounds to be carried out prior to the commencement of each major capital dredging campaign, and to be followed by a single survey after disposal, the timing to be determined in consultation with the Regional Council. This sampling is to be at two sites just inshore of the main disposal site. Samples would be taken at each site, collected by scuba diving and sieved to 1mm, and processed in accordance with a methodology approved by the Chief Executive of the Regional Council.

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The Consent Holder shall undertake photographic inspections of the Centre Bank slumping during dredging, Tanea Shelf boulder recolonisation and the Zostera beds lpgated to the east of the Tauranga Harbour Bridge and near the western end of the

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airport runways after the completion of the capital dredging and annually thereafter for five years.

12.12 The Consent Holder, after completion of the capital dredging, shall undertake tidal measurements of both water heights and velocity sufficient to confirm the accuracy of the results of the hydrodynamic modelling presented in the AEE.

13 **Potentially Contaminated Sediment**

- 13.1 Harbour sediments that exceed guideline contamination level ER-L values as presented by National Oceanic and Atmospheric Administration (NOAA) shall, upon direction, of the Chief Executive of the Bay of Plenty Regional Council, be removed to an approved landfill site.
- 13.2 Under the requirements of Condition 13.1, ER-L (Environmental Response Low) is defined as a concentration at which less than approximately 10% of the local biota are likely to be affected.

14 Recording and Reporting

- 14.1 The Consent Holder shall forward a report to the Regional Council within 30 working days of completion of each dredging and deposition campaign describing:
 - the area excavated;
 - the quantity of sediment removed;
 - the quantity of sediment disposed of and the areas to which the sediment has been disposed;
 - The quantity of sediment removed from the coastal marine area;
 - The results of the bathymetric surveys required under Conditions 12.1 and 12.2;
 - An analysis of the results of the bathymetric surveys showing areas and extent of geomorphologic change.
- 14.2 The Consent Holder shall forward the results of the bathymetric surveys required by Condition 12.4 within 30 working days of the completion of each survey. The reporting of results shall include an analysis of the results of the bathymetric surveys showing areas and extent of geomorphologic change.
- 14.3 The Consent Holder shall forward to the Regional Council the results of the monitoring required by Condition 12.9 within 10 working days of request by the Chief Executive of the Regional Council, or delegate.

14.4 Despite the requirements of Condition 14.3 the Consent Holder shall, by 31 May each year within the duration of this consent, submit to the Regional Council a report describing with e monitoring required by Condition 12.9 undertaken during the previous year and an analysis of the results of that monitoring.

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Ebb tide delta

- 14.5 In the event that the maintenance dredging volumes stated in condition 5.1 are not sufficient to maintain the depths specified in the table forming part of condition 5.1, the Consent Holder shall provide a report to the Chief Executive of the Regional Council or delegate (which shall be peer reviewed and approved by a Peer Review Panel at the Consent Holder's expense, prior to submission of the report to the Regional Council) which shall:
 - (a) Specify the volumes exceeding or likely to exceed the maintenance dredging volume limits in condition 5.1 and explain the reasons why the increased maintenance dredging volumes exceed or are likely to exceed the predicted maintenance volume limits in condition 5.1; and
 - (b) Assess whether the dredging volumes may be causing or contributing to morphological changes to the ebb tide delta and adjacent coastal areas, including Panepane Point, and causing or contributing to any other changes to the Tauranga Harbour tidal inlet system;
 - (c) Assess whether alternative disposal site(s) are required to avoid, remedy or mitigate potential geomorphological changes that may be occurring to the Tauranga Harbour tidal inlet system, including the ebb tide delta and adjacent coastal areas, and if so, identify the location of any alternative site(s) and undertake investigations as to the effects the alternative disposal site(s) would have on the environment;
 - (d) Provide a description of the further consents that may be required as a result of the increased maintenance dredging, including alternative disposal site(s) within the coastal system; and
 - (e) Provide a description of any further monitoring requirements considered necessary as a result of the predicted increase in maintenance dredging volumes.
- 14.6 The Peer Review Panel shall consist of at least two experts suitably qualified in the field of coastal science as nominated by the Consent Holder and approved by the Regional Council, provided that approval shall not be unreasonably withheld or delayed.
- 14.7 Upon receipt of the above report from the Consent Holder, the Regional Council shall determine whether the matter can be dealt with by way of a variation to consent conditions or whether a new application is required.

15 Lapse of Consent

Unless this consent is given effect to, the consent shall lapse on 31 January 2026.

16 **Review of Conditions**

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16.1 The Regional Council may, within three months of receiving information from any of the SEAL OF bathymetric surveys or other monitoring data, serve notice on the Consent Holder under section 128(1)(a)(i) of the Resource Management Act 1991 of its intention to review Condition 12 of the consent. The purpose of such a review is to ensure that the monitoring regime is appropriate and can if necessary be extended.

- 16.2 The Regional Council may, during the month of June in the years 2010, 2013, 2016, 2019, and 2023, serve notice on the Consent Holder under section 128(1)(a)(i) or (iii) of the Resource Management Act 1991, of its intentions to review the conditions of this consent. The purpose of this is to ensure that the conditions of this consent are adequate to deal with one or all of the following:
 - (a) the effects of the exercise of this consent on the ecology and water quality of Tauranga Harbour; and
 - (b) the effects of the exercise of this consent on the ecology and water quality of the Pacific Ocean; and
 - (c) the material available to the sediment budgets of the Matakana Island, Mount Maunganui and Pāpāmoa beaches and near-shore systems;
 - (d) the appropriate mitigation of the environmental effects of the activity having regard to the available dredging technology; and
 - (e) the appropriate mitigation of the environmental effects of the activity having regard to the available deposition technology.

17 Term of Consent

This consent shall expire on 6 June 2027.

18 Royalties

Within 15 working days of the completion of dredging, the Consent Holder shall pay to the Regional Council the appropriate Government Royalty as prescribed by the Resource Management (Transitional Fees, Rents and Royalties) Regulations 1991.

19 Resource Management Charges

The Consent Holder shall pay the Bay of Plenty Regional Council such administrative charges as are fixed from time to time by the Regional Council in accordance with section 36 of the Resource Management Act 1991.

20 Environmental Bond

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20.1 The Consent Holder shall enter into a bond to ensure the remedy of any unforeseen adverse effects on the environment arising from the exercise of Coastal Consent No 65807 or this consent and which become apparent for a period of up to five years after the second of the capital dredging.

- 20.2 The bond shall be in the sum of One Million Dollars (\$1,000,000.00) and shall be in favour of the Bay of Plenty Regional Council with an insurance company or bank approved by the Chief Executive of the Regional Council and carrying on business in New Zealand.
- 20.3 The bond is to be given by the Consent Holder before Coastal Consent No 65807 or this consent may be exercised. The Consent Holder shall forward a copy of the bond to the Chief Executive of the Regional Council prior to the commencement of works and shall forward evidence at the end of each twelve month period thereafter that the Bond remains in place.
- 20.4 The bond shall provide that:

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- The Consent Holder and the surety remain liable under the bond for the remedy of any unforeseen adverse effects on the environment arising from the exercise of Coastal Consent No 65807 or this consent and which become apparent for a period of up to five years after the completion of the capital dredging;
- Unforeseen adverse effects are those effects not contemplated by or approved in the granting of Coastal Consent No 65807 or this consent. The question of whether there are any such unforeseen adverse effects is to be determined by the reasonable opinion of the Chief Executive of the Bay of Plenty Regional Council. Where the Consent Holder does not agree with the reasonable opinion of the Chief Executive of the Bay of Plenty Regional Council, that question is to be determined by a suitably qualified independent expert to be appointed by the Regional Council and the Consent Holder and that determination is to be binding;
- In the event that it is necessary for the Consent Holder to remedy any such unforeseen adverse effects, any adversely affected natural features are to be remediated to their condition existing at the date of the grant of the consents, or to a condition that is agreed to by the Chief Executive of the Regional Council;
- The bond may be used by the Chief Executive of the Regional Council to carry out any environmental rehabilitation work necessary to remedy any unforeseen adverse effects, but the funds secured by the bond shall not be called upon and utilised for that purpose unless the Consent Holder has first been given the opportunity to carry out such environmental rehabilitation work within a reasonable time and failed to do so;
- The form of the bond is to be approved by the Regional Council's solicitors, and the Consent Holder is to pay the Regional Council's reasonable costs associated with such approval and execution of the bond;
- The Consent Holder is to pay the Regional Council's reasonable costs associated with investigation under and implementation of the bond;
- Five years after the capital dredging authorised by this consent is completed, the Consent Holder shall prepare a review report summarising and interpreting the monitored effects and changes in comparison to those contemplated in the application for resource consent and accompanying Assessment of Environmental Effects. The Chief Executive of the Regional Council shall release the bond provided that:



(a) The Consent Holder has complied with the conditions of Coastal Consent No 65807 and this consent; and
- (b) The review report confirms that there are no ongoing unforeseen adverse effects on the environment.
- 20.5 Non compliance with any conditions of Coastal Consent No 65807 or this consent may result in loss of all or part of the bond.
- 21 **The Consent** hereby authorised is granted under the Resource Management Act 1991 and does not constitute an authority under any other Act, Regulation or Bylaw.

Advice Notes

- 1 The Consent Holder is advised that failure to comply with all or any of the conditions of this consent may result in enforcement action being taken against the Consent Holder or their agents.
- 2 All notification and reporting required under this consent should be directed (in writing) to the Pollution Prevention Manager, Environment Bay of Plenty, PO Box 364, Whakatane or fax 0800 368 329 or email notify@envbop.govt.nz, this notification shall include the consent number 65806. In this regard, where conditions require notification and/or reporting to the Regional Council in writing, notification and/or reporting by email will be acceptable.
- 3 Permitted activity levels for noise emitted by activities in the Tauranga Harbour are contained in Rules 20(2)(4)(a) and (b) of the Bay of Plenty Regional Coastal Environment Plan.
- 4 The Chief Executive of the Regional Council shall direct material to be deposited at alternative sites should monitoring show a shortage of sediment in those areas. The Consent Holder also holds other consents to authorise the discharge of material from maintenance dredging sites A, B and C, and F under consents 60077, 60078 and 60080 respectively.
- 5 The Regional Council recognises that mitigation of beach erosion can, in some cases, be relatively easily achieved by beach renourishment – which will need to be an ongoing programme of beach replenishment. The Regional Council will consider compatibility of material, hydrological processes, ecological values, cultural values and any potential adverse effects before approving any nourishment proposal.
- 6 The Regional Council recognise that a variety of monitoring techniques are available to the Consent Holder, including shore normal profiling, analysis of LIDAR information, surveying of mean high water springs, aerial photograph analysis and so on. It also recognises the suggestion put forward in the evidence of Willem de Lange that continuous video monitoring could be used to carry out monitoring of Panepane Point. Rather than specify methodologies as a condition of consent the intention is to provide flexibility to allow the most appropriate methodology to be selected at the time.
- 7 Generally the frequency of monitoring will be higher immediately following dredging campaigns.

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Staged dredging will occur to accommodate the requirements of a vessel with design parameters resulting in channel dimensions less than that shown in drawing B.O.P.R.C Plan Number RC 65806/3, but not capable of safely transiting the existing channels. The modelling requirement for staged widening is to ensure that no dredging is carried out in excess of immediate needs.



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Conditions for coastal permit No. 65807

PORT OF TAURANGA LIMITED

A coastal permit

- (a) Under section 15(1)(a) of the Resource Management Act 1991 and Rule 9.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan to undertake a Discretionary Activity being to Diffusely Discharge Sediment and Sediment-Laden Water to Tauranga Harbour during Dredging; and
- (b) Under sections 12(1)(d) and 15A(1)(a) of the Resource Management Act 1991 and Rule 14.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan to undertake a Discretionary Activity being to Carry Out Beach Nourishment in the Coastal Marine Area; and
- (c) Under section 14(1)(2) of the Resource Management Act 1991 and Rule 10.2.4(d) of the Bay of Plenty Regional Coastal Plan to undertake a **Discretionary Activity** being to **Take Coastal Water during Dredging;**

subject to the following conditions:

1 Purpose of this Coastal Consent

To authorise and set conditions for the dredging operations in the coastal marine area (up to 15 million cubic metres) to deepen, widen and maintain the depth of navigation channels of the Port of Tauranga. This consent authorises the deposition of the dredged material at an offshore disposal site, the discharge of sediment to Tauranga Harbour during maintenance dredging and capital dredging (authorised by Consent No 65806) and the use of suitable material for beach nourishment.

2 Locations

Tauranga Harbour shipping channels, entrance and deposition sites as shown on:

- The Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for* 14.5m Container Vessels Dredged Shipping Channels and referenced as B.O.P.R.C. Plan Number RC 65807/1; and
- The Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for* 14.5m Container Vessels Spoil Disposal Sites and referenced as B.O.P.R.C. Plan Number RC 65807/2; and
- The Port of Tauranga plan entitled *Widening and Deepening Shipping Channels for* 14.5m Container Vessels New Channel Boundaries and Dimensions and referenced as B.O.P.R.C. Plan Number RC 65806/3; and
- Any other site approved in writing by the Chief Executive of the Regional Council or delegate.



Map References

Name of Area	Approximate NZMS 260 map references (midpoint)]
Entrance Channel and No.2 Reach	U14:8980-9310	
Cutter Channel	U14:9010-9080	
Maunganui Roads	U14:9080-8980	
Stella Passage	U14:9054-8838	
Deposit Site H	U14:9414-9386	

Legal Description 4

Seabed (Tauranga District).

Quantity of Excavation 5

The quantity of material removed from the coastal marine area is authorised by Coastal Consent No. 65806 and shall not exceed the volume required to maintain the following depths (from Chart Datum):

Locality	Works
Entrance Channel	Maintain a depth of 17.4 metres
and No.2 Reach	
Tanea Shelf	Maintain a depth of 17.4 metres and an additional width of 32 metres
Cutter Channel	Maintain a depth of 16.0 metres and additional width of 115 metres
Maunganui Roads	Maintain a depth of 16.0 metres and additional width of 50 metres. Maintain a turning basin 16.0 metres deep and 200 metres by 200 meters
Stella Passage	Maintain a depth of 16.0 metres

[Port of Tauranga Ltd suggests that this condition could be deleted from this consent as the quantity of excavation is authorised by consent 65806 but at this stage it has been left in with a cross reference to consent 65806.]

6 Notification

- 6.1 The Consent Holder shall notify (in writing) the Chief Executive of the Regional Council or delegate, and the Tangata Whenua Reference Group (required by condition 7 of Coastal Consent No. 65806) of its intention to commence dredging no less than 20 working days prior to each dredging operation. Notice shall include as a minimum;
 - The area to be dredged;
 - An assessment of dredging volumes and whether those volumes consist of capital Ô dredging or maintenance dredging;
 - An assessment of the material types expected to be dredged; ٥
 - The expected duration of the dredging operation;

A plan for the disposal of dredged materials;



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- The name and contact details of the person with responsibility for supervising the works.
- 6.2

At least 10 working days prior to the start of dredging the Consent Holder shall notify (in writing) the Coastguard and the Tauranga Harbourmaster and shall place notices in the Bay of Plenty Times advising the general public of the following;

- The intention to start dredging;
- The area to be dredged;
- The period during which dredging is expected to occur; and
- Any restrictions that will apply to navigation during the dredging.

7 Relationship with Tangata Whenua

- 7.1 The Consent Holder shall comply with conditions 1, 7, 8.1, 10.1, 10.9, 10.10 and 20 of Coastal Consent No. 65806 either prior to or in implementing this consent (as the case may be) which recognise and provide for the relationship of Tangata Whenua with Te Awanui Tauranga Harbour (including Mauao) through:
 - the establishment of a trust and a Tangata Whenua Reference Group (TWRG) and the Te Awanui Scholarship Programme, and the preparation of a Kaimoana Restoration Programme (condition 7 of Coastal Consent No. 65806),
 - a requirement for all work at Tanea Shelf (Mauao) to be performed in one operation (condition 1 of Coastal Consent No. 65806),
 - provision for ceremonies prior to carrying out capital dredging operations under the consent, if deemed appropriate by iwi and hapu (condition 8.1 of Coastal Consent No. 65806)
 - a minimum separation distance from Te Kuia Rock (condition 8.5 of Coastal Consent No. 65806 and condition 8.4 of this consent),
 - provision for renourishment of the beach at Whareroa Marae (conditions 10.1 and 10.10 of Coastal Consent No. 65806),
 - provision for the TWRG to assist in settling the final position of the boulder placement plan at Tanea Shelf / Mauao (condition 10.9 of Coastal Consent No. 65806), and
 - requirement for an environmental bond (condition 20 of Coastal Consent No. 65806).

8 Dredging Works

8.1 All works associated with the dredging operation authorised by this consent shall be carried out generally as detailed in the application, specifically *Chapter 3.0 – Project Description – Dredging Options* of the application document entitled Assessment of *Environmental Effects for Port of Tauranga Limited Channel Deepening and Widening February 2009* and the further information regarding maintenance dredging submitted on 1 March 2010 and entitled *Maintenance Dredging*.

In the event that a significant proportion (greater than 5% by weight) of the material dredged is found to be silt, the Consent Holder shall employ an appropriate dredging method to minimise the turbidity effects in the vicinity of the works.



- 8.3 The Consent Holder shall ensure that no contaminants, including fuel oils, are consented to enter the harbour waters as a result of these works.
- 8.4 The Consent Holder shall ensure that a minimum distance of 100 metres is maintained between any dredging activity and Te Kuia Rock.

9 Disposal of Dredged Material

- 9.1 All material may be deposited at established dump sites as authorised by consents 40157, 60077, 60078, 60079, 60080, 60083 and/or 65806 or removed from the coastal marine area as authorised by Consent No 65806.
- 9.2 Despite Condition 9.1 above, the Consent Holder shall deposit specified volumes of material at Sites A, B, C, F and/or on Panepane Point if so directed by the Chief Executive of the Regional Council or delegate (see Advice Note 4).
- 9.3 Despite Conditions 9.1 and 9.2 above, material removed from the coastal marine area may be used for beach nourishment only with the written approval of the Chief Executive of the Regional Council or delegate (see Advice Note 5).

10 Water Quality

- 10.1 Dredging operations shall not result in a change in turbidity within the water column greater than 15 NTU, above the background turbidity levels at the following locations:
 - 200 metres distant from the dredged area of any active trailer-suction dredging operation;
 - 600 metres distant from the southern boundary of the dredged area from any active back-hoe digger dredging operation;

The background turbidity levels shall be defined as being the natural turbidity level in harbour water no closer than 500 metres up current of the dredging.

- 10.2 The change in visual clarity between the upstream and downstream points described in Condition 10.1 shall not be changed by more than 20% with visual clarity measured with a black disc or equivalent calibrated secchi disk measurement.
- 10.3 The Consent Holder shall undertake the deposition operations so that the difference in surface water turbidity between locations 100 metres outside the updrift boundary of the deposition site and 100 metres outside the downdrift boundary of the deposition site shall not exceed 5 NTU.

11 Monitoring

11.1 The Consent Holder shall carry out bathymetric surveys at all dredge sites both immediately prior to and immediately after dredging. The bathymetric survey should be sufficient to enable an assessment of the volume of material dredged.

11.2 On every second day that excavations occur by trailer-suction dredge under the authority of this consent or Consent No 65806, the Consent Holder shall (during excavation operations) take two water samples:

from a site 200 metres from the dredged area but adjacent to an active operating dredge; and

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- from a site 500 metres upstream (away from the direction of the sediment plume) of the operating dredge.
- 11.3 On every second day that excavations occur under the authority of this consent or Consent No 65806, the Consent Holder shall (during excavation operations) take two water samples:
 - from a site 200 metres from the dredged area but adjacent to an active operating dredge;
 - except when the dredge nears the southern boundary of the dredged area when the sample shall be taken 600 metres downstream; and
 - from a site 500 metres upstream (away from the direction of the sediment plume) of the operating dredge.
- 11.4 From each sampling site two water samples shall be taken, one from the surface and the other from the mid-depth of the water column, and analysed as soon as practicable for turbidity.
- 11.5 All sampling and analyses required by Conditions 11.2, 11.3, and 11.4 shall be carried out in accordance with the latest edition of: "Standard Methods for the Examination of Water and Wastewater APHA, AWWA, WEF" or such other method as may be agreed in writing by the Chief Executive of the Regional Council or delegate.
- 11.6 The Consent Holder shall note, at the time of sampling under Conditions 11.2, 11.3, and 11.4, the time, stage of tide and weather and sea conditions including the prevailing wind direction, speed, wave height and period.
- 11.7 If the results of three consecutive measurements taken under Conditions 11.2, 11.3 and 11.4 are below the limits specified in Condition 10.1, then monitoring may be suspended for a period of fourteen days.
- 11.8 If the results of three consecutive measurements taken under Conditions 11.2, 11.3 and 11.4 exceed the limits specified in Condition 10.1, the Consent Holder shall;
 - Cease dredging operations;

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- Notify the Regional Council and the TWRG;
- Remedy or mitigate any significant adverse effects resulting from the excavation works;
- 11.9 Where dredging operations have ceased as a result of the implementation of Condition 11.8, the Consent Holder shall not recommence dredging operations without the written approval of the Chief Executive of the Regional Council or delegate.
- 11.10 The Consent Holder may submit a **Continuous Turbidity Monitoring Plan (CTMP)** for the approval of the Chief Executive of the Bay of Plenty Regional Council. The CTMP shall include details of the continuous turbidity monitoring proposed, including the following:
 - A description of the reliability and accuracy of the continuously sampled data;
 - Sampling locations, which shall include a site in close proximity to Te Paritaha, a site at the Aerodrome Bridge, and a site at the harbour bridge crossing;

Proposed data transformation, such as 6-hourly exponentially weighed moving verage;

Proposed response levels and environmental limits; and

• Accessibility of results.

- 11.11 If a CTMP submitted under Condition 11.10 is approved by the Chief Executive of the Regional Council, or delegate, as an alternative to the monitoring described in Conditions 11.2 and 11.3 above the monitoring under those conditions may be discontinued in lieu of the monitoring required under the CTMP.
- 11.12 The Consent Holder shall, for each month that the deposition operation continues, take a sample from the hopper of the dredge disposal vessel and analyse the sample for proportion of silt content by weight.
- 11.13 The Consent Holder shall undertake the sampling required under Condition 11.12 in such a manner that a sample representative of the sediment to be deposited is obtained.
- 11.14 Once every week that deposition at "Site H" occurs under the authority of this consent, the Consent Holder shall (during excavation operations) take water samples at locations 100 metres outside the updrift and downdrift boundaries of deposition "Site H".
- 11.15 The Consent Holder shall collect the surface water turbidity samples required by Condition 11.14, on a day that deposition is being carried out. Test samples shall be representative of any plume generated by the deposition operation.
- 11.16 If results of three consecutive measurements indicate less than 5 NTU change in turbidity between the updrift and downdrift sites, monitoring of water turbidity for that deposition operation can be suspended for 30 days.
- 11.17 In the event that the level specified in Condition 11.16 is exceeded, the sampling procedure shall be repeated daily for three consecutive days whilst deposition is carried out.
- 11.18 If the results of three consecutive measurements, taken under Condition 11.17, record turbidity changes of greater than 5 NTU, the Consent Holder shall:
 - (a) Immediately cease deposition operations;
 - (b) Activate appropriate contingency plans to remedy or mitigate any unacceptable effects detected;
 - (c) Notify the Regional Council and the TWRG;
 - (d) Consult with the Chief Executive of the Regional Council or delegate over possible explanations for the exceedance; and
 - (e) Implement any modifications to the deposition operation that the Executive of the Regional Council, or his delegate, considers appropriate following the consultation under Condition 11.18(d).
- 11.19 Where deposition operations have ceased as a requirement of Condition 11.18, the Consent Holder shall not recommence deposition operations without the written approval of the Chief Executive of the Regional Council or delegate.

12 **Potentially Contaminated Sediment**

12.1 Harbour sediments that exceed guideline contamination level ER-L values as presented by National Oceanic and Atmospheric Administration (NOAA) shall, upon direction, of the SEAL OF Achief Executive of the Bay of Plenty Regional Council, be removed to an approved landfill



12.2 Under the requirements of Condition 13.1, ER-L (Environmental Response – Low) is defined as a concentration at which less than ca. 10% of the local biota are likely to be affected.

13 Recording and Reporting

- 13.1 The Consent Holder shall maintain records of the sampling and analysis carried out under Conditions:
 - 11.2, 11.3 and 11.4 (relating to turbidity monitoring during dredging);
 - 11.12 and 11.13 (relating to the proportion of silt in material being deposited);
 - 11.14 and 11.15 (relating to turbidity monitoring during deposition)

and shall make these records available to Regional Council compliance staff on request.

- 13.2 The Consent Holder shall forward a report to the Regional Council within 30 working days of completion of the each dredging and deposition campaign describing:
 - the area excavated;
 - the quantity of sediment removed;
 - the quantity of sediment disposed of and the areas to which the sediment has been disposed;
 - The quantity of sediment removed from the coastal marine area;
 - The results of the bathymetric surveys required under Condition 11.1;
 - An analysis of the results of the bathymetric surveys showing areas and extent of geomorphologic change.

14 Lapse of Consent

Unless this consent is given effect to, the consent shall lapse on 31 January 2026.

15 **Review of Conditions**

- 15.1 The Regional Council may, within three months of receiving information from any of the bathymetric surveys or other monitoring data, serve notice on the Consent Holder under section 128(1)(a)(i) of the Resource Management Act 1991 of its intention to review Condition 9.6 of the consent. The purpose of such a review is to ensure that the monitoring regime is appropriate and can if necessary be extended.
- 15.2 The Regional Council may, during the month of June in the years 2010, 2013, 2016, 2019, and 2023, serve notice on the Consent Holder under section 128(1)(a)(i) or (iii) of the Resource Management Act 1991, of its intentions to review the conditions of this consent. The purpose of this is to ensure that the conditions of this consent are adequate to deal with one or all of the following:



the effects of the exercise of this consent on the ecology (including shellfish resources) and water quality of Tauranga Harbour; and

- (b) the effects of the exercise of this consent on the ecology and water quality of the Pacific Ocean; and
- (c) the material available to the sediment budgets of the Matakana Island, Mount Maunganui and Pāpāmoa beaches and near-shore systems;
- (d) the appropriate mitigation of the environmental effects of the activity having regard to the available dredging technology; and
- (e) the appropriate mitigation of the environmental effects of the activity having regard to the available deposition technology.

16 **Term of Consent**

This consent shall expire on 6 June 2027.

17 Royalties

Within 15 working days of the completion of dredging, the Consent Holder shall pay to the Regional Council the appropriate Government Royalty as prescribed by the Resource Management (Transitional Fees, Rents and Royalties) Regulations 1991.

18 **Resource Management Charges**

The Consent Holder shall pay the Bay of Plenty Regional Council such administrative charges as are fixed from time to time by the Regional Council in accordance with section 36 of the Resource Management Act 1991.

19 **The Consent** hereby authorised is granted under the Resource Management Act 1991 and does not constitute an authority under any other Act, Regulation or Bylaw.

Advice Notes

- 1 The Consent Holder is advised that failure to comply with all or any of the conditions of this consent may result in enforcement action being taken against the Consent Holder or their agents.
- 2 All notification and reporting required under this consent should be directed (in writing) to the Pollution Prevention Manager, Environment Bay of Plenty, PO Box 364, Whakatane or fax 0800 368 329 or email notify@envbop.govt.nz, this notification shall include the consent number 65807.
- 3 Permitted activity levels for noise emitted by activities in the Tauranga Harbour are contained in Rules 20(2)(4)(a) and (b) of the Bay of Plenty Regional Coastal Environment Plan.

The Chief Executive of the Regional Council shall direct material to be deposited at alternative sites should monitoring show a shortage of sediment in those areas. The $C_{\underline{\Theta}}$ sent Holder also holds other consents to authorise the discharge of material from

maintenance dredging sites A, B and C, and F under consents 60077, 60078 and 60080 respectively.

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The Regional Council recognises that mitigation of beach erosion can, in some cases, be relatively easily achieved by beach renourishment – which will need to be an ongoing programme of beach replenishment. The Regional Council will consider compatibility of material, hydrological processes, ecological values, cultural values and any potential adverse effects before approving any nourishment proposal.



BEFORE THE ENVIRONMENT COURT

Decision No. [2015] NZEnvC 137

IN THE MATTER of an appeal under a decision on one of the Notices of Requirement for the City Rail Link pursuant to s174 of the Resource Management Act 1991 (the Act)

BETWEEN TRAM LEASE LIMITED

(ENV-2014-AKL-000057)

CJM INVESTMENTS LIMITED

Appellant

AND .

AND

AND

Respondent/Requiring Authority

AUCKLAND TRANSPORT

A party under s274 RMA

AUCKLAND COUNCIL

Territorial Authority

Hearing at:	Auckland on 29 and 30 June and 1, 2 and 3 July 2015,
Court:	Principal Environment Judge LJ Newhook
	Environment Commissioner IM Buchanan
	Environment Commissioner JA Hodges
Appearances:	Mr T Daya-Winterbottom for the appellant and s274 party

Mr A Beatson and Ms S Anderton for the respondent/requiring authority

Ms V Evitt and Mr R Wilson for Auckland Council

Date of Decision:

21 august 2015.

DECISION OF THE ENVIRONMENT COURT REFUSING APPEAL

A. The designation will be confirmed, subject to the finalising of appropriate conditions.

B. Costs are reserved.

C. Commentary is offered on the work of expert witnesses and the related duties of counsel.

REASONS FOR DECISION

Introduction

[1] This appeal by Tram Lease is against one of six Notices of Requirement (NOR6) for infrastructural works proposed in Auckland for a 3.4km underground passenger railway line to connect Britomart station and the North Auckland Line near Mt Eden station.

[2] NOR6 is the part of the proposed works in the near vicinity of land owned by Tram Lease in the suburb of Mt Eden. The land is the subject of a head lease to CJM Investments Limited, which in turn has sub-leased parts to various businesses.

[3] The evidence on behalf of Auckland Transport ("**AT**") was to the effect that the City Rail Link involves a very significant investment of the order of \$NZ2.8b, and it was AT's counsel's submission that the positive effects of the project should be taken as overwhelmingly in favour of the designation being confirmed. It was his submission that there was no challenge credibly mounted to suggest that the CRL is not necessary to meet the objectives of Auckland Transport or the needs of Auckland.

[4] NOR6 provides for works to upgrade the Mt Eden railway station and connect the CRL lines into the North Auckland line of KiwiRail. The works would include the grade separation of the Normanby Road rail crossing, comprising a raising of the existing road level, and a lowering of the adjoining railway track, thereby necessitating the construction of an access ramp into the Tram Lease site.

Problems of process

[5] While pre-reading the evidence for the hearing during the preceding week, members of the Court gained the understanding that one of the reasons for the evidence being so voluminous and the parties so polarised, was that they had taken it upon themselves to terminate expert conferencing part-way through, contrary to the Court's directions about what they were to endeavour to achieve by that process. The Judge was then obliged to issue 3 Minutes directing resumption of expert conferencing and requiring counsel to confer and produce a succinct statement of issues in dispute, narrowed he hoped by outcomes of the further conferencing.

[6] Witnesses are not to take it upon themselves to terminate conferencing when that has been directed by the Court. (On this occasion, witnesses had promised the facilitator that they would undertake some further studies then resume sessions at a later date, but instead they undertook no further conferencing until the Court issued further directions just prior to the hearing). Counsel have a responsibility to ensure that witnesses undertake independent conferencing to a professional conclusion, and to manage client expectations in that regard.

[7] When conducted appropriately, conferencing can produce professional narrowing of disputes and save everybody time and expense (as belatedly proved possible in this case after conferencing resumed). Undertaken in the manner and negative tone that counsel permitted to occur here however, conferencing will instead simply add another layer of cost onto proceedings. The Court in such instances in future might give consideration to the NSW approach of limiting experts to one Court-sanctioned witness per discipline.

The issues

[8] Remarkably (given the climate between the parties), issues narrowed significantly after the resumed facilitated conferencing.

[9] The whole thrust of the appeal had, prior to that, appeared to be to bring about a result whereby AT be forced to acquire the site and compensate Tram Lease and CJM Investments. That flavour did not entirely disappear, but crumbled somewhat as the hearing progressed and Tram Lease's and CJM's positions were tested. Subsidiary to that, the issues divided themselves into:

- (a) effects prior to commencement of works;
- (b) temporary effects during construction;
- (c) permanent effects after completion of the works.

We now proceed to list the sub-categories of effects within each of those.

Effects prior to commencement of works

- (i) "planning blight" due to uncertainty of commencement of these public works of significant scale, with a related complaint that the "specified date" for triggering an ability to claim compensation under s62(2)(c) of the Public Works Act is entirely under the control of AT;
 - (ii) lapse period for commencement of works (ultimately agreed at ten years);
 - (iii) effects on tenants due to uncertainty (possible tenant loss, possible problems gaining replacement tenants, possible reduced rentals);
 - (iv) consequent property value reduction;

Temporary effects

[11] Effects during construction, and particularly during the 3-4 week ramp construction period alleged to include:

Tram Lease (Decision)

- (i) reduction in the number of on-site carparks;
- (ii) accessibility of replacement off-street carparking provided by AT;
- (iii) safety of that pedestrian access to off-site parking;
- (iv) how to manage allocation of parking as amongst the several tenants.

Permanent effects

[12] Issues concerning landscaping, street frontage and visual effects (visibility of site from public areas), traffic ramp design, and carparking numbers and arrangements, following the conclusion of construction, as follows:

- (i) gradient of ramp into the site from grade separation of raised street safe and efficient?
- (ii) Reduced car parking numbers available compared to the existing situation and surveyed needs;
- (iii) visibility of the site for people passing in the local streets;
- (iv) visual aspects of lowering the adjoining railway tracks (views from within the Tram Lease site);
- (v) extent of landscaping necessary to mitigate adverse effects.

Key issue

[13] The key issue in this case is, after mitigation of adverse effects (many ultimately agreed among the experts) are the adverse effects so significant that the Notice of Requirement should be cancelled?

Some preliminary legal issues

[14] Counsel for Tram Lease Mr Daya-Winterbottom raised some preliminary legal issues which he foreshadowed as hurdles for the designation. While he resiled from that strong position under questioning from the Court, conceding that "they are not road blocks", some quite considerable time was taken up addressing them, particularly through comprehensive submissions that other counsel felt compelled to present.

- [15] These issues were:
 - (a) Alleged non-availability of some adjoining Kiwi Rail land for mitigation purposes.
 - (b) Alleged further problem with that land, being that its use for mitigation would be precluded by Part 4 of the Nga Mana Whenua o Tamaki Makaurau Collective Redress Act 2014.
 - (c) The legal principle of non-derogation from grant.
 - (d) That the appellant's land would become legally "landlocked".

(a) Alleged non-availability of some adjoining KiwiRail land for mitigation purposes

[16] This issue appeared to have been at the heart of difficulties of communication amongst the parties earlier this year, and may to some degree have led to the improper termination of expert conferencing in April.

[17] Auckland Transport had proposed to mitigate the effects of the proposed designation and works on the Tram Lease property by utilising a narrow strip of land owned by KiwiRail adjacent to it, essentially to allow for an alternative entrance strip, additional permanent parking, and landscaping opportunities.

[18] Auckland Transport claimed to have reached agreement in principle with KiwiRail to obtain and utilise the strip for those purposes, but legal rights to the land were yet to be formalised.

[19] Auckland Transport offered to make utilisation of the KiwiRail land for these purposes an express condition of the Designation, but this approach was resisted by Tram Lease and the s274 party CJM Investments.

[20] There was a suggestion during the lead-up to the hearing that Tram Lease's counsel would make an issue of the legality of the draft condition offered by Auckland Transport, although little information was forthcoming at that stage. AT and Auckland Council therefore had to prepare in detail to argue the issue.

[21] Lack of detailed allegations from Tram Lease and CJM was one of the concerns noted by the Court in Minutes issued to the parties in the week before the hearing.

[22] Counsel for AT and Auckland Council took steps to anticipate an argument, and came to the hearing equipped with highly detailed submissions about the validity of imposition of a "condition precedent," and the possible relevance or otherwise of property rights in this context.

[23] Mr Daya-Winterbottom submitted that there was no documentary evidence before the Court concerning the availability of the KiwiRail land, such that it could only therefore be <u>assumed</u> that the land would be available. He argued that the draft conditions were intended to take effect as conditions precedent.

[24] Mr Daya-Winterbottom however then acknowledged that the use of conditions precedent in planning and resource management was well established.¹ He argued, however, that there remained a need to ensure that conditions were reasonable and could be enforced, particularly where an applicant did not own or control the relevant land. He tentatively indicated that such difficulties could be avoided by framing conditions to require that the designation should not be given effect to unless access had been constructed. He acknowledged that a similar approach could be used to overcome any potential invalidity from requiring a consent-holder to rely on the consent, authorisation, or activities of a third party.

[25] He then argued that KiwiRail would need to remove its designation from the allegedly redundant operational land under s182 RMA (to avoid the continued need for written consents under s176 RMA); for AT to obtain resource consents from Auckland Council for construction of the new access ramp and provision of parking spaces on the KiwiRail land; and for AT to enter into legal arrangements to make the land available to Tram Lease and its successors for use in connection with activities on their site. He pointed to certain rules in the Operative Isthmus District Plan.

¹ Grampian Regional Council v City of Aberdeen (1984) 47 P&CR 633

[26] Rather remarkably, Mr Daya-Winterbottom conceded at that point in his submissions that the issue was not "a road block" for the Designation!

[27] Despite the latter concession, counsel for AT and Auckland Council had prepared detailed submissions on the issue. In view of the concession we will very much summarise the submissions.

[28] Those parties argued that conditions precedent (that is, that must be satisfied before a consent-holder can undertake activities authorised by a consent or a designation) are lawful, subject to requirements that they do not:

- (a) purport to impose conditions prior to the substantive consent having legal effect;²
- (b) require the consentholder to do something that it cannot lawfully do;³
- (c) frustrate the grant of consent;⁴
- (d) give rise to undue uncertainty as to the effects of the consented works.⁵

[29] Detailed arguments were put by both counsel to the effect that none of these limitations arose in connection with the draft conditions put forward by AT.

[30] We consider that the draft conditions appropriately anticipate mitigation utilising the KiwiRail land, prior to the activities the subject of the designation commencing. As was said by the High Court in the *Director-General of* Conservation v Marlborough District Council case:⁶

While none of the options can be determined at this stage with certainty, they are nevertheless technically feasible... To require an applicant for a large infrastructural consent process such as this, to have all the necessary property rights in place at the resource consent stage, would be untenable.

[31] In approving for present purposes, the latest version of draft condition 30.1(k) and (l) put forward by AT, we acknowledge that counsel appropriately

² See Director-General of Conservation v Marlborough District Council (2004) ELRNZ 254

³ Westfield (NZ) v Hamilton City Council HC Hamilton, CIV-2003-485-000956, 17 March 2004 ⁴ Hindeman v Waitaki District Council [2010] NZEnvC 51

Hinaeman v Wallaki District Council [2010] NZENVC 51

⁵ Laidlaw College Inc v Auckland City Council [2011] NZEnvC 248

⁶ at paragraph [41]

realised the need for a strengthening of its wording at the time his submissions were delivered, and it is that version that we approve.

[32] We also agree with his submission that the appropriate term during which the land should be available would be until such time as the site is reconfigured and the access ramp into the property no longer required (agreed by AT that this would be determined by Tram Lease or successor).

(b) Use of the KiwiRail land precluded by Nga Mana Whenua o Tamaki Makaurau Collective Redress Act 2014?

[33] Seizing upon the description of the KiwiRail strip as "redundant," Mr Daya-Winterbottom submitted that Part 4 of this legislation might come into operation if there was a disposal of the land. Strangely, however, having raised the point, he acknowledged that there would be technical legal means by which the situation could be avoided.

[34] Mr Beatson offered submissions about such means, and it is perfectly clear (as we think was conceded by Mr Daya-Winterbottom) that the problem would not be insurmountable. Techniques are provided in ss128-141 of that legislation, some operating in concert with s50 of the Public Works Act 1981 whereby an existing public work or its associated land can be disposed of to another local authority whether of the same kind or not, if there are continuing requirements for it in the public interest. Auckland Transport would come within the definition of local authority in the PWA for such purpose.

[35] In the alternative, KiwiRail could continue to hold the land but authorise its use for mitigation works by AT.

[36] We hold that there is nothing in this issue, as seemed ultimately to be conceded by Mr Daya-Winterbottom.

(c) The legal principle of non-derogation from grant

[37] Another "straw man" was raised by Mr Daya-Winterbottom in his opening submissions, the doctrine of non-derogation from grant. He pointed to the existence of leases and marked parking spaces, the latter said to be "District Plan compliant." He submitted that, while rights to these things are not real property, "they create property-like interests and are protected by the doctrine of non-derogation from grant."⁷

[38] Under questioning from the Court about the inter-relationship of requirements for designation and extant resource consents, Mr Daya-Winterbottom appeared to resile from the proposition that consents could act as some sort of shield to a requirement for designation. This too ceased to be any sort of "road block."

(d) The appellant's land would become legally "landlocked"

[39] Mr Daya-Winterbottom submitted that the site owners have a right of access along the full frontage of their property with the existing road, and that there would be a statutory right to compensation under s330 Local Government Act 2002 where property was affected by a change in road level. He made the rather remarkable submission that "absent the construction of the proposed access ramp the site would become landlocked in terms of ss326-331 of the Property Law Act 2007." He noted in addition a reduction of site frontage would be likely to come about, that there would be a reduction in parking space numbers, and that "interference with access rights and alteration to road levels are recognised causes of action in private nuisance."(!)

[40] Mr Beatson on behalf of AT rightly pointed out that land is only landlocked if there is no reasonable access to it.⁸ He noted that the site has approximately 29m of road frontage, that legal access could be obtained from any part of that, and that mitigation was proposed after the raising of the street, by the intended provision of an access ramp; also that it is not uncommon for sites to have a single access point, as indeed is the current state at the property.

[41] Once again, there was nothing in Mr Daya-Winterbottom's submission. It was not supported by fact or law, and was sadly a diversion from the true issues in the case.



 ⁷ RMA, s122; Thomas Gibbons "Property Rights in Resource Consents: Some thoughts from law and economics" (2012) NZULR 46; Tram Lease Limited v Croad [2003] 2NZLR 461; Aoraki Water Trust v Meridian Energy Limited [2005] 2NZLR 268
⁸ s326 Property Law Act 2007

Potential adverse effects

[42] As we have already noted, the issues in the case narrowed somewhat after the belatedly resumed expert conferencing. Indeed, narrowing continued during the hearing itself.

[43] As we have also already indicated, the disputes focussed on three types of potential adverse effects:

- (a) adverse effects prior to commencement of works;
- (b) temporary effects (during construction); and
- (c) permanent effects after completion of the works.

[44] It became clear during the course of the hearing that the latter two kinds of effect could be sufficiently mitigated by conditions of consent, and/or the subject of The dispute therefore tended to focus more on effects prior to compensation. commencement of works, than the latter ones. We perceived once again that the driver was money. The thrust of the legislation so far as compensation is concerned, is that there is no provision for compensation prior to the works getting under way. Tram Lease and CJM Investments made a very determined push for cancellation of the Requirement for Designation on this account, although quite unusually, the stance on even that topic changed by the end of the hearing, to a request by those parties for the case to be adjourned so that some sort of negotiation could take place. This notion was stoutly resisted by AT, on the understandable basis that a public body is strictly constrained by legislation in the extent to which it can offer money or other forms of compensation. AT's stance was that the Requirement should now either stand or fall; and that there was no basis established by Tram Lease and CJM for the latter. As will be seen, our decision is that the Requirement should be confirmed.

Effects prior to commencement of works

[45] In an earlier paragraph of this decision we listed four sub-topics under this head, but during the course of deliberating about them, we perceived that they would all more or less come under one umbrella, termed by the appellant, "planning blight."

[46] Mr Daya-Winterbottom submitted that the concept of planning blight refers to depreciation of existing land value because of the existence of proposals for public works, and has affinities with the concept of injurious affection, referencing the writing of Patrick McAuslan, "*Land, Law and Planning*" (Weidenfield & Nicholson, 1975 at page 689), although he cited no case law.

[47] As occurs with most major public works, there is some uncertainty about precise timing of commencement and completion of works in the vicinity of the Tram Lease property. AT was quite open about this, noting for instance the evidence-inchief and rebuttal evidence of Mr WR Newns, the design manager for the Principal Technical Advisor team to AT for the City Rail Link project. In his rebuttal statement he candidly acknowledged that certainty regarding construction start and duration will not be known for some time. Similarly, Mr R Galli, AT's Land Acquisition and Programme Delivery Manager for the project, acknowledged that finalisation of alignment and development of detailed design would have a "considerable gestation period", and other uncertainties would arise from the need to resolve availability of funding and competing priorities, as with all such major projects.

[48] The concerns for Tram Lease and CJM Investments were summarised succinctly by the six valuation and real estate expert witnesses when they finally returned to the conferencing task at about the time of the commencement of the hearing. They recorded:

Tram and CJM's witnesses' major concern is the negative effect of the impending works during the pre-construction period. In particular Tram and CJM witnesses consider that they will each suffer significant losses which will not be compensated under the PWA. This is exacerbated due to the ownership structure of the site – ie, Tram owns the freehold, CJM has a ground lease of the site, owns the improvements and pays ground rent to Tram, and sub-leases the improvements to the sub-tenants. AT witnesses acknowledge this concern.

Pre-construction effects:

- (a) Tram & CJM witnesses consider that there remains considerable uncertainty as to when the works will commence and what the site will look like post-construction. In particular funding has yet to be confirmed for NoR6 and the final design has yet to be completed. In addition there is uncertainty around what the effects of the work will be on sub-tenants of the site.
- (b) Regardless of design and timing of the work, Tram and CJM witnesses consider that the existing sub-tenants, and any potential future sub-tenants will most likely consider the construction works to be a major business interference, and the site following construction will be significantly inferior to the status quo.
- (c) The effects of uncertainty, the knowledge of major construction interference, and the impending change in character of the site include:



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- (i) Tram is unable to complete the 1 January 2004 rent review and this position will continue for the lapse period or until completion.
- (ii) CJM risks losing current sub-tenants or facing claims for rent reduction, achieving lower rents and shorter lease terms for replacement tenants as well as possibly lower quality subtenants. The combination of these for a leasehold interest (which CJM holds) can be terminal.
- (iii) It will be extremely difficult for either Tram or CJM to sell their respective interests prior to construction and neither of them will be entitled to compensation under the PWA or otherwise.

[49] The planning witnesses also addressed these issues in their belatedly resumed conference. The planning consultant called by Tram Lease and CJM, Mr MJ Foster, stated that the draft conditions did not provide sufficient mitigation prior to commencement of construction because of a lack of recognition of the degree of uncertainty that could prevail for sub-lessees on the property and whether PWA compensation rights would be available to address such an issue. The planning consultant called by AT, Ms AJ Linzey, disagreed with Mr Foster, and considered that there were specific draft conditions to meet those concerns, including such steps to be taken by AT as providing information to the community. Beyond that, she did not consider it appropriate or possible to further quantify or compensate for such effects.

[50] Mr Daya-Winterbottom submitted (correctly) that under s62(2)(c) of the PWA the specified date that would trigger the ability to claim compensation would be either the date on which any interest in the land was vested in AT, or the date of entry on the land to commence work, whichever occurred first. His real concern was that both events were entirely under the control of AT, and uncertain as previously noted.

[51] The valuation witnesses called by each party gave significantly differing evidence about monetary quantification of such likely impacts. The approaches taken by the various witnesses were frankly speculative, and we noted that they were barely cross-examined, which tended to confirm our own view that the evidence on behalf of Tram Lease and CJM adopted extreme and unrealistic positions of a "worst case" type.

[52] At the heart of the question appears potential anxiety on the part of the subtenants about what may occur when construction gets under way, and the environment post-construction. Under questioning by Mr Beatson, Mr Foster offered the strange response "...what it's boiled down to is that there may or may not be substance to the possible claim that a tenant may or may not walk, is that where we're at?

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[53] Counsel for AT referred us to decisions of the Environment Court concerning anxiety. In *Telecom New Zealand Limited v Christchurch City Council*,⁹ the Court found that social angst and lack of wellbeing in the community potentially affected by a proposal cannot be a material consideration when assessing merits. More directly, the Court stated in *Shirley Primary School v Christchurch City Council*:¹⁰

Whether it is expert evidence or direct evidence of such fears we have found that such fears can only be given weight if they are reasonably based on real risk.

[54] Of some note, no witnesses were called from amongst the existing subtenants to describe or explain any such anxiety.

[55] We accept the submissions of counsel for AT that uncertainty about precise construction commencement date is not uncommon with large infrastructure projects that take time for detailed design and funding to be completed. He told us that AT is committed to working with sub-tenants and tenants, noting that CJM Investments has claimed that it has strong relationships with its tenants. Intriguingly, not only were sub-tenants not called to give evidence, but there appeared to be a reluctance on the part of Tram Lease and CJM to allow AT representatives access to them during the pre-construction period to endeavour to allay fears.

[56] Counsel for AT addressed submissions on the subject of the relevance of property values in RMA cases, offering case law. The submissions were not challenged by counsel for Tram Lease and CJM. The principles are not complicated or controversial, and we can state them simply as follows.

[57] The starting point is that effects on property values are generally not a relevant consideration, and that diminution of property values will generally simply be found to be a measure of adverse effects on amenity values and the like: *Foot* v *Wellington City Council.*¹¹

[58] Similarly in **Bunnik** v Waikato District Council,¹² the Court held that if property values are reduced as a result of activities on an adjoining property, then any devaluation experienced would no doubt reflect the effects of that activity on the environment. The Court held that it was preferable to consider those effects directly

⁹ Decision number W165/96

¹⁰ [1999] NZRM 66 at paragraph [193]

¹¹ Decision number W7398, at paragraph [256]

¹² Decision number A42/96 [Environment Court, Auckland]