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# Palmerston North Wastewater Best Practicable Option (BPO) Review

## APPENDIX I: BPO Scoring Workshop Discussion

August 2021

PALMERSTON NORTH
NATURE CALLS

Prepared for Palmerston North City Council by:

Stantec

## QUALITY STATEMENT

### Project Details

| | |
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### Report Details

| | | |
|---|---|---|
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# 1 Overview

## 1.1 Overview of Assessment Process

An assessment of the short list options has been undertaken to determine levels of alignment for each option, with Best Practicable Option (BPO) Criteria developed from Condition 23B of the Discharge Permit 101829. This assessment has been undertaken to help inform the process of determining the BPO for the Palmerston North City wastewater management solution. Figure 1 below illustrates how the seven assessments and processes involved in determining the BPO.

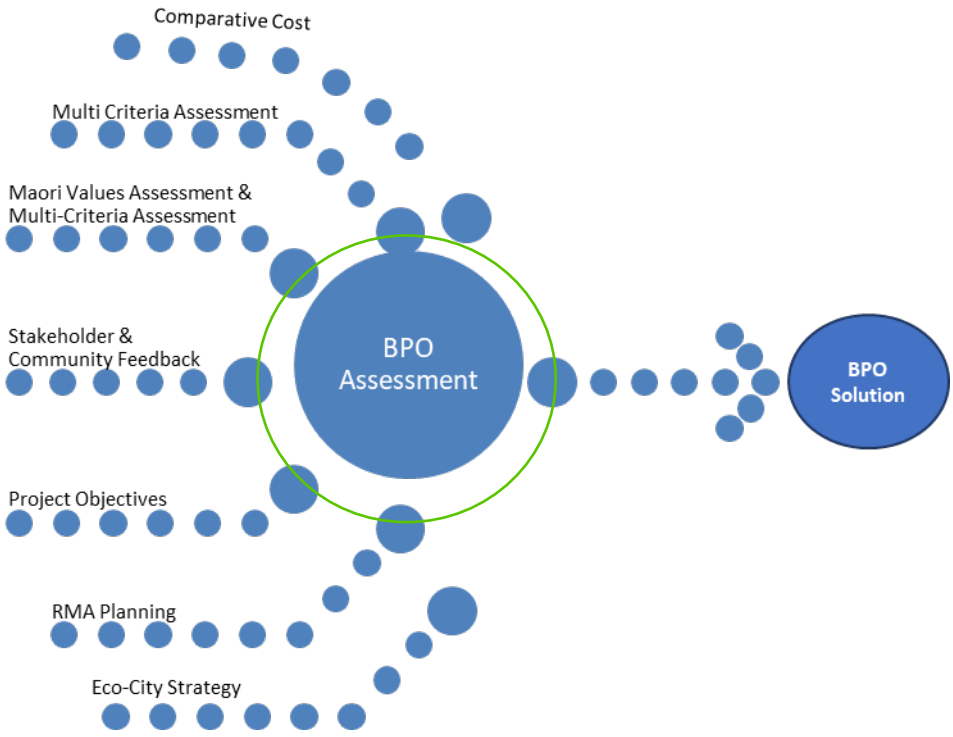


**Figure 1 BPO Assessment Process**

### 1.1.1 Shortlist Options

The following table lists the shortlist options. Further details of the shortlist options are provided in the Shortlist Options Summary Report, August 2021.

Table 1 Options Description / Reference

| | Option Description | Treatment Level |
|---|---|---|
| 1 | **Option 1: R2(b) River discharge with enhanced treatment** | 4 |
| 2 | **Option 1: R2 (b-2) 75% ADWF to land / River discharge with enhanced treatment** | 4 |
| 3 | **Option 2: Dual R+L (b) 75% of the time application to Land / two River discharge points** | 2 |
| 4 | **Option 3: L+R (a) 97% of the time to Land (inland)** | 1 |
| 5 | **Option 3b: L+R (b) 97% of the time to Land (coastal)** | 3 |
| 6 | **Option 4: L+R (d-1) to land <80m$^3$/s / 53% of the time to Land (inland)** | 2 |
| 7 | **Option 4: L+R (d-2) to land <62M$^3$/s / 43% of the time to Land (inland)** | 2 |
| 8 | **Option 4: L+R (e-1) to land <80m$^3$/s / 53% of the time to Land (coastal)** | 2 |
| 9 | **Option 4: L+R (e-2) to land <62m$^3$/s / 43%of the time to Land (coastal)** | 2 |
| 10 | **Option 6: O+L / ocean with Land** | 1 |
| 11 | **Option 6: Ocean discharge only / Ocean** | 1 |

### 1.1.2 Supporting Project Information

The following technical documents, developed to inform the shortlist options development and assessment process to date includes:

- Wastewater BPO Shortlist Options Report, July 2021
- Wastewater BPO Treatment Options Report, July 2021
- Wastewater BPO Treatment Shortlist Addendum Report August 2021
- Wastewater BPO MCA Comparative Assessment Report & Appendices, November 2020
- Wastewater BPO RMA Assessment Report, August 2021
- Wastewater BPO Eco-City Strategy Assessment, August 2021
- Wastewater BPO Project Objectives Assessment, August 2021
- Wastewater BPO Iwi Values/MCA Assessment, August 2021
- Wastewater BPO Comparative Cost Assessment, August 2021
- Wastewater BPO Stakeholder & Community Engagement Assessment, August 2021
- Wastewater BPO Shortlist Options Summary Report – August 2021

## 1.2 Purpose of this Report

This report is an Appendix to the main BPO Assessment Report and includes the options scoring against BPO Criteria, including key reasons for the basis of the applied scores. This was determined over a series of workshops held in August with Project technical experts, Council's Chief Engineer, Project Manager and Project Steering Group Chairperson.

# 2 Assessment Criteria & Principles

## 2.1 Assessment Principles

The following assessment principles were applied by experts, prior to undertaking the scoring process:

- Take a precautionary approach to the assessment, especially where there are uncertainties
- In assessing "receiving environment sensitivity" and "comparison of effects on the environment" adopt the RMA definition of effects which includes social, economic and cultural effects as well as effects on the natural environment
- RMA definition of effects include future effects, cumulative effects and effects of a low probability which have a high potential impact
- These are comparative assessments - not being asked to carry out a quantitative assessment. Need to identify if the assessment is ranking the options from 1-5 or an objective assessment that does not all the 1-5 scores
- For the scoring 1 is the worst and 5 is the best. One is not a fatal flaw it is just a low score when compared with the other options
- Need to take into account proposed treatment levels in the "receiving environment sensitivity" assessment

## 2.2 Matters for Consideration

Examples of matters to take into consideration when undertaking the comparative effects assessment

Noting that the starting point for the effects assessment is the exceedance assessments which relate primarily to the natural environment. The comparative effects assessment takes into account matters not assessed in the exceedance assessments.

| **Economic** | **Social** |
|---|---|
| • Effects on productive land – including potential land use changes in land use<br>• Long term effects on the land resource for productive use<br>• Climate change effects on flooding and water logged ground<br>• Available markets<br>• Aquaculture, fishing, eel farming<br>• Tourism<br>• Provision of alternative drinking water supplies<br>• Crop production less than modelled | • Effects on drinking water sources<br>• Effects on property owners – loss of property<br>• Recreational effects<br>• Food gathering<br>• Public health risk<br>• Aerosol drift<br>• Odour |
| **Cultural** | **Natural Resources** |
| • Effects on mauri of water bodies<br>• Effects on wāhi tapu – taonga and significant cultural sites<br>• Protection of the wairua, health and well-being of whānau<br>• Effects on kaitiakitanga<br>• Effects on cultural health of coastlines<br>• Effects on wetland and sand dunes | • Failure to achieve nutrient uptake from land application because of operational issues<br>• As defined by technical experts throughout comparative assessment reporting, in brief:<br>  • Surface and groundwater quality<br>  • Ecological (aquatic)<br>  • Land contamination |

# 3 BPO Criteria

**Table 2 BPO Assessment Criteria (Condition 23B) and Scoring Criterion**

| BPO Source | Ref | Criterion | Description | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| RMA BPO definition (a) | RE1 | Receiving environment sensitivity | What is the nature of the discharge, and how sensitive is the likely receiving environment (social, economic, cultural, natural) to adverse effects? | Very high | High | Moderate | Low | None |
| RMA BPO definition (b) | CEE1 | Comparison of effects on the environment | How do the effects of each of option compare with the other options in terms of the Social environment | Significant cannot mitigate | Significant | Adverse | Minor | No more than minor |
| | CEE2 | Comparison of effects on the environment | How do the effects of each of option compare with the other options in terms of the Economic environment | Significant cannot mitigate | Significant | Adverse | Minor | No more than minor |
| | CEE3 | Comparison of effects on the environment | How do the effects of each of option compare with the other options in terms of the Cultural environment | Significant cannot mitigate | Significant | Adverse | Minor | No more than minor |
| | CEE4 | Comparison of effects on the environment | How do the effects of each of option compare with the other options in terms of the Natural environment | Significant cannot mitigate | Significant | Adverse | Minor | No more than minor |
| RMA BPO definition (b) | F1 | Comparative financial implications | How do the cost (capital, operational, whole of life) implications of each of option compare with the other options ? | Very high | High | Moderate | Low to Moderate | Low |
| RMA BPO definition (c) | TK1 | Technical Knowledge | Can the options be successfully implemented e.g. how complex is each option to construct and operate when compared with the other options ? | Highly Complex | Moderate to Highly Complex | Moderately Complex | Low to Moderately Complex | Low Complexity |
| | TK2 | Technical Knowledge | Are the technologies reliable / proven ? | Unproven or Emerging | Proven, Int: (Limited), NZ (Not in use) | Proven, Int (Common), NZ (Limited) | Proven, Int (Common), NZ (Increasing) | Proven, Common Use |
| | TK3 | Technical Knowledge | How resilient is each option to natural hazards and climate change ? | High | Moderate to High | Moderate | Low to Moderate | Low |
| Condition 23B b. and c | S1 | Exceedances of standards, limits or targets | Is it expected that each option will minimise the frequency, magnitude and duration of exceedances of relevant standards, limits or targets? | Very High | High | Medorate | Low | Negligible |
| | S2 | Exceedances of standards, limits or targets | Is the option directed at preventing or minimising any adverse effects of the discharge on the life supporting capacity of the Manawatū River? | Very High | High | Medorate | Low | Negligible |
| | S3 | Exceedances of standards, limits or targets | In particular, is the option directed at preventing or minimising any adverse effects of growth of cyanobacteria and excessive periphyton? | Very High | High | Medorate | Low | Negligible |
| | S4 | Exceedances of standards, limits or targets | In particular, is the option directed at preventing or minimising any adverse effects of changes to the structure and/or composition macroinvertebrate communities? | Significant cannot mitigate | Significant | Adverse | Minor | No more than minor |
| | S5 | Exceedances of standards, limits or targets | In particular, is the option directed at preventing or minimising any adverse effects on the migration and habitat of trout and native fish? | Very High | High | Medorate | Low | Negligible |
| Condition 23B c. | | RMA Part 2 and Section 104, 105 and 107 considerations | Broadly, how does each option align with the principles of Part 2 of the RMA (including enabling people and communities to provide for their social, economic, and cultural well-being and for their health and safety) and the considerations contained in sections 104, 105 and 107 of the RMA | Fails to align | Weak alignment | General alignment | Good alignment | Strong alignment |

# 4 Scoring

## 4.1 Receiving environment sensitivity

| # | Option | RE1 SCORE | Commentary / Reasons |
|---|---|---|---|
| 1 | R2(b) | 1.0 | • Manawatū River considered to be the most sensitive receiving environment – therefore the options (1 and 2) which have significant discharge to the River have scored worst.<br>• Although option 3 has a significant discharge to the River it is a dual discharge, and the downstream discharge avoids the most sensitive reaches of the Manawatū River so it scores better than options 1 and 2.<br>• The ocean is considered to be the least sensitive receiving environment – therefore option 11 scores best.<br>• Option 10 scores well but because of the land component and potential risk of indirect discharges to coastal lakes it does not score as well as option 11<br>• Land receiving environment is considered to have moderate sensitivities, mainly associated with potential indirect discharges to groundwater, coastal lakes and local streams. Therefore options 4 to 9 score moderate noting that options 6, 7, 8 and 9 also have discharges to the River<br>• No differences between inland and coastal land receiving environments as similar mitigation is proposed with adequate controls |
| 2 | R2(b) (75% DWF land) | 2.0 | |
| 3 | Dual R+L(b) (75% DWF to land) | 3.0 | |
| 4 | L+R(a) | 3.0 | |
| 5 | L+R(b) | 3.0 | |
| 6 | L+R(d-1) 80m3/s trigger | 3.0 | |
| 7 | L+R(d-2) 62m3/s trigger | 3.0 | |
| 8 | L+R(e-1) 80m3/s trigger | 3.0 | |
| 9 | L+R(e-2) 62m3/s trigger | 3.0 | |
| 10 | O+L | 4.0 | |
| 11 | O no Land | 5.0 | |

**Notes**

- Environment sensitivity has been defined as the sensitivity of the natural, social, economic and cultural environment
- Assessed in the context of the receiving environments that the options discharge to i.e. direct discharges to the Manawatū River, to land and to the ocean. Potential indirect discharges to groundwater, coastal lakes and local streams
- This is a comparative assessment so the full range of the scores have been used

## 4.2 Comparison of effects on the environment

**Social, Environmental, Natural, Built, Economic and Cultural environment has been considered within the "Effects on the Environment" criteria**

| # | Option | CEE1 | CEE2 | CEE3 | CEE4 | SCORE | Commentary / Reasons |
|---|---|---|---|---|---|---|---|
| 1 | R2(b) | 5 | 4.0 | 2 | 1 | 3.0 | • Option 1 scored the worst of the options with River discharges because it does not fully address the issue of periphyton growth<br>• Option 2 did not score well as it is a significant discharge to the River. Option 3 scored better as while it is a significant discharge to the River it is a dual discharge, and the downstream discharge avoids the most sensitive reaches of the River<br>• Options 3 and 4 had moderate scores primarily because the discharge is removed from the River, but there could be effects on soil and potential indirect discharges to groundwater, coastal lakes and local streams, particularly as this is a continuous discharge<br>• Options 6,7,8 and 9 scored well because they discharge to land under good conditions (dry) and the River under good conditions (high flows). Minor potential effects on soil and groundwater and some unknowns about coastal lakes, however mitigations have been applied<br>• Option 11 scored best as there is no discharge to the River and no potential effects groundwater, coastal lakes and local streams<br>• Option 10 did not score as well as Option 11 because of the land component and some unknowns about coastal lakes and dune areas, however mitigations have been applied |
| 2 | R2(b) (75% DWF land) | 2 | 3.5 | 5 | 2 | 3.1 | |
| 3 | Dual R+L(b) (75% DWF to land) | 2 | 2.0 | 4 | 1 | 2.3 | |
| 4 | L+R(a) | 1 | 1.0 | 1 | 2 | 1.3 | |
| 5 | L+R(b) | 3 | 2.0 | 2 | 4 | 2.8 | |
| 6 | L+R(d-1) 80m3/s trigger | 1 | 2.5 | 2 | 4 | 2.4 | |
| 7 | L+R(d-2) 62m3/s trigger | 1 | 2.5 | 2 | 5 | 2.6 | |
| 8 | L+R(e-1) 80m3/s trigger | 3 | 3.5 | 2 | 2 | 2.6 | |
| 9 | L+R(e-2) 62m3/s trigger | 3 | 3.5 | 2 | 2 | 2.6 | |
| 10 | O+L | 3 | 3.5 | 3 | 1 | 2.6 | |
| 11 | O no land | 4 | 5.0 | 4 | 1 | 3.5 | |

**Notes**

- This is a comparative assessment so the full range of the scores have been used

## 4.3 Comparative Financial Implications

| # | Option | Score | Commentary / Reasons |
|---|---|---|---|
| 1 | R2(b) | 5.0 | • Scores follow cost banding approach based on NPV (Net Present Value) as set out in Appendix I - Comparative Cost Assessment<br>• NPV based on the P50 indicative comparative capital cost estimates and 35 year operating and maintenance costs<br>• Option 1 scored the best being the lowest NPV cost falling below $350M cost band at $337M<br>• Options 5, 8 and 9 scored the lowest with Option 5 being the highest cost in this cost band of over $650M with a NPV at $836M, followed by Option 8 $786M and Option 7 $730M<br>• Option 3 is the second lowest cost at $419M followed by third lowest Option 11 $480M and fourth lowest Option 2 $496M |
| 2 | R2(b) (75% DWF land) | 3.0 | |
| 3 | Dual R+L(b) (75% DWF to land) | 4.0 | |
| 4 | L+R(a) | 2.0 | |
| 5 | L+R(b) | 1.0 | |
| 6 | L+R(d-1) 80m3/s trigger | 3.0 | |
| 7 | L+R(d-2) 62m3/s trigger | 4.0 | |
| 8 | L+R(e-1) 80m3/s trigger | 1.0 | |
| 9 | L+R(e-2) 62m3/s trigger | 1.0 | |
| 10 | O+L | 1.0 | |
| 11 | O no land | 2.0 | |

Notes:

- For the purpose of the comparative cost/affordability assessment NPV (Net Present Value) was considered to provide an appropriate approach as it brings in both capital and annual operating and maintenance costs.
- The P50 estimate represents a cost that is likely to have equal changes of being under or over this value.

## 4.4 Technical Knowledge

| # | Option | TK1 | TK2 | TK3 | SCORE | Commentary / Reasons |
|---|---|---|---|---|---|---|
| 1 | R2(b) | 4.0 | 4.0 | 5.0 | 4.3 | • Option 1 scored the best as it is the most contained and compact system as does not involve long transmission pipelines, irrigation equipment, pumping stations etc. and seismic risk<br>• Options 2 and 3 scored well, but not as good as option 1 because the options will involve some piping and pumping and irrigation equipment but not to the extent of the large land options and those to the coast<br>• Options 4 and 5 and 8 and 9 did not score well because of seismic risk associated with long transmission pipelines, number of pump stations and the scale of irrigation equipment. Also flooding issue with large inland areas and forest fires with large coastal areas and forestry<br>• Options 6 and 7 scored medium as the land areas are not as large, but there are seismic risks associated with piping, pumping and irrigation equipment and some flooding risks<br>• Option 11 scored well but the main risk is the seismic risk associated with the long transmission pipeline<br>• Option 10 has similar issue to option 11 but more risks associated with the land component and forest fires<br>• Option 1 scored the best as it is the least complex option from an operational perspective. It involves only one receiving environment and there are no long transmission lines, pumping stations, irrigation equipment etc<br>• Option 2 scored well as it has a small land requirement, and it is assumed this land would be located in proximity to the WWTP. Option 3 did not score as well as option 2 as it involves three receiving environments<br>• Options 4 and 5 scored the worst because of the very large areas required for irrigation, the potential for these areas not to be contiguous, long transmission lines, pumping stations, irrigation equipment etc. Also potential operational problems during wet weather as unlike the other land options there is no ability to discharge to the River<br>• Options 6, 7, 8, 9 and 10 have similar risks to options 4 and 5 but scored slightly better because of the ability to discharge to the River during wet weather conditions and for Option 10 to the ocean<br>• Options 11 scored well, but there are some pumping risks with the long transmission lines. |
| 2 | R2(b) (75% DWF land) | 3.0 | 3.0 | 4.0 | 3.3 | |
| 3 | Dual R+L(b) (75% DWF to land) | 3.0 | 4.0 | 3.0 | 3.3 | |
| 4 | L+R(a) | 1.0 | 1.0 | 1.0 | 1.0 | |
| 5 | L+R(b) | 1.0 | 1.0 | 1.0 | 1.0 | |
| 6 | L+R(d-1) 80m3/s trigger | 2.0 | 2.0 | 2.0 | 2.0 | |
| 7 | L+R(d-2) 62m3/s trigger | 2.0 | 2.0 | 2.0 | 2.0 | |
| 8 | L+R(e-1) 80m3/s trigger | 1.0 | 1.0 | 1.0 | 1.0 | |
| 9 | L+R(e-2) 62m3/s trigger | 1.0 | 1.0 | 1.0 | 1.0 | |
| 10 | O+L | 2.0 | 2.0 | 1.0 | 1.7 | |
| 11 | O no land | 4.0 | 5.0 | 1.0 | 3.3 | |

**Notes**

- Technical knowledge involves consideration of the option being able to be implemented, its complexity, how reliable and proven and resilient to natural hazards and climate change

## 4.5 Exceedance of standards, limits or targets

Note that this assessment relates to the Manawatū River only.

| # | Option | S1 | S2 | S3 | S4 | S5 | SCORE | Commentary / Reasons |
|---|---|---|---|---|---|---|---|---|
| 1 | R2(b) | 3.0 | 2.0 | 1.0 | 1.0 | 3.0 | 2.0 | • Option 1 has a moderate risk of not meeting One Plan targets (periphyton, macro-invertebrates) at times and within some reaches of the River<br>• Option 2 has a low risk of not meeting One Plan targets (periphyton, macro-invertebrates?), but less often and within a shorter reach of the River than Option 1<br>• Options 4 and 5 have no discharges to the River (other than the 3% exceptional circumstances), but potential risk of not meeting One Plan requirements for local streams and for Option 5 coastal lakes because of very large land areas. Designed to meet leaching targets<br>• Options 6, 7, 8 and 9 have been designed to meet One Plan targets but small potential risks with local streams and coastal lakes for Options 8 and 9.<br>• Option 11 scores best as it there is no discharge to the River. Outside the mixing zone the discharge meets the One Plan requirements in typical flows but could be some exceedances in peak wet weather flows<br>• Option 10 scores well as it there is no discharge to the River but small potential risks with and coastal lakes from the land application component<br>• Option 2 has a low risk of not meeting One Plan targets (periphyton, macro-invertebrates), but less often and within a shorter reach of the River than option 1<br>• Options 4, 5 and 10 and 11 have no discharges to the River (other than the 3% exceptional circumstances), and score best<br>• Options 6, 7, 8 and 9 have been designed to meet One Plan targets for the Manawatū River. |
| 2 | R2(b) (75% DWF land) | 4.0 | 3.0 | 2.0 | 2.0 | 4.0 | 3.0 | |
| 3 | Dual R+L(b) (75% DWF to land) | 4.0 | 4.0 | 3.0 | 3.0 | 4.0 | 3.6 | |
| 4 | L+R(a) | 3.0 | 4.0 | 5.0 | 5.0 | 5.0 | 4.4 | |
| 5 | L+R(b) | 3.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.6 | |
| 6 | L+R(d-1) 80m3/s trigger | 3.0 | 4.0 | 4.0 | 4.0 | 5.0 | 4.0 | |
| 7 | L+R(d-2) 62m3/s trigger | 3.0 | 4.0 | 4.0 | 4.0 | 5.0 | 4.0 | |
| 8 | L+R(e-1) 80m3/s trigger | 3.0 | 4.0 | 4.0 | 4.0 | 5.0 | 4.0 | |
| 9 | L+R(e-2) 62m3/s trigger | 3.0 | 4.0 | 4.0 | 4.0 | 5.0 | 4.0 | |
| 10 | O+L | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.8 | |
| 11 | O no land | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |

**Notes**

- Receiving environments is already compromised. The Manawatū River does not meet the One Plan targets currently, irrespective of the impacts of the wastewater discharge.
- This is not a comparative assessment

## 4.6 RMA Part 2, s104, 105 and 107

| # | Option | S104 | S105 | S107 | Part2 | SCORE | Commentary / Reasons |
|---|---|---|---|---|---|---|---|
| 1 | R2(b) | 2 | 2 | 3 | 3 | 2.5 | • All options provide for community's social and economic well-being and for health and safety in terms of providing safe and reliable wastewater services<br>• Options 1, 2 and 3 which have significant discharges to the Manawatū River have significant issues for Rangitāne and Raukawa<br>• Options 4, 5, 8 and 9 and 10 have a weak alignment with Part 2 of the RMA because of adverse effects on the natural environment and on the social, economic and cultural well-being and these effects significantly outweigh positive effects/benefits. There are also potential effects on indigenous biodiversity and heritage (archaeological)<br>• Options 1, 2, 3, 6, 7 and 11 have a "general" alignment with Part 2 of the RMA having a mix of both "strong alignment" and "weak alignment" with the provisions of Part 2 of the RMA. That is they have some positive (benefits) and some negative/adverse effects<br>• Section 107 of the RMA relates to the discharge of contaminants that will give rise to a range of stated adverse effects<br>• Option 1 with 100% of the time discharge to the Manawatū River has a "medium risk" of not meeting Section 107<br>• Options 8 and 9 also have a "medium risk" of not meeting Section 107 because of the uncertainty regarding effects on coastal streams and lakes<br>• Option 2 has a "low risk" of not meeting Section 107 in terms of effects on periphyton and macroinvertebrates<br>• Options 3, 4, 5, 6, 7, 10 and 11 have been assessed as meeting Section 107.<br>• Options 1, 2 and 3 have with significant discharges to the Manawatū River have a "weak alignment" with the objectives and policies of National Policy Statement – Freshwater Management (NPS-FM)<br>• Options 1, 2 and 3 "general alignment" with the provisions of the One Plan in terms of meeting targets although Option 1 may not fully meet all the targets all of the time.<br>• All options with discharges to the Manawatū River (Options 1, 2, 3, 6, 7, 8 and 9) include wetlands before river discharge therefore "on its face" Policy 5-11 of the One Plan can be met. However, in view of Rangitāne's position that wetlands will not restore the mauri of the wastewater and protect the River they have been assessed as "general alignment"<br>• Options 6, 7, 8 and 9 with 43% and 53% of the year discharging to the land have "general alignment" with objectives and policies of the NPS-FM and the One Plan<br>• The Ocean discharge Options 10 and 11 have "good alignment" with the NPS-FM and NZCPS but weak alignment with the One Plan objectives and policies. They are both opposed by Rangitāne and Raukawa. |
| 2 | R2(b) (75% DWF land) | 2 | 2 | 4 | 3 | 2.8 | |
| 3 | Dual R+L(b) (75% DWF to land) | 2 | 2 | 5 | 3 | 3.0 | |
| 4 | L+R(a) | 4 | 4 | 5 | 2 | 3.8 | |
| 5 | L+R(b) | 4 | 4 | 5 | 2 | 3.8 | |
| 6 | L+R(d-1) 80m3/s trigger | 3 | 3 | 5 | 3 | 3.5 | |
| 7 | L+R(d-2) 62m3/s trigger | 3 | 3 | 5 | 3 | 3.5 | |
| 8 | L+R(e-1) 80m3/s trigger | 3 | 3 | 3 | 2 | 2.8 | |
| 9 | L+R(e-2) 62m3/s trigger | 3 | 3 | 3 | 2 | 2.8 | |
| 10 | O+L | 4 | 3 | 5 | 2 | 3.5 | |
| 11 | O no land | 4 | 2 | 5 | 3 | 3.5 | |

**Notes**