

# Te Ahu a Turanga: Manawatū Gorge Replacement Route Project

## Hearing Panel Questions and Responses

Notices of Requirement for Designations under section 168 of the RMA 1991 Act.

### Panel questions to the s 42A reporting team

Para	Question	Section 42A team response
<b>Traffic and Transport:</b>		
<b>Harriet Fraser</b>		
35	What, in your view, would be a more appropriate level of diversion away from the informal bypass route and how does that affect your conclusions in relation to the effects of the project?	<p>My expectation given the similarity in travel times 6 minutes using Woodlands Road and Vogel Street and 5 minutes using Oxford Road and Pinfold Road (from Google Maps) is that drivers familiar with informal bypass route will continue to use it. Some larger heavy vehicles may be deterred by the sharper turn into and out of Oxford Road from Saddle Road and unfamiliar drivers will likely miss the turn in the eastbound direction unless their GPS has directed them onto the route. As such I consider that the diversion of traffic back through Woodville as a result of the recent and ongoing works will be more likely in the order of 20% than the 50% estimated by NZTA. With less diversion back through Woodville, the difference in change in traffic flows through Woodville with and without the Project is greater.</p> <p>If the <i>existing</i> level of diversion is overestimated (more traffic assumed to be travelling through central Woodville), the net effect of the Project on traffic in central Woodville is therefore underestimated.</p>
56 70 78 103	Are there any implications for the NOR of your identified shortcomings beyond those listed at your paragraphs 139, 141, 195 and 207(m)?	<p>Changes to indicative road alignment and/or cross-section could have implications for the NOR in the non-transportation fields such as ecology, landscape and geotechnical.</p> <p>I would expect that the implications for those other aspects would vary depending on the design solution options NZTA have available to them to resolve the shortcomings I have identified.</p>
56	Do you consider that a lower design speed is suitable for the currently proposed 4-lane road cross section and why? If, in your view, a different road cross section would be required to support a lower speed limit, what would be the implications of longevity of the	<p>Given the topography and associated grades I consider that an 80km/h speed limit and 90km/h design speed could be appropriate in this particular context and would still meet the Project objectives. I note that for instance the multi-lane Ngauranga Gorge section of SH1 in Wellington operates with a maximum speed limit of 80km/h in both the uphill and downhill directions.</p>

Para	Question	Section 42A team response
	<p>route in terms of future capacity, particularly in light of the submission made by the Chamber of Commerce in relation to wishing to see a 4-lane road in its entirety, and the potential for increased tourism raised by the Central Economic Development Agency, amongst others?</p> <p>In your view, what would be the network wide and driver experience effects of having a key section of SH3 operating under 80km/h?</p>	<p>With regard to the traffic carrying capacity of the route, given the lack of side friction with intersections, this will largely be determined by the wider road network capacity to deliver traffic to the Project route and the capacities of the roundabouts at each end and the single lane approach/exit at the Woodville end of the Project.</p> <p>Travelling from east to west, motorists will have travelled slowly, less than 50km/h through Woodville, would then traverse the hilly Project route at 80km/h and then into 100km/h speed limits on the flatter terrain on either SH57 or SH3 towards Palmerston North. In the west to east direction, the 80km/h Project section would provide a transition between the 100km/h speed limits to the west and the 50km/h speed limit through central Woodville. I consider it increasingly likely that 100km/h speed limits on roads without a central barrier will get reduced in the future on safety grounds resulting in the wider speed environment changing during the life of the Project.</p>
75	<p>Appreciating that the overall alignment could change and could therefore represent a longer physical length, and that this is not yet known, please provide an assessment of the effect on travel time if an 80km/h speed limit design speed were used.</p>	<p>Assuming that light vehicles (cars) will travel at the speed limit over a 10km length between the roundabouts, the difference in travel time would be 1.5 minutes (6 minutes at 100km/h and 7.5 minutes at 80km/h). For heavy vehicles that are able to travel at the maximum legal speed, the difference is around 50 seconds. I note that a proportion of the heavy vehicle fleet will be unaffected as they would struggle to reach speeds of 80km/h on both the uphill and downhill sections. It is also likely that weather conditions will on occasion result in reduced vehicle speeds.</p>
135 186	<p>In lay terms, precisely what additional mitigation do you consider is required?</p>	<p>Treatments, such as a shared path, to ensure that pedestrians and cyclists can travel safely alongside SH3 between each of central Woodville and Ashhurst and the local roads to the gorge. In the absence of a formal bypass of Woodville and given that the SH2/SH3 intersection is unlikely to be able to accommodate all the forecast traffic with either a roundabout or signals, informal bypass routes would need to be identified and supported with signage and roading changes such as carriageway widening and/or removal of kerbside parking. This is particularly important for managing traffic flows through Woodville between SH2 to the south and SH3 to the west. I note that in his response to questions from the Panel, David Dunlop included intersection modelling data showing a roundabout solution potentially working at the intersection of SH2/ SH3. In my view the scale of roundabout that would be needed to accommodate the turning paths of the largest trucks along with the challenges of safely accommodating pedestrian flows at roundabouts makes a roundabout solution very unlikely to be appropriate. My expectation is that local bypassing of the intersection would be needed and then the reduced flows could be controlled by a signalised</p>

Para	Question	Section 42A team response
		intersection with associated benefits for pedestrians.
<b>Noise: Nigel Lloyd</b>		
49	Do you know how many night traffic movements for the likes of continuous concrete pours and over dimension loads will be required to travel through Ashhurst and Woodville at night?	<p>No. This will not be known until the contracts are let. The context is that there will always be heavy trucks travelling through Ashhurst at night using the Saddle Road until the route is constructed. I have discussed this with Dr Chiles and I understand that the main civil works requiring concrete pours involves the Manawatu River bridge which will not require trucks to pass through Ashhurst. Other bridges and civil works requiring continuous concrete pours on the route are not thought to be extensive. Over dimension loads will initially involve large earthmoving plant. My perception is that concrete trucks and over dimension loads will form a small percentage of the existing traffic although I am not aware that the exact numbers are available at this stage of the design.</p> <p>I am not aware of how many unavoidable night-time construction vehicle movements there will need to be through Woodville.</p>
49	Is there an agreed route through Ashhurst and Woodville for this unavoidable night time traffic?	I have discussed this with Dr Chiles. No explanation is provided by the Requiring Authority but a CTMP can be used to direct construction traffic movements onto certain routes unlike with general traffic. With Salisbury Street being the State Highway and further up the road hierarchy I consider it appropriate to get night-time construction traffic onto this route if possible and reasonable. I understand from Dr Chiles that overhead lines further south on Salisbury Street may require that over dimension vehicles use Cambridge Avenue and Wyndham Street. I believe we are in agreement that the construction traffic should use the defacto state highway route wherever possible. Heavy construction traffic on Hope Road should be avoided altogether. The existing State Highway at Woodville should be used for unavoidable night-time construction traffic.
102	Is the approval or certification by the territorial authority in terms of condition 20 only required in the event that Category A Controls is exceeded? Could you please explain?	I consider it most likely that the Category A vibration limits will be complied with by construction works and that the vibration impacts will be low. The intention would be for certification to be required in the event that the base threshold is exceeded. This allows a peer review to be undertaken of the various mitigation measures available to the affected persons. The s 42A report Draft Condition 21 requires the CNVMP to be written including a description of the likely vibration emissions. Condition 21e requires the whole CNVMP to be certified by the TA. Neither of these matters is included in the Draft Conditions in Ainsley McLeod's evidence. I prefer the s 42A draft conditions in this respect.
93	In your opinion, is there a need to	This is a national issue involving the application of the land

	<p>consider suppressing engine noise and exhaust noise, by utilising additional muffler noise suppression devices?</p>	<p>transport rules rather than a specific consideration of the NOR. In my opinion there should be a stricter application of the rules for noise suppression of engine brakes on heavy vehicles but that this is complicated by the way the rules are written. From discussion with Dr Chiles I understand that all trucks involved in the construction works will have the engine brakes muffled. I also understand from Dr Chiles that this is standard practice for NZTA construction sites but a provision could be included in the CTMP to avoid any uncertainty.</p> <p><i>All construction vehicles must have effective noise suppression devices for engine brakes.</i></p>
<p>119</p>	<p>Are all of your recommendations (your paragraphs 93 to 114) captured in amended conditions recommended to us in the S42A Report?</p>	<p>All of my recommendations are captured in the s 42A Report Conditions.</p> <p>A number of my recommendations are not reflected in the NZTA draft conditions contained in Ainsley McLeod’s evidence. I comment on her proposed conditions below:</p> <p>Ainsley McLeod opposes the various plans being certified by the TA. I consider this to be an important part of the process given the vagaries of the noise mitigation descriptions available under the NOR process.</p> <p>21(d)(ii) there is no requirement to set out the likely vibration levels in the CNVMP.</p> <p>Condition 21 – No requirement to undertake the works in accordance with the CNVMP.</p> <p>Condition 22 – Heavy construction traffic on Hope Road should be avoided altogether rather than “managed” or “restricted to daytime”.</p> <p>29A(b) – Engine braking noise would not be adequately controlled by reference to NZS 6806 Category A criteria.</p>
<p><b>Landscape:</b> <b>John Hudson</b></p>		
<p>18</p>	<p>What are the cumulative effects that you are concerned about - effects of multiple stream crossings by this Project (your para 42) or the effects of this Project laid on top of the effects of previous human induced changes along the NOR route?</p>	<p>The cumulative effects I refer to in paragraphs 18 and 42 relate to the multiple stream and vegetation crossings. These are primarily Natural Character effects. Currently they are assessed individually e.g. QEII East is assessed separately to the QEII West, despite being adjacent. Also, in the vicinity are the Lower Stream/Wetland at the base of the Western Slope and the Stream Crossing Construction Access to Saddle Rd. Each of these crossings is affected by the corridor. These areas are not considered cumulatively despite being in close proximity and having all been assessed as individually of High Natural Character (they are the only crossings in the entire corridor to have this rating). They are also near the Manawatu River Crossing which is assessed as Moderate High. While many of the streams crossed by the corridor are tributaries to the Manawatu Gorge, which is assessed as High, no cumulative effects</p>

		<p>were assessed for these areas.</p> <p>There are also several crossings that contribute to the ‘Generic’ streams (Appendix 4A Table 9) with an overall Natural Character rating of Moderate. However, the effect on the individual streams is not known which makes it unclear how the collective rating is assessed. The collective effect on these generic streams with Moderate Natural Character and on the four crossings with High Natural Character are also not assessed in a cumulative sense.</p> <p>I am of the view that the absence of cumulative assessment of effects is a deficiency in the AEE. First, just as point discharge or loss of habitat may be small for individual streams, cumulatively the effects may be higher. Secondly, an assessment of cumulative effects is a requirement of the statutory provisions.</p> <p>The landscape and possible natural character effects of cumulative human induced modifications over time have also not been assessed. I note that bush clearance, agricultural activities (including research) and wind farm development all occur in the area where another major change (roading Project) is now proposed.</p>
22	<p>In your opinion, has an adequate assessment of the landscape character effects been undertaken in relation to the Te Ahu a Turanga battle site, including the prominent rock in close proximity to the designated route?</p>	<p>The Tangata Whenua Values Technical Assessment states: <i>“Subsequently it has been agreed with NZTA that the road shall not impact on this particular site [Te Ahu a Turanga].”</i><sup>1</sup></p> <p>Under ‘Project Shaping’<sup>2</sup> it states <i>“Te Ahu a Turanga was identified in the path of Option 3, South of the Saddle Road, along with the significant cultural landscape within the designation. Option 3 was identified as the most unacceptable by Rangitane as this option was then presented... Option 3 was chosen as the best option for replacement of the Manawatu Gorge Road, however the proposed designation was shifted so not to impact on Te Ahu a Turanga and its mauri which is acceptable to Rangitane now, as mitigations in respect of this site were addressed by NZTA to Rangitane satisfaction.”</i></p> <p>Jonathan Procter’s evidence for Rangitane states: <i>“We can say that our most significant and directly impacted site of Te Ahu a Turanga has been avoided in this development and appropriate protocols and Karakia have been undertaken on site to ensure our world is balanced.”</i><sup>3</sup></p> <p>Under evidence of Ainsley McLeod (planning and conditions) on pg 28 <i>“... with Te Ahu a Turanga (a wahi tapu on a hilltop near Saddle Road) being of particular importance to</i></p>

<sup>1</sup> NOR Volume 3 Technical Assessment Tangata Whenua Values, para 36(h)

<sup>2</sup> Ibid para 46-47

<sup>3</sup> Statement of Evidence of Associate Professor Jonathan Procter Representing Rangitāne o Manawātū, 8 March 2019, para 34

		<p><i>Rangitane and avoided by the Project.”</i></p> <p>In their assessment, Ngati Kahungunu mention the battle but do not make comment on the effect of the Project on the area<sup>4</sup></p> <p>In summary, it has been identified by NZTA that Te Ahu a Turanga is very important to Rangitane (with the project being named after it) and that Rangitane are happy that the current proposal will avoid any impacts on this area of significance.</p> <p>The Landscape Assessment refers to Te Ahu a Turanga stating: <i>‘Above the river on the edge of the Ruahine range is a large reddish rock, Te Ahu a Turanga imua (the sacred place of Turanga). Turanga was an ancestor of Rangitāne and, according to Māori in the area, Te Ahu a Turanga remains above water even when the river experiences its highest floods’<sup>5</sup></i>. I understand that there is a rock of the same name in the Manawatu River.</p> <p>There is no other reference to Te Ahu a Turanga or any discussion about the landscape character effects or associational landscape values relating to the prominent rock or battle site. Rather, it relies on the information provided directly to NZTA by Rangitāne o Manawatū and Ngati Kahungunu.</p> <p>In my view a landscape character assessment would normally consider these matters as part of an assessment of Associational Values. In doing so, the assessor would form their own opinion on the appropriate recognition of the battle site and prominent rock in relation to the designated route. However, I am equally aware that NZTA appear to have established a direct relationship with iwi. This may have meant the landscape assessor did not gain access to any source of information beyond that generally available to others involved in the project (e.g. s 42A reporters and submitters). In any event as I note (and rely on), Rangitāne o Manawatū have specifically stated their satisfaction with the proposed proximity of the site to the corridor and future road.</p> <p>A related aspect of including Associational Values in the landscape character assessment would have been the opportunity to recognise the battle site by associational features. I refer to possible examples of these below in response to the last of the Panel’s questions. Examples might include a road alignment (pull off) to allow views of the rock or opportunity to commemorate the battle through sculpture. This would address the limited opportunity for views (except near chainage 7000) due to the road being generally heavily incised across the steeply rolling hills in this</p>
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<sup>4</sup> Volume Three, Statement of Kahungunu ki Tamaki nui-a-rua Trust para 26

<sup>5</sup> Technical Appendix 4 – Landscape and Natural Character para 90

		<p>area. A landscape character assessment considering the cultural values may have also identified such opportunities. I am fully aware that iwi may prefer to not publicise cultural sites and their preference on this matter would be paramount and I will defer to any further comments they may have.</p>
50	<p>One Plan Objective 6-2(b)(ii) uses a plural term “attributes and qualities”.</p> <ul style="list-style-type: none"> <li>▪ Does this suggest that more than one attribute and more than one quality would need to be significantly diminished?</li> <li>▪ If the Plan drafters had intended the policy to mean one attribute or one quality might they have used wording such as “an attribute or quality”?</li> </ul>	<p>Grammatically speaking, I accept that the Objective uses a plural. However, simply using the plural in words in a sentence structure does not mean it does not apply to a singular. In any event, it refers to attributes and qualities in the context of “areas” within the objective (again in the plural sense). I am of the view therefore that there could be one or more of the attributes at play. The approach of considering one or more of the attributes and qualities of an area with high natural character is also more consistent, in my opinion, with the intent of the objective (to avoid) but also the policies and s 6 RMA about preservation of natural character. I otherwise leave this for Mr Percy to address in his evidence and response to the Panel’s questions.</p> <p>The Natural Character Assessment has rated Attributes and the change in Natural Character value (as an overall rating) that would occur within the NOR. Qualities are described and not rated, so the focus has been on the change in the attribute rating. See for example <b>Attachment A</b>.</p> <p>This is not consistent with the wording of the objective which focuses on attributes and qualities of an area with high natural character. Further the assessment focus has been on a change in several attributes without any real consideration of the number of attributes required to be impacted, why and/or on what scale. I also reiterate my concerns about the method used to determine the overall Natural Character rating (see my s 42A report at paragraphs 55 to 61).</p>
96	<p>Is it necessary for there to be readily available public access to and within an area for it to have “experiential” value?</p>	<p>In my opinion, it is not necessary for there to be readily available public access to and within an area for it to have “experiential” value. These values exist because of the characteristics of the place and if the public go there, they will experience them.</p>
112	<p>What are the implications of your opinion on NZTA’s natural character ratings?</p>	<p>In my opinion, the NZTA natural character ratings have underestimated the effects the corridor will have on the attributes and qualities of an area. In my view, attributes and qualities will be significantly diminished in some areas of high natural character, which is contrary to Objective 6.2(b)(ii). It is also my view that it increases the likelihood that the Natural Character of the rivers etc will not be preserved nor those rivers and streams protected from inappropriate development as required by the One Plan and RMA s 6(a).</p> <p>Also relevant to this assessment and the question of how Natural Character should be scored are objectives 6-2(a) and policy 6-8 which Mr Percy addresses further.</p>

<p>126</p>	<p>In your opinion, have Tangata whenua and cultural values been adequately assessed from a landscape character perspective against relevant statutory and plan provisions for the NOR?</p>	<p>See also my response in relation to questions for paragraph 22 above.</p> <p>There has been no landscape character assessment against provisions such as s 6(e) or s 7, s 8 matters, nor against relevant policies in the One Plan and District Plans. This includes, for example, Objective 2-1 of the One Plan (the RPS component) which requires that regard be had to the mauri of natural and physical resources.</p> <p>When considering the current NOR and AEE, the Tangata Whenua and cultural values have been referred to in relation to the Manawatu Gorge in a general sense in the landscape character assessment, but it appears that considerable reliance has been placed on the separate cultural assessment undertaken by various Tangata Whenua (Technical Assessment 7: Tangata Whenua Values). The Landscape and Natural Character Assessment (Technical Assessment 4, para 88) states that associative or shared and recognised values are an important part of understanding and assessing a landscape. But it goes on to say:</p> <p style="text-align: center;"><i>Associative values</i></p> <p style="text-align: center;"><i>106. Parts of the Project area have various levels of significance in terms of associative or shared and recognised values for those with mana whenua and the wider community. Consideration of associative values has been considered as part of landscape sensitivity. It is beyond the scope of this assessment to assess how cultural values may potentially be affected. I have relied on the information provided by iwi to the NZ Transport Agency about cultural impacts, and Technical Assessment 6: Historic Heritage and Archaeology.</i></p> <p style="text-align: center;"><i>107. Having said that, the development of the ECDF is an iterative process that involves consultation and input from those with mana whenua and from community stakeholders. Through this process and the design guidance provided by the ECDF, the expression of community values will provide a framework for these aspects to be incorporated into the detailed design of the alignment.</i></p> <p>While the above excerpts of NZTA evidence state that ‘consideration of associative values has been considered as part of landscape sensitivity’, there is little evidence of this in the Landscape Character Assessment.</p> <p>The reference in my evidence (para 126) from ‘Technical Assessment 7 Rangitane Tangata Whenua Values’ illustrates the potential disconnect that can occur when a landscape character assessment limits its scope and relies on others to convey information that also contributes to the landscape</p>
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		<p>character.</p> <p>The concerns of Rangitane regarding wetlands (as quoted in my s 42A report) have not been included in the Landscape and Natural Character Assessment aside from a discussion about the impact on indigenous vegetation and the raupō wetland. However, this is not linked with Rangitāne’s rohe or their spiritual concerns.</p> <p>The Tangata Whenua Values may have been identified in other reports, but they do not appear to have been assessed from a landscape character perspective against the relevant statutory plan provisions for the NOR. I am also aware of further iwi evidence which is to be filed by NZTA but to date has not been provided.</p>
129 130	<p>What tangible Project design and construction outcomes are you contemplating here and can you give actual examples?</p>	<p>In making any design suggestions for features or activities that might draw attention to an area of cultural importance, I am particularly mindful that the appropriateness of any approach would need to be developed with and endorsed by Tangata Whenua. It is common for Tangata Whenua to not necessarily want culturally important areas to be highlighted or even to be known about, so a requirement for their endorsement and participation in the design process is paramount, as covered by the ECDF.</p> <p>If it is considered culturally appropriate to do so, the outcomes I recommend include:</p> <ul style="list-style-type: none"> <li>• construction of large sculptural elements to recognise the battle on the Ruahine Range ridge:</li> <li>• integration of traditional patterns into key elements such as bridges and walls,</li> <li>• representation of Okatia and creation of the Gorge, possibly as an element in the bridge design</li> <li>• celebration of Parahaki Island, possibly through restoration work</li> <li>• renewal and expansion of the interpretation area by the carpark and inclusion of cultural artistic interpretation facilities, and</li> <li>• placement of Pou and a Waharoa at strategic locations, recognising the road as passing through a gateway.</li> </ul> <p>Creating a sense of place through the design of the Project can distinguish the highway. Just like the closed gorge road the Project is replacing what was distinguishable through its sense of place in the dynamic gorge landscape. Design to incorporate cultural reference is incorporated in the provisions of the ECDF.</p>
131 (b)	<p>What route might a new road from Ashhurst to Woodville take that does not cross the Ruahine Ridge land at right angles?</p> <p>How can “cuts and fills” be</p>	<p>Any route north of the Manawatu Gorge must cross the Ruahine Range at right angles because the road travels east-west and the range runs north-south. Within that overall corridor, the character of the Landscape varies. The grain of the land at the western and eastern ends of the corridor comprises steeply incised valleys flowing towards the</p>

	<p>“arbitrary” if they result from a Project’s design alignment?</p>	<p>Manawatu Gorge, as illustrated in <b>Attachment B</b>. These are separated by a flat plateau and undulating land half way along the corridor. The NOR Route crosses the grain at right angles at the western end but follows the grain of the land in the middle and eastern end, running down a ridge towards Woodville. The extensive cut and fill earthworks are required to allow the corridor to cross the grain of the land at the western end. This has been avoided to some degree at the eastern end by locating the corridor far enough north to avoid the right-angle crossing. It cannot be avoided at the western end unless the corridor is located further north.</p> <p>The ‘arbitrary’ nature of the cuts and fills are a direct consequence of crossing the north-south grain. They are arbitrary because they are a result of a corridor that has responded to numerous other constraints e.g. gradient, curve, wind turbines, proximity to Te Ahu a Turanga rock etc, with the project’s design alignment appearing to consider the landform conquerable. While technically this may be so, the consequence is extensive cuts and fills that conflict with the landform character and impact on the high ecological values contained within the landform folds. An alignment to the north would address the landform character issues raised due to the grain crossing alignment but may conflict with Te Ahu a Turanga proximity values.</p> <p>It does not appear that the Landscape effects have been tested against the ONFL provisions in the relevant statutory documents, which include Ruahine Ridgeline ONFL considerations. The scale of earthworks, natural science effects, associational (including cultural) and landscape character effects would need to be considered against such provisions.</p>
(General)	<p>Given the concerns raised regarding the dilution effects of the landscape assessment methodology, please provide a concise assessment of what the landscape and natural character effects would be without this ‘dilution’.</p>	<p>Without dilution, it is my opinion that there would be a significant reduction in the attributes and qualities of the areas of high natural character. There is also the potential for natural character to not be preserved for affected streams and their margins nor protected from inappropriate use and development.</p> <p>Effects on landscape character are not affected by ‘dilution’ but are affected by the corridor selection process. This process does not appear to have included key components of natural science, associational values or landform character as part of the landscape assessment. A resultant corridor that addressed these would consider a route further north at the western end of the ridgeline.</p>
<p><b>Ecology:</b> <b>James Lambie</b></p>		
<p><b>Executive Summary</b></p>		
2(a)	<p>How many hectares of old growth forest and old growth treelands are</p>	<p>I do not have any specific data referring to “old growth” forests for these places.</p>

	<p>contained respectively in the nearby Manawatu Gorge Scenic Reserve, the Ruahine Forest Park and Tararua Forest Park?</p>	<p>In One Plan Schedule F terms, Dr Forbes has identified the old growth alluvial forests as being either Podocarp/Tawa-Mahoe or Kahikatea-Pukatea-Tawa, and the old growth hill country forests Rimu/Tawa-Kamahi.</p> <p>Using the same model Horizons used to estimate the remaining potential habitat types for the One Plan, I have derived the following statistics:</p> <p><b>Ruahine Forest Park:</b></p> <p>Podocarp/Tawa-Mahoe; 101 hectares (100% of original)</p> <p>Rimu/Tawa-Kamahi; 1894 hectares (38% of original)</p> <p>No Kahikatea-Pukatea-Tawa originally.</p> <p><b>Tararua Forest Park (HRC region only):</b></p> <p>Rimu/Tawa=Kamahi; 6008 hectares (73% of original)</p> <p>No Kahikatea-Pukatea-Tawa and no Podocarp/Tawa-Mahoe originally.</p> <p><b>MGSR:</b></p> <p>Rimu/Tawa=Kamahi; 271 hectares (44% of original)</p> <p>No Kahikatea-Pukatea-Tawa and no Podocarp/Tawa-Mahoe originally.</p> <p>The Panel’s question excludes similar habitat types in the vicinity of the project area that are not in the stated reserves.</p> <p>Instead, taking a 30km oblong along the main ranges, extending 20k onto the Manawatū Plains the model yields:</p> <p>Podocarp/Tawa-Mahoe; 6ha (3% of original)</p> <p>Kahikatea-Pukatea/Tawa; 160ha (2% of original)</p> <p>Rimu/Tawa-Kamahi; 9312ha. (14% of original).</p> <p>The above analysis takes the Landcover Database II “Indigenous Forest” as a proxy for “old growth” forest, overlaid with the Landcare Research model of predicted forest types. It is likely to contain estimation errors at a scale larger than that assessed – the figures are for contextual information only.</p>
13	<p>What do you mean by “measure of loss”?</p>	<p>Paragraph 13 summarises my views on how predator management outcomes should be commensurate with loss, specifically in relation to indigenous birds.</p> <p>Predator control could be used to meet at least two bird-related outcomes. The first outcome relates to remedying any direct impacts during construction. “Measure of loss” would be observed losses of nests, nestlings, and or fledglings caused by disturbance during nesting.</p> <p>The second objective relates to the reduction in opportunity for birds to utilise habitats for feeding /nesting etc. due to the areal loss of habitat, and the time-lag in restoring</p>

		habitats to meet such needs. In that case “measure of loss” (n) could be a reasoned extrapolation of bird activity (from current five-minute counts) across the affected area – n birds per hectare per minute.
14	In what way can NZTA practically remedy vehicle bird strike mortalities?	<p>In cross reference to paragraph 115, I identify at this paragraph (14) that the original assessment lacked detail around the effects and management of bird strike. I note Mr Blayney has addressed the issue in his recent evidence (paragraphs 69 – 73) and I am satisfied with that response.</p> <p>Sustained predator control is one of the measures that should be achievable in controlling bird strike mortalities but whether it is practical depends on the configuration of embankments and location of bird habitats that can be treated.</p> <p>Other measures include:</p> <ul style="list-style-type: none"> <li>• Low growing food sources, such as flax are not planted on the road edge.</li> <li>• Ensuring that food sources near the road edge be taller tree species so birds are encouraged to fly above traffic.</li> <li>• Restoration of wetland habitat (and related predator control) will likely mitigate wader and waterfowl strike.</li> </ul> <p>Ensuring wetland habitats are below road embankments to discourage birds from walking onto the road.</p>
16	Do other ecologists support your opinion that the presence of bat roosts increases the irreplaceability of old growth forest beyond the level to which effects can be feasibly offset?	<p>Mr Blayney has now stated in evidence that the presence of bat roosts will cause a review of the bat management plan, which would include first re-looking at avoidance, before other options.</p> <p>It is my intention to raise in conferencing on 19 March 2019 with Mr Blayney and others whether this response indicates a shift toward a higher sensitivity of assessment of habitat irreplaceability.</p>
21	Are you aware of any evidence that the indigenous vegetation potentially affected by the NOR actually contains invertebrates that would qualify as RMA s6(c) indigenous fauna, or contains any invertebrates that are ‘Rare’ or ‘At-Risk’ or ‘Threatened’?	I am not aware of any direct evidence. However, I am of the view that RMA s 6(c) is satisfied as the “threatened” status of habitat types is a proxy for potential threat to invertebrate biodiversity. This point is not in dispute as between the experts involved to date.
24	Regarding natural character, did you mean to say “protected” from inappropriate use and development?	When considering objective 6-2, I intend to refer to “protected”. However, natural character must also be preserved when having regard to Policy 6-8 of the One Plan, and as a matter of national importance under RMA 6(a).
<b>Evidence</b>		
20	So are you saying if policy framework of the One Plan can be	Paragraph 20 discusses (and relates to) indigenous biological diversity only. There are other effects to be

	met by this project then the effects on the environment are acceptable?	<p>addressed through separate policies in the One Plan, which may or may not be met regardless of whether Policy 6-4 is satisfied. Paragraph 20 needs to be read in this context.</p> <p>However, when considering indigenous biological diversity, if the project can demonstrate rationally and clearly that the proposed remedies, mitigations, and offsetting results in net-gain in biodiversity, the effects on biodiversity can be viewed as acceptable from the perspective of ecological science.</p>
25	Have you limited your assessment to “amenity, intrinsic and cultural values associated with indigenous biological diversity” as required by One Plan Policy 6-1(b)(i)?	<p>My assessment intentionally goes beyond these matters to account for s 6(c) and s 7(f) of the RMA. This is consistent with Policy 6-1 (c) of the One Plan. I have always understood the limits that Policy 6-1(b)(1) places on territorial authorities to only prevent their rule making function.</p> <p>My assessment also responds to the position as stated by NZTA in the application that the Project will result in a net gain in biodiversity. NZTA has also offered up a condition in this regard. I’m of the opinion that having regard to the merits of this position is consistent with Policy 6-2(e)(iii). The appropriateness of offsetting can be considered having regard to all values associated with indigenous biological diversity, not just amenity, intrinsic, and cultural values.</p>
26	First sentence. In footnote 5 did you mean One Plan Policy 6-2(e)(ii)?	Yes. This policy directs territorial authorities to consider biodiversity offsetting when exercising functions and powers under the RMA.
33	Can you provide your opinion about the prospect of the change you refer to in this paragraph occurring?	Mr Blayney notes in his evidence (paragraph 59) that it is highly likely that low densities of lizards are present. If a rare species is found in the divaricating shrub habitat, then that habitat will trigger the relevant criterion for significance (based rarity) in the One Plan. If a rare species is not found, then the habitat will not be considered significant.
38	Are the requirements of the “comprehensive and transparent mitigation and offsets package” you refer to as being necessary to demonstrate a net gain in biodiversity included within the amendments you have recommended to conditions regarding the EMP?	<p>The need for a comprehensive and transparent mitigation and offsets package is not captured in any one condition on the NOR. It is however addressed collectively across conditions relating to planting management plans, species management plans, pest management and legal protection.</p> <p>The feasibility of offsetting outcomes is less capable of being addressed through conditions given the restrictions around conditions not being able to compel or bind third parties on whose land the mitigations and offsets will occur on.</p>
39	Do you know if it is possible to change the alignment in and around the NOR corridor to respond to One Plan Objective 6-2(b) and Policy 6-6 directive “to avoid”?	I am not able to address this question within my area of expertise. Others would also need to have input. However, I am of the view that the significance of the effects identified means that an avoidance option for the Western QEII should have been explored and presented by NZTA.
41	Have the commissioners been provided with the documents you refer to:	Due to Dr Forbes’ progress on matters raised, the Panel should refer to Dr Forbes’ latest evidence. Appendix A and B provide the updated list of habitats. Appendix C and D

	<ul style="list-style-type: none"> <li>▪ Forbes, A. (2019). Letter addressed to Wildland Consultants regarding Te Ahu a Turanga; Manawatū Tararua Highway Project Response to Ecology Review, dated 1 February 2018 (but should have been dated 2019). [ref Forbes, 2019]; and</li> <li>▪ NZTA (2019). Te Ahu a Turanga February 2019 Ecology Mitigation Workshop [ref. NZTA; 2019].</li> </ul>	provide guidance to the potential location of restoration sites.
46	Can you explain why or how it is that much of the opportunity particularly for wetland restoration opportunity lies outside the NOR and is therefore subject to third-party cooperation?	Please refer to Appendix C of Dr Forbes' evidence. The wetland opportunities are coloured crimson / red on this map. Most of those opportunities exist outside the NOR.
72	<p>In your opinion are the ECRs used by Dr Forbes reasonable?</p> <p>If not, what do you consider they should be instead and why?</p>	<p>As alluded to in paragraph 146, I am comfortable with Dr Forbes' approach to posing ECRs in principle. As stated in paragraph 159 (and further reinforced by Dr Forbes' latest evidence) the ECRs are reasonable for addressing time lag and some trading.</p> <p>However, the ECRs are only one method employed to mitigate or offset effects of the Project, and alone they do not address all of the residual effects.</p> <p>My opinion stands that there is no vegetation ECR that could adequately compensate for the loss of bat roosts due to the need for the habitat to age beyond 25 years.</p> <p>My opinion stands that the ECR proposals trade an unknown loss of invertebrate biodiversity at the impact sites for a known gain in vegetation extent.</p> <p>I agree with Mr Blayney and Dr Forbes that other mitigations such as remaining habitat enhancement or an offset through active restoration of invertebrate values into the restored habitats are more appropriate than relying on the ECRs.</p> <p>Mr Blayney highlights through his evidence how pest management and vegetation enhancement in non-offset areas will mitigate the effects on fauna. This provides the clarity I was seeking in my critique that the ECRs do not by themselves demonstrate adequate equivalency.</p> <p>Finally, I note that the "reasonableness" of the ECRs (and posed offsets in general) also comes down to whether other parties (not just ecologists) find the proposals reasonable. This is especially so if a proposal is tending more toward environmental compensation rather than like-for-like offsets.</p>
80 115	Are you aware of any evidence of vehicle related indigenous bird strike being a significant issue on	I am not aware of any significant effects in these locations. As described in paragraph 14 of my evidence, bird strike is an operational effect not considered in the original AEE. Mr Blayney has now addressed that shortfall and I am satisfied

	the Saddle Road or Pahiatua Track?	with his conclusions.
96	Do you consider that the proposed conditions or management plans provide for your recommendation if native frogs are found there should be no other recourse but to delimit the extent of the population and avoid that area completely?	The preconstruction surveys for lizards should detect frogs if present. It would be useful if the conditions were expressly extended to include native frogs.
101	Are you aware if your recommended condition requiring a targeted investigation into terrestrial and invertebrate diversity in the high and very high valued sites to establish baseline diversity indices and thereby remove some of the doubt with respect to the presence of rare or at risk invertebrates has been adopted?	I note Mr Blayney's support for a targeted investigation and associated management plan in his recent evidence. Therefore, if not a condition at this stage, the recommendation should be adopted and incorporated into conditions as part of the planning conferencing/evidence.
108	What statutory instrument policy provision do you rely on for considering that offsets must be in the same catchment?	While there is no direct policy provision addressing the location of offsets for natural character, I note the focus of the One Plan on attributes and qualities in particular areas, which suggests, from a common sense perspective, that the mitigation to address any reduction in the attributes and qualities would be in those same areas. For example, the planting of vegetation in places where there is no stream (like Ashhurst Domain), will not result in an equivalent replacement of loss of natural character on the attributes and qualities of the streams affected.
113	Why is it not possible to assess whether or not NZ TA has sufficient space to implement best practice sediment and erosion control measures?	The proposal does not provide any indication of the land that might be required to provide for adequate erosion and sediment control. I understand that Mr McClean addresses this in his evidence (at paragraph 43) where he expresses the view that there needs to be a minimum distance from the extent of earthworks to allow the measures to be installed, operated and maintained.
117	Last sentence. What would than mean in practice?	Ensuring that low growing food sources, such as flax are not planted on the road edge. Ensuring that food sources near the road edge be taller tree species so birds are encouraged to fly above traffic.
118	Given your concern regarding construction effects in relation to stormwater run-off quality sediment and erosion control etc, what controls or assessments would you like to see in place?	Given the high ecological values associated with some catchments, as a minimum compliance with best practice will be required. This would include the most efficient controls on sediment and erosion when having regard to the sensitivities of the stream crossings. I will otherwise defer to Mr McLean on the specific controls or assessments.
119	Has your assumption that the potential to apply offsets was excluded by NZ TA when considering the long list options	Dr Forbes' response (paragraph 119) has confirmed this point. I also note that Natural Character did not form one of the "multi-criteria" assessed at either the long list or the short list stage.

	been confirmed by NZ TA experts?	
121	Have the views you raise in this paragraph been raised during caucusing or discussions with the relevant NZ TA experts and if so what was their response?	Conferencing is proposed for next week, 19 March 2019.
122	So are you really saying in this paragraph that the issue of consideration of alternatives has not been robust?	On realising they were in an offsetting situation with the Western QEII, NZTA should have undertaken a more robust review of other options or sub-options that sought to avoid the QEII blocks, given the significance of these sites and the level of effects needing to be addressed.
122 123	In your opinion, is the proposed route “fatally flawed” given the significant adverse effects on rare and irreplaceable habitats? Why/why not?	To clarify my reference to “fatally flawed” was in respect of the long listing process undertaken by NZTA and their categorisation of options, not the corridor as currently proposed. However, as I explain throughout my evidence, whether the effects can be overcome through mitigation and offsetting is not certain. The level of effect on the QEII areas and highly valued, irreplaceable and vulnerable habitat means that further assessment of alternatives to avoid or further limit effects should have occurred. Dr Forbes again recognises in his evidence (at paragraph 126) that despite the effects envelope to limit adverse effects, and the efforts required at detailed design to minimise the level of effect on ecosystems, the level of effect remains at Very High. I am of the opinion in this this circumstance, another iteration of the ‘avoid / remedy / mitigate / offset’ cycle is deserved.
128	What precisely are these “significant adverse ecological effects” in your opinion?	<p>The paragraph was a general introduction to the section which addresses my expectation that there will be effects that will be mitigated, and residual effects that will need to be offset. The effects are well described by Dr Forbes and Mr Blayney.</p> <p>The effects I have focussed on in my s 42A review are:</p> <ul style="list-style-type: none"> <li>• The permanent loss of threatened habitat types which risks local extinctions.</li> <li>• The potential permanent loss of habitat suitable for bat roosting.</li> <li>• The potential permanent loss of habitat for other rare / threatened fauna.</li> <li>• Injury and loss of individuals of rare / threatened fauna having a disproportionate effect on the survivability of local populations.</li> <li>• A time lag between the loss habitat for fauna and the replacement of those habitats to a level suitable for the utilisation by those fauna.</li> <li>• A time lag in the restoration of ecological processes inherent in the original forest.</li> </ul> <p>There are other significant effects such as edge effects and increased incidence in pests – but Dr Forbes and Mr Blayney cover these very well.</p>

132(d)	Last sentence. What legal authority do you cite for your assertion?	As I understand it the offsetting measures must be proposed or agreed to by a requiring authority (section 171(1B) RMA) I also agree with the views of Maseyk et al (at page 6) that <i>“While a consent authority cannot require the provision of an offset, they may conclude that providing an offset might be the only practical way to meet the requirement in the RMA (and potentially the relevant plan biodiversity objectives and policy) to adequately address the effects of a particular proposal.”</i>
	Did you undertake any expert conferencing with Dr Forbes or his colleagues?	Conferencing is proposed for next week, 19 March 2019.
137	Can you articulate for us some form of expression that would provide for the surety you refer to?	That EITHER: <ul style="list-style-type: none"> <li>• Third-party agreements for the land required for offsets and mitigations is secured, preferably in perpetuity; or</li> <li>• NOR expanded to encompass the space.</li> </ul> That EITHER: <ul style="list-style-type: none"> <li>• The offset and mitigation proposals articulate in finer detail how they result in ecological equivalency for each of the facets of biodiversity considered important; or</li> <li>• NOR expanded to encompass an ability to avoid sites where equivalency cannot be demonstrated.</li> </ul>
148	If we were minded to include a condition to include stakeholders on a community liaison group to assess the merits of the offsetting proposal how do you think disagreement be addressed?	To my mind, the purpose of a biodiversity offsetting liaison group is to be a gauge of the level of social acceptability of the proposed mitigations and offsets and to offer alternative ideas.  The group could be very select in its appointment and be guided by Terms of Reference (“TOR”). Those terms would need to include an objective for the group to seek positive biodiversity outcomes that they are satisfied results in net gain. In that case, it may be acceptable that a “majority rules” approach to agreement might apply. Alternatively, an independent Chair could be appointed to the Group, with the appropriate expertise to make any final decisions in the event of disagreement within the Group.  Within the TOR the group might give regard to issues raised at public workshops if there is a desire or need for wider participation. Within this context disagreements could be addressed by weighting the feedback from the public when having regard to action required to achieve the groups’ objective.
157	Has your recommendation to include maps as reference in this paragraph been discussed with NZ TA experts and if so what was their response?	The issue is yet to be discussed by the experts. It will be an issue raised at conferencing. I do not anticipate any concern since Dr Forbes has mapped wider areas already.
191	At what stage of the project do you anticipate it will be known whether	Frogs can be searched for at the stage that the pre-

	<p>or not native frogs inhabit areas within the designation area?</p>	<p>clearance surveys for lizards are undertaken.</p> <p>I acknowledge that this would be very late in the process. However, the chances of there being native frogs in these habitats are highly remote.</p>
<p><b>Freshwater:</b> <b>Logan Brown</b></p>		
<p>18</p>	<p>Given your concerns in relation to sediment control, what mitigations or controls do you consider necessary and why.</p>	<p>Erosion and sediment control measures are designed to minimise, not avoid, sediment discharges. It remains my view that the effects can be more than temporary. Therefore, avoidance, particularly in the case of stream work, would usually be considered first in the effects management hierarchy. For this reason, at a minimum, the adoption of industry best practice in the design and implementation of erosion and sediment control measures will be required. This is due to the high values associated with some of the streams in the NOR corridor and the recognised effects that sediment can have on in-stream values (both deposited and suspended sediment). In areas of high value or greater environmental risk there will be the need for detailed design and higher quality devices and technology to manage effects on the associated values. However, advice on the appropriate design of sediment and erosion control devices is better addressed by Mr McLean.</p>
<p>21</p>	<ul style="list-style-type: none"> <li>• Which of the One Plan Policy 6-8(c) natural character attributes and characteristics are not captured by the natural character attributes used by the NZTA experts?</li> <li>• Do the streams traversed by the NOR fall within the One Plan Upper Gorge Mana 9a and Middle Manawatu Mana 10a surface water management zones? If not, what zones do they fall within?</li> <li>• What are the One Plan Schedule B values for the affected streams?</li> </ul>	<p>At the outset, I wish to record that paragraph 21 should have contained the word “all” in the second sentence. That is, the stated attributes in the application do not account for all factors set out in Policy 6-8 of the One Plan.</p> <p>Policy 6-8(c) states that natural character of coastal environment, wetlands, rivers and lakes and their margin may include such attributes and characteristics as:</p> <ol style="list-style-type: none"> <li>i. Natural elements, processes and patterns,</li> <li>ii. Biophysical, ecological, geological, geomorphological and morphological aspects,</li> <li>iii. Natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, reefs, freshwater springs and surf breaks,</li> <li>iv. The natural movement of water and sediment including hydrological and fluvial processes,</li> <li>v. The natural darkness of the night sky,</li> <li>vi. Places or areas that are wild and scenic,</li> <li>vii. A range of natural character from pristine to modified, and</li> <li>viii. Experiential attributes, including the sounds and smell of the sea; and their content or setting.</li> </ol> <p>The list is not treated as exhaustive under the One Plan so there may be other attributes and characteristics relevant to natural character. The groupings under this policy are also quite broad, with it possible that some of those matters might be separated out and assessed by themselves. For example, ii, contains biotic components (ecological) and physical components (geomorphology). In many cases it will be difficult to assign one value to account for the breadth of these factors.</p>

		<p>While not explicitly stated the above highlighted characteristics and attributes appear to be contained in varying forms in the assessment undertaken by NZTA experts. See Table 3 and 4 contained in Appendix 4.A: Natural Character Assessment of the AEE. The extent these matters have been considered through the attributes and qualities referred to by NZTA experts is not entirely clear. It is also not always clear whether they were considered consistently by all experts.</p> <p>I remain of the view that the attributes should have better reflected the regional context. Such as through the Schedule B values, which I discuss below.</p> <p>The streams within the NOR corridor fall into the Mana 9 (Upper Gorge) and Mana 10 (Middle Manawatū) management zones and into Mana 9c (Mangaatua), Mana 10a (Middle Manawatū) and Mana 10d (Lower Pohangina) water management sub-zones.</p> <p>Zone wide values that apply to these waterways are Life supporting capacity (HM – Hill country), Aesthetics, Contact recreation, Mauri, Industrial abstraction, Irrigation, Stockwater, Existing infrastructure, Capacity to assimilate pollution.</p> <p>Reach specific values include:</p> <ul style="list-style-type: none"> <li>• Mana 10a amenity, trout fishery (other), sites of significance – riparian (dotterel), site of significance - aquatic (brown mudfish, Ashhurst Domain), Sites of significance – Cultural, flood control and drainage,</li> <li>• Mana 10d trout fishery (other), sites of significance riparian (dotterel), Sites of significance – Cultural, flood control and drainage</li> <li>• Mana 9c flood control and drainage.</li> </ul> <p>While some of the above values are not necessarily relevant to the current application, some are very relevant. For example, sites of significance (riparian), capacity to assimilate pollution etc.</p>
23	<p>In your opinion, do any of the affected streams in chainage 3900 to 6400, where they are traversed by the NOR, have outstanding natural character?</p>	<p>With regard to freshwater (being my area of expertise), none of the streams have outstanding natural character based on freshwater qualities alone. However, as I understand the definition relied on within Appendix 4.A: Natural Character Assessment of the AEE, a river or stream should show a combination of natural elements, patterns and processes that are exceptional. Freshwater attributes will be just one part of this assessment.</p> <p>That definition provides “A river or stream reach with ONC should <i>“Exhibit a combination of natural elements patterns and processes that are exceptional in their extent, intactness, integrity and lack of built structures and other modifications”</i>. An area of ONC should encompass the entire width of the river corridor, rather than simply applying to an individual component of a reach (i.e. context, margin, active bed), to ensure that intact interrelated sequences of</p>

		<p>ecological systems and natural processes are included.”</p> <p>The exception to this may be if the stream was considered natural state as a value in the One Plan. In that case it may be considered outstanding when assessing natural character. These values are not however present within any of the streams within the NOR corridor.</p>
24	To your knowledge, do any of the affected streams where they are traversed by the NOR have a demonstrable periphyton problem?	<p>The key word in this question is the term demonstrable. Horizons presently does not have the necessary data to be able to answer the Panel’s question with any certainty. The closest periphyton sites monitored as part of the State of the Environment monitoring programme are the Manawatū At Upper Gorge (just prior to the Manawatū River entering the Manawatū Gorge), the Manawatū at Teachers College (Manawatū in the middle of Palmerston North City), and Pohangina at Mais Reach (approximately 9 kilometres upstream of the confluence with the Manawatū River). Importantly, a lack of data does not necessarily mean that there is not potential for a periphyton issue (especially if conditions were to change i.e. removal of shading allowing more sunlight and/or increasing stream temperature). However, it cannot be said with any certainty that there is a demonstrable periphyton problem.</p>
28	Did you mean to say (second sentence), in terms of natural character and One Plan Objective 6-2(a), to protect natural character from inappropriate use and development?	<p>Yes, to the extent I was referring to Objective 6-2(a) in the One Plan. However, Policy 6-8(a) requires the preservation of natural character, as does section 6(a) of the Act as a matter of national importance.</p>
29	How do you interpret and apply the One Plan Objective 6-2(b)(ii) “significantly diminish” threshold?	<p>Objective 6-2(b)(ii) of the One Plan is reproduced below:</p> <p>b) Adverse effects, including cumulative adverse effects, on the natural character of the coastal environment, wetlands, rivers and lakes and their margins, are:</p> <ol style="list-style-type: none"> <li>i. avoided in areas with outstanding natural character, and</li> <li>ii. avoided where they would significantly diminish the attributes and qualities of areas that have high natural character, and</li> <li>iii. avoided, remedied or mitigated in other areas.</li> </ol> <p>There is no definition of “significantly diminish” in the One Plan. Instead the experts for NZTA have determined an approach whereby there must be a step change from High to Moderate (or less) to be considered a significant reduction in the level of natural character, See Appendix 4.A: Natural Character Assessment of the AEE.</p> <p>My comments follow:</p> <ul style="list-style-type: none"> <li>• The policy requires the assessment of change to be in respect of the attributes and qualities of areas that have high natural character, not natural character overall.</li> </ul>

		<ul style="list-style-type: none"> <li>• The policy also requires consideration of cumulative effects and whether they significantly diminish the attributes and qualities of an area. I am not aware of the cumulative effects on water quality having been considered in this regard by NZTA, despite there being multiple streams being impacted through the corridor area.</li> <li>• As a matter of principle, I am not against there being some sort of measure of change via a scale. However, in my opinion, any step change needs to properly account for the significance and values of the areas attributes and qualities to begin with. For example, a change from Very High to High in some areas is likely to see a significant reduction in the attributes and qualities of an area. In this sense, it is my opinion that (given the starting point/value) the change would be similar in effect to a change from High to Moderate.</li> <li>• I also remain of the view that there could be change in one or more of the attributes and qualities when determining whether they have significantly diminished. It could be the case that one or two attributes might have a greater impact on natural character than others; with the result that a change to these attributes could significantly diminish those characteristics, and impact on the natural character of an area.</li> <li>• The lines have also been blurred in the current application by use of a five-point scale which is in effect a seven or even nine-point scale.</li> </ul>
33	<p>What in your opinion are the “more important drivers of natural character” in the affected streams in chainage 3900 to 6400 where they are traversed by the NOR and with reference to the One Plan Policy 6-8(c) natural character attributes and characteristics.</p>	<p>As natural and biophysical processes are influential when considering other components of natural character (see the response immediately below), they should have a higher rating, in my opinion. However, weighting will always depend on the location and nature of the area in question. Therefore, an equal weighting approach risks undervaluing key drivers in any given case.</p> <p>With that in mind in my opinion the more important drivers (out of the broad groupings under Policy 6-8) are:</p> <ol style="list-style-type: none"> <li>1. Natural elements, processes and patterns,</li> <li>2. Biophysical, ecological, geological, geomorphological and morphological aspects,</li> </ol> <p>The natural movement of water and sediment including hydrological and fluvial processes.</p>
35 55	<p>What comparative weighting should be applied to the different assessment criteria and how would this the overall assessment of effects? How would the separate</p>	<p>A similar question is set out below: how would you rank or weight the One Plan Policy 6-8(c) natural character attributes and characteristics? As they appear to address the same issues, just in different ways, I respond to them together below.</p>

	<p>consideration of ephemeral streams affect this?</p>	<p>My rankings recognise that the natural movement of water and sediment, including hydrological and fluvial processes and natural elements, processes and patterns, will shape the outputs such as the biophysical, ecological, geomorphological and morphological aspects.</p> <p>With that in mind my ranking (which is effectively my weighting of matters) would be (from highest to lowest):</p> <ol style="list-style-type: none"> <li>3. Natural elements, processes and patterns,</li> <li>4. Biophysical, ecological, geological, geomorphological and morphological aspects,</li> <li>5. The natural movement of water and sediment including hydrological and fluvial processes,</li> <li>6. Natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, reefs, freshwater springs and surf breaks,</li> <li>7. A range of natural character from pristine to modified, and</li> <li>8. Places or areas that are wild and scenic,</li> <li>9. Experiential attributes, including the sounds and smell of the sea; and their content or setting.</li> <li>11. The natural darkness of the night sky.</li> </ol> <p>It must be remembered that under each of these groupings there will be several other attributes and qualities, such as the Schedule B values I refer to above. The specific attributes and qualities of any given area will be determined on a case by case basis.</p> <p>Ephemeral streams have different processes that define what they look like, what species are found in them and how they are characterised. When grouped with permanent waterways these processes tend to be overlooked as they are clumped together. These processes can include filter of water for sediment (and attached sediment removal), capture of <i>E.coli</i> and all processes which result in specific species being found at a site. In this case, this means that there will be attributes and qualities (such as for morphological, hydrology and fluvial processes) of these streams that are being overlooked in terms of the assessment of natural character when the various stream types are grouped as one.</p>
44	<p>What are the implications of your attribute assessment?</p>	<p>While I have provided an indication of my preferred ranking/weighting of the attributes and characteristics in the One Plan, I have not provided or assessed a list of attributes for each of the stream crossings. It is likely that the greater emphasis on natural processes (instead of human influence) will see higher ratings of natural value. However, I would need to undertake a more detailed assessment of these matters. I also note that these questions may be addressed through expert conferencing.</p> <p>It is correct that assessing potential adverse effects on</p>

	Would it be correct to say that no matter what attribute assessment system is used, assessing potential adverse effects on natural character is a somewhat subjective exercise?	natural character is a somewhat subjective exercise. However, this subjectivity can be reduced the more refined a proposal for works in any given location is. In addition, the subjectivity can be lessened by clearly defining attributes and qualities, the extent of change that can be tolerated, and then documenting the reason for the selection of these thresholds to allow independent assessment of them.
59	Do you know whether NZTA intend to make the results of their stream monitoring programmes available as part of the NOR hearing process? In your opinion, how critical is this baseline information in terms of our considerations for the designation of the road corridor?	I am not certain as to whether NZTA are going to release this information for the NOR process. My understanding was most of this monitoring was to be undertaken to inform the baseline conditions of the streams, ideally across a minimum 12 month period, to further establish values and set trigger and compliance levels for water quality conditions for the regional resource consent process.  In my opinion, once collated, this baseline information is unlikely to change the results of those attributes and qualities that rated as high in the Natural Character assessment. The additional information may however, increase some of the lower value scores due to the greater depth of information and it being spread over more seasons.
63	What is the annual sediment load of the Manawatu River through the Gorge?	The last Horizons report which analysed sediment loads in the Manawatū River was completed in 2012. The closest monitoring sites to the Manawatū Gorge are Manawatū at Teachers College, Manawatū at Hopelands, and Pohangina at Mais Reach. The annual sediment load varies between years with between 2001 and 2009 ranging from 390 tonnes x 10 <sup>3</sup> (2005) to 7,368 tonnes x 10 <sup>3</sup> (2004) for Manawatū at Teachers College, between 2001 and 2009 from 243 tonnes x 10 <sup>3</sup> (2009) to 1,895 x 10 <sup>3</sup> (2004) at Manawatū at Hopelands, and between 2001 and 2009 from 40 tonnes x 10 <sup>3</sup> (2008) to 1,736 x 10 <sup>3</sup> (2004) at Pohangina at Mais Reach.
70(b)	How would you rank or weight the One Plan Policy 6-8(c) natural character attributes and characteristics?	See my response to the question related to paragraphs 35 and 55 above.
	Did you undertake any expert conferencing with Dr Forbes or his colleagues?	There has been no conferencing at this stage. It is set down for early next week (being the week of 18 March).
<p><b>Construction earthworks:</b></p> <p><b>Gregor McLean</b></p>		
36	Please explain what 'stream reclamation' is.	Stream reclamation is the placement of earth for the purpose of making dry land over a bed of a stream.  It is an effect of concern in the context of this Project as the effects of reclamation have not been assessed through the NOR process. I consider that stream reclamation over and above that as a result of the alignment could be avoided.

26	<p>Given your concerns about the potential scale of enabling works and in particular the point that NZ TA is still developing the scope of those enabling works are you able to determine effects on the environment of those enabling works?</p>	<p>On the basis of the information available, I am not able to determine the effects of enabling works.</p> <p>There is presently no certainty over whether the enabling works will trigger consent processes at a District or Regional level. While many of the enabling works will be considered at the time of regional consenting (and any enabling works management plan certified post consenting), some of those works will also likely fall outside the scope of that process. There is also the possibility of cumulative effects arising from the enabling works.</p> <p>My preference would be for the enabling works to be addressed through a management plan as part of the NOR process.</p>
27	<p>Do you have any additional comments on either the structure or wording for NOR</p> <p>Conditions that reflect a management structure which results in oversight of the enabling works from a construction effects perspective?</p>	<p>I have reviewed the conditions and amendments proposed by Mr Percy and Ms Copplestone as part of the s 42A planning report.</p> <p>Enabling works form part of Condition 5A which requires an outline plan. I discuss this condition below.</p> <p>I also agree with the changes around certification and amendments of management plans.</p>
28	<p>Based on your experience and taking into account this project in particular construction issues can you think of any reason why the ESCP is not to be an overarching plan and to be provided as part of the NOR process as you suggest in your paragraphs 28 &amp; 29?</p>	<p>As enabling works form part of Condition 5A which requires an outline plan, the ESCP would be required to confirm that the works were being managed appropriately. The benefits of having the overarching ESCP at this stage lies in ensuring oversight of enabling works, but also in ensuring that project design has appropriate regard to the management of sediment and run off moving forward.</p> <p>The importance of these measures is apparent from the sensitivity of areas within which works are proposed, as detailed in the evidence of Mr Brown and Mr Lambie. I have some concerns from the evidence of Mr Whaley that these management practices are not being considered as part of the NOR process (see paragraph 200 and 201), with the suggestion being that they could be accommodated outside the designation boundaries. This approach would likely involve separate processes and third party approvals and would in my opinion leave at risk the delivery of best practice erosion and sediment control. This, in my opinion, is another reason why an overarching management plan should be put in place as part of the NOR, with activity and site specific plans prepared at a later date.</p>
30	<p>What best practice erosion and sediment control guideline/standard would you recommend be utilised and why?</p>	<p>The most up to date erosion and sediment control guideline in New Zealand is Auckland Council GD05 <i>“Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region”</i>, June 2016 (<b>“GD05”</b>).</p> <p>GD05 replaced TP90 <i>“Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region”</i>. The <i>“Erosion and Sediment Control Guidelines for the Wellington</i></p>

		<p>Region” were based on TP90.</p> <p>Further, NZTA have the “<i>Erosion and Sediment Control Guidelines for State Highway Infrastructure</i>”, September 2014.</p> <p>I have relied on and implemented both the GD05 and NZTA guidelines on projects. The key difference is that the NZTA guideline takes a risk-based approach to the sizing of erosion and sediment control devices.</p> <p>GD05 has incorporated recent ESC technologies and practices that are now considered best practice.</p> <p>I would recommend that GD05 is implemented as it is the most up to date in terms of reflecting industry best practice.</p>
36	In your opinion what are the critical characteristics for determining the suitability of a spoil site?	<p>The critical characteristics include:</p> <ul style="list-style-type: none"> <li>• Avoidance of watercourses and consideration for overland flow paths.</li> <li>• Adequate room for erosion and sediment control. This needs to include room for some flexibility in how those controls are delivered when having regard to the characteristics of a site (including location and topography) and the receiving environment (high value streams etc). See the response to the next Panel question below.</li> <li>• Geotechnical suitability.</li> </ul>
43	In your opinion what would be the appropriate way of dealing with the issues you have raised relating to the work ability of the NOR corridor in particular ensuring there is sufficient room for SRPs to be installed operated and maintained in sensitive areas?	<p>In my opinion it is critical to provide additional area outside the extent of earthworks to accommodate robust erosion and sediment controls.</p> <p>In my experience there are many fills on Transmission Gully, for example, where the designation does not provide enough space below the toe to install erosion and sediment controls that are not silt or super silt fences. This has contributed in some instances to the failure of those controls and a lower level of sediment treatment. See paragraphs 41 and 42 of my s 42A report where I discuss the difference in efficiency between controls.</p> <p>In this regard there is a balancing act between the management of sediment related effects and other effects, such as vegetation clearance or stream impacts.</p> <p>However, if adequate space is not provided then less efficient controls will be installed. This will result in a greater sediment related effect on the receiving environment. I am aware that Mr Brown and Mr Lambie seek the most efficient possible controls when dealing with the more sensitive high value streams.</p> <p>As set out in my s 42A report, it is my opinion there needs to be a minimum distance from the extent of earthworks to allow erosion and sediment controls to be installed, operated and maintained. The exact distance required may vary depending on the type of control used by NZTA. In this regard, I consider (based on the indicative design) that the</p>

		<p>NOR boundary will need to be altered in a number of places to provide adequate space for best practice sediment control.</p> <p>As I note above, NZTA have now indicated through the evidence of Mr Whaley that some of these controls will need to be provided outside the designation. For reasons set out above, I have concerns with the absence of oversight over delivery of this important mitigation as part of the Project.</p> <p>While there will be further opportunities through the regional consenting to focus on the detailed design of the erosion and sediment control in the more sensitive areas (through the detailed site specific / activity specific ESCP's), I remain of the view that the designation should provide NZTA with the ability to deliver on these controls. Otherwise, the corridor may not be wide enough now to provide the necessary level of flexibility, which could compromise the ability to install best practice mitigation, including in difficult or vulnerable (high value) sites.</p>
57	As at the time of writing your section 42A report do you consider the key environmental outcomes for this project are appropriately recorded in conditions or not?	I am comfortable with the proposed conditions as amended through the s 42A planning report of Mr Percy and Ms Copplestone.
<p><b>Planning:</b></p> <p><b>Phil Percy</b></p> <p><i>*In responses regarding the s 42A planning report, the Panel's numbering is changed to refer to numbering in the correctly formatted report.</i></p>		
<del>32</del> 38	Is Table 1 missing its third column entries?	The entries are included in the reformatted version now available on the website. The original uploaded version was from a corrupted file.
73/1 53	Do you consider any issues arise for us because NZTA has decided to lodge required resource consent applications at a later date as part of the as detailed design phase of the project?	<p>We consider that there are some issues which warrant careful attention.</p> <p>At the outset we note that NZTA have acknowledged in their NOR application (NZTA have put forward conditions on the NOR on these issues on an <i>Augier</i> basis) that indigenous biodiversity and natural character effects are an important consideration as part of the NOR process despite those same issues being dealt with through regional council consents as well.</p> <p>The location of the NOR corridor and the indicative alignment bring into play very directive avoidance policies under the One Plan relating to indigenous biological diversity and natural character. These policies are found within the Regional Policy Statement component of the One Plan. If these policies are not addressed satisfactorily then we are of the view that the NOR corridor needs to be sufficiently wide to accommodate a viable alternative in order for NZTA to meet the objectives of its designation. Against this</p>

		<p>background, and because this application precedes the regional council resource consent applications that will be necessary for (at the very least) any proposed significant indigenous habitat disturbance, we are of the view the NOR assessment needs to fulfil the following functions:</p> <p>a) To have particular regard to the applicable objectives and policies of the relevant planning documents (as per s 171 RMA). This is, at least in part, to ensure that the works for which the designation is required will not be inconsistent with those objectives and policies.</p> <p>b) To determine whether the proposed NOR will deliver a road within the corridor width when having regard to the directive avoidance policies under the One Plan around indigenous biological diversity and natural character. This will by necessity include an assessment of whether there is a viable consenting pathway for the proposed works when having regard to those policies (and offsetting) but also the accepted level of significant effects on indigenous biological diversity and the need for resource consent as a non-complying activity under the provisions of the One Plan.</p> <p>c) To determine that the designation and any conditions recommended to be attached to it will not frustrate either the granting of regional council resource consents or the implementation of any regional council consents. Where there is a low degree of certainty as to the design, then there should be some flexibility provided for within the designation corridor, to minimise the need for future amendments to the designation corridor arising out of regional council consenting process. For example, whether the designation boundaries provide sufficient room for effects avoidance and mitigation required through regional council consents.</p> <p>d) To recommend conditions or amendments to the designation that are necessary to address effects of the proposal that will not be covered by the regional council resource consents and which would result in the matters in s 6(c) and s 7(d) being provided for. That could include, for example, consideration of the effects of clearance of non-significant vegetation (which may not require resource consent from the Regional Council) on nearby areas of significant indigenous vegetation or habitats of significant indigenous fauna.</p> <p>e) To undertake an overall assessment of the Project against Part 2 of the Act.</p> <p>We discuss these issues in greater detail when responding to the question on paragraph 415 (413).</p> <p>We acknowledge later questions of the Panel regarding pre-determination (pre-empting) of regional resource consent applications. We wish to be clear that we have never</p>
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		attempted to resolve the challenges for NZTA arising out of the One Plan policy and consenting framework. However, we do consider it necessary to consider at this stage in the process whether the works proposed by the designation can navigate those objectives and policies and deliver a road within the NOR corridor.
<del>146</del> 145	Is the reference to Section 7 correct?	This should refer to Section 9.
<del>154</del> 153	Is it appropriate planning practice for territorial authority s 42A reporting officers to ‘second guess’ the outcomes of future resource consent applications to a regional council?	<p>Please also see our response to the Panels question on para 73/153 above.</p> <p>We have been very conscious that our role is not to predetermine (or “second guess”) future regional council resource consent decisions, however as noted above, we are of the view that it is important to examine the objectives and policies relevant to regional council consent decision making to a close degree for the purposes of assessing the proposal in terms of s 171 including (without limitation), ss (1)(a) (effects of the Project having particular regard to the planning provisions) and (b) (the assessment of alternatives in circumstances where there are significant effects on matters of national importance). The timing of the NOR and consenting processes has made this more difficult.</p> <p>A related point is that the regional council consent activity status for biodiversity matters is likely to be non-complying and NZTA have been clear that adverse effects cannot be avoided, remedied or mitigated (at least with the indicative design) which means a degree of evaluation of the proposal against the objectives and policies is necessary. As we address below the territorial authorities are also directed to have regard to off-setting and Policy 13-4 when considering s 6(c) and s 7(f) matters.</p>
<del>158</del> 157 <del>539</del> (b) 537 (b)	Does the s 171(2)(b) NOR recommendation option “to modify the requirement” allow for a ‘wider corridor’ or for the ‘designation boundaries’ to be amended; or would that require renotification of an amended NOR and associated AEE?	This is more of a legal question. We note that s 171(2)(b) allows for the territorial authorities to recommend that the NOR be amended, which we would take to mean any aspect of the NOR, including the proposed designation boundaries. In our understanding a decision on whether such an amendment would need to be re-notified would turn on the extent of the change, the implications on affected parties and the degree of change in effects compared with the original NOR.
<del>301</del> 299	In terms of reconciling potentially competing statutory policy guidance, should the provision of a shared path take precedence over (or be afforded greater weight than) avoiding or mitigating adverse effects on indigenous biological diversity and the natural character of streams and wetlands?	<p>We do not consider that the policy guidance is competing.</p> <p>The prescribed effects envelope identified by Dr Forbes provides for NZTA to deliver an alignment with various potential design options with a similar level of effect. It is not evident that provision of a shared path would exceed the prescribed effects envelope such that there would be a ‘conflict’ or ‘competition’ to resolve.</p>

		<p>Our approach would be to firstly consider whether achieving all of the objectives and policies is possible through design of the Project. Secondly, where that cannot be achieved, we would robustly assess whether an outcome that conflicts with one or more objectives and policies would be consistent with sustainable management.</p> <p>We are reluctant to give a view as to weighting of “potentially” competing considerations when we do not agree that the statutory policy guidance is competing. Particularly when the issues concern such fundamental RMA principles as health and safety of communities (s 5), and preservation of natural character (s 6).</p>
<del>383</del> 381	When will we receive these ‘refined’ landscape conditions?	Amended landscape conditions were attached to Mr Hudson’s evidence, as Attachment B. Mr Hudson has carried over the recommendations of Mr Evans in his Landscape and Natural Character Assessment into updated conditions (where they are bottom lines) or the ECDF. These conditions are intended to be the subject of conferencing on 15 March 2019.
<del>406</del> 404	In terms of the RMA definition of ‘amenity values’, which of the “pleasantness, aesthetic coherence, and cultural and recreational” attributes of amenity values do ‘ecological values’ contribute to?	It contributes to all of them.
<del>409</del> 407	Are any of the streams traversed by the NOR classified by MWRC or any of the territorial authorities as “outstanding freshwater bodies”?	<p>None of the streams within the NOR corridor are classified as an outstanding freshwater body in either the Horizons One Plan or the district plans. None of the streams have been scored by NZTA as having outstanding natural character.</p> <p>The s 42A technical report writers for the territorial authorities agree that the streams do not have outstanding natural character.</p>
<del>415</del> 413 <del>676</del> 673	One Plan Policy 6-2(e) cross-refers to Policy 6-1. Policy 6-1(b)(i) explicitly precludes TAs from having measures for the purpose of protecting significant indigenous vegetation and significant habitats of indigenous fauna. Consequently, can the TAs recommend NOR conditions to protect significant indigenous vegetation and significant habitats of indigenous fauna or would any such conditions need to be offered by NZTA on an	<p>In relation to the regulation of activities, Policy 6-1(a)(ii) says that the Regional Council is responsible for “<i>developing rules^ controlling the use of land^ to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna and to maintain indigenous biological diversity^, including enhancement where appropriate</i>”. The Regional Council has therefore set itself the responsibility for developing those ‘protection’ rules, and, logically, administering those rules including through compliance management and decision-making on resource consent applications.</p> <p>Policy 6-1(b)(1) makes it clear that territorial authorities may implement methods for managing indigenous biological</p>

	<p>Augier basis?</p>	<p>diversity for the purposes of recognising ‘amenity, intrinsic and cultural values associated with indigenous biological diversity’. Territorial authorities are not to make rules for the purpose of controlling land to protect significant indigenous vegetation and significant habitats of indigenous fauna as described in (a)(ii) of the policy (the regional council’s rule-making responsibility).</p> <p>However, under Policy 6-1(c) both the Regional Council and the territorial authorities are responsible for “<i>recognising and providing for matters described in s 6(c) RMA and having particular regard to matters identified in s 7(d) RMA when exercising functions and powers under the RMA, outside the specific responsibilities allocated above, including when making decisions on resource consent applications</i>”.</p> <p>We consider that Policy 6-1(c) reaffirms the responsibilities of the territorial authorities to consider the matters in s 6(c) and s 7(d) when evaluating proposals under the Act. This would include when making recommendations on notices of requirement. The ability to have regard to these matters under Policy 6-1(c) is not precluded by the restrictions on the ability for the territorial authorities to make rules (for application and enforcement) relating to indigenous biological diversity.</p> <p>Relevantly when exercising powers and functions under Policy 6-1 the territorial authorities are also directed under Policy 6-2(e)(ii) to have regard to offsetting and the application of Policy 13-4 of the One Plan. That offsetting and the need for biological diversity net gain is critical to the Project at any stage and this appears to have been accepted by NZTA through its assessment of effects and the offering up of a condition for imposition on the NOR regarding net diversity gain.</p> <p>There remains some complexity in addressing regional council and territorial authority responsibilities for undertaking the protection aspects of indigenous biological diversity management due to NZTA not applying for the necessary resource consents at the same time. This is not, in our view, determinative of the issue. However it does call for consideration of the likelihood of a road being accommodated within the proposed corridor when having regard to the directive and inflexible avoidance policies associated with indigenous biological diversity and natural character, and any associated consenting risks. This will be necessary not to pre-empt or otherwise influence the outcome of the separate resource consent process, but to reach a high degree of certainty that there is a pathway through the Regional Policy Statement / One Plan which will not frustrate the utilisation of the designation.</p> <p>NZTA may take the position that not obtaining regional council resource consents is a risk that sits with them. While</p>
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		<p>that is true, in our view, it is also inherently the responsibility of the territorial authorities when making a recommendation on the NOR to consider whether the works for which the designation is required can proceed. We have already explained why in terms of s 171 above. However, we also consider the restrictive effect of designations on private landowner interests to assume relevance. Refer s 176(1)(b) of the Act. The restrictive nature of the designation necessitates careful consideration to whether the restrictions are reasonably necessary.</p> <p>In simpler terms, it is necessary to consider the application of the One Plan avoidance policies when considering whether a road with acceptable effects can be accommodated within the alignment.</p>
488 486 494 492	Do you consider a new state highway to replace the closed Manawatu Gorge SH3 to be 'appropriate use and development' or 'inappropriate use and development'?	Whether it is inappropriate must be considered from the point of view of preserving the matters identified as being of national importance. Whether or not the use or development is appropriate will depend on the context and what is sought to be protected. What is appropriate in a heavily modified area could be quite different to what is appropriate in an area of high natural character. Therefore, the natural character assessment assumes significance in determining whether a use is inappropriate or not in any given context. The Panel will be aware from the s 42A reports that the experts are not in agreement regarding all aspects of the methodology adopted by NZTA in determining natural character of the rivers and streams; and therefore the assessment of the appropriateness of the activity. These matters will be the subject of conferencing over the coming week, at which time there can be a better informed assessment of whether the proposed use is appropriate by reference to the natural character of the impacted streams and their margins.
504 503	Do you mean Policy 6-9?	Paragraph 503 should read:  The five criteria listed "in Policy 6-9" describe a policy gateway...
514 512	There is no Objective 6-1(a)?	This should read Objective 6-2(a).
538	From the overall tenor of your natural character assessment, and in terms of reconciling competing considerations posed by the Project, it might appear that you are of the opinion that ensuring "the natural character of the affected streams and wetlands will be preserved" outweighs the benefits of providing a new State Highway from Ashhurst to Woodville. Is that your opinion?	See also our response to the Panel's questions at 488/486.  The issue of the effects on natural character must be considered against s 6 RMA and the direction it gives on matters of national importance. That the Panel must recognise and provide for these matters of national importance indicates that the values have a significant priority. However, it is accepted that these matters will still need to be, in some cases, considered alongside other priorities including the benefits of the new roading connection.  These matters remain the subject of discussion between the relevant experts, and until greater clarity is obtained around,

		<p>for examples, natural character values and offsetting and mitigation proposals, the Panel’s question cannot be answered in a definitive manner by us as planning experts.</p> <p>At the very least, we are of the view that the significance of the effects necessitated a very robust assessment of alternatives, including at a localised level when considering avoidance of areas of high natural character . In this regard it is notable that the potential effect on natural character was not one of the criteria used to assess the long-list or short-list options through the multi-criteria analysis. The Manawatu Gorge Alternatives Detailed Business Case states that an assessment of natural character was not undertaken of the recommended option.</p>
543 541	<p>Will the additional information to be provided at the hearing on cultural effects be presented by the Tangata whenua themselves; and, if so, will all Iwi with Tangata whenua status within the area of the NOR have the opportunity to present their respective views on cultural effects?</p>	<p>This question is best directed at NZTA. We do not know the answer because NZTA has not filed all of the evidence which would address this issue. We note the following from NZTA memorandum of 8 March 2019.</p> <p><i>“7. In addition to the above, counsel understand that briefs of evidence are being prepared on behalf of Ngāti Kahungunu ki Tāmaki Nui-a-Rua and Ngāti Raukawa, of Jessica Kereama, Justin Tamihana, Greg Carlyon, Morry Black, and James Kendrick. Counsel will provide these to the Hearing Panel as soon as possible, and seek any necessary waiver.</i></p> <p><i>8. Further, prior to the Ngāti Kahungunu ki Tāmaki Nui-a-Rua and Ngāti Raukawa evidence being presented at the hearing, counsel understand that kaumātua of the iwi and Hayden Turoa intend to address the Hearing Panel.”</i></p>
554 552	<p>Despite a strong theme of iwi consultation and involvement throughout the Project, it appears that some iwi have been engaged to a greater degree than others. Are you able to clarify why this has occurred?; and in your view, does this reflect a failing by territorial local authorities to fulfil s8 RMA obligations in terms of ensuring the involvement of all Tangata whenua groups in consultation with NZTA throughout the NOR application process?</p>	<p>In response to the first question, no (assuming the question relates to iwi engagement in the design of the Project and preparation of the NOR documentation prior to lodgement).</p> <p>In response to the second question. For the purposes of s 8 RMA the “<i>functions and powers</i>” that is being exercised by the TLA’s are the powers and functions in Part 8 RMA, in particular the Panel’s determination and recommendation function at s 171.</p> <p>Section 8 and its obligations are certainly relevant to the Panel’s consideration, and this may include reviewing the extent of Iwi involvement.</p> <p>In terms of the statutory process once the NOR was lodged with the territorial local authorities the normal opportunities for iwi involvement were provided, which included the opportunity for any iwi or hapū to make submissions on the publicly notified NOR. The following iwi were directly notified: Rangitāne-o-Manawatū, Rangitāne-o-Tamaki-nui-ā-Rua, Ngāti Kahungunu-ki-Tamaki-nui-ā-Rua, Ngāti Raukawa. None of</p>

		<p>those iwi chose to engage in the process by way of submissions.</p> <p>It is our understanding that the territorial local authorities do not have an obligation to require tangata whenua to engage in the process in a particular way.</p>
<p><del>719</del> 716</p>	<p>It is generally understood that permitted activities can occur as of right with no recourse to the relevant Council because their effects, subject to compliance with any permitted activity conditions, are considered to be no more than minor. Is that your understanding?</p>	<p>Generally speaking that would be accurate, however the Proposal is for large scale, comprehensive development within a corridor defined by the designation and the effect of the designation is that the rules in the district plan don't apply to those works. Whether or not such enabling works might meet a permitted activity rule and have minor effects, they are nevertheless effects of the NOR that require identification and assessment under s 171 and it is appropriate in our opinion to consider these. Note that "Effects" under the RMA includes cumulative effects. In our opinion separating out enabling works from construction works is an artificial distinction when we are tasked with evaluating the overall effects of the Project. The potential cumulative effect of enabling works in conjunction with construction works could be more than minor. Section 171 also requires that the effects of the Project are evaluated against the relevant objectives and policies of the plans and this should be all of the effects.</p>
<p><b>(Ms Fraser)</b></p>		
<p><del>223</del> 232</p>	<p>Please be specific about which sections of the road network you consider to be constrained in terms of the ability to deliver the mitigations recommended by Ms Fraser, what those constraints are and how they relate to the ability of the conditions suggested in Section 8.2.6 to be delivered.</p>	<p>I think this question is regarding para 232. The available width and existing road cross-section of SH3 through Woodville and in the vicinity of the SH2/SH3 intersection is limited. The cross-section is described in para 42 m) to s) and para 43 i) of Ms Fraser's evidence. She describes the challenges of providing for the various road users at para 120. In her response to the questions from the Panel above she indicates that the likely mitigation will include the need to divert some of the traffic away from the SH2/SH3 intersection.</p>
<p><del>236(i)</del> 235 (i)(iii)</p>	<p>Please explain the reasoning for only requiring level of service D for intersection operations at year of opening rather than at future design year.</p>	<p>[Response from Ms Fraser] While it would be desirable and in line with best practice for the intersection to be performing at a Level of Service D or better at a future design year, I consider that as an absolute minimum the intersection should be performing at Level of Service D on opening. I deal with this issue at para 206(f) of my s42A technical report.</p>
<p><del>307</del> (b) &amp; (e) 305 (b) &amp; (c)</p>	<p>How are these two requirements expected to work in practice? Is part (b) referring to the current car park or the temporary provision in (c)?</p>	<p>(b) refers to the current car park and sets out when the car park can be closed.</p> <p>The purpose of the recommendation was to ensure there would be carparking available to service the Scenic Reserve throughout the construction period. That car parking could be provided either by the existing scenic reserve car park and/or temporary car parking facilities. The</p>

		<p>recommendation should be amended to read:</p> <p>“If a temporary closure to the Scenic Reserve Car park is required it must occur during weekdays and shall not exceed more than five consecutive working days. Temporary car parking in accordance with (c ) must be provided during any closure periods.</p> <p>Point (c) sets out the requirements for any temporary replacement car parking facilities.</p> <p>We have recommended amendments to the condition to provide greater clarity.</p>
<b>(Mr Lambie)</b>		
539 537	Please confirm the methodology you deem is appropriate for any revised assessment of ecological effects	The recommendation at 537 applies to natural character, not broader ecological effects. Mr Hudson in his response to the Panel questions is providing some recommendations around methodology on natural character assessment.
<b>(Ms Fraser)</b>		
651 648	How will the increase of the clearance to wind turbines to 160m affect the ability of NZTA to deliver a road alignment within the NOR? How many additional turbines may need to be removed?	We acknowledge that our initial recommendation of 160m does not reflect that NZTA and Meridian will hopefully have been consulting to achieve a mutually acceptable arrangement. Until any such arrangement is put before the panel we consider it appropriate to include a condition that at least in part, preserves the existing rights Meridian has in terms of their resource consent.
<b>Tourism and Recreation:</b>		
<b>Jeff Baker</b>		
15	Have we been provided with copies of the document you have referred to within this paragraph?	<p>The 11 documents referred to at paragraph 15 will be made available on the Project website. I note that the paragraph was intended to identify the documents that I had referenced, but not all documents identified were specifically relied on or referred to in the balance of my report.</p> <p>I note that extracts from <i>Austrroads ‘Guide to Road Design – Part 6A Paths for Walking and Cycling 2017’</i> are included at Appendices 2 and 4 of Ms Fraser’s s 42A Report, although the complete document is not.</p> <p>Further, a table extract from the <i>NZTA Specifications for Design, Construction and Maintenance of Cycling and Shared Facilities</i> is at Appendix 3 of Ms Fraser’s s 42A Report. Again, the complete document will be provided.</p>
22	Are there other available means outside or beyond this project to provide for cycling and walking facilities to provide recreational opportunities and/or access to the broader area?	<p>I would expect that the opportunities identified in the draft Te Apiti Masterplan would nevertheless still be considered as full recreational opportunities that would be pursued outside of the project.</p> <p>Hypothetically, a TLA could decide to pursue by private agreement with landowners legal access for a shared path across the Ranges. Or a TLA could promote its own designation and associated use of the Public Works Act if</p>

		they were unable to reach private agreements or wished to speed up the delivery of such a project.
58	Why haven't you discussed the opportunity you refer to in this paragraph with NZCT staff at MBIE?	<p>The purpose of identifying this alternate option was to indicate that the proposed new road provides a better potential opportunity to cross the Ranges than what currently exists in both the Pahiatua Track and Saddle Road.</p> <p>However, I do not consider that potential would be realised under the proposed shoulder option advanced by NZTA.</p> <p>I note that Mr Kennett says he has been discussing the Saddle Road option with NZ Cycle Trail Inc and his indication is that MBIE would accept his recommendation to move the NZ Cycle Trail Heartland Ride to the Saddle Road.</p> <p>For reasons I have explained I consider this would be a disappointing missed opportunity because the Saddle Road option is somewhat obviously less appealing than an easier and faster separated cycling facility along the new project road.</p> <p>I assume that Mr Kennett's recommendations to NZCT are premised on there being no separated facility along the new road.</p>
75	From a cyclist perspective would it not be the case that riding on the project Road is preferred or much preferred than utilising the Saddle Road? If so then your opinion the proposal presents a faint benefit is perhaps understated?	<p>Neither option would be good from a cyclist perspective. On one hand, even with reduced traffic volumes the Saddle Road is still a significantly steep (gradients up to 16%), windy and narrow route, such that its relative appeal to cyclists would derive from its significantly reduced traffic volumes. On the other hand, I do not consider that the proposed narrow shoulder on the new road (with growing traffic volumes over time) will be appealing either, as it will provide a dangerous, noisy and a low amenity experience.</p> <p>While I credit the increased connectivity and the fact that it will be able to be used by cyclists, I am not convinced that it would be preferred or much preferred without facilities to provide cyclists a safer and improved amenity experience (such as a sealed separated path), particularly if the NZCT heartland ride is moved to the Saddle Road rather than the more logical new road.</p>
78	Can you provide examples of other NZTA projects with identifiable recreation or tourism benefits built in as distinct from being a by-product of the project?	<p>There are numerous projects in urban centres where NZTA have invested or are planning to invest in facilities to provide recreation and tourism benefits. I also note they invested heavily in the creation of 'Model Communities' in the Hawkes Bay and at New Plymouth which coupled with Council investment has resulted in fantastic walk/cycle facilities in both areas.</p> <p>In more peri-urban or rural locations in recent times I note the following examples:</p> <p>The completed <b>SH1 Wellington Northern Corridor</b> (Mackays to Peka Peka Section of the Expressway) included a 16km shared path with provision for horses immediately adjacent</p>

		<p>to path and numerous connections the local network.</p> <p>The <b>SH1 Transmission Gully</b> under construction includes targeted cycleway and walkway facilities at specific locations for example to provide connection to existing cycle routes and between the Belmont &amp; Battle Hill Regional Park and Queen Elizabeth Park. (Note – a dedicated walk/cycle facility along the entire alignment was not included in the project design due to its intended classification as a motorway).</p> <p>The proposed <b>SH3 Mt Messenger Bypass</b> Project (57km north of New Plymouth) proposes safer access arrangements to existing walking tracks and improved road conditions for cyclists and tourist vehicles.</p> <p>The completed <b>SH1 Taupo Bypass</b> includes a separated shared path with the section on the western side of the Waikato River bridge located behind concrete barriers.</p> <p>The completed section of <b>SH5 south of Rotorua</b> where a shared path has been constructed along the western side of the road.</p> <p>The completed <b>SH1 Brynderwyn Hills</b> project included a new lookout area to provide expansive views of Bream Bay and Whangarei Heads.</p>
84	<p>Can you describe for us the ways in which this project could be modified to provide for the encouragement of walking and cycling as you detail in paragraph 84?</p>	<p>The most effective way to encourage walking and cycling is for NZTA to ensure some form of separated shared path or recreational trail hybrid is delivered across the whole project route.</p> <p>This should occur at the same time the road is constructed for the entire length of the road including a separated facility on the new bridge (with easy access from the Gorge carpark below).</p> <p>NZTA, through evidence, has made a firm commitment to a separated shared pathway across the Ashhurst Bridge, and then from the Bridge to the Gorge carpark. I consider that these components are encouraging in respect of walking and cycling and the relevant policies. I do not, however, consider that goes far enough because it does not consider the balance of the route.</p>
89	<p>Do you have any understanding of likely costs to include within the project provision for walking and cycling? Would the provision of such facilities result in the project taking longer to construct?</p>	<p>The evidence of NZTA’s Andrew Whaley at paragraph 219 indicated costs of \$20m for a sealed shared path running parallel to the road. Mr Kennett at paragraph 20 identifies a cost of \$8m for a recreational trail with mostly aggregate surface.</p> <p>I do not know whether such a facility would impact the overall construction delivery without having a design to properly consider. If the intention was to ensure that the creation of such a facility would not unduly affect the critical path for the road construction then I have confidence that this constraint could be worked through as part of the detailed design stage despite Ms Downs’ suggestion that</p>

		any changes will “likely” delay delivery of the project.
94	In your opinion would it be possible sometime in the future within the project to provide provision for walking and cycling?	<p>My understanding from comments made by NZTA that the current extent of the designation corridor will be reduced to match the final alignment of the road shortly after its completion. This would limit or significantly constrain a walk/cycle facility being developed sometime in the future within the project corridor.</p> <p>I also note a recent public statement by NZTA dated 27 February 2019 that:</p> <p><i>“As the State Highways activity class is fully committed, the new project will need to demonstrate that it would deliver results and cost-benefit to a very high level. For this reason, our team has been transparent in advising that they consider that a separate walking and cycling path project would be unlikely to be successful.”</i></p>
99	In respect of Ashhurst Bridge based on your experience how would or could the bridge be modified to provide for the new walking and cycling activities you promote?	The obvious option is to attach a ‘clip-on’ type structure to the upstream or northern side of the bridge to safely separate walk/cycle users from the bridge deck which vehicles occupy. I understand that NZTA has now committed to this as part of the Project.
<b>Planning Appendix 2, s 92 response: Te Manawaroatanga</b>		
	(Executive Summary) Please explain how, specifically, the proposed designation will impact on Ngati Raukawa’s traditional relationship with the Ruahine Ranges and Tararua?	This document was produced by Ngāti Raukawa and appended to the s 92A response from NZTA. This question is best directed to iwi.
	How have the measures proposed by Ngati Raukawa to avoid, remedy or mitigate the “key cultural impacts of the project” been addressed by NZTA (and other Iwi where relevant)? If so, how?	<p>The report from Ngāti Raukawa makes it clear that the effects that have been identified to date by them, are preliminary only, given the limited time they have been provided to assess the proposal. This means that the report does not necessarily describe all of the actual and potential effects or the character, scale and intensity of those effects.</p> <p>Mr Dalzell states in his evidence (at para 55) that there is still work to be done to ensure the design and construction of the new road appropriately respects and celebrates the cultural landscape, through which it will pass, that other adverse effects on Māori values are addressed, and that opportunities for iwi are realised.</p> <p>Mr Dalzell states at para 57 that there is a good level of confidence that the Project is heading in the right direction and that adverse effects on cultural values will be appropriately addressed”. The corridor avoids known specific sites advised to the Transport Agency and a “clearer and clearer picture is being built up over time of how the Project’s effects on other values held by tangata whenua in the area can be appropriately addressed through the detailed design.” He is not specific as to what these effects</p>

		<p>are or how they will be addressed.</p> <p>NZTA have proposed a condition (23) for the preparation of a Tangata whenua values monitoring and management plan. The cultural assessment prepared by Rangitane states at para 65 that Rangitane tangata whenua values are embedded in the EDCF and that this establishes pathways for addressing and reducing effects on Rangitane spiritual and cultural connections with the environment. It is not clear how the values set out in the EDCF will translate externally to the proposed designation or if these values also represent those of Ngati Raukawa.</p>
	<p>The report notes that Ngati Raukawa did not have the opportunity to provide input into the EDCF. Has Ngati Raukawa been given the opportunity more recently to contribute to the EDCF and, if so, has the EDCF been updated to reflect Ngati Raukawa's values/interests in relation to the project area?</p>	<p>NZTA has been engaging directly with Ngāti Raukawa on addressing cultural effects relevant to them and we have not been party to those discussions. This question will best be answered by Ngāti Raukawa and NZTA.</p> <p>At the time of preparing this response, there is no evidence provided by Ngāti Raukawa in the NZTA evidence bundle.</p>
	<p>The report refers to Ngati Toa as 'mana whenua' in the project area through their involvement, along with Ngati Raukawa, in the 1818-1819 raupatu or conquest of the Manawatu area. In your view, what is the nature of Ngati Toa's mana whenua status in the project area today; and should NZTA be engaging with them over this Project?</p>	<p>We are not qualified to determine the nature of Ngāti Toa's mana whenua status in the project area. In our opinion if the advice to NZTA in the Ngāti Raukawa report is that Ngāti Toa have an interest in the project area, then NZTA have a responsibility to consult with Ngāti Toa to determine this.</p>
	<p>The report states that a CIA will be undertaken by Ngati Raukawa hapu over a period of five months. Does this mean that each of the Iwi/Hapu with identified interests in the project area (i.e. Ngati Kauwhata, Ngati Wehiwehi, Ngati Te Au, Ngati Turanga, and Ngati Rakau) will be working together to develop a single CIA collectively; or is the expectation that each of these groups will need to be engaged separately by NZTA to undertake their own CIA's?</p>	<p>Again, these have been discussions between NZTA and Ngāti Raukawa that we have not been party to. We are not clear what arrangement NZTA has come to with Ngāti Raukawa and its affiliated hapū.</p>
	<p>Will the CIA(s) from Ngati Raukawa hapu be completed in time to be considered as part of the NOR application process?</p>	<p>This question is best directed at NZTA and Ngāti Raukawa. As set out above, we have not been party to discussions between Ngāti Raukawa and NZTA and we are not aware of what deliverables and the timing of those</p>

		<p>deliverables, that has been agreed between those parties.</p> <p>We have made an attempt to get clarity from NZTA on how cultural effects will be identified and assessed through our s 92 request, please refer to questions w), x), y).</p>
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Conditions – Section 42A Report Appendix 7		Section 42A team response
1A(b)	Should this refer to “technically certified management plans”?	The cross-reference to the conditions that require the preparation and certification of management plans provides enough certainty that only appropriately certified management plans are relevant to this condition. But for clarity, we could insert “certified” at the beginning of (b).
1B	Is a condition required to set out the certification process and what happens if a TA fails to respond to a certification request within a set number of working days?	Yes that would be a helpful condition and we have provided a draft condition to this effect in the amended conditions attached.
2(b)	Would it be more certain if this referred to “mitigation or offsetting measures imposed by conditions of this NOR”?	We do not consider that this amendment is necessary given that details about the offsetting and mitigation packages are included in the application documentation as well as in conditions. The scope of this condition is limited to mitigation and offsetting specified or imposed within this designation process and it doesn’t extend to any other mitigation or offsets that might be required through other statutory processes.
5(c)G (vi)	Did you mean “... remediation of works...” or “... remediation works...”?	We recommend deletion of the work “of” as set out in the amended conditions.
5(c)G (ix) 8A(b) (v)	These conditions as worded imply that any and all outcomes of community engagement must be integrated into the design. Is that your intention?	<p>No. The overall intention of many of the changes to conditions on community involvement, is to ensure that NZTA are clear about what opportunities the community will have to hear about designs as they are developed, and to feedback about those designs. Conditions 5(c)G(ix) and 8A(b)(v) are intended as a feedback loop so there is transparency that NZTA has heard their views and how these may or may not have influenced the final design.</p> <p>We have recommended an amendment to Condition 5 and 8A to provide clarity that NZTA retains the discretion around adopting amendments to achieve expressed community outcomes.</p>
5(d)(i) i)	Should this refer to the “... character, intensity or scale of adverse effects of the activity ...”?	The intent is that the condition allows for minor adjustments to the location, design and size of activities without the need to go through the Outline Plan process again. The intention is that it relates to the character, intensity or scale of the <u>activity</u> because that requires less expert assessment (which would be the case if it referred to “effects”).
5(d)(i)	What will be the basis for determining or disputing the Council agreement (or	The same decision making process that is provided for under s 176A(2)(c), where territorial authorities can

ii)	absence thereof)?	decide to waive the requirement for an Outline Plan.
5A(b) (ii)	Why have you limited this to up to 5(c)(iv) – noting you actually recommend the deletion of 5(c)(iv).	This is an auto numbering issue in the conditions we put forward. The intention was to not include “details of reinstatement and remediation of works, including of temporary and enabling works”, as this does not need to be covered twice. In the conditions version that was appended to our evidence, the cross reference should be 5(c)(vi).
5B	Referring to the words in [ ] after J, what “comprehensive assessment” in the evidence before us are you referring to?	<p>We have not seen a comprehensive assessment of the capacity of streams to accommodate change in the evidence provided by NZTA. We rely on the evidence of Mr Brown that there appears to be little evidence underpinning the stream lengths specified for the QEII West and QEII East streams referred to in NZTA’s draft condition 5. Mr Brown and Mr Lambie both recommend removing the “permitted length of stream disturbance” for those two streams.</p> <p>Other than the maximum stream length disturbance specified for the two QEII streams, there was no condition limiting the amount of stream disturbance in other watercourses. In terms of an effects envelope for the Project, and acknowledging that NZTA put forward conditions for the NOR limiting effects on only some streams, it is our opinion that the maximum length of stream and riparian area affected should be prescribed for all of the watercourses affected by the Project.</p> <p>As discussed in para 457, 458, 459 of our planning report, in order for an evidence based effects envelope to be identified, either further effects assessment work will need to be undertaken by NZTA, or potentially a conservative effects envelope could be established, with input from the respective technical experts involved in this NOR process.</p>
5C(a)	<p>Can you explain the rationale for this condition as the maximum areas (presumably copied from NZTA condition 13) are the areas of vegetation that on the available evidence are likely to be damaged or destroyed by the new road?</p> <p>Is it possible to construct a new road that avoids damaging or disturbing any and all of those vegetation types?</p>	<p>The areas specified in the table are the maximum areas of vegetation that can be disturbed which allow for adverse effects to be addressed within the site and are feasible to offset. This is the “effects envelope” approach described by Dr Forbes. The indicative design forms a proxy for determining if a feasible road can be constructed within the effects envelope.</p> <p>We understand from Dr Forbes’ evidence that these maximum areas have been derived from a conceptual road design partly based on the indicative design included in the NOR. We understand it may be possible to design a road and associated structures to disturb a smaller amount (or none) of vegetation than the maximum specified by Dr Forbes. However NZTA have not provided an indicative design to demonstrate how this could be achieved.</p>

5C(c)	<p>Is the intention of this condition that any vegetation containing any bat roosts, lizards, nesting birds or rare invertebrates cannot be damaged, destroyed or removed?</p>	<p>The intention of the condition is that if bat roosts or nesting birds are found, then those areas are to be avoided. In the case of nesting birds, that is only for the period that they are nesting. For lizards and rare invertebrates the conditions allow for damage or destruction of vegetation provided that suitable relocation is undertaken.</p> <p>To provide clarity that this is the case, we have proposed an amendment to condition 16A regarding the preparation of the Invertebrate Management Plan.</p>
8(a)	<p>Do you know when detailed design is due to commence?</p>	<p>NZTA are best placed to answer where the design process is up to at present. Mr Dalzell’s evidence (at para 28.) indicates that NZTA are “currently working to procure an alliance that will undertake the detailed design of the Project” and that the designation corridor provides for a “yet-to-be-designed” road (para 29.).</p>
8(b)(i) ) also 8A	<p>Is it appropriate for a group of lay people to provide input on the detailed technical design of a roading project, including matters such as construction details and the contents of technical management plans?</p> <p>How do you envisage the members of the Group providing input on the “results of monitoring activities’ (8(b)(i) clause G)?</p>	<p>It is appropriate that representatives from a range of potentially affected sectors of the community have an opportunity to provide feedback as the designs and management plans are finalised. The membership of the group is intended as a mix of people representing the interests of local residents, businesses, iwi, DOC, councils and recreation-based interest groups. The purpose of this group is not for laypeople to have an ability to override technical engineering matters, but to contribute to options and solutions on matters that they have local expertise on. If the process is run correctly, the Group would be given a clear scope about the level of feedback and influence they will have. For example, as the CTMP is developed, residents, business owners and school staff may have useful feedback on the implications of construction traffic timing and how to manage potential noise or road safety effects. Similarly, residents and those representing recreation interests could provide useful feedback on rest area / viewing locations.</p> <p>In other similar projects, this type of group provided feedback on matters such as noise monitoring locations, options for locating underpasses and pedestrian/cycleways where these details were not part of the application, the extent of hush surfaces etc.</p> <p>The intention of using the words “provide input” is to make it clear that the community liaison group is able to contribute ideas and suggestions which NZTA are at their discretion to adopt. We have proposed an amendment to Condition 8A to make it clear that NZTA have discretion over adopting any suggestions from the community.</p> <p>This clause relates to the results of monitoring any construction effects on the community (social impact monitoring). The Group may provide context and insight into any issues arising from the monitoring, and provide</p>

		ideas to manage these issues (for example, in relation to pedestrian safety).
8((d)(v)	What tangata whenua are you specifically referring to?	<p>The references to “tangata whenua” in clause 8((d)(v) was kept general to provide NZTA with time to confirm the appropriate representation with iwi. This arose because the NOR documentation has not always been consistent when referring to iwi (for example, refer to paragraphs 143 and 146 of the Section 42A Technical Evidence: social impact).</p> <p>Mr Dalzell notes in his evidence at para 113 that the cultural landscape is a complex one, and mana whenua cannot be determined by the Transport Agency through this project. He explains that the Transport Agency has sought to build partnerships with four iwi (as noted below) who have expressed interests in the Project Area.</p> <p>We would anticipate as a minimum that it would include the following iwi and/or respective hapū of those iwi: Rangitāne-o-Manawatū, Rangitāne-o-Tamaki-nui-ā-Rua, Ngāti Kahungungu-ki-Tamaki-nui-ā-Rua, Ngāti Raukawa. We would anticipate that the appointed Trustees of Te Āpiti Ahu Whenua Trust the legal owners (and representatives of the beneficial owners) of Parahaki /Moutere Island would also be involved.</p>
8(d)(vi)	What groups are you specifically referring to?	<p>The references to representatives of “cycling, walking and wider recreation interests” in clause 8((d)(vi) was kept general to provide NZTA with time to confirm the appropriate representation with the community. This arose because the NOR documentation has not always been consistent when referring to stakeholder groups (for example, refer to paragraphs 143 and 146 of the Section 42A Technical Evidence: social impact).</p> <p>We think there is merit in those recreational groups being identified now if possible but that would require advice from relevant submitters and potentially more widely.</p>
10(c)(ii)	Listing the “environmental outcomes anticipated by relevant RMA policy documents” will result in a very long CEMP. Can you explain why is that necessary and what use it will be to the contractor(s)?	<p>We think that it is helpful for the CEMP to provide context for the content within it. This helps with user understanding of how the various parts of the CEMP are working together to achieve a particular outcome. The outcome that the CEMP is intended to achieve is logically one that is consistent with the resource management outcomes described in the relevant planning documents.</p> <p>We note that Ms McLeod has recommended an amendment to this condition in her evidence that refers to “relevant regional and district plan rules”. We do not think this is relevant, at least in the case of district plan rules, because the designation has the effect of overriding district rules. In our opinion, 10(c)(ii) should refer to resource consent conditions and relevant permitted activity regional plan rules.</p>

		<p>We have recommended an amendment to this condition (as appended) to set out those provisions which provide the context for the content of the CEMP. This includes for cross-referencing to the relevant RMA policy documents, rather than through unnecessary repetition.</p> <p>Ms McLeod has recommended an amendment to include the ‘NZTA Environmental and Social Responsibility Policy’ in this condition. We think this is relevant to include as it provides more certainty as to NZTA’s own anticipated environmental outcomes.</p>
10(d)	Is a condition required to set out the updating process?	Yes we agree that such a condition would be useful. We have set out a proposed condition (1D) to capture this process, along with updates to other management plans.
10A	What does “substantive changes” mean?	The intent of the reference to “substantive changes” was to avoid the need for the CEMP to be recertified for relatively minor changes, such as minor amendments to site security arrangements. One way of providing more certainty would be to specify the matters in Condition 10 c) that could be amended without the need for recertification. This could include for example, changes to i, iv, viii, ix.
11(e)	<p>Can you explain how an ECDF design review can demonstrate compliance with designation conditions?</p> <p>Would compliance with designation conditions be the subject of a separate TA compliance monitoring review?</p>	<p>Our suggested drafting does not refer to compliance with the conditions, but that the design is ‘consistent’ with the conditions.</p> <p>The purpose of the design review, as we understand it, is a retrospective evaluation of the design once it has been developed. We think that as part of this exercise it is appropriate to check that the design is consistent with the conditions of the designation that have a bearing on the design, or which the design will influence the achievement of.</p> <p>Yes. But the purpose of this condition is to encourage a design that takes into account what will be required to meet the conditions and therefore minimise the risk of non-compliance issues as the Project proceeds.</p>
12(e)	Should this condition be worded the same as condition 11(d)?	Yes. We have included recommended amendments to reflect this.
12(f) (iii)(second B)	Why is this deleted?	<p>In the submission submitted by Meridian, specific relief was sought that no off-set planting occur within the windfarm. We recommended deleting condition 12(f)(iii)(second B), but recommended inserting an alternative replacement as Condition 13c).</p> <p>Mr Dalzell states in his evidence at para 65 that the Transport Agency has agreed not to plant the trees required to offset adverse ecological effects on wind farm land.</p> <p>Ms McLeod’s evidence provides more detail as to NZTA’s</p>

		<p>proposed revised measures to address Meridians concerns regarding offset planting (at paras 188, 305, 338, 340-342 of her evidence). She has recommended new clauses (12(f) and 13(d)) in the conditions to “restrict offset and ecological mitigation planting to restoration planting of the areas currently subject of QEII Trust open space covenants within part of the wind farm site” and “restricting landscape and amenity planting within the designation and within part of the wind farm site to species that have a mature height of no more than 1.5 metres, except where within the areas currently subject to QEII Trust open space covenants”.</p> <p>We have reviewed these amendments to the conditions. We expect that evidence presented by Meridian will detail whether or not these revised conditions fully address their concerns.</p>
13(b)	<p>What would constitute a swamp mire tree being “affected”?</p> <p>Where will potentially hundreds of new swamp mire trees be obtained from?</p>	<p>We understand that the ecologists are likely to conference on this matter. We have discussed this with Mr Lambie. He has advised that his preliminary opinion is that it would involve any removal of live material other than small branches (under 20mm in diameter and any disturbance of the root (ground inside the dripline of the tree).</p> <p>We consider that this question is best answered by an ecologist. We have spoken with Mr Lambie and his advice to us is that swamp mair trees can be grown successfully from cuttings from the donor / affected tree or from seed already collected. He estimates it would take 3 to 5 years for seeds and cuttings to grow into trees of suitable size to be planted out.</p>
13A(xii)	<p>Can you explain the purpose of this condition when presumably the ECRs in 13(a) already account for those matters?</p>	<p>The ECRs in 13(a) only describe the area of replacement planting required but do not address all of the other matters in relation to offsetting, such as offset area site preparation, protection, on-going management, as addressed in the guidance documents.</p>
15	<p>What happens if DOC will not agree to the methodology?</p>	<p>The requirement for agreement with DOC was put forward in the draft condition proposed by NZTA. We note that NZTA have not proposed any amendments to this condition with respect to requiring the agreement of DOC.</p>
16A	<p>Is this condition intended to address adverse effects on any identified “At-Risk” or “Threatened” invertebrates or adverse effects on any invertebrates wherever they may be within the construction envelope?</p>	<p>This condition is intended to apply to indigenous invertebrates (we have added the word ‘indigenous’ into a) to clarify this). The requirements in 16Ab) describe different responses depending on the status of the invertebrates present.</p>
22C	<p>Should this refer to “any existing formed accessways”?</p>	<p>Any amendments to this condition will require input from the DOC as to what they require in terms of access for maintenance and operation.</p>
PN2(	<p>Is it lawful to have conditions relying on</p>	<p>We have reviewed this condition and consider that we</p>

<p>c)(i) and (iii) PN3( b)</p>	<p>the approval of third parties?</p>	<p>could provide greater clarity that DOC and the TAs have a role as consultees only, for the purposes of these conditions. We have proposed amendments to the conditions to demonstrate this.</p>
<p>PN2( c)(iii) PN3( b)</p>	<p>How will NZTA know what the “expected” number of visitors will be?</p>	<p>We have reviewed this condition and consider we could provide greater clarity as to the expectations around car parking. We have proposed an amendment to this condition to require a temporary facility large enough to accommodate at least 50 cars. The number of cars proposed in this amendment was based on the advice of Mr Baker.</p>