

# Statutory and Rules Evaluation – Takapau Wastewater Treatment Plant

Prepared for Central Hawke's Bay District Council

Prepared by Beca Limited

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## Document Acceptance

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on behalf of	Beca Limited		

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## Contents

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<b>1</b>	<b>Statutory and Rules Evaluation.....</b>	<b>1</b>
1.1	An overview of the proposed upgrades to the Takapau WWTP include.....	1
1.2	Existing consents held at the Takapau site:.....	1
1.3	Proposed Stages.....	1
<b>2</b>	<b>Takapau Wastewater Discharge.....</b>	<b>2</b>
2.1	Resource Management Act 1991 (RMA).....	2
2.2	National Environmental Standards.....	4
2.3	National Policy Statement for Freshwater Management (NPS-FM).....	5
2.4	Hawkes Bay Regional Resource Management Plan (RRMP).....	8
2.5	Section 104D Particular restrictions for non-complying activities.....	22
2.6	Part 2 Purpose and Principles of the RMA.....	23
2.7	Summary and conclusion.....	25

# 1 Statutory and Rules Evaluation

The following statutory and rules evaluation has been prepared to support the resource consent application for the Takapau (WWTP) to be submitted to Hawkes Bay Regional Council (HBRC). This statutory and rules evaluation has been based on information provided in the following reports.

- Takapau – Planning Evaluation (Part A – Consent Strategy) A:D.90.
- Takapau Wastewater Treatment Plant - Hydrogeological Assessment Report No. T:B.14
- Water Quality Assessment - Makaretu River. Beca, 2020 - T:B.24
- Takapau Wastewater Treatment Plant Discharge – Resource Consent Application and Assessment of Environmental Effects (AEE) – T:D.1

## 1.1 An overview of the proposed upgrades to the Takapau WWTP include.

- Staged sequencing to remove an ineffective artificially constructed wetland that discharges to the Makaretu River with a high rate land passage (HRLP) discharge to provide land contact before the discharge enters the Makaretu River.
- Establishment of pumping, UV and filtration facilities for the irrigation system
- Establishment of a minimum of 5 ha and up to 30 ha irrigation in adjacent land
- Provision of 18,000m<sup>3</sup> of storage to allow irrigation to cease when soil conditions are wet and to avoid discharges to the Makaretu River via the HRLP during low flow conditions.

## 1.2 Existing consents held at the Takapau site:

- Discharge to land where it may enter water
- Discharge to air

## 1.3 Proposed Stages

Table 1 identifies the proposed stages and timelines for implementation of upgrades that are aligned with CHBDC Long Term Plan (LTP).

Table 1: Proposed stages and timeline for development implementation

Stage	Timing	Description
0	2021 - 2024	<ul style="list-style-type: none"> <li>• Discharge to surface water via HRLP until land treatment system is implemented</li> <li>• Some upgrade works to include inlet screen, inlet flow meter and power upgrade</li> </ul>
1	LTP year 4 (2024-2025)	<ul style="list-style-type: none"> <li>• Establishment of pumping, UV and filtration facilities for the irrigation system</li> <li>• Establishment of a minimum of 5 ha and up to 30 ha irrigation</li> <li>• UV disinfection of discharge to land and water</li> <li>• Discharge to HRLP when flows are above half median and discharge to land is not possible</li> </ul>

2	LTP year 5 (2025-2026)	<ul style="list-style-type: none"> <li>• Construction of additional storage of treated wastewater to enable wastewater to be stored during wet soil conditions instead of being discharged to the high rate land passage system. The maximum volume may be 18,000 m<sup>3</sup> to provide for no discharge to the Makaretu River.</li> <li>• Discharge to HRLP when flows are above median and discharge to land is not possible</li> </ul>
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## 2 Takapau Wastewater Discharge

### 2.1 Resource Management Act 1991 (RMA)

The relevant provisions of the RMA to the Takapau WWTP are outlined below.

#### Section 9

Section 9 of the RMA describes certain restrictions on land use. This includes activities that contravene regional rules (RMA s9(2)a)). Activities that contravene regional rules cannot be undertaken unless expressly allowed for by resource consent, as such resource consent is being sought to allow for the activities associated with this proposal.

#### Section 15

Section 15 of the RMA describes restrictions on the discharge of contaminants into the environment. No person may discharge any contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water (s15(1)(b)). The discharge of contaminants cannot be undertaken unless it is expressly allowed by a national environmental standard or other regulations, a rule in a regional plan or a resource consent. As such resource consent is being sought to allow for the discharge activities associated with this proposal.

#### Section 104

Before making a decision on a non-complying activity pursuant to Section 104B of the RMA, Council must consider the proposal in terms of Section 104 of the RMA. In addition to an assessment of the actual and potential effects of the proposal, the following provisions must be given regard to under section 104 as stated below:

Section 104 - When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to—

(a) any actual and potential effects on the environment of allowing the activity; and

(b) any relevant provisions of—

(i) a national environmental standard:

(ii) other regulations:

*(iii) a national policy statement:*

*(iv) a New Zealand coastal policy statement:*

*(v) a regional policy statement or proposed regional policy statement:*

*(vi) a plan or proposed plan; and*

*(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.*

Consistent with s104 (a) the actual and potential effects on the environment of the proposed activity have been assessed in Chapter 9 of the AEE as less than minor. The documents listed in section 104(1)(b) have been assessed below and the proposal is consistent with these.

The following sections providing comment on the relevant documents consistent with s104 (b).

## Section 105 Matters relevant to certain applications

Section 105 is relevant to this application as the activity relates to a discharge to land for the disposal of wastewater. The following provisions must be given regard to:

*1) If an application is for a discharge permit or coastal permit to do something that would contravene section 15 or section 15B, the consent authority must, in addition to the matters in section 104(1), have regard to—*

*(a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; - Provided in Chapter 4; and*

*(b) the applicant's reasons for the proposed choice; - Provided in Chapter 8 and*

*(c) any possible alternative methods of discharge, including discharge into any other receiving environment. – Provided in Chapter 8.*

## Section 107 Restrictions on grant of certain discharge permits

Section 107 is relevant to this application as the activity includes a discharge to land that will enter water and where an objectionable odour and effects on aquatic life need to be considered.

*(1) Except as provided in subsection (2), a consent authority shall not grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or section 15A allowing—*

*(a) the discharge of a contaminant or water into water; or*

*(b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; – Provided in Chapter 6 or*

*(ba) the dumping in the coastal marine area from any ship, aircraft, or offshore installation of any waste or other matter that is a contaminant, - N/A*

*if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:*

*(c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials: - N/A*

*(d) any conspicuous change in the colour or visual clarity: - N/A*

(e) any emission of objectionable odour: - **Provided in Chapter 6**

(f) the rendering of fresh water unsuitable for consumption by farm animals: - **N/A**

(g) any significant adverse effects on aquatic life. – **Provided in Chapter 9**

## 2.2 National Environmental Standards

### National Environment Standard – Contaminants in Soil (NESCS)

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NESCS) applies to land which currently has, or historically has had, an activity or industry undertaken on it that is included in the Hazardous Activities and Industries List (HAIL). Activities included in the HAIL that would apply include:

- G5 – Waste disposal to land
- G6 – Waste recycling or waste or wastewater treatment

The requirements of the NESCS apply when one (or more) of the trigger activities are proposed to be undertaken within the areas identified as having had, or currently having an activity listed on the HAIL occurring. These trigger activities include;

- Soil disturbance
- Underground fuel system removal
- Soil sampling
- Subdivision
- Change of land use

The land to which the main activities relate is not a known HAIL site (or areas used are not HAIL sites) and therefore the NESCS is not anticipated to apply (subject to a Preliminary Site Investigation). Soil disturbance associated with the 18,000m<sup>3</sup> of storage pond will be addressed when that stage of the project design is undertaken.

### National Environmental Standard for Air Quality (NES-AQ)

The National Environmental Standard Air Quality (NESAQ) regulations are designed to address the health effects caused by poor outdoor air quality. The regulations specify a threshold concentration in ambient air for SO<sub>2</sub>, CO, NO<sub>2</sub>, and PM<sub>10</sub> over specified averaging times.

The discharges to air generated by the WWTP are related to odour which are not addressed by the regulations under the NESAQ, **therefore the NES-AQ does not apply to the proposal.**

### National Environmental Standard for Freshwater 2020 (NES-F)

The NES-F regulates the undertaking of activities that pose risks to freshwater and freshwater ecosystems and rules specifically relate to works in, or adjacent to, wetlands, structures in waterbodies that may impact on fish passage and the diversion or reclamation of water bodies.

The works meet the definition of specified infrastructure in the NPS-FM (Subpart 3 Section 3.21(1)) as the WWTP is a lifeline utility (as defined in the Civil Defence Emergency Management Act 2002).

NES-F regulations 46 and 47 apply to the maintenance and operation of specified infrastructure within 100m of a natural wetland. Artificially constructed wetlands are not subject to the NES-F provisions.



Artificially constructed wetland has been defined in the Interpretation Guidance on the wetlands definition in the NPS-FM and Freshwater NES (Exposure draft 7 April 2021). Examples of 'constructed wetlands' have been provided in the guidance document and include areas of wetland habitat in or around bodies of water created for, or in connection with, any of the following purposes: effluent treatment and disposal systems.

The proposed works are not located within 100m of natural wetlands and the regulations under the NES-F do not apply.

## **National Environmental Standard for Sources of Human Drinking Water 2007 (NES-DW)**

The National Environmental Standard for Sources of Human Drinking Water 2007 (NES-DW) sets requirements for protecting sources of human drinking water from becoming contaminated. Contaminants such as microorganisms can pose a risk to human health when they enter drinking water supplies and that water is then consumed. The NES-DW requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and regional plans.

Regulation 12 of the NES-DW sets out that when considering a resource consent application, a consent authority must consider whether the activity may lead to an event occurring that may have a significant adverse effect on the quality of the water at any abstraction point; or as a consequence of an event (for example, an unusually heavy rainfall) have a significant adverse effect on the quality of the water at any abstraction point.

### **Comment:**

The proposed works are subject to the provisions NES-DW as the nature of the discharge (being treated wastewater) has the potential to contaminate registered sources of drinking water to greater than 501 people.

Regulations 7, 8 and 10 of the NES-DW apply to activities specifically upstream of an abstraction point. As noted previously, the hydrogeological assessment report (T:B.14) has identified that the Takapau WWTP site is down gradient from the Source Protection Zone (SPZ) around the Takapau public supply bore. And infiltrated wastewater is not expected to migrate towards the SPZ.

Regulation 12 applies to an activity that has the potential to affect a registered drinking-water supply which the proposed activity in this instance applies (discharge of treated wastewater to land that enters groundwater). When considering a resource consent application, a consent authority must consider whether the activity could lead to an event occurring that may have a significant adverse effect on the quality of the water at any abstraction point or, as a consequence of an event (for example, an unusually heavy rainfall) have a significant adverse effect on the quality of the water at any abstraction point.

If the consent authority considers that the above circumstances could occur, then a condition on the consent must be imposed. As noted in Chapter 6.6 of the AEE and in the proposed conditions of consent (Appendix E), there are numerous mitigation measures that will be imposed as conditions of consent that will address Regulation 12 of the NES-DW.

## **2.3 National Policy Statement for Freshwater Management (NPS-FM)**

The National Policy Statement for Freshwater Management 2020 (NPS-FM) came into force on the 3rd September 2020 and supports improved freshwater management in New Zealand by directing Regional Councils to establish objectives and set limits for fresh water in their regional plans.

The intent of the NPS-FM includes prioritisation of the management of the natural and physical resources and has a particular focus on the concept of Te Mana o Te Wai. Te Mana o Te Wai refers to the fundamental



importance of water and recognises that protecting the health of freshwater protects the health and wellbeing of the wider environment.

An assessment against the objective and policies of the NPS-FM relevant to this proposal is included below.

*Objective 1: The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:*

*a) first, the health and well-being of water bodies and freshwater ecosystems*

*b) second, the health needs of people (such as drinking water)*

*c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.*

### **Comment:**

The proposal represents a staged approach to improving and preserving the surface water quality of the Makaretu River by transferring treated wastewater flows to land irrigation (Objective 1(a)). The Takapau public supply bore is located upgradient of the irrigation site and the Hydrogeological Assessment report (T:B.14) finds that infiltrated wastewater is not expected to migrate towards the public water supply bore.

This proposal also forms part of and provides for a lifeline utility (WWTP) for the community of Takapau (Objective 1(b)). The proposal is a long-term solution that will provide for the social and cultural wellbeing of the community into the future through improved wastewater treatment and management. The continued operation of the Takapau WWTP provides an essential facility for sewage disposal for the Takapau township providing for the health and needs of the Takapau community (Objective 1 (c)).

Table 2 provides an assessment of the proposal against the relevant NPS-FM policies

Table 2 Commentary on NPS-FM Policies

NPS-FM Polices	Comment
<p><b>Policy 1:</b> <i>Freshwater is managed in a way that gives effect to Te Mana o te Wai.</i></p>	<p>There are two parts to the concept of Te Mana o te Wai. Part one indicates the importance of restoring and preserving the balance between water, the wider environment and the community, and part two refers to all aspects of freshwater management.</p> <p>The proposal represents a staged approach to improving and preserving the surface water quality of the Makauetu River by transferring treated wastewater flows to land irrigation. Groundwater flows under the Takapau WWTP disposal area flow from west to east generally parallel to the Makaretu River. Groundwater flows will not travel towards any significant potential receptors. Overall, the effects of the proposal on freshwater are considered to be less than minor (Chapter 9 of the AEE).</p> <p>The proposal offers a long-term solution which will give effect to Te Mana o te Wai.</p>

NPS-FM Polices	Comment
<p><b>Policy 2:</b> <i>Tāngata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.</i></p>	<p>Tāngata whenua have been engaged with on the project and engagement will continue through the consenting process. A CIA is being prepared by Tāngata whenua which will identify freshwater values.</p> <p>A Maori World View report (How,2020:A:B.42) has been used by the project team throughout the engagement process to understand wastewater management from a Maori perspective. It is understood that discharges of waste needs to be mitigated with transformations from tapu to noa. This is achieved by passage through Papatuanuku which is proposed as Stage 1 of the development. Whist this report provides a general understanding of mātauranga Maori, the CIA will confirm local tāngata whenua's position on the project and freshwater values.</p>
<p><b>Policy 3:</b> <i>Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.</i></p>	<p>In this instance the receiving environment is the Makaretu River which runs along the discharge site's northern extent and is a sub-catchment of the Tukituki River, and also the 42.4 ha of farmland to be used for irrigation.</p> <p>The effects of the discharge on both receiving environments concludes that the effects are less than minor (Chapter 9 of the AEE). Monitoring and management of irrigation (refer to Chapter 9.3 AEE) will be implemented so that the use and development of land is appropriately managed consistent with Policy 3.</p>
<p><b>Policy 6:</b> <i>There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.</i></p>	<p>N/A – the proposal is not affecting natural inland wetlands</p>
<p><b>Policy 7:</b> <i>The loss of river extent and values is avoided to the extent practicable.</i></p>	<p>The proposal will not result in the loss of river extent. Stage 1 of the development will see the wastewater discharge being transferred from the HRLP to land irrigation, with HRLP available as a precautionary measure only. The effects of the discharge to the river have been concluded as less than minor (Chapter 9 of the AEE) with the loss of river values avoided as far as practicable to be consistent with Policy 7.</p>
<p><b>Policy 8:</b> <i>The significant values of outstanding water bodies are protected.</i></p>	<p>N/A – the proposal is not associated with an outstanding water body.</p>
<p><b>Policy 9:</b> <i>The habitats of indigenous freshwater species are protected.</i></p>	<p>Chapter 9.6 of the AEE identifies that the current discharge has minimal to no observable effect, a reduction in surface water discharges will have an even lesser impact, and therefore concluded that the effects on river ecology are less than minor The proposal does not adversely impact habitats of indigenous freshwater species or the habitat of trout and salmon (Makaeretu River ecology) consistent with Policy 9 and 10.</p>
<p><b>Policy 10:</b> <i>The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9</i></p>	
<p><b>Policy 11:</b> <i>Freshwater is allocated and used efficiently, all existing over-allocation is phased</i></p>	<p>N/A – the proposal is not related to a water take</p>

NPS-FM Polices	Comment
<b>Policy 12:</b> <i>The national target (as set out in Appendix 3) for water quality improvement is achieved.</i>	N/A - The proposal does not impact the water quality of rivers and lakes that Appendix 3 of the NPS-FM targets. However, the proposal will help contribute towards achieving river water quality improvement (i.e. wastewater discharge being transferred from the Makaretu River to land irrigation).
<b>Policy 13:</b> <i>The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.</i>	The Makaretu River is within the Tukituki Catchment Plan area which is monitored and subject to specific targets for improved water quality and ecosystem health. Stage 1 of the development will see the wastewater discharge being transferred from HRLP to land irrigation, with discharge to the river available as a precautionary measure only. The effects of the discharge to the river have been concluded as less than minor (Chapter 9 of the AEE). Overall, the proposal is consistent with Policy 13.
<b>Policy 15:</b> <i>Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.</i>	Community engagement has been extensive throughout the development of the long-term plan for the treatment of wastewater in the community. The proposal provides a long-term solution to provide for the community into the future through improved wastewater treatment and management consistent with the NPS through not proposing to discharge treated wastewater to streams or rivers.

**Summary:**

Overall, it is considered that the proposal is consistent with the objective and policies within the NPS-FM

## 2.4 Hawkes Bay Regional Resource Management Plan (RRMP)

The Regional Resource Management Plan (RRMP) is the resource planning document for all resource users in Hawke's Bay. It includes the Regional Policy Statement (RPS) and sets out the policy framework for managing resource use activities in an integrated manner across the whole of the Hawke's Bay region.

### 2.4.1 Plan Change 6 (PC6)

The Tukituki Plan Change 6 (PC6) is a plan change incorporated within the RRMP, signed on the 21st of September 2015, becoming operative from the 1st of October 2015. This plan change is specific to water quality and quantity issues for all properties and land uses within the Tukituki River catchment which sets specific targets for improved water quality and ecosystem health. Although this plan change is a component of the larger RRMP, the rules, policies and objectives outlined within PC6, have greater authority than those outlined within the overarching RRMP.

The Takapau WWTP is located within section 'T6 Makaretu' as shown in Figure 1 below. This section has been identified as being below the DIN limit of 0.8 DIN mg/L set in PC6 (green category), no further action for this section of the catchment is required at this time but it may in the future.

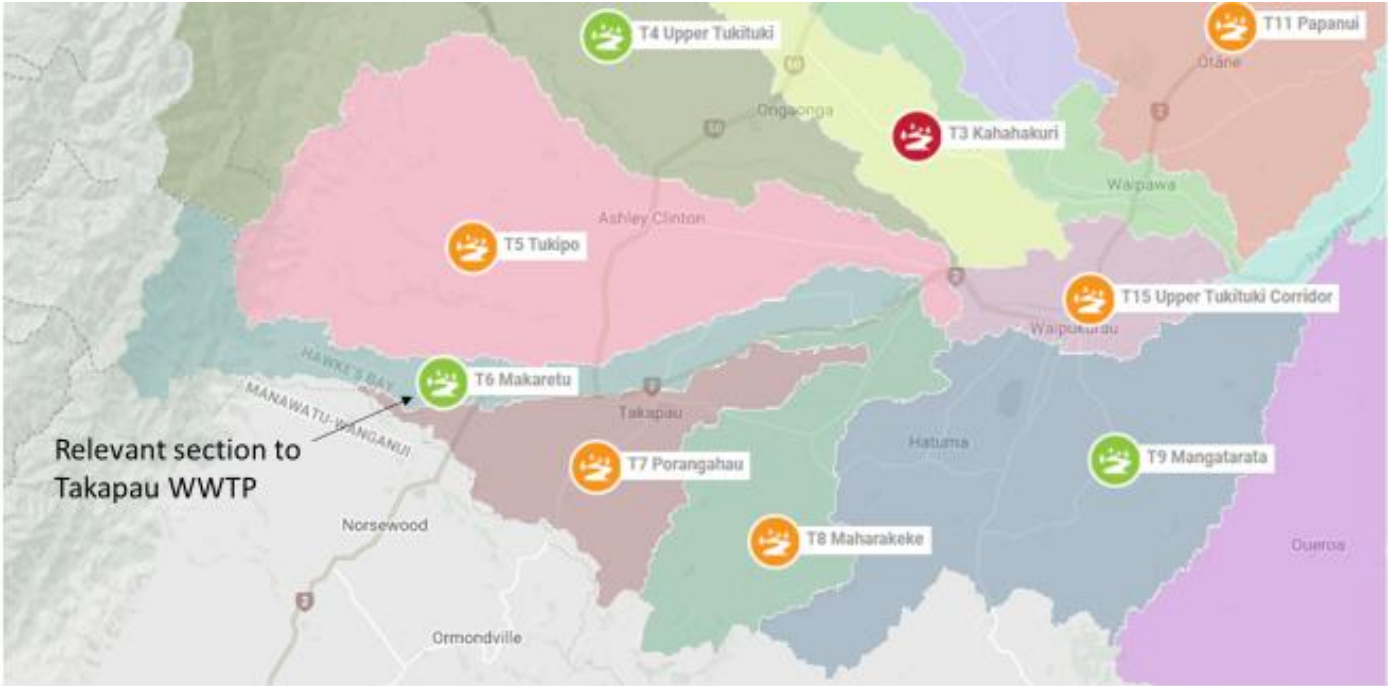


Figure 1: Map of Tukituki catchment area (Source: HBRC Tukituki Dashboard 2021)

## Rules Triggered under the RRMP

Table 3: Rules Triggered under the RRMP

Rule	Assessment																											
<b>6.9 Tukituki River Catchment Rules</b>																												
<p><b>Rule TT2A. – Non-complying</b> - The use of production land pursuant to s9(2) RMA within the Tukituki River catchment that does not comply with Rule TT2 (refer to T:D.10 report).</p>	<p>Land irrigation to 45 Burnside Road does not meet either the permitted activity or restricted discretionary activity limits over a rolling four-year period under Table 4 (RRMP) The proposed land discharge is deemed to be non-complying activity under Rule TT2A and requires resource consent.</p> <div style="text-align: center; margin-top: 10px;"> <p><b>Table 4: PC6 N Loss Limits per LUC (kg N/ha)</b></p> <table border="1" style="margin: auto;"> <thead> <tr> <th></th> <th>LUC 1</th> <th>LUC 2</th> <th>LUC 3</th> <th>LUC 4</th> <th>LUC 5</th> <th>LUC 6</th> <th>LUC 7</th> <th>LUC 8</th> </tr> </thead> <tbody> <tr> <td>PA</td> <td>30.1</td> <td>27.1</td> <td><b>24.8</b></td> <td>20.7</td> <td>20</td> <td>17</td> <td>11.3</td> <td>3</td> </tr> <tr> <td>RDA</td> <td>39.1</td> <td>35.2</td> <td><b>32.2</b></td> <td>26.9</td> <td>26</td> <td>22.1</td> <td>14.7</td> <td>3.9</td> </tr> </tbody> </table> </div>		LUC 1	LUC 2	LUC 3	LUC 4	LUC 5	LUC 6	LUC 7	LUC 8	PA	30.1	27.1	<b>24.8</b>	20.7	20	17	11.3	3	RDA	39.1	35.2	<b>32.2</b>	26.9	26	22.1	14.7	3.9
	LUC 1	LUC 2	LUC 3	LUC 4	LUC 5	LUC 6	LUC 7	LUC 8																				
PA	30.1	27.1	<b>24.8</b>	20.7	20	17	11.3	3																				
RDA	39.1	35.2	<b>32.2</b>	26.9	26	22.1	14.7	3.9																				
<b>Discharges</b>																												
<p><b>Rule 52 Discretionary Activity – Discharges that do not comply with rules 9-14, 16, 31-51</b></p> <p><i>Rule 52 – The discharge of:</i></p> <ul style="list-style-type: none"> <li>• contaminants onto or into land, or into water, or</li> <li>• water into water which does not comply with any condition on a permitted activity rule, or any standard or term on a controlled activity rule within this Plan, but which is not expressly classified as a discretionary, non-complying or prohibited activity.</li> </ul>	<p>The following proposed activities cannot comply with rules 9-14, 16, 31-51 and triggers a discretionary activity under Rule 52 of the RRMP.</p> <ul style="list-style-type: none"> <li>• Proposed wastewater discharge to land relating to the land application system</li> <li>• Treated wastewater discharge to water relating to a continuation of the existing surface water discharge</li> <li>• Future intermittent surface water discharge via a HRLP system (Stage 1)</li> </ul>																											

**Rule 36 Existing high discharge volume sewage systems (Restricted Discretionary)**

*The discharge of contaminants onto or into land, and any ancillary discharge of contaminants into air, from any existing sewage system with a discharge volume exceeding 2m<sup>3</sup>/day averaged over any 7 day period.*

The proposed wastewater discharge to land relating to the land application system will exceed 2m<sup>3</sup>/day average over any 7-day period therefore triggering a restricted discretionary activity under Rule 36.

**Rule 28: Miscellaneous industrial & trade premises (Discretionary) – Air Discharge**

*Rule 28 - The discharge of contaminants into air from any industrial or trade premises arising from any of the following activities, that is not specifically regulated by any other rule within this Plan:*

- waste disposal...

The operation of the Takapau wastewater treatment plant ponds and proposed land irrigation will release odour to air. This activity is not specifically regulated by any other rule within the RRMP and triggers a discretionary activity under Rule 28.

**Summary:**

The discharge activities associated with the proposal are discretionary activities while the Tukituki River Catchment rules regarding the use of productive land is non-complying.

Overall, when the activities are bundled together, the proposal is considered a non-complying activity.

**Objectives and Policies of the RRMP (includes RPS policies)**

Objectives and policies that are considered relevant are identified in Table 4 (RPS) and Table 4a (RRMP) with comments provided. There are no specific policies identified by Rule 28, however, the relevant air discharge policy is Policy 69 - Environmental Guidelines & Standards – Air Quality.

Table 4 Commentary on the RPS Objectives and Policies

RPS - Objectives and policies	Comments
<b>Integrated Land Use and Freshwater Management - RPS</b>	
<p><b>OBJ LW 1 Integrated management of fresh water and land use and development</b></p> <p><i>Fresh water and the effects of land use and development are managed in an integrated and sustainable manner which includes: ...</i></p> <p><i>14. promoting the preservation of the natural character of the coastal environment, and rivers, lakes and wetlands, and their protection from inappropriate subdivision, use and development.</i></p>	<p>The proposal represents a staged approach to improving and preserving the surface water quality of the Makauetu River by transferring treated wastewater flows to land irrigation. This is proposed to be implemented via a managed regime which will not compromise future farming use of the productive land being irrigated, nor groundwater quality as assessed in Chapter 9 of the AEE.</p>
<p><b>OBJ LW3 Tāngata whenua values in management of land use and development and freshwater</b></p> <p><i>Tāngata whenua values are integrated into the management of freshwater and land use and development including:</i></p>	<p>Tāngata Whenua have been engaged on the project and attended a site visit with the project team. Engagement will continue throughout the consenting process. A Cultural Impact Assessment (CIA) is being prepared by tāngata whenua to address cultural values.</p>



- a) recognising the mana of hapu, whanau and iwi when establishing freshwater values; and
- b) recognising the cumulative effects of land use on the coastal environment as recognised through the Ki uta ki Tai ('mountains to the sea') philosophy; and
- c) recognising and providing for wairuatanga and the mauri of fresh water bodies in accordance with the values and principles expressed in Chapter 1.6, Schedule 1 and the objectives and policies in Chapter 3.14 of this Plan; and
- d) recognising in particular the significance of indigenous aquatic flora and fauna to tāngata whenua.

The CIA, monitoring regime and removal of the discharge from the Makauetu River recognise and provide for tāngata whenua values, this is consistent with OBJ LW3.

### Managing the Built Environment - RPS

**OBJ UD5** Ensure through long-term planning for land use change throughout the Region, that the rate and location of development is integrated with the provision of strategic and other infrastructure, the provision of services, and associated funding mechanisms.

Chapter 3 of the AEE provides detail on the development of the district wide Wastewater Strategy and long-term plans for the region. This strategy was developed following 2 years of community consultation and technical investigations.

**POL UD13** Within the region, territorial authorities shall ensure development is appropriately and efficiently serviced for the collection, treatment, disposal or re-use of sewage and stormwater, and the provision of potable water by:

Development of a long-term solution has been developed through the Wastewater Strategy and with LTP funding consideration (in terms of sequencing and timing of the long-term solution). This proposal forms part of the long-term solution consistent with OBJ UD5 and POL UD13.

The background of the proposal and long-term solution is consistent with OBJ UD5 and POL UD13.

### Surface Water Resources - RPS

**POL 47a** Promote land-based disposal of wastewater, solid waste and other waste products so that:

- a) the adverse effects of contaminants entering surface waterbodies or coastal water are avoided as far as practicable;
- aA) where it is not practicable to avoid any adverse effects of contaminants entering surface waterbodies or coastal water, then adverse effects are remedied or mitigated; and
- b) any disposal of wastewater, solid waste or other waste products to a surface waterbody or coastal water occurs only when it is the best practicable option

The proposed staged development includes decommissioning the existing artificially constructed wetland and replacing it with a HRLP discharge and establishing a land irrigation scheme with additional wastewater storage. The final solution will provide for a discharge to the Makaretu River (via the HRLP) **only** when conditions do not allow irrigation to land and storage is at capacity.

This proposed surface water discharge is considered to be the best practicable option on balance to maintain the performance and stability of the land irrigation scheme and overall wastewater treatment process. The adverse effects of the proposed discharge have been assessed in Chapter 9 of the AEE and have found to be less than minor, reducing the extent to which an indirect surface water discharge will be used. This is consistent with POL 47a.

### Maintenance and Enhancement of Physical Infrastructure - RPS

**OBJ 32** The ongoing operation, maintenance and development of physical infrastructure that supports

The wastewater treatment and discharge system support and provides for the health and wellbeing of

<i>the economic, social and/or cultural wellbeing of the region's people and communities and provides for their health and safety.</i>	the Takapau community. Without it there is the potential for localised effects from poorly functioning onsite wastewater facilities associated with the private on-site wastewater systems including septic tanks and any residual contaminants making their way to the Makaretu River and/or groundwater. The current WWTP system is provided for, and consistent with, OBJ 32 and OBJ 33.
<b>OBJ 33</b> Recognition that some infrastructure which is regionally significant has specific locational requirements.	
<b>Recognition of Matters of Significance to Iwi/Hapu - RPS</b>	
<b>OBJ 34</b> To recognise tikanga Maori values and the contribution they make to sustainable development and the fulfilment of HBRC's role as guardians, as established under the RMA, and tangata whenua roles as kaitiaki, in keeping with Maori culture and traditions.	As noted for OBJ LW3 above, Tangata whenua have been engaged on the project and will continue to be engaged with throughout the consent process. Iwi were consulted through numerous channels, including formal and informal meetings and commissioning of the Tangata Whenua Worldviews report (How, 2020:A:B.42).
<b>POL 58</b> To share information on matters of resource management significance to Maori and on processes to address them.	Tangata whenua values have been recognised and provided for through the long-term plan to remove the discharge from the Makauetu River. This is consistent with OBJ 34, POL58, OBJ 35 and POL 62.
<b>OBJ 35</b> To consult with Maori in a manner that creates effective resource management outcomes.	
<b>POL 62</b> The following is the recommended approach for consultation with tangata whenua: (a) Where the issue is at a macro, region-wide level consultation be with iwi. (b) Where the issue is localised, yet non site-specific, consultation be with hapu (c) Where the issue is site-specific consultation be with whanau.	
<b>OBJ 36</b> To protect and where necessary aid the preservation of waahi tapu (sacred places), and tauranga waka (landings for waka).	The proposal provides for a long-term wastewater solution that better serves tangata whenua values over and above the current system. This includes removing the discharge from a river environment site and in doing so protects and preserves mahinga kai, mahinga mataitai, taonga raranga and taonga Rongoa consistent with OBJ 36 and OBJ 37.
<b>OBJ 37</b> To protect and where necessary aid the preservation of mahinga kai (food cultivation areas), mahinga mataitai	
<b>POL 64</b> Activities should not have any significant adverse effects on waahi tapu, or tauranga waka.	Chapter 9 of the AEE provides the assessment of effects on Maori values. The initial discussions with iwi indicated that removal of the discharge to the river was preferred and that this proposal seeks to achieve this, therefore addressing the cultural concerns of discharge of wastewater to the river consistent with POL 64, POL 65 and POL 66.
<b>POL 65</b> Activities should not have any significant adverse effects on taonga raranga, mahinga kai or mahinga mataitai.	
<b>POL 66</b> The importance of coastal, lake, wetlands and river environments and their associated resources to Maori	

Table 4a Commentary on the relevant RRMP Objectives and Policies

<b>Land - RRMP</b>	
<b>OBJ 38</b> The sustainable management of the land resource so as to avoid compromising future use and water quality	Stage 1 of the development involves the establishment (a minimum of 5 ha and up to 30 ha) of land irrigation of treated wastewater. Stage 2 of the development involves the construction of additional storage of wastewater



to enable greater storage capacity during wet soil conditions instead of being discharged to the HRLP system.

These land uses will help improve the surface water quality of the Makaretu river by lessening the amount of discharge entering the river by HRLP and achieving the PC6 regional river guidelines.

These land use activities are proposed directly adjacent the existing WWTP containing the treatment activities to a concentrated area. The farming regime of grazing, cropping and pasture cut and carry activities will be maintained.

The proposal represents a staged approach to improving surface water quality whilst not compromising future farming use of the land or groundwater quality as assessed in Chapter 9 of the AEE, meeting OBJ 38.

**POL 67 5.2.1** To encourage landowners and occupiers to manage the effects of activities affecting soil (including both land use activities and discharges of contaminants onto or into land) in accordance with the environmental guidelines set out in Table 5 below and Table 7 following.

**Table 5. Environmental Guidelines – Land**

Issue	Guideline
1. Appropriate land use	Land use activities should not exceed the land use capability <sup>13</sup> of the subject land, as described in Schedule II to this Plan and assessed on-site.
2. Soils prone to wind erosion	Areas prone to wind erosion from land use activities should have preventative or remedial measures applied. The depth of soil should not be reduced at a rate that exceeds the natural rate of replenishment.
3. Soils prone to other types of erosion	Where vegetation is removed from areas prone to erosion, best management practices should be followed. These should include replanting the area within 18 months with vegetation that will provide equivalent or better land stabilisation, or other recognised methods that will stabilise land or prevent erosion.
4. Soil health	There should be no long-term degradation of the physical properties (including soil structure) or biological properties (including organic matter content) of soil.
5. Soil contamination	The discharge of contaminants into the soil, including hazardous substances, pathogens and diseases, should be at a level that will not cause acute or chronic toxic effects on humans or other non-target species, or have the potential to reduce long-term land use potential.
6. Earthworks, roading, tracking	In order to meet the surface water quality guidelines set out in section 5.4 where land is subject to earthworks, best practice should be adopted to mitigate or avoid the effects of runoff into water bodies (as necessary according to the erodibility of the soil).

In regard to land based effects and the impact to soils the Assessment of Effects to Land (LEI, 2021: T:D.10) report identifies measures that will be implemented (outlined in Chapter 9.3 of the AEE) that will manage the land based activities to protect the soil and land from adverse effects.

These measures include selection of a site that is appropriate for irrigation having the appropriate soil characteristics, rates of application to be appropriately managed relative to hydraulic conductivity of the soil, managing any stock and cropping activities after irrigation (to avoid soil damage and maintain vegetative cover) and no irrigating during rainfall or prolonged wetness. With these measures in place, the overall assessment determined that the land-based effects are no more than minor

The proposed measures identified in the AEE and (LEI, 2021: T:D.10) report to manage effects affecting soils is consistent with POL67.

**Air Quality - RRMP**

**OBJ 39** A standard of ambient air quality is maintained at, or enhanced to, a level that is not detrimental to human health, amenity values or the life supporting capacity of air, and meets National Environmental Standards.

The discharges to air generated by the WWTP and land discharge are related to odour which are not addressed by the regulations under the NESAQ.

**OBJ 39a** A standard of local air quality is maintained that is not detrimental to human health, amenity values or the life supporting capacity of air.

**POL 69 - Environmental Guidelines & Standards – Air Quality**

To manage the effects of activities affecting air quality in accordance with the environmental guidelines and standards set out in Table 6 below.

1. Odour - There should be no offensive or objectionable odour beyond the boundary of the subject Property

...

6. Ambient air quality –

a. The ambient air quality must remain within the standards stated within the Resource Management (National Environmental Standards for Air Quality) Regulations 200415.

b. Where no national environmental standards exist the ambient air quality should remain within the New Zealand Ambient Air Quality Guidelines MfE 2002.15a

c. Where the existing ambient air quality is better than the concentrations specified in the standards and guidelines in (a) and (b), there should be no significant degradation of ambient air quality.

The continued conditions of consent for the air discharge regarding odour beyond the site boundary is anticipated where a complaints register will be kept and maintained.

Odours from the WWTP are generally of low intensity and readily dissipate within the site's boundaries. The mitigation methods to avoid adverse effects to air quality due to discharges from the irrigation of wastewater have been identified and proposed in Chapter 9.7 of the AEE. Overall, the proposal is consistent with OBJ 39, OBJ 39a and POL 69.

## Tukituki River Catchment

### 5.9.1 Fresh Water Objectives

OBJ TT1 To sustainably manage the use and development of land, the discharge of contaminants including nutrients, and the taking, using, damming, or diverting of fresh water in the Tukituki River catchment so that:

- (a) Groundwater levels, river flows, lake and wetland levels and water quality maintain or enhance the habitat and health of aquatic ecosystems, macroinvertebrates, native fish and trout;
- (b) Water quality enables safe contact recreation and food gathering; (ba) Water quality and quantity enables safe and reliable human drinking water supplies;
- (c) The frequency and duration of excessive periphyton growths that adversely affect recreational and cultural uses and amenity are reduced;
- (e) The mauri of surface water bodies and groundwater is recognised and adverse effects on aspects of water quality and quantity that contribute to healthy mauri are avoided, remedied or mitigated; and

The proposed staged development will result in community wastewater being sustainably reused through irrigation supplementing existing freshwater irrigation and fertiliser use, enabling nutrients once derived from the land and would previously be discharged directly to a surface water body, to be beneficially returned to the land, increasing pasture growth and farm productivity.

The additional of UV treatment and attenuation of treated wastewater through soils will lead to significant water quality improvements for the Makaretu River, thus, addressing the points listed in OBJ TT1.

<p>OBJ TT2 Where the quality of fresh water has been degraded by human activities to such an extent that Objective TT1 is not being achieved, water quality shall not be allowed to degrade further and it shall be improved progressively over time so that OBJ TT1 is achieved by 2030.</p>	<p>The water quality assessment (T:B.24) report has shown that the proposed development of the Takapau WWTP will contribute towards achieving OBJ TT2 through the steady diversion of treated wastewater discharge from the Makaretu River to adjacent farmland.</p>
<p>OBJ TT4A To recognise that industry good practice for land and water management can assist with achieving Objectives TT1, TT2 and TT4.</p>	<p>With the inclusion of the proposed wastewater irrigation, careful management practices will be adopted utilising industry good practise. The (LEI, 2021: T:D.10) report identifies measures that will be implemented (outlined in Chapter 9.3 of the AEE) that will manage the land-based activities to protect the soil and land from adverse effects, overall meeting OBJ TT4A.</p>
<p>OBJ TT5 Subject to Objectives TT1, TT2 and TT4, to enable the development of on-farm storage and Community Irrigation Schemes that improve and maximise the efficient allocation and efficient use of water.</p>	<p>Wastewater flows are continuous meaning storage will be required, when irrigation cannot occur, reducing discharges to the river. This scheme is to service the community of Takapau and aims to maximise the efficient use of water meeting OBJ TT5.</p>

### 5.9.2 PC6 Policies for Land and Wastewater Management

<p><b>POL TT1 SURFACE WATER QUALITY LIMITS, TARGETS AND STATE INDICATORS</b></p> <p>1. In surface water bodies in Water Management Zones 1, 2, 3 and 5 Hawke's Bay Regional Council will (in Table 5.9.1B):</p> <ul style="list-style-type: none"> <li>(a) Set instream water quality concentration limits and targets<sup>4</sup> for dissolved inorganic nitrogen (DIN) to provide for maintenance or enhancement of the habitat and health of aquatic ecosystems, macroinvertebrates, native fish and trout (with the targets to be met by 1 July 2030);</li> <li>(b) Set instream water quality concentration limits and targets<sup>4</sup> for nitrate-nitrogen (NO<sub>3</sub>-N) to protect aquatic fauna from toxicity effects (with the targets to be met by 1 July 2030);</li> <li>(c) Set instream water quality concentration limits and targets<sup>4</sup> for dissolved reactive phosphorus (DRP) and instream targets for periphyton biomass and cover (with the targets to be met by 1 July 2030).</li> </ul> <p>3. In surface water bodies in all Water Management Zones Hawke's Bay Regional Council will:</p> <ul style="list-style-type: none"> <li>(a) Set (in Tables 5.9.1A) instream water quality limits/targets for Temperature, Dissolved Oxygen, Escherichia coli (E. coli), Total Ammoniacal Nitrogen and Other Toxicants;</li> <li>(b) Set (in Table 5.9.1B and C) environmental state indicators<sup>7</sup> for the Macroinvertebrate</li> </ul>	<p>The Makaretu River sub-catchment sits within Tukituki Catchment Management Zone 3 (MZ3) – Ruataniwha South – and is subject to the catchment-specific management limits and targets set out in Table 5.9.1B.</p> <p>The water quality assessment (T:B.24) found 'there will be no additional exceedances of parameters referenced in PC6 Tables 5.9.1A and 5.9.1B as a function of the future WWTP development stages'.</p> <p>'UV treatment and higher dilution rates contribute to the expectation that downstream <i>E.coli</i> concentrations will meet PC6 targets year-round, even in the realistic worst-case scenarios'. This is an improvement to the current discharge effects.</p> <p>There are no noted registered drinking water supply takes downstream from the discharge point to the Makaretu River.</p> <p>The hydrogeological assessment report (T:B.14) has identified that the Takapau WWTP site is down gradient from the Source Protection Zone (SPZ) around the Takapau public supply bore. and infiltrated wastewater is not expected to migrate towards the SPZ.</p>
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Community Index (MCI), Visual Water Clarity and Deposited Sediment.

4. Manage point source discharges and the use of production land upstream of any registered drinking water supply takes to ensure compliance with the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 and the Drinking-Water Standards for New Zealand (2005 Revised edition 2008).

#### **POL TT2 GROUNDWATER QUALITY LIMITS**

1. For groundwater Hawke's Bay Regional Council will:

- (a) Manage the adverse effects of activities likely to affect the quality of groundwater located 10m or more below ground level in accordance with the limits for aesthetic, organic and inorganic determinants; *Escherichia coli* and nitrate-nitrogen set in Table 5.9.2;
- (b) Set (in Table 5.9.2) an environmental state indicator for the annual average concentration of nitrate-nitrogen;
- (c) Manage activities likely to affect the quality of groundwater connected to and affecting surface water quality having regard to effects on the achievement of the limits and targets set in Tables 5.9.1A and 5.9.1B;
- (d) Manage point source discharges and the use of production land upstream of any registered drinking water supply takes to ensure compliance with the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 and the Drinking-Water Standards for New Zealand (2005 Revised edition 2008).

2. The implementation of POL TT2(1) shall take into account uncertainties associated with variables such as the location of the activity, the spatial and temporal nature of groundwater flows, seasonal variations in groundwater levels, and the effects of historical production land use activities on existing and future groundwater quality.

The effects of the application of wastewater to land are provided in the (LEI, 2021: T:D.10) report. The hydrogeological assessment was conducted to describe the groundwater characteristics at and around the site, and to assess the potential movement of infiltrated wastewater in groundwater. This assessment is provided in the (Beca, 2021 T:B.14) report.

The management of activities likely to affect the quality of groundwater, having regard to achieving the targets, is the irrigation discharge to land. Mitigation management measures have been identified in the AEE and include;

- groundwater levels annual monitoring report requirements
- selection of a site that is appropriate for irrigation having the appropriate soil characteristics
- rates of application to be appropriately managed relative to hydraulic conductivity of the soil
- managing any stock and cropping activities after irrigation (to avoid soil damage and maintain vegetative cover) and
- no irrigating during rainfall or prolonged wetness

With these measures in place, the overall assessment determined that the land-based effects are no more than minor.

Regulations 7, 8 and 10 of the NES-DW apply to activities specifically upstream of an abstraction point. The hydrogeological assessment report (T:B.14) has identified that the Takapau WWTP site is down gradient from the Source Protection Zone (SPZ) around the Takapau public supply bore. and infiltrated wastewater is not expected to migrate towards the SPZ.

Chapter 6.6 of the AEE and the proposed conditions of consent (Appendix E), include numerous mitigation measures (noted above) that will be imposed as conditions of consent that will address Regulation 12 of the NES-DW.

Overall, the management and measures to be implemented are consistent with POL TT2.

### **POL TT3 RECEIVING ENVIRONMENT LIMITS FOR POINT SOURCE DISCHARGES**

1. In surface water bodies in all Water Management Zones Hawke's Bay Regional Council will manage point source discharges so that after reasonable mixing, contaminants discharged (either by themselves or in combination with the same, similar, or other contaminants) do not cause:

- (a) the Table 5.9.1A and 5.9.1B limits to be exceeded; or
- (b) the following receiving environment limits to be exceeded at any time all year round:
  - (i) The percentage reduction to the Quantitative Macroinvertebrate Community Index (QMCI) score relative to the QMCI upstream of the discharge should not exceed 20% at all flows; (ii) The average of the five days filtered / soluble carbonaceous biochemical oxygen demand (ScBOD5) shall not exceed 2 mg/L at flows less than the median flow;
  - (iii) The average particulate organic matter (POM) shall not exceed 5 mg/L at flows less than the median flow;
  - (iv) The concentration of Total Ammoniacal Nitrogen (TNH3-N) shall not exceed the acute limits tabulated in Schedule XXIII at all flows (to avoid acute toxicity effects);
  - (v) The percentage reduction to the water clarity relative to the water clarity upstream of the discharge should not exceed: 1. 20% at flows less than the median flow in all rivers in Water Management Zone 4; 2. 20% at flows less than the median flow in the mainstem of the Tukituki River in Water Management Zones 1 and 3 and the mainstem of the Waipawa River and the Mangaonuku Stream in Water Management Zone 2; 3. 30% at flows less than the median flow in all other rivers in the Tukituki catchment. 2. The implementation of POL TT3(1) shall take into account:
    - (a) measurement uncertainties associated with variables such as location, flows, seasonal variation and climatic events;
    - (b) in relation to discharges, the degree to which a discharge is of a temporary nature, or is associated with necessary maintenance work.

The Makaretu River sub-catchment sits within PC6 Tukituki Catchment Management Zone 3 (MZ3) – Ruataniwha South – and is subject to the catchment-specific management objectives, limits and targets set out in Tables 5.9.1A and 5.9.1B in the RRMP PC6 document.

The final development solution will provide for an indirect discharge to the Makaretu River after passing through the HRLP system only when conditions do not allow irrigation to land and when storage is at capacity. The water quality assessment found 'there will be no additional exceedances of parameters referenced in PC6 Tables 5.9.1A and 5.9.1B as a function of the future WWTP development stages meeting POL TT3.

### **POL TT3A MANAGING EXISTING COMMUNITY WASTEWATER DISCHARGES**

1. Existing community wastewater discharges to surface water are provided for on the basis of best practicable option treatment over time.

The existing wastewater discharge at Takapau is to the Makaretu River; however, the proposed staged development will transfer flows from the river discharge to be used as land irrigation for increased pasture production.



	<p>The final development solution will provide for an indirect discharge to the Makaretu River after passing through the HRLP system only when conditions do not allow irrigation to land and storage is at capacity. This discharge approach is considered to be the best practicable option on balance to maintain the performance and stability of the land irrigation.</p> <p>Chapter 3 of the AEE (T:D.1) report and the BPO report (T:C.12) provides the background of the development of the proposed approach to treatment and discharge.</p> <p>Further, the water quality assessment found 'there will be no additional exceedances of parameters referenced in PC6 for surface water'. POL TT3 is considered to be achieved.</p>
<p><b>POL TT4 IMPLEMENTING THE NITROGEN LIMITS AND TARGETS 1.</b></p> <p>To ensure that the Table 5.9.1B nitrate-nitrogen and dissolved inorganic nitrogen surface water quality limits and the Table 5.9.1D Tukituki LUC Natural Capital Leaching Rates are not exceeded on a whole of farm property or whole of farming enterprise basis:</p> <p>(a) From 1 June 2013 onwards farm properties or farming enterprises exceeding 4 hectares in area shall be required to either:</p> <p>(i) Keep the records specified in Schedule XXI so that Nutrient Budgets can be calculated using Overseer9 (or an alternative model approved by Hawke's Bay Regional Council<sup>10</sup>) prior to 31 May 2018; or</p> <p>(ii) Keep copies of Nutrient Budget input and output files that have been prepared in accordance with an industry programme approved by Hawke's Bay Regional Council; Except that for low intensity farming systems the property size threshold shall be 10 hectares. This exception is to recognise that low intensity farming systems have low nitrogen losses. The farming systems included in this category may be further developed and included in the Regional Resource Management Plan via a plan change prior 31 May 2018.</p> <p>(b) By 1 June 2018 farm properties or farming enterprises exceeding 4 hectares in area shall prepare and maintain a Farm Environmental Management Plan prepared in accordance with Schedule XXII. The Farm Environmental Management Plan (FEMP) should be in proportion to the complexity or intensity of the particular farming operation. The FEMP shall be updated at three yearly intervals from 1 June 2018. Except that for low intensity farming systems the property size threshold shall be 10</p>	<p>The water quality assessment (T:B.24) found 'there will be no additional exceedances of parameters referenced in PC6 Tables 5.9.1B as a function of the future WWTP development stages'.</p> <p>Table 1.2 of the (LEI, 2021: T:D.10) report gives a nutrient loss summary for Stages 1 to 3 for the combined wastewater irrigation and farming activities.</p> <p>The effects of the application of wastewater to the soil and plant system in the (LEI, 2021: T:D.10) report concludes that the individual effects from the assessments completed are all less than minor.</p> <p>As noted previously the Takapau WWTP is located within section 'T6 Makaretu' as shown in Figure 1. This section has been identified as being below the DIN limit of 0.8 DIN mg/L set in PC6 (green category), no further action for this section of the catchment is required at this time but it may in the future.</p> <p>In regard to land based effects and the impact to soils the Assessment of Effects to Land (LEI, 2021: T:D.10) report identifies measures that will be implemented (outlined in Chapter 9.3 AEE) that will manage the land based activities to protect the soil and land from adverse effects.</p> <p>These measures include selection of a site that is appropriate for irrigation having the appropriate soil characteristics, rates of application to be appropriately managed relative to hydraulic conductivity of the soil, managing any stock and cropping activities after irrigation (to avoid soil damage and maintain vegetative</p>

hectares. This exception is to recognise that low intensity farming systems have low nitrogen losses. The farming systems included in this category may be further developed and included in the Regional Resource Management Plan via a plan change prior 31 May 2018.

(c) Require industry good practices to be implemented on farm properties or farming enterprises in order to minimise nitrogen losses; (d) Until 31 May 2018 the managers of farm properties and farming enterprises shall be required to measure or model nitrogen leaching rates to support the preparation of Nutrient Budgets<sup>11</sup> to be included in a Farm Environmental Management Plan. The Nutrient Budgets must be updated thereafter at least 3 yearly. The initial Nutrient Budget must be provided to Hawke's Bay Regional Council while the three yearly updates need only be provided to the Council upon written request.

(e) Require that the records kept in accordance with POL TT4(1)(a), (b) and (d) are to be reviewed annually in accordance with an industry programme approved by Hawke's Bay Regional Council (or in the absence of an industry programme, as directed by Hawke's Bay Regional Council) to assess whether any farm system changes are evident in the previous 12 months. If such a change is evident, the Nutrient Budget for the farm system must be updated to determine whether the nitrogen leached from the land exceeds the relevant limit in Table 5.9.1D on a whole of farm property or whole of farming enterprise basis and the updated Nutrient Budget must be provided to the Hawkes Bay Regional Council.

(f) Allow until 31 May 2020 farm properties or farming enterprises to implement any necessary changes to their farming systems to achieve the Table 5.9.1D Tukituki LUC Natural Capital Nitrogen Leaching Rates on a whole of farm property or whole of farming enterprise basis.

(g) Require the use of production land on properties greater than 4 hectares in area in those Tukituki River sub-catchments where there are exceedances of Table 5.9.1B (surface water) or Table 5.9.2 (groundwater) nitrate-nitrogen or dissolved inorganic nitrogen limits and targets to be subject to a land use consent under Rule TT2 or Rule TT2A if the targets are still exceeded or become exceeded after 1 June 2020 unless the farm property or farming enterprise is a low intensity farming system or solely comprises plantation forestry;

(h) By 31 May 2018 HBRC will develop a Procedural Guideline in collaboration with primary sector representatives to aid in the

cover) and no irrigating during rainfall or prolonged wetness.

Mitigation of the farm practices will be through adopting Good Management Practices (GMP) to minimise nutrient loss. GMP will be demonstrated in the FEMP which will include appropriate recording.

With these measures in place, the overall assessment determined that the land-based effects are less than minor, consistent with POLTT4.



implementation of POL TT4. The Guideline will include, but not be limited to: the methodology for estimating a Nutrient Budget using Overseer (or an alternative model approved by Hawke’s Bay Regional Council), the process for monitoring water quality trends and alerting affected farming properties if water quality limits are being approached; delineation of the ‘capture zone’ for the relevant water body (the area of groundwater or surface water contributing to the particular part of the water body in question); and, where Rule TT2 is triggered, an adaptive management process for reducing nitrogen leaching from affected farming properties based on the implementation of progressively more stringent on-farm management practices.

(i) After 1 June 2020 manage activities with leaching rates that exceed those specified in Table 5.9.1.D through a resource consent process under Rule TT2 where such exceedance is 30% or less or Rule TT2A where leaching rates in Table 5.9.1D are exceeded by more than 30%. (j) For the purposes of achieving compliance with Table 5.9.1D, the estimated leaching rate shall be a 4 year rolling average of the estimated nitrogen leaching rates derived from Nutrients Budgets prepared after 1 June 2013. 2. To assist with monitoring the effectiveness of POL TT4(1) the Hawke’s Bay Regional Council will:

- (a) Monitor instream water quality at existing State of the Environment monitoring sites to assess compliance with Table 5.9.1B dissolved inorganic nitrogen (DIN) and nitrate-nitrogen limits and targets; and
- (b) Incorporate that information in its regular state of the environment reporting and report on it annually.

**POL TT5 IMPLEMENTING THE PHOSPHORUS LIMITS AND TARGETS**

1. To ensure that the Table 5.9.1B dissolved reactive phosphorus (DRP) surface water quality limits are not exceeded and to attain the Table 5.9.1B DRP targets<sup>14</sup> by 1 July 2030 Hawke’s Bay Regional Council will:

- (a) From 1 June 2018 onwards, require farm properties or farming enterprises exceeding 4 hectares in area to prepare and maintain a Phosphorus Management Plan as part of a Farm Environmental Management Plan prepared in accordance with Schedule XXII. Except that for low intensity farming systems the property size threshold shall be 10 hectares. This exception is to recognise that low intensity farming systems have low phosphorus losses. The farming systems included in this category may be further

The water quality assessment (T:B.24) found ‘there will be no additional exceedances of parameters referenced in PC6 Tables 5.9.1B as a function of the future WWTP development stages’.

The LEI,2021 (T:D.10) report also addresses the land-based activities associated with meeting the targets identified in POLTT5.

As noted previously, mitigation of the farm practices will be through adopting Good Management Practices (GMP) to minimise nutrient loss. GMP will be demonstrated in the FEMP which will include appropriate recording

developed and included in the Regional Resource Management Plan via a plan change prior 31 May 2018.

(b) In areas where the Table 5.9.1B DRP targets are exceeded<sup>15</sup>: (i) Ensure existing point source discharges do not contribute any additional phosphorus load to the Tukituki River or its tributaries and through consent review and renewal processes seek to reduce existing loads where necessary to progress towards phasing out the exceedance;

(ii) Ensure any new point source discharges will not increase existing DRP concentrations in the Tukituki River or its tributaries after reasonable mixing;

(c) In areas where the Table 5.9.1B DRP limits are not exceeded, ensure that any new point source discharges will not cause those limits to be exceeded in the Tukituki River or its tributaries after reasonable mixing;

(d) Require any application for a resource consent for the use of production land on farm properties or farming enterprises to demonstrate:

(i) In areas where the Table 5.9.1B DRP limits are not exceeded that the proposed activity will not lead to an exceedance of the limits in the Tukituki River or its tributaries;

(ii) In areas where the Table 5.9.1B DRP targets are exceeded that the proposed activity will not increase existing DRP concentrations in the Tukituki River or its tributaries and that all reasonable and practicable opportunities have been taken to reduce<sup>16</sup> phosphorus losses from the farm property;

The likely achievement of (i) and (ii) through the preparation of a Phosphorus Management Plan.

A Phosphorus Management Plan will be produced within the accompanying FEMP that will be prepared as required under POLTT5.

#### **POL TT6 DECISION-MAKING CRITERIA – USE OF PRODUCTION LAND Land not associated with the Operation of a Community Irrigation Scheme**

1. When considering an application for a land use consent to authorise the use of production land on farm properties or farming enterprises not associated with the operation of a Community Irrigation Scheme, the consent authority must have regard to the following matters:

(a) The extent to which the use, in combination with other permitted or consented activities, will result in the nitrate-nitrogen and dissolved inorganic nitrogen limits in Table 5.9.1B being approached or exceeded;

(b) The extent to which the Tukituki LUC Natural Capital Nitrogen Leaching Rates specified in Table 5.9.1D are exceeded on a

This proposal is not for a community irrigation scheme but rather a single community containing multiple wastewater sources, being discharged to a single location.

The water quality assessment found 'there will be no additional exceedances of parameters referenced in PC6 Tables 5.9.1B as a function of the future WWTP development stages'.

The LEI,2021 (T:D.10) report addresses the land-based activities associated with having regard to the matters set out in POLTT6 being the N/ DRP targets and the FEMP.

whole of farm property or whole of farming enterprise basis;

(c) Whether the applicant has supplied a Farm Environmental Management Plan prepared in accordance with Schedule XXII which:

- (i) Adequately describes the farm property or farming enterprise (including soils, climate, topography and environmental risks) and the proposed production land use on the farm property or farming enterprise; (ii) Contains a Nutrient Budget for the farm property or farming enterprise;
  - (ii) Contains a Phosphorus Management Plan for the farm property or farming enterprise;
  - (iv) Describes how industry good practices will be implemented to minimise nutrient (nitrogen and phosphorus) losses, sediment losses and faecal bacteria discharges from the farm property or farming enterprise appropriate to the production land use and land type;
  - (v) Where the farm property or farming enterprise is in Water Management Zone 5, ensures appropriate riparian management measures are implemented to minimise nutrient losses and reduce macrophyte growth in order to improve the lifesupporting capacity of the river or stream.
- (d) Whether conditions on the land use consent will ensure that the Farm Environmental Management Plan supplied under (c) is maintained, submitted to Hawke's Bay Regional Council as may be required by the Council, and implemented by the farm property or farming enterprise owner;
- (e) Imposing a three year lapse period in order to discourage speculative land use intensification applications.
- (f) Phasing out of existing over-allocation.

**POLTT6 Land Use Consent Duration**

3. From 4 May 2013 any land use consents granted under Rule TT2 or Rule TT2A to the landowner or occupier shall:

- (a) have the same expiry date as any section 14 water take irrigation consents for the land, or
- (b) if there are no irrigation consents for the land then the maximum duration imposed shall not exceed 35 years.

The duration of the consent being sought is 35 years.

## 2.5 Section 104D Particular restrictions for non-complying activities

Section 104D sets out the 'Gateway Test' for consent authorities to grant resource consent for non-complying activities (this consent application). Section 104D states:

*(1) Despite any decision made for the purpose of notification in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—*

*(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or*

*(b) the application is for an activity that will not be contrary to the objectives and policies*

The application needs to pass one of the two tests, either; the adverse effects on the environment will be minor, or the proposal is not contrary to objectives and policies of the RRMP.

The Statutory Evaluation (Beca, 2021:P:D.90) report has determined that the proposal is largely consistent with the relevant objectives and policies. However, at the time of lodgement a CIA had not been received from the hapu representative and it is not appropriate for the project team to assess whether the relevant objectives and policies relating to tangata whenua have been met. Therefore, the gateway test required by section 104D(1)(b) is not adequately informed at this time as to be conclusive in regard to the objectives and policies relating to tangata whenua. The CIA shall be submitted to HBRC as soon as it is available, and an updated assessment of the relevant objectives and policies will also be provided at this time.

In terms of the effects gateway required by section 104D(1)(a), it has been determined that the overall effects of the proposal are considered less than minor. There are also significant positive effects associated with the reduction of the direct discharge to the Makaretu River (refer to Chapter 9.2 - AEE) which is consistent with the local community and, regional and national directives. The benefits of reducing the discharge to the Makaretu River provides an improvement in water quality and habitat value within the river, while also improving the cultural health of the water way and the relationship (amenity and recreational) with the Makaretu River.

In regard to land based effects and the impact to soils the Assessment of Effects to Land (LEI, 2021: T:D.10) report identifies measures that will be implemented (outlined in Chapter 9.3 - AEE) that will manage the land based activities to protect the soil and land from adverse effects. These measures include selection of a site that is appropriate for irrigation having the appropriate soil characteristics, rates of application to be appropriately managed relative to hydraulic conductivity of the soil, managing any stock and cropping activities after irrigation (to avoid soil damage and maintain vegetative cover) and no irrigating during rainfall or prolonged wetness. With these measures in place, the overall assessment determined that the land-based effects are no more than minor

Based on the findings of the technical assessments provided in the AEE, the adverse effects of the proposal on the environment will be minor (in fact negligible to less than minor) and therefore satisfies the s104D(1)(a) gateway, allowing Council to grant resource consent for this non-complying activity pursuant to section 104B and 108 of the RMA.

## **2.6 Part 2 Purpose and Principles of the RMA**

### **Part 2 Assessment**

#### **2.6.1 Section 6 – Matters of National Importance**

In terms of section 6 (matters of national importance), it is noted that the proposal provides for the preservation of the natural character of the Makaretu River and its margins by maintaining the existing discharge to the river for a short 3-4 year period until Stage 1 is completed in 2024-2025 with the intent to remove a large portion of the discharge from the Makaretu River during critical low flow conditions, with discharge possible only during higher river flows, to a land based irrigation system in 2025-2026 aligned with CHBDC Long Term Plan (LTP) programme.

### **Comment**

The transition from discharging to the Makaretu River (via the HRLP) to a predominately land-based irrigation system with limited discharges via a HRLP system to the Makaretu River only during high flows only, will preserve the natural character of the river and its margins.

Construction of an additional storage (18,000m<sup>3</sup>) system of treated wastewater will enable wastewater to be stored during wet soil conditions (when irrigation is not possible), that will provide a 100 day capacity buffer (based on 2048 volumes) instead of being discharged to the HRLP system which drains to the Makaretu River.

Discharge to HRLP will only occur when the flow rate of the Makaretu River is above median and discharge to land is not possible.

#### **2.6.2 Section 7 – Other Matters**

In terms of section 7 (other matters), it is considered that particular regard to the following matters has been undertaken.

### **Comment**

Kaitiakitanga and the ethic of stewardship (section 7(a) and 7(aa)) has been regarded through the implementation of the broad Maori world view approach to transition away from direct discharges to the river and through the engagement and due consideration of the cultural effects from iwi and hapu groups with mana whenua in Takapau.

It is considered that the efficient use and development of natural and physical resources (section 7(b)) has been regarded through the BPO process that has been undertaken as part of this proposal.

The maintenance and enhancement of amenity values (section 7(c)) and the intrinsic values of ecosystems (section 7(d)) has been regarded through reducing the extent to which an indirect surface water discharge will be used to the Makaretu River. This approach will enhance the quality of the receiving environment under section 7(f).

The proposal will contribute towards improved water quality in the Makaretu River which will contribute towards protecting the habitat of trout and salmon under section 7(h).

#### **2.6.3 Section 8 – Treaty of Waitangi**

In terms of section 8 (Treaty of Waitangi),

### **Comment**

It is noted that engagement with Takapau iwi and hapu groups has been ongoing and adverse effects on ancestral lands, water, sites, waahi tapu, and other taonga have been identified through the cultural impact assessment (CIA). Through the engagement with tangata whenua, the principles of the Treaty of Waitangi have been taken into account.

#### **2.6.4 Purpose**

The purpose of this Act is to promote the sustainable management of natural and physical resources. It is considered that the proposal will promote the sustainable management of natural and physical resources by:

- a) Providing for the proposed long-term solution for the wastewater infrastructure to accommodate the potential growth of Takapau enabled by the Central Hawkes Bay District Plan and the Central Hawkes Bay District Wastewater Treatment and Discharge Management Strategy.
- b) Effectively treating wastewater. The proposed consent enables the long term solution that will produce an improved treated wastewater regime which will contribute towards the protection and restoration of the

health and wellbeing of the environment - thereby sustaining the potential of the environment to meet the reasonably foreseeable needs of future generations, and safeguarding the life-supporting capacity of the land and water; and

c) Appropriately avoiding, remedying and mitigating adverse effects which may result from the proposed wastewater discharges.

Having regard to the above, it is considered that the proposal is consistent with the purpose of the RMA.

## **2.7 Summary and conclusion**

The proposal is consistent with Part II of the RMA and the objectives and policies of the NPS-FM and RPS. The proposal is largely consistent with the relevant objectives and policies of the RRMP. The proposal has considered and addressed the relevant provisions of the NES-F and NES-DW.

The overall effects of the proposal are considered less than minor and include significant positive effects associated with the reduction of the direct discharge to the Makaretu River which is consistent with the local community, tangata whenua and regional and national directives.

Overall, it is therefore considered appropriate to grant consent pursuant to section 104B and 108 of the RMA.