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# Palmerston North Wastewater Best Practicable Option (BPO) Review

## RMA Planning Assessment

August 2021

PALMERSTON NORTH
NATURE CALLS

Prepared for Palmerston North City Council by:

Stantec

## QUALITY STATEMENT

### Project Details

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## Executive Summary

An RMA planning assessment of the Short List of Options has been undertaken to help inform the process of determining the best practicable option (BPO) for the Palmerston North City wastewater system.

The RMA planning assessment comprises the following assessments:

- An initial assessment of the three-receiving environment (freshwater, land, marine/coastal) covered by the options against the key relevant planning instruments (National Policy Statement for Freshwater Management 2020 (NPS-FM), New Zealand Coastal Policy Statement 2010 and the Horizons One Plan).
- An assessment of the short list options against the key relevant planning instruments. This assessment is informed by the receiving environment assessments.
- A complexity assessment that involves assessing the options in terms of their consenting complexity and compliance complexity.
- A section 107 of the RMA assessment that involves assessing the options against the requirements of section 107 of the RMA.
- A Part 2 RMA assessment that involves the assessment of each of the options against section 5, 6, 7 and 8 of the RMA
- An assessment of the risk of options being affected by the Marine and Coastal Area (Takutai Moana) Act 2011(MACAA)
- An overall assessment that combines all the assessments to provide an overall ranking of the options.

The result of the overall assessment and ranking of the short list of options are shown in the table below.

| Option # | Option Description | Ranking |
|---|---|---|
| **Option 1** | **R2(b) River discharge with Enhanced Treatment** | **2** |
| **Option 2** | **R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow** | **3=** |
| **Option 3** | **Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow** | **4=** |
| **Option 4** | **L+R (a) 97% of the time to Land (inland)** | **4=** |
| **Option 5** | **L+R (b) 97% of the time to Land (coastal)** | **1** |
| **Option 6** | **L+R (d-1) to Land <80m³/s / 53% of the time to Land (inland)** | **3=** |
| **Option 7** | **L+R (d-2) to Land <62M³/s / 43% of the time to Land (inland)** | **3=** |
| **Option 8** | **L+R (e-1) to Land <80m³/s / 53% of the time to Land (coastal) TN = 35mg/L** | **6=** |
| **Option 9** | **L+R (e-2) to land <62m³/s / 43%of the time to land (coastal) TN = 35mg/L** | **6=** |
| **Option 10** | **O+L / Ocean with Land** | **7** |
| **Option 11** | **Ocean discharge** | **5** |

Option 5 has the highest (best) overall ranking because it has "good alignment" with the planning instruments, in particular because it meets the key driver of the NPS-FM of putting the health and well-being of freshwater (Manawatū River) first. It also meets s107 and has no risks in terms of the MACAA. It was assessed as having medium complexity. The only assessment

Option 5 did not perform well against was alignment with Part 2. It was assessed as having weak alignment primarily because it was opposed by Rangitāne and Raukawa and the very high risk to community economic well-being as it is the most expensive option ($836m net present value).

Option 1 ranked second because it has no risks in terms of the MACAA, has a "low to medium complexity", and a "general alignment" with Part 2. However, Option 1 has a "medium risk" of not meeting s107 and a "weak alignment" with the planning instruments. The outcomes of the s107 and planning instruments assessments reflect the potential risk of not meeting the One Plan targets during certain river conditions.

Options 2, 6 and 7 ranked third equal.

Option 2 ranked third equal as it has no risks in terms of the MACCA, "medium complexity" and "general alignment" with Part 2 and the One Plan. It does however have a medium risk of not meeting s107.

Options 6 and 7 ranked third equal because both options have no risks in terms of the MACAA and s107. Both options have general alignment with Part 2 and the planning instruments. The only assessment the options did not perform well in were the complexity assessments where they were assessed as having a "medium to high complexity".

# CONTENTS

## List of tables



## List of figures



# APPENDICES

# 1 Introduction

An RMA planning assessment of the Short List of Options has been undertaken to help inform the process of determining the best practicable option (BPO) for the Palmerston North City wastewater system. The diagram below illustrates how this RMA planning assessments integrates with the other assessments and processes involved in determining the BPO.

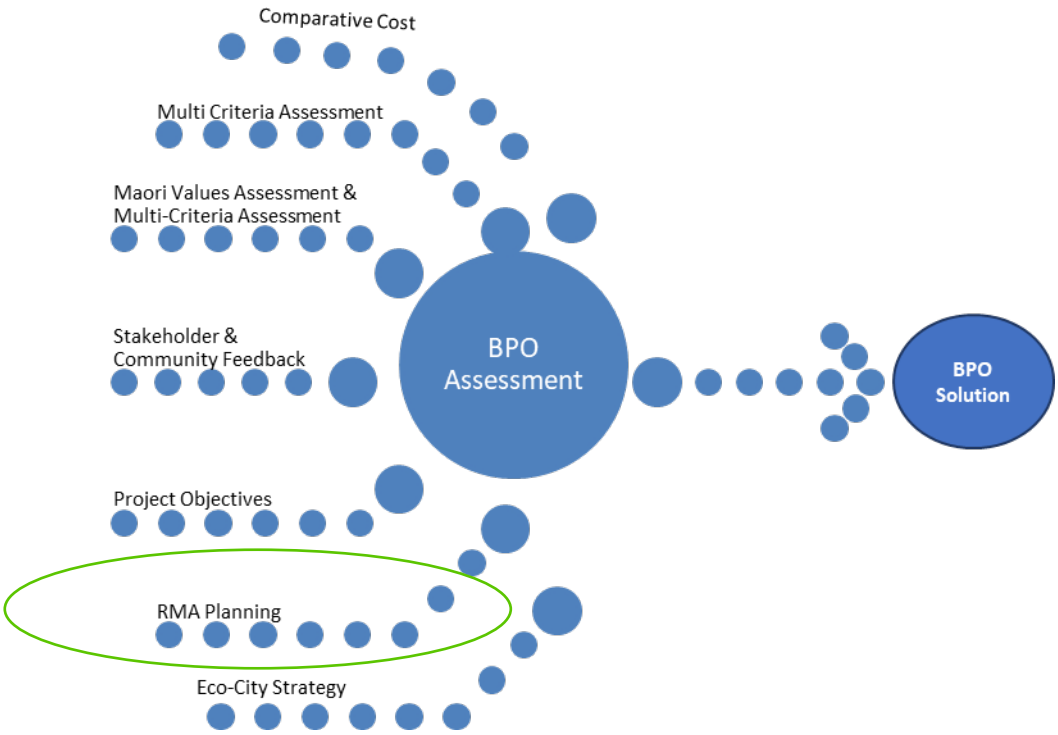


**Figure 1 BPO Assessment Process**

Section 104 of the RMA, which sets out the matters a consent authority shall have regard to when considering a resource consent application, has informed the scope of the RMA planning assessment.

The assessment involves considering how each of the Short List of Options aligns with the key relevant RMA planning instruments (as identified under section 104 of the RMA) and with Part 2 and section 107 of the RMA. It also assesses each of the options in terms of their consenting complexity and compliance complexity.

Section 104 of the RMA also refers to the Marine and Coastal Area (Takutai Moana) Act 2011(MACAA) and other matters considered relevant. As seven parties have made applications under the MACAA which concern the coastal marine area within or near the location of the discharge associated with two of the options, the MACAA has also been considered in this RMA planning assessment.

## 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, May 2021.

**Table 1 Options Description / Reference**

| Option # | Option Description |
|---|---|
| Option 1 | R2(b) River discharge with Enhanced Treatment |
| Option 2 | R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow |
| Option 3 | Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow |
| Option 4 | L+R (a) 97% of the time to Land (inland) |
| Option 5 | L+R (b) 97% of the time to Land (coastal) |
| Option 6 | L+R (d-1) to Land <80m$^3$/s / 53% of the time to Land (inland) |
| Option 7 | L+R (d-2) to Land <62M$^3$/s / 43% of the time to Land (inland) |
| Option 8 | L+R (e-1) to Land <80m$^3$/s / 53% of the time to Land (coastal) TN = 35mg/L |
| Option 9 | L+R (e-2) to land <62m$^3$/s / 43%of the time to land (coastal) TN = 35mg/L |
| Option 10 | O+L / Ocean with Land |
| Option 11 | Ocean discharge |

# 2 Methodology

The following methodology has been designed to ensure that the RMA planning assessment can meaningfully inform the selection of a preferred option from the Short List of Options. The approach that has been adopted is set out in the stages below.

## 2.1 Stage One: Identification of relevant RMA Planning Instruments

Identification of the RMA Planning Instruments that are relevant to the assessment of the options. To simplify this exercise the focus has been on the three receiving environments (freshwater, land, ocean) for the treated wastewater discharge that are covered by the options. **Table 2** identifies all the planning instruments that are relevant to the Wastewater BPO Review and highlights the key planning instruments that have been used for the planning assessment of the options.

The key planning instruments that have been used for the assessment are:

- National Policy Statement for Freshwater Management 2020 (NPS-FM)
- New Zealand Coastal Policy Statement 2010 (NZCPS)
- Horizons Regional Council One Plan (One Plan)

For completeness this first stage also includes the identification of other planning instruments that will apply to all options but have not been assessed because:

- They will not assist in differentiating the options
- They are currently being developed and at the time of undertaking this assessment do not have a statutory status but are likely to come into effect later in 2021.

## 2.2 Stage Two: RMA Planning Instrument and receiving environment assessment

The assessment of the key provisions of the planning instruments identified in stage 1 is based on the three receiving environments (freshwater, land, marine/coastal) covered by the options. There are a plethora of objective and policies and methods / rules contained within the various planning instruments. It is not the intention of the assessment to provide a comprehensive assessment of all the objectives, policies and rules that could apply to the shortlist of options. This type of assessment will be undertaken once the preferred option (the BPO) has been selected as part of the resource consent process.

The planning instrument provisions that have been assessed have been selected on the basis that they:

a) Are highly relevant to the assessment of the options
b) Will assist in differentiating the options

The planning instrument assessment includes a judgement on the extent to which a discharge to particular receiving environment aligns with the key planning instruments compared to the other receiving environments. In terms of the coastal environment the assessment is based on a discharge and the installation of an ocean outfall.

The Rangitāne o Manawatū Cultural Values Assessment (Rangitāne CVA) and the Raukawa Hapū Evaluation of Options have been relied on in assessing the provisions of the planning instruments relating the matters such as Te Mana o te Wai, mauri, mahinga kai, cultural values.

**Appendices 1, 2 and 3** contain the assessments for each of the receiving environments. **Table 3** provides a summary of the receiving environment assessments.

The alignment classifications are as follow:

| | |
|---|---|
| Strong alignment | |
| Good alignment | |
| General alignment | |
| Weak alignment | |
| Fails to align | |

## 2.3 Stage Three: Option Alignment with Planning Instruments Assessment

This stage of the RMA planning assessment involves the application of the receiving environment assessment from stage 2 to each of the options. This involves an assessment of the percentage of the wastewater discharged to a particular receiving environment, the percentage of the time the wastewater is discharged to that environment and the level of treatment of the discharge for each option. The output from this stage is a comparative assessment of the extent to which each option aligns with the relevant planning instruments and an overall judgement on alignment with all the planning instruments.

The Rangitāne CVA and the Raukawa Hapū Evaluation of Options have been relied on in assessing the provisions of the planning instruments relating matters such as Te Mana o te Wai, mauri, mahinga kai, cultural values.

**Table 4** contains the assessment of each of the options against the relevant key planning instruments. The alignment classifications are the same used for the assessment for Stage 2.

**Table 5** provides a summary of the assessment of each option against the relevant key planning instruments.

## 2.4 Stage Four: Complexity Assessment

Stage 4 of the RMA planning assessment involves assessing the options in terms of their consenting complexity and compliance complexity. The consenting complexity assessment is primarily based on a high-level assessment of the activities that will potentially require consents, the number of receiving environments associated with each option and in terms of the land receiving environment the scale of areas / properties required. The general correlation is the more activities potentially requiring consent the more complex the consenting process will be. Note, this is not a consentability assessment.

The compliance complexity is based on a similar assessment and relates to the number of potential consent conditions that need to be complied with, compliance risks and monitoring complexity.

The assessment is based on comparing the options and is not an assessment of complexity in the context of other unrelated projects. **Table 6** contains the assessment of each of the options in terms of their consenting complexity and compliance complexity.

The complexity classifications are as follows:

| | |
|---|---|
| Low complexity | |
| Low to medium complexity | |
| Medium complexity | |
| Medium to high complexity | |
| High complexity | |

## 2.5 Stage Five: Combined Alignment with Planning Instruments and Complexity Assessment

This stage of the planning assessment involves combining the outputs of the planning instrument alignment assessment with the outputs of the complexity assessment and ranking each of the options. **Table 7** contains the combined assessment of each of the options.

## 2.6 Stage Six: RMA Section 107 Assessment

This stage involves assessing the options against the requirements of section 107 of the RMA. A section 107 assessment is important as this section of the Act specifically relates to discharges to water (freshwater and marine waters) and discharges to land in circumstances which may result in that contaminant entering water. Section 107 states that a consent authority shall not grant a discharge permit or a coastal permit if, after reasonable mixing, the contaminant is likely to give rise a particular effect. This is why assessing each of the options against section 107 of the RMA is an important test. **Table 8** sets out the effects listed in section 107 and provides an assessment of the risk of any of the options resulting in one or more of these effects on the receiving environment.

| | |
|---|---|
| Meets s107 | |
| Low risk of not meeting s107 | |
| Medium risk of not meeting s107 | |
| High risk of not meeting s107 | |
| Very high risk of not meeting s107 | |

## 2.7 Stage Seven: RMA Part 2 Assessment

This stage involves the assessment of each of the options against Part 2 of the RMA. Part 2 is a critical part of the RMA as it sets out the purpose and principles of the Act. An option might not be able to be consented under the RMA if it was contrary to (fails to align with) Part 2. This is why assessing each of the options against Part 2 of the RMA is an important test.

Rangitāne CVA and the Raukawa Hapū Evaluation of Options have been relied on in assessing the Part 2 matters relating to the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

**Table 9** sets out the assessment of the extent to which each option aligns with Part 2 of the RMA.

## 2.8 Stage Eight: Marine and Coastal Area (Takutai Moana) Act Assessment

Stage 8 provides an assessment of the risks associated with the options that have the potential to be affected by applications made by parties under the Marine and Coastal Area (Takutai Moana) Act 2011 (MACAA) for protected customary rights and customary marine titles. Although the MACAA assessment only involves those options with discharges and works (ocean outfall) in the coastal marine area (option 10 and 11), it is important that this assessment is included as it has significant ramifications for these options. This is because if either option 10 or 11 are determined to be the BPO, and the applications under the MACAA are determined before the BPO consent is lodged and are successful then the Council would need:

- The consent of the parties granted protected customary rights and/or customary marine titles; or
- Prove that the discharge is a "deemed accommodated activity" under the MACAA.

**Table 10** contains the MACAA assessment.

Section 12 provides more information about the MACAA, and an assessment of the risks associated with the MACAA.

## 2.9 Stage Nine: Overall RMA Planning Assessment

This final stage of the assessment involves combining the outputs of the planning instrument assessment, the complexity assessment, the section 107 and Part 2 assessments and the MACAA assessment and provides an overall ranking of the options in terms of the combined planning assessments.

**Table 11** contains the results of the overall assessment.

# 3 Assumptions and Limitations

The following assumption and limitation apply to this planning assessment:

- The landward side of the ocean outfall will be constructed using horizontal directional drilling methods. However, access tracks and plant and equipment storage areas will be required in proximity to the outfall location and the establishment of these areas will require vegetation removal and earthworks in the coastal environment.
- For the options involving land components no potential sites have been identified yet. This work will be undertaken once the BPO has been confirmed. Therefore, no site specific or surrounding area effects have been identified and assessed.

# 4 Information

This RMA planning assessments has been informed by:

- The technical assessments prepared for the Multicriteria Assessment of the short list of options.
- Information provided by technical experts in response to questions about specific plan and RMA provisions.
- Wastewater BPO Short List Report August 2021
- Rangitāne o Manawatū Cultural Values Assessment
- Raukawa Hapū Evaluation of Options
- Advice from Simpson Grierson on the effect of the Marine and Coastal Area (Takutai Moana) Act 2011on the short list options
- Advice from Simpson Grierson on how the Environment Court has interpreted Policy 5-11 of the One Plan

# 5 Stage One: Identification of relevant RMA Planning Instruments

**Table 2** below identifies the RMA planning instruments that are relevant to the Palmerston North Wastewater BPO Review in terms of the three receiving environments (freshwater, land marine/coastal) affected by the short list options.

The planning instruments shown as red text are those that have been identified as the key planning instruments and have been used to undertake the planning assessment of the options and are:

- National Policy Statement for Freshwater Management 2020 (NPS-FM)
- New Zealand Coastal Policy Statement 2010 (NZCPS)
- Horizons Regional Council One Plan (One Plan)

**Table 2: Planning instruments that are relevant to the Palmerston North Wastewater BPO Review**

| Receiving Environment | National Planning Instruments | Regional Planning Instruments | District Planning Instruments |
|---|---|---|---|
| Freshwater | • National Policy Statement for Freshwater Management 2020<br>• National Environmental Standards for Freshwater 2020<br>• National Environmental Standards for Sources of Human Drinking Water 2007 (under review) | • Horizons Regional Council One Plan | • Palmerston North City District Plan<br>• Horowhenua District Plan |
| Land | • National Policy Statement for Freshwater Management 2020<br>• National Environmental Standards for Sources of Human Drinking Water 2007 (under review)<br>• National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health | • Horizons Regional Council One Plan<br>• Proposed Plan Change 2 to the One Plan | • Palmerston North City District Plan<br>• Horowhenua District Plan<br>• Manawatu District Plan |
| Coastal Waters / Coastal Environment (ocean outfall installation) | • New Zealand Coastal Policy Statement 2010<br>• National Policy Statement for Freshwater Management 2020 | • Horizons Regional Council One Plan | • Horowhenua District Plan[1]<br>• Manawatu District Plan |

[1] The Horowhenua District Plan and the Manawatu District Plan have been used to identify areas of outstanding natural landscapes and features in the coastal environment

## 5.1 Other potentially relevant planning instruments

For completeness other planning instruments that will apply to the short list of options have been identified below but have not been assessed because they will not assist in differentiating the options or they are currently being developed and at the time of undertaking this assessment do not have legal effect.

- National Policy Statement on Urban Development – applies to all receiving environments – drives growth and consequential increases in wastewater volumes
- Proposed National Policy Statement for Highly Productive Land (likely to take effect late 2021) – will apply to land receiving environments
- Proposed National Environmental Standards for Wastewater Discharges and Overflows (to be confirmed) – will apply to all receiving environments
- Proposed National Policy Statement for Indigenous Biodiversity (likely to take effect late 2021) – will apply to land receiving environments
- National Environmental Standards for Sources of Human Drinking Water Update (likely to take effect late 2021) – will apply to freshwater and land receiving environments

# 6 Stage Two: RMA Planning Instrument Receiving Environment Assessments

This is a high level assessment of potential discharges of treated wastewater to the three receiving environments (freshwater, land, marine/coastal) covered by the options against the key provisions of the planning instruments identified in stage 1. In terms of the coastal environment the assessment is based on a discharge and the installation of an ocean outfall.

The planning instrument provisions that have been assessed have been selected on the basis that:

- They are highly relevant to the assessment of the options
- Will assist in differentiating the options

**Appendices 1, 2 and 3** contain the detailed assessments for each of the receiving environments.

The alignment classifications are as follow:

| | |
|---|---|
| Strong alignment | |
| Good alignment | |
| General alignment | |
| Weak alignment | |
| Fails to align | |

## 6.1 Freshwater Receiving Environment Assessment

The freshwater receiving environment primarily comprises the Manawatū River, but also includes local streams, coastal lakes and ground water. A detailed assessment of the freshwater receiving environment against the relevant objectives and policies of the NPS-FM and the One Plan is contained in **Appendix 1**.

The river options only have a "weak alignment" with the key relevant objectives and policies of the NPS-FM. This is primarily because of the need to give effect to Te Mana o te Wai and the requirement to place the health and well-being of the Manawatū River first. When the river as a receiving environment is compared to the options that predominantly discharge to other receiving environments, the river options do not align with the NPS-FM as well as the options to other receiving environments. Noting that the next stage of the assessment will take into account the components of the river options that discharge to land.

Overall, the river options have a "general alignment" with the One Plan. This is primarily because the options have been designed to ensure that the Schedule B values are recognised and provided for (but not pristine state of the values) and to meet key Schedule E targets with a particular focus on achieving the periphyton biomass targets. Noting the

exception of one option (R2(b)) which may not provide for Schedule B ecological and recreational values.

## 6.2 Land Receiving Environment Assessment

The land receiving environment primarily comprises two general areas, fluvial soils in proximity of Palmerston North City and the Manawatū River and sandy soils in coastal areas between the mouths of the Rangitikei and Manawatū Rivers.

A detailed assessment of the land receiving environment against the relevant objectives and policies of the NPS-FM and the One Plan is contained in **Appendix 2**.

The group of options that have discharges to land that require significant land areas have a better alignment with the NPS FM objective and Te Mana o te Wai than the options with significant discharges to the Manawatū River noting that a number of land discharge options include reasonably significant discharges to the Manawatū River. The reason for this is that removing or significantly reducing the discharge to the Manawatū River will put the health and well-being of the Manawatū River first which is consistent with the Te Mana o te Wai hierarchy. The reason why the assessment is "good alignment" and not "strong alignment" is because of the potential risks to local water bodies.

The land options have an overall assessment of "good alignment" with the One Plan primarily because of the reduction of the discharge to the Manawatū River which should assist with improving the ability to meet water quality targets for the river and the Schedule B Values. However, the land discharge options could have potential risks to local water bodies and effects on sensitive and incompatible land uses.

## 6.3 Marine/Coastal Receiving Environment Assessment

The marine/coastal receiving environment comprises the coastal marine area and the coastal environment which includes areas on the landward side of the coastal marine area. The assessment takes into account the discharge of the treated wastewater to the coastal marine area and the installation of the ocean outfall.

A detailed assessment of the marine/coastal receiving environment against the relevant objectives and policies of the NPS-FM and the One Plan is contained in **Appendix 3**.

The group of options that have discharges to the ocean have a better alignment with the NPS FM objective and Te Mana o te Wai than the group of options with significant discharges to the Manawatū River noting that a number of land discharge options include reasonably significant discharge to the river. The reason for this is that removing or significantly reducing the discharge to the Manawatū River will put the health and well-being of the Manawatū River first which is consistent with the Te Mana o te Wai hierarchy. However, the discharge is going to another water body – marine water and Rangitāne and Raukawa have clearly expressed their opposition to a wastewater discharge to this receiving environment. This is the reason for classifying the alignment as "general alignment" and not "good alignment" which is the classification for the discharge to land options

The ocean options have "good alignment" with the with the NZCPS. The NZCPS has a strong focus on preserving natural character, protecting natural features and landscape values and indigenous biodiversity. Given the proposed construction methodologies and the location of the proposed discharge it is unlikely that these features and values will be adversely affected. The NZCPS also includes a policy (Policy 23(2)) that directly relates to the discharge of human sewage and the options strongly align with this policy.

The ocean options generally align the relevant objectives and policies of the One Plan. This is primarily because while discharge, after reasonable mixing, aligns with the management values and does not exceed the Schedule I targets in the One Plan for typical flows (and in a number of cases is significantly less than the targets), there could be exceedances of some targets during peak wet weather flows. This requires further investigation.

## 6.4 Summary of receiving environment assessments

**Table 3: Summary of Receiving Environment Assessments**

| Receiving Environment | NPS-FM | NZCPS | One Plan |
|---|---|---|---|
| Freshwater | | N/A | |
| Land | | N/A | |
| Marine / Coastal | | | |

**Table 3** provides a summary of the assessments of the three receiving environments (freshwater, land, marine/coastal) against the key planning instruments.

The land and marine/coastal receiving environments have been assessed against the NPS-FM because the current wastewater discharge is to freshwater (Manawatū River). This is because the options involving discharges to land and/or marine/coastal receiving environments will result in the removal or part removal of the discharge to the Manawatū River which will have benefits to that receiving environment and will contribute to the outcomes sought by the NPS-FM. However, the freshwater and land receiving environments have not been assessed against the NZCPS as the current discharge is not to the marine/coastal receiving environment.

The receiving environment that aligns best with the planning instruments is land. This is mainly because the Te Mana o te Wai hierarchy in the NPS-FM requires the health and well-being of freshwater to be put first, above the health needs of people and the ability of people and communities to provide for their social, economic, and cultural well-being.

The One Plan includes a policy in the RPS (Policy 5-11) that is important when considering wastewater discharges to water. The policy requires a discharge of human sewage to first be applied onto or into land, flow overland, or pass through an alternative system to mitigate adverse effects on the mauri before entering surface water. Policy 5-11 is designed to address the resource management issue of significance to hapū and iwi that "sewage disposed to water, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred".

The Environment Court has found that, in relation to Policy 5-11, direct discharges of treated wastewater to freshwater will not meet Policy 5-11, and that wetland systems proposed in those cases satisfy the requirements of Policy 5-11. The Court's interpretation carries weight in terms of interpreting what Policy 5-11 and the One Plan requires. However, Rangitāne have stated in their CVA that they do not believe the discharge of wastewater through artificial wetlands will restore the mauri of the wastewater and protect the Manawatū Awa.

As all options with discharges to the Manawatū River include wetlands which the discharge will pass through before entering the river, "on its face" Policy 5-11 can be met ("good alignment" / "strong alignment") for these options. However, in view of the position of Rangitāne that wetlands will not restore the mauri of the wastewater and protect the river which is likely to be important from a consenting perspective, the freshwater receiving environment has been assessed as having "general alignment" with Policy 5-11.

# 7 Stage Three: Option Alignment with Planning Instruments Assessment

This stage of the RMA planning assessment involves the application of the receiving environment assessments from stage 2 to each of the short list options. The assessment takes into account the percentage of the wastewater discharged to a particular receiving environment, the duration of the discharge to that environment and the level of treatment of the discharge for each option. The output from this stage is a comparative assessment of the extent to which each short list option aligns with the NPS-FM, the NZCPS and the One Plan.

**Table 4: Alignment of the shortlisted options with the relevant planning instruments**

| Option | NPS for Freshwater Management 2020 | New Zealand Coastal Policy Statement | Horizons One Plan | Commentary |
|---|---|---|---|---|
| **Options 1: R2(b) River discharge with Enhanced Treatment**<br>100% treated wastewater discharge to river<br>Discharge via a wetland and/or land passage system<br>Highest level of treatment (treatment level 4)<br>No land requirement | | N/A | | • This option involves 100% of the wastewater flow to the river for 100% of the year with the highest level of treatment and discharge to the river via a wetland and/or land passage system<br>• Issue with giving effect to Te Mana o te Wai – putting the health and well-being of the Manawatū River first<br>• Because of the high level of treatment there will be a significant reduction in contaminant loads discharged to the river.<br>• Potential risk that the water quality targets on the One Plan will not be fully met<br>• No risk to local water bodies (streams, lakes, groundwater)<br>• Rangitāne consider the impact on mauri can only be mitigated by removing wastewater from waterways<br>• On its face Policy 5-11 can be met, however, in view of the position of Rangitāne on wetlands this option only achieves "general alignment" with Policy 5-11<br>• Raukawa consider this option to be fundamentally unacceptable<br>• Considering the above matters overall option 1 does not align well with the NPS-FM and only has general alignment with the One Plan |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow**<br>Continuous discharge to river.<br>75% average dry weather flow discharge to land | | N/A | | • The Manawatū River is below half median flow (37.5m$^3$/s) approx. 25% of the year<br>• 75% of year 100% discharge to river<br>• 25% of the year 75% discharge to land<br>• 25% of the year 25% discharge to river<br>• Discharge via a wetland and/or land passage system<br>• Still a significant proportion of the discharge going to the river |

| Option | NPS for Freshwater Management 2020 | New Zealand Coastal Policy Statement | Horizons One Plan | Commentary |
|---|---|---|---|---|
| when river below 37.5m3/s (half median flow)<br>Discharge via a wetland and/or land passage system to river.<br>Highest level of treatment (treatment level 4).<br>760ha land required | | | | • Because of the high level of treatment there will be a significant reduction in contaminant loads discharged to the river.<br>• Designed to achieve the One Plan Schedule B Values and the water quality targets<br>• Slight risk to local water bodies (streams, lakes, groundwater) from the land discharge<br>• Rangitāne consider a small portion of land-based discharge is unlikely to protect the wairua of Rangitāne or their waterways<br>• On its face Policy 5-11 can be met, however, in view of the position of Rangitāne on wetlands this option only achieves "general alignment" with Policy 5-11<br>• Raukawa consider this option to be fundamentally unacceptable<br>• Considering the above matters overall Option 2 does not align well with the NPS-FM and only has general alignment with the One Plan |
| **Option 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow**<br>When river flow is greater than 62m$^3$/s discharge to river at Totara Rd<br>When river flow between 62m$^3$/s and 37.5m$^3$/s discharge to river below Opiki<br>When river below 37.5m$^3$/s discharge to land<br>Discharge via a wetland and/or land passage system<br>Upgraded treatment (treatment level 2).<br>870ha land required | | N/A | | • The Manawatū River is below half median flow (37.5m$^3$/s) approx. 25% of the year<br>• 75% of year 100% discharge to river<br>• 25% of the year 75% discharge to land<br>• 25% of the year 25% discharge to river<br>• Discharge via a wetland and/or land passage system Still a significant proportion of the discharge going to the river<br>• Discharging into a new receiving environment (below Opiki Bridge) in the Manawatū River<br>• Slight risk to local water bodies (streams, lakes, groundwater) from the land discharge<br>• Designed to achieve the One Plan Schedule B Values and the water quality targets<br>• Rangitāne consider a small portion of land-based discharge is unlikely to protect the wairua of Rangitāne or their waterways.<br>• On its face Policy 5-11 can be met, however, in view of the position of Rangitāne on wetlands this option only achieves "general alignment" with Policy 5-11<br>• Raukawa consider this option to be fundamentally unacceptable<br>• Considering the above matters overall Option 3 does not align well with the |

| Option | NPS for Freshwater Management 2020 | New Zealand Coastal Policy Statement | Horizons One Plan | Commentary |
|---|---|---|---|---|
| | | | | NPS-FM and only has general alignment with the One Plan |
| **Option 4: L+R (a) 97% to Land (inland)**<br>97% treated wastewater discharge to land (inland fluvial soils). Exceptional flow conditions (highest 3% of days by WWTP flow) discharge to river<br>Similar level of treatment to existing WWTP (level of treatment 1)<br>3,760ha land required | | N/A | | • This option involves 97% of year 100% discharge to land<br>• Puts the health and well-being of the Manawatū River first<br>• Potential to cause adverse effects on local water bodies (streams, lakes, groundwater)<br>• Rangitāne consider a land-based discharge is preferable and could support the protection the wairua, health and wellbeing of Rangitāne whānau.<br>• Raukawa consider this option to be currently unacceptable<br>• Considering the above matters overall option 4 aligns well with the NPS-FM and the One Plan |
| **Option 5: L+R (b) 97% to Land (coastal)**<br>97% treated wastewater discharge to land (inland fluvial soils). Exceptional flow conditions (highest 3% of days by WWTP flow) discharge to river<br>Upgraded treatment (treatment level 3)<br>2,570ha land required | | N/A | | • This option involves 97% of the flow discharge to land 100% of the year<br>• Puts the health and well-being of the Manawatū River first<br>• Potential to cause adverse effects on local water bodies (streams, lakes, groundwater)<br>• Rangitāne consider a land-based discharge is preferable and could support the protection the wairua, health and wellbeing of Rangitāne whānau.<br>• Raukawa consider this option to be fundamentally unacceptable<br>• Considering the above matters overall option 5 aligns well with the NPS-FM and the One Plan |
| **Option 6: L+R (d-1) to Land <80m$^3$/s / 53% of the time to Land (inland)**<br>When river flow is greater than 80m$^3$/s discharge to river<br>Similar level of treatment to existing WWTP + phosphorus removal) (level of treatment 2)<br>Wetland<br>2,000ha land required | | N/A | | • The Manawatū River is below 80m$^3$/s approx. 53% of the year<br>• 53% of year 100% discharge to land<br>• 47% of year 100% discharge to river via a wetland and/or land passage system<br>• Reasonable proportion of the discharge going to land<br>• Does assist in putting the health and well-being of the Manawatū River first<br>• Potential to cause adverse effects on local water bodies (streams, lakes, groundwater)<br>• Rangitāne consider a land-based discharge is preferable and could support the protection the wairua, health and wellbeing of Rangitāne whānau. |

| Option | NPS for Freshwater Management 2020 | New Zealand Coastal Policy Statement | Horizons One Plan | Commentary |
|---|---|---|---|---|
| | | | | • On its face Policy 5-11 can be met, however, in view of the position of Rangitāne on wetlands this option only achieves "general alignment" with Policy 5-11<br>• Raukawa consider this option to be currently unacceptable<br>• Considering the above matters overall option 6 has a general alignment with the NPS-FM and the One Plan |
| **Option 7: L+R (d-2) to Land <62M$^3$/s / 43% of the time to Land (inland)**<br>When river flow is greater than 62m$^3$/s discharge to river<br>Similar level of treatment to existing WWTP + phosphorus removal) (level of treatment 2)<br>Wetland<br>1,640ha land required | | N/A | | • The Manawatū River is below 62m$^3$/s approx. 43% of the year<br>• 57% of year 100% discharge to river via a wetland and/or land passage system<br>• 43% of year 100% discharge to land<br>• Reasonable proportion of the discharge going to land<br>• Does assist in putting the health and well-being of the Manawatū River first<br>• Potential to cause adverse effects on local water bodies (streams, lakes, groundwater)<br>• Rangitāne consider a land-based discharge is preferable and could support the protection the wairua, health and wellbeing of Rangitāne whānau.<br>• On its face Policy 5-11 can be met, however, in view of the position of Rangitāne on wetlands this option only achieves "general alignment" with Policy 5-11<br>• Raukawa consider this option to be currently unacceptable<br>• Considering the above matters overall option 7 has a general alignment with the NPS-FM and the One Plan |
| **Option 8: L+R (e-1) to Land <80m$^3$/s / 53% of the time to Land (coastal) TN = 35mg/L**<br>When river flow is greater than 80m$^3$/s discharge to river<br>Similar level of treatment to existing WWTP + phosphorus removal) (level of treatment 2)<br>Wetland<br>3,640ha land required | | N/A | | • The Manawatū River is below 80m$^3$/s approx. 53% of the year<br>• 53% of year 100% discharge to land<br>• 47% of year 100% discharge to river via a wetland and/or land passage system<br>• Reasonable proportion of the discharge still going to the rive<br>• Does assist in putting the health and well-being of the Manawatū River first<br>• Partially meets Policy 5-11 (RPS One Plan)<br>• Potential to cause adverse effects on local water bodies (streams, lakes, groundwater)<br>• Rangitāne consider a land-based discharge is preferable and could support the protection the wairua, health and wellbeing of Rangitāne whānau.<br>• On its face Policy 5-11 can be met, however, in view of the position of Rangitāne on wetlands this option only |

| Option | NPS for Freshwater Management 2020 | New Zealand Coastal Policy Statement | Horizons One Plan | Commentary |
|---|---|---|---|---|
| | | | | achieves "general alignment" with Policy 5-11<br>• Raukawa consider this option to be fundamentally unacceptable<br>• Considering the above matters overall option 8 has a general alignment with the NPS-FM and the One Plan |
| **Option 9: L+R (e-2) to land <62m³/s / 43% of the time to land (coastal) TN = 35mg/L**<br>When river flow is greater than 62m³/s discharge to river<br>Similar level of treatment to existing WWTP + phosphorus removal (level of treatment 2)<br>Wetland<br>3,010ha land required | | N/A | | • The Manawatū River is below 62m³/s approx. 43% of the year<br>• 57% of year 100% discharge to river via a wetland and/or land passage system<br>• 43% of year 100% discharge to land<br>• Reasonable proportion of the discharge still going to the rive<br>• Does assist in putting the health and well-being of the Manawatū River first<br>• Partially meets Policy 5-11 (RPS One Plan)<br>• Potential to cause adverse effects on local water bodies (streams, lakes, groundwater)<br>• Rangitāne consider a land-based discharge is preferable and could support the protection the wairua, health and wellbeing of Rangitāne whānau.<br>• Rangitāne have stated in their CVA that they do not believe the discharge of wastewater through artificial wetlands will restore the mauri of the wastewater and protect the Manawatū Awa.<br>• On its face Policy 5-11 can be met, however, in view of the position of Rangitāne on wetlands this option only achieves "general alignment" with Policy 5-11<br>• Raukawa consider this option to be fundamentally unacceptable<br>• Considering the above matters overall option 9 has a general alignment with the NPS-FM and the One Plan |
| **Option 10: O+L / Ocean with Land**<br>50% ADWF discharged to land 50% year. Exceptional flow conditions (highest 3% of days by WWTP flow) discharge to river via land passage<br>Similar level of treatment to existing WWTP (level of treatment 1) | | | | • 50% of year 50% of average dry weather flow discharged to land<br>• 47% of year 100% of the flow goes to ocean<br>• Removal of the discharge form the Manawatū River, which puts the health and well-being of the river first<br>• Aligns with the management values and does not exceed the Schedule I targets in the One Plan for typical flows. However, there could be exceedances of some targets during peak wet weather flows<br>• Potential to cause adverse effects on local water bodies (streams, lakes, groundwater)<br>• Meets Policy 23 of the NZCPS (human sewage) |

| Option | NPS for Freshwater Management 2020 | New Zealand Coastal Policy Statement | Horizons One Plan | Commentary |
|---|---|---|---|---|
| No wetland, land passage, overland flow before discharge to ocean<br>1,470ha land required | | | | • Policy 8-6 applies Policy 5-11 (human sewage discharges) to the CMA as if any reference to water in those policies is a reference to water in the CMA<br>• Does not meet Policy 5-11 (RPS One Plan) as there is no discharge to land and no wetland, land passage, overland flow before discharge to the ocean<br>• Both Rangitāne and Raukawa oppose the discharge of treated wastewater to marine water<br>• Considering the above matters overall option 10 has a good alignment with the NPS-FM and the NZCPS and a general alignment with the One Plan |
| **Option 11: Ocean discharge**<br>Discharge 97% to ocean<br>Exceptional flow conditions (highest 3% of days by WWTP flow) discharge to river via land passage<br>Similar level of treatment to existing WWTP (level of treatment 1)<br>No wetland, land passage, overland flow before discharge to ocean | | | | • 97% of year 100% of the flow goes to ocean<br>• Removal of the discharge form the Manawatū River, which puts the health and well-being of the river first<br>• Aligns with the management values and does not exceed the Schedule I targets in the One Plan for typical flows. However, there could be exceedances of some targets during peak wet weather flows based on the adoption of a relatively small mixing zone<br>• Meets Policy 23 of the NZCPS (human sewage)<br>• Policy 8-6 applies Policy 5-11 (human sewage discharges) to the CMA as if any reference to water in those policies is a reference to water in the CMA<br>• Does not meet Policy 5-11 (RPS One Plan) as there is no discharge to land and no wetland, land passage, overland flow before discharge to the ocean<br>• Both Rangitāne and Raukawa oppose the discharge of treated wastewater to marine water<br>• Considering the above matters overall option 11 has a good alignment with the NPS-FM and the NZCPS but a weak alignment with the One Plan mainly due to the background levels in the ocean of some contaminants |

## 7.1 Alignment with Planning Instruments Assessment Conclusion

**Table 5: Summary of alignment of the shortlisted options with the relevant planning instruments**

| Options | NPS-FM 2020 | NZCPS | Horizons One Plan |
|---|---|---|---|
| **Option 1: R2(b) River discharge with Enhanced Treatment** | | N/A | |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow** | | N/A | |
| **Option 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow** | | N/A | |
| **Option 4: L+R (a) 97% to Land (inland)** | | N/A | |
| **Option 5: L+R (b) 97% to Land (coastal)** | | N/A | |
| **Option 6: L+R (d-1) to Land <80m$^3$/s / 53% of the time to Land (inland)** | | N/A | |
| **Option 7: L+R (d-2) to Land <62M$^3$/s / 43% of the time to Land (inland)** | | N/A | |
| **Option 8: L+R (e-1) to Land <80m$^3$/s / 53% of the time to Land (coastal) TN = 35mg/L** | | N/A | |
| **Option 9: L+R (e-2) to Land <62m$^3$/s / 43% of the time to Land (coastal) TN = 35mg/L** | | N/A | |
| **Option 10: O+L / Ocean with Land** | | | |
| **Option 11: Ocean discharge** | | | |

Classification of the extent to which the option aligns with the relevant planning instrument.

| | |
|---|---|
| Strong alignment | |
| Good alignment | |
| General alignment | |
| Weak alignment | |
| Fails to align | |

The options with significant discharges to the Manawatū River (Option 1, 2 and 3) have a weak alignment with the objectives and policies of the NPS-FM. This is because of the focus of the NPS-FM puts the health and wellbeing of freshwater first. These options have been assessed as having general alignment with the provisions of the One Plan. This is because they have ben designed to meet the values and targets of the One Plan, however there is a potential risk that Option 1 may not fully meet all the targets all the time.

As all options with discharges to the Manawatū River include wetlands which the discharge will pass through before entering the river, "on its face" Policy 5-11[2] can be met ("good alignment" / "strong alignment") for these options. However, in view of the position of Rangitāne that wetlands will not restore the mauri of the wastewater and protect the river, the freshwater receiving environment has been assessed as having "general alignment" with Policy 5-11. This matter was previously discussed in section 6.4 above.

The options with reasonable discharge to land (43% and 53% of the year discharge to land) have a general alignment with the objectives and policies of the NPS-FM and the One Plan. Options with significant discharges to land (97% of the year) have a good alignment with alignment with the objectives and policies of the NPS-FM and the One Plan.

Both options that discharge to the ocean have a good alignment with the objectives and policies of the NPS-FM and the NZCPS. However, they only have a weak alignment with the One Plan objectives and policies. Both Rangitāne and Raukawa opposed these options.

[2] Policy 5-11 is an important policy for assessing wastewater discharges.

# 8 Stage Four: Complexity Assessment

Stage Four of the RMA planning assessment involves assessing the options in terms of their consenting complexity and compliance complexity. The consenting complexity assessment is primarily based on a high-level assessment of the activities that will potentially require consents, the number of receiving environments and in terms of the land receiving environment the scale of areas / properties required. The general correlation is the more activities potentially requiring consent the more complex the consenting process will be. Note, this is not a consentability assessment.

The compliance complexity is based on a similar assessment and relates to the number of potential consent conditions that need to be complied with, compliance risks and monitoring complexity.

The assessment is based on comparing the options and not the assessment of complexity in the context of other unrelated consent projects. **Table 6** contains the assessment of each of the options in terms of their consenting complexity and compliance complexity.

**Table 6: Consenting and Compliance Complexity**

| Option | Consenting Complexity | | Compliance complexity | |
|---|---|---|---|---|
| | **Commentary** | **Classification** | **Commentary** | **Classification** |
| **Option 1: R2(b) River discharge with Enhanced Treatment**<br>100% of the flow to the river 100% of the year | • Only one discharge location / receiving environment<br>• Consents associated with one discharge<br>• Consents / designation associated with the 36ha wetland / land passage<br>• Consents for possible new river outfall structure depending on wetland / land passage location<br>• Assume existing WWTP designation can accommodate plant upgrades<br>• Assume lowest number of consents required | | • Ongoing compliance and monitoring of river discharge<br>• Compliance – wetland / land passage construction, possible new outfall, one discharge<br>• Assume lowest number of consents to be complied with | |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow**<br>• River below half median flow (37.5m$^3$/s) approx. 25% of the year | • Two or more discharge locations / receiving environments<br>• Consent associated with one river discharge<br>• Consent for one or more land application areas, storage facilities | | • Monitoring of river discharge<br>• Monitoring of one or more land application areas (760ha land)<br>• Compliance – triggers for changing receiving environments | |

| Option | Consenting Complexity | | Compliance complexity | |
|---|---|---|---|---|
| | Commentary | Classification | Commentary | Classification |
| • 75% of year 100% discharge to river<br>• 25% of the year 75% discharge to land<br>• 25% of the year 25% discharge to river<br>• 760ha land requirement | • Designations for one or more land application areas<br>• Consents / designations associated with the 36ha wetland / land passage<br>• Consents for possible new river outfall structure depending on wetland location<br>• Consents associated with conveyance to land applications areas (stream crossings, earthworks etc.), pumps stations<br>• Assume existing WWTP designation can accommodate plant upgrades | | • Compliance – wetland / land passage, possible new outfall, storage facility and conveyance construction, two discharges | |
| **Option 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow**<br>• River below half median flow (37.5m$^3$/s) approx. 25% of the year<br>• 75% of year 100% discharge to river<br>• 25% of the year 75% discharge to land<br>• 25% of the year 25% discharge to river<br>• 870ha land requirement | • Three or more discharge locations / receiving environments<br>• Consents associated with two river discharges<br>• Consent for one or more land application areas, storage facilities<br>• Designations for land application areas<br>• Consents / designations associated with two wetlands / land passages<br>• Consents for new river outfall structure (Opiki)<br>• Consents associated with conveyance to land applications areas and conveyance to Opiki (stream crossings, earthworks etc.), pumps stations<br>• Assume existing WWTP designation can accommodate plant upgrades | | • Monitoring of two river discharges<br>• Monitoring of one or more land application areas (870ha land)<br>• Compliance – triggers for changing receiving environments<br>• Compliance – wetland / land passage, outfall, storage facility, and conveyance construction, three discharges | |

| Option | Consenting Complexity | | Compliance complexity | |
|---|---|---|---|---|
| | Commentary | Classification | Commentary | Classification |
| **Option 4: L+R (a) 97% to Land (inland)**<br>• 97% of the flow discharge to land 100% of the year<br>• 3% to river<br>• 3,760ha land requirement | • Two receiving environments but potentially numerous locations for land application<br>• Consent for 3% river discharge<br>• Consents for numerous locations for land application, storage facilities<br>• Designations for land application areas<br>• Significant number of potentially affected parties (directly affected landowners / adjoining landowners)<br>• Given large land area requirement assumed authorities required under the Heritage New Zealand Pouhere Taonga Act<br>• Consents associated with conveyance to numerous land applications areas (stream crossings, earthworks etc.), pumps stations<br>• Consent for land passage / overland flow<br>• Assumed numerous consents required particularly because of the potential high number of separate land application areas | | • Monitoring of 3% river discharge<br>• Monitoring of numerous land application areas (3,760ha land)<br>• Compliance – triggers for changing receiving environments<br>• Compliance – land passage / overland flow, conveyance, storage facility construction, two discharges<br>• Compliance risks if third parties (farmers) operating land application | |
| **Option 5: L+R (b) 97% to Land (coastal)**<br>• 97% of the flow discharge to land 100% of the year<br>• 3% to river<br>• 2,570ha land requirement | • Assumed limited number of locations for land application<br>• Two receiving environments<br>• Consent for 3% river discharge<br>• Consents for locations for land application, storage facilities<br>• Designations for land application areas | | • Monitoring of 3% river discharge<br>• Monitoring of land application areas (2,570ha land)<br>• Compliance – triggers for changing receiving environments<br>• Compliance – land passage / overland flow, conveyance, | |

| Option | Consenting Complexity | | Compliance complexity | |
|---|---|---|---|---|
| | Commentary | Classification | Commentary | Classification |
| | • Given large land area requirement assumed authorities required under the Heritage New Zealand Pouhere Taonga Act<br>• Consents associated with conveyance to numerous land applications areas (stream crossings, earthworks etc.), pumps stations<br>• Consent for wetland / land passage / overland flow | | storage facility construction, two discharges<br>• Compliance risks if third parties (forestry companies) operating land application | |
| **Option 6: L+R (d-1) to Land <80m³/s / 53% of the time to Land (inland)**<br>• River below 80m³/s approx. 53% of the year<br>• 53% of year 100% discharge to land<br>• 47% of year 100% discharge to river<br>• 2,000 land requirement | • Two receiving environments but potentially a number of locations for land application<br>• Consent for river discharge<br>• Consents for a number of locations for land application, storage facilities<br>• Designations for land application areas<br>• Potentially affected parties (directly affected landowners / adjoining landowners)<br>• Potentially authorities required under the Heritage New Zealand Pouhere Taonga Act<br>• Consents associated with conveyance to land applications areas (stream crossings, earthworks etc.), pumps stations<br>• Consent for wetland | | • Monitoring of river discharge<br>• Monitoring of land application areas (2,000ha land)<br>• Compliance – triggers for changing receiving environments<br>• Compliance – land passage, conveyance, storage facility construction, two discharges | |
| **Option 7: L+R (d-2) to Land <62M³/s / 43% of the time to Land (inland)**<br>• River below 62m³/s approx. 43% of the year | • Two receiving environments but potentially a number of locations for land application<br>• Consent for river discharge<br>• Consents for a number of locations | | • Monitoring of river discharge<br>• Monitoring of land application areas (1,640ha land)<br>• Compliance – triggers for changing receiving environments | |

| Option | Consenting Complexity | | Compliance complexity | |
|---|---|---|---|---|
| | Commentary | Classification | Commentary | Classification |
| • 57% of year 100% discharge to river<br>• 43% of year 100% discharge to land<br>• 1,640 land requirement | for land application, storage facilities<br>• Designations for land application areas<br>• Potentially affected parties (directly affected landowners / adjoining landowners)<br>• Potentially authorities required under the Heritage New Zealand Pouhere Taonga Act<br>• Consents associated with conveyance to land applications areas (stream crossings, earthworks etc.), pumps stations<br>• Consent for wetland / land passage | | • Compliance – wetland / land passage, conveyance, storage facility construction, two discharges | |
| **Option 8: L+R (e-1) to Land <80m³/s / 53% of the time to Land (coastal) TN = 35mg/L**<br>• River below 80m³/s approx. 53% of the year<br>• 53% of year 100% discharge to land<br>• 47% of year 100% discharge to river<br>• 3,640 land requirements | • Assumed limited number of locations for land application<br>• Two receiving environments<br>• Consent for river discharge<br>• Consents for locations for land application, storage facilities<br>• Designations for land application areas<br>• Given large land area requirement assumed authorities required under the Heritage New Zealand Pouhere Taonga Act<br>• Consents associated with conveyance to numerous land applications areas (stream crossings, earthworks etc.), pumps stations<br>• Consent for wetland / land passage | | • Monitoring of river discharge<br>• Monitoring of land application areas (3,640ha land)<br>• Compliance – triggers for changing receiving environments<br>• Compliance – wetland / land passage, conveyance, storage facility construction, two discharges | |
| **Option 9: L+R (e-2) to land <62m³/s / 43% of the time to land (coastal) TN = 35mg/L** | • Assumed limited number of locations for land application<br>• Two receiving environments | | • Monitoring of river discharge<br>• Monitoring of land application areas (3,010ha land) | |

| Option | Consenting Complexity | | Compliance complexity | |
|---|---|---|---|---|
| | Commentary | Classification | Commentary | Classification |
| • River below 62m$^3$/s approx. 43% of the year<br>• 57% of year 100% discharge to river<br>• 43% of year 100% discharge to land<br>• 3,010 land requirement | • Consent for river discharge<br>• Consents for locations for land application, storage facilities<br>• Designations for land application areas<br>• Given large land area requirement assumed authorities required under the Heritage New Zealand Pouhere Taonga Act<br>• Consents associated with conveyance to numerous land applications areas (stream crossings, earthworks etc.), pumps stations<br>• Consent for wetland / land passage | | • Compliance – triggers for changing receiving environments<br>• Compliance – wetland / land passage, conveyance, storage facility construction, two discharges | |
| **Option 10: O+L / Ocean with Land**<br>• 50% of year 50% of the flow goes to land<br>• 47% of year 100% of the flow goes to ocean<br>• 3% of year discharge to river in extreme high flow<br>• 1,470ha land requirement | • Three receiving environments but potentially one or more locations for land application<br>• Consent for CMA discharge<br>• Consents for one or more locations for land application, storage facilities<br>• Consent for discharge to river via overland flow and land passage in extreme high flow (approximately 3% of the year)<br>• Designations for land application areas<br>• Consents for ocean outfall construction<br>• Consents associated with conveyance to ocean outfall and land application areas (stream crossings, earthworks etc.), pumps stations<br>• Consent for land passage / overland flow (3% discharge to river) | | • Monitoring of CMA discharge<br>• Monitoring of land application areas (1,470ha land)<br>• Monitoring 3% river discharge<br>• Compliance – triggers for changing receiving environments<br>• Compliance – ocean outfall (construction and operation), conveyance, storage facility construction, three discharges | |

| Option | Consenting Complexity | | Compliance complexity | |
|---|---|---|---|---|
| | Commentary | Classification | Commentary | Classification |
| **Option 11: Ocean discharge**<br>• 97% of year 100% ocean discharge<br>• 3% of year discharge to river in extreme high flow | • Two receiving environments<br>• Consent for CMA discharge<br>• Consent for discharge to river via overland flow and land passage in extreme high flow (approximately 3% of the year)<br>• Consents for ocean outfall construction<br>• Consents for outfall occupation of seabed<br>• Consents associated with conveyance to ocean outfall, (stream crossings, earthworks etc.), pumps stations<br>• Consent for land passage / overland flow (3% discharge to river) | | • Monitoring of CMA discharge<br>• Monitoring 3% river discharge<br>• Compliance – ocean outfall (construction and operation), conveyance, storage facility construction, two discharges | |

Complexity classification

| | |
|---|---|
| Low complexity | |
| Low to medium complexity | |
| Medium complexity | |
| Medium to high complexity | |
| High complexity | |

## 8.1 Consenting and Compliance Complexity Assessment Conclusion

The options with significant discharges to more than one receiving environment and/or involve large land area requirements with the potential for a significant number of landowners to be affected have been assessed as having a high complexity or a medium to high complexity.

Option 1: R2(b)is the only option to be assessed as low complexity as it only involves one discharge and no significant construction activities. Although Option 11 only involves only one discharge it has been assessed as having medium consenting complexity because of the construction of the ocean outfall and conveyance infrastructure.

# 9 Stage Five Combined Alignment with Planning Instruments and Complexity Assessment

This stage of the planning assessment involves combining the outputs of the planning instrument assessment with the outputs of the complexity assessment and ranking each of the options. **Table 7** contains the combined assessment of each of the options.

**Table 7: Summary of Alignment and Complexity (Stage Five of the methodology)**

| Option | Planning Instrument Alignment | | | Complexity | | Score | Ranking |
|---|---|---|---|---|---|---|---|
| | NPS-FM | NZCPS | One Plan | Consenting | Compliance | | |
| **Option 1: R2(b) River discharge with Enhanced Treatment** | 2 | N/A | 3 | 4 | 4 | 13 | 2 |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow** | 2 | N/A | 3 | 3 | 3 | 11 | 3= |
| **Options 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow** | 2 | N/A | 3 | 2 | 2 | 9 | 5= |
| **Option 4: L+R (a) 97% of the time to Land (inland)** | 4 | N/A | 4 | 1 | 1 | 10 | 4= |
| **Option 5: L+R (b) 97% of the time to Land (coastal)** | 4 | N/A | 4 | 3 | 3 | 14 | 1 |
| **Option 6: L+R (d-1) to Land <80m³/s / 53% of the time to Land (inland)** | 3 | N/A | 3 | 2 | 2 | 10 | 4= |
| **Option 7: L+R (d-2) to Land <62M³/s / 43% of the time to Land (inland)** | 3 | N/A | 3 | 2 | 2 | 10 | 4= |
| **Option 8: L+R (e-1) to Land <80m³/s / 53% of the time to Land (coastal) TN = 35mg/L** | 3 | N/A | 3 | 2 | 2 | 10 | 4= |
| **Option 9: L+R (e-2) to land <62m³/s / 43%of the time to land (coastal) TN = 35mg/L** | 3 | N/A | 3 | 2 | 2 | 10 | 4= |
| **Option 10: O+L / Ocean with Land** | 4 | | 2 | 1 | 1 | 9 | 5= |
| **Option 11: Ocean discharge** | 4 | | 2 | 2 | 3 | 11 | 3= |

Classification of the extent to which the option aligns with the relevant planning instrument

| | |
|---|---|
| Strong alignment | |
| Good alignment | |
| General alignment | |
| Weak alignment | |
| Fails to align | |

Complexity classification

| | |
|---|---|
| Low complexity | |
| Low to medium complexity | |
| Medium complexity | |
| Medium to high complexity | |
| High complexity | |

## 9.1 Combined Alignment with Planning Instrument and Complexity Assessment Conclusion

**Table 7** above brings together the assessment of the options against the relevant planning instruments and the complexity assessments for consenting and compliance. For the scoring "1" is the worst and "5" is the best. For comparison reasons the assessments of the NZCPS have not been scored as the NZCPS only applies to the options with a marine discharge (Options 10 and 11).

Of interest is that some of the options that have generally scored well in the planning instrument alignment assessments have not scored well in the complexity assessments (e.g. Options 4 and 10).

In ranking the options, the top two are:

- Option 1: R2(b) River discharge with Enhanced Treatment
- Option 5: L+R (b) 97% of the time to land (coastal)

With the following options ranked third equal

- Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow
- Option 11: Ocean discharge

# 10 Stage Six – RMA Section 107 Assessment

Section 107 of the RMA specifically applies to the discharge of contaminants to water and the discharge of contaminants onto or into land in circumstances which may result in that contaminant entering water. It states that a consent authority shall not grant a discharge permit or a coastal permit if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the effects in the receiving waters listed in the **Table 8** below. Table 8 sets out the assessment of the risk of each of the options triggering any of the effects identified in section 107.

**Table 8: RMA Section 107 Assessment**

| Options | Conspicuous oil or grease films, scums or foams, or floatable or suspended materials s107(1)(c) | Conspicuous change in the colour or visual clarity s107(1)(d) | Emission of objectionable odour s107(1)(e) | Rendering of fresh water unsuitable for consumption by farm animals s107(1)(f) | Significant adverse effects on aquatic life s107(1)(g) | Commentary |
|---|---|---|---|---|---|---|
| **Option 1: R2(b) River discharge with Enhanced Treatment** | | | | | | • Likely to meet s107(1)(g) most of the time, however there is a moderate risk of not fully meeting (i.e. at times and within a certain reach of the river) s107(1)(g) |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow** | | | | | | • Likely to meet s107(1)(g) most of the time, however there is a low risk of occasional effect on periphyton and macroinvertebrates (less often and within a shorter reach of the river compared with R2(b) |
| **Options 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow** | | | | | | • Likely to meet s107(1)(g) both in the Manawatū River and local waterbodies |
| **Option 4: L+R (a) 97% of** | | | | | | • Negligible effect on Manawatū River. |

| Options | Conspicuous oil or grease films, scums or foams, or floatable or suspended materials s107(1)(c) | Conspicuous change in the colour or visual clarity s107(1)(d) | Emission of objectionable odour s107(1)(e) | Rendering of fresh water unsuitable for consumption by farm animals s107(1)(f) | Significant adverse effects on aquatic life s107(1)(g) | Commentary |
|---|---|---|---|---|---|---|
| **the time to Land (inland)** | | | | | | • Low risk to local waterbodies |
| **Option 5: L+R (b) 97% of the time to Land (coastal)** | | | | | | • Negligible effect on Manawatū River.<br>• Low risk to local waterbodies |
| **Option 6: L+R (d-1) to Land <80m³/s / 53% of the time to Land (inland)** | | | | | | • Small effect on Manawatū River.<br>• Low risk to local waterbodies |
| **Option 7: L+R (d-2) to Land <62M³/s / 43% of the time to Land (inland)** | | | | | | • Small effect on Manawatū River.<br>• Low risk to local waterbodies |
| **Option 8: L+R (e-1) to Land <80m³/s / 53% of the time to Land (coastal) TN = 35mg/L** | | | | | | • Moderate risk and uncertainty of effects on coastal streams and lakes due to large land area extending into lake catchments. |
| **Option 9: L+R (e-2) to land <62m³/s / 43%of the time to land (coastal) TN = 35mg/L** | | | | | | • Moderate risk and uncertainty of effects on coastal streams and lakes due to large land area extending into lake catchments. |
| **Option 10: O+L / Ocean with Land** | | | | | | • The effects of the discharge on benthic habitats and fish is expected to be negligible<br>• Construction effects on dune habitats and birds expected to be less than minor with appropriate mitigation. |

| Options | Conspicuous oil or grease films, scums or foams, or floatable or suspended materials s107(1)(c) | Conspicuous change in the colour or visual clarity s107(1)(d) | Emission of objectionable odour s107(1)(e) | Rendering of fresh water unsuitable for consumption by farm animals s107(1)(f) | Significant adverse effects on aquatic life s107(1)(g) | Commentary |
|---|---|---|---|---|---|---|
| **Option 11: Ocean discharge** | | | | | | • The effects of the discharge on benthic habitats and fish is expected to be negligible<br>• Construction effects on dune habitats and birds expected to be less than minor with appropriate mitigation. |

Classification of the risk of an option not meeting the requirements of section 107

| | |
|---|---|
| Meets s107 | |
| Low risk of not meeting s107 | |
| Medium risk of not meeting s107 | |
| High risk of not meeting s107 | |
| Very high risk of not meeting s107 | |

## 10.1 RMA Section 107 Assessment Conclusion

As section 107 requires that a consent authority shall not grant a discharge permit or a coastal permit if the discharge is likely to give rise to any of the effects listed in the table above, this assessment has not involved making an overall judgement of the extent to which an option meets the requirements of section 107. If an option has the potential to result in one of the effects listed in section 107 then the assessment of the option against section 107 relates to the risk of the option potentially resulting in the effect.

Option 1: R2(b) which is the option with a discharge 100% of the time to the Manawatu River has a medium risk of not meeting s107. This is because there is a potential risk that Option 1 will not fully meet the water quality targets in the One Plan. Options 8 and 9 also have a moderate risk of not meeting s107. This is because of the uncertainty regarding effects on coastal streams and lakes due to the large land area component of these options that extend into the coastal lake catchments.

Option 2 has a low risk of not meeting s107 due to the potential occasional effect on periphyton and macroinvertebrates in the Manawatū River.

All the other options have been assessed as meeting s107 as the technical assessment undertaken to date indicate these options are not at risk of having significant adverse effects on aquatic life.

# 11 Stage 7 – RMA Part 2 Assessment

Part 2 of the RMA sets out the purpose (section 5) and principles (sections 6, 7, and 8) of the RMA. Section 6 sets out the matters of national importance which decision makers must recognise and provide for. Section 7 sets out other matters which decision makers must have particular regard to, and section 8 requires decision-makers to take into account the principles of the Treaty of Waitangi. **Table 9** contains the assessment of the extent to which each option aligns with Part 2 of the RMA.

**Table 9: RMA Part 2 Assessment**

| Options | Section 5 – Purpose, Section 6 – Matters of national importance, Section 7 – Other matters Section 8 – Treaty of Waitangi | Commentary |
|---|---|---|
| **Option 1: R2(b) River discharge with Enhanced Treatment** | | • Significant issues for Rangitāne with cultural well-being and health, relationship of Māori with and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga, sites of significance, kaitiakitanga because 100% discharge to Manawatū River<br>• Raukawa has assessed this option as fundamentally unacceptable<br>• Significant improvement in effects on water quality and periphyton growth compared to current situation, but potential risk that water quality targets in the One Plan will not be fully met<br>• Very low risk of effects on social and economic well-being of individuals because there is no land component<br>• Low risk of community economic well-being effects as this is the cheapest option ($337m NPV)<br>• No outstanding natural features, character and landscapes affected<br>• No risk of effects on local water bodies |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow** | | • Significant issues for Rangitāne with cultural well-being and health, relationship of Māori with and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga, sites of significance, kaitiakitanga because significant discharge to Manawatū River<br>• Raukawa has assessed this option as fundamentally unacceptable<br>• One Plan Schedule B Values and water quality target should be met<br>• Low risk of effects on social and economic well-being of individuals (only 760ha land required)<br>• Risk of community economic well-being effects due to the cost of the option ($496m NPV)<br>• No outstanding natural features, character and landscapes affected<br>• Slight risk to local water bodies from land discharge |

| Options | Section 5 – Purpose, Section 6 – Matters of national importance, Section 7 – Other matters Section 8 – Treaty of Waitangi | Commentary |
|---|---|---|
| **Options 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow** | | • Significant issues for Rangitāne with cultural well-being and health, relationship of Māori with and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga, sites of significance, kaitiakitanga because significant discharge to Manawatū River<br>• Raukawa has assessed this option as fundamentally unacceptable<br>• Discharge to a new receiving environment in the Manawatū River<br>• One Plan Schedule B Values and water quality target should be met<br>• Low risk of effects on social and economic well-being of individuals (only 870ha land required)<br>• Risk of community economic well-being effects due to the cost of the options ($419m NPV)<br>• No outstanding natural features, character and landscapes affected<br>• Slight risk to local water bodies from land discharge |
| **Option 4: L+R (a) 97% of the time to Land (inland)** | | • For Rangitāne cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga are reasonably well addressed. However, given the very significant land requirement there could be effects on local water bodies and sites of significance<br>• Raukawa has assessed this option as currently unacceptable<br>• High to very high risk of effects on social and economic well-being of individuals (3,760ha inland land required) because of potential large number of landowners affected<br>• High risk of community economic well-being effects due to the cost of the options ($604m NPV)<br>• Potential to cause adverse effects on local water bodies<br>• Potential effects on indigenous biodiversity and heritage (archaeological) given the large land requirement<br>• Could be effects from climate change given the large land requirement and limited flexibility to discharge to another receiving environment |
| **Option 5: L+R (b) 97% of the time to Land (coastal)** | | • For Rangitāne cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga are partly addressed because the wastewater had been removed from the river. However, Rangitāne lore requires the city to deal with wastewater within it associated geographic area which this option does not. Also given the very significant land requirement there could be effects on local water bodies and sites of significance.<br>• Raukawa has assessed this option as fundamentally unacceptable |

| Options | Section 5 – Purpose, Section 6 – Matters of national importance, Section 7 – Other matters Section 8 – Treaty of Waitangi | Commentary |
|---|---|---|
| | | • Medium risk of effects on social and economic well-being of individuals (2,570ha of coastal land required) because potentially fewer number of landowners affected in the coastal area.<br>• Very high risk of community economic well-being effects because this option is the most expensive ($836m NPV)<br>• Potential to cause adverse effects on local water bodies<br>• Potential effects on indigenous biodiversity and heritage (archaeological) given the large land requirement<br>• Potential effects on outstanding natural features and landscapes given the coastal location<br>• Could be effects from climate change given the large land requirement and limited flexibility to discharge to another receiving environment |
| **Option 6: L+R (d-1) to Land <80m$^3$/s / 53% of the time to Land (inland)** | | • For Rangitāne cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga addressed to some extent due to the land component, but still a significant discharge to the river. Also, given the significant land requirement there could be effects on local water bodies and sites of significance.<br>• Raukawa has assessed this option as currently unacceptable<br>• Medium to high risk of effects on social and economic well-being of individuals (2,000ha of inland land required) given the potential number of landowners affected<br>• Risk of community economic well-being effects because this option is the most expensive ($470m NPV)<br>• Potential to cause adverse effects on local water bodies<br>• Potential effects on indigenous biodiversity and heritage (archaeological) given the large land requirement |
| **Option 7: L+R (d-2) to Land <62M$^3$/s / 43% of the time to Land (inland)** | | • For Rangitāne cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga addressed to some extent due to the land component, but still a significant discharge to the river. Also, given the significant land requirement there could be effects on local water bodies and sites of significance.<br>• Raukawa has assessed this option as currently unacceptable<br>• Medium to high risk of effects on social and economic well-being of individuals (1,640ha of inland land required) given the potential number of landowners affected |

| Options | Section 5 – Purpose, Section 6 – Matters of national importance, Section 7 – Other matters Section 8 – Treaty of Waitangi | Commentary |
|---|---|---|
| | | • Risk of community economic well-being effects because this option is the most expensive ($433m NPV)<br>• Potential to cause adverse effects on local water bodies<br>• Potential effects on indigenous biodiversity and heritage (archaeological) given the large land requirement |
| **Option 8: L+R (e-1) to Land <80m³/s / 53% of the time to Land (coastal) TN = 35mg/L** | | • For Rangitāne cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga addressed to some extent due to the land component, but this land is not in the geographical area of Palmerston North and there is still a significant discharge to the river. Also, given the significant land requirement there could be effects on local water bodies and sites of significance.<br>• Raukawa has assessed this option as fundamentally unacceptable.<br>• Medium to high risk of effects on social and economic well-being of individuals (3,640ha of coastal land required) but potentially fewer number of landowners affected in the coastal area.<br>• High risk of community economic well-being effects as this is one of the most expensive options ($786m NPV)<br>• Potential to cause adverse effects on local water bodies<br>• Potential effects on indigenous biodiversity and heritage (archaeological) given the large land requirement<br>• Potential effects on outstanding natural features and landscapes given the coastal location |
| **Option 9: L+R (e-2) to land <62m³/s / 43%of the time to land (coastal) TN = 35mg/L** | | • For Rangitāne cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga addressed to some extent due to the land component, but this land is not in the geographical area of Palmerston North and there is still a significant discharge to the river. Also, given the significant land requirement there could be effects on local water bodies and sites of significance<br>• Raukawa has assessed this option as fundamentally unacceptable<br>• Medium to high risk of effects on social and economic well-being of individuals (3,010ha of coastal land required) but potentially fewer number of landowners affected in the coastal area.<br>• High risk of community economic well-being effects as this is one of the most expensive options ($730m NPV)<br>• Potential to cause adverse effects on local water bodies |

| Options | Section 5 – Purpose, Section 6 – Matters of national importance, Section 7 – Other matters Section 8 – Treaty of Waitangi | Commentary |
|---|---|---|
| | | • Potential effects on indigenous biodiversity and heritage (archaeological) given the large land requirement<br>• Potential effects on outstanding natural features and landscapes given the coastal location |
| **Option 10: O+L / Ocean with Land** | | • For Rangitāne cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga fundamentally not addressed because this option discharges to the ocean<br>• Raukawa has assessed this option as fundamentally unacceptable<br>• Medium risk of effects on social and economic well-being of individuals (1,470ha of coastal land required) because fewer potential number of landowners affected in the coastal area.<br>• Medium to high risk of community economic well-being effects due to the cost of the options ($621m NPV)<br>• Potential to cause adverse effects on local water bodies<br>• Potential effects on indigenous biodiversity and heritage (archaeological) given the large land requirement<br>• Potential effects on outstanding natural features and landscapes given the coastal location |
| **Option 11: Ocean discharge** | | • For Rangitāne and Raukawa cultural well-being and health, relationship of Māori with water, sites of significance, kaitiakitanga fundamentally not addressed because this option discharges to the ocean<br>• Raukawa has assessed this option as fundamentally unacceptable<br>• Very low risk of effects on social and economic well-being of individuals because there is no land component<br>• Medium risk of community economic well-being effects due to the cost of the options ($480m)<br>• Potential effects on outstanding natural features and landscapes given the coastal location<br>• No risk of effects on local water bodies |

Classification of the extent to which the option aligns with Part 2 of the RMA

| | |
|---|---|
| Strong alignment | |
| Good alignment | |
| General alignment | |
| Weak alignment | |
| Fails to align | |

## 11.1 RMA Part 2 Assessment Conclusions

All of the options will provide for the community's social and economic well-being and for its health and safety in terms of providing safe and reliable wastewater services.

The options assessed as having "general alignment" with Part 2 of the RMA have been given this assessment classification because the options have elements that demonstrate good or strong alignment with some of the provisions of Part 2 but have other elements that have weak alignment with the provisions. The assessments demonstrate that the options have some positive effects (benefits) and some negative / adverse effects in terms of Part 2. For example, Options 1, 2 and 3 which have significant discharges to the Manawatū have significant issues for Rangitāne and Raukawa, however, they have a low risk of effects on social and economic well-being of individuals. This is because they do not involve significant large areas of land for the application of the treated wastewater and the potential displacement of existing land uses and landowners. The options also have lower costs compared to other options which have economic well-being benefits.

The options assessed as having "weak alignment" with Part 2 of the RMA have been given this assessment classification because the adverse effects of each option on the natural environment and on social, economic and cultural well-being significantly outweigh any positive effects / benefits. For example, the options involving significant large areas of coastal land have significant issues for Rangitāne and Raukawa and have a high risk to community economic well-being because they are some of the most expensive options. They also have potential effects on indigenous biodiversity and heritage (archaeological) because of the large land requirements and potential effects on outstanding natural features and landscapes due to their coastal location.

# 12 Stage 8: Marine and Coastal Area (Takutai Moana) Act Assessment

Stage 8 provides an assessment of the risks associated with the options that are affected by applications made by parties under the MACAA for protected customary rights and customary marine titles. Although the MACAA assessment only involves those options with discharges and works (ocean outfall) in the coastal marine area (Options 10 and 11), it is important that this assessment is included as it has significant ramifications for these options.

The MACAA provides legal recognition and protection for customary activities and interests in the common marine and coastal area (which essentially is the coastal marine area under the RMA) through protected customary rights and customary marine title.

Applications for recognition and protection for Māori customary activities and interests had to be filed with the Minister for Treaty of Waitangi Negotiations by 3 April 2017. There are seven applications that apply to the general area where the ocean outfall and discharge is proposed (Options 10 and 11). These applications have yet to be determined.

If a customary marine title is granted in the area where the ocean outfall and discharge is proposed Council would not be able to build the outfall or commence the discharge until permission is obtained from the holders of the title. The holders of the title may give or decline permission on any grounds they see fit and there are no rights of appeal or objection to permission decisions. These are very significant powers holders of the title.

There are exemptions for "accommodated activities" and "deemed accommodated" activities, but there are high thresholds in the MACAA to qualify as one of these activities and the interpretation of these provisions has yet to be tested.

**Table 10** provides an assessment of the risks associated with the MACAA.

**Table 10: Marine and Coastal Area (Takutai Moana) Act Assessment**

| Options | Marine and Coastal Area (Takutai Moana) Act | Commentary |
|---|---|---|
| **Option 1: R2(b) River discharge with Enhanced Treatment** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Options 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Option 4: L+R (a) 97% of the time to Land (inland)** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Option 5: L+R (b) 97% of the time to Land (coastal)** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Option 6: L+R (d-1) to Land <80m$^3$/s / 53% of the time to Land (inland)** | | • The MACAA does not apply to this option, therefore it does not present any risk |

| Options | Marine and Coastal Area (Takutai Moana) Act | Commentary |
|---|---|---|
| **Option 7: L+R (d-2) to Land <62M$^3$/s / 43% of the time to Land (inland)** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Option 8: L+R (e-1) to Land <80m$^3$/s / 53% of the time to Land (coastal) TN = 35mg/L** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Option 9: L+R (e-2) to land <62m$^3$/s / 43%of the time to land (coastal) TN = 35mg/L** | | • The MACAA does not apply to this option, therefore it does not present any risk |
| **Option 10: O+L / Ocean with Land** | | • There is clear opposition by Rangitāne and Raukawa to the options involving an ocean outfall and discharge<br>• If a customary marine title was to be granted in the area where the ocean outfall and discharge is proposed it is extremely unlikely that permission from the customary title holder would be granted. This poses a significant risk for this option.<br>• The risk has been assessed as high rather than very high because it is unknown at this stage whether customary titles will be granted and the ability to apply for an exemption for "accommodated activities" under the MACAA |
| **Option 11: Ocean discharge** | | • There is clear opposition by Rangitāne and Raukawa to the options involving an ocean outfall and discharge<br>• If a customary marine title was to be granted in the area where the ocean outfall and discharge is proposed it is extremely unlikely that permission from the customary title holder would be granted. This poses a significant risk for this option.<br>• The risk has been assessed as high rather than very high because it is unknown at this stage whether customary titles will be granted and the ability to apply for an exemption for "accommodated activities" under the MACAA |

Classification of the risks associated with the Marine and Coastal Area (Takutai Moana) Act

| | |
|---|---|
| No risk | |
| Low risk | |
| Medium risk | |
| High risk | |
| Very high risk | |

## 12.1 MACAA Assessment Conclusion

The only options subject to the MACAA are the options with discharges to marine waters (Option 10 and 11). The options not subject to the MACAA have been assessed as having no risk.

Options 10 and 11 have been assessed as high risk in terms of the MACAA. This is because if a customary marine title was to be granted for a part of the area where the ocean outfall and discharge is proposed it is extremely unlikely that permission from the customary title holder would be granted. This poses a significant risk for Options 10 and 11.

The risk has been assessed as high rather than very high because it is unknown at this stage whether customary titles will be granted and the ability to apply for an exemption for "deemed accommodated activities" under the MACAA.

# 13 Stage Nine: Overall RMA Planning Assessment

This final stage of the RMA Planning assessment involves combining the outputs of the planning instrument assessment, the complexity assessment, the section 107 and Part 2 assessments and the MACAA assessment to provide a total score of the assessments for each option and an overall ranking of the options.

## Table 11: Combine RMA Planning Assessment

| Option | Planning Instrument Alignment | | | Complexity | | RMA | | MACAA | Score | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| | NPS-FM | NZCPS | One Plan | Consenting | Compliance | Section 107 | Part 2 | | | |
| **Option 1: R2(b) River discharge with Enhanced Treatment** | 2 | N/A | 3 | 4 | 4 | 3 | 3 | 5 | 24 | 2 |
| **Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow** | 2 | N/A | 3 | 3 | 3 | 4 | 3 | 5 | 23 | 3= |
| **Options 3: Dual R+L (b) Two River discharge points with 75% ADWF to Land at low River flow** | 2 | N/A | 3 | 2 | 2 | 5 | 3 | 5 | 22 | 4= |
| **Option 4: L+R (a) 97% of the time to Land (inland)** | 4 | N/A | 4 | 1 | 1 | 5 | 2 | 5 | 22 | 4= |
| **Option 5: L+R (b) 97% of the time to Land (coastal)** | 4 | N/A | 4 | 3 | 3 | 5 | 2 | 5 | 26 | 1 |
| **Option 6: L+R (d-1) to Land <80m³/s / 53% of the time to Land (inland)** | 3 | N/A | 3 | 2 | 2 | 5 | 3 | 5 | 23 | 3= |
| **Option 7: L+R (d-2) to Land <62M³/s / 43% of the time to Land (inland)** | 3 | N/A | 3 | 2 | 2 | 5 | 3 | 5 | 23 | 3= |
| **Option 8: L+R (e-1) to Land <80m³/s / 53% of the time to Land (coastal) TN = 35mg/L** | 3 | N/A | 3 | 2 | 2 | 3 | 2 | 5 | 20 | 6= |
| **Option 9: L+R (e-2) to land <62m³/s / 43%of the time to land (coastal) TN = 35mg/L** | 3 | N/A | 3 | 2 | 2 | 3 | 2 | 5 | 20 | 6= |
| **Option 10: O+L / Ocean with Land** | 4 | | 2 | 1 | 1 | 5 | 2 | 2 | 17 | 7 |
| **Option 11: Ocean discharge** | 4 | | 2 | 2 | 3 | 5 | 3 | 2 | 21 | 5 |

**Classification of the extent to which the option aligns with the relevant planning instrument and Part 2 of the RMA**

| |
|---|
| Strong alignment |
| Good alignment |
| General alignment |
| Weak alignment |
| Fails to align |

**Complexity classification**

| |
|---|
| Low complexity |
| Low to medium complexity |
| Medium complexity |
| Medium to high complexity |
| High complexity |

**Classification of the risk of an option not meeting the requirements of section 107 of the RMA**

| |
|---|
| Meets s107 |
| Low risk of not meeting s107 |
| Medium risk of not meeting s107 |
| High risk of not meeting s107 |
| Very high risk of not meeting s107 |

**Classification of the risks associated with Marine and Coastal Area (Takutai Moana) Act**

| |
|---|
| No Risk |
| Low risk |
| Medium risk |
| High Risk |
| Very high risk |

## 13.1 Overall RMA Planning Assessment Conclusion

The inclusion of the RMA section 107, Part 2 and MACAA assessments with the planning instrument and complexity assessments has resulted in some changes to the rankings from those set out in **Table 7**.

Under the combined alignment with planning instruments and complexity assessment set out in **Table 7**, the top three ranking options were:

- Option 5: L+R (b) 97% of the time to land (coastal) (1)
- Option 1: R2(b) River discharge with Enhanced Treatment (2)
- Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow (3=)
- Option 11: Ocean Discharge (3=)

Adding the RMA section 107, Part 2 and MACAA assessments as set out in **Table 11** has resulted in Option 5 remaining as the first ranked option, but with three options being ranked second equal. The ranking from the overall assessments is:

- Option 5: L+R (b) 97% of the time to land (coastal) (1)
- Option 1: R2(b) River discharge with Enhanced Treatment (2)
- Option 2: R2 (b-2) River discharge with Enhanced Treatment 75% ADWF to Land at low River flow (3=)
- Option 6: L+R (d-1) to Land <80m3/s / 53% of the time to Land (inland) (3=)
- Option 7: L+R (d-2) to Land <62M3/s / 43% of the time to Land (inland) (3=)

Option 11 which was ranked third equal in combined alignment with planning instruments and complexity assessment does not appear in the top four of the overall assessment. This is primarily to do with the MACAA assessment.

Option 5 is ranked the highest (best) because it has "good alignment" with the planning instruments, particularly because it meets the key driver of the NPS-FM of putting the health and well-being of freshwater (Manawatū River) first. It also meets s107 and has no risks in terms of the MACAA. It was assessed as having medium complexity. The only assessment Option 5 did not perform well against was alignment with Part 2. It was assessed as having weak alignment primarily because it was opposed by Rangitāne and Raukawa and the very high risk to community economic well-being as it is the most expensive option ($836m NPV).

Option 1 ranked second because it has no risks in terms of the MACAA, has a "low to medium complexity", and a "general alignment with Part 2. However, Option 1 has a "medium risk" of not meeting s107 and a "weak alignment / general" with the planning instruments. The outcomes of the s107 and planning instruments assessments reflect the potential risk of not meeting the One Plan targets during certain river conditions.

Options 2, 6 and 7 ranked third equal.

Option 2 ranked third equal as it has no risks in terms of the MACCA, "medium complexity" and "general alignment" with Part 2 and the One Plan. It does however have a medium risk of not meeting s107.

Options 6 and 7 ranked third equal because both options have no risks in terms of the MACAA and s107. Both options have general alignment with Part 2 and the planning instruments. The only assessment the options did not perform well in were the complexity assessments where they were assessed as having a "medium to high complexity".

# Appendix 1: Freshwater Receiving Environment Assessment

**Assessment of a wastewater discharge to freshwater receiving environments**

Red text identifies key clauses and components of objectives and policies that have influenced the assessment

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| **National Policy Statement for Freshwater Management 2020** | 2.1 Objective<br>(1) The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:<br>(a) first, the health and well-being of water bodies and freshwater ecosystems<br>(b) second, the health needs of people (such as drinking water)<br>(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. | • This is the only objective in the NPS-FM<br>• The objective reflects the Te Mana o te Wai hierarchy of obligations<br>• The explanation of the concept of Te Mana o te Wai refers to Te Mana o te Wai protecting the mauri of the wai<br>• The options that involve significant ongoing discharges to the Manawatū River at Totara Road have the highest level of treatment.<br>• Other options that involve ongoing discharges to the Manawatū River also involve reasonable periods of time when the discharge will go to land (43% and 53%)<br>• These options should help improve the health and well-being of the Manawatū River when compared with the current situation. However, a comparative assessment of these river options with the options involving 97% to another receiving environment concludes that the options with 97% to another receiving environment better align with putting the health and wellbeing of the river first.<br>• The majority of the river options are less costly than the options involving 97% to another receiving environment and would therefore better align with providing for people and communities economic well-being<br>• The Rangitāne Cultural Values Assessment (CVA) states that "any discharge of wastewater to waterways will impact the mauri (lifeforce) of the environment. The amount of wastewater discharged to waterways is exponentially related to mauri." [3]<br>• The Rangitāne CVA states that "Rangitāne do not believe that the discharge of wastewater through artificial wetlands will restore the mauri of the wastewater and protect the Manawatū Awa."[4]<br>• Raukawa has assessed the river discharge options as fundamentally unacceptable.<br>• Given the assessments by Rangitāne and Raukawa it is difficult to conclude that discharges to freshwater receiving environments align well with the only objective in the NPS-FM. | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.<br>Policy 7: The loss of river extent and values is avoided to the extent practicable.<br>Loss of river values in defined in the NPS-FM and includes<br>• Māori freshwater values including mahinga kai (compulsory value) kai is safe to harvest and eat, Mahinga kai – Kei te ora te mauri (the mauri of the place is intact)<br>• Human contact (compulsory value) i.e. extent to which an FMU or part of an FMU supports people being able to connect with the water through a range of activities such as swimming, waka, boating, fishing, mahinga kai, and water skiing, in a range of different flows or levels. | • As per the discussion above<br>• The public health risk assessment that informed the MCA workshop identified factors such as mahinga kai and contact recreation as high risk for options involving discharges to the Manawatū River depending on the level of treatment<br>• This is an avoid policy although tempered by "the extent practicable"<br>• The Rangitāne CVA states that "the discharge of wastewater to the awa eliminates the ability of Rangitāne people to bathe and collect mahinga kai in traditional hunting and gathering grounds downstream of the discharge because of the tapu nature of wastewater. This in turn impacts Rangitāne in exercising their kaitiakitanga and the role of the iwi to nourish their people".[5]<br>• Given the assessment by Rangitāne it would be difficult to argue that the discharge of treated wastewater to the Manawatū River avoids the loss of river values in terms of Māori freshwater values and food gathering and consumption even though the avoid is tempered by "the extent practicable" | |
| | Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement. | • It could be argued that the discharge of treated wastewater to the Manawatū River is enabling communities to provide for their social and economic well-being<br>• The majority of the river options are less costly than the options involving 97% to another receiving environment and would therefore better align with enabling communities to provide for their economic well-being<br>• However, the options involving 97% to another receiving environment are considered to be more consistent with the NPS. | |

[3] Rangitāne o Manawatū Cultural Values Assessment page 20
[4] Rangitāne o Manawatū Cultural Values Assessment page 23
[5] Rangitāne o Manawatū Cultural Values Assessment page 23

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| **Overall alignment with the NPS-FM** | | Overall, it is concluded that the freshwater receiving environment has a weak alignment with the relevant objectives and policies of the NPS-FM. This is primarily because of the requirement to put the health and well being of freshwater first and the effects identified by Rangitāne on mauri and the fundamental opposition to the river options by Raukawa. | |
| **One Plan Regional Policy Statement** | | | |
| Chapter 2 Te Ao Māori | Policy 2-4: Other resource management issues<br>The specific issues listed in 2.2 (Resource Management Issues of Significance to Hapū and Iwi) which were raised by hapū and iwi must be addressed in the manner set out in Table 2.1 below.<br>Table 2.1 highlights issues of significance to the Region's hapū and iwi, provides explanations in the context of Māori belief and demonstrates how the Regional Council must address these matters.<br>Table 2.1 Resource management issues of significance to hapū and iwi<br>(h) Sewage disposed to water, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred | • Policy 2-4 requires that the Regional Council must address the issues raised by iwi and hapū<br>• This policy specifically identifies Objective 5-2 and Policy 5-11 as demonstrating how the One Plan has addressed the significant resource management issue that "sewage disposed to water, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred"<br>• This policy is included to provide context for assessing Objective 5-2 and Policy 5-11 | Policy 2-4 has been included for context. It does not require assessment |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| Chapter 5 Water | Objective 5-1: Water management values<br>Surface water bodies and their beds are managed in a manner which safeguards their life supporting capacity and recognises and provides for the Values in Schedule B. | • The key effects caused by the existing discharge to the Manawatū River are associated with the nutrient (nitrogen and phosphorus) content of the discharge, which then causes frequent excessive periphyton growth, which then causes effects on macroinvertebrate communities and key ecosystem health indicators like dissolved oxygen. These affect ecological and recreational values of a significant reach the lower Manawatū River<br>• All of the options with significant discharges to the Manawatū River have been designed to ensure that the Schedule B values are recognised and provided for (but not pristine state of the values) with the exception of Option 1 (R2(b) which may not provide for Schedule B ecological and recreational values. | |
| | Objective 5-2: Water quality<br>(a) Surface water quality is managed to ensure that:<br>(i) water quality is maintained in those rivers and lakes where the existing water quality is at a level sufficient to support the Values in Schedule B<br>(ii) water quality is enhanced in those rivers and lakes where the existing water quality is not at a level sufficient to support the Values in Schedule B | • Meeting the Schedule B Values is primarily informed by whether or not the Schedule E water quality targets that are measures of the Schedule B values are met.<br>• Upstream of the current discharge the targets for periphyton biomass and SIN are generally met. The DRP target and the E.coli are not met.<br>• The Manawatū River generally does not meet the target for macroinvertebrate community index (MCI). Macroinvertebrates are a key indicator of ecological health.<br>• The Manawatū River generally does not meet the target for water quality and sediment<br>• Given the above assessment sub-clause (ii) of Objective 5-2 applies and the water quality of the Manawatū River will need to be enhanced. | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | | • All of the options with significant discharges to the Manawatū River have been designed to ensure that the Schedule B values are recognised and provided for (but not pristine state of the values) with the exception of Option 1 (R2(b) which may not provide for schedule B ecological and recreational values.<br>• The options with significant discharges to the Manawatū River are a significant improvement on the current discharge in terms of treatment and/or the amount of time the treated wastewater is discharged to the river.<br>• A comparative assessment of the river options with the options involving 97% to another receiving environment concludes that the options with 97% to another receiving environment better align with the enhancement of water quality objectives | |
| | Policy 5-2: Water quality targets<br>The water quality targets in Schedule E must be used to inform the management of surface water quality in the manner set out in Policies 5-3, 5-4 and 5-5.<br>One Plan Definition of Water Quality Target<br>Water quality target means an objective or result for water quality towards which efforts are directed. | • All options with significant discharges to the Manawatū River have been designed to meet key Schedule E targets with a particular focus on achieving the periphyton biomass as targets as this is the key, and most directly measurable adverse effect caused by the existing discharge.<br>• All options also result in major reductions in contaminant loads being discharged to the river.<br>• Only one option (R2(b)) presents a risk of not fully meeting the targets | Policy 5-2 has been included for context. It does not require assessment |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Policy 5-4: Enhancement where water quality targets are not met<br>(a) Where the existing water quality does not meet the relevant Schedule E water quality targets within a Water Management Sub-zone, water quality within that sub-zone must be managed in a manner that enhances existing water quality in order to meet:<br>(i) the water quality target for the Water Management Zone in Schedule E, and/or<br>(ii) the relevant Schedule B Values and management objectives that the water quality target is designed to safeguard. | • Given the assessment in relation to the existing water quality of the Manawatū River in Objective 5-2, the water quality of the Manawatū River will need to be enhanced.<br>• The options with significant discharges to the Manawatū River are a significant improvement on the current discharge in terms of treatment and/or the amount of time the treated wastewater is discharged to the river.<br>• All options with significant discharges to the Manawatū River have been designed to meet key Schedule E targets with a particular focus on achieving the periphyton biomass as targets as this is the key, and most directly measurable adverse effect caused by the existing discharge.<br>• All options also result in major reductions in contaminant loads being discharged to the river.<br>• Only Option 1 (R2(b) presents a risk of not fully meeting the targets<br>• All of the options with significant discharges to the Manawatū River have been designed to ensure that the Schedule B values are recognised and provided for (but not pristine state of the values) with the exception of Option 1 (R2(b) which may not provide for Schedule B ecological and recreational values. | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Policy 5-9: Point source discharges to water<br>The management of point source discharges into surface water must have regard to the strategies for surface water quality management set out in Policies 5-3, 5-4 and 5-5, while having regard to:<br>(a) the degree to which the activity will adversely affect the Schedule B Values for the relevant Water Management Sub-zone<br>(b) whether the discharge, in combination with other discharges, including non-point source discharges will cause the Schedule E water quality targets to be breached<br>(c) the extent to which the activity is consistent with contaminant treatment and discharge best management practices<br>(d) the need to allow reasonable time to achieve any required improvements to the quality of the discharge<br>(e) whether the discharge is of a temporary nature or is associated with necessary maintenance or upgrade work and the discharge cannot practicably be avoided<br>(f) whether adverse effects resulting from the discharge can be offset by way of a financial contribution set in accordance with Chapter 19<br>(g) whether it is appropriate to adopt the best practicable option. | • This policy requires these matters to be had regard to<br>• The policy does not say shall not adversely affect or shall not breach<br>• In terms of clauses (a) and (b) The options with significant discharges to the Manawatū River are a significant improvement on the current discharge in terms of treatment and/or the amount of time the treated wastewater is discharged to the river.<br>• In terms of clause (a) all of the options with significant discharges to the Manawatū River have been designed to ensure that the Schedule B Values are recognised and provided for and not adversely effected (but not pristine state of the values) with the exception of Option 1 (R2(b) which may not provide for Schedule B ecological and recreational values.<br>• In terms of clause (b), given the assessment in relation to the existing water quality of the Manawatū River in Objective 5-2 a number of Schedule E water quality targets are currently breached. All options with significant discharges to the Manawatū River have been designed to meet key Schedule E targets with the exception of Option 1 R2(b) which presents a risk of not fully meeting the targets. All options also result in major reductions in contaminant loads being discharged to the river.<br>• In terms of clause (c), best management practices for treatment relative to compatibility with the receiving environment have been adopted in the development of the options.<br>• In terms of clause (g), the current consent conditions require the adoption of BPO | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Policy 5-11: Human sewage discharges<br>Notwithstanding other policies in this chapter:<br>(a) before entering a surface water body all new discharges of treated human sewage must:<br>(i) be applied onto or into land, or<br>(ii) flow overland, or<br>(iii) pass through an alternative system that mitigates the adverse effects on the mauri of the receiving water body, and<br>(b) all existing direct discharges of treated human sewage into a surface water body must change to a treatment system described under (a) by the year 2020 or on renewal of an existing consent, whichever is the earlier date. | • Policy 2-4 identifies Policy 5-11 as addressing the issue raised by iwi and hapū that "sewage disposed to water, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred"<br>• The Rangitāne CVA states that the "discharge of wastewater to land has the least impact on Rangitāne"[6].<br>• The Rangitāne CVA states that "Rangitāne do not believe that the discharge of wastewater through artificial wetlands will restore the mauri of the wastewater and protect the Manawatū Awa."[7]<br>• The Environment Court has found that, in relation to Policy 5-11, direct discharges of treated wastewater to freshwater will not meet Policy 5-11, and that wetland systems proposed in those cases satisfy the requirements of Policy 5-11<br>• As all options with discharges to the Manawatū River include wetlands which the discharge will pass through before entering the river, "on its face" Policy 5-11 can be met ("good alignment" / "strong alignment") for these options. However, in view of the position of Rangitāne that wetlands will not restore the mauri of the wastewater and protect the river, the freshwater receiving environment has been assessed as having "general alignment" with Policy 5-11 | |

[6] Rangitāne o Manawatū Cultural Values Assessment page 19

[7] Rangitāne o Manawatū Cultural Values Assessment page 23

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Method 5-4 Human Sewage Discharges to Water<br>The Regional Council will provide assistance to Territorial Authorities to upgrade existing sewage treatment systems that directly discharge treated human sewage to the Region's water bodies.<br>The Regional Council to work with Territorial Authorities to reduce water volume, explore land application options and assist with funding opportunities<br>Target: To stop direct human sewage discharges to water by 2020 | • Method 5-4 links to Policies 5-2 and 5-11 | Method 5-4 has been included for context |
| **One Plan Regional Plan** | | | |
| Policy to be inserted into the One Plan as required by the NPS-FM 2020 | NPS-FM 3.24 Rivers<br>(1) Every regional council must include the following policy (or words to the same effect) in its regional plan(s):<br>"The loss of river extent and values is avoided, unless the council is satisfied:<br>(a) that there is a functional need for the activity in that location; and<br>(b) the effects of the activity are managed by applying the effects management hierarchy." | • As discussed above under the NPS-FM assessment it could be difficult to argue that the discharge of treated wastewater to the Manawatū River avoids the loss of river values in terms of Māori freshwater values<br>• The exception to this policy is that the council (the consent authority) is satisfied that there is a functional need for the discharge in the location (the river) and the effects of the activity are managed by applying the effects management hierarchy<br>• The definition of "functional need" requires proof that the discharge needs to be to the river because the discharge "can only occur" in that environment. This could be difficult to prove given that land and ocean options are included in the shortlist of options. | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | NPS-FM definition of loss of value<br>in relation to a natural inland wetland or river, means the wetland or river is less able to provide for the following existing or potential values:<br>(a) any value identified for it under the NOF process; or<br>(b) any of the following, whether or not they are identified under the NOF process:<br>(i) ecosystem health<br>(ii) indigenous biodiversity<br>(iii) hydrological functioning<br>(iv) Māori freshwater values<br>(v) amenity<br>NPS-FM definition of Māori freshwater values means the compulsory value of mahinga kai and any other value (whether or not identified in Appendix 1A or 1B) identified for a particular FMU or part of an FMU through collaboration between tangata whenua and the relevant regional council | • The Rangitāne CVA states that "the discharge of wastewater to the awa eliminates the ability of Rangitāne people to bathe and collect mahinga kai in traditional hunting and gathering grounds downstream of the discharge because of the tapu nature of wastewater."[8]<br>• Raukawa has assessed the river discharge options as fundamentally unacceptable.<br>• Given that all options will result in major reductions in contaminant loads being discharged to the river the other values should be provided for.<br>• Given the assessment by Rangitāne and Raukawa it would be difficult to argue that the discharge of treated wastewater to the Manawatū River avoids the loss of river values in terms of Māori freshwater values and food gathering and consumption<br>• All values except Māori freshwater values should be provided for, therefore the assessment can only be general alignment | |

[8] Rangitāne o Manawatū Cultural Values Assessment page 23

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | NPS-FM definition of functional need<br>means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment<br>NPS-FM definition of effects management hierarchy<br>effects management hierarchy, in relation to natural inland wetlands and rivers, means an approach to managing the adverse effects of an activity on the extent or values of a wetland or river (including cumulative effects and loss of potential value) that requires that:<br>(a) adverse effects are avoided where practicable; and<br>(b) where adverse effects cannot be avoided, they are minimised where practicable; and<br>(c) where adverse effects cannot be minimised, they are remedied where practicable; and<br>(d) where more than minor residual adverse effects cannot be avoided, minimised, or remedied, aquatic offsetting is provided where possible; and<br>(e) if aquatic offsetting of more than minor residual adverse effects is not possible, aquatic compensation is provided; and<br>(f) if aquatic compensation is not appropriate, the activity itself is avoided | | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| Chapter 14 Discharges to Land and Water | Objective 14-1: Management of discharges to land and water and land uses affecting groundwater and surface water quality<br>The management of discharges onto or into land (including those that enter water) or directly into water and land use activities affecting groundwater and surface water quality in a manner that:<br>(a) safeguards the life supporting capacity of water and recognises and provides for the Values and management objectives in Schedule B,<br>(b) provides for the objectives and policies of Chapter 5 as they relate to surface water and groundwater quality, and<br>(c) where a discharge is onto or into land, avoids, remedies or mitigates adverse effects on surface water or groundwater. | • The key effects caused by the existing discharge to the river are associated with the nutrient content of the discharge (which then causes frequent excessive periphyton growth, which then causes effects on macroinvertebrate communities and key ecosystem health indicators like dissolved oxygen). These affect ecological and recreational values of a significant reach the lower Manawatu River<br>• All of the options with significant discharges to the Manawatū River have been designed to ensure that the Schedule B values are recognised and provided for (but not pristine state of the values) with the exception of one option (R2(b)) which may not provide for Schedule B ecological and recreational values.<br>• The objectives and policies of Chapter 5 have been assessed as having "good alignment" or "general alignment" in respect of the options with significant discharges to the Manawatū River.<br>• Some of the discharge options that include relatively large land components present a potential risk of causing adverse effects on local waterbodies (streams, lakes and aquifers) | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Policy 14-1: Consent decision-making for discharges to water<br>When making decisions on resource consent applications, and setting consent conditions, for discharges of water or contaminants into water, the Regional Council must specifically consider:<br>(a) the Objectives and Policies 5-1 to 5-5 and 5-9 of Chapter 5,<br>and have regard to:<br>(b) avoiding discharges which contain any persistent contaminants that are likely to accumulate in a water body or its bed, | • This policy is related to matters decision makers must specifically consider or have regard to when making decisions on resource consents.<br>• In terms of clause (a) the relevant Objectives and Policies 5-1 to 5-5 and 5-9 have been assessed as having "good alignment" or "general alignment" in respect of the options with significant discharges to the Manawatū River<br>• In terms of clause (b) concentrations of persistent contaminants / emerging organic contaminants are already very low (often below laboratory limits of detection) in the wastewater influent to the WWTP and are further reduced by the treatment process. Also, the very low concentrations of any persistent contaminants are continually removed by physical processes in the river and therefore should not accumulate in the river or its bed. | |
| | (c) the appropriateness of adopting the best practicable option to prevent or minimise adverse effects in circumstances where:<br>(i) it is difficult to establish discharge parameters for a particular discharge that give effect to the management approaches for water quality and discharges set out in Chapter 5, or<br>(ii) the potential adverse effects are likely to be minor, and the costs associated with adopting the best practicable option are small in comparison to the costs of investigating the likely effects on land and water, and<br>(d) the objectives and policies of Chapters 2, 3, 6, 9 and 12 to the extent that they are relevant to the discharge. | • In terms of clause (c), the current consent conditions require the adoption of BPO<br>• In terms of clause (d) these other objectives and policies are not considered to be particularly relevant in providing a comparative assessment of the options. | |
| | Policy 14-4: Options for discharges to surface water and land | • This policy supports the "mix and match" options involving both discharges to land and to the | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | When applying for consents and making decisions on consent applications for discharges of contaminants into water or onto or into land, the opportunity to utilise alternative discharge options, or a mix of discharge regimes, for the purpose of mitigating adverse effects, applying the best practicable option, must be considered, including but not limited to:<br>(a) discharging contaminants onto or into land as an alternative to discharging contaminants into water,<br>(b) withholding from discharging contaminants into surface water at times of low flow, and<br>(c) adopting different treatment and discharge options for different receiving environments or at different times (including different flow regimes or levels in surface water bodies) | Manawatū River including discharges to land when the river is at low flow<br>• A number of options are strongly aligned with this policy | |
| Overall alignment with the One Plan | | | |

# Appendix 2: Land Receiving Environment Assessment

## Assessment of a wastewater discharge to land receiving environments

Red text identifies key clauses and components of objectives and policies that have influenced the assessment

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| **National Policy Statement for Freshwater Management 2020** | 2.1 Objective<br>(1) The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:<br>(a) first, the health and well-being of water bodies and freshwater ecosystems<br>(b) second, the health needs of people (such as drinking water)<br>(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. | • The NPS-FM is relevant because the current receiving environment for the wastewater discharge is freshwater<br>• This is the only objective in the NPS-FM<br>• The objective mimics the Te Mana o te Wai hierarchy of obligations<br>• The explanation of the concept of Te Mana o te Wai refers to Te Mana o te Wai protecting the mauri of the wai<br>• By removing the discharge of treated wastewater from the Manawatū River and discharging it to land puts the health and well-being of water bodies and freshwater ecosystems first and protects the mauri of the wai<br>• However, the discharge to land options have the potential to cause adverse effects on local waterbodies (streams, lakes and groundwater). These would be new effects on these waterbodies.<br>• The discharge of treated wastewater to land better aligns with this objective and therefore the hierarchy of obligations in Te Mana o te Wai when compared with options with significant discharges to the Manawatū River noting the potential to effect local water bodies. | |
| **One Plan Regional Policy Statement** | | | |
| Chapter 2 Te Ao Māori | Policy 2-4: Other resource management issues<br>The specific issues listed in 2.2 (Resource Management Issues of Significance to Hapū and Iwi) which were raised by hapū and iwi must be addressed in the manner set out in Table 2.1 below. | • Policy 2-4 requires that the Regional Council must address the issues raised by iwi and hapū<br>• This Policy specifically identifies Objective 5-2 and Policy 5-11 as how the One Plan has addressed this issue. | Policy 2-4 has been included for context. It does not require assessment |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Table 2.1 highlights issues of significance to the Region's hapū and iwi, provides explanations in the context of Māori belief and demonstrates how the Regional Council must address these matters.<br>Table 2.1 Resource management issues of significance to hapū and iwi<br>(h) Sewage disposed to water, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred | | |
| Chapter 5 Water | Policy 5-6: Maintenance of groundwater quality<br>(a) Discharges and land use activities must be managed in a manner which maintains the existing groundwater quality, or where groundwater quality is degraded/over allocated as a result of human activity, it is enhanced.<br>(b) An exception may be made under (a) where a discharge onto or into land better meets the purpose of the RMA than a discharge to water, provided that the best practicable option is adopted for the treatment and discharge system.<br>(c) Groundwater takes in the vicinity of the coast must be managed in a manner which avoids saltwater intrusion. | • The land application options have incorporated buffer zones to minimise effects on groundwater<br>• Some options involving very large land areas potentially may affect groundwater quality.<br>• Clause (b) of this policy provides an exception to maintaining groundwater quality if a discharge to land better meets the purpose of the RMA and the BPO is adopted<br>• The wastewater solution for the city is designed to be the BPO and given the policy support in the One Plan for land application it could be argued that the discharge to land better meets the purpose of the RMA. | |

| Planning Instrument | Provision | Assessment | Alignment |
|---|---|---|---|
| | Policy 5-10: Point source discharges to land<br>Discharges of contaminants onto or into land must be managed in a manner which:<br>(a) does not result in pathogens or other toxic substances accumulating in soil or pasture to levels that would render the soil unsafe for agricultural, domestic or recreational use<br>(b) has regard to the strategies for surface water quality management set out in Policies 5-3, 5-4 and 5-5, and the strategy for groundwater management set out in Policy 5-6<br>(c) maximises the reuse of nutrients and water contained in the discharge to the extent reasonably practicable<br>(d) results in any discharge of liquid to land generally not exceeding the available water storage capacity of the soil (deferred irrigation)<br>(e) ensures that adverse effects on rare habitats, threatened habitats and at-risk habitats are avoided, remedied or mitigated. | • In terms of clause (a) concentrations of persistent contaminants / emerging organic contaminants are already very low (often below laboratory limits of detection) in the wastewater influent to the WWTP and are further reduced by the treatment process.<br>• The extremely low concentrations in the treated wastewater of persistent contaminants / emerging organic contaminants mean that accumulation in soils as a result of the discharge, even over an extended time period out to 35 years, will not give rise to levels that would result in the soil being unsafe for agricultural, domestic or recreational use<br>• For pathogens the same factors apply, with the impacts of UV light on the receiving soil being an additional attenuating agent that, when combined with the mitigation afforded by soil microbial activity, results in a negligible accumulation of pathogens.<br>• In terms of clause (b) Policies 5-3, 5-4 and 5-5 relate to meeting water quality targets. A significant reduction of the discharge to the Manawatū River due to applying the discharge to land should assist with improving the ability to meet water quality targets in the river. Noting the potential to effect local water bodies. Policy 5-6 has been assessed as "good alignment"<br>• In terms of clause (c) the reuse of nutrients and water will occur through the cropping of the land.<br>• In terms of clause (d) the land application options involving more than a small percentage of the discharge going to land are likely to exceed the water storage capacity of the soil. This could be mitigated through design and management<br>• In terms of clause (e) the land application areas will be selected to avoid or minimise any adverse effects on rare habitats, threatened habitats and at-risk habitats<br>• The options involving discharges to land mostly align with the clauses in the policy with the exception of clause (d). Therefore, the assessments is that of general alignment. | |

| Planning Instrument | Provision | Assessment | Alignment |
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| **One Plan Regional Plan** | | | |
| Chapter 14 Discharges to Land and Water | Objective 14-1: Management of discharges to land and water and land uses affecting groundwater and surface water quality<br>The management of discharges onto or into land (including those that enter water) or directly into water and land use activities affecting groundwater and surface water quality in a manner that:<br>(a) safeguards the life supporting capacity of water and recognises and provides for the Values and management objectives in Schedule B,<br>(b) provides for the objectives and policies of Chapter 5 as they relate to surface water and groundwater quality, and<br>(c) where a discharge is onto or into land, avoids, remedies or mitigates adverse effects on surface water or groundwater. | • It is assumed that removing or reducing the treated wastewater discharge from the Manawatū River will assist in safeguarding the life supporting capacity of water, recognising and providing for the Values and management objectives in Schedule B and providing for the objectives and policies of Chapter 5 as they relate to the Manawatū River.<br>• However, the discharge to land options have the potential to cause adverse effects on local waterbodies (streams, lakes and groundwater). These would be new effects on these waterbodies.<br>• Some options involving very large land areas may affect groundwater quality.<br>• RPS Policy 5-6 provides an exemption for maintaining or enhancing ground water where a discharge onto or into land better meets the purpose of the RMA than a discharge to water, provided that the best practicable option is adopted for the treatment and discharge system.<br>• Removing or reducing the treated wastewater discharge from the Manawatū River strongly aligns with this policy, however there are potential risks associated with local waterbodies and for this reason the land application options are assessed as "good alignment" rather than "strong alignment" | |
| | Policy 14-2: Consent decision-making for discharges to land<br>When making decisions on resource consent applications, and setting consent conditions, for discharges of contaminants onto or into land the Regional Council must have regard to:<br>(a) the objectives and policies of Chapter 5 regarding the management of groundwater quality and discharges, | • This policy is related to matters decision makers must have regard to when making decisions on resource consents.<br>• In terms of clause (a) some options involving very large land areas may affect groundwater quality.<br>• In terms of clause (b) it is assumed that removing or reducing the treated wastewater discharge from the Manawatū River will assist in safeguarding the life supporting capacity of water, recognising and providing for the Values and management objectives in Schedule B and providing for the objectives and policies of Chapter 5 as they relate to the Manawatū River. | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | (b) where the discharge may enter surface water or have an adverse effect on surface water quality, the degree of compliance with the approach for managing surface water quality set out in Chapter 5,<br>(c) avoiding as far as reasonably practicable any adverse effects on any sensitive receiving environment or potentially incompatible land uses, in particular any residential buildings, educational facilities, churches, marae, public areas, infrastructure and other physical resources of regional or national importance identified in Policy 3-1, wetlands, surface water bodies and the coastal marine area,<br>(d) the appropriateness of adopting the best practicable option to prevent or minimise adverse effects in circumstances where:<br>(i) it is difficult to establish discharge parameters for a particular discharge that give effect to the management approaches for water quality and discharges set out in Chapter 5,<br>(ii) the potential adverse effects are likely to be minor, and the costs associated with adopting the best practicable option are small in comparison to the costs of investigating the likely effects on land and water,<br>(e) avoiding discharges which contain any persistent contaminants that are likely to accumulate in the soil or groundwater, and | • However, the discharge to land options have the potential to cause adverse effects on local waterbodies (streams, lakes and groundwater). These would be new effects on these waterbodies.<br>• In terms of clause (c) discharges to land will be managed through buffers to ensure the discharges do not adversely affect sensitive land uses and incompatible land uses. However, given some of the very large areas of land required this could be challenging to achieve. Noting the potential risks with option L+R(e) associated with the effect of nutrients on coastal lakes.<br>• In terms of clause (d), the current consent conditions require the adoption of BPO<br>• In terms of clause (e) concentrations of persistent contaminants / emerging organic contaminants are already very low (often below laboratory limits of detection) in the wastewater influent to the WWTP and are further reduced by the treatment process. Also, the very low concentrations of any persistent contaminants are continually removed by physical processes in the river and therefore should not accumulate in the river or its bed.<br>• In terms of clause (f) these other objectives and policies are not considered to be particularly relevant in providing a comparative assessment of the options.<br>• While the discharge to land options align well with a number of clauses of this policy there are potential risks associated with local water bodies, and effects on sensitive and incompatible land uses and for this reason the land application options are assessed as "general alignment" | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | (f) the objectives and policies of Chapters 2, 3, 6, 9 and 12 to the extent that they are relevant to the discharge. | | |
| | Policy 14-4: Options for discharges to surface water and land<br>When applying for consents and making decisions on consent applications for discharges of contaminants into water or onto or into land, the opportunity to utilise alternative discharge options, or a mix of discharge regimes, for the purpose of mitigating adverse effects, applying the best practicable option, must be considered, including but not limited to:<br>(a) discharging contaminants onto or into land as an alternative to discharging contaminants into water,<br>(b) withholding from discharging contaminants into surface water at times of low flow, and<br>(c) adopting different treatment and discharge options for different receiving environments or at different times (including different flow regimes or levels in surface water bodies) | • This policy supports discharges to land<br>• This policy supports the mix and match options involving both discharges to land and to the Manawatū River including discharges to land when the River is at low flow | |
| Overall alignment with the One Plan | | | |

# Appendix 3: Marine/Coastal Receiving Environment Assessment

## Assessment of a wastewater discharge to the coastal marine area and the installation of an ocean outfall in the coastal environment

Red text identifies key clauses and components of objectives and policies that have influenced the assessment

| Planning Instrument | Provision | Assessment | Alignment |
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| **National Policy Statement for Freshwater Management 2020** | 2.1 Objective<br>(1) The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:<br>(a) first, the health and well-being of water bodies and freshwater ecosystems<br>(b) second, the health needs of people (such as drinking water)<br>(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. | • The NPS-FM has been taken into account in assessing the options with discharges to marine waters because not discharging treated wastewater from the Manawatū River and discharging it to marine waters puts the health and well-being of freshwater first. However, the discharge is going to another water body – marine water and from previous experience with wastewater discharges to the CMA there are effects on the mauri of the wai and Rangitāne and Raukawa have signalled this clearly. This is the reason for classifying the alignment as "general alignment and not "good alignment" which is the classification for the discharge to land options. | |
| **New Zealand Coastal Policy Statement 2010** | Objective 1<br>To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:<br>• maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;<br>•protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and<br>•maintaining coastal water quality and enhancing it where it has deteriorated from what would otherwise | • The ocean outfall will be 2.3km in length (including the diffuser) so the discharge will be located some 2 to 2.3km from the shore and at a depth of approximately 20m<br>• The Cawthron report[9] concluded that there does not appear to be any taxa of particular ecological or conservation importance in the seabed around the outfall site.<br>• The Cawthron report identifies that the concentration of chlorophyll-*a* in the South Taranaki Bight exceed the water quality target for chlorophyll-*a* in the One Plan and turbidity near the coast is higher than the national median and exceed the ANZECC guidelines<br>• The Cawthron report indicates from the data available the Manawatū west coast is not of special importance for marine mammals and the coast is of low to moderate suitability to southern right whales and orcas | |

[9] Cawthron Report No 3598 Palmerston North Ocean Outfall Option: Assessment of Coastal Ecological Effects, January 2021

| Planning Instrument | Provision | Assessment | Alignment |
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| | be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity. | and low suitability to Hector's dolphins<br>• The Cawthron report concluded that the level of risk to the water body of further nutrient enrichment from the proposed discharge is negligible.<br>• The Cawthron report concluded that given the low conservation and ecological value of benthic habitats the level of risk is considered negligible and effects on fish are also expected to be negligible.<br>• The Cawthron report identifies that several species of bird have been recorded in the area that are listed in the New Zealand Threat Classification System as Threatened or At Risk<br>• The Cawthron report identifies that without mitigation there are likely to be significant adverse effects on shore and sea birds and sand-dune habitats and the organisms living in them associated with the construction of the outfall. These could be mitigated through using a trenchless method of installing the pipeline through the foredune and beach zones.<br>• While it could be argued that the receiving environment without the discharge is degraded and should be enhanced, Table 7 in the Cawthron report demonstrates that the receiving environment with the discharge, after reasonable mixing does not exceed the Schedule I targets in the One Plan for typical flows and in a number of cases is significantly less than the targets. However, there could be exceedances of some targets during peak wet weather flows based on the assumed relatively small mixing zone of 200m from the diffuser<br>• Further work is required to confirm the position on the need to maintain or enhance the receiving waters.<br>• Overall it is considered that the options would generally align with this objective. | |
| | <u>Objective 2</u> | • Any effects on natural character, features and | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | To preserve the natural character of the coastal environment and protect natural features and landscape values through:<br>•recognising the characteristics and qualities that contribute to natural character, natural features and landscape values and their location and distribution;<br>•identifying those areas where various forms of subdivision, use, and development would be inappropriate and protecting them from such activities; and<br>•encouraging restoration of the coastal environment. | landscape values will primarily be from the installation of the ocean outfall and potentially the presence of a chamber at the shoreline. While it is likely the landward section of the outfall will be installed using trenchless technology, preparatory works such as vegetation clearance, earthworks, access tracks and equipment storage areas will be required.<br>• The area under investigation for the location of the outfall includes the Foxtangi Dunes, Hokio Beach South Dune Fields and Santoft parabolic dunes. These dunes are listed but not mapped in Schedule G of the One Plan as Regionally Outstanding Natural Features.<br>• The area under investigation for the location of the landward extent of the outfall is identified as an Outstanding Natural Landscape under Plan Change 65 to the Manawatu District Plan Outstanding Natural Features and Landscapes (the Coast including the foredune and adjacent dunelands) under the Horowhenua District Plan. The areas in the Manawatu District Plan have been mapped, but the areas in the Horowhenua District Plan have not been mapped.<br>• The coastal land application areas could also potentially affects these features and landscapes.<br>• The Cawthron report identifies the dune areas as 'naturally uncommon ecosystems'.<br>• The Cawthron reports states that the Manawatū coast has experienced some of the greatest loss of active dunes.<br>• Appropriate trenchless technologies will minimise the effects of the installation of the pipeline on the landward side of the CMA thereby ensuring the protection natural character, features and landscape values. However, the preparatory works and storage of equipment will have short term effects | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | | • There could be opportunities for restoration of dunes and vegetation<br>• Given the installation of the landward side of the pipeline will occur in areas identified as Outstanding Natural Features and Landscapes it would be difficult to classify the options as strongly aligning with the objective. However, given the temporary nature of the constructions activities and that there should be no ongoing visual effects, the assessment is that there is "good alignment" with the objective. | |
| | Policy 11 Indigenous biological diversity (biodiversity)<br>To protect indigenous biological diversity in the coastal environment:<br>(a) avoid adverse effects of activities on:<br>(i) indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;<br>(ii) taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened;<br>(iii) indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare;<br>(iv) habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare;<br>(v) areas containing nationally significant examples of indigenous community types; and<br>(vi) areas set aside for full or partial protection of indigenous biological diversity under other legislation; and<br>(b) avoid significant adverse effects and avoid, remedy or mitigate other | • This policy is an "avoid" policy<br>• The Cawthron report concluded that there does not appear to be any taxa of particular ecological or conservation importance in the seabed around the outfall site.<br>• The Cawthron report identifies that several species of bird have been recorded in the area that are listed in the New Zealand Threat Classification System as Threatened or At Risk<br>• The Cawthron report identifies that without mitigation there are likely to be significant adverse effects on shore and sea birds and sand-dune habitats and the organisms living in them associated with the construction of the outfall. These could be mitigated through using a trenchless method of installing the pipeline through the foredune and beach zones. However, preparatory works such as vegetation clearance, earthworks, access tracks and equipment storage areas will be required which could affect birds and sand-dune habitats.<br>• However, the preparatory works and storage of equipment are likely to have short term effects on these habitats and it is for these reasons that the assessment is that the options would generally align with this policy. | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | adverse effects of activities on:<br>(i) areas of predominantly indigenous vegetation in the coastal environment;<br>(ii) habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;<br>(iii) indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;<br>(iv) habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes;<br>(v) habitats, including areas and routes, important to migratory species; and<br>(vi) ecological corridors, and areas important for linking or maintaining biological values identified under this policy. | | |
| | Policy 13 Preservation of natural character<br>(1) To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:<br>(a) avoid adverse effects of activities on natural character in areas of the coastal environment with outstanding natural character; and<br>(b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment;<br>including by: | • Cawthron report identifies the dunes as 'naturally uncommon ecosystems' and states that the Manawatū coast has experienced some of the greatest loss of active dunes.<br>• The area under investigation for the location of the landward extent of the outfall is identified as an Outstanding Natural Landscape under Plan Change 65 to the Manawatu District Plan Outstanding Natural Features and Landscapes (the Coast including the foredune and adjacent dunelands) under the Horowhenua District Plan. The areas in the Manawatu District Plan have been mapped, but the areas in the Horowhenua District Plan have not been mapped. | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | (c) assessing the natural character of the coastal environment of the region or district, by mapping or otherwise identifying at least areas of high natural character; and<br>(d) ensuring that regional policy statements, and plans, identify areas where preserving natural character requires objectives, policies and rules, and include<br>those provisions.<br>(2) Recognise that natural character is not the same as natural features and landscapes or amenity values and may include matters such as:<br>(a) natural elements, processes and patterns;<br>(b) biophysical, ecological, geological and geomorphological aspects;<br>(c) natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, reefs, freshwater springs and surf breaks;<br>(d) the natural movement of water and sediment;<br>(e) the natural darkness of the night sky;<br>(f) places or areas that are wild or scenic;<br>(g) a range of natural character from pristine to modified; and<br>(h) experiential attributes, including the sounds and smell of the sea; and their context or setting. | • The coastal land application areas of Option 10 O+L could also potentially affects these features and landscapes<br>• Given that only small areas of duneland remain that contribute to natural character, and that preparatory works and equipment storage will be required, it would be difficult to argue that the options strongly align with the policy. However, given the temporary nature of the construction activities and that there should be no ongoing visual effects, the assessment is that there is "good alignment" with the objective. | |
| | Policy 15 Natural features and natural landscapes<br>To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use, and development:<br>(a) avoid adverse effects of activities on outstanding natural features and | • The area under investigation for the location of the outfall and conveyance infrastructure includes the Foxtangi Dunes, Hokio Beach South Dune Fields and Santoft parabolic dunes. These dunes are listed but not mapped in Schedule G of the One Plan as Regionally Outstanding Natural Features.<br>• The area under investigation for the location of the landward extent of the outfall is identified | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | outstanding natural landscapes in the coastal environment; and<br>(b) avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activities on other natural features and natural landscapes in the coastal environment;<br>including by:<br>(c) identifying and assessing the natural features and natural landscapes of the coastal environment of the region or district, at minimum by land typing, soil characterisation and landscape characterisation and having regard to:<br>(i) natural science factors, including geological, topographical, ecological and dynamic components;<br>(ii) the presence of water including in seas, lakes, rivers and streams;<br>(iii) legibility or expressiveness—how obviously the feature or landscape demonstrates its formative processes;<br>(iv) aesthetic values including memorability and naturalness;<br>(v) vegetation (native and exotic); | as an Outstanding Natural Landscape under Plan Change 65 to the Manawatu District Plan Outstanding Natural Features and Landscapes (the Coast including the foredune and adjacent dunelands) under the Horowhenua District Plan. The areas in the Manawatu District Plan have been mapped, but the areas in the Horowhenua District Plan have not been mapped.<br>• The coastal land application areas could also potentially affects these features and landscapes<br>• Appropriate trenchless technologies will minimise the effects of the installation of the pipeline on the landward side of the CMA thereby ensuring the protection natural character, features and landscape values. However, the preparatory works and storage of equipment are likely to have short term effects<br>• There could be opportunities for restoration of dunes and vegetation<br>• Given the installation of the landward side of the pipeline will occur in areas identified as Outstanding Natural Features and Landscapes it would be difficult to classify the options as strongly aligning with the objective. However, given the temporary nature of the constructions activities and that there should be no ongoing visual effects, the assessment is that there is "good alignment" with the objective. | |
| | Policy 23 Discharge of contaminants<br>(1) In managing discharges to water in the coastal environment, have particular regard to:<br>(a) the sensitivity of the receiving environment;<br>(b) the nature of the contaminants to be discharged, the particular concentration of contaminants needed to achieve the required water quality in the receiving | • Clause 2 of this policy directly relates to the discharge of human sewage<br>• All wastewater to be discharged to the CMA will be treated<br>• The Wastewater BPO project involves a comprehensive and extensive investigation of alternative methods and receiving environments<br>• Council is working collaboratively with Rangitāne, Raukawa and other iwi and hapū on the Wastewater BPO project and through this | |

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| | environment, and the risks if that concentration of contaminants is exceeded; and<br>(c) the capacity of the receiving environment to assimilate the contaminants; and:<br>(d) avoid significant adverse effects on ecosystems and habitats after reasonable mixing;<br>(e) use the smallest mixing zone necessary to achieve the required water quality in the receiving environment; and<br>(f) minimise adverse effects on the life-supporting capacity of water within a mixing zone.<br>(2) In managing discharge of human sewage, do not allow:<br>(a) discharge of human sewage directly to water in the coastal environment without treatment; and<br>(b) the discharge of treated human sewage to water in the coastal environment, unless:<br>(i) there has been adequate consideration of alternative methods, sites and routes for undertaking the discharge; and<br>(ii) informed by an understanding of tangata whenua values and the effects on them.<br>(3) Objectives, policies and rules in plans which provide for the discharge of treated human sewage into waters of the coastal environment must have been subject to early and meaningful consultation with tangata whenua. | collaboration has an understanding of tangata whenua values and the effects on them<br>• The other matters addressed in the policy would be taken into account in deciding the location of the discharge and mitigation measures. | |
| **Overall alignment with the NZCPS** | | | |
| **One Plan Regional Policy Statement** | | | |

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| Chapter 2 Te Ao Māori | Policy 2-4: Other resource management issues<br>The specific issues listed in 2.2 which were raised by hapū and iwi must be addressed in the manner set out in Table 2.1 below.<br>Table 2.1 highlights issues of significance to the Region's hapū and iwi, provides explanations in the context of Māori belief and demonstrates how the Regional Council must address these matters.<br>Table 2.1 Resource management issues of significance to hapū and iwi<br>(h) Sewage disposed to water, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred | • Policy 2-4 requires that the Regional Council must address the issues raised by iwi and hapū<br>• This Policy specifically identifies Objective 5-2 and Policy 5-11 as how the One Plan has addressed this issue.<br>• Policy 8-6 applies Policy 5-11 (human sewage discharges) to the CMA as if any reference to water in those policies is a reference to water in the CMA | Policy 2-4 has been included for context. It does not require assessment |
| Chapter 8 Coast | Objective 8-3: Water quality<br>Water quality in the CMA is managed in a manner that has regard to the Values set out in Schedule I: Part C so that:<br>(a) water quality is maintained in those parts of the CMA where the existing water quality is sufficient to support the water management Values of the relevant area in the CMA set out in Tables I.2 and I.3 and the water quality targets in Tables I.4 to I.7 of Schedule I, and<br>(b) water quality is enhanced in those parts of the CMA where the existing water quality is not sufficient to support the water management Values of the relevant area in the CMA set out in Tables I.2 and I.3 and the water quality targets in Tables I.4 to I.7 of Schedule I. | • The Cawthron report identifies that the concentration of chlorophyll-*a* in the South Taranaki Bight exceeds the water quality target for chlorophyll-*a* in the One Plan (Table 1.7) and turbidity near the coast is higher than the national median and exceeds the ANZECC guidelines<br>• While it could be argued that the receiving environment without the discharge is degraded and should be enhanced, Table 7 in the Cawthron report demonstrates that the receiving environment with the discharge, after reasonable mixing does not exceed the Schedule I targets in the One Plan for typical flows and in a number of cases is significantly less than the targets. However there could be exceedances of some targets during peak wet weather flows.<br>• Further work is required to confirm the position on the need to maintain or enhance the receiving waters. In the interim the assessment is that the options would generally align with this policy. | |

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| | Policy 8-4: Appropriate use and development<br>Any use or development in the CMA must:<br>(a) have a functional necessity to be located in the CMA,<br>(b) facilitate restoration or rehabilitation of natural features where reasonably practicable, and<br>(c) avoid, as far as reasonably practicable, any adverse effects on the following important values:<br>(i) any characteristic listed in Table I.1 in Schedule I: Part B for each Protection Activity Management Area<br>(ii) elements and processes that contribute to the natural character and open space characteristics of the CMA<br>(iii) the landscape and seascape elements that contribute to the natural character of the CMA<br>(iv) areas of significant indigenous vegetation and significant habitats of indigenous fauna, and the maintenance of indigenous biological diversity<br>(v) the intrinsic values of ecosystems<br>(vi) the natural integrity and functioning of physical processes (including recognition of sea level rise)<br>(vii) historic heritage.<br>When avoidance is not reasonably practicable, the adverse effects must be remedied or mitigated. | • The ocean outfall has a functional need to be located in the CMA<br>• There could be opportunities for restoration of dunes and vegetation associated with the installation of the ocean outfall<br>• The location options for the ocean outfall and discharge do not affect any Protection Management Area<br>• The area under investigation for the location of the outfall includes the Foxtangi Dunes, Hokio Beach South Dune Fields and Santoft parabolic dunes. These dunes are listed but not mapped in Schedule G of the One Plan as Regionally Outstanding Natural Features.<br>• The area under investigation for the location of the landward extent of the outfall is identified as an Outstanding Natural Landscape under Plan Change 65 to the Manawatu District Plan Outstanding Natural Features and Landscapes (the Coast including the foredune and adjacent dunelands) under the Horowhenua District Plan. The areas in the Manawatu District Plan have been mapped, but the areas in the Horowhenua District Plan have not been mapped.<br>• The Cawthron report identifies that several species of bird have been recorded in the area that are listed in the New Zealand Threat Classification System as Threatened or At Risk<br>• Appropriate trenchless technologies will minimise the effects of the installation of the pipeline on the landward side of the CMA should ensure the protection natural character, features and landscape values and effects on shore and sea birds and sand-dune habitats and the organisms living in them. However, the preparatory works and storage of equipment are likely to have short term effects on these values and habitats and it is for these reasons that the assessment is that the options | |

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| | | would generally align with this policy. | |
| | Policy 8-6: Water quality<br>For the purposes of maintaining or enhancing water quality, the CMA is divided into a Seawater Management Zone and various Estuary Water Management Subzones which are described in Schedule I: Part C and shown in Part A. Water in the CMA must be managed in a way which:<br>(a) has regard to the Values and water quality targets for the Seawater Management Zone and Estuary Water Management Sub-zones, as set out in Schedule I: Part C<br>(b) applies Policies 5-3 (ongoing compliance where water quality targets are met), 5-4 (enhancement where water quality targets are not met), 5-9 (point source discharges to water) and 5-11 (human sewage discharges) to the CMA as if any reference to water in those policies is a reference to water in the CMA. | • The options are located in the Seawater Management Zone<br>• The Cawthron report identifies that the concentration of chlorophyll-*a* in the South Taranaki Bight exceeds the water quality target for chlorophyll-*a* in the One Plan (Table 1.7: Seaward Management Zone Water Quality Targets)<br>• Table 7 in the Cawthron report demonstrates that the receiving environment with the discharge, after reasonable mixing does not exceed the Schedule I targets in the One Plan for typical flows and in a number of cases is significantly less than the targets. However, there could be exceedances of some targets during peak wet weather flows.<br>• Given that clause (a) of this policy requires that regard be had to the water quality targets rather than the water quality targets must be met the assessment is that the options would generally align with this policy. | |
| Chapter 5 Water | Policy 5-3: Ongoing compliance where water quality targets are met<br>(a) Where the existing water quality meets the relevant Schedule E water quality targets within a Water Management Sub-zone, water quality must be managed in a manner which ensures that the water quality targets continue to be met beyond the zone of reasonable mixing (where mixing is applicable). | • Policy 8-6 applies this policy to the CMA<br>• The Cawthron report identifies that the concentration of chlorophyll-*a* in the South Taranaki Bight exceeds the water quality target for chlorophyll-*a* in the One Plan Table 1.7) and turbidity near the coast is higher than the national median and exceeds the ANZECC guidelines<br>• While it could be argued that the receiving environment without the discharge is degraded and should be enhanced, Table 7 in the Cawthron report demonstrates that the receiving environment with the discharge, after reasonable mixing does not exceed the Schedule I targets in the One Plan for typical flows and in a number of cases is | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | | significantly less than the targets. However, there could be exceedances of some targets during peak wet weather flows.<br>• Further work is required to confirm the position on the need to maintain or enhance the receiving waters. In the interim the assessment is that the options would generally align with this policy. | |
| | Policy 5-4: Enhancement where water quality targets are not met<br>(a) Where the existing water quality does not meet the relevant Schedule E water quality targets within a Water Management Sub-zone, water quality within that sub-zone must be managed in a manner that enhances existing water quality in order to meet:<br>(i) the water quality target for the Water Management Zone in Schedule E, and/or<br>(ii) the relevant Schedule B Values and management objectives that the water quality target is designed to safeguard. | • Policy 8-6 applies this policy to the CMA<br>• The Cawthron report identifies that the concentration of chlorophyll-*a* in the South Taranaki Bight exceeds the water quality target for chlorophyll-*a* in the One Plan Table 1.7) and turbidity near the coast is higher than the national median and exceeds the ANZECC guidelines<br>• While it could be argued that the receiving environment without the discharge is degraded and should be enhanced, Table 7 in the Cawthron report demonstrates that the receiving environment with the discharge, after reasonable mixing does not exceed the Schedule I targets in the One Plan for typical flows and in a number of cases is significantly less than the targets. However, there could be exceedances of some targets during peak wet weather flows.<br>• Further work is required to confirm the position on the need to maintain or enhance the receiving waters. In the interim the assessment is that the options would generally align with this policy. | |
| | Policy 5-11: Human sewage discharges<br>Notwithstanding other policies in this chapter:<br>(a) before entering a surface water body all new discharges of treated human sewage must:<br>(i) be applied onto or into land, or<br>(ii) flow overland, or | • Policy 8-6 applies this policy to the CMA<br>• Policy 2-4 identifies Policy 5-11 as addressing the issue raised by iwi and hapū that sewage disposed to water, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred<br>• Both options do not include wetlands / land passages and overland flow components prior | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | (iii) pass through an alternative system that mitigates the adverse effects on the mauri of the receiving water body, and | to discharge to the ocean. It is for these reasons that a "fails to align" assessment has been applied. | |
| **One Plan Regional Plan** | | | |
| Chapter 18 Activities in the Coastal Marine Area | Objective 18-2: Water quality in the CMA<br>Water quality in the CMA is managed in a manner that sustains its life-supporting capacity and has regard to the Values, management objectives and the water quality targets set out in Schedule I: Part C. | • The options are located in the Seawater Management Zone<br>• Outside a zone of reasonable mixing the discharge should meet the management objectives except those relating to enhancing mauri and maintaining sites of significance for cultural values | |
| | The relevant management objectives relate to:<br>• Supporting health aquatic life / ecosystems<br>• Maintaining or enhancing sites of significance for indigenous biodiversity<br>• Suitable for contact recreation<br>• Maintaining or enhancing amenity values | • The Cawthron report identifies that the concentration of chlorophyll-*a* in the South Taranaki Bight exceeds the water quality target for chlorophyll-*a* in the One Plan (Table 1.7: Seaward Management Zone Water Quality Targets)<br>• Table 7 in the Cawthron report demonstrates that the receiving environment with the discharge, after reasonable mixing does not exceed the Schedule I targets in the One Plan for typical flows and in a number of cases is significantly less than the targets. However, there could be exceedances of some targets during peak wet weather flows. | |

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| | • Maintaining or enhancing mauri<br>• Suitable for shellfish harvesting<br>• Maintaining sites of significance for cultural values<br>• Assimilative capacity is not exceeded | • The Rangitāne CVS states that "discharge of wastewater to the moana will transfer the rāhui on bathing and kai gathering from the awa to the coastal area for Rangitāne. This will create widespread uncertainty about where and when it is safe to swim and collect kai. There is a high risk whānau will abandon traditional kai gathering grounds due to the tapu nature of wastewater."[10]<br>• Note that the policy requires that regard be had to the management objectives and the water quality targets rather than the water quality targets must be met<br>• Although many of the values are likely to be met, given the position of Rangitāne the assessment is one of general alignment | |
| | <u>Policy 18-12: Consent decision-making for discharges into the CMA</u><br>When making decisions on resource consent applications and setting consent conditions for discharges into the CMA, the Regional Council must have regard to:<br>(a) the Regional Policy Statement, particularly all the objectives and policies of Chapters 2 and 8, Objective 3-1 and Policies 3-1, 3-2, 3-3, 3-6 and 3-7, Objective 6-2 and Policy 6-6, Objective 9-1 and Policies 9-3 to 9-5 and any relevant policies in the NZCPS;<br>(b) the applicable Water Management Zone or Sub-zone and the relevant water quality Values and targets in Schedule I;<br>(c) restricting the use of hazardous substances in any estuary or river (including stream) in the CMA to those necessary to control pest plants or marine fauna identified | • This policy related to matters decision makers must have regard to when considering discharge applications<br>• A number of these matters have been assessed above<br>• Outside a zone of reasonable mixing there should not be adverse effects on amenity values, recreational values and public health and safety and should not result in any of the effects set out in clause (e)<br>• Because the references in clause (a) bring the RPS Policy 5-11: Human sewage discharges (noting that Policy 8-6 in Chapter 8 applies Policy 5-11 to the CMA) into consideration assessment is that the options would generally align with this policy | |

[10] Rangitāne o Manawatū Cultural Values Assessment page 23

| Planning Instrument | Provision | Assessment | Alignment |
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| | pursuant to a pest management strategy prepared under the Biosecurity Act 1993;<br>(d) tikanga Māori, amenity values, recreational values and public health and safety, and ensuring any adverse effects are avoided as far as reasonably practicable. Where avoidance is not reasonably practicable, the adverse effects must be remedied or mitigated; and<br>(e) ensuring that any discharge, after reasonable mixing, must not result in:<br>(i) the production of any conspicuous oil or grease films, scums or foams;<br>(ii) floatable or suspended materials;<br>(iii) any conspicuous change in the colour or visual clarity of water in the coastal marine area; or<br>(iv) any emission of objectionable odour, or any significant adverse effects on aquatic life. | | |
| | Policy 18-13: Consent decision-making for sewage discharges<br>When making decisions on resource consent applications and setting consent conditions for sewage discharges into the CMA, the Regional Council must have regard to:<br>(a) the Regional Policy Statement, particularly all the objectives and policies of Chapters 2 and 8, Objective 3-1 and Policies 3-1, 3-2, 3-3, 3-6 and 3-7, Objective 6-2 and Policy 6-6, Objective 9-1 and Policies 9-3 to 9-5 and any relevant policies in the NZCPS;<br>(b) the applicable Water Management Zone or Sub-zone and the relevant water quality targets in Schedule I; | • This policy related to matters decision makers must have regard to when considering sewage discharges<br>• The matter regarding water quality targets has been assessed above<br>• The discharges will not be to any river (except on the highest 3% of days by WWTP flow), stream or estuary in the CMA or to any Protection Activity Management Area<br>• The BPO Review is comprehensively considering a wide range of alternatives including discharging to land<br>• The BPO Review involves extensive consultation with tangata whenua<br>• Because the references in clause (a) bring the RPS Policy 5-11: Human sewage discharges (noting that Policy 8-6 in Chapter 8 applies Policy 5-11 to the CMA) into consideration the assessment is that the options | |

| Planning Instrument | Provision | Assessment | Alignment |
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| | (c) avoiding any discharge within any river (including stream) or estuary in the CMA or within any Protection Activity Management Area identified in Schedule I;<br>(d) the extent to which any alternatives have been considered, including discharging to land; and<br>(e) considering the views and concerns of tangata whenua in the decision-making process. | can only generally align with this policy | |
| Overall alignment with the One Plan | | | |