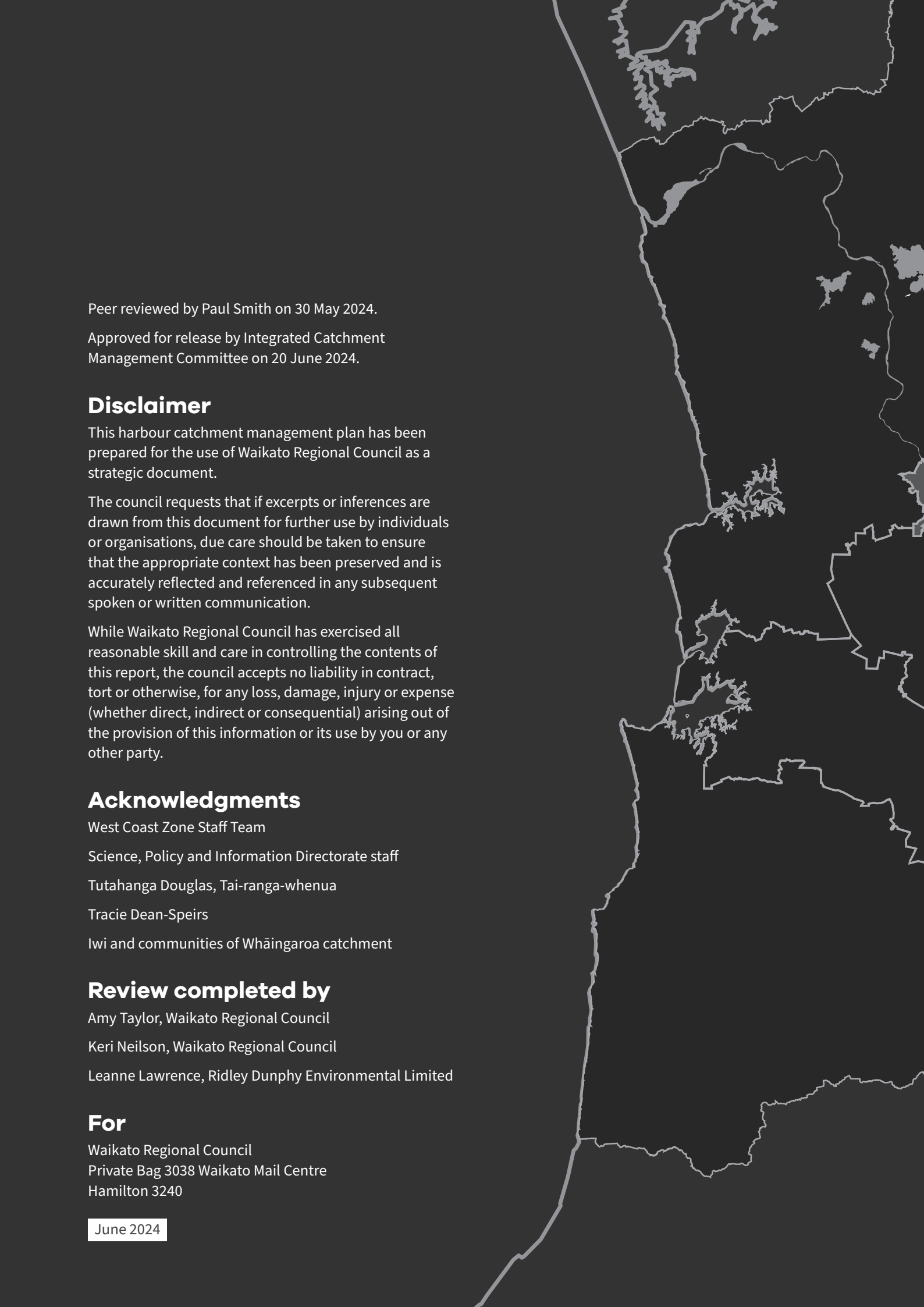
Waikato
REGIONAL COUNCIL
Te Kaunihera ā Rohe o Waikato

Mahere Whakahaere Riuwai o Whāingaroa Moana

Whāingaroa Harbour Catchment Management Plan



Peer reviewed by Paul Smith on 30 May 2024.

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Contents

1 Introduction

The development of a catchment management plan provides the opportunity for communities to identify what they want their natural environment to look and feel like in the next 10 to 50 years.

The west coast harbour catchment management plans (HCMPs) recognise the physical, biological and cultural inter-connectedness of harbours with their catchments and communities. They ensure that individual resource management issues such as water quality, soil conservation, erosion and sediment control, sites of significance, flooding and biodiversity are not managed in isolation, but as part of an integrated plan that also considers the cultural, social and economic impacts of activities in the catchment.

The *Whāingaroa Harbour Catchment Management Plan* is an important operational document for Waikato Regional Council (the council) that will guide the implementation of integrated catchment management activities within the Whāingaroa Harbour catchment in collaboration with iwi, landowners and communities.

1.1 Purpose

The purpose of the *Whāingaroa Harbour Catchment Management Plan* is to guide future 'on the ground' actions that have been developed to help address the challenges and opportunities identified.

The HCMP provides a framework that can be utilised to guide future work programmes of all those involved with the catchment's management and restoration. It can also help assist in obtaining resourcing and funding to deliver specific actions.

This HCMP seeks to:

- reflect the current environmental state of the Whāingaroa Harbour catchment and identify existing and potential issues
- reflect iwi and community values and aspirations for the catchment
- identify priority actions and priority areas for future catchment works that will facilitate improvements to receiving environments
- operationalise and support the delivery of key components of the council's *West Coast Zone Plan*
- support and implement non-regulatory provisions of key council policies and plans
- support increased collaboration and external funding for catchment management activities in the Whāingaroa catchment
- be presented in a way that makes its information accessible and understandable for a wide audience.

As the HCMP is a non-regulatory document, no organisation or individual is bound by the implementation of the actions identified in this plan. Where there are actions identified on private land, the landowner is not obliged to undertake them. To be successful, an HCMP relies on uptake and goodwill of landowners and managers within the catchment and the support of iwi, stakeholders and communities.

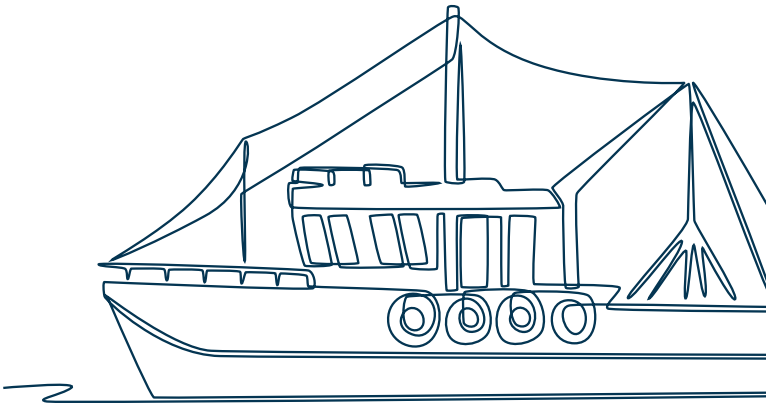
1.2 Scope

The HCMP proposes a wide range of restoration and protection actions within the Whāingaroa catchment to meet catchment goals. Actions relating to the following are all considered within scope.

- The watershed of the Whāingaroa Harbour.
- Water quality.
- Land management in rural areas.
- Protection of cultural values.
- Biodiversity.
- Terrestrial and freshwater environments.
- Collaboration for implementation of environmental and cultural restoration projects.
- Identification of potential funding sources for actions.

Through the engagement processes undertaken during plan development, we heard a range of concerns and issues. Some of these were outside the mandate of Waikato Regional Council, or were regulatory in nature, so not appropriate for a plan of this type. The following activities or actions are considered out of scope for the HCMP.

- Plan Change or Treaty settlement processes.
- Actions within the open water areas of the harbours.
- Water or community infrastructure.
- Water allocation.
- Land use controls.
- Wastewater treatment.
- Land drainage.



2 Planning and policy context

The HCMP is a non-statutory plan that includes voluntary actions not required by regulation. The implementation of these actions supports the delivery of key components of the *West Coast Zone Plan*.

There are several key other policies and plans relevant to the Whāingaroa Harbour that have informed the development of this HCMP actions, including:

- Waikato Regional Council Regional Policy Statement.
- Waikato Regional Council Strategic Direction.
- West Coast Zone Plan.
- Waikato-Tainui Environmental Plan – Tai Tumu Tai Pari Tai Ao.
- He mahere hapori whānui o Whāingaroa – Raglan Naturally, our community plan

Appendix 1 outlines the key objectives of these plans that the Whāingaroa HCMP is aligned to and will help to deliver on.

The *West Coast Zone Plan* provides a more detailed overview for the council's integrated catchment management activities within the West Coast Zone (including the Whāingaroa Harbour) for the next 10 years and the overall legislative and policy framework for the zone.

3 Catchment overview

3.1 Catchment description

The catchment of Whāingaroa Harbour covers approximately 52,595 hectares of land along the west coast of the North Island of New Zealand and includes 826 kilometres of streams. The majority of the catchment is moderately steep or steeper and the underlying rocks are mostly sedimentary siltstone and sandstone. Because of the inherently unstable geology and lack of forest cover, many of the steep slopes are prone to slips, gullying and sheet erosion (Singleton, 2018). The catchment ranges in elevation from sea level to 250-350 metres (above sea level) in the upper catchment but extends as high as 756 metres and 554 metres on Karioi and Pirongia mountains.

Whāingaroa Harbour itself is a drowned river valley that runs 12 kilometres inland from the entrance and is mostly less than 2 kilometres wide. It has an area of 3185 hectares and is subject to a strong tidal influence with around 70 per cent (c.2,400 hectares) of tidal estuarine flats that are exposed at low tide (Fisher, 2017).

The Whāingaroa catchment has changed and developed over time, particularly since human settlement. Removal of native vegetation has resulted in increased area of pasture for farming and as other catchment and land use activities increased there has been a change in sediment generation, and a decline in water quality and indigenous biodiversity.

Whāingaroa Harbour catchment has been divided into five sub-catchments by the council for management purposes: Kerikeri, Waingaro, Ohautira, Waitetuna, Opotoru, as illustrated in Figure 1.

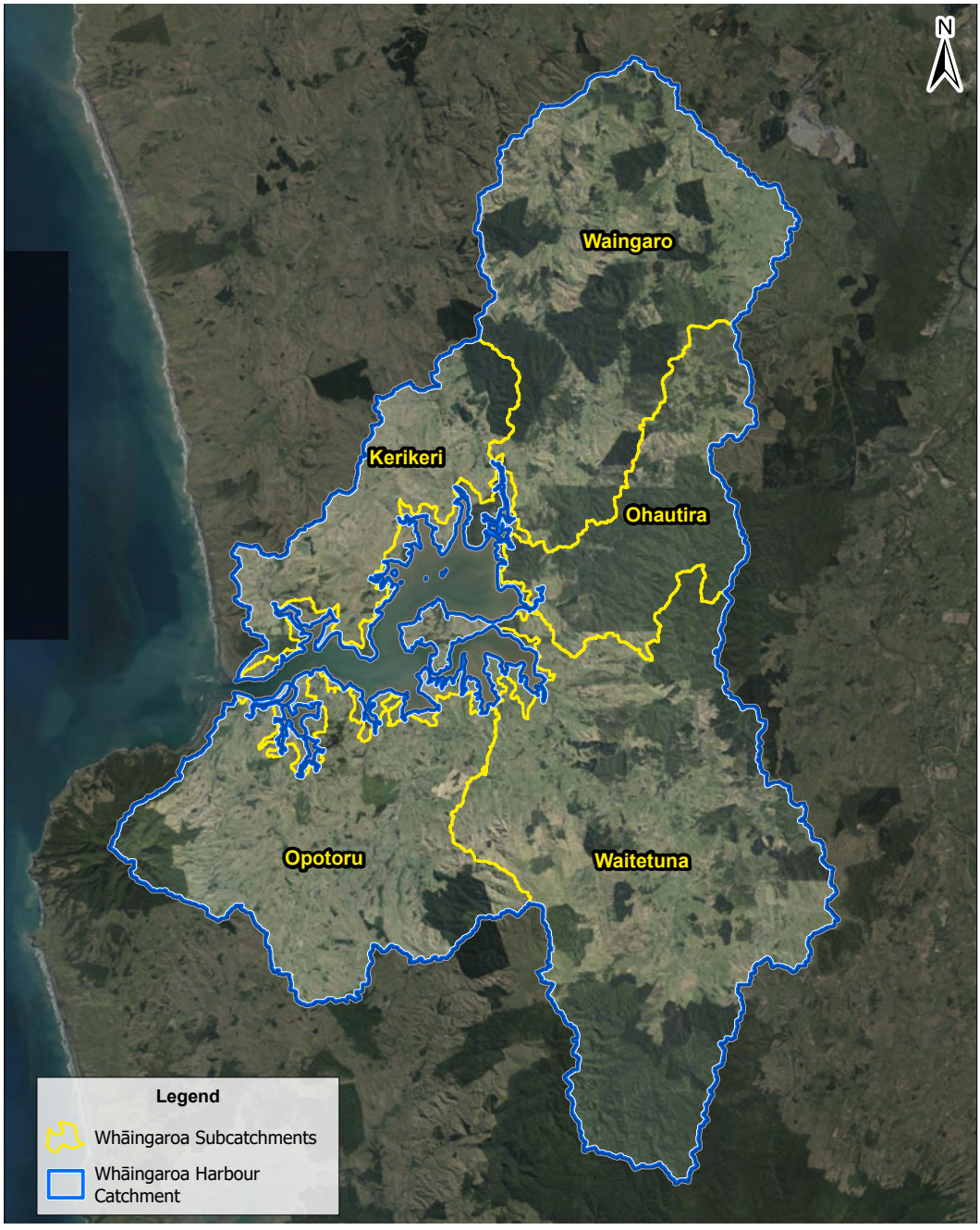


Figure 1: Sub-catchments within the Whāingaroa Harbour catchment

3.2 People and communities

Raglan township is the main residential area within the wider catchment of Whāingaroa Harbour. It has become a popular place to live with its beaches, harbour and proximity to Hamilton. As a result, the town has undergone substantial growth in the last two decades and had a resident population of 3280 in the 2018 population census.

The local population expands significantly (by 300-400 per cent) during summer months to accommodate seasonal visitors, holiday makers and whānau that reside elsewhere but return regularly. The wider Raglan ward is reported to have a population of 5870, which includes the communities of Raglan, Ruapuke, Te Mata, Makomako, Te Uku, Waitetuna and Waingaro (Raglan Naturally, 2020).

Most of the properties in the Whāingaroa catchment are privately owned. Of the total 3646 individual properties there were 185 in Crown ownership, 144 in Māori freehold land, and 3317 in private ownership as of 2020.

Whāingaroa Harbour and catchment is of great cultural and historical significance. The name translates as “the long pursuit” and refers to the search of the Tainui waka for a final destination. There are several marae and hapū affiliated to Waikato that have interests within the catchment.

3.3 Land use

The way we use land and the activities we carry out on our land affect the environment. Some effects are clearly noticeable and easily linked to a specific land use, for example, the effects of deforestation on land cover. However, other effects are less obvious, and it’s the cumulative effects of the various land uses that contribute to environmental degradation.

The Whāingaroa Harbour catchment is of mixed terrain. Flat and rolling land occupies about 32 per cent of the catchment, whilst moderately steep or steeper areas make up the remainder (68 per cent). The slope of the land in the catchment is a major constraint on land use development because of the risk of erosion and soil loss (Singleton, 2018).

Just over half of the Whāingaroa catchment is in pasture (56 per cent). Native woody cover (26 per cent), and exotic forestry (13 per cent) account for most of the remaining landcover, with 5 per cent described as “other”, which includes urban areas (Figure 3). Indigenous forest is generally found on the higher points near the catchment boundary (Singleton, 2018).

In New Zealand the land use capability (LUC) system is used to distinguish land areas according to their capacity to support long-term sustained production (Lynn, et al., 2009). The LUC classification assesses five primary physical factors: rock type, soil, slope angle, erosion type and severity, and vegetation cover, which influence the long-term land use potential. LUC classes range from LUC Class 1 (highly versatile) to Class 8 (unsuitable for production).

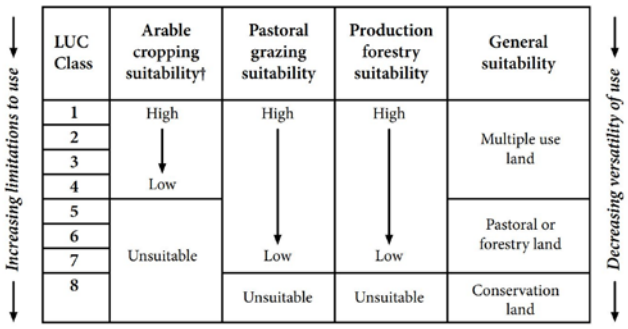


Figure 2: Increasing limitations to use and decreasing versatility of use from LUC Class 1 to LUC class 8 (taken from Manaaki Whenua, Landcare Research).

Overall, the ability to use land in the Whāingaroa catchment for production is limited, with 77 per cent of the catchment assigned LUC classes 6, 7 and 8. Twenty-two per cent of the catchment falls into LUC classes 3 and 4, while one per cent is classed as being highly versatile (LUC classes 1 or 2). About half (18,081 hectares) of the LUC class 6e land is in pasture (Singleton, 2018).

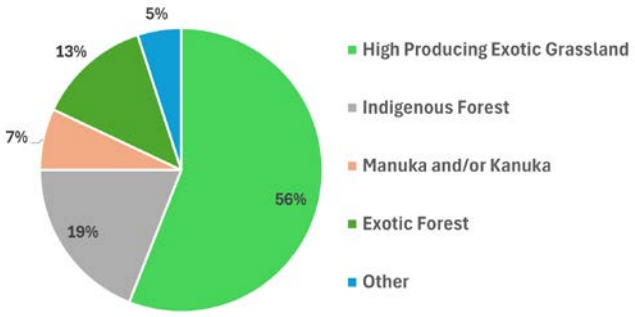


Figure 3: Summary of land cover within the Whāingaroa catchment (Singleton, 2018).

The predominant land use within the Whāingaroa catchment is pastoral mixed sheep and beef farming (43 per cent), with beef cattle farming making up a further 14 per cent and dairy cattle farming 10 per cent of the catchment land use (Figure 4) (Singleton, 2018).

A small portion of the Whāingaroa catchment is used for exotic forestry, mainly for growing and harvesting of *Pinus radiata*. Plantation (or exotic) forests have been established in predominately erosion prone steep hill country.

Plantation forestry can have soil conservation benefits until trees reach maturity in a 25-30 year harvest cycle. It can also, however, have a potential environmental cost. Steep slopes within the Whāingaroa catchment are highly susceptible to landslides for six to eight years post-harvest until new plantings have established stabilising root systems. Removal of trees can degrade streams, with loss of shade, bank destabilisation and deposition of slash and other material during rain events (Singleton, 2018).

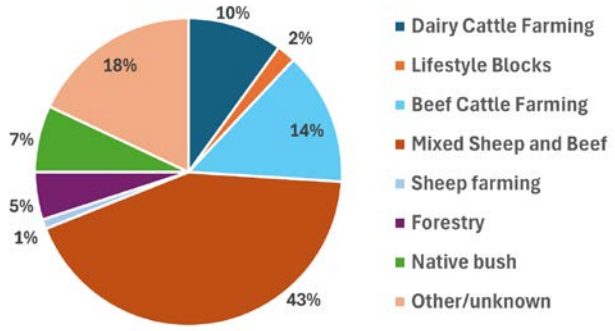


Figure 4: Land use types within the Whāingaroa catchment (Singleton, 2018).

3.4 Coastal erosion

Coastal erosion is a natural process that is part of natural beach behaviour. When viewed over a long period, such as 100 years, most shorelines are simply shifting backwards and forwards. Erosion impacted or prone areas in the Whāingaroa Harbour include (Tonkin and Taylor Ltd, 2008):

- Raglan Township coastline (inner harbour) – the low-lying sandy area from Riria Kereopa Memorial Drive to Kopua Point is the critical area
- the unprotected cliffs in Raglan township, particularly some of the higher cliffs upstream of the wharf
- the protected/seawall areas around Raglan – many of the seawalls are old and there are likely to be calls for them to be replaced.

3.5 Catchment erosion and sedimentation

The main sediment issues for the Whāingaroa catchment and its waterways are generated in the hills of the upper catchment. Many landslips have occurred since the historic deforestation of the catchment. Storm events with moderate intensity can now cause erosion, while much greater storm intensities are required to cause slips in forests. Sediment naturally occurs in waterways, however, excess sediment can increase water turbidity (make water cloudy), infill streams and estuarine embayments, smother shellfish beds, and change sandy habitats to muddy ones. The change from sandy to muddy substrate or high turbidity reduces people's enjoyment of water.

River and stream banks are subject to the erosive force of water and erosion can damage and remove habitat and release sediment into the water. There are still many watercourses in the catchment with little or no erosion protection in place, accelerating stream bank erosion. Waterways on the west coast generally have high levels of stream bank erosion compared to other parts of the region (Norris, et al., 2020). This is anticipated to increase with more frequent climate events in the future.

Council monitoring of three rivers in the Whāingaroa catchment indicates that water quality is reasonably good, but moderately turbid. The water quality of the Ohautira River is somewhat better than that of the Waingaro River, which is at least partly related to it having a greater amount of forest cover within its catchment (Vant, 2019). Between 1993 and 2017, the trend has been for reduced turbidity in the Ohautira River, but there has been a deterioration in clarity of the Waitetuna River (Tulagi, 2018), (Vant, 2018).

An estimate of sediment yields within wider Waikato estuaries in 2005 estimated a sediment yield of 123,000 tonnes per year from the Whāingaroa catchment into the harbour, which was the fifth highest ranking (for relative sediment yield) of all 29 estuary catchments in the Waikato region at that time (Mead & Moores, 2005).

A 2005 study found major differences in the rates of sedimentation entering the harbour from different sub-catchments. The Waitetuna arm of the harbour has seen large increases in sedimentation associated with land clearance and, more recently, plantation forestry (Swales, et al., 2008). By comparison, the Waingaro arm of the harbour has had negligible sediment accumulation in the past 150 years, which is attributed to wave action maintaining sediments in suspension, and to tidal flows of water transporting sediments down-harbour. Sheltered embayments and tidal creeks have experienced continual sedimentation and appear to be the most susceptible to the effects sediment runoff associated with human activities in their land catchments (Swales, et al., 2008).

3.6 Harbour sediments

Whāingaroa Harbour is known to retain finer sediment particles in suspension, and then discharge sediment out to the open ocean during falling tides. Because many parts of the harbour are strongly flushing, most of the harbour water is taken out on the tide. Sediment accumulation occurs in localised areas of the harbour, including the Waitetuna arm and sheltered embayments, where some extensive and deep mudbanks occur (Swales, et al., 2008), (Singleton, 2018). The Waingaro arm of the harbour has been identified as being particularly sensitive to periodic increases in suspended sediment, which may affect the kinds of species that can live at the bottom of the water. Immobile shellfish species such as cockles may be under-represented in areas due to their sensitivity to suspended sediment (Swales, et al., 2008).

A 2008 study found that most trace elements within the sediments of Whāingaroa Harbour were at the lower end of their estimated natural ranges, and that no trace elements were present in concentrations that exceed the ANZECC (2000) ISQG-low guideline values. No organochlorine pesticide residues were detected in the harbour at that time (Rumsby, 2009).

In 2003 and 2018, the council assessed the sediment quality in Whāingaroa Harbour as “good” and indicated a low risk of toxic effects on sediment dwelling organisms.

3.7 Water quality

The council has three routine water quality monitoring sites in the Whāingaroa catchment that have been monitored since 1993:

- Waingaro River at Ruakiwi Road
- Ohautira River at Waingaro-Te Uku Road
- Waitetuna River at Te Uku-Waingaro Road.

The most recent information about the current state and trends of water quality at the Whāingaroa river and stream monitoring sites are available from the LAWA website[1]. Trend analysis indicates that clarity and turbidity are improving at all three sites over the past 10 years. However, E. coli is an issue for all three rivers, particularly the Ohautira and Waitetuna which are in the worst 25 per cent of all lowland rivers nationally for E. coli concentrations.

Water quality within the Whāingaroa Harbour has been measured periodically over the past 20 years. Water clarity has generally been poorest at the inner harbour monitoring sites with turbidity often exceeding ANZECC guidelines. Nutrient and sediment were often elevated, in particular at the stations in the southern inner harbour and Waitetuna. Water quality at the harbour mouth or outer harbour has usually been better, with less sediment and lower nutrient concentrations. This points towards the catchment being the primary source for sediments and nutrients (Kamke, 2021).

1 https://www.lawa.org.nz/explore-data/waikato-region/river-quality/

3.8 Terrestrial biodiversity

As in many parts of New Zealand, the indigenous flora and fauna of Whāingaroa catchment has been greatly reduced relative to its former extent. The catchment would originally have been covered in indigenous vegetation that extended through mature indigenous coastal forest with saltmarshes at the coastal fringe and small raupō or sedge wetlands in the narrow, entrenched gullies (Boffa Miskell, 2016). In 1840, the area around Raglan was relatively isolated, so intensive deforestation did not occur in the area until 1879 when the first Waipa-Raglan Road was completed (Swales, et al., 2008).

Coastal and lowland vegetation in the catchment has been significantly affected as a result of clearance and development. Vegetation occurring at lower elevations, and particularly floodplain vegetation, has been largely removed for pastoral land development. It is estimated that only 13 per cent of forest habitat remains today (Leathwick, et al., 1995).

Despite this, the Whāingaroa catchment contains a number of significant natural areas (Figure 5) that contain important threatened species or rare habitat types. Higher elevation areas, which are unsuitable for farming, have retained their indigenous character albeit with some modification through the removal (i.e. logging) of larger podocarp species. Several blocks of indigenous forest remain with coastal forest species, including kohekohe, nīkau, pūriri and tawa.

The Whāingaroa catchment contains several significant surface and cave karst features. Most of these areas occur on private land and support a wide range of rare and threatened species. These sites are vulnerable to pest animals and weeds, and human visitation, as well as further impacts arising from grazing (Hayward, 2022).

With the Whāingaroa catchment now dominated by pastoral farming, most natural areas within the area are surrounded by farmland and therefore are potentially at risk of clearance and stock incursions. However, over the last 25 years, there have been substantial efforts from the community, notably led by Whāingaroa Harbour Care, to replant the riparian margins of the catchment with over two million native plants planted.

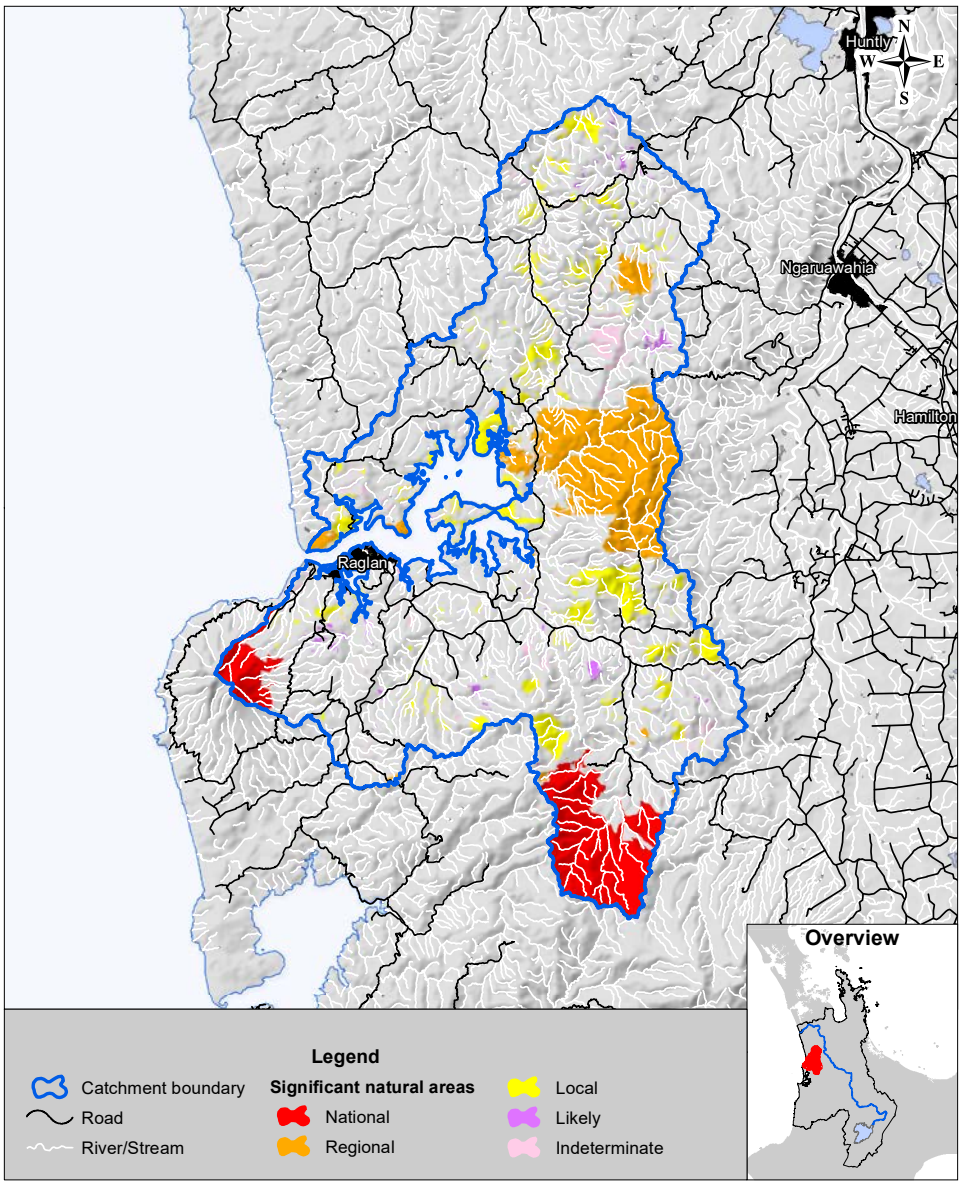


Figure 5: Terrestrial significant natural areas in the Whāingaroa catchment (Singleton, 2018).

3.9 Freshwater biodiversity

Biodiversity river prioritisation has been undertaken on a regional scale for the Waikato region. Rivers and streams identified as significant natural areas within the Whāingaroa catchment are (Waikato Regional Council, 2016):

- Ohautira River
- Oruawha Creek
- Opotoru River
- Wainui Stream
- Maunurima Stream
- Waitetuna River
- Korere Stream
- Otonga Stream
- Mangaokahu Stream
- Mangakirikiri Stream.

The Whāingaroa catchment supports a diverse number of native fish species, including those that undertake migrations between the coast and the forested headwaters of streams and rivers. Species recorded include longfin and shortfin tuna (eel), banded and giant kōkopu, kōaro, īnanga, common smelt, piharau (lamprey), grey mullet and a range of bully species[3]. Kōura (freshwater crayfish) are also found in the catchment waterways. Instream habitat for these species can be affected by a range of factors, including:

- sedimentation reducing water quality, the amount of available habitat, and smothering spawning sites and fish eggs
- fish passage through the catchment being restricted by inappropriate structures (including culverts and fords) in waterways
- changes in river and stream water quality, including temperature. Instream temperatures are directly related to the amount of riparian vegetation/shading that is available.

There are two species of the native freshwater mussel (kākahi or kāeo) found in the Whāingaroa catchment: *Echyridella menziesii* and the rare *Echyridella aucklandica*. These play an important role within ecosystems and are recognised as a cultural keystone species. The council undertook monitoring of kāeo in five catchments of the Waikato region between 2013 and 2017. The Whāingaroa catchment had the highest presence of both species compared to the other catchments surveyed. Work so far suggests that the main factors that influence the presence of freshwater mussels are the presence of silt, runs and bank habitat (Melchior, et al., 2023).

As has happened across New Zealand, many wetlands have been reduced and lost from the Whāingaroa catchment as a result of drainage and historical land use changes. Significant and under-represented freshwater wetland vegetation has been identified within the Whāingaroa catchment at the Waitetuna River mouth and within the Opotoru River arm. The Waitetuna River mouth supports bittern, fernbird and banded rail (Graeme, 2012).

3.10 Biodiversity of Whāingaroa Harbour

Whāingaroa Harbour is identified as an area of significant conservation value (ASCV) in the *Waikato Regional Coastal Plan*. The catchment margins and harbour support a diverse array of birds, including several rare and threatened species. It has been identified as one of 11 sites of importance for shorebirds and/or seabirds on the west coast (Dowding, 2019), with resident species including banded rail, Australasian bittern, fernbird, little black shag, pied shag, pied stilt and kōtuku (Graeme, 2012).

Shellfish perform important ecosystem services in estuaries. Their filtering of water has significant benefits for water quality, they form a key component of shorebird and fish diets and they are highly valued as mahinga kai. Monitoring of cockle and pipi populations in Whāingaroa Harbour by MPI between 1999 and 2018 indicated total populations of both species had been relatively stable over the previous five to 10 years, but the proportion of the population made up by large individuals was relatively small (Berkenbusch & Neubauer, 2018). The council's estuarine monitoring programme found cockle numbers were decreasing at Haroto Bay and wedge shells were decreasing at Whatitirinui Island. Studies have shown that cockles and wedge shells may tolerate short term exposure to pulses of suspended sediment, but sustained exposure is problematic. Sediment from land is known to be more difficult for cockles to process than re-suspended marine sediments (Bouma, 2016).

Estuarine vegetation, including salt marsh, mangroves and seagrass provide shelter, food, breeding and nursery grounds for animals such as fish, birds and shellfish. These habitats also act as filters, trapping sediment, nutrients and other contaminants, which improves estuarine water quality. The Whāingaroa Harbour supports important areas of estuarine vegetation within its sheltered arms. The largest and most diverse areas occur in the Waingaro, Ohautira, and Waitetuna River arms (Graeme, 2012). Vegetation includes mangroves, salt marshes, seagrass, sea meadows and weed communities. Saltmarsh is extremely limited in extent in Whāingaroa harbour, partly as a consequence of the geology and past infilling. As a result, all remaining areas of saltmarsh are considered to be highly significant (Graeme, 2005). Seagrass has a far more restricted distribution in Whāingaroa Harbour than the other two West Coast harbours. They are however a major feature along the town foreshore (Graeme, 2012).

3 **NZ Freshwater Fish Database | NIWA**

3.11 Animals pests

Many of New Zealand's indigenous species evolved and once thrived without any native predators. However, introduced animals arrived with humans, and threaten the survival of our indigenous species.

Goats are a wide-ranging problem along the coastal edge of the Whāingaroa harbour. They are having a detrimental effect on the regeneration of the riparian coastal forest, and trampling and browsing of estuarine vegetation communities by goats has been noted in a number of areas. They are also a possible vector for the further spread of saltwater paspalum (Graeme, 2012).

Swan and Canada geese populations have been identified as being of particular concern by locals as the birds occur in large numbers and are perceived to have a negative impact on the harbours, in particular due to deposition of faecal material and their impacts on seagrass beds. Moult season surveys in the western Waikato show swan populations have declined substantially since 1984 to about 5000 birds (c. one third of the 1984 swan population). By comparison, surveys show goose numbers have increased over the past 30 years by a factor of 20, to approximately 10,000 birds. Approximately 25 per cent of the goose population was using Aotea, Whāingaroa and Kāwhia estuaries during the 2018 moult season survey (Smith, 2019).

3.12 Pest plants

Saltwater paspalum and spartina have been identified as the weeds in Whāingaroa Harbour that pose the greatest ecological risks. Saltwater paspalum has become widespread and has been considered the most pressing threat to the ongoing health of estuarine vegetation communities within the harbour. This species is of particular concern in estuaries because of its smothering habit and its wide habitat range which allows it to compete with almost all estuarine vegetation communities except sea grass (Graeme & Kendal, 2001). The arms of the Kerikeri/Waingaro rivers, Ohautira Stream and Waitetuna River have been identified as important "within estuary" areas for saltwater paspalum control in Whāingaroa (Graeme & Kendal, 2014).

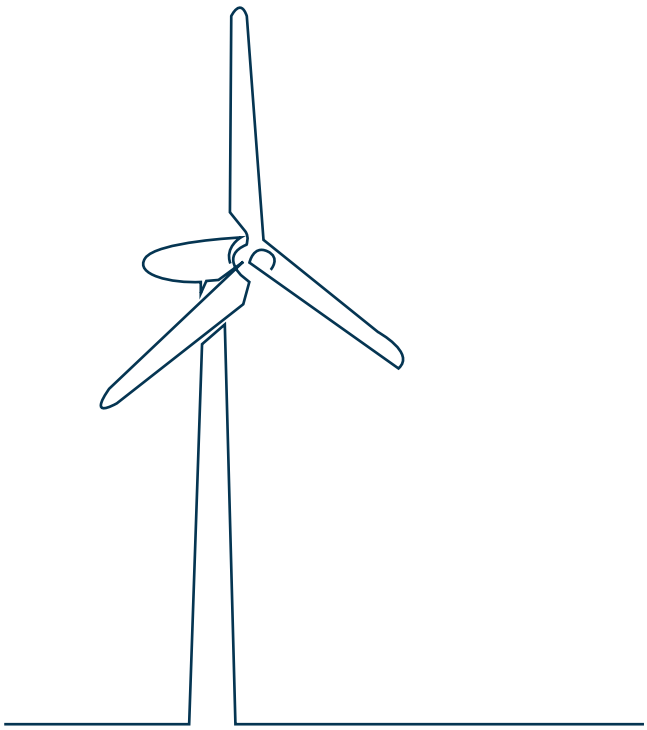
Spartina has decreased significantly in Whāingaroa Harbour due to the control programme undertaken by the Department of Conservation. However, as of 2024, eradication has not yet been achieved.

4 Climate change

The Ministry for the Environment (MfE) has provided an overview of how climate in the Waikato region is likely to change into the future and what implications this has for the region.[4] These predictions are not certain. Projections of climate change depend on future greenhouse gas emissions, which are uncertain. However, the changes likely to be experienced in the Whāingaroa catchment over the coming 20 to 70 years are:

- increased temperatures, including
  - increased daily average temperatures
  - increased days with high temperatures (over 25˚Celsius)
- increased winter rainfall and reduced spring rainfall, but there will be local variation and projections are uncertain
- potential increase in westerly wind flow during winter, and northeasterly wind flow during summer
- some increase in storm intensity, local wind extremes and thunderstorms; ex-tropical cyclones will likely be stronger and cause more damage as a result of heavy rain and strong winds
- further rise in relative mean sea levels – over the 20th century there has been an average rise of 1.7 millimetres per year.

The most likely climate-induced changes identified for the Whāingaroa community are droughts, sea level rise and river flooding events. Increased rainfall can be expected to cause an increase in erosion in both hill country and rivers.



4 www.mfe.govt.nz/climate-change/likely-impacts-of-climate-change/how-could-climate-change-affect-my-region/waikato

5 Prioritisation of catchments

Prioritisation of restoration locations and activities is necessary to ensure resources are utilised in the most effective way.

Two prioritisation assessments have been undertaken by Council for the Whāingaroa catchment in recent years. The first was in 2018, and involved assessment and scoring of sub-catchments based on several categories, including (Singleton, 2018):

- land instability (poor vegetation protection, sediment and erosion risk) – scored as the percentage of sub-catchment with moderate or higher risk
- water quality risks (*E.coli*, nitrogen, phosphorus, stream bank erosion and stocking risk) – scored as the percentage of sub-catchment with moderate or higher risk
- biodiversity values of the land (priority streams, priority areas on private land, SNAs) – scored as kilometres of high-risk stream, percentage of priority native cover on private land, and percentage of vegetation that is regionally, nationally or internationally significant
- importance of harbour features (presence of salt marsh or seagrass, shellfish beds, coastal flushing) – scoring based on the relative abundance of shellfish or habitat near the catchment discharge
- relative importance for community activities (tourism and visitors, water based commercial activities, swimming, food gathering, schools and marae, care groups) – scoring based on the relative use of the sub-catchment for a range of community activities.

Whilst the prioritisation was intended to be impartial, it was limited by the quality and availability of information and required judgement to determine final priorities. Nevertheless, it provided useful initial guidance on areas of risk and opportunity.

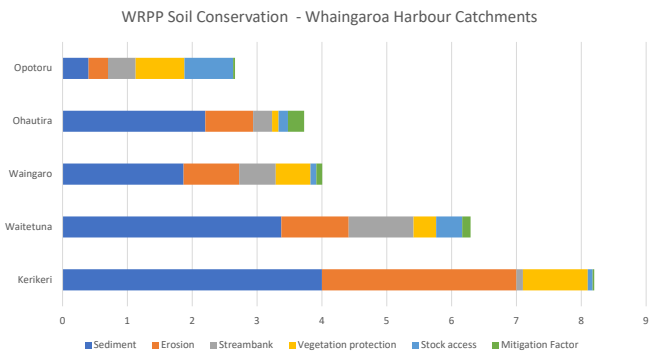
The Opotoru sub-catchment scored significantly higher than any other in the community score and this drove it being identified as the highest priority sub-catchment overall for Whāingaroa (Table 1). However, the Kerikeri sub-catchment was identified as having the highest scores for land instability and water quality risk. Ohautira had the highest score for biodiversity and harbour features.

Table 1: Outcome of the prioritisation process by (Singleton, 2018).

Sub-catchment	Land instability risk score	Water quality risk score	Biodiversity score	Harbour score	Community Score	TOTAL score	Rank within Kāwhia Harbour
Kerikeri	96	57	50	7	13	223	2
Waingaro	51	33	6	19	25	134	5
Ohautira	32	20	55	20	10	137	4
Waitetuna	58	39	27	16	31	171	3
Opotoru	46	36	50	14	80	226	1

In 2021, the Waikato Prioritisation Framework (WPF) was applied to the west coast catchments (Norris, et al., 2021). The WPF is a spatial framework that utilises spatial model data from multiple sources and applies geospatial techniques for determining priorities based on risk. It provides a decision support tool for prioritisation across catchments, identifying locations with the greatest potential for water quality improvement, and with the likely greatest cost benefit in implementing soil conservation mitigations. The results of the WPF identify the Kerikeri and Waitetuna sub-catchments as the first and second highest priorities respectively for management of both soil conservation (Figure 6) and water quality risk (nitrogen, phosphorus and E. coli). This aligns with the assessment undertaken in 2018. It is therefore likely that catchment management works in these locations will lead to more positive sediment reduction and water quality improvements for the harbour than similar work at other locations.

Figure 6: Soil conservation factor scores for sub-catchments of Whāingaroa catchment (Norris, et al., 2021).



6 Funding

The council collects rates (general and targeted) for flood protection, river management, soil conservation works and other catchment management works based on areas of benefit and activities that contribute to the programmes being managed. This is outlined in the *West Coast Zone – Funding Policy Statement* (Waikato Regional Council, 2010).

The actions identified in this HCMP and funded by the council will be implemented under the current levels of service agreed with the community and referenced in the West Coast Zone Plan (Waikato Regional Council, 2024).

Funding programmes include the following.

- Catchment new works: This programme can incentivise landowners in priority locations to undertake catchment management activities including fencing and planting that enhance the special values that characterise the catchment such as wetlands, rivers, coastal and estuarine ecosystems. Actions must go beyond regulatory requirements. Where funding is limited, projects that have multiple benefits will be prioritised.
- River management: This programme enables the council to work with landowners in priority catchments to achieve stable rivers, manage flood waters and enhance the environmental values of river systems. Typical works include removing and/or relocating obstructions, vegetation management to improve channel conveyance, capacity and stability, and mitigation of bank erosion.
- Hill Country Erosion Fund: The council has been successful in obtaining funding from the Ministry for Primary Industries (MPI) to support landowners undertaking hill country erosion mitigations in priority catchments. This fund currently runs until 2027.
- Coastal enhancement fund: This funding is available to undertake priority partnership projects with iwi and communities, particularly on public or Māori owned land. Sites with high biodiversity value, or high community values on private land, are also considered.
- Biodiversity funding: The council supports community environmental projects regionally through the Natural Heritage Partnership Programme (NHPP). This programme comprises three separate contestable funds – the Natural Heritage Fund, the Environmental Initiatives Fund and the Small Scale Community Initiatives Fund.

This HCMP can also be used as a basis for the council, iwi, community groups or landowners to apply for restoration funding from other agencies such as central government, district councils or philanthropic organisations.

7 Plan development

In developing the HCMP for Whāingaroa, several phases of information gathering were completed to ensure the plan reflected the current state of the harbour catchment and the views of the iwi and communities for whom it is important to.

Phase 1 – Community and iwi engagement

The council undertook a wide range of engagement and consultation activities to identify iwi and community concerns and aspirations for the catchment, as well as ideas for future action. The consultation process included:

- workshops with iwi and communities
- area wide surveys (196 responses received)
- an agency and stakeholder workshop
- rural landowner meetings
- presentation and meetings with the community boards
- hui with tangata whenua.

Information from these engagement activities was compiled for each catchment and commonly occurring issues, themes and ideas were identified.

Phase 2 – Guidance from existing plans

The council recognises that significant work has previously been undertaken in establishing policies, objectives and actions for the west coast area, including the harbours. Information and guidance were drawn from key documents to inform the development of goals and actions for the harbour catchment plan. These documents included:

- *Waikato Regional Council Regional Policy Statement*
- *Waikato Regional Council Strategic Direction*
- *West Coast Zone Plan*
- *Waikato-Tainui Environmental Plan | Tai Tumu Tai Pari Tai Ao*
- *He mahere hapori whānui o Whāingaroa | Raglan Naturally, our community plan.*

Appendix 1 outlines the key components of these plans that the Whāingaroa HCMP is aligned to and will help to deliver on.

Phase 3 – Current state of the catchment

Early engagement undertaken at the start of HCMP development identified that communities and whānau wanted to be able to easily access information that the council holds on the current state of the Whāingaroa catchment. This information was not always easy for people to find, and not accessible in one place. In response to this, the council developed the *Whāingaroa Catchment Management Plan: Supporting information* report. This draws together all of the data and information gathered and stored by Council over the past 20 years relating to Whāingaroa catchment. This process also highlighted areas of risk and opportunity for each catchment with respect to sedimentation, water quality and biodiversity.

The supporting information report is available at **waikatoregion.govt.nz/services/publications/tr202408**

8 Concerns and aspirations

As part of the community and iwi consultation process undertaken in the development of this plan, we heard the following concerns about Whāingaroa Harbour.

- Erosion and the need for greater soil conservation measures within the harbour catchments (including hill country farmland).
- The impacts of sedimentation and water quality deterioration on swimming, shellfish populations and the enjoyment of the harbours at low tide.
- Stock grazing of wetlands.
- Intensification of erodible land in winter.
- Coastal erosion and flood hazards, including flooding of rivers.
- Upcoming regulations and national policies that may make it harder for farmers to operate – particularly on hill country.
- Community not working together – ostracising of farmers.
- The impacts of climate change and the effect of more intense weather events on hill country erosion, and on coastal settlements (including marae).
- The amount of forestry within the catchment and the need to ensure that it is well managed.
- Continuing loss of native biodiversity, and taonga species.
- Increasing plant and animal pests – including rabbits, possums, swans and Canada geese.
- Lack of information on water quality.

Iwi and community shared the following aspirations.

Water and land

- Harbour water quality is safe for swimming, food gathering and recreational enjoyment – no more walking through mud.
- Sedimentation in the harbour is reduced.
- Land is farmed to its capability and landowners are supported to do farm plans.
- Top soil is protected and kept in place.
- Stock are excluded from streams and margins are planted with native plants.
- Greater level of funding is available to accelerate erosion control and wetland protection actions.
- Catchment hazard management includes work further up the catchment such as wetland protection, poplar planting and river protection.
- Critical source areas are identified and addressed in a targeted way with landowners.

Biodiversity

- Wetlands are better protected and are restored.
- Bush remnants are retained and restored.
- Connections between different natural areas across the landscape are restored.
- There are more native planting and green spaces around harbour margins.
- Streams are retired and planted with native vegetation.
- Shellfish and fisheries resources support sustainable harvest.
- Pest control programmes are expanded and include Māori land that adjoins public land.
- Biological control is available for established pest populations.

People and communities

- Communities, iwi/hapū and agencies working together to undertake restoration.
- More marae-led projects are underway.
- Increased aquaculture in the catchment.
- Improved communication between councils and other agencies with landowners and sector groups to help them get ahead of regulatory changes.
- Better information is available for individuals and groups regarding available funding, support and advice.
- There are opportunities for catchment or sub-catchment groups to lead work in their areas with support from agencies.

Summary of iwi and community feedback

Communities, iwi and stakeholders were asked to identify and rank the values, concerns and actions that were most important to them.

What people value the most about Whāingaroa catchment
The natural state and unique geographical features of the harbour and catchment
The recreational values of the catchment
Biodiversity
Sources of kai/food
Accessibility to nature

Biggest concerns for the catchment
Silt and sedimentation
Water quality
Farm run-off
Erosion
Loss of biodiversity

Most desired actions
Fencing and planting to protect waterways and reduce sediment
Community education on keeping waterways healthy
Pest plant and animal control
Sustainable farming
Erosion mitigation

Note: Issues that are out of scope for this plan are not included

9 Catchment vision and goals

Input from iwi and communities, guidance from existing plans and scientific information held by the council were collated and together have been used to develop the vision, objectives and actions that form the operation focus of this HCMP.

The vision established for the Whāingaroa Harbour catchment is:

A healthy catchment, a healthy harbour and an engaged community.

9.1 Catchment goals

The goals developed to support the realisation of the vision for the Whāingaroa Harbour catchment are:

Water quality

Goal 1: Manage and reduce contaminants in priority sub-catchments to protect and enhance in-stream water quality and the Whāingaroa Harbour.

Goal 2: Maintain and enhance water quality so mahinga kai can be safely collected and consumed.

Land and its use

Goal 3: Appropriate land use is promoted and encouraged to manage the soil and land resources in the catchment.

Goal 4: The use of strategic incentives in priority sub-catchments is promoted to reduce erosion, decrease contaminants entering waterways and build resilience to climate change.

People and communities

Goal 5: Implementation of catchment management acknowledges and incorporates iwi and the wider community's cultural, historical, social, economic and spiritual connections with the catchment.

Goal 6: Landowners, mana whenua, community and stakeholders are working collaboratively towards environmental improvement.

Biodiversity and biosecurity

Goal 7: Identify significant biodiversity areas and values for protection and restoration.

Goal 8: An active and engaged community is involved in the protection and restoration of indigenous biodiversity in the catchment.

10 Implementation, monitoring and review

The following implementation plan is formulated to help address issues identified within the Whāingaroa Harbour catchment and provides a framework that can be utilised by all those involved in catchment management within the harbour catchment.

The aim of this implementation plan, which can be viewed in Appendix 1 on page 21, is to outline specific and tangible actions to be undertaken to help achieve the catchment vision and goals. The implementation plan sets out a description of each action, the priority catchment(s)/locations that the action will be undertaken in, and the measures for success.

The actions in this HCMP will be subject to a review in collaboration with the proposed Whāingaroa Iwi Advisory Group by December 2025. Following this, a full review is intended to be undertaken every six years and a limited review three years after each full review.

Monitoring of the HCMP goals will be ongoing and will focus on the following key aspects:

- completion of actions to measure the degree of implementation of this HCMP
- environmental outputs and outcomes demonstrating the effectiveness (or otherwise) of this HCMP
- the outcomes of the information gathered in respect of Table 2 below.

Progress against measures will be reported annually to the Integrated Catchment Management Committee and to iwi co-governance committees. A three-yearly summary report will be produced prior to each review of the HCMP.

Table 2: Whāingaroa Harbour catchment management plan measures of success

Goals	Measures
Goal 1: Manage and reduce contaminants in priority sub-catchments to protect and enhance instream water quality and the Whāingaroa Harbour.	• Area of wetland protected in priority sub-catchments. • Area of wetland protected on multiple Māori owned land blocks. • Length of incentivised fencing completed in priority sub-catchments. • Area of riparian plantings completed in priority catchments. • Length of incentivised fencing and area of planting on multiple Māori owned land blocks.
Goal 2: Maintain and enhance water quality so mahinga kai can be safely collected and consumed.	• Length and location of stock exclusion required quantified adjacent to the harbour margin. • Unfenced sites of cultural significance are identified. • Length of fencing completed adjacent to the harbour margin.
Goal 3: Appropriate land use is promoted and encouraged to manage the soil and land resources in the catchment.	• Number of promotional activities undertaken (e.g., newsletters, flyers, field days). • 70% of farms over 20ha in priority sub-catchment(s) have started a farm plan to meet Freshwater regulations.
Goal 4: The use of strategic incentives in priority sub catchments is promoted to reduce erosion, decrease contaminants entering waterways and build resilience to climate change.	• Prioritised areas for erosion control identified using Sednet modelled data in priority sub-catchments. • Area of hill country retired in priority sub-catchments. • Area of hill country revegetated in priority sub-catchments. • Area of hill country protected with pole planting in priority sub-catchments. • Sites of cultural significance protected in priority sub-catchments. • Area of native vegetation planted on multiple Māori owned land blocks. • Length of stream bank stabilised by river management works in priority sub-catchments.
Goal 5: Implementation of catchment management acknowledges and incorporates iwi and the wider community's cultural, historical, social, economic and spiritual connections with the catchment.	• Number of iwi-led projects of high cultural significance supported. • Number of projects co-designed and implemented with iwi (or hapū/marae).
Goal 6: Landowners, mana whenua, community and stakeholders are working collaboratively towards environmental improvement.	• Iwi advisory group formed. • The HCMP review is complete by the iwi advisory group. • Number of students within Kura Waitī ki Kura Waitā. • Number of promotional activities undertaken (e.g. newsletters, fliers, field days).
Goal 7: Identify significant biodiversity areas and values for protection and restoration.	• Mapped and prioritised biodiversity areas in Whāingaroa catchment completed. • Updated maps that identify additional important biodiversity areas that hold cultural significance. • The number of projects on private land, within the top 30% of priority ecosystems. • Number of biodiversity enhancement projects initiated on Māori land. • Number of river management sites where fish habitat enhancement has been included.
Goal 8: An active and engaged community is involved in the protection and restoration of indigenous biodiversity in the catchment.	• Area of land where pest plant or animal control has been undertaken. • The number of community groups that are undertaking biodiversity restoration activities. • The number of community groups that are undertaking pest management activities.

11 Appendices

Appendix 1 - Implementation plan

Water quality – Whāingaroa catchment
Goal 1 - Manage and reduce contaminants in priority sub-catchments to protect and enhance in-stream water quality and the Whāingaroa Harbour **Goal 2 - Maintain and enhance water quality so mahinga kai resources can be safely collected and consumed**

Action area	Goal. action	Action	Priority Sub-catchment(s)	Outcome	Measure	Who is involved	Date	WRC programme lead
Wetlands	**G1.1**	When on farm, catchment management staff will Identify wetland areas for protection (fencing considered when over and above the minimum action requirements in freshwater farm plans) within the priority sub-catchment(s) that will help mitigate sediment and nutrient contamination. Where enhancement for biodiversity is possible, this will be considered. When working with Trustees of Multiple Māori owned land (MMOL) seek to identify and protect wetlands and puna of cultural significance.	Kerikeri , Waitetuna	Reduced sediment and nutrient contamination, enhanced biodiversity. Wetland sites of cultural significance area protected and enhanced. Enhanced environmental stewardship for iwi.	Area of wetland protected per year in the priority sub-catchments (from 2025). Area of wetland protected on Māori owned land.	WRC – ICM Landowners Trustees of MMOL	Ongoing from July 2024	West Coast Zone programme
Stock exclusion	**G1.2**	Advocate to landowners stock access requirements to "defined" waterways (Waikato Regional Plan, Freshwater National Environmental Standards, 360 Stock regulations).	Whole of catchment	Improved water quality, reduced *E. coli* through reduced livestock contamination.	Guidance on stock exclusion requirements promoted in Zone newsletter(s), field days and on farm.	WRC – RUD WRC – ICM	Ongoing from July 2024	Primary Industry Engagement Section
Stock exclusion	**G1.3**	In priority sub-catchments use incentives and work with landowners and trustees of MMOLs to undertake riparian restoration over and above the minimum requirements in regulations (Waikato Regional Plan, Freshwater National Environmental Standards, 360 Stock regulations) along 10 km of identified waterways from July 2024. Seek opportunities for secondary benefits for protection of habitat for mahinga kai.	Kerikeri Waitetuna	Improved water quality, biodiversity and habitat for mahinga kai through enhanced riparian zones.	The length of incentivised fencing and area of riparian plantings completed. Length of incentivised fencing and planting on MMOL.	WRC – ICM	Ongoing from July 2024	West Coast Zone programme
Stock exclusion	**G2.1**	Determine the amount of remaining stock exclusion required adjacent to the Whāingaroa Harbour margin.	Harbour margins	Assisted strategic planning for stock exclusion to enhance harbour water quality, estuarine health and areas of mahinga kai.	Length and location of stock exclusion required quantified in Whāingaroa catchment.	WRC – ICM Landowners	July 2026	West Coast Zone programme Biodiversity programme

Action area	Goal. action	Action	Priority Sub-catchment(s)	Outcome	Measure	Who is involved	Date	WRC programme lead
Stock exclusion	**G2.2**	Collaborate with landowners and iwi to support completion of fencing of Whāingaroa Harbour margin, incorporating identified sites of significance.	Harbour margins	Improved Water Quality and Habitat Protection. Culturally significant sites are respected and protected.	Unfenced sites of cultural significance are identified. Length of fencing completed around harbour margin.	WRC – ICM Landowners Iwi/hapū	Ongoing from July 2024	West Coast Zone programme Biodiversity programme
Working with iwi	**G2.3**	Work with iwi, hapū and marae to identify and partner on projects that protect and enhance mahinga kai resources.	Whole of catchment	Improved habitat for mahinga kai at sites identified as important to iwi.	Number of projects being implemented.	Iwi/hapū WRC – ICM	Ongoing from July 2024	West Coast Zone programme
Farm planning	**G2.4**	Support landowners throughout the catchment to develop farm plans. Provide farm planning guidance with a focus on reducing contaminants and the opportunity to attend farm planning workshops in collaboration with farming sector bodies.	Whole of catchment	Enhanced farm management practices reducing contaminant levels.	Number of workshops held. Number of completed plans.	WRC – RUD Industry Landowners	Ongoing from July 2025	Primary Industry Engagement Section
Farm planning	**G1.3**	Identify Multiple Māori owned land (MMOL) within the catchment and engage to understand aspirations of Trustees for their farms. Hold farm planning workshops for Trustees/managers to support development of farm plans and identify funding opportunities for implementation.	Kerikeri , Waitetuna, Waingaro	Informed and engaged MMOL trustees preparing tailored farm plans.	Number of workshops.	WRC – RUD WRC – ICM	Workshops held by July 2027	Primary Industry Engagement Section
Farm planning	**G1.4 and G2.5**	Through the MPI Hill Country Erosion programme, identify flagship Māori landowners to pilot farm plan development on land that is in multiple ownership. Incorporate traditional knowledge on land use and erosion control.	Whole of catchment	Increased involvement of Māori in farm planning. Culturally informed practices contribute to sustainable land management.	Number of farm plans with Māori landowners. Engagement rate of MMOL trustees in farm planning processes.	WRC – ICM WRC – RUD MMOL Trustees	July 2027	West Coast Zone programme
Education	**G2.6**	Provide information and advice to landowners and communities on the methods to reduce contaminants entering water. Provide water quality monitoring information to community, landowners, mana whenua as it becomes available and promote the use of the LAWA website.	Whole of catchment	Increased awareness and engagement with contaminant reduction practices.	Information published in Zone newsletters and on WRC website.	WRC – RUD WRC – ICM	Ongoing from July 2024	Primary Industry Engagement Section

Action area	Goal. action	Action	Priority Sub-catchment(s)	Outcome	Measure	Who is involved	Date	WRC programme lead
Education	**G2.7**	Work with industry to promote best practice management on land – nutrient management, fertiliser/pesticide use, stream crossings, tracking, grazing practices, drainage, cropping/harvesting practices.	Whole of catchment	Improved land management practices reducing environmental impact.	Summary of Good Management Practices available on WRC website.	WRC – RUD Industry	July 2025	Primary Industry Engagement Section

Land and its use - Whāingaroa catchment

Goal 3 - Appropriate land use is promoted and encouraged to manage the soil and land resources in the catchment
Goal 4 - The use of strategic incentives in priority sub catchments is promoted to reduce erosion, decrease contaminants entering waterways and build resilience to climate change

Action area	Goal. Action	Action	Priority sub-catchments	Outcome	Measure	Who is involved	Date	WRC Programme Lead
Soil conservation	**G3.1**	Promote best management practices on Land Use Capability (LUC) class 6e and 7 land in pasture that is erosion prone – advocate land retirement, forestry, pole planting and suitable stock regimes.	Whole of catchment	Increased awareness and adoption of erosion reducing practices.	Number of promotional activities undertaken (newsletters, fliers, field days).	WRC – ICM	Ongoing from July 2024	West Coast Zone programme
Soil conservation	**G4.1**	Review outputs from the Waikato Regional Prioritisation Project using new Sednet modelled data to confirm priority areas for erosion control within the priority sub-catchment(s).	Kerikeri, Waitetuna, Waingaro	Enhanced decision-making for effective erosion control.	Mapped and prioritised erosion control areas in priority sub-catchments.	WRC – ICM WRC – SPI	June 2025	West Coast Zone programme
Soil conservation	**G3.2**	Seek advice from proposed Whāingaroa iwi advisory group on best practice for protection of soils and erosion prone sites of significance.	Whole of catchment	Strategies that combine modern agricultural methods with traditional ecological knowledge. Greater involvement of iwi in development of best practice boosts adherence to sustainable practices.	Traditional knowledge incorporated in review of Whāingaroa Catchment Management Plan and implemented in Whāingaroa catchment.	WRC – ICM Whāingaroa Iwi Advisory Group	June 2026	West Coast Zone programme
Soil conservation	**G4.2**	In priority sub-catchments provide incentives for hill country erosion control (40 ha/yr over 10 years with treatment options – pole planting, revegetation species and retired and natural revegetation). Seek to protect sites of cultural significance where known. This could include protecting mahinga kai and sites important for taonga species.	Kerikeri, Waitetuna, Waingaro	Reduced erosion of hill country and sedimentation in waterways.	Area of hill country retired. Area of hill country revegetated. Area of hill country protected with pole planting. Sites of significance protected.	WRC – ICM Landowners	July 2027	West Coast Hill Country Erosion Control programme

Action area	Goal. Action	Action	Priority sub-catchments	Outcome	Measure	Who is involved	Date	WRC Programme Lead
Soil conservation	**G4.3**	On MMOL include provision in planting plans for the revitalisation of native plant species traditionally used by Māori.	Whole of catchment	Diverse native species supporting wider ecosystem health. Traditional plant sources are preserved, enriching cultural ties and environmental resilience.	Area of native vegetation planted on MMOL.	WRC – ICM MMOL Trustees and managers	Ongoing from July 2024	West Coast Zone programme
River management	**G4.4**	Identify areas for proactive river management within the priority sub-catchment(s). Use local knowledge and further survey of stream bank erosion. Complete an annual works plan and review the sub-catchment(s) after five years.	Waitetuna, Waingaro	Enhanced knowledge on areas of river instability.	Priority areas mapped for river management within priority sub-catchments. Annual programme of works developed.	WRC – ICM	Ongoing from July 2024	West Coast Zone programme
River management	**G4.5**	Investigate funding opportunities to work with iwi to map priority river sections of cultural significance.	Waitetuna, Waingaro	Areas identified for their importance to local Māori clearly delineated.	Funding secured to support cultural mapping. Specific river sections mapped for cultural significance.	WRC – ICM Iwi/hapū	June 2026	West Coast Zone programme
River management	**G4.6**	Provide incentives for remediation and prevention of stream bank erosion in priority sub-catchment(s). Work in partnership with landowners in the priority sub-catchment(s) to complete required works. New fences to be a minimum of 5m from top of bank to allow for river movement. Plant species include those effective for erosion control. When undertaking works, seek to incorporate benefits for protecting habitats of taonga species and other identified sites of significance.	Waitetuna, Waingaro	Improved water quality and reduced erosion. Channel capacity maintained. Management strategies safeguard areas for Māori cultural practices.	Length of stream bank stabilised by river management. Sites of significance protected.	WRC – ICM Landowners	Ongoing from July 2024	West Coast Zone programme
River management	**G4.7**	Update the regional river management best practice guidelines to incorporate cultural values and principles. Apply these in the Whāingaroa catchment.	Whole of catchment	Best practice guidelines consider both ecological and cultural health.	Updated best practice guidelines.	WRC – ICM WRC – Tai-Ranga-Whenua Iwi	December 2026	ICM Zone Managers West Coast Zone programme
Farm planning	**G3.3**	Support landowners throughout the catchment to develop farm plans. Provide farm planning guidance and the opportunity to attend workshops in collaboration with farming sector bodies.	Whole of catchment	Improved farm management practices and compliance with regulations.	Number of workshops held and attendance at farm planning workshops.	WRC – RUD WRC – ICM Industry Landowners	From July 2025	Primary Industry Engagement Section

Action area	Goal. Action	Action	Priority sub-catchments	Outcome	Measure	Who is involved	Date	WRC Programme Lead
Farm planning	**G3.4**	Advocate for proposed iwi advisory group to undertake a review of the farm plan Catchment Context for the West Coast.	Whole of catchment	Actions within farm plans consider local cultural values.	Reviewed Catchment Context incorporates Māori values and knowledge.	WRC – RUD	June 2025	Primary Industry Engagement Section
Farm planning	**G3.5**	Undertake targeted farm planning assistance in priority sub-catchment(s) and on farm sessions with workshop participants to reach the point where farm plans could be certified.	Keri Keri, Waitetuna	Certified farm plans meeting regulations.	70% of farms over 20 ha in Whāingaroa priority sub-catchment(s) have started a farm plan to meet Freshwater regulations.	Industry WRC – RUD WRC – ICM	July 2026	West Coast Hill Country Erosion Control programme Primary Industry Engagement Section
Education	**G3.6**	Provide information and advice to landowners on soil conservation and methods to reduce sediment entering water within the Whāingaroa catchment.	Whole of catchment	Raised awareness and knowledge on soil conservation. Landowners undertake measures to reduce on-farm erosion.	Number of newsletters or events where information and advice has been made available to landowners and community.	WRC – RUD WRC – ICM	Ongoing from July 2024	West Coast Zone programme
	G3.7	Work with industry to promote best practice management on land – e.g. nutrient management, fertiliser/pesticide use, stream crossings, tracking, grazing practices, drainage, cropping/harvesting practices.	Whole of catchment	Improved land management practices, reducing environmental impact and enhanced sustainability.	Number of opportunities to provide best practice management information to landowners and/or collaboration events.	Industry WRC – RUD	Ongoing from July 2024	Primary Industry Engagement Section

People and communities – Whāingaroa catchment

Goal 5 – Implementation of catchment management acknowledges and incorporates iwi and the wider community's cultural, historical, social, economic and spiritual connections with the catchment.
Goal 6 – Landowners, mana whenua, community and stakeholders are working collaboratively towards environmental improvement.

Action area	Goal. Action	Action	Priority sub-catchment(s)	Outcome	Measure	Who is involved	Date	WRC Programme Lead
Working with iwi	**G6.1**	At least two hui per annum held with iwi authorities or their delegated Taiao forum to discuss work programmes and progress on achieving the outcomes of this plan.	Whole of catchment	Improved communication, engagement and building of trust. Enhanced collaborative efforts and shared cultural and environmental objectives.	Number of hui held annually.	WRC – ICM Iwi authorities	From July 2024 onwards	West Coast Zone programme
Working with iwi	**G6.2**	Form a Whāingaroa iwi advisory group (IAG) (or use an existing suitable forum) with iwi and marae representatives for ongoing engagement, input and connection to Māori communities in Whāingaroa for catchment and river management matters.	Whole of catchment	Catchment and river management programmes in Whāingaroa catchment respects and incorporates Māori cultural values.	Iwi advisory group formed.	WRC – ICM WRC – Tai-ranga-whenua Iwi	December 2024	West Coast Zone programme
Working with iwi	**G6.3**	Whāingaroa iwi advisory group to review and provide further input into Whāingaroa Catchment Management Plan (CMP).	Whole of catchment	CMP is effective and culturally appropriate. CMP incorporates local cultural perspectives and foster collaboration for environmental improvement.	CMP review is complete.	WRC – ICM WRC – Tai-ranga-whenua Whāingaroa iwi advisory group	December 2025	West Coast Zone programme

Working with iwi	**G5.1**	Identify opportunities to work with iwi/hapu/marae to support iwi aspirations and projects of high cultural significance. This may include undertaking cultural health assessments.	Whole of catchment	Protection of cultural heritage and catchment health through integrated management practices. Jointly developed projects focused on iwi priority sites. Projects that are deeply rooted in mātauranga Māori.	Number of iwi-led projects being supported.	WRC – ICM Iwi, marae, hapū WRC – Tai-ranga-whenua	From July 2024 onwards	West Coast Zone programme
Working with iwi	**G5.2**	Subject to iwi capacity, co-design at least one project each with Waikato-Tainui (or hapū/marae) and commence implementation.	Whole of catchment	Shared responsibility is fostered and enhances project outcomes through co-design.	Number of projects co-designed and implemented.	WRC – ICM WRC – RUD Iwi/hapū/marae	Design July 2026, implementation by 2028	West Coast Zone programme
Working with community	**G6.4**	Support the wider community's environmental aspirations by providing assistance in project identification, project support and community engagement. Provide information on funding opportunities.	Whole of catchment	Empowering community-led environmental improvement and sustainability projects.	Number of projects supported.	WRC – ICM	Ongoing from July 2024	West Coast Zone programme Biodiversity and Biosecurity teams
Working with community	**G6.5**	Hold annual meetings between District Councils, Department of Conservation (DOC), iwi and Waikato Regional Council to meet annually to discuss work programmes and identify areas for collaboration.	Whole of catchment	Better collaboration across agencies enhances overall environmental management strategies.	Number of meetings held.	WRC – ICM	Ongoing from July 2024	West Coast Zone programme – Zone Manager
Catchment information	**G5.3**	Promote and raise awareness of the values, status and progress with protecting and enhancing the harbour catchment.	Whole of catchment	Informed community enthusiastic about catchment protection and enhancement.	Annual Whāingaroa catchment newsletter. Use of StoryMaps platform.	WRC – ICM WRC – SPI WRC – RUD WRC – Comms	Ongoing from July 2024	West Coast Zone programme – Zone Manager

Catchment information	**G5.4**	Maintain, update and promote the WRC Hazards portal to ensure that the best available information is readily accessible to public, local authorities and others on natural hazard risks.	Whole of catchment	Community is engaged and informed on natural hazard risks.	WRC website is updated. Portal is promoted in annual Whāingaroa newsletter.	WRC – ICM WRC – Comms	Ongoing from July 2024	Regional Resilience Team
Catchment information	**G5.5**	Develop a West Coast Natural Hazard Risk Management Plan which details all the hazards for the zone, their ranking, and outlines responsibilities for their management.	Whole of zone	Community is engaged and informed on natural hazard risks.	Hazard information is made available in newsletters and on WRC website	WRC – ICM WRC – Comms	June 2026	Regional Resilience Team
Education	**G6.6**	Support the uptake of appropriate climate change actions through education, planning and understanding the role the community can play now and into the future to improve climate resilience.	Whole of catchment	Enhanced community knowledge and proactive engagement in climate resilience strategies.	Articles in Zone and catchment newsletters.	WRC – ICM WRC – SPI WRC – Comms	Ongoing from July 2024	West Coast Zone programme – Zone Manager
Education	**G6.7**	Support development and implement educational programmes Kura Waitī ki Kura Waitā (River Schools to Moana Schools) to help advance mātauranga māori kaupapa in environmental education involve school children in understanding and caring for the Whāingaroa Harbour catchment.	Whole of catchment	Development and implementation of a structured educational programme. Increased environmental awareness and stewardship among students.	Number of students within Kura Waitī ki Kura Waitā	WRC – RUD WRC – ICM	Ongoing from July 2024	Environmental Education Team

Biodiversity and biosecurity – Whāingaroa catchment

Goal 7 – Identify significant biodiversity areas and values for protection and restoration
Goal 8 – An active and engaged community is involved in the protection and restoration of indigenous biodiversity in the catchment

Action area	Goal. Action	Action	Priority sub-catchment(s)	Outcome	Measure	Who is involved	Date	WRC Programme Lead
Priority sites	**G7.1**	A prioritisation process has been developed to identify important biodiversity areas for future management and protection. This will be utilised to identify priority sites within the catchment.	Whole of catchment	Conservation efforts are targeted to protect and manage key biodiversity areas effectively.	Mapped and prioritised biodiversity areas in Whāingaroa catchment completed.	WRC – ICM	July 2025	Biodiversity programme
Priority sites	**G7.2**	Collaborate with iwi and hapū using proposed iwi advisory group to review mapped biodiversity areas and identify traditional knowledge to identify and map important biodiversity areas that hold cultural significance or offer potential for mahinga kai and sites of significance.	Whole of catchment	Mapping process includes Māori perspectives and supports iwi responsibilities in environmental guardianship, promoting sustainability.	Updated maps that identify additional important biodiversity areas that hold cultural significance.	WRC – ICM Iwi advisory group	July 2026	Biodiversity programme
Priority sites	**G7.3**	Develop a works programme for priority biodiversity management (20 years). Undertake appropriate actions (fencing, weed/pest control and revegetation) in identified high value biodiversity areas, including those used by threatened species.	To be determined	Enhanced ecological health and resilience of high-value ecosystems through sustainable management practices.	The number of projects on private land, within the top 30% of priority ecosystems.	Landowners WRC – ICM	Ongoing from July 2025	Biodiversity programme West Coast Zone programme
Priority sites	**G7.4**	Within priority biodiversity sites on MMOL include provision in project plans for the revitalization of native plant species traditionally used by Māori and for traditional practices in fencing, weed control and revegetation.	To be determined	Restoration projects on MMOL have integrated traditional Māori knowledge with modern practices.	Number of biodiversity enhancement projects initiated on Māori land.	WRC – ICM Owners of MMOL	Ongoing from July 2024	Biodiversity programme
Priority sites	**G7.5**	Work with partners - iwi, hapū, DOC, District Councils, Nga Whenua Rāhui, and landowners to identify priority sites and opportunities for	To be determined	Strengthens community and inter-agency cooperation, leading to more	The number of projects developed with partners.	WRC – ICM Iwi DOC TLAs	Ongoing from July 2024	Biodiversity programme

		partnership restoration projects that protect vulnerable ecosystems.		comprehensive and effective conservation outcomes.		Landowners		West Coast Zone programme
Biosecurity	**G8.1**	Work with landowners and community groups to protect biodiversity in the catchment by controlling nuisance populations of pest plants and animals.	Whole of catchment	Reduced impact of invasive species, promoting the restoration and preservation of native biodiversity.	Area of land where pest plant or animal control has been undertaken.	WRC – ICM	Ongoing from July 2024	Biosecurity programme West Coast Zone programme
Biosecurity	**G8.2**	Support the development of community-led action for high interest pests that are not included within the Regional Pest Management Plan (such as Canada geese). Engage with expert(s) to provide information on strategies for population reduction and control.	On community request	Targeted community actions against specific pests is enabled, enhancing local biodiversity through effective pest control strategies.	Report on active groups within the catchment.	WRC – ICM Community Iwi Fish and Game	July 2025	Biosecurity programme
Fish habitat	**G7.6**	Identify opportunities for enhancement of fish habitat sites within priority river management areas (or sub-catchment).	Priority river management areas	The management and conservation of fish habitats enhancing aquatic biodiversity is supported.	Number of river management sites where fish habitat enhancement has been included.	WRC – ICM	Ongoing from July 2025	West Coast Zone programme
Fish habitat	**G7.7**	Implement the use of the Fish Passage Assessment Survey app (NIWA Citizen Science) so Council staff can identify fish passage barriers and map, when out on-site visits.	Whole of catchment	Removal or mitigation of barriers to fish movement is facilitated, improving fish survival and distribution.	Fish barrier locations mapped.	WRC – ICM Community	Ongoing from July 2024	West Coast Zone programme
Community groups	**G8.3**	Work with community groups to protect identified biodiversity areas in the catchment using support and funding assistance where available.	Whole of catchment	Enhanced local engagement and stewardship of biodiversity areas, leading to better protection and restoration outcomes.	The number of community groups that are undertaking biodiversity restoration activities.	WRC – ICM Community Iwi	Ongoing from July 2024	Biodiversity programme
Community groups	**G8.4**	Support community initiatives for pest management activities and encourage wider collaboration. Showcase and celebrate biosecurity achievements where communities and groups have achieved significant biodiversity gains.	Whole of catchment	Strengthened community capacity to manage pests, improving local biodiversity health.	The number of community groups that are undertaking pest management activities.	WRC – ICM Community Iwi	Ongoing from July 2024	Biosecurity programme

Coastcare	**G8.5**	Take an active role in restoring and protecting dune systems through the Coastcare programme.	Coastal dunes	Enhanced dune ecosystem stability and biodiversity through restoration efforts.	Area of restoration in Whāingaroa catchment.	WRC – ICM Iwi Landowners	Ongoing from July 2024	Biodiversity programme
Education	**G8.6**	Carry out community education on surveillance monitoring for new biosecurity risks.	Whole of catchment	Risks of high profile pests are highlighted and the community of biosecurity measures and undertaking preventative actions.	Community newsletter includes biosecurity news section.	WRC – ICM Iwi Community	Ongoing from July 2024	Biosecurity programme

Appendix 2 - Policy connection summary

Water quality	
Goal 1: Manage and reduce contaminants in priority sub-catchments to protect and enhance Whāingaroa Harbour.	
Goal 2: Maintain and enhance water quality so mahinga kai can be safely collected and consumed.	
West Coast Zone plan	Protect and enhance the productive soil capacity, fresh and marine water quality and biodiversity. Direct resources to activities and areas of greatest environmental benefit.
WRC Strategic direction priorities	Clean water and healthy aquatic ecosystems that meet iwi aspirations and community needs within environmental limits. Healthy marine ecosystems that provide us with many benefits like recreation, food, improved water quality, increased resilience to climate change and sustainable economic opportunities.
WRC Policy statement	CE-CMA-O2: Recognise and provide for the mauri and health of marine waters by: 1. maintaining the following: a. natural character and natural function; b. health and functioning of indigenous biodiversity, ecosystems and habitats; c. human relationships with marine water including: I. the cultural and traditional relationship of tangata whenua with marine waters; II. harvesting of aquatic food species and mahinga kai that is safe to eat; and III. recreation values including swimming; 2. improving the life-supporting capacity of marine waters where they have been degraded as a result of human activities; 3. to enable people and communities to provide for their social, economic and cultural wellbeing and for their health and safety; and 4. managing adverse cumulative of land use activities on water in the coastal marine area. LF-O1: Maintain or enhance the mauri and identified values of fresh water bodies including by: 1. maintaining or enhancing the overall quality of freshwater within the region; 2. safeguarding ecosystem processes and indigenous species habitats; 3. safeguarding the outstanding values of identified outstanding freshwater bodies and the significant values of wetlands; 4. safeguarding and improving the life supporting capacity of freshwater bodies where they have been degraded as a result of human activities, with demonstrable progress made by 2030; 5. establishing objectives, limits and targets, for freshwater bodies that will determine how they will be managed; 6. enabling people to provide for their social, economic and cultural wellbeing and for their health and safety; 7. recognising that there will be variable management responses required for different catchments of the region; and 8. recognising the interrelationship between land use, water quality and water quantity.
Waikato-Tainui Environmental Plan – Tai Tumu Tai Pari Tai Ao	19.4.2: Water quality is such that fresh waters within the rohe of Waikato-tainui are drinkable, swimmable and fishable in all places (with water quality to the level that kiingi taawhiao could have expected in his time). 19.4.3: An integrated and holistic approach to management of water is achieved. 24.3.1: The mauri of marine waters in the Waikato-Tainui coastal area is protected and enhanced and the marine biodiversity in the Waikato-Tainui coastal area is restored and protected.
He mahere hapori whānui o Whāingaora – Raglan Naturally, our community plan	All harbour catchment waterways are appropriately fenced and riparian buffer zones planted in native species. Planting of native trees.

Land and its use	
Goal 3: Appropriate land use is promoted and encouraged to manage the soil and land resources in the catchment.	
Goal 4: The use of strategic incentives in priority sub-catchments is promoted to reduce erosion, decrease contaminants entering waterways and build resilience to climate change.	
West Coast Zone plan	Protect and enhance the productive soil capacity, fresh and marine water quality and biodiversity. Direct resources to activities and areas of greatest environmental benefit.
WRC Strategic direction priorities	Clean water and healthy aquatic ecosystems that meet iwi aspirations and community needs within environmental limits. Resilient communities that plan for intergenerational wellbeing, develop with nature in mind and are able to respond to and recover from adversity. Work with others to transition to a competitive low emissions economy that's fair for everyone and enhances community wellbeing for the future.
WRC Policy statement	LF-O4: The soil resource is managed to safeguard its life supporting capacity, for the existing and foreseeable range of uses. LF-O5: The value of high class soils for primary production is recognised and high class soils are protected from inappropriate subdivision, use or development.
Waikato-Tainui Environmental Plan – Tai Tumu Tai Pari Tai Ao	21.3.1: Activities that accelerate soil erosion are managed effectively, including through the reforestation and retirement of marginal lands from existing intensive and environmentally unsustainable land uses. 21.3.2: The life supporting capacity of land and soils effectively manages soil nutrient loss and water quality so there is minimal impact on nutrient loss to waterways.
He mahere hapori whānui o Whāingaora – Raglan Naturally, our community plan	Continue sand dune planting and protection to act as natural buffers for sea-level rise and coastal erosion. Landowners implementing land use practices that protect the soil and water, e.g. organic, regenerative, sustainable practices.

People and communities	
Goal 5: Implementation of catchment management acknowledges and incorporates iwi and the wider community's cultural, historical, social, economic and spiritual connections with the catchment.	
Goal 6: Landowners, mana whenua, community and stakeholders are working collaboratively towards environmental improvement.	
West Coast Zone plan	Direct resources to activities and areas of greatest environmental benefit. Support mana whenua and strengthen community partnerships. Enhance outcomes for the West Coast through strengthened leadership and visibility.
WRC Strategic direction priorities	People working together to protect and restore our unique local native plants and animals, and the indigenous ecosystems they live in. Resilient communities that plan for intergenerational wellbeing, develop with nature in mind and are able to respond to and recover from adversity. Vibrant communities that are well connected with each other and to services. Work with others to transition to a competitive low emissions economy that's fair for everyone and enhances community wellbeing for the future.
WRC Policy statement	IM-O1: Natural and physical resources are managed in a way that recognises: 1. the inter-relationships within and values of water body catchments, riparian areas and wetlands, the coastal environment, the Hauraki Gulf and the Waikato River; 2. natural processes that inherently occur without human management or interference; 3. the complex interactions between air, water, land and all living things; 4. the needs of current and future generations; 5. the relationships between environmental, social, economic and cultural wellbeing; 6. the need to work with agencies, landowners, resource users and communities; and 7. the interrelationship of natural resources with the built environment. IM-O7: The relationship of tangata whenua with the environment is recognised and provided for, including: 1. the use and enjoyment of natural and physical resources in accordance with tikanga Māori, including mātauranga Māori; and 2. the role of tangata whenua as kaitiaki. IM-P3: Tangata whenua are provided appropriate opportunities to express, maintain and enhance the relationship with their rohe through resource management and other local authority processes. ECO-P3: Maintaining and enhancing indigenous biodiversity shall be promoted in an integrated and efficient manner including by working collaboratively with landowners, resource managers, tangata whenua and other stakeholders.
Waikato-Tainui Environmental Plan – Tai Tumu Tai Pari Tai Ao	21.3.4: Integrated catchment management occurs across the entire rohe of Waikato-Tainui, including in catchments that impact on, or flow into the Waikato-Tainui rohe. Integrated catchment management includes the effective and sustainable management of floodplains and drainage areas to promote natural habitat enhancement. 24.3.5: Waikato-Tainui coastal areas are managed in an integrated way, considering the upstream effects of land and freshwater activities. Productive relationships exist between those who impact on or use the resources of the WaikatoTainui coastal area.
He mahere hapori whānui o Whāingaora – Raglan Naturally, our community plan	Continue to support local organisations working in the environmental space. Community is aware of what is going on, and empowered to have their voices heard. Work with the Regional Council on their Harbour Catchment Management Plans.

Biodiversity and biosecurity	
Goal 7: Identify significant biodiversity areas and values for protection and restoration.	
Goal 8: An active and engaged community is involved in the protection and restoration of indigenous biodiversity in the catchment.	
West Coast Zone plan	Protect and enhance the productive soil capacity, fresh and marine water quality and biodiversity. Direct resources to activities and areas of greatest environmental benefit.
WRC Strategic direction priorities	People working together to protect and restore our unique local native plants and animals, and the indigenous ecosystems they live in.
WRC Policy statement	CE-O1: The coastal environment is managed in an integrated way that: 1. preserves natural character and protects natural features and landscape values of the coastal environment; 2. avoids conflicts between uses and values; 3. recognises the interconnections between marine-based and land-based activities; and 4. recognises the dynamic, complex and interdependent nature of natural biological and physical processes in the coastal environment. LF-O3: Maintain or enhance the mauri and identified values of fresh water bodies including by: 1. maintaining or enhancing the overall quality of freshwater within the region; 2. safeguarding ecosystem processes and indigenous species habitats; 3. safeguarding the outstanding values of identified outstanding freshwater bodies and the significant values of wetlands; 4. safeguarding and improving the life supporting capacity of freshwater bodies where they have been degraded as a result of human activities, with demonstrable progress made by 2030; 5. establishing objectives, limits and targets, for freshwater bodies that will determine how they will be managed; 6. enabling people to provide for their social, economic and cultural wellbeing and for their health and safety; 7. recognising that there will be variable management responses required for different catchments of the region; and 8. recognising the interrelationship between land use, water quality and water quantity. ECO-O1: The full range of ecosystem types, their extent and the indigenous biodiversity that those ecosystems can support exist in a healthy and functional state.
Waikato-Tainui Environmental Plan – Tai Tumu Tai Pari Tai Ao	20.3.1: Existing wetlands are protected and enhanced. 20.3.2: The relationship of Waikato-Tainui with its wetlands is enhanced through the restoration of wetlands and enhanced/permitted access for cultural purposes.
He mahere hapori whānui o Whāingaroa – Raglan Naturally, our community plan	Removal of pest plant species (public and private land), manage weeds without use of spraying when/where possible. Restoration of wetlands and conversion of marginal land to bush or wetland.

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Waikato
REGIONAL COUNCIL
Te Kaunihera ā Rohe o Waikato

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