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Waikato Regional Plan (WRP), high level policy direction, Freshwater Policy Review

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1 Introduction

The Waikato Regional Council has embarked on its Freshwater Planning Process to give effect to the National Policy Statement for Freshwater Management 2020 (NPSFM 2020). This process will result in changes to the Waikato Regional Policy Statement (WRPS) and substantial changes to the freshwater sections of the Waikato Regional Plan (WRP).

The NPSFM 2020 provides the framework for freshwater management across the country. The objective of this national direction 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 (clause 2.1)*

The fundamental concept for the NPSFM 2020, and the framework for achieving this objective, is Te Mana o te Wai, a concept that refers to:

> *the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.* (clause 1.3(1))

The NPSFM 2020 sets out a process that must be followed by Council to give effect to the NPSFM 2020. A separate paper sets out the first direction-setting steps of that process for the review of the WRPS.

This paper informs the process for reviewing freshwater policy in the WRP, the feedback received from the community and tangata whenua, and puts forward some options and suggestions, based on research of the issues facing the Waikato and the feedback received. The options and suggestions are drafts, and do not represent a Council position.

This paper sets out the overall statutory context, including the statutory direction applicable in the Waikato or parts of the Waikato, the community and tangata whenua engagement that has informed this paper, and goes on to set out the issues and options for the for each topic. This report covers the following regional plan topics:

- Environmental values and outcomes
- Non-point source discharges
- Water allocation and limits
- Efficient use of water and transfers
- Farm animal effluent
- Wetlands
- Special sites and features
- Works and structures in the beds of lakes and rivers
- Damming and diversion of water
- Hydro-electricity generation
- General discharges
- Wastewater
- Stormwater
- Drinking water protection
- Plan monitoring and review
- Tangata Whenua Chapter

The options presented in this paper are high-level policy options. Detailed options will be developed following further consultation, alongside an evaluation of the environmental, social, cultural and economic costs and benefits of each of the options.

2 Statutory context

The statutory and policy context for freshwater management is set out across multiple statutes and national and regional level policy direction. These documents include a range of requirements that must be followed by the Council when managing freshwater.

Resource Management Act 1991 (RMA)

The purpose of the RMA is to promote the sustainable management of natural and physical resources. It places a duty on regional councils to examine the extent to which their plan(s) achieve this purpose. This is contained in **Section 5**, and is informed by sections 6, 7 and 8 that follow.

Section 6 of the RMA outlines matters of national importance that decision-makers are required to recognise and provide for. **Section 7** sets out other matters to which particular regard shall be given to. **Section 8** sets out the requirement to take into account the principles of the Treaty of Waitangi. These matters are relevant, as they must be addressed by the objectives of the regional plan.

Section 9 outlines restrictions on use of land. No person may use land in a manner that contravenes a national environmental standard, a regional rule or a district rule unless the use is expressly allowed by a resource consent, is allowed by certain existing uses in relation to land protected, is an activity allowed by certain existing activities, or is an activity allowed by certain existing lawful activities.

Section 13 outlines restrictions on certain uses of beds of lakes and rivers. Unless expressly allowed by a national environmental standard, a rule in a regional plan as well as a rule in a proposed regional plan, or a resource consent, no one may, in relation to the bed of any lake or river, undertake activities as specified within Section 13.

Section 14(3) sets out restrictions relating to water[1]. It states that no person may take, use, dam or divert any water unless:

- The taking, using, damming or diverting of water is expressly allowed by a national environmental standard, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent.[2]
- The taking or using of water is for an individual's domestic and stock drinking water requirements, and the taking or use does not, or is not likely to, have an adverse effect on the environment.[3]

[1] Water is defined at RMA Section 2 and:

(a) means water in all its physical forms whether flowing or not and whether over or under the ground:

(b) includes fresh water, coastal water, and geothermal water:

(c) does not include water in any form while in any pipe, tank, or cistern.

[2] Section 14(3)(a), RMA.

[3] Section 14(3)(b), RMA.

- The taking or using of water is for emergency or training purposes in accordance with section 48 of the Fire and Emergency New Zealand Act 2017.[4]

Section 15 outlines the duties and restrictions for the discharge of contaminants into the environment. It states that no person may discharge any contaminant, or water, into water or onto or into land in circumstances where may enter water unless allowed by a rule in a regional plan, resource consents, or regulations.

Section 30 sets out the functions of regional councils, including the establishment, implementation, and review of objectives, policies and methods to achieve integrated management of the natural and physical resources of the region. Section 30 gives regional councils the function to control a number of activities including:

- The use of land for the purpose of:
    - The maintenance and enhancement of the quality of water in water bodies and coastal water:
    - The maintenance of the quantity of water in water bodies and coastal water:
    - The maintenance and enhancement of ecosystems in water bodies and coastal water
- The taking, use, damming, and diversion of water, and the control of the quantity, level, and flow of water in any water body.
- Discharges of contaminants into or onto land, air, or water and discharges of water into water.

Council must prepare and change its plans in accordance with its functions under section 30, the provisions of Part 2, a national policy statement, New Zealand coastal policy statement, national planning standard and any regulations.[4] It must also take into account any relevant planning document recognised by an iwi authority to the extent that their content has a bearing on the resource management issues of the region.[5] Additionally, **Section 35** requires local authorities to gather information, monitor and keep records.

Section 43B sets out the relationship between NESs and rules or consents. A rule or resource consent that is more stringent than an NES prevails over the standard, if the standard expresses that a rule or consent may be more stringent than it.

Section 63 outlines the purpose of regional plans. A regional plan must give effect to any national policy statement, any New Zealand coastal policy statement, a national planning standard and any regional policy statement.

Section 65-70 address the requirements relating to preparation and change of other regional plans. A regional plan must give effect to any national policy statement, any New Zealand coastal policy statement, a national planning standard and any regional policy statement.

Section 136 provides for the transfer of water permits in certain situations.

National Planning Standards 2019

The National Planning Standards contain direction on the format of regional policy statements and regional and district plans, including definitions. In accordance with Standard 17, Council is required to comply with the specified standards[5] through the notification of a proposed regional plan (but not a proposed change or variation), or by 2029, whichever is sooner.

[4] Section 14(3)(e), RMA.

[5] Standards 1, 3, 6, 10, 11, 13, 14 and 15.

National Policy Statement for Freshwater Management 2020 (NPSFM)

In addition to the objective of the NPSFM 2020 set out earlier, there are 15 policies, which provide more detailed direction:

***Policy 1**: Freshwater is managed in a way that gives effect to Te Mana o te Wai.*

***Policy 2**: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.*

***Policy 3**: 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.*

***Policy 4**: Freshwater is managed as part of New Zealand's integrated response to climate change.*

***Policy 5**: Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.*

***Policy 6**: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.*

***Policy 7**: The loss of river extent and values is avoided to the extent practicable.*

***Policy 8**: The significant values of outstanding water bodies are protected.*

***Policy 9**: The habitats of indigenous freshwater species are protected.*

***Policy 10**: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.*

***Policy 12**: The national target (as set out in Appendix 3) for water quality improvement is achieved.*

***Policy 13**: 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.*

***Policy 14** sets out the requirement that information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published by Council.*

***Policy 15**: Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.*

The NPSFM 2020 goes on to set out a specific process for freshwater planning that must be followed by regional councils, known as the National Objectives Framework (NOF). This Framework includes a range of compulsory values, attributes and national bottom lines. Clause 3.7 describes the NOF process which WRC must follow to give effect to the NPSFM:

a) identify **FMU**s in the region (clause 3.8)
b) identify **values** for each FMU (clause 3.9)
c) set **environmental outcomes** for each value and include them as objectives in regional plans (clause 3.9)
d) identify **attributes** for each value and set baseline states for those attributes (clause 3.10)
e) set **target attribute states**, environmental flows and levels, and other criteria to support the achievement of environmental outcomes (clauses 3.11, 3.13 and 3.16)
f) set **limits** as rules and prepare **action plans** (as appropriate) to achieve environmental outcomes (clauses 3.12, 3.15 and 3.17).

New Zealand Coastal Policy Statement 2010 (NZCPS)

The New Zealand Coastal Policy Statement 2010 (NZCPS) is a National Policy Statement under the RMA. Its purpose is to state policies in order to achieve the purpose of the Act in relation to the coastal environment of New Zealand.

Regional policy statements, regional plans and district plans must give effect to the NZCPS (sections 62(3), 67(3), 75(3)(b)).

Policy 4 of the NZCPS relates to integrated management of the coastal environment and activities that affect it, requiring co-ordinated management or control of activities within the coastal environment, and which could cross administrative boundaries.

Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NESFW)

The National Environmental Standards for Freshwater 2020 (NESFW) regulate activities that pose risks to the health of freshwater and freshwater ecosystems. The NESFW sets standards for farming activities and standards to protect natural inland wetlands.

National Environmental Standards for Plantation Forestry (NESPF)

The National Environmental Standards for Plantation Forestry 2017 (NESPF) provide standards for all aspects of forestry operations. Among other matters, the NESPF regulates afforestation, pruning and thinning to waste and earthworks associated with plantation forestry activity. Regulation 97 of the NESPF regulates discharges to water and/or land and contains a number of standards that proposed activities need to comply with. For example, earthworks (regulation 24), restrictions on slope (regulation 24), and control of sediment discharge (regulation 26) are managed by the NES-PF. The WRP exempts plantation forestry activities from the relevant rules set out in Chapter 5 Land and Soil module, and this activity is regulated by the NESPF.

National Environmental Standards for Storing Tyres Outdoors (NESSTO)

The National Environmental Standard for Storing Tyres Outdoors (NESSTO) was released in 2021 and is administered by Regional Councils under section 30 of the RMA. The NESSTO purpose is to address a regulatory gap in managing outdoor tyre storage under the RMA, which introduces nationally consistent rules and standards for storing more than 20 cubic metres of tyres within a property. This activity has been identified as a gap in the plan, however where there may be relevant rules or policies that relate to the storage of tyres, reference will need to be made to the NESSTO.

Hauraki Gulf Marine Park Act 2000 (HGMP)

The Hauraki Gulf Marine Park Act 2000 established the Hauraki Gulf Marine Park, and the Hauraki Gulf Marine Park Forum. One of the purposes of the Act is to integrate the management of the natural, historic, and physical resources of the Hauraki Gulf, its islands, and catchments.

The Hauraki Gulf Marine Park Act 2000 requires that sections 7 and 8 of that Act must be treated as a New Zealand coastal policy statement issued under the RMA. Section 7 and 8 relate to the Hauraki Gulf, its islands, and catchments.

Treaty Settlement legislation

Treaty settlements may place obligations on local authorities and how they exercise their functions under the RMA. When implementing regional policy statements, regional plans, and district plans, local authorities will need to give effect to any relevant Treaty settlement obligations.

Specific relationship obligations for WRC with iwi entities and their catchments are part of their respective settlements being:

- Waikato Raupatu Claims Settlement Act 1995,
- Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010,
- Ngāti Tūwharetoa, Raukawa Te Arawa River Iwi Waikato River Act 2010,
- Ngā Wai o Maniapoto (Waipā River) Act 2012,
- Raukawa Claims Settlement Act 2014,
- Ngāti Tūwharetoa Claims Settlement Act 2018,
- Maniapoto Claims Settlement Act 2022.

Under the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngāti Tūwharetoa, Raukawa Te Arawa River Iwi Waikato River Act 2010, Ngā Wai o Maniapoto (Waipā River) Act 2012, the Waikato River Authority's Vision and Strategy Te Ture Whaimana o Te Awa o Waikato prevails over any inconsistent provisions in national policy statements.

The Te Tiriti claims settlement legislation via joint management agreements (JMAs) or their equivalents, establishes WRC/Iwi Māori co-governance committees which currently are confined to the Waikato and Waipā catchments, and Taupō Moana catchment. Under the Maniapoto Claims Settlement Act 2022 a JMA must be finalised by 28 September 2023.

The JMA all have similar requirements for how WRC must involve tangata whenua in statutory planning processes under the RMA. There are however slight differences and variations. The JMA obligations are above the requirements of the NPSFM to actively engage tāngata whenua to the extent that they wish to be involved.

Within the Waikato Region there are also individual iwi and iwi collectives which have yet to settle their respective Te Tiriti o Waitangi claims with the Crown. Initialled and signed deeds of settlement include provisions which propose natural resource management entities, and structures and frameworks which, once settlement legislation has obtained royal assent, will have a similar effect on administration and implementation of the RMA, and regional policy and planning documents as the legislation referenced above. An example of this situation is the individual iwi of Hauraki[6] and the Pare Hauraki Collective.

Ngāti Tūwharetoa Claims Settlement Act 2018

The Ngāti Tūwharetoa Claims Settlement Act 2018 provides for the establishment of a statutory joint committee and in preparing, reviewing, varying or changing a regional policy statement, regional plan or district plan, a local authority must recognise and provide for the vision, objectives, values and desired outcomes in Te Kaupapa Kaitiaki. Te Kaupapa Kaitiaki is a catchment plan for the Taupō catchment developed by the joint committee and made operative in November 2022. The plan recognises Lake Taupō as a hydro lake that provides a large proportion of New Zealand's renewable electricity supply. Balancing the sustainable use of the lake for this purpose will need to continue for the foreseeable future.

Te Ture Whaimana o Te Awa o Waikato – The Vision and Strategy

The three River Acts[7] established the Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato as the primary direction setting document for the Waikato and Waipā Rivers. Te Ture Whaimana prevails over any inconsistencies in a national policy statement and is deemed to be part of the Waikato Regional Policy Statement. Te Ture Whaimana states

[6] Settlement legislation for two of the twelve Hauraki Iwi has gained royal assent: Ngāi Tai ki Tāmaki Claims Settlement Act 2018 No 18 (as at 12 April 2022), Public Act – New Zealand Legislation and Ngāti Pūkenga Claims Settlement Act 2017 No 39 (as at 12 April 2022), Public Act – New Zealand Legislation

[7] Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngāti Tūwharetoa, Raukawa and Te Arawa River Iwi Waikato River Act 2010 and Ngā Wai o Maniapoto (Waipā River) Act 2012.

that the Waikato and Waipā Rivers are degraded and require, amongst other things, restoration and protection.

Maniapoto Claims Settlement Act 2022

The Maniapoto Claims Settlement Act 2022 is the final settlement of all historical Treaty of Waitangi claims of Maniapoto. Te Nehenehenui is the mandated iwi authority established by Trust deed, to receive the treaty settlement. Maniapoto Māori Trust Board will cease to exist, and Te Nehenehenui will become the entity responsible for the functions previously performed by the Trust Board.

Taumata Arowai-the Water Services Regulator Act 2020

The Water Services Regulator Act establishes Taumata Arowai—the Water Services Regulator and provides for its objectives, functions, and governance arrangements.

Water Services Act 2021 (WSA)

The purpose of the Water Service Act is to ensure that drinking water suppliers provide safe drinking water to consumers. The act sets out reciprocal duties for information sharing between Taumata Arowai and local authorities, and between suppliers and local authorities (Section 45). Suppliers are required to develop Source Water Risk Management Plans (SWRMPs) using this information (Section 43). It also requires Taumata Arowai to publish an annual drinking water regulation report which includes the extent to which regional councils are complying with drinking water regulations (Section 137).

Waikato Regional Policy Statement (WRPS)

The Waikato Regional Policy Statement (WRPS) provides an overview of the resource management issues for the Waikato region and presents objectives, policies and methods to manage natural resources and associated land use activities in the region.

Part 2 of the WRPS includes a focus on integrated management and Part 3 covers freshwater domains with key objectives related to integrated management.

In relation to freshwater management across the region, the WRPS requires that the regional plan:

- adopts a catchment-based approach to ensure the integrated management of water resources, including the management of the allocation and use of water, and flow regimes.
- establishes limits and targets based on values and freshwater objectives, including for minimum and allocable flows and lake levels.

3 Process and outcomes of engagement

Community engagement involved nine face-to-face community water workshops held around the Waikato region, with locations distributed across each of the indicative Freshwater Management Units (FMUs) for Lake Taupō, West Coast, Waikato-Waipā, Hauraki and Coromandel. An estimated 150 people attended the one-day water workshops representing members of the community, members of community groups and tangata whenua/ hapū organisations, farmers and landowners, district and city council staff, district and regional councillors, sector and agency staff, business owners, consent holders and rural professionals. Another 21 people completed an online feedback form with two more sending their written feedback via email.

The one-day community water workshops addressed Te Mana o te Wai, FMUs, long-term visions, values and environmental outcomes, and how to achieve them through non-statutory

actions and regulatory methods. Phase One of the engagement was more focussed on direction setting, whereas Phase Two will focus on the policies and methods to achieve the outcomes determined through the direction setting phase of the process. Information about the current state of freshwater was shared and communities invited to identify their own strengths and challenges around freshwater management and what they could make progress on locally.

Altogether an estimated 240 people attended the range of sector engagement sessions either online via Teams or in person. There were also 15 sector responses to the online feedback form and three sector responses via email provided as written feedback. Sector engagement occurred mainly via existing forums and groups.

Tangata whenua engagement involved ten face-to-face wānanga events held around the Waikato region, with locations distributed across each of the indicative regional freshwater management units FMUs for Lake Taupō, West Coast, Waikato-Waipā, Hauraki and Coromandel. There were 104 tangata whenua who attended the face-to-face wānanga and 23 tangata whenua who attended and participated in the online wānanga all with affiliations to various tangata whenua, hapū, marae, whānau, collectives, other groupings and communities. An online form attracted no responses.

The one-day wānanga addressed Te Mana o te Wai, the indicative FMUs, long-term visions, and values and environmental outcomes. Information about the current state of freshwater was also shared.

4 Values and environmental outcomes

4.1 Introduction

As part of the NOF process in the NPSFM 2020, regional councils are required to record **values** and set **Environmental Outcomes** for these values, which are to be included as objectives in the regional plan (clause 3.9).

Values are intrinsic qualities, uses, or potential uses that people and communities appreciate about freshwater, which recognise what freshwater management should provide for and protect. The NPSFM provides four **compulsory values**, which must have environmental outcomes set. (Appendix 1A):

- Ecosystem health (with five biophysical components: water quality, water quantity, habitat, aquatic life and ecological processes)
- Human contact (the extent to which people connect with water through a range of activities)
- Threatened species (the extent to which an FMU supports a population of threatened species)
- Mahinga kai (kai is safe to harvest and eat)

The NPSFM also provides nine **other values** that must be considered (Appendix 1B). **Māori Freshwater values** must also be identified and provided for through collaboration with tangata whenua (NPSFM policy 2). Through engagement with the community, **additional values** may also be identified, and have environmental outcomes set. The value terms defined in the NPSFM are ‘compulsory value’, ‘Māori freshwater values’ and ‘loss of value’. ’Other values’ are not defined but are listed in the NPSFM Appendix 1B.

Environmental outcomes then state the desired outcome for these values, and apply to Freshwater Management Units (FMU), at a whole or part basis. When achieved, they must fulfil the relevant long-term visions also set by WRC(clause 3.3), and the objective of the NPSFM.

For each compulsory value, WRC *must* use the relevant attributes listed in Appendix 2A of the NPSFM and *may* identify additional attributes. These attributes must be specific, and where practicable, able to be assessed in numerical terms. So, following the identification of values, WRC will also need to identify attributes that apply to these values. Some of the attributes included in Appendix 2 are likely to also be relevant for other values identified. If attributes cannot be identified for a value, or are insufficient to assess, WRC *must* identify alternative criteria to assess achievement of the environmental outcomes.

Identifying values, setting environmental outcomes and incorporating these as objectives in the regional plan is a key part of the freshwater policy review process. Values provide a compass, and objectives identify the desired end state of the region's natural and physical resources — stating what we are aiming for. This sets the target that the policies and implementation is intending to achieve, informing what limits on resource use should be set, as well as subsequently enabling the success of the WRP and RPS to be measured.

4.2 Existing guidance documents

WRC already contains existing information on community held aspirations and concerns for freshwater from previous planning documents, community meetings, events, and surveys, which can be used as a starting point. However, while community held freshwater values are well understood, there is less recorded information about these values that is both FMU specific and framed explicitly in terms of values as prescribed in the NPSFM. Therefore, while previously identified values may still be relevant, it is important to confirm and update freshwater values through the scheduled phases of community engagement.

As a starting point, documents such as Te Ture Whaimana, Te Kaupapa Kaitiaki – the Taupō Catchment Plan, Treaty Legislation and iwi management plans already describe some of the aspirations of tangata whenua for water bodies. Staff have used best endeavours to capture the information from these document that may reflect visions described to date. It is important to note that while documents such as iwi environmental plans can inform conversations with iwi about freshwater management, they are not a substitute for consultation.

WRC has also developed a Freshwater report, titled "Freshwater Values of the Waikato Region" which collated and summarised existing information on the values people hold for the Waikato Region to inform the policy development process for the Waikato Freshwater policy review.[8]

Iwi management plans are an important source of information for articulating Māori values and priorities within a given area and must be considered when deciding what environmental outcomes to set, and what objectives to include in the regional plan. They often identify desired outcomes and goals for iwi/hapū in regard to the natural environment and in terms of Māori aspirations, such as land development and kaitiakitanga. There are currently Twenty-one Iwi Environmental Management Plans currently lodged with the regional council. These Iwi management plans have been reviewed to identify any matters relevant to setting environmental outcomes.

Plan Change 1 (PC1)

A value setting process, involving the community and tangata whenua, was done for PC1 and resulted in an agreed upon list of values and uses for the Waikato and Waipā Rivers[9]. This existing information can be used to inform the identification of values, and the setting of environmental outcomes. However, these values weren't spatially defined by FMU, which the

[8] *Fresh waterbody values of the Waikato Region under the National Policy Statement for Freshwater Management 2020, Waikato regional council Freshwater report 2022/06*

[9] The CSG's Working list of values and uses for the Waikato and Waipā River (Document#3487849)

NPSFM requires — no feedback was conclusive enough to decide that a certain value applied to a specific waterbody.

Furthermore, only three values identified through the PC1 process strongly influenced the development of PC1 provisions: human health, ecosystem health and mahinga kai. These values were only protected as far as could occur through the management of the four PC1 contaminants (nitrogen, phosphorus, sediment and microbial pathogens). Therefore, other attributes will need to be identified to effectively bring these values in alignment with the requirements of the NPSFM.

PC1's Objective 1 would appear to serve the purpose of an NPSFM environmental outcome. However, the objective only addresses four contaminants and three values. It needs to be broadened, or other objectives developed, to include other attributes and values identified through the review process to fulfil the requirements of the NPSFM.

4.3 What we have heard from engagement

4.3.1 Tangata whenua engagement

The direction provided in the iwi documents and reinforced through engagement is generally consistent, in that they seek to increase water quality, improvements to and increases in the availability of mahinga kai, to reduce effluent discharges and nutrient loading in all rivers streams and lakes, improve life supporting capacity of water bodies, improved wellbeing and abundance of indigenous species, and to protect the mauri and values so that water is safe for traditional medicinal purposes, safe for drinking, safe for taking kai and safe for swimming.

4.3.2 Community and stakeholder engagement

Community participants generally assigned importance to all four national compulsory values. Participants also identified other values (i.e., other values that councils must consider – Appendix 1B of the NPSFM). These included natural form and character, drinking water supply and fishing. Participants in all the FMUs identified aspects of natural form and character. For the region as a whole, but not for every FMU, all the other values that must be considered were identified. Participants also identified amenity and recreation values for activities such as biking and walking, activities that do not take place in water, and an additional value, not part of the NPSFM compulsory and other values, being human contact-geothermal was identified. Participants described what aspects of these values were important to them and identified locations in their catchment where these values applied.

4.4 What we have found to date on the topic

Lack of data for some for compulsory attributes

There are currently gaps in WRC data for attributes such as dissolved oxygen, deposited sediment, and periphyton, and potentially for other values identified. These data gaps aren't likely to be filled by the time the plan must be notified (late 2024). Therefore, setting environmental outcomes for some of these values will be on the basis of limited information.

Māori Freshwater Values

Identifying Māori freshwater values, assigning measurable attributes, and setting target attribute states is an important part of setting environmental outcomes. Policy 2 of the NPSFM states that these Māori freshwater values must be identified and provided for.

WRC will be challenged to determine how this will be done and will need to confirm which values will be provided for.

These values will also need attributes to be set, or other measures to assess achievement. Consultation with iwi will likely be needed to confirm how these values will be applied at an FMU or part FMU scale.

Assigning and mapping threatened species

Setting environmental outcomes for the compulsory value of threatened species has the challenge of identifying and mapping the location of these threatened species at an FMU scale. A map of where all threatened species are located isn't currently developed and will need to be created. Waterbodies that don't naturally have fish will also need to be taken into account, so as not to skew interpretation of data, and how environmental outcomes will be assessed at an FMU scale[10].

Overlapping and inter-connected environmental outcomes

In Round 1 of the community and stakeholder engagement, it was commented by a dairy sector stakeholder, that there are overlapping issues that WRC need to be cognisant of in setting freshwater policy and regulation. They explained that achieving one environmental outcome may impact another and trade-offs may be required. Overlapping environmental outcomes and extensive attribute sets has the potential to make this already complex process unwieldy and have significant ongoing implications for implementation of the plan and Council's monitoring programme.

4.4.1 The operative Regional Plan – analysis

The current policy provisions and freshwater objectives do not meet the requirements of the NPSFM. While some attributes are already covered by the regional plan, not all are included, such as periphyton, and will need updated targets to be set in conjunction with other values and attributes identified through the NOF process. Furthermore, these objectives were not developed along the linear process set out in the NPSFM, therefore, while these may be of assistance, they are not likely to align with the wording developed to comply with the NPSFM and may require modification to do so.

The current objectives for managing the Region's natural and physical resources are contained across the RPS, WRP, and Te Ture Whaimana document. In the WRP, four objectives are stated in section 1.2 of the Approaches to Resource Management, while seventeen objectives specific to fresh water are contained within section 3.1.2 Water Resources, and those already required by the NPSFM are contained in section 3A National direction in accordance with the NPSFM. Te Ture Whaimana also contains a list of thirteen objectives which are specific to the Waikato River.

This existing policy framework doesn't currently use the term Environmental Outcome; however, it includes "Environmental Results Anticipated," in combination with objectives to similar effect. Environmental results anticipated identify the outcomes expected as a result of implementing the policies and methods in the regional policy statement and provide the basis for monitoring the efficiency and effectiveness of those policies and methods as required by section 35 of the RMA. Environmental results anticipated are not additional objectives, policies or rules: they are indicators to be used when assessing progress towards achieving the objectives.

Objective 3.1.2 of the Waikato Regional plan currently sets out the desired end point for management of water bodies in the Region, and it applies to the provisions set out in all chapters of the Water Module, as well as any other chapters that directly or indirectly affect water bodies. Chapters 3.2 to 3.9 then set out the policies that describe what WRC will do to achieve it. Section 3.1.4 Monitoring Options, sets out how these objectives will be measured, specifying the

[10] The New Zealand Threat Classification System Lists: Conservation publications (doc.govt.nz) will be a useful tool for this issue

indicators (such as Ecosystem Health), types of monitoring (such as regional trend monitoring) and information sources used (Water quantity and ecology databases).

4.4.2 Policy Shift

The setting of environmental outcomes is dependent on how WRC identifies FMUs for its region, as they must be set at an FMU scale. While this is currently unconfirmed, the proposed approach is the usage of 12 FMUs. This decision follows the principle of setting the FMU's at the largest practical scale, and where similar catchments are grouped together to form distinctive FMUs. It will incorporate the eight FMUs used in PC1, with four further FMUS.

Setting environmental outcomes requires determining which Māori freshwater values, other values and any additional values can practicably be provided for — the following options represent high-level approaches to this process. The other values and additional values will be tested and verified through the next stage of engagement, including where they apply within the FMUs.

The environmental outcome developed for each value must be included in the regional plan. Best practice guidance from the Ministry for the Environment (MfE)[11] states that values, and where they apply, should also be clearly set out in the regional plan.

Additionally, for each attribute assigned to a value, WRC must identify the baseline state. This criterion helps assess the achievement of environmental outcomes by setting the starting point.

In the NPSFM, the baseline state means the best state out of the following:

1. The state of the attribute on the date it is first identified by a regional council under clause 3.10(1)(b) or (c)
2. The state of the attribute on the date on which a regional council set a freshwater objective for the attribute under the National Policy Statement for Freshwater Management 2014 (as amended in 2017)
3. The state of the attribute on 7 September 2017

The Science workstream are currently progressing with identifying baseline states for compulsory values, based on the information contained the relevant SOE reports[12][13][14].

The recommended approach is to have narrative outcomes/objectives which will align with the numeric target attribute states. Each of the following options will follow this.

4.4.3 Options

Option 1 — Do statutory minimum: Set Environmental outcomes for compulsory values, Māori Freshwater values and most other values, but only exceptional additional values.

This approach would set environmental outcomes for compulsory values, Māori freshwater values, and some, but not all, other values for every FMU. It would limit environmental outcomes to these values, and generally not set any for additional values. This approach, while to a lesser extent, also wouldn't appropriately reflect the aspirations for fresh water held by the community.

[11] NOF-Guidance-ME1658-Final-28.7.pdf (environment.govt.nz)

[12] Draft State of the environment monitoring Waikato Lake water quality. Waikato Regional Council Technical Report 2021/26.

[13] Draft Current ecological state of wadeable streams in the Waikato region 2018-2020. Waikato Regional Council Technical Report 2022/32.

[14] Draft State of the environment monitoring river water quality. Waikato Regional Council Technical Report 2022/50.

Engagement has indicated that for the majority of FMUs (excluding Coromandel and Hauraki), the community has expressed importance for all other values.

Option 2 Statutory minimum plus targeted values and outcomes: Set environmental outcomes for compulsory values, Māori freshwater values, some other values, and additional values for very specific activities on specific water bodies.

This approach would set Environmental outcomes for compulsory values, Māori freshwater values, some other values, and additional values identified for every FMU. A draft example of how environmental outcomes may be developed from identified values has been included in Attachment 1 of this document.

Recommended Approach:

Option 2 Do statutory minimum plus targeted values and outcomes: Set environmental outcomes for compulsory values, Māori freshwater values, some other values, and additional values

This approach not only satisfies the requirements of the NPSFM, but it also incorporates all the aspirations for fresh water held by the community into the regional plan objectives. This would set objectives that are more effective at driving improvements in freshwater, with increased accountability, and ensure the regional plan is guided by a greater set of values. This option also better encompasses the six principles of Te Mana o te Wai, such as Stewardship and Governance, as it includes more obligations to manage freshwater in a way that sustains present and future generations. Finally, having more environmental outcomes, which could mean more target attribute states to meet, would better ensure the foundation of the regional plan is based on evidence-based policymaking.

5 Non-point source discharges

5.1 Introduction

This paper examines how the regional plan currently addresses non-point source discharges, particularly diffuse discharges from farming activities, to identify what changes are needed, the current issues, and the broad options for addressing them.

Non-point source discharges are discharges of contaminants from sources that are diffuse and do not have a single point of origin or are not introduced into water bodies and freshwater ecosystems from a specific outlet. It includes discharges of nutrients, sediment and other contaminants from activities such as cropping, livestock farming, and horticulture. Farming is the largest land use in terms of area in the region and over time there has been an increase in land conversions from land uses that have low diffuse discharges such as forestry to dairy farming, which typically has higher levels of diffuse discharges[15].

Land use intensification increased across the region between 2001 and 2018, mainly driven by dairy conversions[16]. An estimated 504,335 ha (40 per cent) of pastoral land underwent some intensification during this period[17]. From 2011 to 2018, pastoral land in the Waikato region increased in area by an estimated 41,527 ha due to the net conversion of planted forest[18]. By

[15] Draft Suspended Sediment Monitoring Report 2022

[16] Draft State of the Environment Synthesis Report

[17] Draft State of the Environment Synthesis Report

[18] Draft State of the Environment Synthesis Report

far the greatest area of net conversion of planted forest to pastoral land occurred in the Upper Waikato area.

5.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to discharges.

The National Policy Statement for Freshwater Management 2020 (NPSFM)

The NOF sets out the framework for managing freshwater and provides steps that must be undertaken to implement the NOF. The NOF process within the NPSFM 2020 prescribes the identification of Freshwater Management Units (FMUs) and the subsequent setting of freshwater values, environmental outcomes as objectives, flow levels and target attribute states for each FMU.

- Clause 3.14 details the setting of limits on resource use, which are the constraints that will be placed farming activities at the individual farm or FMU scale.
- Clause 3.15 requires regional councils to prepare action plans to achieve the target states of attributes listed in appendix 2B and may be used for any other target attribute states.
- Clause 3.29 relates to freshwater accounting systems that are used to set target attribute states and where required, limits on farming activities to meet target attributes states. This requires a new freshwater accounting system for each FMU to monitor the concentration and loads of contaminants in waterways as well as their sources and amounts.
- Clause 3.33 applies only to specified vegetable growing areas, and the Pukekohe Special Vegetable Growing Area is in the region within the Lower Waikato FMU.

National Environmental Standards for Freshwater (NESF)

Alongside the NPSFM, the NESF was introduced as part of the 'Essential Freshwater' package. The NESF introduced specific restrictions or limits, on dairy farming that restrict expansion or increases in intensification, high risk activities such as winter grazing and fertilizer application. Most of these regulations are subject to a sunset clause so will be revoked by 1 January 2025 or when the Council publicly notifies the regional plan to give effect to the NPSFM.

Waikato Regional Policy Statement (WRPS)

The WRPS primarily manages farming through two non-regulatory methods. Implementation method LF-M19, which recognises the role of industry in reducing the discharge of contaminants, and Implementation method LF-M5 signals that nutrient discharges will be controlled when they are undermining the limits, targets, and values of a freshwater body.

Existing and proposed provisions of the Waikato Regional Plan

Taupō Sub-regional Rules

Chapter 3.10 of the WRP (Lake Taupō Catchment) became operative in July 2011. This section of the plan addresses the water quality decline of Lake Taupō. It introduced Nitrogen capping and offsetting/trading to manage existing and new nitrogen leaching activities either as permitted activities with standards, or as controlled activities using modelled nitrogen losses.

Healthy Rivers - Plan Change 1

Plan Change 1 (PC1) sought to make changes to Module 3 Water of the WRP to give effect to Te Ture Whaimana and the NPSFM 2014 (as amended 2017) as it applied to the Waikato and Waipā Catchments. Work began on PC1 in 2014, decisions were notified in April 2020, and the Plan Change is currently under appeal in the Environment Court.

5.3 What we have heard from engagement

Feedback on previous work programmes and the first round of community and iwi engagement has indicated that there is a significant level of community interest and diverse range of views on how non-point source discharges are managed. There has been feedback provided through several planning processes. The feedback has ranged from seeking more stringent limits and extensive restrictions on land use and nutrient management, to the preference of continuing the education first approach of increasing the understanding of farmers and encouraging improvement through non-regulatory methods.

5.3.1 Tangata whenua engagement

- Freshwater is important for tangata whenua for a variety of reasons including mahinga kia values, for traditional and customary practices, wāhi tapu, connections to whakapapa, whānau, whānau land, tūpuna, hapū, iwi and to marae and as a source for all life, for all species noting that "*the loss of species or access to a species was associated with loss of tikanga with that species (i.e. tikanga/practices)"* and that "*when iwi can't gather kai from their own rohe – we lose our mana – feeding people is part of our responsibility".*

- Shows a desire for freshwater to be restored to enable traditional customary practices, practice taonga tuku iho (caring for and nurturing the treasures handed down from their ancestors through the generations), and to have a better future for tamariki and mokopuna.

- Timeframes for the restoration of water quality the feedback varied from 2-5 years, a generation, 50 years (integrated with climate change targets), as guided by science, or in alignment with Te Ture Whaimana o te Awa o Waikato – the Vision and Strategy for the Waikato River.

5.3.2 Community and stakeholder engagement

- Freshwater is valued for a range of reasons including the four national compulsory values (ecological health, human contact, threatened species and mahinga kai), natural form and character, recreational and amenity values and geothermal values.
- Many concerns were raised regarding the current state of freshwater quality including levels of sediment, general decline in water quality, the impact of plant, animal and fish pests (invasive species), nutrient effects on human health and ecosystems, cyanobacteria, associated toxins and algal blooms and effects, and nitrogen and E. coli levels.
- The freshwater state community participants would like to achieve included reducing sediment, reducing E. coli and cyanobacteria levels, aiming for a swimmable state within a reasonable timeframe, aiming for a healthy sustainable ecosystem (eradicating plant, animal and fish pests), drinkable water, restoration of native plants that originally belonged to the area and restored presence of native species.
- There was a range of views on who and what activities need to be regulated to manage freshwater in the region including that there is too much restriction to requiring land use change and management of specific farming activities such as intensive winter grazing and fertiliser use.
- The stakeholder priorities for freshwater vary however the overall common themes included access to freshwater for use, allocation of freshwater, better and efficient water management, reliability of water supply, balancing priorities in respect of ecological, environmental and social, sustainable use of water, water conservation, having reliable scientific data, minimise water pollution, and minimise water contamination.
- The most common challenge facing respondents' sectors is the complexity of various regulations and policies to contend with and reforms to the New Zealand resource management system.
- Regarding future policy to give effect to the NPSFM respondents seek simplified rules that are clear and easy to follow, utilising existing regulations and prioritising co-benefits,

adopting a catchment specific approach that focuses on priority catchments, working with industry regarding opportunities for improvement, acknowledging and or providing incentives for those who are making real efforts to improve their management of freshwater, providing the right mix of 'carrot' vs 'stick' regulation, water security and reliability, links to climate change mitigation, avoid duplication of other relevant legislation, and to keep in mind costs and burden on ratepayers of what may be required by new rules/requirements.

5.4 What we have found to date on the topic

Non-point source discharges from farming activities are a significant contributor to the decline in the region's water quality. Over recent decades there has been increase in non-point source discharges from farming activities. This can be attributed to land use change and gradual intensification of farming operations. Farms have also increased their productivity through increased inputs into farming systems, such as fertiliser use, expansion of irrigated land, improved animal and plant genetics, and improved feed quality to enable higher stocking rates. In some areas of the region intensification is well managed, in other parts there are substantial gaps.

Implementation of better farming practices is helpful but is varied across the region. Some sectors have more active guidance and application of good environmental management practices, often through programmes such as farm environment plans. The government's freshwater farm plan programme will also shortly be starting in the region.

The interim controls on intensification in the NES-FW and the controls in the Stock Exclusion Regulations have provided a useful backstop but have created complexity and confusion for users implementing the existing rules in the region.

5.4.1 The operative Regional Plan – analysis

The WRP approaches non-point source discharges largely through an enabling approach to farming activities that utilises non-regulatory functions, with adverse effects primarily addressed by conditions on permitted activities. The management of large-scale land use change, intensification of farming practices, and fertiliser application are all farming activities that do not typically require consent in many parts of the region.

Chapter 3.10 Lake Taupō establishes a nitrogen capping and offsetting/trading system in the Taupō area. The Taupō rule framework manages both new and existing nitrogen leaching activities either as permitted activities with standards, or as controlled activities using modelled nitrogen losses.

Proposed PC1 has specified an 80-year timeframe to achieve the water quality objectives of Te Ture Whaimana o Te Awa o Waikato. Te Ture Whaimana o Te Awa o Waikato states that the Waikato and Waipā Rivers are degraded and require, amongst other things, restoration and protection. One objective has been given particular focus for this chapter: *The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.* The approach to reducing contaminant losses from pastoral farm land require stock exclusion from water bodies, Farm Environment Plans with monitoring and auditing, land use change restrictions and a consenting regime with minimum farming standards and reducing losses for higher risk farming activities.

5.5 Policy Shift

A significant amount of legislative change has occurred since the WRP became operative and as a result there are gaps between the WRP and the Government's Essential Freshwater directions on how to manage non-point discharges from farming activities. There exists some overlap between the NES-FW and PC1, particularly with respect to provisions for land use change,

intensive winter grazing and nitrogen fertiliser application. However, there will need to be significant change to the rules and policy direction in areas not covered by PC1 or Chapter 3.10 Lake Taupō.

It is easiest to understand and implement a policy framework that is regionally consistent. There will likely be some variability in limits and action plans in particular areas. For areas of the region that have degraded waterways, greater restrictions and controls will need to be imposed on farming activities to manage non-point source discharges.

Waterways in the region that do not achieve community-set outcomes or national bottom lines for water quality will likely require substantial changes to farming activities and land use in order to meet these outcomes. Information gained for the development of PC1 Healthy Rivers indicated that Good Management Practices and farm planning would only get part way toward the required outcomes. The timescale to meet these outcomes is not yet certain, but the NPSFM sites 'a generation' as an example. Therefore, a staged approach, as used in the PC1 Healthy Rivers process, is likely to be required. As information will never be complete, Council will have to rely on the best available information at the time to inform the policy making process for the management of non-point source discharges.

5.5.1 Options

The management of non-point source discharges from farming activities is complex and challenging. At this stage it is too early in the process to identify specific detailed options for each FMU to address the issues and challenges associated with managing diffuse discharges from farming activities. There is not yet a good understanding of the level of improvement required. It is however expected that for some areas the amount of improvement required will be significant particularly, for the many waterbodies that do not meet the national bottom lines detailed in the NPSFM. In summary, we know:

- The current provisions within the WRP do not give effect to the NPSFM as required by section 67(3) of the RMA;
- Tangata whenua and community engagement undertaken shows a strong desire for improved water quality, ecological health and recreation opportunities to be achieved over reasonably short timeframes (for example 10 or 20 years);
- There are many waterways in the Waikato region that do not meet the national bottom lines detailed in the NPSFM and non-point source discharges from farming activities are a significant contributing factor to this; and
- The implementation of good management practices and Freshwater Farm Plans alone are unlikely to achieve the level of improvement required.

Option 1 Status Quo. The Status Quo for managing diffuse discharges from farming activities does not give effect to the NPSFM and is not an effective means of achieving the purpose of the RMA. If new measures are not introduced to manage diffuse discharges from farming activities, freshwater quality will likely continue to degrade in many freshwater bodies in the region.

Option 2 Amend the WRP to give effect to the NPSFM. This high-level option would amend the WRP to give effect to the NPSFM, it would build on the existing provisions within the WRP including Chapter 3.10 for the Lake Taupō Catchment and PC1 for the Waikato and Waipā Catchments. The amendments would focus on the region's Freshwater Management Units (FMU) as detailed below.

Waikato and Waipā FMUs

PC1 focuses on the management of diffuse discharges of nitrogen, phosphorous, sediment and microbial pathogens. Therefore, PC1 captures some of the matters addressed in the NPSFM

however it does not cover all matters to the extent required. The provisions of PC1 will need to be expanded to capture all compulsory values and the associated attributes of the NPSFM. Consideration will also need to be given to Māori freshwater values and additional other values identified by the community.

The NPSFM (Clause 3.33) includes specific direction for the Pukekohe Special Vegetable Growing Area (VGA). The Pukekohe Special VGA is partially located within the Lower Waikato FMU. The VGA spans the boundary of the Waikato and Auckland regions. Within the VGA, targets may be set below the national bottom line for phytoplankton, periphyton, total nitrogen (trophic state), ammonia (toxicity), dissolved oxygen, cyanobacteria and macroinvertebrates only if achieving the national bottom lines will impact on the VGAs contribution to the domestic supply of fresh vegetables and maintenance of food security for New Zealanders. However, targets must still be set to achieve an improved state without compromising the above two matters (Clause 3.33(4)(b)). The requirements are temporary with the clause to be revoked 10 years from the commencement date of the NPSFM or the date any NES or other regulations under the RMA) come into force. Specific consideration of Clause 3.33 of the NPSFM will need to occur when setting targets and limits.

Lake Taupō FMU

The provisions in the WRP for Lake Taupō are focused on the management of diffuse discharges of nitrogen. The water quality in the Lake Taupō catchment is generally improving. The existing provisions, however, do not provide strong direction on the management of adverse effects on the compulsory values identified in the NPSFM, specific Māori Freshwater Values and other values identified by the community. The scope of the existing provisions will need to be expanded to include targets and limits to manage diffuse discharges from farming in order to give effect to the NPSFM. Given that the provisions for Lake Taupō are generally working, improvements, rather than significant changes, are the focus.

Hauraki FMU

Monitoring shows that water quality within this FMU is below national bottom lines for multiple attributes of the compulsory values of the NPSFM. For some attributes substantial reductions from diffuse discharges are required. There are no targeted provisions within the WRP for managing diffuse discharges from farming activities within the Hauraki FMU. However, the provisions of the NES-FW relating to intensification do apply.

To manage diffuse discharges from farming activities and give effect to the NPSFM new provisions within the WRP will need to be developed for the Hauraki FMU. The framework of PC1 (for the Waikato and Waipā FMUs) could be used as the base model for setting targets and limits in the Hauraki FMU. However, it would need to be customised to the Hauraki FMU taking into account the degraded state of water quality within the Hauraki FMU and the vision and outcomes sought for it. Whilst tangata whenua, community and key stakeholder involvement is essential across all FMUs, it will be particularly vital in the Hauraki FMU.

Coromandel FMU

There are no targeted provisions within the WRP for the management of diffuse discharges from farming activities for the Coromandel FMU. However, the intensification provisions of the NES-FW do apply. There is relatively low agricultural use within the Coromandel FMU. Water quality within the Coromandel FMU is generally good, however it is showing some signs of degradation; for example, the overall state for E.Coli is below national bottom lines in some locations.

As agricultural land uses are low within the FMU, it is not anticipated the management of diffuse discharges from farming within the Coromandel FMU will be as complex as for some other FMUs. Targets and limits will be required to give effect to the NPSFM. It is recommended that the framework of PC1 is used as the base policy model and modified to take into account the specifics of the FMU.

West Coast

Water quality within this FMU is degraded, especially for sediment. The WRP contains no specific management direction with respect to the management of diffuse discharges from farming activities for the West Coast FMU. However, the intensification provisions of the NES-FW do apply.

To give effect to the NPSFM, new provisions will need to be developed that set targets and limits focused on improving water quality within the FMU. Due to the state of water quality within the West Coast FMU a reduction in diffuse discharges will be necessary. It is recommended the framework of PC1 is used as the base policy model. This base model can be tailored to take into account the specifics of the West Coast FMU, including water quality state, outcomes sought, and targeted hill country management provisions as required.

Principles for achieving improvement

Option 2 is focused on maintaining water quality where it is good and improving it where it is degraded. To improve water quality a reduction in non-point source discharges from farming will be required for many lakes and rivers within the region. Reducing non-point source discharges is challenging and complex but there are three predominant policy principles that can be implemented. These are:

1. Implementation of Good Management Practices – Policy framework requires (i.e., permitted baseline is good management practices) all farming operations to implement good management practices on their properties. Good Management Practices include stock exclusion from waterways, hill country management to reduce sediment losses via overland flow, intensive winter grazing management, tailored fertiliser management and minimising soil disturbance and compaction. Good management practices alone are unlikely to achieve the level of improvement required across many of the region's waterways. They will, however, contribute to a reduction in non-point source discharges from farming.

2. Proportional reductions (highest emitters reduce the most). Proportional reductions involve identifying the level of non-point source discharges likely occurring from a property/area and determining if it is low, moderate or high. This categorisation could then be used in policy to require reductions in non-point source discharges depending on whether the losses are low, moderate or high. PC1 is reflective of this approach with a nitrogen loss limit being required for all properties. PC1 requires those properties with moderate loss rates to demonstrate the loss from the property is as low as practicable or to reduce their losses to the lowest practicable level. High loss properties are required to significantly reduce their losses or demonstrate why they should not be required (either long or short term). These provisions in PC1 are focused on nitrogen losses but, a similar approach could be taken for other contaminants, for example considering biophysical factors on a property, slope, climate, land use and soil type. The consequential effects of this principle would result in the highest emitters being impacted the most by the policy framework (i.e., greatest reductions required).

3. Equal reductions (consistent across all properties). Equal reduction across all properties would require all properties, regardless of their contribution to non-point source discharges, to reduce their non -point source discharges by the same level. For example, if a reduction of 25% of non-point source discharges is required to achieve the vision for an FMU all properties within the FMU would need to reduce their losses by 25%. The consequential effects of this policy approach, for example costs as a result of potential reduced production would also fall equally (i.e., low emitters being impacted by the policy framework the same as high emitters).

4. Consideration is also required for the scale of the policy response for example a farm level or community (or sub- catchment response). A farm scale framework focuses on

individual properties. It would focus on farm scale policies, limits and practices that would need to be implemented and complied with by individual properties. In contrast a community response would focus on policies and limits for an area or sub-catchment, this approach would enable an element of loss trading between properties like the Lake Taupō provisions currently do. This higher-level approach would also focus on sub-catchment scale mitigations for example use of constructed wetlands or sediment traps to manage diffuse discharges from more than one property. To enable a community scale approach to work consideration is still required of farm scale losses however, the limits and mitigations implemented would be focused on a community (or sub-catchment) scale.

Other considerations

When the targets and limits are being developed for each of the FMUs there are a number of other factors that are necessary to consider. These matters are:

- NES-FW – Intensification provisions within the NES-FW are only temporary (i.e., until 2025 or when Council notifies a plan change to give effect to the NPSFM) therefore consideration will need to be given to whether any additional limits are required to manage intensification within the FMUs. It is likely that additional limits will be required particularly where they are not currently present (i.e., outside of the Lake Taupō, Waikato and Waipā catchments).

- Stock Exclusion Regulations - It will be necessary to introduce stock exclusion requirements across the region (where they are not already present) as part of the policy response to managing diffuse discharges from farming. These should be consistent with the national Stock Exclusion Regulations. However, depending on the state and trends of water quality in some locations more stringent provisions may be necessary.

- Timeframes - The NPSFM requires long-term visions to be developed for each FMU. As part of the process, goals must be set that are ambitious but reasonable. A timeframe to achieve the goals set must be identified. The timeframe must also be ambitious but reasonable. PC1 for the Waikato and Waipā catchments (including the lakes within) specifies an 80-year timeframe to achieve the water quality objectives of Te Ture Whaimana o Te Awa o Waikato. Tangata whenua and community engagement to date has indicated a desire from many respondents to see an improvement in water quality faster than the 80-year timeframe detailed in PC1; for example, some respondents seek improvement within a generation (for example, below 30 years). Timeframes set will have significant implications, including economic, social and cultural, for individual farmers and rural communities as they will determine the timeframe in which mitigations, including reductions in diffuse discharges, will need to be implemented.

Option 3 Non-Regulatory Response. This option would continue to encourage and support the implementation of non-regulatory methods to manage diffuse discharges from farming activities across the region. This option would also explore other opportunities that could be implemented to reduce diffuse discharges from farming activities. It is important to acknowledge that non-regulatory methods alone will not be sufficient to achieve the level of water quality improvement required to give effect to the NPS-FM and achieve the purpose of the RMA. However, non-regulatory methods do form an important part of the overall response package.

Recommended Approach: Options 2 and 3 together

It is evident from State of the Environment reporting that across the region there are many waterbodies that do not meet the minimum national bottom lines for the four compulsory values of the NPSFM. Further, feedback from tangata whenua and the community shows a desire for a higher water quality state than that provided by meeting the national bottom lines. Diffuse discharges from farming activities are a significant contributor to the current state of water quality in the region. It is therefore recommended the high-level approaches outlined in

Option 2 and Option 3 are progressed together. It is, however early in the process and therefore as more information is available, in terms of the visions sought for the FMUs and timeframes required for improvements, then the high-level options can be reviewed, and more detailed options can be developed for each FMU. The more detailed options will need to be analysed in terms of their effectiveness and efficiency considering the associated costs and benefits of each option, in accordance with Section 32 of the RMA.

To assist in the development of more detailed options for the management of non-point source discharges from farming direction is required on the principles to be followed to steer the policy development process. As discussed above it is recommended the framework of PC1[19] is used as a basis for policy development for the wider Region (excluding Lake Taupō). At a high-level the relevant principles that underpin PC1 are:

- Shift to good management practices – through the implementation of farming standards;
- Proportional reductions – categorising low, moderate and high emitters with a focus on significant reductions from high emitters;
- Combination of farm and community (or sub-catchment) scale responses – implementation of farming standards and reduction at a farm scale however, policies to work with stakeholders to develop sub-catchment scale planning and sub-catchment specific policies and methods.

6 Farm animal effluent

6.1 Introduction

This paper examines the management approach for the discharge of farm animal effluent from any livestock kept in a confined area (including from dairy sheds (cows, goats, sheep), pig, goat, equine and chicken farms, stock trucks, feedlots and other stock holding areas) and composting (organic material that contains animal waste) and identifies issues with the existing management approach and broad options for addressing these issues. Those topics that are not addressed in this paper include the management of with activities such as, other farming (diffuse discharges), stormwater, wastewater, other point source discharges, damming and diverting, and river and lakebed structures. The composting of green waste and sacrifice paddocks are not addressed in this paper.

Animal waste from areas where livestock are contained needs to be managed so that it does not enter waterbodies or affect other people. Effluent can accumulate anywhere animals congregate[20], such as at farm dairy sheds, and stock holding areas. Generally animal waste is collected in holding facilities and then applied to pasture. Animal waste is also an important source of nutrients and organic matter to support pasture growth.

There are approximately 4,100 dairy farms in the Waikato Region that require an on-farm effluent management system to collect and store farm animal effluent for land disposal via irrigation. Concentrated volumes of farm animal effluent is generally generated at dairy sheds, feed pads and stock underpasses, and at stockholding areas such as stand-off pads and herd homes.

The use of standing off infrastructure by dry stock farmers is a much less common practice, however some form of standing off may be utilised by systems involved in grazing dairy replacements or more intensive beef production.

[19] Noting PC1 is subject to the Environment Court Appeals process and therefore is subject to change.

[20] Tracks and laneways are addressed in the non-point sources discharges from farming activities policy direction paper.

A farm animal dairy effluent system generally consists of key components such as sand traps, sumps, effluent storage ponds, effluent pumps and irrigators. The types of systems are many and varied in terms of design, technology and size. A key component of all farm effluent system should be effluent storage infrastructure so that land application may be deferred until soil and weather conditions are most suitable for irrigation.

As a result of the significant investment in effluent programmes, to date by WRC, industry, and farmers, the standard of effluent infrastructure in the Waikato is now reasonably good on many farms, which has contributed to improved compliance and environmental outcomes. However, there are still farms that have sub-standard effluent systems, and WRC continues to see issues associated with poor management and maintenance.

Around half of farm effluent systems in the Waikato still rely on an in-ground earthen ponds for effluent storage, where there is uncertainty about the sealing standard. Approximately 10-15% of farms have insufficient effluent storage facilities. Of those a small percentage have no storage pond (rely on sump only system) or a larger percentage have a storage pond with insufficient storage to be able to defer irrigation.

The existing Waikato Regional Plan (WRP) has objectives and several policies seeking alternatives to direct discharge to water, ensuring discharges maximise reuse of nutrients and minimise the effects of discharges. The rules permit most farm effluent systems and discharges, subject to some basic standards. Some of those standards are quite reactive, and do not manage risk well. The existing rules have likely fallen behind best practice nationally and are not well aligned with industry standards. Some kinds of discharges and locations, such as pig effluent, and discharges in the Taupō catchment, are more closely managed.

6.2 What we have heard from engagement

6.2.1 Tangata whenua engagement

Tangata whenua feedback indicated that:

- There are concerns about the current state of waterways including the decline in native species and water quality, the depletion of kai resources, not being able to drink water from the river, bacteria and algal blooms, sediment, erosion, run-off, lack of integrated management between whenua and awa, negative impacts of farming and land use effects on waterways.
- A range of possible actions, which could be done to improve fresh water was raised including enabling and encouraging farmers into environmentally sustainable practices, reducing nutrients and sediment entering lakes, embedding increased involvement of tangata whenua in freshwater management, catchment focus on higher standard of betterment for all resource activities, more stringent consenting criteria and conditions with serious consequences.

6.2.2 Community and stakeholder engagement

Community and stakeholder feedback about farm animal effluent has indicated that:

- There are questions as to whether dairy effluent discharges should be permitted activities.
- The rule framework may be resulting in farmers choosing to not upgrade systems or not supporting all farmer to have adequate dairy effluent systems.
- The dairy and pork industry noted initiatives including the farm dairy effluent design standards and effluent management template.
- There is a strong need for clarity and consistency from the NPSFM in the rollout of freshwater farm plans (in particular, modules relating to irrigation and dairy effluent).

- The ability to recycle effluent by land application is integral to commercial pig farming systems.
- Need to be cognisant that achieving one environmental outcome may impact on another and trade-offs may be required.

6.2.3 WRC staff feedback

General context from State of the Environment monitoring and WRC staff about the management of farm animal effluent:

- Early in the life of the operative Waikato Regional plan (WRP) the effluent provisions were failing to deliver behaviour that met Council expectations of the type and capacity of infrastructure for storage (e.g. synthetic liners) and storage management (e.g. storm water diversion and manging pond levels) and irrigation infrastructure and land application management (e.g. land application area, ponding) to deliver compliance 365 days of the year.
- Council and industry have, over a number of years, driven a substantial improvement in overall compliance. This has been supported by increased community expectations around effluent compliance and several high-profile prosecutions. Significant levels of monitoring and enforcement have improved the data on dairy effluent activities. Infrastructure improvements have reduced the level of need for general surveillance-based monitoring to focusing on higher-risk farms where inadequate effluent systems and/or there is continued poor performance.
- Council and industry have invested in education and extension activities, and the establishment of accredited effluent system designers, effluent warrant of fitness (WOF) and industry developed standards and guidance on system design and management.
- Good effluent management relies on having appropriate effluent infrastructure in place and sound effluent management and system maintenance. Poor management, insufficient staff training, and a lack of maintenance often contributing to non-compliance.
- State of the Environment[21] monitoring has revealed that the installation of treatment ponds and irrigating effluent onto paddocks is working; the decline in ammonia and phosphorus at most river monitoring sites is consistent with widespread reductions in effluent discharges. The lack of improvement in faecal bacteria levels to date indicates that more work is needed to control potential sources, this may require more focus on sources such as tracks and laneways and other critical source areas, as well as more restrictive limits.
- The current regulation approach is largely outcome focused with specific controls over land application rate, run-off/ponding standards, permeability (leakage) requirements for infrastructure, and setbacks from receiving environments. For the most part, the rules do not specify what is required to achieve the outcomes specified.
- Since the WRP became operative there has been a gradual shift in the nature of farming activities in the region. Indoor feeding/housing systems associated with dairy cattle and goat operations have become more prevalent and there have been changes in effluent management approaches and technologies including more precise land application and new treatment technologies.
- The dairy processers are starting to play a bigger role through supplier agreements orientated towards supporting/recognising good practice around effluent.

[21] Draft Waikato State of Environment Report, 2022

Feedback from staff about the current approach to farm animal effluent has indicated that:

- Resourcing for monitoring and enforcement of dairy effluent compliance has been significant.
- The current land application rates can be problematic. For example, the current nutrient loading limit is not appropriate for all relevant soil types, and the existing hydraulic rate limit does not incentivise lower rate application systems.
- As the current framework is weighted towards outcomes-based standards, farms with inadequate infrastructure, such as a lack of effluent storage, may be considered compliant at the time they are monitored. Furthermore, there are practical limitations to demonstrating compliance with some standards such as the permeability threshold.
- Untreated effluent discharges are prohibited by the WRP, and this should continue. However, it is also now generally accepted that discharges of treated farm animal effluent to water is unacceptable, and there should be no provision for this practice.
- Rather than actively managing effluent to ensure sufficient storage capacity, some farmers prefer to hold higher volumes, with some choosing to engage effluent spreading contractors to irrigate large volumes as needed. This practice increases the risk of pond overflow/failure, irrigation ponding/overland flow, and increased nutrient loss as application can exceed the capacity for plant nutrient uptake.
- The plan could better manage bedding material collected from indoor housing of livestock. This material contains a mixture of litter and effluent and is typically composted onsite before being applied to land. This has the potential to cause leachate and odour issues where poorly situated.
- There have been a number of significant discharge events resulting from desludging of effluent ponds, often using specialist effluent spreading companies. It is important that this activity is managed appropriately.
- Pig effluent is higher risk as it is more nutrient dense and its storage and application to land has the potential to produce nuisance or offensive odour effects.

6.3 What we have found to date on the topic

Alignment with industry standards and other regions

There is a wealth of dairy effluent infrastructure technical and design information (including accredited effluent system designers, a pond storage calculator and accredited dairy effluent WOF providers). Further, there are a range of policy and rule frameworks in other parts of New Zealand that have been tested with industry and through the Environment Court. By building on existing learnings and decisions, the focus can be on making sure the approach works in the Waikato region and alignment with industry best practice and other Regional Councils who have more recently updated their approach.

Current misalignment between the WRP and NESFW

There are effluent-related rules in the Waikato Regional Plan (including Proposed Plan Change 1 (PC1)) which regulate, or have a degree of overlap with, the same activities as the NESFW including the NESFW stockholding and feedlot regulations. There is a requirement to remove inconsistencies and conflict with NESFW. While this can occur without the use of Schedule 1 of the RMA, the provisions are drafted differently, and simple edits to the WRP are not possible. Council can align WRP approach with the NESFW through the Freshwater Policy Review.

Efficacy of effluent storage and discharge mitigations

The effectiveness of the effluent system is dependent on all aspects being properly designed, managed and maintained. Issues arise most often where there is insufficient storage capacity which adds pressure on farmers to apply effluent to land on saturated soils and/or when nutrient uptake is reduced. Poorly sealed infrastructure, such as effluent storage and feedpad facilities, can lead to increased losses of contaminants to groundwater.

Management of the effluent storage system is also important to help prevent unintended discharges. For example, storm water diversion systems need to be managed correctly so that effluent is not discharged to water, and to ensure effective storage capacity. The way effluent is applied to land also needs to be carefully managed. This includes the maintenance of irrigation equipment, checking of application depths, understanding the capacity of the soil to take the effluent without causing ponding or overland flow, having sufficient application area, and maintaining sufficient setbacks from waterbodies.

Increasing pressure on effluent systems from intensification and climate variability

The agricultural sector has, over time, steadily intensified. This can add pressure on existing effluent systems and may necessitate changes to the system storage capacity, design and management to remain compliant.

Seasonal variation and less predictable climatic conditions will affect storage management. With more intense rainfall events may impact upon storage capacity and compound issues associated with land application. Drought can also have effects, both in soil properties and management choices for the stored effluent.

6.3.1 The operative Regional Plan – analysis

Objective 3.1.2 of the WRP is an overarching objective which sets the desired end point for management of water bodies in the region. Chapter 3.5 of the WRP manages discharges of water and contaminants onto land and into water. The activities that are relevant to this topic is a rule that covers all discharges not covered by other rules, point-source discharges of animal effluent from farm animals (but not limited to dairy cows, dairy goats, dairy sheep, beef cattle, meat chicken, horses and pigs), stock truck effluent, stand-off pad and feed pad effluent outside the Taupō catchment.

The rules for animal effluent include outcome-based standards requiring no discharge of effluent to water from holding facilities and that the facilities ensure compliance with the no discharge to water condition, and that effluent shall not enter surface water following land application. The rules allow the application of effluent based on specified land application rates. Effluent storage facilities are required to be sealed to meet the permeability standard. Where fertiliser has been applied in the last 12 months the WRP fertiliser application requirements must be met. There is a 20 metre discharge setback from Significant Geothermal Features. Pig farm effluent is managed in a similar way but requires authorisation via resource consent.

Feed pad and stand-off pad requirements follow a similar approach, including a permeability seal standard, an outcome that no run-off or discharge from the pad to surface water, specified land application rates, the need to comply with fertiliser requirements and setbacks from some receiving environments. Discharges to air of contaminants must meet plan air discharge requirements.

There is provision for authorising the discharge of treated effluent to water with a resource consent.

Within the Lake Taupō catchment Chapter 3.10 discharges from feedlots is contingent upon a consent being held for the associated use of land for farming.

6.4 Policy Shift

The approach seeks to support a shift from discharge controls with a reliance on outcome-based standards, to that which also sets clearer expectations around the design and management of the system and leveraging off the work done by industry to support best practice outcomes. This approach will better recognise existing investment in effluent systems and assist council with its compliance monitoring and enforcement functions and recognises that there remain a number of systems that continue to be at high risk of effects to waterbodies.

The approach will support farmers with substandard systems to invest in the appropriate infrastructure and bring the region's farmers into line with accepted best practice across the country. The approach also prohibits the authorisation of discharges of treated farm animal effluent to water, which is more in line with generally accepted cultural and social expectations and industry standards. The approach better provides for activities on the increase in the region, including the use of housed barns and the management of associated composting of bedding material containing farm animal effluent[22]. The approach will also seek to better align with those provisions on stock holding areas and feedlots in the NESFW. The approach could differentiate between existing, upgrading and new animal effluent facilities and could include staggered timeframes for those undertaking upgrades or constructing new systems.

Part 9A of the RMA also sets the expectation that regulations requiring the development of a farm plan for those farms over 20 hectares in size. Once available, the farm plan is expected to complement regulatory requirements within a regional plan, being akin to a management plan to support the achievement of any relevant standards. For example, the maintenance and operation of effluent systems could be included in a farm plan.

6.4.1 Options

Option 1 Do nothing – status quo.

Option 2 This option introduces a package of provisions that manages land use and discharges by setting standards (a consent will be needed if the activity does not meet the standards threshold) for effluent holding facility design and storage capacity, land application infrastructure management and land application, using industry-developed standards and calculators and accreditation systems including:

- Outcome-based standards for effluent discharges, and
- Animal effluent storage/holding facilities (and its components):
    - Clear direction to have effluent holding infrastructure, and
    - Set specific minimum standards in terms of permeability and storage capacity (e.g. storage requirements based on herd size, soil conditions and other relevant criteria).
- Land application infrastructure:
    - Set standards for land application infrastructure including maintenance requirements.
- Land application:

[22] Green waste composting is addressed in the other non-point source discharges policy direction paper

- Set specific minimum standards/land application rates (e.g. that accounts for soil and landscape risks and accounts for fertiliser application on same land).

- Sealing standards for stock holding areas and the standards for the storage and composting of bedding material from indoor housed stock.

Option 3 Industry self-regulation - an industry-level organisation sets rules and standards (codes of practice) relating to the conduct of business (in this case farms) in the industry. This could take the form of the use of industry quality assurance programmes as one method of meeting environmental standards.

Recommended Approach: Option 2 and Option 3

The recommend approach is Option 2, which retains an outcomes-based focus but includes more clarity of the minimum standards for achieving this and reduces the risk of adverse effects and unintended discharges. This includes by setting minimum standards and criteria to control land use for holding facilities and effluent discharges for effluent infrastructure and stockholding areas supported by industry-developed guidance and accreditation systems. If a landowner is undertaking an activity and they are unable to meet the standards threshold of a rule a resource consent will be required.

The rule framework will better manage risk and support both the regulated party to understand what is expected of them, and so that compliance monitoring staff can more readily determine compliance or be able to require that the regulated party demonstrate the infrastructure is fit for purpose. This approach will align with best practice nationally and established industry standards.

7 Water quantity and use

7.1 Introduction

This paper sets out the issues and options associated with the management of water quantity under the Waikato Regional Plan (WRP).

The scope of this topic includes the take and use of groundwater and surface water, and transfers of permits authorising these activities. Surface water includes all rivers, streams, and lakes, and includes significant waterbodies such as the Waikato River and Lake Taupō as well as minor tributaries and shallow lakes. The take and use of water is managed through:

- The establishment of environmental flows and levels for rivers, streams, groundwater and lakes, and managing resource consents and consent applications to ensure those flows and levels are provided for.
- The setting of take limits for groundwater and surface water abstraction, including allocation limits, requirements for when takes should be restricted or cease, and managing resource consent applications to comply with those limits.
- Ensuring that all uses of water are efficient, so that no more water is allocated than is necessary for the intended use.
- Phasing out over-allocation, where the rate or volume of water taken exceeds the water body's allocable limit.
- Providing for transfers of consents to take and use water to new sites.
- Manages the use of water through permitted activities and resource consents.

The following activities are relevant to this topic but are covered in separate papers:

- The diversion, damming and discharge of water.
- The generation of renewable electricity (hydroelectric generation).

Activities relating to coastal water and geothermal water are outside of the scope of Council's freshwater policy review.

7.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to water quantity:

National Policy Statement for Freshwater Management 2020 (NPSFM 2020)

The NPSFM 2020 requires that the regional plan:

- Sets environmental flows and levels for each FMU,[23] and identifies take limits in order to meet environmental flows and levels;[24]
- Includes criteria for deciding applications to approve transfers of water take permits;[25]
- Includes criteria for improving and maximising efficient allocation of water.[26]

In addition, the Council is required to operate and maintain a freshwater accounting system for each FMU.[27]

The management of flows must incorporate ki uta ki tai and recognise the interconnectedness of the whole environment, including the impact on downstream receiving environments such as wetlands, the interconnectedness of water resources and the impact of flows and levels on water quality.[28]

Council must have regard to foreseeable impacts of climate change, use the best information available at the time, and take into account results from freshwater accounting systems, when setting environmental flows and levels.

National Policy Statement for Renewable Electricity Generation 2011 (NPSREG)

Policy E2 of the NPSREG requires that regional plans include objectives, policies and rules to provide for the development, operation, maintenance and upgrade of new and existing hydro-electricity generation activities. While some aspects of hydro-electricity generation are related to flows, levels and take limits, these activities are not likely to be captured by Policy E2.

National Environmental Standards for Freshwater 2020 (NESFW)

The NESFW manage various activities affecting freshwater, wetlands, river extent, and fish passage. Relevant to this topic, the NESFW manages the taking, use, damming or diversion of water within, or within a 100 m setback from a natural wetland.[29] In accordance with regulation 6 of the NESFW, rules in a regional plan can be more stringent than the NESFW, but may not be more lenient.

[23] Clause 3.16, NPSFM.

[24] Clause 3.17, NPSFM.

[25] Clause 3.28(1)(a), NPSFM.

[26] Clause 3.28(1)(b), NPSFM.

[27] Clause 3.29, NPSFM.

[28] https://environment.govt.nz/publications/guidance-on-the-national-objectives-framework-of-the-nps-fm/clause-3-16/

[29] Regulation 54, NESFW.

Measurement and Reporting of Water Takes Regulations 2010 (Water Metering Regulations)

The Water Metering Regulations mandate the measurement of water takes more than 5 litres per second. The regulations establish a nationally consistent regime for measuring water use, as well as providing options for the report of those records, and an approval process for situations that do not meet the regulations.

Waikato Regional Policy Statement 2016 (WRPS)

The WRPS requires that the regional council manages the adverse effects of activities to meet the limits and targets identified for those fresh water bodies. The WRPS also provides guidance on the management of outstanding freshwater bodies, including the management of effects on outstanding freshwater bodies from takes, uses, damming and diversion of water[30]. This includes specific objectives, policies and methods for managing water quantity and the use of water in Waikato, such as Objective LF-O2 (Allocation and use of fresh water) and policies LF-P6 (Allocating fresh water) and LF-P7 (Efficient use of fresh water) and several methods, including:

LF-M3 – Recognise values, and establish fresh water objectives, limits and targets;

LF-M5 – Manage adverse effects to meet identified limits and targets;

LF-M14 – Establish allocation baselines;

LF-M29 – Manage allocation of fresh water; and

LF-M30 – Manage the use of fresh water.

7.3 What we have heard from engagement

7.3.1 Tangata whenua engagement

Most participants agreed that significant improvement to freshwater is required to restore it to the pristine state it has been previously, however timeframes for improvement varied. General feedback was that the work already done in the Ngāti Tahu – Ngāti Whaoa Iwi Environmental Management Plan was supported, and WRC should refer back to this and other iwi management plans to provide direction in their policy documents. Key concerns throughout the region were:

- More frequent droughts are impacting aquifers, and less water is available in waterbodies, resulting in poorer water quality and reduced habitat of native species.
- The impacts of large-scale water takes[31], especially where other users cannot use water during drought periods, or where there had been insufficient community consultation.
- Lack of resourcing is a barrier to effective monitoring, with the result being a lack of enforcement of rules and consent conditions, and no accountability in these areas. Many participants suggested that this could be improved through resourcing whānau, hapū and other groups to undertake monitoring.
- Tāngata whenua do not have effective influence over resource activities and their effects, and are often confined to a 'consulted party'. Relationships should be developed between tāngata whenua, councils, and industry groups, and greater involvement is required throughout the entire planning process, including incorporating Mātauranga Māori into water allocation.
- Tāngata whenua seek to be able to participate in traditional customary practices, and to practice taonga tuku iho[32] to ensure a better future for mokopuna.

[30] Method 8.2.2

[31] *A range of examples were provided, including the Coca-Cola take at Putāruru, the Tuakau Watercare take, and large irrigation takes*

[32] *Caring for and nurturing the treasures handed down from our ancestors through the generations*

- The importance of being able to use different waters for different uses, without these waters mixing, is currently not supported.

7.3.2 Community and stakeholder engagement

Feedback from stakeholder and community engagement was varied, with some participants feeling over-regulated, and others considering that current regulations are not sufficient. However, there were key themes which were present across all groups:

- Current policy direction is complex due to multiple competing National Policy Statements, water reforms, and RMA reform, which creates uncertainty for future planning and investment.
- The current 'first in first served' approach to water allocation is not efficient or equitable, and a move towards a merit-based system is required.
- There is a lack of data, and improvements need to be made to monitoring and compliance.
- Urban growth and climate change are increasing pressure on water resources, and policy setting needs to consider the effects of this to ensure future water security.
- Investment in water harvesting and storage should be supported to provide additional reliability, as well as small scale community solutions, and frameworks for water trading or water allocation committees should be established.

For the primary sector, it was emphasized that security of reliable supply and guaranteed volumes was a critical issue, and there is reluctance to invest in efficient infrastructure when future viability is unknown and there is uncertainty around how new regulations will be implemented.

7.3.3 WRC staff feedback

Two internal workshops were held in July and August 2022. Feedback received from Council staff on the management of water quantity under the WRP indicated that:

- Surface water take provisions generally work well and takes within the allocable flows are straight forward to process.
    - The current percentage based allocable flows provide for climate change adaptation.
    - The water shortage categories do not reflect all possible uses, and where they may fall within the existing priority hierarchy.
    - Compliance with water shortage restrictions is monitoring through telemetry of water records

- Groundwater take applications are more onerous, due to the lack of allocation limits, and the interpretation of provisions related to hydraulic connection.
- There are several activities which are not managed by the existing provisions, including rain water harvesting from roofs, dewatering and water bottling.
- The policy direction for water use is useful, although there is some uncertainty regarding the efficient use of water for indoor growers and uses other than irrigation.
    - The water use rules are relatively permissive.
    - The link to water management classifications in the use rules is unhelpful.
- The permitting of site-to-site transfers is ineffective.
- Several of the methods provide clear and useful guidance for the abstraction of water, but not currently well implemented or utilised, including:
    - Method 3.3.4.3 Water user groups/voluntary agreements
    - Method 3.3.4.9 Review allocable lows/sustainable yields
    - Method 3.3.4.10 Phasing out exceedances of the Table 3-5 allocable flows.

- The policy direction for efficient use has enabled the review of some consents to ensure water is used or allocated efficiently, however generally consent reviews have not been an efficient means of reducing allocation.

7.4 What we have found to date on the topic

Four key issues have been identified for water quantity:

- **Giving effect to the NPSFM and other direction**

The water quantity provisions in the WRP do not give effect to the NPSFM, including the fundamental concept of Te Mana o te Wai and other key direction. For example, Policies 6 and 7 of the WRP enable over-allocation, which is inconsistent with the NPS-FM.[33] Surface water allocable flows and lake levels may not be consistent with the NOF requirements and groundwater levels have not yet been set. Environmental flows and levels are required to achieve environmental outcomes in accordance with clause 3.16 of the NPS-FM, however these are yet to be established in the Waikato region.

Activities relating to the taking of water as managed by the NESFW will continue to be managed through this, however the protection of wetland values and extent should be managed through setting appropriate environmental flows, levels and take limits for connected water resources.

- **Managing adverse effects**

Several issues with the provisions of the WRP are affecting the ability of the Plan to effectively manage actual and potential adverse environmental effects of activities, including those related to water takes, uses, and transfers. For example, direction for assessing resource consent applications for surface water takes does not provide clear guidance on the extent to which compliance with allocable levels can be relied upon in the assessment of adverse environmental effects. The levels of priority that apply during water shortage conditions do not reflect all possible uses of water, and the appropriate level of priority for such uses. Groundwater management is complex, due to no limits, and the interpretation of the hydraulic connection provisions. The transition from surface water to groundwater is not actively encouraged or promoted through the policy and rule frameworks. Permitted site to site transfers of consents also generally require a subsequent consent, which impacts on the efficiency of the process.

- **Good plan drafting and plan complexity**

The drafting of the existing WRP provisions could be improved through this process. In particular, the objectives and policies are substantial, and contain a considerable amount of duplication, while several of the permitted activity rules include subjective, rather than objective conditions. There are some issues with definitions, particularly the definition of surface water, which results in problems managing some activities, such as dewatering. Domestic and municipal supply are captured by a single definition, despite the scope of the latter often being much broader. The link between water abstractions and wetlands is also unclear and will need to align with the NES-FW. Guidance on efficient use is often challenged by applicants due to uncertainty about assessments. Several other activities in the region lack specific guidance, including water bottling and dust suppression.

- **Water metering and other requirements**

Several of the methods, such as for metering and water sharing are not effectively implemented. Policy direction in the WRP is inconsistent with the requirements of the Water Metering Regulations. Requirements for telemetry of records should be aligned with the Regulations, or

[33] Policy 11, NPSFM.

more stringent if necessary, to provide for monitoring of compliance with low flow or water shortage restrictions.

7.4.1 The operative Regional Plan – analysis

The WRP currently manages the take, use and transfer of water as separate activities, with distinct policy and rule frameworks, although there are several references to the use of water within Chapters 3.3 Water takes and 3.4 Efficient Use of Water. The WRP includes allocable and minimum flows for surface water resources, and minimum lake levels, but does not set limits for groundwater. The provisions generally seek to enable allocation of water up to allocation limits, with the allocation of water and accompanying minimum flows giving effect to the purpose of Te Ture Whaimana and providing for a range of other matters.

Small scale, and short-term activities are enabled, as are domestic or municipal water supply take, and takes for the operation of existing dairy sheds. Takes in allocations zones that are nearing full allocation are enabled, but with more discretion to consider effects, while takes in excess of allocation limits are constrained, with policy direction describing the circumstances where such takes may be granted.

The key findings indicate that the provisions of the WRP are generally well implemented, however there are opportunities for improvement and alignment with current best practice plan drafting and higher order documents.

In particular, the existing provisions are unlikely to meet all the requirements of the NPSFM, including giving effect to Te Mana o te Wai, and setting environmental flows and levels and identifying take limits in accordance with the NOF process. A review of the environmental flows and levels, take limits and supporting provisions is required to achieve to the objectives and policy direction in the NPSFM, and be in accordance with the NOF process.

Setting environmental flows and levels are key components of the NOF process under the NPSFM[34]. Environmental flows and levels are required to be set at a level that achieves environmental outcomes, while take limits must express a total rate or volume at which water may be taken or diverted from an FMU, or dammed in an FMU.

Policy 11 of the NPSFM requires that existing over-allocation is phased out, and future over-allocation is avoided. To give effect to the NPSFM, clear direction will need to be provided on how over-allocation will be phased out, as well as ensuring the future over-allocation is avoided.

7.5 Policy Shift

The key findings indicate that the provisions of the WRP are generally well implemented, however there are opportunities for improvement and alignment with current best practice plan drafting and higher order documents.

In particular, the existing provisions are unlikely to meet all the requirements of the NPSFM, including giving effect to Te Mana o te Wai, and setting environmental flows and levels and identifying take limits in accordance with the NOF process. A review of the environmental flows and levels, take limits and supporting provisions is required to achieve to the objectives and policy direction in the NPSFM, and be in accordance with the NOF process.

Setting environmental flows and levels are key components of the NOF process under the NPSFM. Environmental flows and levels are required to be set at a level that achieves environmental outcomes, while take limits must express a total rate or volume at which water may be taken or diverted from an FMU, or dammed in an FMU.

[34] Clause 3.16 of the NPSM

Policy 11 of the NPSFM requires that existing over-allocation is phased out, and future over-allocation is avoided. To give effect to the NPSFM, clear direction will need to be provided on how over-allocation will be phased out, as well as ensuring the future over-allocation is avoided.

7.5.1 Options

Setting environmental flows and levels, and identifying take limits

Option 1 Do nothing – status quo: retain the existing provisions of the WRP relating to groundwater and surface water, which are unlikely to meet the requirements of environmental flows and levels, and take limits, as defined in the NPSFM.

Option 2 Set environmental flows and levels for freshwater resources in the region in accordance with the NOF process, and identify take limits to meet these, including levels where the take of water is to be restricted.

Recommended Approach: Option 2

Option 2 is the recommended approach for setting environmental flows and levels and identifying take limits on the basis that it provides an updated management regime that is consistent with the requirements of the NPSFM. The details of this option will need to be developed with the technical experts at WRC.

Managing over-allocation

Option 1 Do nothing – status quo: retain the existing provision of the WRP relating to allocation, which do not set limits for groundwater allocation, and generally enable surface water allocation beyond the primary and secondary allocable flows set.

Option 2 Provide clear, region-wide, direction to reduce existing over-allocation, and prevent future over-allocation, including the timeframe in which to do this. This would include improving allocation accounting, providing methods to 'claw-back' allocation through transfers and replacement consents, and prohibiting new takes in over-allocated zones. New takes in zones nearing allocation limits would be subject to a priority system in accordance with the NPSFM objective.

Option 3 Implement the same approach as Option 2, however tailor this further to meet the long term visions and environmental outcomes in each FMU, including further ranking activities within the third priority of the NPSFM based on the uses considered important to the FMU.

Recommended Approach: Option 3

Option 3 is the recommended approach for managing over-allocation of water in the Waikato, as it presents an opportunity to provide a tailored methodology at the FMU level based on tangata whenua and community preferences and taking into account the different allocation and hydrological conditions and characteristics of each FMU.

Efficient use of water and transfers

Option 1 Do nothing – status quo: retain the existing provisions of the WRP relating to the efficient use of water, and transfers of water.

Option 2 Provide updated direction for managing the efficient use of water, which would give effect to Policy 11 and Clause 3.28 of the NPSFM.

Option 3 Implement Option 2, and provide further non-regulatory methods for improving efficiency, including through education, water sharing, and industry partnerships.

Recommended Approach: Option 2

Option 2 is the recommended approach for ensuring the efficient use of water and managing the transfer of water. This option will provide clear direction in the plan on managing the efficient use of water, and allowing the existing arrangements in relation to water sharing and industry partnerships to continue.

8 Wetlands

8.1 Introduction

This paper sets out the issues and options associated with the management of wetlands under the Waikato Regional Policy Statement (WRPS) and Waikato Regional Plan (WRP) as part of the Freshwater Policy Review project. This paper examines the resource management context of wetlands, the feedback received from iwi, the community, and industry/sector, key findings of the issues paper and possible policy shifts. This report specifically focuses on the aspects of the WRP that manage activities in and near natural wetlands.

Wetlands in the Waikato region have unique hydrological characteristics and high-value natural habitats for at least eight species of native freshwater fish, as well as frogs, birds and invertebrates. Wetlands provide valuable functions such as: flood control, flow attenuation, erosion control, water quality maintenance, food chain support as well as holding intrinsic values for recreation, aesthetics, and scientific research. Importantly, wetlands provide water quality enhancement function by the uptake of contaminants in plant biomass, filtration through vegetation, bacterial decomposition, adsorption onto organic material, temperature benefits and volatilisation.

Wetlands are also irreplaceable sources of mahinga kai, offering building and weaving materials such as harakeke (flax) and raupo (wetland plant), medicines and dyes, and a traditional source of food such as tuna (eel). Additionally, wetlands provide a net benefit to climate change by absorbing and storing carbon. And in times of drought, they are able to release stored water to ease stress. Wetlands and their characteristics, functions and values can be irreversibly modified by activities such as drainage, landfill, and animal grazing.

Before European settlement (around 1840), native vegetation covered most of the Waikato region. It is estimated that about 108,463 hectares were freshwater wetland (4.5 percent of the region). The largest areas were peat bogs near the lower Waikato River, north of Cambridge, and in the Hauraki Plains. There were no deciduous hardwood wetland vegetation because those canopy forming deciduous trees had not yet been brought to the Waikato.

Today, a third of those pre-European wetlands remain[35]. The current (as of 2018) extent of freshwater wetland in the Waikato region is 33,268 hectares, covering approximately 1.4 per cent of the region's total land area. The largest remaining areas, Kopuatai Peat Dome and Whangamarino Wetland are internationally significant. Some of the Region's wetlands are listed on the International Convention on Wetlands of International Importance (Ramsar sites). There are only seven Ramsar sites in New Zealand. Three of them are in the Waikato region:

- Whangamarino Wetland
- Kopuatai Peat Dome
- the Firth of Thames estuary.

[35] TR-22 – Draft State of the Environment Extent of Freshwater Wetlands

In the Waikato region the two main types of wetlands consist of low nutrient wetlands (bogs) and highly fertile wetlands (swamps). Fens are intermediate in fertility and sometimes occur at the edges of bogs.

Bogs are areas of low nutrient peat (partly decayed and waterlogged plant material) that are fed by rainwater alone and have high and relatively stable water levels. In these conditions, things decay very slowly. The dead plant material does not readily break down and builds up as peat, forming low domes, like the Kopuatai Peat Dome in the Hauraki Plains. The most common plants in Waikato bogs are jointed rushes, including the rare endemic giant cane rush (Sporadanthus) and the small wire rush (Empodisma). Fernbirds, rare black mudfish, insects and the large orb-weaving spider live among the rushes in peat bogs. Many other types of bird and fish live on the more fertile edges of the bog. The rare cane rust month (Houdinia flexilissima) is found only in Waikato bogs, living inside the stems of the giant cane rush.

Fertile wetlands are fed by nutrient-rich ground and surface water, as well as rainwater. Their water levels vary seasonally, and they are often flooded by water loaded with silt and nutrients when river or lake levels are high. Moderately fertile fens are found at the edges of low-nutrient peat bogs and peat lakes, and in depressions where there is some groundwater influence. Kahikatea, manuka and sedges may be found in these wetlands. Highly fertile swamps are greatly influenced by groundwater and surface run-off and may be found on the edges of lakes, in poorly drained river deltas and in wet gullies. Common plants include raupo, harakeke (flax) and some sedges. Swamps are very productive and support a wide variety of plants and animals adapted to seasonally changing water levels. They are readily invaded by introduced plants such as grey and crack willow, which can dominate the vegetation and degrade the wetland.

8.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to wetlands.

National Policy Statement for Freshwater Management 2020 (NPSFM)

The National Objectives Framework (NOF), under Subpart 2 Clause 3.8, requires regional councils to identify Freshwater Management Units (FMUs). Regional council must also identify natural inland wetlands, if present, within each FMU. Natural inland wetlands means a wetland (as defined in the Act) that is not:

(a) in the coastal marine area; or

(b) a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or

(c) a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or

(d) a geothermal wetland; or

(e) a wetland that:

(i) is within an area of pasture used for grazing; and

(ii) has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8)); unless

(iii) the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply.

The NPSFM 2020 includes a new policy, Policy 6, which states "there is no further loss of extent of natural wetlands, their values are protected, and their restoration is promoted". Clause 3.22 of the NPSFM 2020 instructs regional councils to include a lengthy policy on wetlands[36] in its regional plan.

Clause 3.22 outlines the requirements on councils to make or change its regional plans, such as:

- To restrict activities referred to in Clause 3.22(1)(a) to (f) that would result in the loss of extent or values of a natural inland wetland, unless council is satisfied that a range of measures will be achieved; and
- To include objectives, policies, and methods that provide for and promote the restoration of natural inland wetlands in its region, with a particular focus on restoring the values of ecosystem health, indigenous biodiversity, hydrological functioning, Māori freshwater values, and amenity values.

Clause 3.23 outlines the requirements for mapping and monitoring natural inland wetlands that are 0.05 hectares or greater in extent or of a type that is natural less than 0.05 hectares in extent and known to contain threatened species. The mapping of such wetlands must be completed within 10 years (2030) and be prioritised, for example by:

- First, mapping any wetland at risk of loss of extent or values; then
- Mapping any wetland identified in a farm environment plan, or that may be affected by an application for, or review of, a resource consent; then
- Mapping all other natural inland wetlands of the type described above.

However, a regional council need not identify, and map natural inland wetlands located in public conservation lands or waters (as that term is defined in the Conservation General Policy 2005 issued under the Conservation Act 1987).

Clause 3.23 of the NPSFM also requires regional council:

- To establish and maintain an inventory of all natural inland wetlands mapped under this clause
- Develop and undertake a monitoring plan
- Have methods to respond if loss of extent or values is detected.

National Environmental Standards for Freshwater (NESF)

Part 3, subpart 1 of the NESF introduces standards that relate to natural inland wetlands through Regulations 37-56. These standards regulate the taking, using, damming, diversion, or discharge of water within, or within a 100m setback from, a natural inland wetland, earthworks or land disturbance and vegetation clearance within, or within a 10m setback from, a natural wetland. The regulations do not provide for the differences in characteristics of the different types of wetlands. Under Regulation 6 of the NES-FW, regional rules may be more stringent than the regulations, however in terms of natural inland wetlands, a regional rule may not be more lenient than the regulations. Therefore, Regional Council is able to impose more stringent regional rules, which may provide for the characteristics of different types of wetlands within the different FMUs, where specific wetlands are degraded from activities, and it is considered that the regulations will not achieve protection of those wetlands. The NES-FW imposes different controls on these activities depending on the purpose for which they are carried out, which include:

[36] Additional clauses were added to this policy in the December 2022 update to the NPSFM.

- restoration, wetland maintenance and biosecurity of natural wetlands
- scientific research
- construction of wetland utility structures
- maintenance of wetland utility structures
- construction of specified infrastructure
- maintenance and operation of specified infrastructure and other infrastructure
- quarrying activities
- landfills and cleanfills
- urban development
- extraction of minerals and ancillary facilities
- sphagnum moss harvesting
- arable and horticultural land use
- natural hazard works
- draining of natural wetlands
- other activities.

New Zealand Coastal Policy Statement 2010 (NZCPS)

The New Zealand Coastal Policy Statement 2010 (NZCPS) is a National Policy Statement under the RMA. Its purpose is to state policies in order to achieve the purpose of the Act in relation to the coastal environment of New Zealand. Regional policy statements, regional plans and district plans must give effect to the NZCPS (sections 62(3), 67(3), 75(3)(b)).

Natural inland wetlands located in the coastal marine area are not subject to the provisions of the NPSFM, however natural inland wetlands within the coastal environment are subject to the provisions of the New Zealand Coastal Policy Statement (NZCPS) as well as the NPSFM. The specific provisions in the NZCPS that apply to natural inland wetlands include:

- Policy 13 – Preservation of natural character
- Policy 26 – Natural defences against coastal hazards.

National Stock Exclusion Regulations 2020

The National Stock Exclusion Regulations 2020 provide regulations for the exclusion of stock from natural wetlands. This regulation is one of four pieces of national direction for managing New Zealand's freshwater. The stock exclusion regulations prohibit the access of cattle, pigs and deer to wetlands, lakes and rivers. These regulations were developed as part of the Essential Freshwater work programme. The purpose is to reduce the impact of damage to our waterways from livestock. When livestock enter water bodies they contaminate the water and damage the banks, they can carry disease-causing organisms which make people sick when they come into contact with the contaminated water.

Regulations 16 to 18 require all stock to be excluded from:

- Any natural wetland that is identified in a regional or district plan or a regional policy statement that is operative on the commencement date and applies on and from the commencement date in relation to stock in a new pastoral system and 1 July 2023 in any other case.

- Any natural wetland that supports a population of threatened species as described in the compulsory value for threatened species in the NPSFM 2020, including any natural wetland identified in a regional plan that becomes operative after the commencement date and applies on and from the commencement date in relation to stock in a new pastoral system and 1 July 2025 in any other case.
- All stock on low slope land must be excluded from any natural wetland that is 0.05 hectares or more and applies on and from the commencement date in relation to stock in a new pastoral system and 1 July 2025 in any other case.

8.3 What we have heard from engagement

8.3.1 Tangata whenua engagement

- There are concerns regarding non-compliance such as illegal drain deepening and wetland clearance.
- There are significant concerns amongst tangata whenua about the current state of freshwater bodies and the impact the drainage of wetlands has on waterways.
- It is considered that there are challenges regarding having te ao Māori practices and thinking influence policy around the health of our rivers, lakes and streams, local knowledge determining measures and outcomes for local places, to be the decision maker in their waters and the ability to influence water management and regulation and having the resources to do so.
- An overall theme from the wānanga regarding long-term visions included restoring waterways and wetlands to how it used to be in a pristine state.
- A range of actions were noted regarding restoration of wetlands such as funding from the Waikato River Authority and other entities to undertake projects, fencing, planting and other restoration activities such as wetland rejuvenation.

8.3.2 Community and stakeholder engagement

- Much of the feedback from the community engagement suggested the community would like to see more protection and restoration of wetlands and a clearer definition.
- Community feedback also suggested that further funding is required for wetland restoration, planting and fencing and for educational purposes on the benefits of wetlands is required.
- The community are interested in carbon capture and filtration effects of wetlands.

8.3.3 WRC staff feedback

- There is a need for a consistent and clear regulatory framework for wetlands. While there are existing rules in the WRP, there is uncertainty in terms of interpretation of provisions, for both staff and landowners.
- There is a need to reduce gaps and uncertainty in the application of the WRP rules, especially given overlaps with the NES-FW provisions relating to wetlands. We do not want a set of regional rules that are written/structured differently to the regulations, and which create a complex overall regime.
- There is a need to reconsider what wetland rules are needed given the NES-FW already provides a comprehensive and arguable strict regulatory framework for most activities that will or might affect a wetland – The need for regional rules needs to be considered.

- There is a tension between allowing wetland and lake levels to continue to be gradually lowered through land drainage activities and landowners land over the long term will not be able to continue to be farmed.
- Ensure that the rules/policies in the WRP that relate to wetlands align with those in the Regional Coastal Plan.
- The WRP needs to include provisions for the management and maintenance of constructed/restored wetlands.
- One difficulty with the drainage rules is that it is difficult to know when a drain has been deepened.

8.4 What we have found to date on the topic

A summary of the key findings from the issues paper regarding the management of wetlands include:

- The current WRP provisions relating to the management of wetlands do not give effect to the National Policy Statement for Freshwater Management.
- The provisions are inconsistent with the National Environmental Standards for Freshwater.
- Eighty-three per cent of the remaining areas of freshwater wetland in the Waikato Region occur within the most threatened environments (Category 1 (<10% indigenous cover left) and 2(10-20% indigenous cover left))[37].
- The Waikato, Hauraki and Matamata-Piako districts collectively hold 78 per cent of the region's extent of freshwater wetland. Extensive areas remain in the lower Waikato Valley and Hauraki Plains, where the internationally significant Ramsar wetlands (Kopuatai Peat Dome and Whangamarino Wetland) are found[38].
- Between 1996 and 2018 the total area of freshwater wetland vegetation was reduced by 503 hectares. However, some of the losses are transition to another wetland habitat type, such as Lake and Pond. In terms actual loss of wetland habitat, the Landcare database records the conversion of 459 hectares of freshwater wetland vegetation to dryland land cover. This comprises the conversion of 416 hectares of Herbaceous Freshwater Vegetation (HFV), 25 hectares of wet Mānuka &/or Kānuka 36 (MK), and 18 hectares of wet Deciduous Hardwood (DH). Most of these areas were converted to pasture. The average annual rate of loss of freshwater wetlands to developed land since 1996 is 20 hectares. This has slowed in the past five years to 6 hectares per year on average, with a recorded loss of 36 hectares of freshwater wetland types to dry land[39].
- Most of the wetland lost in the Waikato region since 1996 was developed into pasture, and over half of the total loss was in a single block of land cleared between 1996 and 2001[40].
- WRC State of Environment Monitoring reporting indicates the following:
    - Monitoring results suggest that wetland loss is historically high in the Waikato region. The Whangamarino Wetland receives outflows from Lake Waikare, which has now reached hypertrophic levels and continues to decline in water quality.

[37] TR22-19 Draft State of the Environment Extent of Freshwater Wetlands

[38] TR22-19 Draft State of Environment Extent of Wetlands

[39] TR22-19 Draft State of the Environment Monitoring Extent of Freshwater Wetlands

[40] TR22-19 Draft State of the Environment Extent of Freshwater Wetlands

- Wetlands continue to be subject to development pressure. Modifications to waterways through damming, irrigation and draining of wetlands have significantly impacted iwi and hapu.
- To improve environmental outcomes, it is suggested that wetlands need to be protected from inappropriate drainage and the extent of wetlands are required to be increased across the region to mitigate climate and land use effects on downstream ecosystems.

- Wetland drainage is a major issue in the Waikato region and the current rules, Rules 3.7.4.6 and 3.7.4.7 are difficult to enforce for a range of reasons, including a lack of visibility of activities occurring in/adjacent to wetlands, as well as difficulties inherent in the design of the rule as they require knowledge about wetland levels and extent which are not always well known[41].
- Only a subset of the Region's wetlands are protected under the WRP and WRPS.

8.4.1 Waikato Regional Policy Statement - analysis

The Waikato Regional Policy Statement seeks to safeguard, protect, and enhance the significant values of wetlands to ensure wetland quality and extent is maintained and enhanced. The WRPS provides policy direction for an approach to identifying fresh water body values and managing fresh water bodies, through a value setting process to determine significant values of wetlands. Further direction is provided to ensure Regional Plans recognise identified values and establish fresh water objectives and limits and targets based on the identified values including for lake levels and wetland levels. Methods included to achieve these include requiring the regional plans to identify land and wetlands that require water level protection through bed and water level setting and managing effects of activities.

APP5 of the WRPS includes criterion for determining significance of indigenous biodiversity (Table 28). This criterion is referred to through the Regional Plan and some rules refer apply to wetlands that have been identified using this criterion.

8.4.2 The operative Regional Plan – analysis

The relevant sections of the WRP that relate to this topic are Chapter 3.3 water takes, Chapter 3.5 discharges, Chapter 3.6 damming and diversion, Chapter 3.7 wetlands, Chapter 4.2 river and lake beds structures, Chapter 4.3 river and lake bed disturbances, Chapter 5.1 accelerated erosion and Chapter 5.2 discharges onto or into land. The general theme of the objectives and policies of the WRP in relation to wetland management is to increase the extent and quality of wetlands and ensuring adverse effects of activities on wetlands are avoided. The WRP provides necessary restrictions on water takes and discharges of contaminants to wetlands through non-complying activity rules and enabling other activities subject to the activity not resulting in any adverse effects on wetlands. The WRP also enables certain activities as long as they occur outside of any wetlands that are areas of significant indigenous vegetation and/or significant habitats of indigenous fauna, such as overburden disposal in Chapter 5.2.

Chapter 3.6 of the WRP, damming and diverting, provides direction for enhancing or maintaining the extent and quality of wetlands by encouraging activities that will either maintain or reinstate agreed water levels in wetland areas or peat lakes. Controlled Activity Rule 3.6.4.12 provides for wetland and lake level control structures for maintaining and establishing minimum water or bed level of peat lakes and wetlands. Controlled Activity Rule 3.6.4.16 provides for new small dams in perennial waters bodies for the purpose of wetland creation or enhancement.

[41] Regional Plan Policy Effectiveness Review, 2011 GHD

Chapter 3.7 of the WRP sets out provisions specifically for the management of wetlands and seeks to control land drainage activities near wetlands that are identified in Table 3.7.7 or which are areas of significant indigenous biodiversity or significant habitat of indigenous fauna as defined in the WRPS. The objectives of the WRP are for an increase in the extent and quality of wetlands and avoiding changes in water level from land drainage activities that lead to shrinking or loss of wetlands.

Module 4 of the WRP, river and lake bed structures and disturbances, also applies to wetlands, where the wetland becomes part of the bed of the river when the river is at its fullest flow, or part of the bed of the lake when the lake reaches its highest level without overtopping its margins. Chapter 4.3 provides direction for the clearance of vegetation in wetlands that are areas of significant indigenous vegetation and/or significant habitats of indigenous fauna as a discretionary activity. Chapter 4.3 also requires livestock to be excluded from a number of specified wetlands, however this list is not exhaustive.

8.5 Policy Shift

The wetland provisions are required to be updated to address any inconsistencies and gaps with the national direction. This will shift the management of wetlands into a permissive regime for certain activities and a more restrictive regime for other activities to ensure wetlands and values of wetlands are protected. The NPSFM also includes a restrictive policy framework for the listed activities where it may be acceptable to have a loss of wetland extent or values including applications being subject to the effects management hierarchy.

The introduction of protection of values of wetlands and no further loss of wetland values is a policy concept that is not included in the WRP and does not specifically cover ecosystem health, indigenous biodiversity, hydrological functioning, Māori freshwater values and amenity.

Further mapping/identification of “natural inland wetlands” is required to ensure that all wetlands and values of wetlands are protected.

Currently the WRP provides for restoration through:

- Rules which relate to wetland and lake level control structures and new small dams on a perennial water body for the purposes of wetland creation and enhancement,
- Water takes outside the Waikato River Catchment and below Huntly within the Waikato River Catchment for the purposes of ecological enhancement of wetlands,
- Non-regulatory methods, in Chapter 3.7 for environmental education, economic incentives, the promotion of inter-agency approach to managing wetlands and the promotion of the creation/enhancement/remediation of wetlands.

The NESF permits a range of activities, as discussed above, which includes restoration purposes and the NPSFM requires the promotion of restoration. However, the WRP does not do this well as wetland enhancement currently requires applicants to engage in a resource consent process to undertaken restoration activities and non-regulatory methods are not strong enough to ensure to emphasis the promotion of restoration required by the NPSFM. The WRP requires amending to include policy to promote restoration in conjunction with the regulations in the NESF.

The WRPS will need to be updated to give effect to the NPSFM. Provision is included in the WRPS to manage wetlands to maintain and enhance a range of wetland values and ensuring significant values of wetlands are protected. However, the NPSFM direction for values of wetlands seeks to ensure wetland values are protected through the introduction of the effects management hierarchy to demonstrate how each step will apply to any loss to wetland values. The WRPS will also need to be updated to reflect the process to identify wetlands as outlined in Clause 3.23 of

the NPSFM. There potentially may need to be separation between the provisions that apply to "natural inland wetlands" and the general "wetland" provisions in the WRPS.

8.5.1 Options

Option 1 Do nothing – status quo. This option continues to manage wetlands under the existing provisions through unachievable objectives, limited policy to achieve the objectives and non-regulatory implementation methods. These wetland provisions only apply to 35 identified wetlands or areas of significant indigenous biodiversity identified using criteria in the WRPS.

Option 2 Update WRP and WRPS to give effect to and ensure consistency with national direction. This option consists of updating the WRP and WRPS to align with the provisions in the national direction. The provisions are more restrictive than existing provisions for the management of wetlands and seeks further protection of wetlands than the existing approach.

This approach reconsiders the need for regionally specific wetland rules given that the NESF already provides a comprehensive and arguable strict regulatory framework for most activities that will or has the potential to affect a wetland. This reduces duplication and inconsistency and provides a robust regulatory framework for wetlands generally. The ability to reconsider the need for regionally specific wetland rules, provides WRC with the opportunity to consider including more stringent FMU specific or catchment specific rules to provide for the different types of wetlands and the differences in effects that activities have on wetlands. However, WRC are not able to impose rules that are more lenient than the NES-FW regulations.

Recommended Approach: Option 2

The current management framework is not sufficient to ensure wetlands are protected from further degradation. Councils are required to make or change regional plans to give effect to the NPSFM and the policy framework within both the NESF and NPSFM provide for significant wetland protection therefore Option 2 is the recommended approach.

9 Special sites and features

9.1 Introduction

This paper sets out a summary of the issues and options associated with the identification of special sites and features as required by the NPSFM 2020.

Under the NPS-FM, regional councils must identify special sites and features (if present) within each Freshwater Management Unit (FMU). Special sites and features include:[42]

- Sites to be used for monitoring
- Primary contact sites
- The location of habitats of threatened species
- Outstanding water bodies
- Natural inland wetlands.

[42] Clause 3.8(3), NPSFM.

As the requirements to complete this identification, and mapping where required, are specific and mandatory, this paper sets out the requirements, but does not set out 'options' as most other papers in this series do.

The following section is an outline of the current situation to provide context as to how WRC provides for special sites and features.

9.1.1 Sites to be used for monitoring

The current monitoring programme at Waikato Regional Council (WRC) currently consists of monthly water quality monitoring at 115 river and streams sites throughout the region. These include the Waikato, Waipā, Waihou and Piako Rivers and the many streams that flow into them. Limited monthly monitoring of water quality in the Waikato River began in 1980, with a more comprehensive programme beginning in 1987. WRC now samples at 10 sites along its length.

Waikato Regional Plan Change 1 – Waikato and Waipā River Catchments (PC1) seeks to give effect to Te Ture Whaimana by regulating activities by reducing discharges of contaminants nitrogen, phosphorous, sediment and microbial pathogens. PC1 includes 73 sub-catchment monitoring sites. Eleven of those sites are newly established sites for PC1 and for which monitoring did not commence until October 2019.

Primary Contact Sites

Primary contact sites are monitored in the Waikato region as summer recreational monitoring in freshwater, estuaries and open-coast beaches. Council has implemented recreational water quality monitoring programmes during the summer months since 1985. These programmes sample for faecal bacteria, which is used as an indicator of the water's suitability for contact recreation (e.g., surfing and swimming) and cyanobacteria. The programmes have changed substantially over time and now include 34 monitoring locations at popular open-coast, estuary, river, and lake sites. During the summer months Council conducts weekly recreational site monitoring for faecal indicator bacteria (E. coli and enterococci) and cyanobacteria in selected lakes, rivers, streams, estuaries, and open coast beaches.

Location of habitats of threatened species

In 2015 WRC began a stock take for all threatened species recorded as occurring within the Waikato region in order to better meet its obligations for biodiversity protection on private and public land[43]. A nationally threatened and regionally uncommon species database was created for the region based on the New Zealand Threat Classification System (NZTCS) (Townsend et al. 2008) and the most recent classification lists for selected species groups. Data was derived primarily from council Significant Natural Area (SNA) datasets and Department of Conservation (DOC) internal data sources[44]. There are 305 native threatened species are currently known to occur in the region (including NZTCS statuses Threatened, At Risk and Data Deficient).

Outstanding water bodies

Lake Taupō was identified as an outstanding water body (OWB) through Variation 5 to the Regional Plan in 2011, which lead to WRP Section 3.10 Lake Taupō Catchment. Lake Taupō is currently the only water body identified as an OWB. Policy 2 identifies the significant characteristics of Lake Taupō that identify it as an outstanding water body as:

1. New Zealand's largest clear blue lake resulting from exceptional water quality (as defined by water quality characteristics) in that it, in most locations and most times,

[43] Draft Nationally threatened and regionally uncommon species of the Waikato Region, Waikato Regional Council Technical Report 2019/28

[44] Draft Nationally threatened and regionally uncommon species of the Waikato Region, Waikato Regional Council Technical Report 2019/28

surpasses the New Zealand drinking water standards and is of higher quality than all Waikato Regional Council's ecological health and recreation standards.

2. High level of natural character of the margins of the Lake and inflowing streams due to the extent of wilderness, surrounding landscape and geological features and lack of built environment around much of the Lake.
3. Status as tribal taonga for Ngati Tuwharetoa.
4. Internationally renowned trout fishery.
5. Ability to support a wide range of indigenous fauna and flora.
6. Commercial opportunities based on the Lake's natural features and values, which provide local and national economic benefit.

Natural inland wetlands

Before European settlement (around 1840), native vegetation covered most of the Waikato region. It is estimated that about 108,463 hectares were freshwater wetland (4.5 percent of the region). The largest areas were peat bogs near the lower Waikato River, north of Cambridge, and in the Hauraki Plains. There were no deciduous hardwood wetland vegetation because those canopy forming deciduous trees had not yet been brought to the Waikato.

Today, approximately a quarter of those pre-European wetlands remain. The current (as of 2012) extent of freshwater wetland in the Waikato region is 33,268 hectares, covering approximately 1.4 per cent of the region's total land area. The largest remaining areas, Kopuatai Peat Dome and Whangamarino Wetland are internationally significant. Some of the Region's wetlands are listed on the International Convention on Wetlands of International Importance (Ramsar sites). There are only seven Ramsar sites in New Zealand. Three of them are in the Waikato region:

- Whangamarino Wetland
- Kopuatai Peat Dome
- the Firth of Thames estuary.

9.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to the identification of sites and special features.

The National Policy Statement for Freshwater Management 2020 (NPSFM)

The identification of special sites and features forms part of the first step of the National Objectives Framework (NOF) process, described in clause 3.8 of the NPS-FM, which requires regional councils to identify the following (if present) within each FMU:

1. Sites to be used for monitoring
2. Primary contact sites
3. Location of habitats of threatened species
4. Outstanding water bodies
5. Natural inland wetlands

Monitoring sites must be:

1. Representative of the FMU/part FMU

2. Representative of one or more primary contact sites in the FMU
3. Sites related to Māori freshwater values must reflect one or more Māori freshwater values and be determined in collaboration with Tangata Whenua.

Clause 3.23 requires regional councils to map their region's natural inland wetlands that are 0.05ha or greater in extent or of a type that is naturally less than 0.05ha in extent and known to contain threatened species. This direction relates to Policy 6, which requires natural inland wetlands and their values to protected.

Clause 3.27 sets out requirements and provisions for regional councils to identify and monitor primary contact sites. For every primary contact site in an FMU, regional council must identify one or more monitoring sites representative of the primary contact site or a number of primary contact sites. Primary contact sites are defined in the NPSFM as:

primary contact site means a site identified by a regional council that it considers is regularly used, or would be regularly used but for existing freshwater quality, for recreational activities such as swimming, paddling, boating, or watersports, and particularly for activities where there is a high likelihood of water or water vapour being ingested or inhaled.

The NPSFM does not provide any further direction for the location of habitats of threatened species. Threatened species are defined in the NPSFM as:

"*any indigenous species of flora or fauna that:*

(a) relies on water bodies for at least part of its life cycle; and

(b) meets the criteria for nationally critical, nationally endangered, or nationally vulnerable species in the New Zealand Threat Classification System Manual (see clause 1.8)"

Appendix 1A of the NPSFM outlines the compulsory values for threatened species as the extent to which an FMU or part of an FMU that supports a population of threatened species has the critical habitats and conditions necessary to support the presence, abundance, survival, and recovery of the threatened species. All the components of ecosystem health must be managed, as well as (if appropriate) specialised habitat or conditions needed for only part of the life cycle of the threatened species.

National Environmental Standards for Freshwater (NES-FW)

The NES-FW introduces standards that relate to natural wetlands. These standards control a wide range of activities that might affect natural inland wetlands. Although the NES-FW doesn't require mapping, there is a clear relationship between the mapping requirements of the NPSFM and the controls in this NES.

Waikato Regional Policy Statement 2016 (WRPS)

The WRPS does not provide specific direction for the identification of monitoring or primary contact sites and the direction mostly relates to implementing monitoring programmes. However, the WRPS provisions provide for the involvement of tangata whenua in developing and implementing monitoring programmes as well as requiring further scientific investigation and monitoring as issues are identified in catchments.

The habitats of threatened species are managed through the WRPS by ensuring Council liaise with other agencies to ensure the location and distribution data for species listed as 'Threatened' or 'At Risk' in the New Zealand Threat Classification System lists are available when preparing and implementing regional plans. The WRPS also provides direction for the identification of significant indigenous vegetation and significant habitats of indigenous fauna

as well as the identification of threats to these areas. Appendix 5 of the WRPS includes criterion for determining these areas.

The WRPS provides provision for a values setting process to determine any outstanding fresh water bodies and significant values of wetlands. The process to inform the identification of outstanding freshwater bodies and the significant values of wetlands will include consideration of the values of those fresh water bodies and wetlands that are in APP4 and 5.2.5 Map of fresh water bodies and wetlands and the uses and associated values of those freshwater bodies that are in APP3.

9.3 What we have heard from engagement

WRC staff have undertaken initial engagement regarding the freshwater policy review. Feedback in relation to the identification of natural inland wetlands was not received, and feedback regarding the management of wetlands is addressed in the wetlands issues and options paper.

9.3.1 Tangata whenua engagement

- There are a range of specific locations that have been identified by tangata whenua that interact with freshwater including rivers, streams, lakes, aquifers, springs, and other waterways.
- The reasons sites and features were considered special included traditional and customary practices (e.g. healing, cleansing wairua and tinana, cleaning tupāpaku, pure ceremonies, karakia, tohi), as a water source, mahinga kai source (e.g. Pā tuna, kōura, kōkopu, ika, kākahi watercress), wāhi tapu and connections to whakapapa, whānau, whānau land, tūpuna, hapū, iwi and to marae and the connection felt towards a location.
- Other reasons consisted of morihana (native fish), kōura, geothermal waters to help grow watermelons and for cooking, drinking water for the village and marae, bathing farming, ancestral home and whenua.
- The Waikato River was mentioned as a special place where part of the Waipouwerawera stream diverts, and different parts of the stream were used to cook, wash, and care for wounds
- There are strong views that iwi management plans and documents, and Te Ture Whaimana already captured the information in relation to special sites and features.

9.3.2 Community and stakeholder engagement

- Water is recognised as essential for life, having many uses, and associated with places that are special to individuals and the community.
- There are a range of locations that have been identified by the community and sector groups where freshwater recreation and or activities are undertaken. Recreational activities that were identified included fishing, hunting, swimming, boating, duck shooting and water sports. Other activities included food gathering, eeling, whitebaiting, and use for food production, as well as using water for dairy farming. Other comments included predator trapping, fencing and weed eradication on the Toreparu wetland.
- Some of the reasons these sites and features are considered special included; *nature, boating, relaxation, serene, it's home, a beautiful river mouth.*
- Amenity and recreation values were also identified for activities such as bush walking, bird watching and biking, an activity that does not take place in water.

9.3.3 WRC staff feedback

- It is considered that the current monitoring network does not cover the requirements of primary contact sites under the NPSFM well.
- There is insufficient data to determine the location of habitats of all threatened species and significant work will be required to identify these sites.

9.4 What we have found to date on the topic

Summary of key findings from the issues paper:

- Aspects of the WRPS and WRP that are inconsistent with and do not give effect to the NPSFM include:
    - Current monitoring sites do not take into account Māori freshwater values.
    - Recreational sites are yet to be determined and will need to be identified in consultation with tangata whenua and the community.
    - Some habitats of indigenous fish and trout habitat have been identified and mapped and referred to in several rules in the WRP. The WRPS refers to "threatened" species and "at-risk" species, however the WRP does not and uses terminology relating to indigenous biodiversity.
    - Lake Taupō is the only freshwater body identified in the WRP as "outstanding". The characteristics by which Lake Taupō is described as outstanding may need to be updated to ensure they are consistent with the NPSFM requirements.
- A database of nationally threatened and regionally uncommon species of the Waikato Region exists, however it is due to be updated and is unlikely to provide a comprehensive itinerary of data related to freshwater species and their habitats. This is constantly evolving, and the freshwater plan review needs to acknowledge this. Providing for provision for "at-risk" species in conjunction with threatened species is an example of how the plan could provide for the ever-evolving nature of identifying these sites.
- The WRPS provides direction for protecting or enhancing outstanding values of an outstanding fresh water body and protecting or enhancing significant values of wetlands. The WRPS also directs council to identify outstanding fresh water bodies and the significant values of wetlands, using a values setting process, considering the values of freshwater bodies and wetlands that are specifically listed in the appendices of the WRPS. However, the WRPS does not specify a methodology or a definitive list of criteria to be considered for the identification process.
- There is a lack of nationally consistent criteria to assess outstanding freshwater bodies and identify significant values. Also, there is no national MfE guidance on criteria to identify outstanding freshwater bodies. Several Regional Councils have developed their own criteria, and while there are inconsistencies between councils, they are likely to be helpful when determining criteria for Waikato. The time and cost of these Regional Councils to undertake this process has been significant.
- Under the NPSFM requirements to identify and map wetlands, approximately 10,000 wetlands in the Waikato region will need to be identified and mapped.

9.4.1 The operative Regional Plan – analysis

The WRP does not provide any specific direction for identifying sites that will be used for monitoring or primary contact sites, however WRC has a comprehensive monitoring programme which is described above.

The WRP does not include direction regarding the identification of habitats of threatened species, nor does it specifically identify these habitats, therefore the plan does not give effect to this requirement of the NPSFM as it contains no relevant provisions. It is however noted that WRC has a database, as described above, with known information on threatened species in the Waikato. This will need to be revised and included in the new regional plan provisions.

Chapter 3.10, which identifies Lake Taupō as an OWB specifically relates to the Lake Taupō Catchment and implements land use and discharge controls that adopt nitrogen capping and offsetting to protect the water quality of Lake Taupō.

The WRP specifically identifies 35 wetlands to be protected through Table 3.7.7 under the wetlands chapter, Section 3.7. However, the wider protection of wetlands through the WRP consist of a number of provisions for activities relating to water takes, damming and diversion, drainage, non-point source discharges, river and lake bed management, accelerated erosion and discharges onto or into land. These provisions include managing waterbodies in a way that ensures an increase in the extent and quality of the region's wetlands and avoiding, remedying, mitigating adverse effects on wetlands.

9.5 Policy Shift

As this paper relates to the required identification of special sites and features, there is no significant shift in policy to be identified in this paper. Once these special sites and features have been identified, then appropriate plan provisions can be applied at the topic or activity level (for example – provisions that relate to works and structures in the beds of lakes and rivers will likely include restrictions on activities that occur in and near habitats of threatened species).

The NPSFM provides direction for the appropriate management approach for activities in and near identified special sites and features, as set out in the following policies:

- Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.
- Policy 8: The significant values of outstanding water bodies are protected.
- Policy 9: The habitats of indigenous freshwater species are protected.
- Policy 12: The national target (as set out in Appendix 3) for water quality improvement is achieved.

A project work plan will be developed for the identification of habitats of threatened species. It is considered that this project will consist of mainly desktop exercises which will be required to determine which of the threatened species outlined in WRC's database apply to the definition of threatened species in the NPSFM and if any other species should be included.

A project work plan will be developed to determine the project needs regarding resources and cost for the identification of outstanding water bodies. This may need to be completed in phases, which means that by notification of the freshwater plan review, the list of identified outstanding water bodies may not be exhaustive. Further, experience with engagement on this topic with communities and tangata whenua elsewhere in the county indicates that diverse views can be expected. Karst systems are part of the types of landscapes/features that will need to be tested through OWB criteria.

Identification and mapping of natural inland wetlands in the Waikato Region has started and Science and Environmental Monitoring staff are developing a standardisation approach to identifying wetlands. As discussed above, it is estimated that around 10,000 wetlands in the region will apply to the definition of natural inland wetland in the NPSFM. However, the NPSFM does provide direction around timeframes and requires natural inland wetlands to be identified and mapped by September 2030.

9.5.1 Options

While “options” are typically set out here, in this case, WRC is required to update the WRPS and WRP to give effect to the NPSFM and complete the identification and (where required) mapping of these special sites and features, as set out in the NPSFM. Provision for the protection of wetlands will be addressed through the specific paper for wetlands.

10 Beds and damming

10.1 Introduction

The scope of this paper addresses two aspects of the Waikato Regional Plan (WRP):

- Structures in and disturbances to the beds of rivers and lakes;
- Damming and diverting of freshwater.

Damming activities can include farm dams, water supply dams or hydro-electricity dams of varying scale. A diversion of water occurs when stopbanks, farm drainage canals, and culverts change natural flow patterns or where an activity involves the relocation of a watercourse, including through channel straightening or other works. River management activities include, the construction of erosion control structures, blockage removal and gravel management/removal which may require or result in the temporary damming/diversions. River management activities may also result in permanent diversions to pre-existing flows, which may be minor in relation to planned river management work or more significant in relation to flood remediation work, where floods have diverted flows.

Structures on the beds of lakes and rivers may be necessary to provide for a communities’ social, economic and cultural well-being. Some structures, such as dams (temporary and permanent), culverts and fords, can have significant adverse effects thereon, either individually or in combination with other structures. These can include the loss of physical space, navigation hazards, prevention of fish migration, changes to the nature of benthic communities, interference with sediment transport processes, obstruction and flooding. In addition, structures can both provide or enhance habitat and result in loss of habitat.

Physical alteration and disturbances to the beds or banks of waterways resulting from activities such as tunnelling, drilling, excavation, reclamations or drainage, and deposition of substances can result in adverse environmental outcomes. Also, the deliberate introduction of vegetation to the beds or banks of rivers or lakes, the destruction or removal of vegetation, and the access of livestock to the banks and beds can similarly result in adverse effects.

These activities are neither new or emerging and their issues have been long been managed under the WRP. However, since its notification there have been changes in national direction which must be given effect to. For example, the National Environmental Standards for Plantation Forestry (NESPF) and National Environmental Standards for Freshwater (NES-FW) have been introduced providing regulatory controls.

10.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to the beds of lakes and rivers and damming.

The National Policy Statement for Freshwater Management 2020 (NPSFM)

Subpart 3 of the NPSFM 2020 sets out specific requirements for managing particular freshwater issues. Of relevance to activities in the beds of lakes and rivers is:

- 3.24 Rivers

- 3.25 Deposited sediment in rivers
- 3.26 Fish passage

Clause 3.26 requires regional councils to include an objective in regional plans to maintain or improve instream structures to provide for fish passage, except where it is desirable to prevent the passage of undesirable fish species to protect taonga fish species. The clause also provides direction on policy development and work programmes that relate to fish species and receiving environments including structures that affect or provide for fish passage.

National Environmental Standards for Freshwater (NESF)

The NESF controls are primarily related to farming activities and wetlands but also address reclamation of rivers and structures that affect fish passage. Any person carrying out such activities will need to comply with the standards noting that provisions in regional plans must not be less stringent than the relevant NESF regulations.

Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017[45] (NESPF)

The objectives of the NESPF are to:

- maintain or improve the environmental outcomes associated with plantation forestry activities nationally
- increase certainty and efficiency in the management of plantation forestry activities.

The NESPF permits or regulates structures associated with river crossings and the diversion of water arising from plantation forestry activities, conditional upon meeting certain standards. They are designed to prevent adverse environmental impacts and override the regulations in the NESF 2020.

10.3 What we have heard from engagement

10.3.1 Tangata whenua engagement

Tangata whenua feedback comprises two components: feedback from the first phase of engagement wānanga, and second, from an analysis of iwi environment plans (IEMPs).

Wānanga feedback:

Wānanga feedback raised concerns about Waikato River flow and water level variability due to the requirements of the hydro dams which result in stream bank erosion and flooding. Concern was also expressed about dams and other in-stream structures impacting on fish migration. A call was made to have greater tangata whenua involvement in the management of freshwater.

IEMP themes:

Staff undertook a review of the freshwater provisions of Waikato iwi environmental management plans (IEMP) as they relate to damming and diversions, and river and lake bed structures and disturbances. This review identified that any related activities were not to adversely affect:

- the sustainability of mahinga kai including taonga fish species ability to migrate, their life stages, or their habitats,

[45] Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (LI 2017/174) (as at 01 May 2018) – New Zealand Legislation

- the viability of cultural sites,
- bio-physical accumulations, for example algae and sediment, and
- river flows and levels

In addition, the review identified that preference is for the Waikato and Waipā catchments to be managed in accordance with Te Ture Whaimana and the Lake Taupō catchment is managed in accordance with Te Kaupapa Kaitiaki.

10.3.2 Community and stakeholder engagement

- Suggested use of in-stream (natural perennial flows and drainage channels) silt traps to entrain suspended material for later extraction as a resource, and to prevent sediment entering estuaries and the coastal marine area.

10.3.3 WRC staff feedback

Feedback has indicated that:

- Definitions need to be reviewed to ensure clarity and consistency, e.g., "*diversion*", "*temporary*".
- Staff noted that the WRP does not adequately differentiate between stormwater, surface water and ground water diversions; greater clarity is needed to address the different diversions of water.
- A review of the provisions relating to the damming and diverting of water (and associated structures) is necessary to ensure that they are not inconsistent with nor less stringent than the NES-FW regulations, and where there are overlaps that these are identified and integrated so as not to cause confusion.
- It merits a review of the workability of permitted activity conditions and resource consent activity rules relating to damming and diverting, particularly with regard to temporary structures, and where such activities are possibly also part of a larger scale comprehensive development.
- Structures have been built in river and lake beds since well before any regulatory controls existed. Many structures pre-date the current WRP, and their history and legal status is uncertain. The existing WRP rule framework is uncertain as to how these structures are to be managed. A proposed answer might be to strengthen the environmental conditions of the rule so that where structures are causing a problem, they will need remediation, possibly via a consent.
- Cultural weirs[46] and pā tuna: aligning the WRP to accord with Regulation 60(b) of the NES-FW.
- Aligning the WRP to recognise that the NES-FW distinguishes between dams and weirs[47].
- Whitebait stands:
    - Consideration needs to be given to determine the most appropriate management regime given that, despite very prescriptive rules, no monitoring is undertaken but where an issue is identified a regulatory intervention may be necessary. It was also

[46] Regulation 60(b) of the NES-FW defines a customary weir as a weir that is used for the purpose of practising tikanga Māori, including customary fishing practises.

[47] See NES-FW: definition of dam and weir in Regulation 3: Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (LI 2020/174) (as at 05 January 2023) 3 Interpretation – New Zealand Legislation

noted that ownership issues of either adjoining land or river bed are not the domain of the WRP.

- A recommendation is to review the practicality of permitted activity conditions and reconcile multi-agency statutory responsibilities (WRC, DoC LINZ) to ensure WRC responsibilities are clearly articulated via the WRP and other avenues (e.g., public education) and consistent with the Waikato Regional Coastal Plan.

- Livestock access to rivers, streams, wetlands and waterbodies should be given further consideration, not just to areas of significant indigenous vegetation and/or significant habitats of indigenous fauna (See WRP 4.3.1 – Issue 4). This assessment will also need to consider necessary alignment with the national Stock Exclusion Regulations.

10.4 What we have found to date on the topic

A summary of the key findings from the issues paper regarding the management of beds of lakes and rivers, and damming and diverting include:

- The plan may still need to align with new national direction. For example, some adverse effects of plantation forestry on waterbodies that are not managed or are inadequately managed by the NESPF.

- Definitions may need to be reviewed to provide greater clarity, and to be consistent with caselaw, and national environmental standards and policy statements, particularly in relation to '*river'*, '*bed'*, and '*temporary measure*'. Plan definitions and rules intended to be enabling of temporary works (e.g., enable temporary effects of drain maintenance through classification as ephemeral or artificial) need to ensure they are not also enabling permanent and irreversible effects on waterbodies and structures such as coffer dams, culverts and fords.

- Permitted activity (PA) settings for all rules need to be reviewed, and in some cases the framework may conflict with the more stringent, and prevailing NES-FW standards and regulations.

- The rule framework for structures and disturbance are spread across different parts of the WRP, which does not provide for an integrated approach. This can sometimes result in additional consent requirements where an activity is otherwise permitted, or consent requirements being missed.

- Review the regulatory framework to seek better environmental outcomes for activities being carried out for "beneficial" purposes in the waterbody and on the bed of a river or lake which may require a consent (or multiple consents), which can be costly in terms of both time and money.

- Update reference to amended or outdated advisory and/or guideline resources, e.g., "*Guidelines for the Construction of Small Homogenous Earthfill Dams*" – Rule 3.6.4.4.

- While it is implicit that permitted activity rules are for minor impact and small-scale activities, the ability to efficiently monitor and enforce is important.

WRC State of the Environment reporting indicates the following:

- Modifications to waterways through **damming**, irrigation, draining of wetlands, and the pollution of fresh water and salt water have significantly impacted iwi and hapū. Flooding of wāhi tapu, reduction in water quality, impacts on mahinga kai and taonga species, detrimental impacts on mauri, and interruptions to water-based rituals are impacts felt across generations.

- The mainstem of the Waikato River is large enough to support algae drifting as phytoplankton. Hydroelectric **dams** slow the passage of water, extending the time algae can use available nutrients to grow before flowing into the ocean. Council monitors drifting algae in the Waikato River by measuring the green plant pigment chlorophyll. Chlorophyll levels have improved, coinciding with reduced phosphorus concentrations in the Waikato River. This is an important improvement – algae blooms threaten ecosystems, drinking water supply, and recreation.
- Native fish, although more tolerant of reduced water quality than macroinvertebrates, are sensitive to migration barriers such as culverts, weirs and **dams**.
- Before **dams** were constructed on the Waikato River, natural waterfalls limited the number of eels making it upstream, however did not block their downstream migration to the ocean.
- The importance of fish passage is already recognised in the WRP (Objectives 3.6.2 and 4.2.2), NES-FW (Subpart 3) and the NPSFM (Section 3.26). It is recommended that addressing migration barriers goes beyond regulating new structures, to prioritising remediation of existing structures, which often fail to provide fish passage. Such prioritisation could also help inform decisions on maintenance and initial cost (such as **dam** and structure replacement versus a spat rope).
- An action plan for fish passage should enable prioritisation of existing structures that prevent access to more important habitat and be supported by the council and communities through regulatory and non-regulatory methods. The *Pathways to the Sea* project has already started prioritising structures owned and operated by WRC and has investigated a range of mitigation options, including development of "fish friendly" pump designs to enable tuna spawning migration. The project has also drafted a decision support tool for prioritisation of structures for upgrade.
- The NES-FW requires the development of a tool to enable identification and evaluation of existing and proposed instream structures such as **dams** and weirs. This will help answer questions as to how much habitat could be affected by a barrier at a given location. The WRC State of the Environment report also talks to the problem of peat shrinkage and the possible diversion of groundwater.
- Fish species, such as whitebait, unable to complete their lifecycles due to instream structures impeding their passage.
- To improve environmental outcomes, the following recommendations is made:
    - Remove potential barriers to native fish passage by regulating new **structures** and remediating existing **structures**.
- It is recommended that addressing migration barriers goes beyond regulating new structures, to prioritising remediation of existing **structures.**
- The Pathways *to the Sea* project has already started prioritising structures owned and operated by WRC and has investigated a range of mitigation options, including development of "fish friendly" pump designs to enable tuna spawning migration.
- Development of a tool to enable identification and evaluation of existing and proposed instream **structures** which impede fish passage**.**

10.4.1 The operative Regional Plan – analysis

Activities are managed in the operative Regional Plan by setting out: issue identification, desired objective statements, supporting policy actions and interventions, and implementation methods including rules and other methods, to achieve the desired environmental outcomes. The relevant modules to the topic of Beds of Lakes and Rivers, include:

- Module 3.6 which addresses damming and diverting of freshwater activities;
- Module 4.2 which address river and lakebed structures; and
- Module 4.3 which addresses disturbances, and river and lakebed disturbance activities.

The following options relate firstly to the damming and diverting of freshwater and secondly to the lake bed structures and disturbance.

10.5 Policy Shift

10.5.1 Options

The following options relate firstly to the damming and diverting of freshwater and secondly to the lake bed structures and disturbance.

Options: Damming and diverting freshwater

Option 1 Do nothing – status quo:

Option 2 Review WRP damming and diverting of freshwater provisions – issues, objectives, policies, rules and other implementation methods – to ensure internal consistency and consistency with the fundamental NPSFM concept of Te Mana o te Wai, and alignment with national policy statements, national environmental standards and Te Tiriti claims settlement legislation that postdate the WRP becoming operative. This includes requirements to avoid loss of river extent and values (NPSFM Cl.3.24) and methods to manage the adverse effects of the damming and diversion of freshwater including off-line dams and storage, and /or the diversion of flood and drainage waters on the following:

- Outstanding freshwater bodies and the significant values of wetlands;
- The natural functioning and ecological health of freshwater bodies;
- The ability of taonga fish species to complete their life-cycle;
- The take, use and allocation of freshwater;
- The built environment.

Option 3 In addition to Option 2, consider FMU specific provisions that assist with achieving the Environmental Outcomes, including a review of the regulatory pathway for minor and small-scale damming and diversion activities to ensure the benefits to the community can be realised more efficiently but are carefully balanced against any adverse effects on environmental and cultural values.

Recommended Approach: Option 2 and 3

The options acknowledge that the environmental outcomes for the management of small-scale damming and diverting activities need to be assessed in terms of their direct effects within the FMU/s in which they are located. The option also acknowledges that there are both beneficial and adverse effects arising from the activities and these effects need to be carefully considered in any assessment including through resource consenting processes, and against the higher-order provisions of the WRP and its enabling legislation and related instruments.

Options: Beds of lakes and rivers

Option 1 Do nothing – status quo.

Option 2 Review WRP and WRPS river and lakebed provisions – issues, objectives, policies, rules and other implementation methods – to ensure internal

consistency and consistency with the fundamental NPSFM concept of Te Mana o te Wai, and alignment with national policy statements, national environmental standards and Te Tiriti claims settlement legislation that postdate the WRP becoming operative. This includes requirements to avoid loss of river extent and values (NPSFM cl3.24).

Option 3 — In addition to Option 2, include FMU specific provisions that assist with achieving Environmental Outcomes, including a review of the regulatory pathway for minor and small-scale activities to ensure the benefits to the community can be realized more efficiently (balanced against any adverse effects on environmental and cultural values). This option also includes a recognition of the ecological and cultural importance of unimpeded fish passage for indigenous taonga fish species (NPSFM cl.3.26(1)) to allow the completion of lifecycles within protected and restored ecosystems as provided for by the relevant provisions of the NPSFM (cl.3.26[48]) and the NES-FW (subpart 3[49]).

Recommended Approach: Options 2 and 3

The options acknowledge that the environmental outcomes for the management of small-scale structure and disturbance activities need to be assessed in terms of their direct effects within the FMU/s in which they are located. The cultural and ecological significance of taonga fish species is also recognised which has been signalled through both community and tangata whenua engagement. The option also acknowledges that there are both beneficial and adverse effects arising from the activities and these effects need to be carefully considered in any assessment including through resource consenting processes, including against the higher-order provision of the WRP and its enabling legislation and related instruments.

11 Hydroelectricity

11.1 Introduction

This paper sets out the issues and options associated with the management of activities associated with hydro electricity generation under the Waikato Regional Plan (WRP) as part of the Freshwater Policy Review project. This paper examines the resource management context of hydro electricity generation the feedback received from the community, key findings of the issues paper and possible policy shifts.

The national planning framework as articulated in the Resource Management Act 1991 and supporting national policy statements and environmental regulations recognises the importance of the sustainable generation of electricity particularly through large hydro-electricity schemes such as the Waikato and Tongariro Schemes which lie within the Waikato Region. These schemes produce about 23% of New Zealand's hydro-electricity and contribute to meeting New Zealand's greenhouse gas emission targets and maintaining security of supply.

It is also recognised that hydro-electricity schemes, both large and small scale, have adversely affected natural and physical resources, and cultural values, and have the potential to do so in the future and will thus require that their effects are to be avoided, remedied or mitigated. For example, consideration will need to be given on the effects on the natural flows of a river and the need to provide fish passages for native fish to achieve their breeding cycle. In addition, the

[48] National-Policy-Statement-for-Freshwater-Management-2020.pdf (environment.govt.nz)

[49] Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (LI 2020/174) (as at 05 January 2023) Subpart 3—Passage of fish affected by structures – New Zealand Legislation

design integrity of hydro-dam infrastructure is important so as not to create a hazard risk to life and property in the event of failure, either because of poor design or a significant natural event.

11.2 Statutory Context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to hydroelectricity.

National Policy Statement for Freshwater Management 2020 (NPSFM 2020)

Clause 3.31(2) of the NPSFM 2020 provides for consideration of large hydro-electric generation schemes, such as the Waikato and Tongariro, when implementing any part of the NPSFM as it applies to an FMU affected by a scheme through the NOF to have regard to:

(a) contribution to meeting New Zealand's greenhouse gas emission targets; and

(b) contribution to maintaining the security of New Zealand's electricity supply; and

(c) generation capacity, storage, and operational flexibility.

The clause also allows, in specific circumstances and by way of an exception, for a regional council to set target attribute states for a scheme below that required as a national bottom line. However, the council must still require the scheme to meet set target attribute states at a level to achieve an improved freshwater state to the extent practicable without having a significant adverse effect on the scheme's ability to meet the energy generation and climate change imperatives.

National Policy Statement for Renewable Electricity Generation 2011 (NPSREG)

The NPSREG sets as matters of national significance:

a) the need to develop, operate, maintain and upgrade renewable electricity generation activities throughout New Zealand; and

b) the benefits of renewable electricity generation.

The NPSREG further identifies an objective and supporting policies to enable the sustainable management of renewable electricity generation under the Resource Management Act 1991, including through hydro-electricity.

Potential tension between the NPSREG and the NPSFM may need to be addressed to ensure that an acceptable prioritisation is achieved in improving the nation's freshwater resources against meeting greenhouse gas emission targets and the provision of a secure electricity supply.

Regional Policy Statement

Specific WRPS significant resource management issue statements reference the generation of hydro-electricity as regionally significant and are given further context by related issue statements for climate change, managing the built environment, and the health and wellbeing of the Waikato River catchment. The energy issue is addressed by objectives which in turn are expected to be implemented via policies, regulatory processes and other methods such as public education and advocacy.

The main consideration of the WRPS in relation to hydro-electricity generation, applies to the allocation of water. This requires managing increasing demand and competition for water to avoid reduction in electricity generation capacity of the Waikato hydro schemes, and that the schemes continue to utilise water in a non-consumptive way after all abstractions within the allocable flow have been taken.

11.3 What we have heard from engagement

11.3.1 Tangata whenua engagement

Tangata whenua feedback comprises of feedback from the first phase of engagement wānanga. In relation to hydro-electricity generation feedback sought consideration of the negative impacts of power station activities on waterways, e.g., streambank erosion when hydro dams ramp up (elevate) river flows to meet demand for electricity.

11.3.2 Community and stakeholder engagement

Hydro-electricity generation was a value to the community. Taupō workshop participants wanted hydro-power generators to "reduce sediment loss through ramping[50]" of river flows. Concern was also raised about the weeds and sediment in the hydro lakes making it uncomfortable to swim in, and nutrient effects on human health and ecosystems.

Feedback from the energy sector has indicated that:

- An important priority for those in the energy sector is ensuring that the availability of the in-stream non-consumptive water resource continues in the face of the challenge/issue posed by competition for supply resulting from abstractions by other users. It is explained that this priority will ensure that water is available for other non-consumptive uses, as well as fisheries management and river and lake edge restoration activities, and where the water is critical to NZ for renewable electricity generation purposes, including for the transition to decarbonise NZ's emissions, and security of supply.
- Information is being gathered by the energy sector to improve the science to better understand the drivers for water quality degradation. It was also noted that there is a need to give greater recognition to water diverted via the Tongariro Power Scheme from the Whanganui river, stating that this comprises up to 20% of the water in the Waikato River. They noted that if this was not allowed to continue, they considered it would have significant and detrimental consequences for freshwater management in the Waikato catchment.

11.3.3 WRC staff feedback

Feedback has indicated that:

- Hydro-electricity generation affects all sectors of the community including future generations.
- There is concern arising from the potential for lakeside and downstream flooding and bank erosion to occur if Lake Taupō levels are not able to be adequately controlled, particularly when lake levels are high due to significant rainfall events in feeder catchments.
- Small scale hydro-electricity generation is an area that the WRP should cover noting that such equipment and takes are often very difficult for small users to obtain consent for, with possibly many non-consented water takes being unidentified given Council monitoring tends to respond to issues as they arise.

11.4 What we have found to date on the topic

The following provides a summary of what we have found to date for hydro-electricity generation:

Staff undertook a review of the freshwater provisions of the iwi environmental management plans (IEMP) held by WRC. Key themes identified by the IEMPs in regard to hydro-electricity generation include:

[50] Ramping is where the hydro-generators raise or lower the level of water flow to suit generation needs.

- It is noted that the Waikato hydro dams have created artificial barriers to native fish migration with the storage lakes accumulating geothermally sourced heavy metals which would previously have been flushed through the length of the awa but now, in turn, impact the health of mahinga kai resources.
- Hydro-electricity generation activities in the catchments of the Waikato and Waipā awa are to be managed in accordance with Te Ture Whaimana – the vision and strategy for the tūpuna awa;
- Consenting authorities to have particular regard to IEMPs, and fundamental instruments arising out of Te Tiriti claims settlements such as Te Ture Whaimana o te Awa Waikato and Te Kaupapa Kaitiaki – the catchment management plan for Lake Taupō and its catchments;
- Deeds of Settlement and their statements of significance record that iwi/hapū have rights over freshwater in all its forms;
- Iwi will advocate for fisheries habitat restoration, creation, enhancement and protection through relevant Resource Management Act 1991 processes, and in the context of hydro-electricity generation, fish passage, sedimentation, and water level and flow management;
- There is a need to control flows and levels associated with hydro-dams, for example, Karāpiro;
- Respect for the relationship of tangata whenua with freshwater and its values within their rohē, and recognition of their affected party status in resource management consenting matters to be demonstrated through resource management planning instruments.

Te Mana o te Wai will need to be given effect through the NOF, the elements of which will need to be incorporated into the freshwater provisions of the Waikato regional planning documents. The review will need to recognise Te Mana o te Wai as the fundamental concept together with its hierarchy of obligations.

The various RMA instruments and Te Tiriti settlement legislation may require alignment in relation to their separate, and possibly inconsistent objectives. For example:

- Firstly, consider the objectives of the NPSREG and the NPSFM and, in particular the former's objective when set against the NPSFM's third '(c)' priority:
    - The NPSREG's objective is to recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.
    - The NPSFM's objective, notwithstanding Clause 3.31 and the provision made for large hydro-electric generation schemes, is to ensure that natural and physical resources are managed in a way that prioritises the Te Mana o te Wai hierarchy of obligations:
        - (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.
- Secondly, in addition, and significantly, the effect of Te Ture Whaimana, as far as the Waikato and Waipā catchments are concerned, is that it prevails over any inconsistent provision in RMA planning documents[51], and in this instance and in particular, the NPSREG objective.

[51] Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 No 24 (as at 12 April 2022), Public Act 12 Effect of vision and strategy on Resource Management Act 1991 planning documents – New Zealand Legislation

There is a place for small scale hydro-electricity schemes to positively contribute to the national sustainable energy resource and contribute to community resilience in the face of natural disasters. The development of these will need to be balanced against Te Mana o te Wai and the hierarchy of obligations.

WRC State of the Environment reporting indicates the following aspects of the Waikato environment that relate to hydro-electricity generation:

- Our rivers are a major source of renewable electricity, with eight hydroelectric dams on the mainstem of the Waikato River, and the Tongariro Power Scheme in its headwaters.
- The Horahora Station began generating hydropower direct from the Waikato River in 1913, and by 1970 was superseded by eight hydroelectric dams constructed on the Waikato River. Upstream of Lake Taupō, the Tongariro Power Scheme was completed by the Ministry of Works in 1984, and included large diversions from the Whanganui catchment into the Taupō catchment.
- Some of the earliest flow monitoring was initiated for the design of hydro power schemes. This provided the data to measure many of the profound changes to flow regimes of the Waikato River, including increased low flows and daily ramping to match electricity demand.
- The Waikato River has historically seen marked increases in summer flow because of hydropower schemes. The Tongariro power scheme diverts water from the Whanganui River into the Taupō catchment. Water storage, including the control gates on Lake Taupō, enables high outflows to continue for a period after inflows decline. This storage comes at a cost, with naturally occurring evaporative losses from Lake Taupō averaging 25 m3/s, which exceeds all water takes for towns and farms in the Waikato catchment.
- Water and energy security are inseparably linked, with water being a source of energy when plentiful and a consumer of energy when in short supply. Moving water over long distances to dry areas is energy intensive. Electricity generation in the Waikato depends on ample water, directly for hydroelectric generation, or indirectly for cooling water at fossil fuel and geothermal generation plants. When hydroelectric generation is reduced by drought, fossil fuel use increases.

The mainstem of the Waikato River is large enough to support algae drifting as phytoplankton. Hydroelectric dams slow the passage of water, extending the time algae can use available nutrients to grow before flowing into the ocean. Council monitor drifting algae in the Waikato River by measuring the green plant pigment chlorophyll. Chlorophyll levels have improved, coinciding with reduced phosphorus concentrations in the Waikato River over the last 30 years.

This is an important improvement as algae blooms threaten ecosystems, drinking water supply, and recreation.

11.4.1 The operative Regional Plan – analysis

The operative Waikato Regional Plan addresses hydro-electricity generation primarily through the provisions of several topic areas including:

- Damming and diverting of freshwater;
- River and lake bed structures and disturbances; and
- The flow and levels of rivers through the water quantity provisions, and within the recognition of and responsibilities to kaitiaki iwi and hapū imposed on agencies through Te Tiriti settlement legislation and their frameworks, structures and visions and strategies.

11.5 Policy Shift

11.5.1 Options

Option 1 Do nothing – status quo.

Option 2 Have regard to the ongoing efficiency and effectiveness of the Waikato and Tongariro large hydro-electricity schemes as regionally significant infrastructure and energy resources which contribute to:

- meeting New Zealand's greenhouse emission reduction targets;
- maintaining the nation's electricity supply; and
- hydro-electricity generation capacity, storage and operational flexibility;

whilst ensuring that natural and physical resources are managed in a way that prioritises:

- first, the health and well-being of water bodies and freshwater ecosystems
- second, the health needs of people (such as drinking water)
- third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Option 3 Review the regulatory pathway for small scale hydro-electricity generation schemes to ensure the benefits to the community can be realized but are carefully balanced against adverse effects on environmental and cultural values.

Recommended Approach: Options 2 and 3

12 General discharges and wastewater

12.1 Introduction

This section sets out the issues and options associated with the management of Land and Soil (non-point source discharges) and other general point source discharges under the Waikato Regional Plan (WRP) and Waikato Regional Policy Statement (WRPS) as part of the Freshwater Policy Review.

This section does not cover other discharges related to farming (diffuse discharges), farm animal effluent, stormwater, damming and diverting, and river and lakebed structures and disturbances. These activities are addressed in other sections of this report.

12.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to discharges.

Waikato Regional Policy Statement 2016 (WRPS)

Part 2 of the WRPS includes a focus on integrated management and Part 3 covers freshwater domains with key objectives related to integrated management.

Objective IM-01 relates to integrated management of freshwater at the catchment level and Objective LF-01 states that the mauri and values of freshwater bodies is maintained or enhanced. The WRPS also addresses soils and contaminated land through policies and implementation methods, which prioritise maintaining the life-supporting capacity of the soil. Implementation method LFM-12 seeks to manage potential effects from earthworks, sedimentation and microbial activity, while LMF-13 outlines the management of effects from non-point source discharges on the values of a water body.

Policy LF-P4 recognises the role of regionally significant industry. Policy LF-P8applies to all freshwater bodies to maintain or enhance all freshwater values and provides direction to manage known adverse effects.

Method LF-M11 states how regional plans should control point source discharges and manage the discharge of contaminants to achieve the objectives, limits and targets for the water body. Method LF-M21 5. and 12. provides guidance for managing the effects of wastewater discharges through encouragement of replacing on-site wastewater by reticulated systems and regular inspection of communities that serviced by on-site systems to identify any surfacing effluent.

12.2.1 Land and Soils (other non-point source discharges)

The Land and Soils topic addresses discharges onto or into land where the primary effects are likely to be on the land and soil resources. Land and Soil is controlled by Chapter 5 of the Waikato Regional Plan (WRP) and in the Waikato Regional Policy Statement (WRPS) where land use effects on water quality are identified as a key issue. There are three subparts under Chapter 5 of the WRP examined:

- Accelerated erosion
- Discharges onto or into land
- Contaminated land.

12.2.2 Point source discharges

Point source discharges are a discharge from a stationary or fixed point directly to water or to land where the water may enter water. Discharges of contaminants and water into the environment can adversely affect the health of soils and water, as well as the health of the ecosystems they support. Discharges to water can adversely affect both the quality and quantity of the receiving waterbody (including the coastal marine area), impacting human health and values in relation to the mauri of the waterbody. Specifically, this paper includes the following point source discharges:

- Industrial discharges
- Well and aquifer discharges
- Discharges of biosolids and sludges
- Salt tracer discharges
- Drainage water discharges, and
- Wastewater (on-site sewage) discharges.

12.3 Land and soils

12.3.1 What we have heard from engagement

WRC staff have undertaken initial engagement regarding the freshwater policy review. Ten one-day wānanga with tangata whenua were held around the Waikato and a series of online hui also occurred. A series of community and sector engagement has also been undertaken.

Feedback from engagement with tangata whenua and community and sector engagement has been included in the Freshwater Policy Review – Round 1 Community and Sector Engagement Feedback Report and the Freshwater Policy Review – Round 1 Tangata Whenua Engagement Feedback Report. The feedback is summarised below and includes feedback from WRC staff.

The WRPS also addresses soils and contaminated land through policies and implementation methods, which prioritise maintaining the life-supporting capacity of the soil. Implementation method LFM-12 seeks to manage potential effects from earthworks, sedimentation and microbial activity, while LMF-13 outlines the management of effects from non-point source discharges on the values of a water body.

12.3.1.1 Tangata whenua engagement

- Concerns were raised about dumps that had been created for construction and village waste, and were unsure of the contamination impact on streams.

- Actions to improve freshwater quality and waterways included managing erosion and removing sediment, forestry operators investigating other systems of felling other than clear-felling and investigating the impact of exotic forestry on streams.
- Additional concerns were raised about forestry at the time of harvest when clear-felling trees and exposing land to intense storms creating erosion and sediment emptying into river ways.

12.3.1.2 Community and staff engagement

- Members of the public identified several rules that are unclear, overlapping or ineffective in achieving objectives.
- Engagement suggests that plan users, in general, seek more clarity around rules, and that rules are practical, achievable and tailored to specific catchments. Difficulties have been raised that the plan relies on the individual to determine compliance with permitted activity rules and conditions.

12.3.1.3 WRC staff feedback

- There is a need for consistent and clear terminology use and activity thresholds for earthworks, which also have uncertainty about the potential effects from permitted activities due to the thresholds for activity status.
- The use of the terms cleanfill and overburden hazardous substance are not consistent and there is confusion and a lack of clarity regarding the definitions and how these terms are used in the chapter.
- There is not clear cascading between activities to assist non-technical plan users
- The rule framework is not effects based, e.g. there is a cut off of 25 degree slope, but on a 24 degree slope this rule does not apply when effects may be similar.
- The composting rules do not encourage composting and that the volume thresholds set in the rules are not logical or fair.

12.3.2 What we have found to date on the topic

It is critical to note that there are strong linkages to other chapters in the WRP, specifically Chapter 3.5. Chapter 3.5 contains rules around on-site sewage disposal, farm animal effluent discharges, stormwater and fertiliser use. Importantly, Chapter 3.5 also contains the 'catch all' rule in respect of discharges to land (Rule 3.5.4.5)[52]. That is, the rule that applies in instances where discharge to land is not covered by any other rule in the WRP.

A summary of the key findings from the issues paper regarding the management of land and soil resources include:

- The joint responsibility between territorial authorities and Regional Council for activities on land increases the complexity of monitoring.
- Permitted activities are not monitored and therefore the contribution of cumulative effects from permitted activities is difficult to determine.
- Earthworks rules only focus on high-risk erosion areas and do not cover situations where a large volume of earthworks is proposed in a non-high risk erosion area
- Technical wording issue with a number of rules, including Rule 5.2.6.2, 5.2.6.3 and 5.2.8.1 that includes incorrect wording and accidental exclusions of activities

[52] 3.5.4.5 Discretionary Activity Rule – Discharges – General Rule

Any discharge of a contaminant into water, or 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, that is not specifically provided for by any rule, or does not meet the conditions of a permitted or a controlled activity rule in this Plan, is a discretionary activity (requiring resource consent).

- There are currently no specific provisions relating to silage, discharges cemeteries or shooting ranges.
- Further alignment is required for the NES-PF and the NES-STO tyre storage operations
- The split of closely-related activities across chapters increases the complexity of the plan for users.
- The policies related to Chapter 5.2 section appear to restate the rule framework as opposed to describing high level actions to be undertaken. The duplication adds complexity for the user,
- Terminology inconsistencies decrease the usability and understanding of the plan. An example of this 'high risk erosion area' and 'high risk location'

The operative Regional Plan – analysis

Chapter 5 Land and Soil, manages land and soil provisions in three parts that have provisions on of Accelerated Erosion, Discharges onto or into Land, and Contaminated Land. Collectively, these sub-chapters seek to manage the effects of a wide range of discharges onto or into land. The connection of this chapter with the water management framework is emphasised throughout the chapter; it is noted that the discharge of contaminants onto or into land can affect other natural and physical resources, including water.

The WRP seeks to ensure that land use and the associated discharges are enabled where the impacts on water quality and cultural effects are managed to an appropriate level. Generally, the existing rule framework can be summarised as one that establishes a permitted activity pathway for activities where some conditions are met, such as an amount of vegetation cleared (by square metre) or through general rules on high-risk areas. In regard to land and soil, there is a joint responsibility in terms of earthworks management, some land uses that may result in run-off, and the management and remediation of contaminated land between Regional Councils and Territorial Authorities. It is understood that there are currently no formal agreements in place in relation to the joint management responsibilities in Chapter 5.1-5.3 of the WRP. As such, the effectiveness and efficiency of provisions are reliant on relationships between Council staff.

Accelerated Erosion is erosion that is caused or accelerated by human activity. Chapter 5.1 manages changes to the vegetative cover of the land brought about by activities such as farming, introduction of pests, burning, forestry activities, road construction and urban development that reduce protection against erosive forces and lead to accelerated erosion. The accelerated erosion subchapter has four policies that manage effects from the above activities, and a rule framework that has permitted, controlled or discretionary activities that are managed largely by the location of the activity and whether it is in a high-risk erosion area.

The policies for the earthworks sub chapter are similar to content the rule framework and do not provide high level actions to be undertaken. The duplication adds complexity for the user, which alongside terminology inconsistencies decrease the usability and understanding of the plan. An example of this can be found in the earthworks rule 5.1.4.15, which refers both to 'high risk erosion area' and 'high risk location' when describing the intended same area.

The Discharges onto or into Land sub-chapter 5.2 acknowledges that the discharge of contaminants into or onto land is an essential part of resource use activities in the region. Issue 5.2.1 identifies that the discharge of wastes and hazardous substances into or onto land can cause contamination of soils to levels that present significant risks to human health or the wider environment and reduce the versatility and productive capacity of the soil environment. The activities managed include in this subchapter include cleanfill and overburden disposal, dumps and offal holes on production land, landfills, composting of green waste and other organic material, and dust suppression. The rule framework consists of a largely permissive consenting regime that controls discharges onto or into land where high-risk activities or activities that are in a high risk area are undertaken.

Regional Council must develop objectives, policies and methods for managing both passive and active discharges from contaminated land. It is noted that territorial authorities are responsible for controlling land use on contaminated land, while Regional Councils manage the discharges from contaminated land. The policy framework in the WRP includes five policies that collectively seek to prioritise management of land uses that present significant risk, enable mediation through the rule framework, and ensure that resource users are aware of the risks.

The issues and options paper identified several activity gaps in Chapter 5. Currently these activities are not managed in the WRP or may be managed under the 'catch all' rule 3.5.4.5 that is in Chapter 3 water resources. However, in many instances, knowledge gaps exist around the effects of these contaminants and/or there is no national limit set, or research to-date focuses on the effects of the contaminant on human health rather than ecological wellbeing or water quality. There is therefore a risk that the activities are falling through the gaps and the effects of such activities could be significant.

The current status quo of policy provisions and freshwater objectives do not meet the requirements of the NPS-FM. While some attributes are already covered by the regional plan, not all are included, and will need updated targets to be set in conjunction with other values and attributes identified through the NOF process.

12.3.3 Policy Shift

The Land and Soil provisions of the WRP and WRPS need to be updated to address any inconsistency and duplication with the national direction. The WRP will require updating to align with the NPSFM and NES-FW as a number of current provisions are inconsistent with the NPSFM and NES-FW, as well as needing to be updating to reference other NES such as NES-PF and NES-STO. Overall, although there are existing provisions that cover the relationship between land and soil activities, but they further alignment in direction as well as wording with national direction to remove any inconsistencies, gaps, and duplications or introduced national standards.

There is likely to be a need for a more restrictive management regime for these types of activities to give effect to Te Mana o te Wai and to achieve environmental outcomes. In addition, the new framework for land and soil will have to be sufficient in activity and scope of discharges associated with discharges to align with any new environmental outcomes that may be set through the plan review process. If changes are to be made to WRP provisions, in some cases this will need to be done as a precautionary approach without necessarily understanding the full extent of the issue. There is also a need to ensure adequate cross-referencing between the WRP and the Regional Coastal Plan, given the potential effects of land use activities on estuarine environments.

There are not any related rules in the Waikato Regional Plan (including Proposed Plan Change 1 (PC1)) which regulate, or overlap with, the same activities as the NES-STO. While there are no existing interrelated rules with NES-STO, some of the land use rules associated with land clearance and earthworks are related to, or overlap with the NES-PF. As there is a requirement to remove inconsistencies and conflict with NES, and this can occur without the use of Schedule 1 of the RMA. Council can consider how to align WRP approach with the NES-PF and avoid duplication or inconsistencies through the freshwater policy review, while incorporating the required changes for freshwater direction and rule changes or references as a result the NES-PF and NES-STO.

12.3.4 Options

Option 1 Do nothing – status quo:

This option translates to retaining the existing Land and Soil objectives, policies and implementation methods which are included in the current Regional Plan.

However, it does not align with the national freshwater policy direction or give effect to the new provisions of the NPSFM (2020).

Option 2 Amend the WRP provisions:

Update and amend the provisions in the WRP for consistency with the NPSFM as well as the NES-FW, NES-PF and NES-STO. However, this option does not address the requirements for the WRPS to give effect to, and there are gaps and inconsistencies in the approach taken by the WRPS with the NPSFM. It is not considered that making changes only to the Regional Plan would be sufficient to give effect to the NPSFM requirements, on top of those necessary changes under Te Ture Whaimana requirements.

Option 3 Calibrate:

This option would address the requirements of the NPSFM as well as the NES-FW, NES-PF and NES-STO, and the requirements of the National Planning Standards and involve significant changes to the WRP and the WRPS. It involves additional tools and policy frameworks that may come with considerable costs and new requirements. It would also allow the WRPS to be consistent with Te Ture Whaimana while also introducing increased stringency to the policy framework in the WRP. Update and amend the provisions in the WRP for consistency with the NPSFM.

Recommended Approach:

Option 3 The recommended approach is Option 3.

12.4 Point Source Discharges

12.4.1 What we have heard from engagement

12.4.1.1 Tangata whenua engagement

Tangata whenua feedback included the following:

- Give practical effect to Te Mana o te Wai by providing for:
    - Partnerships between councils, industry, and hapū/local
    - Tangata whenua decision making and resourcing which builds the capacity for mana whenua to deal with resource consenting issues.
- The mixing of waters is undesirable and the discharge of raw sewage directly to waterways is abhorrent to many iwi/hapu. For example, water might be taken for general municipal supply from one catchment and discharges as wastewater into another catchment.
- Land based discharges and treatment options such as the discharge into an artificial wetland for filtration are widely preferred from discharges directly into waterways.
- Concerns raised about industry discharges into the Waikato River.

12.4.1.2 Community and stakeholder engagement

There has been no recorded comments or positions recorded on this topic from community engagement.

12.4.1.3 WRC staff feedback

- Concerned about the layout and complexity of the current plan for plan users.
- Reporting provisions need greater stringency to provide for non-compliance of several major reticulated systems. Current provisions rely on ‘goodwill’.

- Rule 3.5.6.2 relates to activated sludge plant and is not typically used by applicants. Instead, a consented activity is followed under a separate rule pathway.
- Staff noted that Rule 3.5.6.1 is not relevant or helpful and is hard to interpret. Staff also noted that the rule is only used in a small number of cases and could be deleted. WRC staff prefer that applicants get a consent, as most sludges come from industrial/ sewage operations.
- When salt tracers are used to establish mixing zones a large volume is required to simulate the discharge conditions, which generally occur in a one-off situation and is not anticipated in the current rules.
- The assessment of effects largely rests on technical components within an assessment of environmental effects (AEE), which is suggested to be replaced with clear policy guidance on likely effects .
- There is limited monitoring associated with the activated sludges rules (rule 3.5.6.2-4)
- Industrial discharges that fall under the catch all rule do not have adequate policy support. WRC staff state there are seldom any applications that get declined based on reference to policies.

12.4.2 What we have found to date on the topic

The following section summarises what we have found to date on the management of point source discharges. This list does not include reference to the discharge of water associated with well or aquifer tests due to a lack of available information on the topic.

Wastewater (sewage)

- Over the past 10 years from 2012 to 2022, there have been 423 wastewater applications granted, of these there only 17 of these being on-site systems. Although there are substantially fewer on-site wastewater consents that have been issued, there are significant numbers of permitted systems that WRC does not have records on and as a result of limited monitoring, the proportion of compliant systems is not known. For both reticulated and on-site systems, the performance of treatment operations is critical for wastewater disposal to be effective, as adverse effects arise where a system is faulty or there is a performance failure.
- Domestic or on-site wastewater systems are mainly authorised by permitted activity rules. The permitted activity conditions in the WRP for on-site wastewater discharges (excepting the Taupō Catchment) are based on the section size of 2500m^2 being the threshold between when a septic tank can be installed and when a secondary treatment capable system is required. Most household on-site systems operate under permitted activities rules, which also have no responsibility to ensure maintenance of their systems is upheld. The primary issues from on-site systems are the lack of monitoring and maintenance of systems. It has been found that when on-site systems are appropriately installed, sited and maintained, the risk of adverse effects is generally very low[53].
- For semi-rural areas such as Tamahere[54], which has a population of approximately 4,100 and wastewater treatment is provided through the use of on-site systems. Feedback from staff indicated that there may be such locations where the nature of unserviced development of a rural-residential was not considered under the current WRP rules. The appropriateness of the existing provisions to manage the potential effects from on-site wastewater systems for this type of development will need to be considered in further detail.

[53] https://www.waikatoregion.govt.nz/assets/WRC/WRC-2019/TR201209.pdf

[54] https://www.stats.govt.nz/tools/2018-census-place-summaries/tamahere-north

- Regional councils and territorial authorities both have responsibilities for the management of on-site wastewater. There is currently insufficient co-ordination of on-site wastewater management by local government in the Waikato region. Discharges from on-site systems are controlled by regional plan rules, while the installation of systems is managed through building consents from territorial authorities. Territorial authorities also are responsible for responding to health effects from on-site systems. There are there are currently no formal agreements in place in relation to the joint management responsibilities described in Chapter 3.5 of the WRP. Because of this gap in formal agreements, the effectiveness and the efficiency of provisions where shared authority exists for are largely reliant on relationships between Council staff.

Biosolids

- Feedback from staff supports an increased management of biosolids discharges to facilitate the responsible and safe management and reuse of biosolids. This may be carried out under a rule framework that is permitted with controls on the activity.
- There is inconsistency between WRP Table 3-9 and the biosolids guideline, which have a different standard for a contaminant. This has caused difficulty for consent planners and applicants regarding the conditions of applications. Clarification is required and a consistent standard is preferred.

Discharge of Dye and Salt Tracers

- Rule 3.5.9.1 has been identified as having a limit of salt that may not suitably manage the effects from the discharge associated with salt tracers. Alternative methods for limits have been suggested which reduce the permitted level of discharged salt solution. To determine whether this alternate option is viable, input from scientists and relevant experts is required.

Industrial Discharges

- While the WRP rule framework has several rules and categories of activity classes, the most reported rule used for industrial discharges by WRC staff is discretionary activity Rule 3.5.4.5 (commonly referred to as a *'catch all rule').* This catch all rule applies where an activity cannot comply with a permitted activity or controlled activity and is not described in any of the other specific rules. There are several industrial discharge activities that fall under the catch all rule and the general policy direction is not specific enough to guide applications.
- The existing policy framework does not include any specific polices for the management of industrial discharges. The Proposed Plan Change 1 has introduced several policies that apply to industrial point source discharges which are intended to provide stronger guidance for consenting decisions. There are four policies that apply to industrial point source discharges, include:
    - Policy 11 which provides for the continued operation and development of regionally significant infrastructure and regionally significant industry.
    - Policy 12 which requires consents for point source discharges to demonstrate that they are using the Best Practicable Option (BPO) to reduce effects, and offset or compensate for any residual adverse effects of the discharge (in accordance with certain other conditions in the policy).
    - Policy 13 which lists matters to take into account when considering a consent application for a point source discharge.
    - Policy 14 which lists matters to consider when determining a consent term for a point source discharge.

The current status quo of policy provisions and freshwater objectives do not meet the requirements of the NPS-FM. While some attributes are already covered by the regional plan, not all are included, and will need updated targets to be set in conjunction with other values and attributes identified through the NOF process.

12.4.3 The operative Regional Plan – analysis

Chapter 3.5 of the WRP manages discharge activities onto land and into water at the region-wide level. Contained within the discharges chapter are the relevant rules and policies that set out the rule framework for those activities in this topic. The connection of this chapter with the water management framework is emphasised throughout the chapter, which largely reflects the overarching issue and objective as set out in Issue 3.11 and Objective 3.12.

Objective 3.12 sets the desired end point for management of water bodies and includes a number of general objectives relevant to the management of point-source discharges. While not specific, the issue and the objective inform the policies and objectives included in the relevant subparts, which seek to provide guidance in relation to the specific issue addressed in each of those chapters.

Issue 3.11 provides a general overview of the pressures that resource use can place on water resources. The impact on water bodies, mauri of water, and water quality and the values for which water is being managed are all outlined in this issue with particular activities and their associated effects.

Of particular relevance to this topic are Policies 1 and 2 within Section 3.5.3, which in conjunction with the policies in Section 3.2.3 consider that low impact and existing discharges can be permitted to occur without compromising the purpose for which a water body is being managed, and if discharges to water that are likely to have more than minor adverse effects then these can be controlled through consents and consent conditions to meet the objectives of the Plan.

There are two sub-regional chapters that relate to wastewater, Chapter 3.10 and proposed PC1. Chapter 3.10 establishes a nitrogen capping and offsetting/trading system in the Taupō sub-regional area to manage both new and existing nitrogen wastewater discharges as permitted activities with standards, or as controlled activities using modelled nitrogen losses. Proposed PC1 seeks to reduce the potential impact on waterbodies in the Waikato- Waipā catchments by imposing stricter requirements for new and replacement consents through more stringent policy guidance and alignment with the Vision and Strategy.

12.5 Policy Shift

The provisions for discharges in the WRP need to be updated to address any inconsistency and duplication with the national direction. The WRP requires updating to align with the NPSFM and NES-FW as a number of current provisions are inconsistent with the NPSFM, but further alignment in wording and national direction will be needed to remove any inconsistencies, gaps, and duplications or introduced national standards like the NES-FW. There are three frameworks that manage discharges – the region wide provisions under Chapter Section 3.5.7, the provisions in Chapter 3.10 for the Taupō catchment, and proposed PC1 provisions under Chapter 3.11 that provides policy guidance for point source discharges the Waikato- Waipā catchments.

There is likely to be a need for a more restrictive management regime for these types of activities to give effect to Te Mana o te Wai and to achieve environmental outcomes. In addition, the new requirements to give effect to Te Mana o te Wai will have to be sufficient in activity and the potential effects of discharges to align with any new environmental outcomes that may be set through the plan review process. If changes are to be made to WRP provisions, in some cases this will need to be done as a precautionary approach without necessarily understanding the full extent of the issue.

Larger municipal wastewater point source discharges are required to have resource consents that typically control the flow rate of the discharge and load of concentration limits that must be complied with. Overall, the rule framework for reticulated systems needs some strengthening and in conjunction with specific policy guidance, especially where improvements are needed in

water quality. In line with cultural appropriateness, there should be a strengthening of preferences for discharges to land over direct sewage to water.

There are gaps in the existing plan in terms of the ability for WRC to monitor potential effects from permitted activities. To appropriately manage communities serviced by on-site wastewater systems, WRC and the respective territorial authorities will need to work together to improve the management of on-site systems. Where there are areas with many systems in a small area, it is important for co-ordination and information sharing to occur across authorities, which may require the use of both regulatory and non-regulatory tools.

Despite being notified before the NPS-FM 2020, PC1 is much more aligned with the national policy direction than the remainder of the WRP. As such, it is worth testing the PC1 framework from Policies 11-14 as a consideration whether the direction is appropriate to be used as a starting point for other parts of the region. Other measures that can be undertaken include the identification of communities where there is a high risk of adverse effects from on-site wastewater systems and includes stronger provisions for monitoring and maintenance of the on-site systems. Also, there are more specific changes that have been suggested to stringency, it is considered that greater restrictions or controls on domestic systems such as sceptic tanks are best suited for new systems only.

As discussed above, industrial point source discharges have stronger policy direction under Proposed PC1. These changes brought by PC1 are much more aligned with the national policy direction than the existing policies for industrial discharges of the WRP. As such, it is worth testing whether the PC1 policy guidance framework can be used as a starting point for policies other parts of the region with regard to industrial discharges. This approach could assess the appropriateness of this approach that uses a more direct and individual management of stronger guidance for consenting decision makers when assessing applications.

Overall, there are significant issues with the existing WRP in that the existing policy framework does not have alignment with the requirements of the NPSF-M 2020. Given this framework primarily seeks manage significant effects and has broad rules and conditions for wastewater, the stricter requirements that must be met under the NOF process, such environmental outcomes, will require substantial amendments to the existing provisions.

12.5.1 Options

Option 1 Do nothing – status quo:

This option retains the existing general discharge objectives, policies and implementation methods which are included in the WRP. However, it does not align with the national freshwater policy direction or give effect to the new provisions of the NPSFM (2020).

Option 2 Amend the WRP provisions:

Update and amend the provisions in the WRP for consistency with the NPSFM as well as the NES-FW where required. This option does not address the requirements for the WRPS to give effect to Te Mana o te Wai and there are gaps and inconsistencies in the approach taken by the WRPS with the direction and necessary changes needed under NPS-FM. It is not considered that making changes only to the WRP would be sufficient to give effect to the NPSFM requirements, on top of those necessary changes under Te Ture Whaimana requirements.

The aim of this option is to manage general discharges by tightening the provisions in the WRP. As described above, this option relies on only amending the policy framework to give effect to the NPS-FM for rules, policies and objectives without making changes to the WRPS direction for alignment with the NPS-FM.

Option 3 Amend the WRP and WRPS provisions:

This involves amending the WRPS and WRP to give effect to the NPSFM and NES-FW and includes providing a policy framework and additional limits and controls for discharges.

This option includes a management regime for general discharges by amending the current objectives, policies and rules in the WRP so that they include:

- Outcome-based standards for general discharges.
- Increased policy direction for discharges to land to support preference of land-based treatment or discharges over direct discharges to water
- For industrial point source discharges:
    - Continue to manage the following activities with strengthened minimum standards and policy direction for new and replacement applications.
- For sewage discharges:
    - Non-regulatory processes for WRC and the region's territorial authorities work together to improve management of reticulated and on-site wastewater systems at the community level.
    - Introduce a minimum section size on advanced on-site wastewater systems.
    - Consideration of new or strengthened standards for the separation distance between discharges and surface water bodies.
- a consenting pathway for biosolids to manage additional contaminant discharges while providing for the responsible and safe management and reuse of biosolids.

Option 4 Option 4 is similar to Option 3 presented above, however in addition to Option 3, this option represents a more stringent policy position with tighter controls on discharges, as follows:

- Industrial point source discharges:
    - Increase controls and technical standards to manage policy direction for new and replacement applications.
    - Provisions to assess existing discharges against similar criteria to technical standards of new and replacement applications.
- Sewage discharges:
    - Establish new strengthened standards for the separation distance between discharges and surface water bodies.
    - Investigate new frameworks for managing existing on-site wastewater systems that are high risk.

This option also includes policy direction to control on-site wastewater discharges and to ensure that maintenance and monitoring of these systems is upheld.

Recommended Approach:

Option 3 The recommended approach is Option 3.

Option 3 is the preferred approach as it will better manage the activities while offering a pragmatic and reasonable approach to assessing the effects and risks of the activities. This option meets the requirements of the NPS-FM and strikes the balance between providing for

the activities and the increased management of discharges and the need to give effect to Te Mana o te Wai.

13 Stormwater discharges

13.1 Introduction

This section examines how the regional plan currently addresses stormwater discharges, both point-source and diffuse, to identify what changes are needed, the current issues, and the broad options for addressing them.

Stormwater Responsibilities

WRC is responsible for managing the discharge of stormwater to land, water and the coastal marine area. The maintenance and construction of the public stormwater system, and the management of subdivision, use and development of land, falls within the ambit of territorial authorities.

What is stormwater?

Stormwater is the portion of rainfall that runs off human modified land surfaces and structures (including urban areas and the roading network) and can be released as point source discharges (discharges from a stationary or fixed source) or as diffuse discharges (runoff from widespread or dispersed sources such as paved surfaces in urban areas). Stormwater runoff is discharged into water or land, and into the environment. These discharges can carry contaminants, impacting water quality and ecosystem health, and can cause erosion, scour effects and streambank instability, impacting the values for which the freshwater is being managed to protect.

The management of Stormwater discharges is not a new issue and have historically been managed by the Waikato Regional Plan (WRP), often under a resource consent framework. However, this regulatory framework must be reviewed and updated to align it with both the direction of the NPSFM and modern stormwater practices.

The stormwater discharges addressed in this paper primarily relate to runoff from urban areas and the roading network. Runoff from other land use areas such as rural areas and primary industry sites, or runoff which contributes to natural catchment drainage, is addressed through other activities and issues/options papers. Similarly, other activities which directly or indirectly relate to stormwater discharges such as water diversions and stormwater management structures, are cross referenced in this paper where necessary.

13.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to stormwater discharges.

National Policy Statement for Freshwater Management 2020 (NPSFM)

The NPSFM 2020 sets out **1 objective** and **15 policies** for freshwater management under the RMA.

An integrated approach to freshwater management (clause 3.5) is a key aspect of the NPSFM. To give effect to Te Mana o te Wai, councils must consider matters such as how urban growth and increases in impervious surfaces will impact on stormwater flows, how stormwater affects the water bodies it is discharged to, and methods to manage urban growth and stormwater discharges. The identification and control of urban growth areas must prioritise the health and well-being of water bodies. The NPSFM provides provisions that dictate how discharges, and their effects on ecosystem health, and the quality and quantity of freshwater, are to be managed. It is therefore critical that the WRP is considered holistically in respect of giving effect to these requirements of the NPSFM.

National Policy Statement on Urban Development 2020 (NPS-UD)

The NPS-UD is about ensuring New Zealand's towns and cities are well-functioning urban environments that meet the changing needs of our diverse communities. It sets out **eight objectives** with **eleven policies** intended to achieve them. In summary, these provisions direct how stormwater discharges are to be planned, managed and incorporated with urban environments. Particularly the requirements for greater intensification, as it will reduce the amounts of impervious surfaces created and lead to more affordable stormwater infrastructure, the requirement to have regard for the likely current and future effects of climate change, the requirement for local authorities to make integrated and long-term focused planning decisions, and that infrastructure to support urban development is properly implemented.The relevant provisions will impact how stormwater discharges are planned, managed and incorporated with urban environments.

New Zealand Coastal Policy Statement 2010 (NZCPS)

The coastal marine area is the receiving environment for all discharges to freshwater, so it's important to consider the requirements of the NZCPS, which provides for the management of discharges in the coastal environment. The NZCPS identifies poor and declining coastal water quality as a key issue, which stormwater discharges contributes toward.

Policy 4 provides for the integrated management and activities that affect the coastal environment, it requires coordinated management for activities which could cross administrative boundaries. Policy 22 addresses sedimentation and includes a requirement to reduce sediment loadings in runoff and in stormwater systems through controls on land-use activities. Policy 23 addresses the discharge of contaminants and sets out conditions for the management of stormwater discharges. This includes reducing contaminant and sediment loadings in stormwater at source, through treatment and by controls on land use activities, and promoting integrated management of catchments and stormwater networks, and design options that reduce flows to reticulation systems.

National Environmental Standards for Freshwater (NESF)

The NESF is also a component of the Government's Essential Freshwater package and sets requirements and standards for carrying out certain activities that pose risks to freshwater and freshwater ecosystems. Anyone carrying out these activities, such as stormwater discharges, needs to comply with the relevant standards. The standards are designed to protect existing inland wetlands, protect urban and rural streams from in-filling, limits the discharge of synthetic nitrogen fertiliser to land, and requires reporting of fertiliser use. Its regulations impact vegetation clearance, earthworks and land disturbance for specific purposes, and is therefore an important consideration for stormwater, and reviewing the provisions of the regional plan.

The instances where stormwater discharges can be directly affected by these regulations, is where stormwater is contributing to the discharge of contaminants from stock holding areas (regulations 9-14), or where stormwater is being discharged within, or within 100m of, a natural inland wetland (regulations 38-56).

National Environmental Standard for Sources of Human Drinking water 2007 (NESSHDW)

The NESSHDW includes requirements which will need to inform the drafting of any regional rules, including permitted activities, relating to discharges that could result in community drinking water becoming unsafe for human consumption following existing treatment. The NESSHDW is currently under review, with indications a stricter regime for the protection of source drinking water zones will be introduced. This will likely impact how stormwater discharges will be managed in these areas.

Water Services (Drinking Water Standards for New Zealand) Regulations 2022

The Drinking Water Standards are made under section 47 of the WSA and set limits for the concentration of determinands in drinking water.

Water Services Entities Act 2022

The purpose of the Water Services Entities Act is to enable long-term, sustainable improvements in the safety, quality, resilience, accessibility, affordability, efficiency, and performance of water services and water services infrastructure. It seeks to achieve this purpose by establishing 4 water services entities, provides for their service, and provides for monitoring and oversight arrangements.

Waikato Regional Policy Statement (RPS)

Stormwater is linked to a range of issues and objectives contained in the RPS. By way of summary: the RPS promotes low impact options for urban development and stormwater management, seeks to manage and minimises contaminant loadings entering stormwater networks, minimises stormwater entering wastewater networks, encourages adoption of land-based mitigation of stormwater, and seeks to promote awareness of effects of discharges, and encourages enhancement and extension of riparian vegetation and wetlands.

The RPS contains a key policy for all freshwater bodies **(LF-P3),** which seeks to maintain or enhance water quality. Implementation method **LF-M11** addresses point source discharges: seeking the achievement of freshwater objectives, the activity status considered, land-based and adverse effect offsetting mitigation is provided for, and the allocation potential of the freshwater does not reduce. Implementation method **LF-M13** addresses non-point source discharges: seeking achievement of freshwater objectives, cooperation with industry and stakeholders to ensure appropriate information on good practice land use is available, adverse effects of land-use intensity and contaminant discharges are controlled, and mitigation or offsetting of adverse effects is provided for.

13.3 What we have heard from engagement

13.3.1 Tangata whenua engagement

A range of current challenges were identified by participants attending tangata whenua engagement wānanga. In relation to stormwater, this included managing diffuse discharges to waterways, that cumulative effects are not given enough consideration, the maintenance of stormwater devices, and acquiring funding for new ideas regarding freshwater management.

A range of possible actions, which could be done to improve fresh water, were identified. In relation to stormwater, this included access for customary practices to assist with issues polluting the awa, nutrient stripping of discharges to land, and to decline consent applications that can't demonstrate a best practice relationship with water (such as stormwater treatment).

13.3.2 Community and stakeholder engagement

Attendees of the community engagement events raised concerns about the current state of waterways and the contribution of urban stormwater and urbanisation. The community and stakeholders sought that for stormwater management there is a greater focus on sediment and erosion, with quantification of point source nutrient impacts and better stormwater infrastructure.

Feedback for the Hamilton FMU, which reflects urban stormwater, included:

- Concern regarding the degradation of the Waikato River due to stormwater and rubbish, with the desire for stormwater quality improvements
- Suggestion for more funding for planting, stormwater and litter control in gullies and streams, and community restoration and protection projects.

- Suggestion that urban and rural residential areas be made more accountable for stormwater contributions and be made to offset.

The priorities and improvements in managing stormwater identified by District council representatives include:

- Minimising overflows from wastewater systems into stormwater systems
- Minimising contamination of receiving water bodies by controlling the discharge of contaminants from urban and industrial activities into stormwater systems.
- The control of stormwater discharge through resource consenting processes for new developments and regular maintenance of stormwater systems consistent with the WRC stormwater guidance.
- Updating of stormwater catchment management plans
- Initiating discussions for construction of hydraulic models for better understanding and management of the stormwater system
- Controlling discharge of contaminants from urban and industrial activities.

13.3.3 WRC staff feedback

Feedback from WRC staff has highlighted current shortfalls for stormwater discharges in the regional plan. In particular, the current measures are not adequate to achieve best practice stormwater management or to promote catchment-scale integration across local authorities. They also fail to meet the national policy direction for freshwater management and the relevant river legislation, including the Vision and Strategy for the Waipā and Waikato Rivers and their respective catchments. It was also expressed that policy needs to better direct the adoption of new methods and technologies, and that the current approach to comprehensively consenting stormwater discharges along with the Waikato Stormwater Management Guideline is well advanced of the current plan, showcasing potential inadequacy.

WRC staff identified that plan effectiveness could be improved by providing clearer direction in the policies, rules and related definitions. Staff also consider that District Councils need to front foot the expansion of urban areas, to provide direction on infrastructure solutions to inform new growth with a catchment wide understanding of issues and constraints.

Currently there is an RPS implementation method LF-M21 which commits WRC to help educate and guide resource users. A comment by WRC staff was that while this is an important aspect, its commitment as an implementation method may be excessive. The plan effectiveness could be improved by either modification or including them elsewhere in the plan.

13.4 What we have found to date on the topic

The following provides a summary of the key issues found to date on stormwater discharges:

State of the Environment (SOE) reporting:

The SOE report[10] has identified that point source discharge contamination is generally reducing across the Waikato, with levels of phosphorus and E. coli decreasing, however some particular sites have degraded and need increased attention. It also shows that the loads of contaminants to rivers from municipal and rural point source discharges has decreased, contributing to the decreased phosphorous levels in rivers. It included a recommendation for better protection of soils from erosion.

The SOE report has shown the importance of managing the effects of urban stormwater runoff. Despite these areas only covering 1 per cent of the Waikato region, runoff from roads and footpaths can also be a significant source of bacteria (for example from dog poo) for small urban streams. Unlike critical source areas in rural areas, stormwater discharges are normally regulated through regional plan rules. Urban roads can also be a large source of nitrogen and

phosphorus, typically from fertiliser applied to urban public and home gardens, and metals such as lead, copper, zinc, and cadmium from vehicles that are washed off during rain by stormwater.

Giving effect to the NPSFM 2020

The regional plan, and its management of stormwater, will need to give effect to the NPSFM. The NPSFM introduces four issues[55] it identifies as the most important. These are all particularly relevant to stormwater discharges. Giving effect to the NPSFM requires addressing these issues. These are New Zealand's native freshwater species and ecosystems are under threat; water is polluted in urban, farming and forestry areas; changing water flows affect our freshwater; and responding to the effects of climate change. These particular issues, and how they are managed, will need to be considered in greater detail as part of the plan review process.

Tangata Whenua

A review of the Iwi environmental management plans identified direction to minimise adverse effects associated with these discharges, improve water clarity, reduce contaminant loads, retain and increase the net area of wetlands to aid stormwater management, promote innovative technologies, utilise matauranga-based tools to measure and monitor the cultural impacts of these discharges, consents to afford appropriate weight to tangata whenua values, and to increase support for flood mitigation works where people, property and the environment face significant risk.

In their Iwi environmental management plans, Iwi also expressed support for avoiding any new direct discharges of contaminants into freshwater bodies, preferring discharges to land, but noted that impacts on soil health and cumulative effects need to be minimised, especially heavy metals such as cadmium which can lead to human health issues and reduce soil versatility. Iwi also want to be involved in early, meaningful and ongoing engagement in dealing with point source discharges.

Best Practice

A key component of this review is ensuring plan provisions provide better guidance to users to ensure best practice is followed. Best practice requires updating the provisions of the plan to reflect and incorporate modern stormwater guidance. This includes successfully adopting new methods and technologies, changing stormwater designs, and appropriately determining which management devices to use for particular situations as promoted through the Waikato Stormwater Management guidelines. These guidelines provide detailed instructions on modern stormwater best practices, such as a shift to considering and maintaining the hydrological cycle instead of transporting stormwater and can be used to inform rules about discharges in the regional plan.

It was commented that currently the usage of the Waikato Stormwater Management guidelines is largely preferred over the regional plan guidance, suggesting some improvements could be made to its clarity of expectations and updating its guidance to better reflect modern practice.

Managing current and emergent effects

There are a range of new and emergent issues, such as managing stormwater thermal effects, controlling flooding, the effects of climate change, cumulative effects, minimising existing and emerging stormwater contaminants, increased pressure from population growth and urban development, managing the effects of the change in flow regime from stormwater runoff on receiving environments, and the unique characteristics of stormwater compared to other water services that crosses many jurisdictions, the ecological values of receiving environments, mana whenua, roading, parks and gardens, recreation and amenity, civil defence, asset management. Plan provisions that effectively manage urban stormwater discharges is becoming increasingly

[55] Our freshwater 2020 | Ministry for the Environment

important as urbanisation and population growth increases. How the plan manages these effects could be improved, and better aligned with community or TA functions.

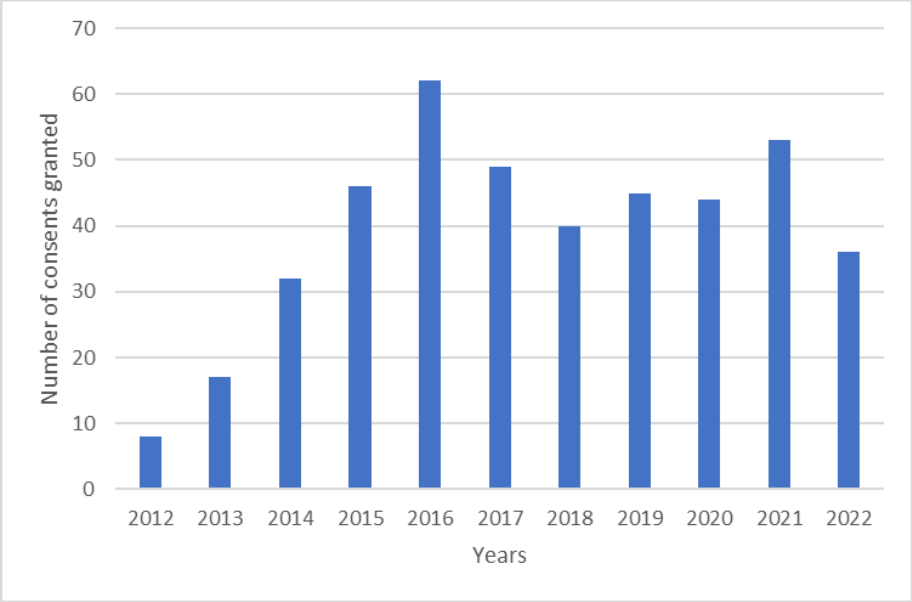
Plan Effectiveness

To improve plan effectiveness, issues that were identified were a lack of supporting data to better inform consent processes, improving the definitions for stormwater and the different types of receiving water bodies such as modified versus artificial and ephemeral versus intermittent, expanding the high-risk stormwater list, introducing different attenuation requirements for pastoral and residential areas, and better clarity over what constitutes a stormwater discharge to ground, that then runs into water, compared to a stormwater discharge to surface water.

Consent Data

Over the past 10 years **432** consents have been granted by WRC to discharge stormwater. Of these **20** (4.62%) were publicly notified, and **19** (4.40%) were limited notified. There are currently **377** consents active. Expiry dates range from 2015 to 2057 — the maximum duration of a consent is 35 years.

Figure 1 *Consents granted*



13.4.1 The operative Regional Plan – analysis

Stormwater point source discharges are addressed under Module 3 Water. Issue **3.1.1** identifies general and specific matters of concern, while objective **3.1.2** identifies the desired targets. Section **3.5.3** contains five key policies for stormwater point source discharges, while section **3.5.11** contains eight methods to implement them. These discharges are treated differently depending on the location of the activity, whether the discharge is to water, or into and onto land, and the likelihood of contamination. Section 3.5.13 states the eight environmental results anticipated for discharges.

Section 3.1.2 of the regional plan states that WRC will address non-point source discharges through a combination of education and encouragement and conditions on permitted activities, and that more stringent conditions and standards may be used in regulatory methods in the future if no improvement in water quality is detected. The next version of the regional plan may have to follow up on this claim if data on water quality suggests that it is required.

Section **3.5.3** policy one enables discharges that only have minor adverse effects and outlines the parameters for this, policy two addresses the management of discharges to water with more

than minor effects, policy three promotes alternatives to direct discharges to water, such as to land, policy four ensures discharges to land maximises the reuse of nutrients and water contained in the discharge, and policy seven encourages at-source management and treatment of stormwater discharges and includes the development and implementation of stormwater management plans. Stormwater discharges are treated differently depending on the location of the activity, whether the discharge is to water, or into and onto land, and the likelihood of contamination.

Section 3.5.11 states that stormwater discharges that comply with rules 3.5.11.4 (to water) and 3.5.11.5 (onto or into land) are permitted activities, discharges that comply with rules 3.5.11.6 (onto or into land) and 3.5.11.7 (into water) are controlled activities, and discharges that don't comply with these rules are discretionary activities under rule 3.5.11.8.

Rule 3.5.11.4 permits the discharge of stormwater to water, subject to eight conditions. This includes not originating from a high risk facility or contaminated land without an interceptor, erosion is remedied as soon as practicable, and the catchment shall not exceed one hectare for discharges from urban areas. These high risk facilities are identified in section 3.5.12.

Rule 3.5.11.5 permits the discharge of stormwater onto or into land, subject to five conditions. This includes not originating from a catchment with a high risk facility or contaminated land unless there is an interceptor in place, erosion is remedied as soon as practicable, and it shall not contain concentrations of hazardous substances that may cause significant adverse effects on aquatic life, or suitability for human consumption after treatment.

Rule 3.5.11.6 allows the discharge of stormwater onto or into land from stormwater catchments draining high risk facility sites, provided the specific standard and term is complied with. Rule 3.5.11.7 identifies that consent applications for existing discharges of stormwater will not be declined by Waikato Regional Council, even though they have potential to have adverse effects on the environment from the contaminants present.

Method 3.5.11.1 supports initiatives to develop, implement and manage stormwater discharges, such as codes of practice, guidelines, environmental management systems, BPOs and good practices. Methods 3.5.11.2 and 3.5.11.3 promote the need for integrated management of stormwater with territorial authorities.

13.5 Policy Shift

The policy direction adopted for the Freshwater Plan will need to align with the national policy direction and give effect to the new provisions of the NPSFM (2020). It should also support best practice stormwater management, including integrated catchment management planning and Comprehensive Stormwater Discharge Consents for urban stormwater and roading networks, and consider CMA and receiving environments.

13.5.1 Options

The policy direction options for stormwater discharges are as follows:

Option 1 — Do nothing – status quo: This option retains the existing stormwater objectives, policies and implementation methods which are included in the current Regional Plan. However, it does not align with the national freshwater policy direction or give effect to the new provisions of the NPSFM (2020). It is also inconsistent with best practice stormwater management and misses an opportunity to update the WRP provisions.

Option 2 — Prohibit stormwater discharges to freshwater receiving environments. This approach is impractical on many levels, particularly where there is no other available receiving environment and where significant stormwater infrastructure is already established.

Options 2A Prohibit stormwater discharges to sensitive freshwater receiving environments. This version is slightly more practical, and prioritises the well-being of the most vulnerable waterbodies, however, again, there may still be no other available receiving environment and where significant stormwater infrastructure is already established.

Option 3A Manage existing stormwater discharges from urban areas and roading networks. Enable these discharges provided they incorporate best practice stormwater management or are working towards this through stormwater infrastructure improvements/upgrades, comprehensive operation and maintenance programmes, receiving environment protections and enhancement, and wider land use controls to better manage stormwater discharges to freshwater receiving environments and the CMA.

Option 3B Manage new stormwater discharges from urban growth areas and roading networks. Enable these discharges provided they are:

- Informed through relevant technical investigations, assessments and management plans (such as Integrated Catchment Management Plans, Stormwater Network Management Plans, Stormwater Receiving Environment Monitoring Plans); and
- Incorporate best practice stormwater management (such as integrated catchment solutions, maintaining pre-development catchment hydrology as far as practicable, use of source controls to minimise contaminant loads, treatment trains to treat contaminated stormwater, and receiving environment protections/enhancement to address residual adverse effects).

Option 3C Manage stormwater discharges from High-Risk Facility sites located within urban areas and roading networks. Enable these discharges provided that:

- All site runoff is separated from the activities that risk contaminating stormwater; and
- Best practice stormwater management is applied (in addition to any relevant industry standards and guidelines); and
- All site/activity specific process water and/or washdown water is diverted to separate 'trade waste' systems which do not integrate or ultimately connect to the stormwater network.
- Runoff from other land use areas such as rural areas and primary industry sites, or runoff which contributes to natural catchment drainage discharges, is addressed through other plan activities and their respective issues/options papers.

Recommended Approach: Option 3

The recommended approach is Option 3A – 3C. This option:

- Aligns with the national freshwater policy direction and gives effect to the new provisions of the NPSFM (2020);
- Offers a pragmatic and reasonable approach to enabling existing and new stormwater discharges; and
- Is consistent with best practice stormwater management.

14 Drinking water protection

14.1 Introduction

This paper examines how the regional plan currently addresses drinking water protection and collates the new statutory requirements and responsibilities placed on WRC for drinking water, to identify what changes are needed, the current issues, and the broad options for addressing them.

The *Essential Freshwater* package, released in August 2020, introduces new policy measures for freshwater management with three objectives: stop further degradation, reverse past damage, and address water allocation issues. Included is an updated National Policy Statement for Freshwater Management (NPSFM), National Environmental Standard for Freshwater[56] (NESF), and a proposal to amend the National Environmental Standards for Sources of Human Drinking Water (NESDW). The updated NESDW is set to be released in 2023. These introduce, and will introduce, new requirements for drinking water protection.

Due to ongoing amendments to the NESDW, Waikato Regional Council (WRC) cannot be certain what changes to the regional plan will be required. Due to this, this paper sets out the proposed requirements, but does not set out 'options' as most other papers in this series do. The Ministry for the Environment (MfE) review of the NESDW signalled that 'mere tinkering' of the NESDW will not suffice, so some sizeable change should be expected.[57]

14.2 Background

An inquiry following the Havelock North Incident in 2016 identified significant issues with the current NESDW regulations and that change is needed. The outbreak, where four people died, 5,500 fell ill with gastroenteritis, and which costed an estimated $21 million, was partly caused by Campylobacter contamination in the town's drinking water source.[58][59]

The proposed amendments to the NESDW aim to improve source water protection by clarifying and simplifying regulations for regional councils, providing specific and directive advice for: where activities can post a risk to source water, specifying the highest risk activities in certain areas, and outlining how regional councils should consider these activities.

The proposed amendments to the NESDW[60] are still under active consideration. There are three areas that the changes currently seek to improve:

- Managing high risk activities

Additional restrictions within source water risk management areas (SWRMAs) on activities that may pose a high risk to source water to ensure effects on source water are appropriately managed.

- Protecting all registered water supplies

[57] nes-dw-consultation-document.pdf (environment.govt.nz) p. 13

[57] nes-dw-consultation-document.pdf (environment.govt.nz) p. 13

[58] Department of Internal Affairs. 2017a. Government Inquiry into Havelock North Drinking Water (2017) Report of the Havelock North Drinking Water Inquiry: Stage 1. Wellington: Department of Internal Affairs.

[59] Department of Internal Affairs. 2017b. Government Inquiry into Havelock North Drinking Water (2017) Report of the Havelock North Drinking Water Inquiry: Stage 2. Wellington: Department of Internal Affairs.

[60] For the full details of the MfE review and proposed amendments refer to nes-dw-consultation-document.pdf (environment.govt.nz)

Expand the NESDW to cover all water suppliers other than domestic self-suppliers, through a staggered approach that also aligns with the transition timeframes of the Water Services Act (WSA).

- Delineating at-risk source water areas

Require regional councils to map SWRMAs, using either a standard or bespoke approach, with methodology differing depending on if sourced from a river, lake, or aquifer. These zones establish three categories of land areas in terms of proximity to a source water take, and of risk to water quality.

These delineated SWRMAs[61] as proposed in the current draft documents will likely have three different zones to which activity controls will be applied:

- **SWRMA 1** is the immediate area around the source water take (intake). Activities in this area pose the highest risk because of their proximity to the intake and the limited time there is to respond to any contamination before it enters the water supply. It will result in the most stringent controls on resource users but is a relatively small area.
- **SWRMA 2** is a larger area where activities need to be managed to mitigate more medium-term risks of contamination to source water. The size of this area will vary because it is based on the time it takes for water to flow to the intake.
- **SWRMA 3** is the entire catchment area or capture zone for source water at the intake. Persistent contaminants and long-term risks are the management focus in this area. No additional restrictions are proposed in SWRMA 3, as current requirements under the RMA are considered adequate.

A visual representation of a mapped SWRMA is contained in Appendix one.

14.2.1 Consenting Data and Water Suppliers

The number of water take and discharge consents, and the number of water suppliers in the Waikato, provides important context for understanding some of the impacts that SWRMA may have.

In 2019/20 a total of 399 water take and discharge consents were assessed by WRC RUD staff against the requirements of the NESDW and subsequently granted. The maximum length of a resource consent is 35 years. RUD staff also process resource consents and assess compliance against the relevant consents for drinking water supplies throughout the region. This includes drinking water supplies managed by district councils and within the community where a consent to take water is required. WRC does not have any legislative function nor exercise control over the water once it is treated and reticulated to these communities, that is the responsibility of other statutory bodies.

The Taumata Arowai register[62], as of 10 February 2023, states that the Waikato has 36 water suppliers serving over 500 people. For reference, this is the second largest nationally, behind Canterbury's 56, and the lowest being 1 in Nelson. This number will increase as more unregistered suppliers register with Taumata Arowai.

[61] For technical advice regarding delineation refer to: Technical Guidelines for Drinking Water Source Protection Zones (environment.govt.nz)

[62] Public Register of Drinking Water Supplies · Hinekōrako (taumataarowai.govt.nz)

14.3 Statutory Context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to drinking water.

Resource Management Act 1991 (RMA)

Section 81(1) of the RMA provides conditions for the application of a plan on a jurisdiction following boundary adjustments. This is particularly relevant for catchments such as Mangatangi and Mangatawhiri, which are deemed to be part of the Waikato region, however, the provisions of the Auckland Regional Air, Land, and Water plan and now the Auckland Unitary plan, still apply to those catchments. These catchments are large sources of drinking water.

Section 104G requires a consent authority to have regard to the actual or potential effect of the proposed activity on the source of a drinking water supply that is registered under section 55 of the Water services act 2021.

Section 128 outlines circumstances where consent conditions can be reviewed, such as when an NES has been made or amended. This is relevant for reviewing resource consents when delineating SWRMAs.

National Environmental Standard for Sources of Human Drinking Water 2007 (NESDW)

The NESDW sets requirements for protecting sources of human drinking water from being contaminated. This includes considerations of adverse effects for resource consent and regional plan decisions, and the condition that these consents require notification of drinking water supplies if significant unintended events occur. WRC must be satisfied that discharge or water permits and permitted activities in regional plans will not result in community drinking water supplies becoming unsafe for human consumption following treatment.

14.4 What we have heard from engagement

14.4.1 Tangata whenua engagement

Participants were asked about freshwater values, and to identify which are important to them. They were provided a list of values, which included drinking water supply. Participants all generally expressed importance for drinking water and its protection. Some participants identified it as a reason for why particular places or waterbodies were special to them, and as an important activity for them to interact and connect with the water.

14.4.2 Community and stakeholder engagement

The community has consistently expressed the safety of human drinking water as a priority. During round 1 of community and stakeholder engagement, participants in every FMU identified drinking water supply as one of the most important values that freshwater management should provide for.

Tangata Whenua there are currently 21 Iwi Environmental Management Plans that are recognised by iwi in the Waikato Region. These Iwi management plans have been reviewed to identify any matters relevant to drinking water protection. These Iwi management plans express particular matters of concern/issues and identify objectives that are important to consider when deciding what drinking water protection zones to set. The direction provided in the iwi documents is generally consistent, in that they seek to:

- Increase Water Quality
- Reduce effluent discharges and nutrient loading in all river, streams and lakes

- Improve life supporting capacity of water bodies
- To protect the mauri and values so that water is safe for safe for drinking and traditional medicinal purposes
- They seek to be involved in issues of water allocation
- To be able to use freshwater resources for small scale operations such as maraes, and large-scale commercial operations.

14.4.3 WRC staff feedback

14.5 What we have found to date on the topic

The following provides a summary of what we have found to date for drinking water protection:

Implementation: Resource Consent review

Implementing the proposed NESDW may require existing resource consents within delineated zones to be reviewed (S128 RMA). These consents will be subject to new conditions, depending on which zone the consented activity occurs. There can be considerable challenges in retrospectively applying an NES at the point of consenting, particularly where an activity is long established, and the activity may have been there before any registered water supply.

Implementation: Mapping SWRMAs

The challenge with implementing SWRMAs is that the proposed methodology may be changed, adding uncertainty to how SWRMAs will be mapped and implemented. However, the NESDW consultation document released by the Ministry for the Environment (MfE) strongly indicated that the requirement to delineate SWRMAs will be included in the amendments.

Under the current proposal, SWRMAs can either be mapped with the standard or bespoke method. The bespoke would be required where the standard SWRMA would not give enough protection or would unnecessarily restrict land use. The bespoke approach delineates the three different SWRMA zones according to site-specific information, scaling the zones according to risks of contamination. Bigger suppliers serving more people would also require more complex justification that bespoke is indeed as protective, with more factors and bigger risks.

The choice of mapping of SWRMAs and their resulting boundaries will have important implications. For example, for farmers, the lines on the map could mean where their stock is able to graze or not, or impact on fertiliser use. If the bespoke approach is chosen by WRC, it must be justified that it is at least as protective as the default. Furthermore, guidance from the MfE also states that regional councils wishing to adopt bespoke SWRMAs may need to use the full RMA schedule 1 process, and seek approval from the Minister for the Environment so these areas can be gazetted[63]. This process would increase the time needed to map and notify SWRMAs.

Therefore, WRC will be required to identify and justify instances where the bespoke method is more appropriate, ensuring they will provide at least the same level of protection, and be prepared to use the schedule 1 process if necessary.

Implementation: Activity Rules

The proposal in the NESDW changes is to manage some high-risk activities in risk management areas. Once these proposed SWRMAs are established there is the question of what activities will be permitted in future and how to manage activities to ensure drinking water supplies are

[63] Page 26 nes-dw-consultation-document.pdf (environment.govt.nz)

adequately protected. This may impose new restrictions on land users in the vicinity of drinking water supplies.

Linkage to Environmental Outcomes

Section 43 of the WSA requires drinking water suppliers to prepare and implement source water risk management plans (SWRMPs). It states that these SWRMPs must have regard to any values identified by local authorities under the NPSFM that relate to a freshwater body that the supplier uses as a source of drinking water supply (2(d)).

Therefore, the identification of values to set environmental outcomes (Clause 3.9 NPSFM), should also have regard to any potential impacts or implications they could have on the management of drinking water supply sources.

Mangatawhiri and Mangatangi river catchments

In 2010, when Auckland Council became a Unitary Authority, the regional boundaries were adjusted. This caused 62% of the Hunua Ranges Regional Park to become part of the Waikato Region[64]. This includes the Mangatawhiri and Mangatangi catchments, which have large water supply dams. Due to the Waikato regional plan becoming operative prior to this in 2007, the two catchments have very little provision in the Waikato Regional Plan. Currently, the provisions of the Auckland Regional Air, Land, and Water plan[65], and now the Auckland Unitary plan[66], still apply to those catchments.

As part of the freshwater review, an issue is therefore providing improved policy direction and support for these catchments and the protection of their water supply functions in the next version of the regional plan. A further issue will be appropriately delineating source water protection areas for these cross-boundary catchments and enforcing the new requirements under the WSA and NES-DW.

Notifying the SWRMAs

The Freshwater Plan Review must be notified by December 2024. Depending on the timing of the NESDW amendments, the identification of these zones by WRC may be difficult to align with the December 20204 deadline.

New Definitions

In the Havelock North drinking water contamination incident, it was ephemeral streams that contributed to contamination. It will be important to clarify and manage these water bodies differently to protect drinking water supplies. The data collected from new mapping will make locating and defining these types of streams more practicable.

14.5.1 The operative Regional Plan – analysis

The current plan recognises the need to protect drinking water supplies in the rules and outcomes in relation to discharges and implements the existing NESDW.

Objectives 3.1.2 and **3.3.2** set the desired outcomes for the management of water resources and its allocation. This includes a net improvement of water quality across the region.

This objective is achieved by **21 different policies** which set out conditions to protect the water quality, and efficient use, of both ground and surface water. These policies set out how surface water takes for domestic or municipal supply will be classified, and the relevant consent

[64] Local Government (Auckland Council) Act 2009, Part 3 Transitional Arrangements, Subpart 1 – Local Government Commission, section 33 - Local Government Commission to determine boundaries of Auckland.

[65] Auckland Council Regional Plan: Air, Land, and Water, Part 1 – Chapter 3 Management Areas

[66] Auckland Unitary Plan, Chapter D Overlays, Natural Resources, D& Water Supply Management Areas Overlay

application criteria. Policy 11 and 12 include the requirements of the NESDW in respect to surface and ground water.

Chapter 3.2 of the regional plan sets out the policy framework for the management of Water resources. Section **3.2.4.2** sets Water class standards for surface water that resource consent applications have to have regard for.

Section **3.2.5** sets the Environmental Results anticipated from these classes, which include a net improvement in regional water quality, qualities of natural state waters are protected, and the suitability of water for human consumption is maintained and improved. Section **3.2.6** sets the monitoring options to track its success.

Chapter 3.3 sets out the requirements for water takes in the region, including for domestic and municipal supplies, which includes human drinking water.

Chapter 3.8 sets out the rules for drilling below the water table, including management of drilled bore holes which are used for drinking water supplies.

Chapters 3.5 and 3.9 set out resource consent rules for discharges and non-point source discharges respectively, which include measures to protect drinking water.

14.6 Policy Shift

14.6.1 Proposed amendments.

Given that the proposed changes to the NESDW have not been passed by Order in Council, WRC cannot be certain what changes to the regional plan will be required. This is because councils do not have the option to decide not to implement an NES, and the NES itself will specify whether councils can be less or more stringent.

The proposed amendments to the NESDW are expected to retain the requirement to map SWRMAs, with new conditions for high-risk activities within these SWRMAs, and additional protections for water supplies. However, how these three proposals will actually be implemented is still subject to change. Nonetheless, WRC will be required to amend its regional plan to incorporate any changes to the NESDW.

14.6.2 Timeframe

The confirmed amendments to the NESDW are expected to be released in 2023, and the Freshwater Policy Review must be notified before December 2024. This gives WRC some time to develop policy options in response to the updated NESDW.

The NESDW proposal for a two-phase timing approach of registered (November 2022) and non-registered suppliers (November 2025), and that bespoke mapping may require a schedule 1 process, means that a staggered approach in regional plan provisions may need to be considered.

15 Monitoring and review

15.1 Introduction

Monitoring and review are important aspects of ‘closing the loop’ in the resource management process. In the context of the WRP review, monitoring can either refer to:

- Monitoring of the implementations of provisions of the Waikato Regional Plan (WRP) (eg. how effective is a particular policy) or;
- Data monitoring (eg. how often a river is monitored and what attributes of the river are monitored)

These interpretations are interlinked, as provisions affect the type of data collected, and the data collected and extrapolations from this data can assist in determining the effectiveness of a provision.

The National Policy Statement on Freshwater Management (NPS-FM) has a strong monitoring component with a number of requirements. The implementation of a comprehensive monitoring framework to address the NPS-FM requirements will require changes to the amount, frequency and type of data collected by WRC.

This summary report focuses on the monitoring and review requirements of the WRP and not guidance for monitoring and review to go into resource consents. The WRP sets out the overarching approach to monitoring in *Section 1.3 Monitoring the Effectiveness of the Plan*.

15.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to monitoring and review of regional plans.

The National Policy Statement for Freshwater Management 2020 (NPSFM)

Monitoring is a key part of the National Objectives Framework (NOF). **Clause 3.7** requires Council to monitor water bodies and freshwater ecosystems (**clauses 3.18 and 3.19**) and take action if degradation is detected (**clause 3.20**).

Other monitoring requirements include monitoring of inland wetlands (**clause 3.23(6**)), rivers (**clause 3.24(4)),** deposited sediment in rivers (**clause 3.25**) and primary contact sites (**clause 3.27**).

Clause 3.30 sets out reporting requirements for Council which include:

- Annual publication about each component of the compulsory values ecosystem health and human health
- Five-yearly assessment/discussions of
    - The extent to which the long-term vision is being achieved and the NPSFM is given effect to;
    - Comparisons of the current state of attributes and target attribute states
    - whether target attribute states the target attribute states and environmental outcomes for each FMU or part of an FMU in the region are being achieved
    - Potential causes of degradation
    - The environmental pressures on each FMU
    - Cumulative effect of changes across multiple sites within an FMU
    - Predictions of changes, including the foreseeable effects of climate change
    - The actions taken over the past five years in the region to contribute to the implementation of the NPSFM
- Five-yearly ecosystem scorecard that gives a score for each measured attribute, an overall ecosystem health score, and identifies any missing data or information.

Waikato Regional Policy Statement

IM-M12 sets out the requirements for Council in relation to monitoring and information gathering. This includes:

- Tracking changes and identifying trends
- Developing and maintaining monitoring systems and processes
- Monitoring the state of the environment
- Identifying ecosystem services and their value to the region
- Integrating Mātauranga Māori indicators and measures in the monitoring regime

- Involving communities in monitoring
- Investigating integrated spatial planning tools

Part 4 Monitoring the efficiency and effectiveness of the policy statement sets out how WRC meets its obligations in respect of Section 62(1)(j) of the RMA. It outlines that Council will undertake a review of existing procedures for monitoring (**4.1.2**) and also sets out tāngata whenua involvement in developing monitoring programmes (**4.1.3**). Finally, the environmental results that are anticipated as a result of implementing policies and methods are set out in **4.1.4**.

15.3 What we have heard from engagement

Tangata whenua and community engagement did not result in any feedback on plan monitoring. Feedback from WRC staff has indicated that:

- Monitoring is a time-consuming and resource intensive activity that requires the input of experts.
- New legislation (such as the NPSFM and NESFM) is introducing a number of new monitoring requirements and increasing the complexity of monitoring. Council initiatives such as PC1 are also contributing to additional monitoring requirements.
- There is scope to develop and include more Māori values in the monitoring framework, and expand the use of Mātauranga Māori.

15.4 What we have found to date on the topic

The key findings from our research are as follows:

- Monitoring the effectiveness and efficiency of provisions is intricate and causality is difficult to determine. There are several steps between environmental monitoring for identifying a problem and understanding the cause of a problem. Targeted investigations and detailed modelling are often required to identify the specific changes that are needed.
- New legislation increases the amount of monitoring required to be undertaken as well as increasing reporting requirements. The frequency and level of reporting expected requires the use of new and developing technologies, increased staff resources, and the development of a comprehensive monitoring framework.
- A level of flexibility is required in the Regional Plan to ensure that monitoring and reporting practices are able to adapt to changing technology and/or methods. There is therefore a fine balance to be achieved as part of the Regional Plan review.

The operative Regional Plan – analysis

The Waikato Regional Plan (WRP) sets out the overarching approach to monitoring in **Section 1.3** Monitoring the Effectiveness of the Plan. It states that monitoring will focus on the following key areas:

- **Regional Environmental Trend Monitoring** – evaluating the status of ecosystems and identifying trends
- **Compliance and Effects Monitoring** – monitoring the use of resources to identify pressures or threat. This includes monitoring of resource consents and recording complaints
- **Performance Monitoring** – monitoring of actions, activities or methods in the Plan
- **Community Monitoring** – monitoring undertaken by community groups
- **Research, Investigations and Surveys** – monitoring to provide a technical or scientific understanding, or to determine the community's awareness, values, and actions
- **Plan Implementation Monitoring** – monitoring to determine whether plan is being effectively implemented, including staff reports on consent applications and level of implementation of objectives and policies.

In addition, each chapter of this Plan sets out the specific monitoring options for the issue being addressed, which are intended to measure the achievement of objectives and policies relating to that issue. Indicators/measurements in the WRP include both quantitative data such as chemical, physical and biological attributes, as well as qualitative data such as complaints.

The WRP does not specify any timeframes or frequencies of monitoring. This is currently determined outside of the WRP at the discretion of Council. In terms of reporting, the last full State of the Environment report for the Waikato region was published in 1998.

It is noted that there is currently no comprehensive inclusion of Māori values in the monitoring framework, or the use of mātauranga Māori. WRC is working towards increasing resources in implementing the environmental monitoring requirements under Joint Management Agreements[67].

15.5 Policy Shift

The objective of the Freshwater Policy Review is giving effect to the NPSFM and Te Mana o Te Wai. Achieving this objective may require changes to the current Monitoring Chapter and associated monitoring provisions in the WRP. The monitoring section of the WRPS provides guidance for the monitoring requirements at the RPS level and will not be affected by the proposed amendments to the WRP. The following four options were considered in addressing this objective.

15.5.1 Options

Option 1 Status quo / Do nothing

- Retain current monitoring framework, including stand-alone chapter
- No specific monitoring objectives, policies or rules in Monitoring Chapter
- No specific reference to mātauranga Māori
- Main benefits include cost-savings on retaining existing framework
- Main costs include not specifically addressing the NPSFM or Te Mana o Te Wai

Option 2 Set out comprehensive monitoring framework in Monitoring Chapter

- Monitoring Chapter to include all details of monitoring requirements of the RMA and NPSFM, including (but not limited to): action plans, establishment of a monitoring framework, timeframes for monitoring and reporting, methods of data collection
- New objectives and policies to be developed and included the monitoring chapter
- New objectives, policies and rules to be developed for relevant chapters to better enable monitoring activities and structures
- Main benefits include giving effect to the NPSFM and Te Mana o Te Wai
- Main costs include lack of flexibility in data collection and inability to adopt new techniques/methods as they develop

Option 3 Retain basic level of detail in Monitoring Chapter, with updates to reflect the NPSFM

- Reference to the monitoring requirements outlined in the NPSFM, but with limited detail on attributes, methods and timeframes for monitoring.

[67] Implementation of Government's 'Action for Healthy Waterways' Package in the Waikato- Single Stage Business Case, p. 16

- Any monitoring frameworks and plans to sit outside of the WRP
- Basic information on mātauranga Māori as it relates to the NPSFM
- New objectives, policies and rules to be developed for relevant chapters to better enable monitoring activities and structures
- Main benefits include giving effect to the NPSFM and Te Mana o Te Wai, and the ability to adapt methods and data collection

Option 4 No stand-alone monitoring chapter in the Regional Plan

- Deletion of Chapter 1.3 Monitoring and Review from the RP, with all monitoring information to sit outside of the RP
- New objectives, policies and rules to be developed for relevant chapters to better enable monitoring activities and structures
- Main benefit is the low cost associated with deletion of existing provision. It is also noted that the RMA does not require the inclusion of monitoring into in the RP (refer Section 67 of the RMA)
- Main cost is potential external legal challenge around the extent to which the NPSFM is given effect to.

Recommended Approach: Option 3

Based on the above assessment, it is recommended that **Option 3** be taken forward in the Freshwater Policy Review. Notwithstanding this recommendation, the following information is required to confirm **Option 3** as the preferred option to pursue:

- Information on the contents of the proposed monitoring framework that will sit outside of the RP, including environmental scorecards, Action Plans and the use of mātauranga Māori.

16 Tangata Whenua Chapter

16.1 Introduction

This paper addresses including a freshwater tangata whenua chapter in the Waikato Regional Plan (WRP) as part of the freshwater policy review project. The first set of National Planning Standards specifies that a standalone tangata whenua chapter must be included in a regional plan, that it is limited to context and process related provisions and that other tangata whenua provisions are to be integrated throughout the regional plan.

This paper provides:

- A summary of the statutory context for a tangata whenua chapter in the WRP;
- A summary of the approach in the operative WRP and the approach being taken in the Waikato Regional Coastal Plan (the Coastal Plan) review;
- Identification of issues likely to arise in plan development; and
- Possible approaches and for developing a tangata whenua chapter along with a draft framework and next steps.

16.2 Statutory context

In addition to the broader statutory context outlined in Section 2, the following statutory requirements are relevant to monitoring and review of regional plans.

The National Policy Statement for Freshwater Management 2020 (NPSFM)

Clause 1.3 (1) and (2) of the NPSFM introduces Te Mana o te Wai as a fundamental concept and as a framework incorporating 6 principles. Notable for the development of the Tangata Whenua Chapter are the principles of mana whakahaere[68], kaitiakitanga[69] and manaakitanga[70].

Policy 2 requires that tangata whenua be actively involved in freshwater management and that Māori freshwater values are identified and provided for.

Section 3.4 addresses in particular tangata whenua involvement in freshwater management. Clause 3.4(1) notably directs that regional council *'actively involve'* tangata whenua in freshwater management including in:

a) identifying the local approach to giving effect to Te Mana o te Wai
b) making or changing regional policy statements and regional and district plans so far as they relate to freshwater management
c) implementing the NOF
d) developing and implementing mātauranga Māori and other monitoring.

Clause 3.4(3) directs that council '*work with'* tangata whenua to investigate mechanisms to '*involve'* tangata whenua in freshwater management under the act such as; transfer or delegation of powers, joint management agreements and mana whakahono a rohe.

[68] the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater.

[69] the obligations of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations.

[70] the process by which tangata whenua show respect, generosity, and care for freshwater and for others.

Clause 3.4(4) provides certainty that nothing in the NPS '*permits or requires a local authority to act in a manner that is, or make decisions that are, inconsistent with any relevant iwi participation legislation or any directions or visions under that legislation*'.

Clause 3.6 addresses transparent decision-making obligations including specific matters relating to decisions around the use of mechanism to *involve tangata whenua*.

National Planning Standards

The National Planning Standards November 2019 (updated February 2022), set out a nationally consistent structure and format for regional policy statements, regional plans, district plans and combined plans under the RMA 1991.

The Regional plan structure standard requires that the RPSs must include a tangata whenua chapter within Part 1 Introduction and General Provisions. The introduction and general provisions standard limits a tangata whenua chapter to context and process-related matters and requires engagement with tangata whenua to determine the title of the tangata whenua chapter and mattes for inclusion. Direction is provided on matters that must be considered including:

- **Recognition of hapū and iwi:** History within rohe, relationships with rohe, environmental management perspectives and values, resources of significance, listing iwi authorities, ancestral lands/water sites/wāhi tapu etc, how iwi values have been considered and reflected in the plan, Treaty Settlement resource management agreements and statutory acknowledgments;
- **Tangata whenua/mana whenua – local authority relationships:** A list and links to formal relationship agreements such as MOU, co-management, joint management agreements and any transfer of powers;
- **Hapū and iwi panning documents**: A list and links, how these have been taken into account, how they are used, relevant parts of hapū and iwi planning documents;
- **Involvement and participation with tangata whenua/mana whenua:** specific involvement and participation in RMA processes as required by RMA, relationship agreements, iwi plans, description of best practice and explanation of the purpose of engagement in RM processes and how this is given effect to.

Waikato Regional Policy Statement

The Waikato Regional Policy Statement (WRPS) has recently been updated to comply with the mandatory directions in the National Planning Standards for plan structure and format, and provided in an Eplan format. A placeholder exists for a tangata whenua chapter which identifies that a plan change is required to compile this chapter. Notably, statutory acknowledgements remain contained in an appendix to the WRPS.

Part 2 of the WRPS address resource management issues of significance to iwi authorities in the region (RMIA) through cross reference to chapter -SRMR - Significant resource management issues for the region. This highlights that Waikato-Tainui, Maniapoto, Raukawa, Te Arawa, Ngāti Tūwharetoa and Hauraki worked with WRC to ensure issues of significance to them are reflected in the chapter SRMR – Significant resource management and addressed through objectives, policies and methods in Parts 2 and 3 of the RPS.

16.3 What we have found to date on the topic

The operative Regional Plan – analysis

Chapter 2 of the Operative Waikato Regional Plan (WRP) addresses 'Matters of Significance to Māori'. This chapter was developed as part of the original notified plan and had input from tangata whenua.

Section 2.1 identifies the 'broad' or 'main' tribal groups in the Waikato Region who are recognised as Tangata Whenua of the Waikato Region with ancestral obligation as Kaitiaki, these being; tribes of Tainui and Te Arawa waka and further generally describes their extents through tribal proverbs.

Section 2.2 introduces and describes the respective rohe, and addresses matters of concern for the following iwi:

- Iwi of the Hauraki (12 iwi of the Hauraki)
- Raukawa
- Waikato-Tainui
- Ngāti Maniapoto
- Ngāti Tūwharetoa

Section 2.2 also sets out that the information was sourced from each iwi group and that Chapter 2 would be amended as tangata whenua identify further significant taonga in their rohe.
Section 2.2 also records the Statutory Acknowledgment in the Pouakani Claims Settlement Act 2000.

Section 2.3 sets out an issue, with a related objective and policies, and supporting implementations methods addressing tangata whenua relationships with natural and physical resources. Some of the implementation methods primarily focus on matters outside of day-to-day administration of the plan and direct action of Waikato Regional Council in a broader sense and many relate to the participation or involvement of tangata whenua in resource management processes.

Waikato Regional Coastal plan review

The draft Waikato Regional Coastal Plan (the draft Coastal Plan) provides useful insight and opportunities for alignment, noting however the differences in content and focus. Initial drafting on the Coastal Plan has considered the matters set out in the National Planning Standards. At the time of drafting, this chapter commences with a quote capturing the importance of the sea as the marae of Tangaroa it further addresses:

- Te ao Māori world view
- Customary rights and interests
- Treaty of Waitangi (Fisheries Claims) Settlement Act 1992
- Marine and Coastal Area (Takutai Moana) Act 2011
- Regional iwi partners
- Iwi authorities
- Relationships between tangata whenua and Council
- Treaty Settlement Legislation
- Hauraki Gulf Marine Park Act 2000
- Joint management agreements
- The Vision and Strategy for the Waikato River
- Statutory acknowledgements
- Hapū and iwi planning documents
- Tangata whenua perspectives
- Involvement and participation with tangata whenua

In addition to the Tangata Whenua Chapter, there is notable coverage of tangata whenua provisions in the *Integrated Management* Chapter and *Sites and Areas of Significance to Māori* Chapter and it is expected that tangata whenua content will also be integrated throughout the draft Coastal Plan.

16.4 Policy Shift

We have identified five primary issues that are likely to arise in development of the plan. These relate to:

1. Addressing and implementing the requirements of the national planning standards;
2. The capacity of tangata whenua to contribute to drafting a tangata whenua chapter; and
3. Retaining (and updating) relevant content from WRP Chapter 2 and integration with other plan review topics
4. Interplay between the Tangata Whenua Chapter and plan provisions and their development
5. Scope of the plan review being more limited than broader resource management issues identified by iwi.

Issue 1: Addressing/implementing the requirements of the National Planning Standards

This is the primary issues at hand. Whilst much of implementing the National Planning Standards[71] is descriptive or explanatory, there are a number of less presubscribed aspects to be considered, these include the following:

i. a history of the hapū or iwi within the rohe
ii. the relationship of hapū or iwi with their rohe
iii. environmental management perspectives and values of hapū or iwi
iv. a description of resources of significance to tangata whenua/mana whenua
v. where agreed with iwi authorities, a description of the relationship of hapū or iwi with ancestral lands, water, sites, wāhi tapu, and other taonga, and interests in resource management.

Whist it is expected that IEMPs, and the work undertaken as part of the plan review including a literature review of iwi documents, can inform the development of this chapter content ultimately needs to be informed by engaging with tangata whenua[72].

Issue 2: Capacity of tangata whenua to contribute to drafting a tangata whenua chapter

Developing a tangata whenua chapter will place demands on iwi and their time. Iwi may, or may not, see this time as better spent in chapters and topics which contain policy direction and rules. A key consideration will be ensuring there is clarity as to where iwi are focusing efforts and where WRC can resource subsequent gaps.

Iwi capacity may dictate that WRC staff need contribute significantly to the development of a tangata whenua chapter. If this is the case, to establish clarity on the focus of a tangata whenua chapter is vital and it is suggested that a comprehensive framework for the chapter be first agreed with iwi before drafting takes place. This would likely reduce 're-work' from a council perspective and reduce the burden on iwi for inputting into various iterations.

Issue 3: Retaining (and updating) relevant content from WRP Chapter 2 and integration with other plan review topics

The National Planning Standards set clear direction that a tangata whenua chapter addresses context and process related provisions and for other content be integrated throughout the plan.

[71] Mandatory Direction 28

[72] Engagement is highlighted in Mandatory Direction 26 which sets out that: *Local authorities must consider the matters in direction 28, and may include provisions relating to these matters. These decisions must be made after engaging with tangata whenua/mana whenua. Provisions may include links to material outside the policy statement or plan.*

This leaves objectives, policies and methods of Chapter 2 of the WRP to be considered or picked up elsewhere in the plan/topic structure. The natural location for higher order provisions, and consistent with the directions of the National Planning Standards, is that these be explored in an integrated management chapter or, at times, a topic or domain chapter.

Beyond an integrated management chapter, incorporation of tangata whenua content throughout the plan also entails significant input and tangata whenua content to go beyond the contextual and process related provisions which the tangata whenua chapter is limited to.

Issue 4: Interplay between the Tangata Whenua Chapter and plan provisions and their development

Whilst a tangata whenua chapter is expected to contain context and process related provisions, objectives, policies and rules will be located elsewhere in the plan. This dictates a high degree of iteration and consistency between topics. Familiarity with the tangata whenua chapter across all topics will be imperative for drafting the remainder of the plan. It is noted that iwi plans have been explored by staff in drafting issue papers, and more specifically from content available in the review of iwi plans as regards freshwater values.

Issues 5: Scope of the plan review being more limited than broader resource management issues identified by iwi

The scope of the plan review is limited to freshwater matters and does not cover the full ambit of resource management issues for iwi regarding the functions of Regional Council. Notably geothermal and air are not within scope of the plan review but are well documented through various IEMPs. These matters are central in how various iwi describe their relationships with the respective rohe, and feature significantly in resource management issues of faced by iwi. As such if a tangata whenua chapter is drafted simply through freshwater lens it will not address either the broader functions of WRC or the resource management matters of interest widely documented by iwi of the region.

There may be some benefits and efficiencies both for iwi and WRC in having a comprehensive tangata whenua chapter that applies to all domains within the ambit of a regional plan (i.e. inclusive of geothermal and air) in particular given these will be matters for consideration when the Regional Policy Statement tangata whenua chapter is updated.

16.4.1 Options

A draft framework (attached as Appendix 2) has been developed based on National Planning Standards to provide a template to consider when undertaking initial scoping of the chapter with tangata whenua. This framework has also considered the approach taken in the Coastal Plan review.

Three possible approaches to developing a tangata whenua chapter have been identified and addressed in more detail in the following section. These are:

1. A Waikato Regional Council led approach to drafting supported primarily by existing material from iwi plans;
2. A joint approach to drafting; and
3. An Iwi led approach to drafting with WRC providing assistance.

Based on a simple consideration of ‘pros’ and ‘cons’ the initial preferred approach is joint drafting of a tangata whenua chapter. Notably this approach would:

- assist in achieving consistency across the chapter to the degree that is necessary;
- provide a specific role for iwi in drafting, rather than a review role;
- reduce the likely re-work and associated costs;
- provide an avenue for iwi to best describe their respective context, rohe, relationships with the environment and resource management issues of interest;

- provide potential efficiencies in plan drafting both in regards to council resource and iwi capacity as significant information contained within iwi plan; and
- enable strengthened relationships between iwi and council staff.

Whilst the three approaches have been explored on a standalone basis it is noted that these are not mutually exclusive or static. Iwi may have differing preferences as to the level of involvement as dictated by a range of matters including their capacity. Likewise, they may also wish to lead the drafting of particular content and leave other content to be compiled by WRC.

Across all three options consideration or reflection on existing WRP Chapter 2 content will be vital. Whilst considerable parts may be at face-value superseded by iwi plan content there may be content that iwi have a desire to retain or be built on. Likewise, further consideration of the Coastal Plan approach and working towards consistency is beneficial.

Also across all options is the requirement for engagement with iwi on the approach and content for consideration before a decision is made to progress with drafting.

Recommended Approach:

To advance the drafting of a tangata whenua chapter it is recommended that the following next steps are considered.

1. Confirming the scope of the tangata whenua chapter i.e. a Freshwater tangata whenua chapter which can be built on in time or a tangata whenua chapter covering all domains including geothermal and air.
2. Further consideration of the contemporary relevance of operative regional plan Chapter 2 content – of particular relevance would be a sense check of the implementation methods in section 2.3 as to whether they have/are being actioned, or otherwise remain relevant or not.
3. Discussing with iwi the drafting of a tangata whenua chapter and an initial framework for the chapter with iwi. This should:
    a. Include an overview of the planning standards directions as to possible content through presentation of a straw dog framework and gather initial thoughts on this.
    b. Gather initial direction on the favoured approach iwi have on their desired involvement in the drafting of a tangata whenua chapter considering other commitments and priorities including those across the plan review project.
4. Necessary updating and refinement of the framework and scope of general chapter content based on iwi feedback.
5. Endorsement of the approach and general content (scope) from iwi in order to proceed with drafting.
6. Drafting of chapter content based on an approach or range of approaches provided in this chapter or informed by engagement with iwi.
7. Review and endorsement of draft chapter content.

Dovetailing engagement on a tangata whenua with existing/planned engagement will be key to making best use of both iwi and council time.

The approach to the tangata whenua chapter should also be informed by further discussion with those leading and involved in the drafting of the Coastal plan to achieve, where relevant and possible, commonality and to draw on learnings.

17 Attachments

Attachment 1: Draft FMU Environmental Outcome Example: Lake Taupō

This is an example of how environmental outcomes can be developed from identified values, and should be treated as a draft only, as it is yet to be tested through dialogue with both tangata whenua and the community through the next phase of engagement. Additionally, environmental outcomes can't be finalised until long-term visions are finalised. This example represents Option 3 above and could be reduced to reflect the corresponding option.

Other than those listed in NPSFM Appendices 2A and 2B, which must be used, the attributes provided will be refined and developed later on the basis of technical advice provided by WRC scientists. Particularly as compulsory values Mahinga Kai and Threatened Species do not have pre-defined compulsory attributes.

Environmental outcomes can either be numerical or narrative. The final output could be a mixture of narrative or numeric objectives. However, defining numeric objectives requires a comprehensive understanding of existing background water quality to ensure that the objectives or standards developed do not allow existing water quality to degrade. Narrative objectives may lead to uncertainty for resource users depending on how they packaged into provisions. Narrative objectives will provide the opportunity to easily weave visions into criteria for assessing the effectiveness of the WRPS/WRP. The decision to set either numerical or narrative environmental outcomes will have to consider these implications.

Table 1. Example Values (compulsory, other, Māori, and additional) Environmental outcomes and Attributes

Attributes coloured blue are those from Appendix 2A – and will require limits on resource use.
Attributes coloured green are those from Appendix 2B – and will require action plans.
Attributes coloured black are other attributes that could be used.

Compulsory Value	Environmental outcomes	Attributes
Ecosystem Health (5 components below)	• The 5 biophysical components that contribute to freshwater ecosystem health are managed to ensure they are protected and enhanced.	
Water quality	• The health and wellbeing of freshwater waterbodies is restored and protected where it is degraded. • Surface water and ground water quality is maintained or improved where it is degraded.	• Total Nitrogen (Lakes) • Total Phosphorous (Lakes) • Ammonia (Rivers and Lakes) • Nitrate (Rivers) • Dissolved Oxygen (Rivers below point sources only) • Suspended fine sediment (Rivers) • Dissolved Oxygen (Rivers)

		• Lake-bottom dissolved oxygen (Lakes) • Mid-hypolimnetic dissolved oxygen (Seasonally stratifying lakes) • Dissolved reactive phosphorous (Rivers) • Nitrate nitrogen concentration in groundwater
Water quantity	• Ground water allocation is set to ensure sustainable yield, and does not adversely affect values for any hydraulically connected surface water body • River flows and variability is maintained to provide for ecosystem health and life supporting capacity of aquatic species. • Lake levels are maintained to provide for ecosystem health. •	• Lake levels • Allocation limits and catchment accounting • Alteration of low flows • Alteration of flow variability
Habitat	• There is an increase in the extent and quality of the FMUs wetlands • There is no loss in area or values of significant vegetation or habitat of indigenous fauna. • The habitat of trout and salmon in the FMU are protected, insofar as this is consistent with the protection of indigenous species habitat • Existing areas of trout fisheries and spawning habitat maintained and enhanced. •	• Deposited fine sediment (Wadeable rivers) • Water temperature (rivers) • Extent of region's inland freshwater wetlands
Aquatic life	• Improved ecological health and wellbeing of indigenous species and trout fisheries. • The abundance and diversity of biota in the FMU including microbes, invertebrates, plants, fish and birds is maintained and enhanced where it is degraded.	• Phytoplankton (Lakes) • Periphyton (Rivers) • Submerged plants (Natives) (Lakes) • Submerged plants (Invasive) (Lakes) • Fish (Wadeable Rivers) • Macroinvertebrates (Wadeable Rivers) • Macroinvertebrates (wadeable rivers) • Nitrate toxicity • Dissolved Oxygen • Aquatic macrophyte cover – cover of submerged aquatic plants in soft bottomed streams.

Ecological processes	• The interactions among biota and their physical and chemical environment are provided for.	• Ecosystem metabolism (Rivers)
Human Contact	• Waterbodies are protected and enhanced to support people to safely connect with freshwater. •	• E. coli (Lakes and Rivers) • Cyanobacteria (Lakes and lake fed rivers) • E. coli (Primary contact sites)
Threatened Species	• There is no human-induced loss of threatened species or their natural range within the region. • Fragmentation of threatened species ecosystems, habitats and areas is reduced. • The area of restored or recreated threatened species biodiversity is increased, including areas under sustained pest control, or formal protection • The FMU or part of an FMU that supports a population of threatened species has the critical habitats and conditions necessary to support the presence, abundance, survival, and recovery of the threatened species, and these are protected and improved. • All the components of ecosystem health in the FMU are managed, as well as (if appropriate) specialised habitat or conditions needed for only part of the life cycle of the threatened species.	• Native plant cover • Habitat distribution • The status of pests • New pest incursions • The status of native plant and animal species • New Zealand Threat Classification system (NZTCS)
Mahinga kai	• Water is safe to use for traditional medicinal purposes, and safe for taking kai. • In waterbodies used for providing mahinga kai, the desired species are plentiful enough for long-term harvest and present across all life stages. • In waterbodies valued for providing mahinga kai, customary resources are available for use, customary practices are able to be exercised to the extent desired, and tikanga and preferred methods are able to be practiced.	• Aquatic food species numbers (E.g., Tuna, koura) • • Further attributes to be developed in consultation with Tangata Whenua, and the Matauranga working group.

Other values to be considered	Environmental Outcomes	Attribute
Natural form and character	• Characteristics contributing to the natural form and character of freshwater bodies, which include its biological, visual and physical characteristics, are maintained. • The natural character of wetlands and lakes and rivers and their margins, is preserved and protected from inappropriate use and development.	• Indigenous flora and fauna • Water clarity and colour • Presence of culturally significant species • Flow Regimes
Drinking water supply	• Water quality and quantity is sufficient for water to be taken and used for drinking water supply	• Water Services (Drinking Water Standards for New Zealand) Regulations 2022. • Flow and allocation regimes for waterways that provide priority to community water supply
Animal drinking water	• The quality and quantity of waterbodies in the FMU used for supplying drinking water to farmed animals can meet their needs including whether it is palatable and safe. •	• Cyanobacteria • E. Coli. • Flows
Wai tapu	• • Wai tapu, and its identified taonga, are recognised and protected to promote the cultural, spiritual and historic relationship Tangata whenua have with freshwater. • Adverse effects on the relationship that tangata whenua have with their identified taonga, such as wai tapu, are avoided •	• Feedback from tangata whenua • Damage to areas of significance to tangata whenua
Transport and Tauranga waka	• Sites to launch and land waka and other watercraft are maintained and provided for. • There are suitable flows to enable the continued access and use of watercraft for transport purposes.	• Flow and depth • Enquiries, submissions and complaints • Economic indicators
Fishing	• In parts of the FMU valued for fishing, the numbers of fish are sufficient and suitable for human consumption, and water quality is suitable for human contact.	• • Covered by quality / quantity etc to support fish populations to be able to survive. Up to other organisations to manage fisheries.

	• Trout spawning protected, and number of trout increased.	•
Hydro-electric power generation	• Hydro-electric power generation is maintained. •	• Supply of renewable energy • Hydro-electric power generation • Share of National electricity supply
Irrigation, Cultivation and production of food and beverages	• Water quality and quantity is suitable for irrigation needs, including supporting the cultivation of food crops, the production of food from farmed animals, non-food crops such as fibre and timber, pasture, sports fields and recreational areas •	• Economic indicators • Compliance with crop irrigation guidelines • Allocation regimes • Value of production • Use of water – by itself or relative to consented takes • Reliability of supply •
Commercial and industrial use	• Water quality and quantity can provide for commercial and industrial activities	• Economic indicators • Enquiries, submissions and complaints • Reliability of municipal supply • Value of production • Allocation regimes
Additional Values	**Environmental Outcomes**	**Attribute**
Amenity for water adjacent recreational activities	• Activities that occur near water and rely on its amenity value are provided for, and the potential for adverse effects is considered.	• Water quality indicators • Use by the public • Enquiries, submissions and complaints

17.1 Identified Values

Coromandel

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai tapu
    5. Fishing,
    6. Irrigation, cultivation and production of food and beverages.
    7. Transport and tauranga waka
- Additional Values
    1. Amenity and recreation values for activities that do not place in water e.g. biking walking.

Lake Taupō

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai tapu

5. Transport and Tauranga Waka
6. Fishing
7. Hydro-electric power generation
8. Irrigation, cultivation and production of food and beverages
9. Commercial and industrial use.

- Additional Values
    1. Amenity and recreation values for activities not undertaken in water, such as biking and walking.

Hauraki

- Other Values
    1. Natural Form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Irrigation, cultivation and production of food and beverages
    8. Hydro-electric power generation
- Maori Freshwater values
    1. Taonga Species
    2. Iwi involvement in monitoring
- Additional Values
    1. Amenity and recreation for activities on land such as walking

West Coast

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Irrigation, cultivation and production of food and beverages
    8. Hydro-electric power generation
    9. Commercial and industrial use

Lower Waikato

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Hydro-electric generation
    8. Irrigation, cultivation and production of food and beverages
    9. Commercial and industrial use
- Additional Values
    1. Duck shooting

Upper Waikato

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Hydro-electric generation
    8. Irrigation, cultivation and production of food and beverages
    9. Commercial and industrial use

Middle Waikato

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Hydro-electric generation
    8. Irrigation, cultivation and production of food and beverages
    9. Commercial and industrial use

Waipā

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Hydro-electric generation
    8. Irrigation, cultivation and production of food and beverages
    9. Commercial and industrial use

Dune Lakes

- Other Values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Irrigation, cultivation and production of food and beverages
    8. Commercial and industrial use

Peat Lakes

- Other values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka

6. Fishing
7. Irrigation, cultivation and production of food and beverages
8. Commercial and industrial use

Riverine Lakes

- Other values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Irrigation, cultivation and production of food and beverages
    8. Commercial and industrial use
- Additional values
    1. Duck shooting

Volcanic Lakes

- Other values
    1. Natural form and character
    2. Drinking water supply
    3. Animal drinking water
    4. Wai Tapu
    5. Transport and Tauranga waka
    6. Fishing
    7. Irrigation, cultivation and production of food and beverages
    8. Commercial and industrial use

Attachment 2: Draft framework for a Tangata Whenua chapter

This draft framework contains potential section headings with descriptions for a Tangata Whenua chapter for the Waikato Regional Plan. The purpose of this document is to provide a template to consider when undertaking initial scoping of the chapter with tangata whenua.

The approach taken in preparing this draft framework is based on the context and process-related matters that are set out in Standard 6 Direction 28 (Introduction and General Provisions) of the National Planning Standards and provides brief descriptions for each potential sub-section to give further context on matters to consider. The approach taken by the Waikato Regional Council in the drafting of the draft Coastal Plan tangata whenua chapter has also been considered.

It is expected that the operative plan and iwi plans will provide a key reference point to inform the content for much of the tangata whenua chapter. A recent literature review of iwi plans in the region in relation to freshwater values provides a useful overview and compilation of

information and could serve as a key resource to aid tangata whenua and council staff in refining a framework for the chapter and drafting chapter content**.** It is noted that this overview document is not a substitute for referring staff directly to iwi plans, and is not a substitute for engagement.

The National Planning Standards do not limit content in the tangata whenua chapter to the matters set out in Standard 6, Direction 28, but they do limit the tangata whenua chapter to context and process-related provisions. They also require integration of tangata whenua content throughout the plan. It is expected that the integrated management chapter will be the natural home for a considerable amount of content to advance resource management matters of importance to tangata whenua along with domain, topic and area specific chapters. In this regard, integration throughout the plan naturally dictates an iterative process to plan drafting.

Text in blue is that which is additional to the required considerations under the National Planning Standards.

Tangata Whenua Chapter

Whakatauki, quote or reference – The initial draft tangata whenua chapter for the Coastal Plan review opens with a quote in Te Reo Māori addressing the importance of the coast to tangata whenua. The operative plan opens with a forward and the tangata whenua chapter opens with the following karakia timatanga:

"He honore he kororia he maunga rongo ki rangi me te whenua.
He whakaaro pai ki nga tangata katoa
Pai Marire".

Note that National Planning Standards, direct a mihi or forward for the plan in its entirety which would sit at the front of the Regional Plan.

Recognising a te ao Māori world view- The draft Coastal Plan contains a section recognizing a te ao Māori world view. Whilst not explicit in the matters to be considered under the National Planning Standards, this could provide an overview of a higher level cross-cutting te ao Māori word view including as regard to freshwater. Tangata whenua may prefer this to be covered at an iwi level instead. Such content would naturally feature in descriptions of iwi and their rohe, relationships with their rohe, environmental management perspectives, and resources of significance.

Te Ture Whaimana o Te Awa o Waikato - Vision and Strategy for the Waikato River - The draft Coastal Plan tangata whenua chapter for example specifically addresses Ture Whaimana. Whilst this is not an express matter for consideration under the National Planning Standards direction, noting Te Ture Whaimana would require being referenced in the preceding chapter of Part 1 (National Direction Instruments), given its standing as a national policy statement, its prevalence as the primary direction setting document for the Waikato River and its catchment, and its genesis through Treaty Settlement make it key in a tangata whenua chapter.

Iwi and hapu of the Waikato Region*:* This section could be addressed in a similar manner to the Operative Regional Plan working through each iwi of the region starting first with key iwi groupings) and then moving to iwi and hapu authorities.

- **Iwi and their rohe*:*** History of iwi and description their rohe starting with key iwi groupings who are predominantly in the Waikato Region[73] and description of localised tangata whenua groups centred around marae and notion of ahi kā roa consistent with the Coastal Plan review approach.

- **Relationships of iwi with their rohe, ancestral lands, water, sites, wāhi tapu, and other taonga, and interests in resource management:** This could be compiled at an iwi level. For those iwi with iwi environmental plans there is significant content that could be drawn from as a starting point. Such as that summarised within the literature review document[74].

[73] As identified in the tangata whenua chapter of the draft Coastal Plan.

[74] The draft for the Coastal Plan addresses more generally through a te ao Māori world view rather than from particular iwi perspectives noting however that tangata whenua perspectives are further described for Waikato-Tainui and Hauraki

- **Environmental management perspectives and values of iwi*:*** This could provide an overview or be compiled at an iwi level. Iwi management plans provide considerable content in this regard.

- **Resources of significance to tangata whenua:** This could be set out at an iwi level.

- **Iwi authorities in the region***:* list of iwi authorities in the region and links to websites

- **Explanation of how iwi values have been considered when preparing the plan (and are reflected in plan):** this subsection could be the place to explain the engagement approach, working groups and decision-making role of iwi in the plan.

- **Statutory Acknowledgements***:* An approach consistent with the draft Coastal Plan is to reference the RPS for the listing of these. Noting however the RPS requires an update to address more recent statutory acknowledgements. Nevertheless, it is noted that following content is required to be considered under the planning standards:

    a. **List of statutory acknowledgements and links**
    b. **Explanation***:* Brief explanation of how they affect the plan and are reflected in plan provisions
    c. **Statutory acknowledgement processes:** Identification of the specific resource management processes required by statutory acknowledgements.

Iwi and Waikato Regional Council relationships

- **Relationship agreements:** A List of formal relationships between tangata whenua and WRC which relate to resource management functions and links thereto including:
    a. transfers of powers under s33 (i.e. Ngāti Tūwharetoa water monitoring)
    b. co-management agreements (i.e. pertaining to the Waikato River)
    c. joint management agreements (i.e. pertaining to the Waikato River/River Iwi)
    d. MOUs and other relationship agreements.

Hapū and iwi planning documents

- **List of hapū and iwi planning documents**: As is the approach in the draft Coastal Plan, this could be achieved through providing a specific link to the Waikato Regional Council website which contains a list of iwi management plans lodged with Council and links thereto[75]. An alternative approach would be to imbed a comprehensive list of hapū or iwi planning documents lodged with WRC and links thereto within the plan[76].

- **How iwi plans have been taken into account:** A description of how hapū or iwi planning documents have been taken into account in the policy statement or plan. i.e. this could address the engagement approach, literature review and how this has informed development of the plan (chapter content), how iwi plans have informed the development of the plan and working groups and their respective inputs including in TMoTW and other chapter content, and the role of iwi and iwi plans decision making (structure and informing decisions). Note the draft Coastal Plan states particular plans that that have informed an understanding of coastal issues and priorities for iwi plans.

[75] https://www.waikatoregion.govt.nz/community/your-community/iwi/tangata-whenua-management-plans/

[76] Whilst this approach may be more direct in satisfying the suggested content of a tangata whenua chapter it would dictate greater administration and would not be as responsive as refereeing to the plans being listed separate on the Waikato Regional Council Website.

- **Iwi plans and their use:** An explanation of how hapū or iwi planning documents are used: This could focus on the application of iwi documents through implementing the plan.
- **Iwi plan excerpts** - If relevant and agreed, parts of the hapū or iwi planning documents. (i.e. this could be a general snapshot of each iwi document integrated where relevant throughout the chapter).

Involvement and participation with tangata whenua/mana whenua: This could address the following:

- Any specific involvement and participation or RMA consultation processes with tangata whenua/mana whenua: required by the RMA, in relationship agreements, or in hapū or iwi planning documents –
- A description of best practice involvement, participation or RMA consultation processes with hapū or iwi, as agreed with specific hapū or iwi. This may include a link or reference to external best practice processes documents This section could address a general direction for consulting iwi authorities similar to the approach of the draft Coastal Plan
- An explanation of the purpose of any involvement, participation or RMA consultation processes
- How the involvement, participation or RMA consultation processes are given effect to.