









Peer reviewed by Grant Blackie on 4 April 2016

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West Coast Catchments Committee members (Councillors, community and iwi members)

West Coast Zone Team (Catchment Management Officers, River Management Officers, Manager Lower Waikato West Coast Catchment)

Integrated Catchment Management Directorate (River and Catchment Services, Natural Heritage Services, Land Management Advisory Services, Biosecurity Animal Pests and Plant Pests and Regional Hazard teams)

Science and Strategy Directorate (Water, Coastal, Land and Soils and the Integration and Infrastructure teams)

Prepared by:

Jude Addenbrooke, Zone Manager – West Coast, Integrated Catchment Management Angus McKenzie, Senior Catchment Planner, Integrated Catchment Management Leanne Lawrence, Zone Manager - West Coast, Integrated Catchment Management

For:

Waikato Regional Council Private Bag 3038 Waikato Mail Centre Hamilton 3240

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THE PURPOSE OF THE WEST COAST ZONE PLAN IS TO SET THE STRATEGIC DIRECTION FOR THE WAIKATO REGIONAL COUNCIL'S ("THE COUNCIL") OPERATIONAL ACTIVITIES WITHIN THE WEST COAST ZONE ("THE ZONE") OVER THE NEXT 10 YEARS.

The zone plan is the first of its type to be developed for the West Coast zone and will guide the implementation of operational activities within the zone with the vision of;

Healthy West Coast zone catchments for community and environmental wellbeing.

The council is seeking to build on past achievements within the zone in relation to soil conservation, water quality, indigenous biodiversity and industry engagement. The zone plan promotes a comprehensive and integrated approach to the delivery of its services in these key areas.

The zone plan identifies a range of key opportunities and challenges for the zone in the following areas:

- community partnerships and co-management
- soil conservation
- fresh and marine water quality
- indigenous biodiversity
- · natural hazards.

These opportunities and challenges have informed development of the vision, and of the objectives for this zone plan, which are:



The above objectives are to be met through a range of implementation actions (grouped into focus areas) either directly funded through the West Coast zone or funded through general rates as part of wider council operational activities. The plan brings these actions together to assist the improved integration of council services for the West Coast zone. The implementation actions described in this plan that are directly funded through the West Coast zone are at 2015/2016 levels and are subject to review.

The implementation of this plan and its effectiveness will be monitored and reported on an annual basis to the community. A major review of the plan will be conducted every six years, and a brief review three years after each major review.



THE WEST COAST ZONE PLAN IS THE FIRST OF ITS TYPE TO BE DEVELOPED FOR THE WEST COAST ZONE.

The West Coast Zone Plan is the first of its type to be developed for the West Coast zone. The zone plan is an important strategic document for the Waikato Regional Council that will guide the implementation of integrated catchment management activities within the zone over the next 10 years.

The council is seeking to build on past achievements within the zone in relation to soil conservation, water quality, indigenous biodiversity and industry engagement. The zone plan promotes a comprehensive and integrated approach to the delivery of council services in these key areas.

The zone plan cannot be delivered in isolation and will rely on successful engagement and collaboration with stakeholders to achieve its vision and objectives. Stakeholders can therefore expect high levels of engagement and collaboration in the practical day-to-day, non-regulatory actions that the council undertakes within the zone.

The West Coast zone contains a range of unique environments with significant natural, economic, social and cultural value. An ongoing challenge for the council over the life of the plan will be to prioritise and target limited resources into areas of greatest need for enhanced outcomes. Greater integration with, and effective advocacy across council business, will be important to tackling this challenge and this is a key focus area for the zone plan.

1.1 PURPOSE

The purpose of this zone plan is to set out the strategic direction (vision and objectives) for the council's integrated catchment management activities within the West Coast zone for the next 10 years. The plan provides an overview of the key opportunities and challenges for zone and the implementation actions required to achieve the strategic direction.

The implementation actions will give effect to key aspects of the Waikato Regional Council's Regional Policy Statement and Strategic Direction 2013-2016, and will guide the implementation of a number of the council's non-regulatory responsibilities under a variety of statutes.

The plan will guide the council and its key partners in implementing activities that support and enhance the health of West Coast zone catchments. At all levels the council will need to work in partnership with iwi, agencies, key stakeholders, agricultural sectors, landowners and the wider community to realise the zone plan vision and deliver integrated services under its key focus areas.

1.2 PLAN SCOPE

The West Coast Zone Plan is a strategic document that is to be delivered by the council's Integrated Catchment Management (ICM) directorate in four key activity areas.

- · catchment and river management
- · indigenous biodiversity
- animal and plant pest management
- · sustainable land management practices.

The West Coast Zone Plan is one of eight ICM zone plans that provide the strategic framework for catchment and river management activities within the Waikato region. Catchment Committees, including the West Coast Catchments Committee, support ICM to deliver zone plan activities with a specific focus on catchment and river management activities.

Whilst this zone plan sets the strategic direction for catchment and river management activities, it has a wider purpose to ensure that complementary ICM services are delivered in an integrated way, making best use of limited resources.

The key areas of scope for the plan are summarised in figure 1 below.

1.3 PLAN STRUCTURE

This zone plan is structured as follows:

- Section 2 sets out the legislative and policy context for the plan.
- Sections 3 and 4 describe the unique features of the West Coast zone and the key opportunities and challenges for integrated catchment management within the zone.
- Sections 5 and 6 contain the vision and strategic objectives for the zone.
- Section 7 sets out the key areas of focus for integrated catchment management activities under each objective and implementation actions and work programmes under each of the key focus areas.
- Section 8 describes the monitoring and review framework for the plan.

Zone management oversight
+
River and catchment management
Core activities

Waikato Regional Council activities

Information and influence

LEGISLATIVE AND POLICY FRAMEWORK TE ANGA Ā-TURE, KAUPAPAHERE HOKI

2.1 STATUTORY CONTEXT

The zone plan implements a number of the council's non-regulatory responsibilities under a variety of statutes, including:

- Resource Management Act 1991 (RMA)
- Soil Conservation and River Controls Act 1941
- Local Government Act 2002.

The zone plan also assists the council in implementing provisions of the Proposed Waikato Regional Policy Statement (PWRPS), the Waikato Regional Plan (WRP), the Waikato Regional Coastal Plan (WRCP) and the Regional Pest Management Plan (RPMP). The statutory and policy context for the zone plan is summarised in figure 2 below.

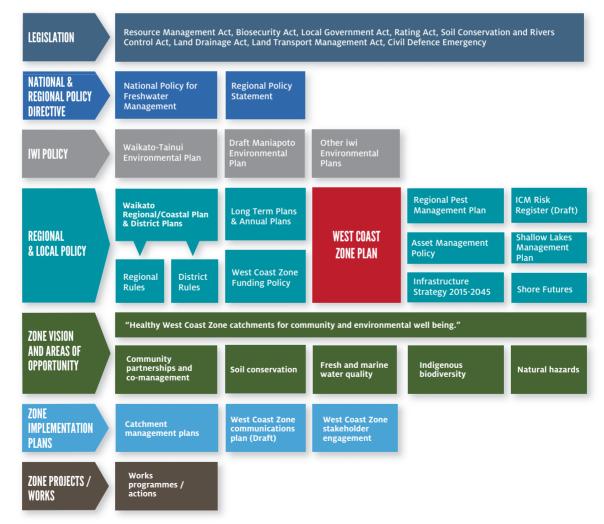


Figure 2: Statutory and policy context for the West Coast Zone Plan

The PWRPS has a number of objectives and policies which are relevant to river and catchment management issues within the zone, including the management of fresh water, indigenous biodiversity, natural hazards, the coastal marine area and soil conservation.

The PWRPS has a number of provisions relating to integrated management (see Objective 3.1 and Chapter 4). In particular, Method 4.13 (Co-ordinated approach) states:

Waikato Regional Council will seek opportunities to align its own activities, including the provision of works and services, regulation, education programmes and environmental initiatives, to maximise the benefits achieved.

A full review of the WRP and WRCP started late 2015 and ultimately the two plans will be combined and replaced by one: the Waikato Regional Plan. Notification of the first phase of the plan review (most of the current coastal plan and priority topics for the regional plan) is expected in 2017/18, with adoption of the Regional Plan programmed for 2025.

Of specific relevance to the West Coast, the council has recently commenced a study to understand the flushing and residence time of water in seven estuaries along the west coast: Waikato River estuary, Whaingaroa (Raglan) Harbour, Aotea Harbour, Kawhia Harbour, Marokopa River estuary, Awakino River estuary and Mokau River estuary. The information will be used to inform possible changes to the WRCP. The full review process will provide an opportunity to improve current policies and rules that may be identified during the implementation of this zone plan.

In parallel with the above, the council has launched Healthy Rivers: Plan for Change/Wai Ora: He Rautaki Whakapaipai and is working with stakeholders to develop changes to the regional plan to help restore and protect the health of the Waikato and Waipa rivers, which are key to a vibrant regional economy. The plan change will help achieve reduction, over time, of sediment, bacteria and nutrients (nitrogen and phosphorus) entering water bodies (including groundwater) in the Waikato and Waipa river catchments.

Although this plan change process does not include the West Coast zone (being outside the Waikato/Waipa River catchments), it will inform wider council direction around initiatives to improve water quality within the region. The zone plan needs to take account of this context through encouraging and promoting sustainable land uses and assisting landowners prepare for future changes that may result from this plan change process.

Further information regarding the legislative and policy framework for the zone plan can be found in the document titled Overview of River and Catchment Services – Waikato Region.

2.2 POLICY CONTEXT

The Strategic Direction for the Waikato Regional Council 2013-2016¹ was adopted in 2013 and sets out the strategic focus and priorities for the council. The strategic direction is supported by a range of strategies, plans and operational activities. Figure 3 below sets out how these fit together.



Figure 3: Waikato Regional Council Planning Model

¹ Download at www.waikatoregion.govt.nz/strategy

The key components of the strategic direction including the council's vision, mission, priorities, values and critical success factors are summarised in figure 4.



Figure 4: Summary of the Waikato Regional Council strategic direction

The strategic direction contains actions under the following priority areas that are directly relevant to the West Coast zone and the zone plan:

- Land and water Progressively prepare and implement zone management plans that are integrated across council functions.
- Coastal and marine Protection of the regions by taking an integrated management approach and implementing harbour and catchment management plans within the region.
- Regional development Collaborating with NZTA on their State Highway 3 (SH3) Regional Road Programme to improve road safety, route availability and driver experience.

- Iwi Māori co-governance Continuing to work with iwi partners to implement joint management agreements.
- Community partnerships Achieving more through collaboration with the community. Increased delegation to catchment committees.

The zone plan is a strategic document that set outs the key priorities for the West Coast zone and will assist the council in delivering its strategic direction. The key connections from the zone plan to the strategic direction are summarised in table 1 below.

			REGIONAL PRIORITIES					
			Land and water	Coastal and marine	Regional development	Iwi Māori co- governance	Community partnerships	
	1	To protect and enhance the productive soil capacity, fresh and marine water quality and biodiversity.	\checkmark	\checkmark	\checkmark			
CTIVES	2	To direct resources to activities and areas of greatest environmental benefit.	\checkmark		\checkmark		\checkmark	
OBJEC	3	To support mana whenua and strengthen community partnerships.				\checkmark	\checkmark	
	4	To enhance outcomes for the West Coast through strengthened leadership and visibility.			\checkmark	\checkmark	\checkmark	

Table 1: West Coast Zone Plan – connections with strategic direction



THIS SECTION PROVIDES A SUMMARY OF THE KEY ENVIRONMENTAL FEATURES OF THE WEST COAST ZONE. FURTHER DETAIL ON THE ENVIRONMENT AND GEOGRAPHY OF THE ZONE IS CONTAINED WITHIN THE DOCUMENT; WEST COAST ZONE PLAN SUPPORTING INFORMATION, 2016.

3.1 OVERVIEW

The West Coast zone covers a large geographic area of 425,835 hectares, or approximately 17 per cent of the Waikato Region, stretching from Port Waikato in the north, to Mokau River in the south, and as far inland as Benneydale. Its rivers and streams drain a large number of catchments to the Tasman Sea.

The zone encompasses three district councils; Waitomo, Otorohanga and Waikato; and overall has a low population base of less than 3 per cent of the region's population (Statistics New Zealand, 2006). Key settlements include Aotea, Aria, Awakino, Benneydale, Kawhia, Marokopa, Mokau, Piopio, and Raglan (see figure 6). Some isolated rural areas are experiencing population decline which may threaten the viability of some communities.



Figure 5: West Coast zone relative to the Waikato region



Figure 6: West Coast zone

3.2 HIGH VALUE FEATURES

The zone contains a range of high value natural habitats, landscapes and ecosystems that make the West Coast unique, and highlight the importance of on-going initiatives to maintain and enhance the environment of the West Coast zone (see figure 7).



A sample of these special features is listed below:

Coastal landforms along the West Coast are diverse and include sand and boulder beaches and wave-cut platforms backed by dunes, dune lakes or coastal pastures in some areas and by rocky headlands and the seaward faces of steep coastal hills in others. The mouths of streams, rivers and harbours cut through dunes and escarpments and discharge into the sea. In parts of the zone, there are small islands and coastal rock stacks out to sea. The vegetation growing in this landscape is correspondingly diverse, reflecting not only the variety of landforms, but also the degree of exposure to salt and wind from the sea. Vegetation ranges from dune tussock grassland, to cliff herb and shrub communities, to flaxlands, to pohutukawa or kohekohe treelands and forests.



Figure 7: Angle view of West Coast zone







- The harbours and major river mouths of the West Coast are of particular importance. Whaingaroa (Raglan), Aotea and Kawhia harbours; and the mouths of rivers such as Mokau and Marokopa all provide important habitats for shorebirds and shellfish, and nurseries for a range of species of fish. Gannet Island, which is nine nautical miles west of Aotea Harbour, and Albatross Point south of Kawhia Harbour, provide breeding sites for the New Zealand fur seal. Inanga, the most abundant of the 'whitebait' species on the West Coast, breed only in places where spring high tides inundate streams and river banks. Shorebirds that seasonally migrate through New Zealand mostly follow routes that run north and south along the West Coast and utilise the shelter and food resources provided by these harbours and river mouths.
- Dune lakes have formed along the West Coast where sand dunes have formed across catchment outlets and the water draining from each catchment has been impounded. Several of the dune lakes of the West Coast zone are considered to be particularly good examples of natural coastal dune lakes within the national context. The Taharoa Lakes Complex (Lakes Taharoa, Numiti. Rotoroa, Piopio and Rototapu) and Lake Harihari rank highly in terms of their ecological, recreational and cultural values. They retain comparatively high water quality, in comparison to many other lakes in the region. The lakes and their adjoining wetland areas also support significant biodiversity values, including diverse bird (including waterfowl, bittern, dabchick, and spotless crake) and fish communities. The relatively short, steep and forested streams of many parts of the West Coast are likely to support a wider diversity of native fish species than streams found further inland in the region.
- Considerable areas of the West Coast are still covered with native bush. In several places these grade from coastal forests, shrublands and flaxlands through lowland forests of species such as tawa, rimu and rata and up into submontane forests with cushion bog vegetation and kaikawaka forest growing at the summit in places such as Whareorino.
- Karst landscapes are widespread throughout the West
 Coast with features scattered from Port Waikato to
 Mokau. Features of the landscape are varied and include
 features such as; pools, caves, arches, disappearing
 streams and unique rock formations. These landscapes
 are amongst the most important speleological resource
 in the North Island, home to plants which favour
 limestone conditions and cave dwelling animals.



- A range of threatened plants and animals rely upon
 the special environmental conditions found in the
 natural areas of the West Coast. While some threatened
 species are found in lowland and submontane bush, a
 considerable number are confined to coastal habitats,
 including populations of the New Zealand fur seal at
 Gannet Island, Albatross Point and Tirua Point. Other
 threatened species are found in limestone country. Still
 other species rely upon wetlands, lakes and streams.
- The West Coast has a rich cultural heritage and has been a stronghold for Māori for many generations. Key iwi within the West Coast zone include Waikato-Tainui, Maniapoto and Ngāti Tama in the south. Each has rohe within the zone and significant ongoing interests in maintaining and restoring the health of the West Coast.
- The West Coast zone contains extensive areas of erosion prone (Class VI and VII) hill country and the West Coast zone has the highest proportion of highly erosion-prone farmland in the region. Erosion affects farm production and sends sediment into waterways where it damages water quality and aquatic life and is a significant issue for the zone.

 The West Coast zone is very sparsely populated and this is in part as a result of its rugged hill country and harbour topography. Agricultural land use on the West Coast generally remains of low intensity, and sheep and beef farming predominates. As noted above, the zone still also contains large tracts of undeveloped land.

These valued West Coast features have been a key consideration when exploring the opportunities and challenges for the West Coast zone and have informed the subsequent development of the vision, objectives and implementation actions proposed within this plan. Potential for enhancement of the above features has informed the development of implementation actions across all four objectives.

Further information regarding geography and environmental health of the zone can be found in the supporting document titled West Coast Zone Plan Supporting Information, 2016.

COUNCIL STAFF AND THE WEST COAST CATCHMENTS COMMITTEE HAVE IDENTIFIED A RANGE OF OPPORTUNITIES AND CHALLENGES TO IMPROVING THE EFFECTIVENESS OF INTEGRATED CATCHMENT MANAGEMENT IN THE WEST COAST ZONE.

The zone plan vision and objectives have developed in response to these and set out the focus for council's operational activities within the zone.

The opportunities and challenges identified are interrelated and for the purpose of this document are grouped as follows:

- community partnerships and co-management
- soil conservation
- · fresh and marine water quality
- · indigenous biodiversity
- natural hazards.

These groupings are well aligned with the key priority areas set out in the council's strategic direction: (refer Table 1, Section 2)

- land and water
- · coastal and marine
- regional development
- iwi Māori co-governance
- · community partnerships.

4.1 COMMUNITY PARTNERSHIPS AND CO-MANAGEMENT

SUMMARY

Challenges

The West Coast zone is a large geographic area with a sparse population and limited rating base and therefore faces challenges in funding effective catchment and river management works across the zone

Opportunities

Strengthening community/stakeholder partnerships and iwi co-management practices are key opportunities to deliver more effective catchment management outcomes for the zone.

The West Coast zone comprises a large geographic area with a relatively small rating base (approximately 7200 properties). This low rating base means that funding availability does not always match desired community outcomes for catchment and river work.

Community groups, landowners, iwi, hapū and a range of other organisations and groups are reliant on the healthy functioning of the natural and physical resources of the West Coast zone for their social, economic, cultural and environmental well-being. Many of these groups already undertake a range of initiatives that contribute positively to the vision and objectives of this zone plan.

It is important that Waikato Regional Council continues to engage and partner with community sectors to identify opportunities to work collaboratively together, avoid duplication of effort and add significant value where priorities are aligned. This collaborative approach is a challenge, but will assist in focusing resources into priority areas, where the biggest gains can be achieved.

Key iwi within the West Coast zone include Waikato-Tainui and Maniapoto, with a small portion of Ngāti Tama in the south. A significant component of enhancing community partnerships is embracing and supporting the comanagement resources with iwi and hapū. Co-management in its broadest sense includes:

- · the highest level of good faith engagement
- · consensus decision making as a general rule
- a range of management agencies, bodies and authorities working at a number of different levels
- processes for granting, transferring, varying and renewing consents, licences, permits and other authorisations for all activities that may impact on the health and wellbeing of the rivers and catchments
- the development, amendment and implementation of strategies, policy, legislation and regulations that may impact on the health and wellbeing of the rivers and catchments.

Council has prioritised working in partnership with iwi to implement Treaty settlement requirements and comanagement agreements and a range of settlements are anticipated on the West Coast over the next 10 years.

In addition to treaty settlement and co-management agreements, both Waikato-Tainui and Maniapoto have existing iwi environmental management plans that set out aspirations for environmental, economic, social and cultural enhancements. Many of the objectives and methods in these plans are similar to those set out in this zone plan.

Continuing proactive iwi, hapū and marae engagement, both within formal agreements and more informally, will be important to building enduring community partnerships and ensuring the objectives of this zone plan are met.

4.2 SOIL CONSERVATION

SUMMARY

nallenges

Large areas of the West Coast have high erosion risk and sediment yield and effective soil conservation is critical for maintaining the health of the West Coast catchments. Soil conservation often requires upfront investment and long term maintenance to realise environmental and production benefits. The challenge is to assist landowners in implementing long term strategies for soil conservation.

Opportunities

Funding is available to landowners to assist upfront investment and there is an opportunity to take advantage of external funding to increase support to landowners.

Over 50 per cent of the land subject to the highest erosion and sediment yielding catchments in the Waikato Region is situated within the hill country extending along the West Coast. The hill country is prone to shallow slip and sheet erosion, particularly where heavy livestock are grazed on steep land, and to slumping, earthflow and gully erosion. The zone's harbours, estuaries, karst and cave systems are particularly vulnerable to high sediment input.

Land use change and agricultural intensification in areas where there is limited land use capability can contribute to erosion and sedimentation issues. Some land use practices also adversely affect soil health², versatility and productivity by compaction and reducing fertility (Waikato Regional Council, 2012). Stream bank erosion is another source of sediment within waterways across the zone, with many watercourses within the zone having little or no erosion protection in place. Climate change is expected to result in more frequent extreme rainfall events, further exacerbating erosion and sedimentation problems.

Key management issues for the zone with respect to soil conservation and sustainable land management practices include:

- · stock access to waterways
- · hill country management
- · nutrient management
- increased stocking rates versus the capability of the land and soil
- loss of seeps and wet areas adjacent to streams
- riparian management
- impacts on water quality
- impacts on the habitats of taonga species
- negative effects on indigenous biodiversity, aquatic recreation and flood risks, as well as future pastoral productivity and community prosperity.

² Soil health encompasses soil physical and chemical conditions, and biological activities.

4.3 FRESH AND MARINE WATER QUALITY

SUMMARY

allenge:

Intensified land use, and increased demand for water in catchments are adversely impacting on water resources in the West Coast zone and in general water quality is declining. The challenge is to protect and enhance water quality within the zone.

pportunitie

A strong window of opportunity to address water quality decline exists now as many catchments are healthy and intensive land use change has not been undertaken to a large extent.

The total length (6287km) of rivers and streams in the West Coast zone accounts for 14.2 per cent of the total length of stream and river network in the Waikato region. Streams on the West Coast are generally short and steep with high connectivity to the sea for migrating fish.

In general, water quality in West Coast rivers and shallow lakes is in decline, often in the form of a gradual change that is not obvious from year to year. There is an opportunity to intervene to protect and enhance water quality in the zone, before these issues become more difficult to deal with.

Key issues in relation to water quality, use and access are:

- loss of sensitive and rare fish species which live in cool, forested, headwater habitats
- proliferation of stream weeds and algae in open, low gradient channels
- loss of ecologically significant springs and seepages
- losses of submerged plant communities which help maintain clear water in lakes
- increased prevalence of algal blooms in lakes (this can happen very rapidly, and is difficult to reverse)
- reduced recreational enjoyment and eco-tourism opportunities around freshwater fishing, swimming, and boating activities
- reduced opportunities for river and lake iwi to enjoy customary and traditional relationships with the water of the catchment.

Achieving National Policy Statement for Freshwater Management (Ministry for the Environment, 2014) outcomes is of high priority for the council, and will require significant investment and land management changes in the zone, and in the Waikato Region.

The actions set out in this zone plan associated with: developing harbour and catchment management plans; excluding stock from priority waterways, coastal marine areas, lakes and wetlands; and supporting appropriate sustainable land management practices will assist with meeting the objectives of the zone plan and relevant statutory requirements.

Over recent years, demand for water has increased, and is likely to continue to increase into the future. Competing water uses can result in water shortages and conflicts, and can place significant pressure on river catchments, lakes and wetlands. Therefore, the efficient use of water is important to increase water availability to a range of interests (Waikato Regional Council, 2012).

Public access to waterways is a matter of national importance; however there are locations and circumstances where access is not appropriate such as for public safety, natural hazards or for conservation purposes. Maintaining and establishing access (where possible) to waterways will provide for the cultural and spiritual values and customary uses of tangata whenua; and provide for the use and enjoyment of the amenity, scenic, and recreational values of rivers and lakes (Waikato Regional Council, 2012).



4.4 INDIGENOUS BIODIVERSITY

SUMMARY

allenge

Twenty percent of the Waikato Region's high priority indigenous biodiversity is found on the West Coast zone. These natural areas need active management to stop them shrinking and declining in quality.

portunitie

The co-ordination of efforts and expenditure will help ensure the best possible outcomes are achieved for natural habitats and the native species they support.

West Coast catchments are a mosaic of highly modified areas and highly significant indigenous ecosystems. These include lake, wetland, freshwater stream, karst (limestone), forest, coastal, dune and estuarine ecosystems. These ecosystems support a wide range of species, some of them at risk of extinction. An example of this is Archey's frog, which has a national stronghold in the Whareorino Forest. Unfortunately, this species has undergone a significant decline in population through loss of habitat and predation.

Like the rest of the country, indigenous forests of the West Coast have been reduced to about one third of their original extent, with much greater losses happening in coastal and lowland areas than in steeper hills and sub-montane areas. Wetland and dune areas have been even more heavily reduced than forests. The remaining indigenous ecosystems of the West Coast need to be protected from further reduction in extent and quality.

Throughout the zone there are a range of animal and plant pests which threaten indigenous species and habitats. The effects and severity of impact of each of these pests vary throughout the zone depending on the location of the site and the values that require protection.

Biodiversity management seeks to identify and work to protect and enhance significant indigenous flora and fauna. Protection includes fencing to keep stock out, planting to stabilise steep slopes and to shade streams, and pest control to remove exotic animals and plants that consume and compete with native species. Some of the issues associated with modifications to the natural environment include:

- reduction, fragmentation and isolation of indigenous ecosystems and habitats
- loss of corridors or connections linking indigenous ecosystems and habitats
- loss or disruption to migratory pathways in water, land or air
- the difficulty of restoring indigenous forest and other ecosystems once they have been lost
- effects of changes to water flows, levels and quality on ecosystems
- an increased threat from animal and plant pests
- loss of cultural values, amenity values and recreational opportunities.



4.5 NATURAL HAZARDS

SUMMARY

nallenge

There is limited detailed knowledge of the natural hazards that may impact the West Coast zone

pportunitie

There is an opportunity to improve risk management through increasing the knowledge of hazards.

The West Coast is considered a high energy coastline and, as such, there are a number of coastal hazards associated with it. These include cliff erosion and instability, coastal inundation, tsunamis, storm surges and oil spills.

In 2015, a tsunami study found that Port Waikato, Raglan Harbour and Aotea Harbour are at a low risk of inundation for a tsunami, but waves could cause strong surges and currents. The findings are the result of an investigation, funded by Waikato District Council, Waikato Regional Council and WEL Energy, carried out by Raglan-based eCoast. The study concluded that wave heights will be relatively small, but inundation may affect low-lying areas. It also concluded that tsunami may produce strong surges and currents, particularly at the entrance to the harbours, making it dangerous to be on or in the water. (Borerro, 2016)

At present there is little knowledge of the coastal processes and associated hazards along the West Coast. Therefore, a project has been initiated to collect LiDAR (light and radar surveying technology to measure distance) information to better assess soft shore dynamics, coastal inundation and

cliff instability. To gather data relating to water level, tidal gauges have been placed at Raglan and Kawhia.

In 2009 Waikato Regional Council and Otorohanga District Council prepared a natural hazard risk assessment report which identified that river flooding hazards pose the greatest risk in terms of potential loss of human life, social disruption, economic cost and infrastructure damage. Coastal flooding has the second highest risk, and land instability has the third highest risk. The report can be downloaded on the Waikato Regional Council website.³ There is also a tool available on the website that can help predict coastal inundation.⁴

The zone is also subject to high intensity rainfall that can fall over a localised area causing flash flooding, land instability, stream bank/gully/slope erosion and debris flows. While Waikato Regional Council operates a flood warning network in the zone (namely river level and rainfall sites), coverage is limited (see image below) due to the sparse population, isolated and remote catchments and generally low urban flood risk across the zone. Data from these sites can be accessed 24/7 from Waikato Regional Council's website.

The seismic/earthquake hazard threat to the zone is relatively unknown. GNS conducted a broad assessment in the late 1990's of the regional earthquake hazard risk and that report did not indicate that any extensive active fault networks existed in the zone. Since that time no further fault lines have been identified and further work would be required to ascertain the risk in more detail.

- ³ Download at www.waikatoregion.govt.nz/PageFiles/29780/ TR200934.pdf
- 4 Coastal inundation tool available at coastalinundation. waikatoregion.govt.nz





THE VISION AND OBJECTIVES FOR THE WEST COAST ZONE HAVE BEEN DEVELOPED FROM THE OPPORTUNITIES AND CHALLENGES IDENTIFIED IN SECTION 4 AND WORKSHOPPED WITH THE WEST COAST CATCHMENTS COMMITTEE.

The zone plan vision, objectives and implementation actions support the Waikato Regional Council's vision, mission, goals and priorities as set out in the strategic direction.

The vision for the West Coast zone is:

Healthy West Coast zone catchments for community and environmental wellbeing.





THE OBJECTIVES SET OUT BELOW HAVE BEEN DEVELOPED IN RESPONSE TO THE OPPORTUNITIES AND CHALLENGES IDENTIFIED IN SECTION 4 AND THE VISION FOR THE ZONE. THE OBJECTIVES GUIDE ZONE FOCUS AREAS AND IMPLEMENTATION ACTIONS AT ALL LEVELS.

The objectives for the West Coast zone are:

			EXPLANATION
	1	Protect and enhance the productive soil capacity, fresh and marine water quality and biodiversity.	Water quality, soil capacity and areas of valued biodiversity are all under pressure within the West Coast zone. There is significant opportunity to intervene to protect and enhance soil capacity, water quality and native biodiversity before emerging challenges become more difficult and complex to address. Frequently, the intervention opportunities span across all these areas as they are interconnected.
BJECTIVES	2	Direct resources to activities and areas of greatest environmental benefit.	Analysis of West Coast zone environmental and catchment values will be critical to ensuring that our limited resources are prioritised and focused on areas under the greatest pressure, and where the greatest benefits can be achieved. The priorities determined will provide a basis for guiding discussions with key stakeholders and community groups on opportunities for working together in specific subcatchments.
OBJE	3	Support mana whenua and strengthen community partnerships.	There is an ongoing need to build enduring relationships with mana whenua and to leverage and strengthen community partnerships for the long term protection and enhancement of the West Coast environment. This partnership approach will be critical to successful delivery of a range of zone plan outcomes.
	4	Enhance outcomes for the West Coast through strengthened leadership and visibility.	The unique environmental, social and cultural values of the West Coast zone need to be championed across the council and within the wider community to raise the profile of the zone. Effective leadership at committee level and within the community will play a key role in promoting the enhancement of West Coast zone values and will also assist in ensuring that programme activities are integrated across council and are focused on areas of greatest benefit.



THE FOUR PRINCIPAL OBJECTIVES ARE TO BE MET THROUGH THE IMPLEMENTATION ACTIONS SET OUT IN THE PROGRAMME SUMMARY TABLE ON THE FOLLOWING PAGES. THE ACTIONS HAVE BEEN GROUPED INTO FOCUS AREAS TO ASSIST LEGIBILITY AND COUNCIL REPORTING.

The council implementation actions in the programme table are either directly funded through the West Coast zone or through general rates as part of wider council operational activities. The plan brings these actions together to assist the improved integration of council services for the West Coast zone.

Some actions are ongoing; others will have more effort directed to them in either the short or long term. The implementation of some actions is dependent on funding from the zone and internal and/or external sources; and the timing of implementation is also subject to change.

It is noted that the implementation actions described in this plan that are directly funded through the West Coast zone are at 2015/2016 levels and are subject to review.

The most detail is provided for actions that are within the West Coast River and Catchments programme, under the oversight of the West Coast zone manager and reported to the Catchment Committee. Actions that fall within Integrated Catchment Services programmes are outlined, and the status of these is also reported to the Committee. Some wider council initiatives that include or affect the West Coast zone are also mentioned.



OBJECTIVES	FOCUS AREA	IMPLEMENTATION ACTIONS	PROGRAM ME MANAGER
Objective 1: Protect and enhance productive soil capacity, water quality and biodiversity.	A. New catchment management works to enhance soil conservation, water quality and biodiversity values	soil conservation and other enhancement works provide considerable benefits in terms of land and water protection, biodiversity and general environmental enhancement. These projects contribute to less erosion, subsequent downstream sedimentation and protection of productive land. The following actions are proposed for implementation over the life this plan in respect of new catchment management works as prioritised under Objective 2; Fund new works (at current levels of funding) that incentivise landowners to invest in activities that provide protection beyond statutory or minimum requirements to support soil conservation, water quality and biodiversity, and enhance the special values that characterise the West Coast such as wetlands, shallow lakes, karst and coastal features. Undertake a specific project focusing on priority areas to: engage and inform landowners of the assistance available for new works e advise on the funding process and ongoing landowner responsibilities provide advice and assist preparing applications for funding from other sources to complement new works projects. information and, if appropriate, funding for new works assistance with preparing applications for funding to complement new works projects. farget funding of new works into priority areas by 2019 and 80 per cent of zone funding is spent in priority areas by 2021. Implement projects under the Hill Country Erosion Fund Project, 2015/16 to 2018/19. Where landowners are willing, facilitate opportunities to bring people together (e.g. farm field days) to: build knowledge and capability co-ordinate discussion groups on enhancing catchment health encourage neighbourliness and thinking beyond property boundaries.	West Coast Zone Manager
	B. River management works	 River management works will remain a focus of West Coast zone activities. Actions will include: Undertake, in partnership with landowners, river channel erosion control works along rivers as prioritised under objective 2. Respond to reports of flood damage and undertake inspections of river and river control works following flood events. 	West Coast Zone Manager

OBJECTIVES	FOCUS AREA	IMPLEMENTATION ACTIONS	PROGRAM ME MANAGER
	C. Maintenance of existing catchment and river management works	 The following actions are proposed to ensure assets are appropriately maintained: Maintain accurate, up-to-date property files and asset records. Inspect programme assets and follow up any maintenance landowners are required to carry out. Ensure landowners are aware of and meet their responsibilities under existing agreements. 	West Coast Zone Manager
	D. Priority biodiversity funding and Natural Heritage Partnership Programme E. Sustainable land management	For catchment new works, where the biodiversity values are of high priority, a higher level of funding may be available to emhance soil conservation, water quality and biodiversity values. Key actions proposed include; • For protection of areas of high biodiversity value, fund new works (or top up to a higher level of funding) that incentivise landdowners to invest in activities that provide protection beyond statutory or minimum requirements to support soil conservation, water quality and biodiversity, and enhance the special values that characterise the West Coast. • on request or as part of a focus on priority biodiversity areas: • engage and inform landowners of the assistance available through council's contestable funds • advise on the funding process and ongoing landowner responsibilities. • The Natural Heritage Partnership Programme comprises council's three contestable funds that support the community undertaking environmental enhancement. These funds are: a) The Natural Heritage Pund (NHF) is for securing permanent public assets including significant landscapes, threatened ecosystems and obstale areas for fund (EIP) is to provide one-off grants between \$5000 and \$40,000 to projects that meet a broad set of criteria for community-tope Reserve. b) The Environment Initiatives from (EIP) is primarily used for funding the material costs of small, community-initiatives from (EIP) is primarily used for funding the material costs of small, community-initiatives from (EIP) is primarily used for funding the material costs of small, community-initiatives from (EIP) is provide one-off grants between \$5000 and \$40,000 to projects that meet a broad set or criteria for community-based environmental enhancement or education. • The Earl Management Advisory Services (UMAS) team aims to achieve improvements in the environmental footprint of agriculture and this work has identified the need for adjustments to the current policy mix in the Waisto to prepare the agriculture endusity to work within the newest Coast	Team Leader Natural Heritage Management Advisory Services

OBJECTIVES	FOCUS AREA	IMPLEMENTATION ACTIONS	PROGRAMME MANAGER
	F. Coastal	The Beachcare Programme addresses hazard mitigation through recovery post-erosion, in addition to enhancing natural character, amenity value and biodiversity value of restored sites. There are six Beachcare projects within the West Coast zone and the following actions are proposed to further support these projects: • On request or as part of a focus on priority biodiversity areas, engage and inform landowners of the assistance available through council's Beachcare Programme. • Provide plants, materials, pest control and guidance to groups that aim to restore a local coastal habitat, such as foredune, reardune or coastal forests.	Team Leader Natural Heritage
	G. Pest management	Waikato Regional Council works with landowners and community groups under a regional programme to manage plant and animal pests that are a threat to indigenous species, habitats and economic productivity, and to identify, protect and enhance the remaining indigenous forest, variety of habitats and the number of species within the West Coast zone is important to maintain the high biodiversity values of the zone. • Collaborate with Department of Conservation to control goats in high value biodiversity areas on the West Coast • Continue to manage possums in priority possum control areas (PPCAs) where control is needed to: • protect and enhance biodiversity (including improving the stability of the catchments) • enhance farm production • maintain the gains of previous or existing possum control. Key plant pest control actions include: • Undertake direct control projects for high threat plant pest species that are set out in the Regional Pest Management Plan (RPMP). • Surveillance of RPMP and national interest pest plants. • Ensure landowners (including TLAs and NZ Transport Agency) comply with the RPMP rules around pest plants. • Provide technical support (advice and education) for community groups. • Support DOC to manage pest plants within the three West Coast harbours and elsewhere on DOC managed land. • Support Ministry for Primary Industries (MPI) to manage national priority pest plants.	Team Leader Plant Pests Team Leader Animal Pests
	H. Community resilience to hazards	 Building community resilience to hazards will be supported by the following actions: Develop a zone wide Natural Hazard Risk Management Plan (based on the current series with TAs) which details all the hazards for the zone, their ranking, and outlines responsibilities for their management. Input into the Waikato Regional Council internal Hydrology Review, including reviewing the need for additional flood warning sites (such as in the Mokau River catchment). 	Regional Hazards Team

PROGRAMME MANAGER	West Coast Zone Manager					
IMPLEMENTATION ACTIONS	This focus area will underpin other implementation actions by targeting limited resources on areas under the greatest pressure and where the greatest benefits can be achieved. The priorities determined through this process will provide a basis for guiding discussions with key stakeholders and community groups on opportunities for working together in specific sub-catchments. Key prioritisation actions will include: • In the short term (1 to 4 years), continue to focus on existing priorities established by funding agreements, community interest, interim resource assessment and staff experience: • Lower Mokau, Awakino and Mangaotaki catchments for soil conservation and water quality (with biodiversity, soil conservation and, water quality in the northern half of the zone. • Whaingaroa, Aotea and Kawhia (the harbour catchments) for ecological connectivity, biodiversity, soil conservation and, water quality in the northern half of the zone. • Whaingaroa, Aotea and Kawhia (the harbour catchments) for ecological connectivity, biodiversity, soil conservation and, water quality in the northern half of the zone. • Waitetuna, Marokopa and Waikawau rivers for infrastructure protection, soil conservation and water quality. • Regional Prioritisation Project refinement and utilisation. The first phase of the Regional Prioritisation water quality and biodiversity. A more detailed assessment in late 2015, 2016. • Using this detailed identification of areas of high value/threat, further define priority catchments and sub-catchments and determine the high priority areas where the greatest gains can be made to achieve the zone objectives and improve biodiversity, water quality and soil conservation, in consultation with the West Coast Catchments Committee. • Undertake desk-top and field assessments of river management issues, beginning with the three current priority rivers in					
FOCUS AREA	A. Prioritisation of catchments for soil conservation, water quality and biodiversity values					
OBJECTIVES	Objective 2: Direct resources to activities and areas of greatest environmental benefit					

OBJECTIVES	FOCUS AREA	IMPLEMENTATION ACTIONS	PROGRAMME MANAGER
	B. Development of catchment and harbour management plans	This zone plan provides overall guidance for operational activities in the West Coast. More detailed plans are required for specific areas. Key actions include: • Commence the development of a catchment/harbour management plans in the highest priority area(s), in consultation with the West Coast Catchments Committee. • Liaise with the Whaingaroa Environment Centre on the implementation of the Whaingaroa Environment Catchment Plan where council has a role. • Review the West Coast Zone Plan, with a full review every six years and a limited review three years after each full review. • Develop annual programmes with sufficient detail and within adequate time frames to meet annual plan processes and deadlines.	West Coast Zone Manager
	C. Criteria confirmation	Funding criteria will need to be reviewed to align the outcomes from wider prioritisation processes. Key actions will include documenting and reviewing river and catchment management funding criteria.	Team Leader Catchment Management
Objective 3: Support mana whenua initiatives and strengthen community partnerships.	A. Support of mana whenua initiatives	 Key actions to support mana whenua will include: Build relationships with mana whenua (at iwi and marae levels) to develop trust and credibility. Understand mana whenua objectives and priorities. Identify areas of common objectives and supporting associated initiatives. Be responsive and adaptable to Treaty settlement outcomes on the West Coast. 	West Coast Zone Manager
	B. Increased effectiveness through partnerships	Greater leveraging of community partnerships will be critical for the long term protection and enhancement of West Coast environment. Actions will include: • Complete a stock take of external funding and resourcing opportunities within the zone. • Regularly liaising with agencies that fund activities that complement zone new works funding to: • share information and alert one another to changes in funding priorities, criteria or process • encourage strategic funding of projects to make the best use of limited resources • facilitate project management for reporting, accountability, confidence • promote programmes for future action. • Develop relationships and undertake joint projects where beneficial with the Department of Conservation, given that they are a major land steward within the West Coast zone.	West Coast Zone Manager

OBJECTIVES	FOCUS AREA	IMPLEMENTATION ACTIONS	PROGRAM ME MANAGER
Objective 4: Enhance outcomes through leadership and visibility.	A. Leadership	Provide overall management, oversight and direction to the zone programmes, including zone planning, management of zone staff, financial management, and stakeholder and political liaison by: • Develop annual work programmes for river and catchment works within the zone, and provide timely and accurate status and financial reports • Manage all zone-based activities, resources, assets and finances • Coordinate the reporting of integrated catchment activities within the zone • Service the Catchments Committee through regular liaison with the chair and three to four Catchments Committee meetings per year, and support the Committee in its role of strategic governance for the West Coast zone programmes.	West Coast Zone Manager
	B. Build awareness of West Coast features and zone plan objectives within the council and influence council programmes	 Various council-wide activities are undertaken that impact the West Coast zone. It is important that West Coast zone visions and objectives are known and taken into account wherever possible. Actions to build further awareness will include: Scope opportunities to profile the West Coast Zone Plan objectives across council. Initiate and coordinate quarterly West Coast zone meetings for staff council-wide to promote internal knowledge of activities within the West Coast and synergies of activity. Develop key relationship across council to facilitate West Coast zone input into region wide initiatives and work programmes. 	West Coast Zone Manager
	C. Communication and partnership	Liaise with agencies, iwi, industry bodies, land owners and community groups to coordinate work programmes and to ensure comprehensive coverage, avoid duplication and add value to their work where there is alignment with the objectives of this zone plan. The council will develop, support and implement projects in partnership with other stakeholders and community groups that focus on priority areas, catchments or issues and key actions will include: • Develop a stakeholder management plan and implement. • Hold a two-yearly planning meeting with the West Coast Zone Catchments Committee, iwi, key stakeholders and community groups to consider priorities and projects for the following one to three years. Identify common areas of interest and potential collaboration opportunities. In addition, where common interests exist, the following actions are proposed: • Formally partner with other stakeholders to develop funding proposals and undertake joint projects, or • Support applications for external funding by, for example; endorsing applications. • Actively facilitate or participate in workshops, forums and other networking opportunities that: • share information, knowledge and skills to address common interests • create opportunities to build capacity and capability.	West Coast Zone

FUNDING, MONITORING AND REVIEW TE TAUTOKO Ā-PŪTEA, TE AROTŪRUKI ME TE AROTAKE

8.1 FUNDING

The council collects rates (general and targeted) for river management and improvement, soil conservation works and catchment oversight, based on areas of benefit and activities that contribute to the matters being managed.⁵

The actions identified in this zone plan and funded by the council will be implemented under the current levels of funding allocated to the West Coast zone. Work programmes and funding levels will be subject to review throughout the life of the plan.

The council will also actively explore opportunities for co-funding of projects with partner agencies. The zone has been successful in recent funding applications, and opportunities for further funding will be explored and actioned as appropriate.

8.2 MONITORING AND REVIEW

This zone plan will be subject to a full review every six years and a limited review three years after each full review.

Monitoring of the zone plan objectives will be ongoing and will focus on the following key aspects:

- environmental outcomes demonstrating the effectiveness or otherwise of this zone plan
- completion of actions to measure the degree of implementation of this zone plan
- the outcomes of the information gathered in respect of table 3 below.

The results of monitoring will be reported annually to the West Coast Catchments Committee and the Integrated Catchment Management Committee. A three-yearly summary report will be published prior to each review of the zone plan. The annual reports and three-yearly summary will be used to inform the reviews of this zone plan.

	MEASURES
Protect and enhance the productive soil capacity, fresh and marine water quality and biodiversity.	 Agreed new catchment and river management works meet annual fund allocations. 60 per cent of zone funding is spent in priority areas by July 2019. 80 per cent of zone funding is spent in priority areas by July 2021. Hill country erosion programme fully implemented by July 2019.
Direct resources to activities and areas of greatest environmental benefit.	 Identification of priority catchments and sub-catchments by July 2017. One integrated catchment/harbour management plan complete by July 2018.
Support mana whenua and strengthen community partnerships.	Two formal community partnerships have been developed and terms agreed by July 2018.
Enhance outcomes for the West Coast through strengthened leadership and visibility.	 Three to four Catchment Committee meetings held per annum. A minimum of three council-wide meetings on West Coast zone activities per annum. Complete and implement stakeholder engagement plan by July 2017. Complete and implement communications plan by July 2017.
	soil capacity, fresh and marine water quality and biodiversity. 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

Table 3: Measures of success

 $^{^{\}scriptscriptstyle 5}$ Refer to West Coast Zone – Funding Policy Statement, 2010



AP Annual Plan

DOC Department of Conservation

ICM Integrated Catchment Management

LIA Land Improvement Agreement

LTP Long Term Plan

PPCAs Priority Possum Control Areas

RMA Resource Management Act

RPS Regional Policy Statement

TA Territorial Authority

TLA Territorial Local Authority

WCCC West Coast Catchments Committee

WCZ West Coast Zone

WRCP Waikato Regional Coastal Plan

WRP Waikato Regional Plan

SNAs Significant Natural Areas



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HE TAIAO MAURIORA

HEALTHY ENVIRONMENT

HE ÖHANGA PAKARI

STRONG ECONOMY

HE HAPORI HIHIRI

VIBRANT COMMUNITIES

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> Private Bag 3038 Waikato Mail Centre Hamilton 3240 New Zealand

Freephone 0800 800 401 www.waikatoregion.govt.nz

