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Effectiveness and efficiency of the Waikato Regional Coastal Plan

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Effectiveness and Efficiency of the Waikato Regional Coastal Plan

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environmental planning

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Cooks Beach, Coromandel. Photographed sourced from Healthy Environments Discussion Document Waikato Regional Council.

Executive Summary

Section 35(2)(b) of the Resource Management Act 1991 (RMA) requires Councils to monitor the effectiveness and efficiency of policies, rules, or other methods in the Waikato Regional Coastal Plan (Coastal Plan), and under s35(2A), at intervals of not more than 5 years, to compile and make available to the public a review of the results of its monitoring. The last report on the effectiveness and efficiency of the Coastal Plan prepared by the Council to meet these requirements was completed in March 2013.

The purpose of this report is to meet the requirements of s35(2)(b) and s35(2A) for the Coastal Plan with a view to informing the current review of the Coastal Plan and the supporting s32 analysis. This review also contributes to the Council's responsibilities under s79, which requires the Council to review the Coastal Plan (within 10 years of its operative date) and assess any alterations required, and also assists in meeting the requirements of Chapter 15 (Monitoring and Review) of the Coastal Plan.

This review has set out to assess the effectiveness and efficiency of the Coastal Plan, in accordance with s35 of the RMA. It has been difficult to conclusively determine whether or to what extent the Coastal Plan has been effective or efficient in achieving its objectives given a lack of quantitative data available on the environmental results anticipated within the plan.

In assessing data for this review, it has also been noted that there is a disconnect between the expectations of the Coastal Plan, in relation to monitoring and implementation of "other methods", and current monitoring of coastal programmes which have not been designed to assess policy effectiveness. In addition, no person or group has the lead responsibility for ensuring the Coastal Plan is implemented and that focused information is gathered for the required plan reviews.

These monitoring gaps have been identified in previous s35 reports (2011 and 2013) and the Council needs to find a way to appropriately align monitoring with outcomes sought through the Plan. This is particularly important as the Council in its 10 Year Strategy – Making a Stand for the Waikato has identified 'Coastal and marine' as a strategic priority.

Despite the above constraints, staff experiences working with the Coastal Plan and high level state of the environment monitoring trends/results indicate on a qualitative basis, that the effectiveness of the current Coastal Plan is low in relation to the sustainable management of the wide range of complex coastal marine resource management issues within the coastal marine area (CMA). Based on collated data on consent and administrative costs, the Coastal Plan has however been found to be efficient in that the low environmental benefits generated by the plan marginally outweigh the costs of implementing/administering the plan.

The Coastal Plan has provided a framework for the sustainable management of the CMA for the past 20 years, it is clear that there have been significant legislative changes during this time which impact on the scope and nature of the Coastal Plan. The Coastal Plan will benefit from the current review to bring it into line with current RMA requirements and national direction. Notably, as raised in the various workshops through this s35 review, there is a strong need to improve on integrated

management not only across the boundary of Mean High Water Springs (MHWS) but with management directions of other agencies.

Recent RMA changes do offer an opportunity for considering a different plan style (e.g. fewer mandatory requirements) along with a change in scope (e.g. effects vs activities). While at a more detailed level, staff have identified a number of areas where clarification of wording would be beneficial for interpretation and application. This review also identified a range of emerging pressures and future directions that should be considered if the Coastal Plan is to be a robust plan for the future.

It is important to note that significant legislative reform is also on the near horizon for all plan makers and that this will likely include the replacement of the RMA with the Natural and Built Environments Act (of which an exposure draft has been released) and potentially the replacement of the New Zealand Coastal Policy Statement (NZCPS). Discussion documents have been released on the new Climate Adaptation Act and the Strategic Planning Act both of which will have implications for the long term management of effects and outcomes within the CMA and Coastal Environment. There is a real opportunity to improve the effectiveness of the Coastal Plan through a greater focus on outcomes and ensuring that these outcomes are measured.

1 Introduction

1.1 Purpose

This report has been prepared by Place Group Limited (PG) on behalf of the Waikato Regional Council (WRC). Its purpose is to assess the efficiency and effectiveness of the Coastal Plan as required under section 35(2)(b) of the Resource Management Act 1991 (RMA). The report will be used to inform the current review of the Coastal Plan.

The report includes:

- An assessment of the effectiveness and efficiency of Coastal Plan policies, rules, and other methods of the plan. This assessment has drawn on a range of information including state of environment monitoring, consent data, monitoring and compliance information and feedback from Council staff on the performance of the Coastal Plan through a series of facilitated workshops.
- An assessment of key effectiveness/implementation issues with the Coastal Plan, including recommendations on potential policy changes and other relevant matters to inform the review of the plan.

1.2 Scope

This review is necessitated by section 35 of the RMA which places requirements on local authorities to monitor the effectiveness and efficiency of any plans prepared under the Act. Under section 35 a local authority must monitor:

1. The state of the whole or part of the environment (appropriate to functions under the Resource Management Act).
2. The efficiency and effectiveness of policies, rules or other methods in its policy statement or plan.
3. The exercise of any functions, powers or duties delegated or transferred by it.
4. The exercise of any resource consents.
5. In the case of a regional council, the exercise of any protected customary activity.

The scope of this review has focused on 2 above, which requires councils to monitor the effectiveness and efficiency of policies, rules, or other methods in the Coastal Plan (alongside the Waikato Regional Plan and Regional Policy Statement). In completing this review, the requirements of Chapter 15 (Monitoring and Review) of the Coastal Plan will also be met. This findings in this report will also inform to WRC's responsibilities under section 79 of the RMA, which requires the council to review the Coastal Plan within 10 years of its operative date and assess any alterations that may be required.

This report will also meet the requirements of section 35(2A) which requires WRC to compile and make available to the public a review of the results of its monitoring at least every 5 years.

The other requirements of section 35 listed above (1, 3 and 5) are not within the scope of this review, although state of the environment monitoring data and resource consent data for the Waikato region have been drawn upon to inform the assessment of 2.

In relation to 5 above, under section 28A of the RMA, Regional Councils may be requested by the Minister of Conservation to provide monitoring information on their coastal permits or Regional Coastal Plans or the exercise of any protected customary right or other agreement in the common marine and coastal area. There have been no requests from the Minister for Conservation for this information in the last 2 years.

1.3 Report structure

This report is structured as follows:

- Section 1 sets out the purpose and scope of the report.
- Section 2 sets out the methodology followed to complete this review, including the data limitations found through the review.
- Section 3 outlines the context for the review and includes a summary of the findings of previous reviews of the effectiveness and efficiency of the Coastal Plan.
- Section 4 provides a summary analysis of monitoring results recorded in relation to key Coastal Plan resource management issues as context to the conclusions reached in Sections 5 and 6.
- Section 5 provides an assessment of the effectiveness of the Coastal Plan structured around the topics addressed in chapters 3 to 11 of the Plan. Measuring effectiveness has involved an evaluation of whether the objectives and anticipated environmental results sought through the implementation of the Coastal Plan policies, rules and methods have been achieved.
- Section 6 provides an assessment of the overall efficiency of the Coastal Plan in relation to implementation. Measuring efficiency has involved an evaluation of the benefit of policies/rules/methods of the Coastal Plan relative to the implementation costs imposed by the Plan.
- Section 7 provides a summary of the key findings of the review and sets out key recommendations to inform the review and development of the Proposed Coastal Plan.

The appendices to this report include further detail in relation to State of the Environment monitoring, consent data, feedback provided by staff used to inform the assessment, and the outcomes of staff workshops facilitated through the review.

2 Review Methodology

The methodology followed to complete this efficiency and effectiveness review of the Coastal Plan is summarised below.

2.1 Best Practice Guidance Review

To inform the methodology undertaken to complete this report, best practice guidance on section 35 reporting was reviewed including:

- Ministry for the Environment guidance
- Quality Planning guidance
- Regional sector guidance, specifically the report by Enfocus *Evaluating Regional Policy Statements and Plans: A guide for regional councils and unitary authorities*.

Guidance recommends that the following principles be applied when undertaking an effectiveness and efficiency assessment:

- Ensure a clear scope for the evaluation parameters. A comprehensive evaluation should incorporate all aspects of the Coastal Plan i.e. rules and non-regulatory implementation methods
- Identify and explain indicators used for measuring effectiveness and efficiency. Where policies have been identified as not effective or efficient, there has been a focus in the review on explaining why this is the case.
- Utilise a range of data sources, including stakeholder engagement, resource consent/monitoring data, and state of the environment monitoring.

Guidance also notes there may be a number of reasons for a policy or plan provision to be considered ineffective or inefficient, which can relate to the policy itself either via its wording or direction, the implementation of the policy (such as lack of funding or resources), a lack of supporting methods, the consenting process, enforcement issues, or changes in the trends and pressures relating to the resource or issue being considered. Failure to report on monitoring is typically deemed a 'technical non-compliance' and rarely results in investigation or substantive enforcement.

These principles have been adhered to in undertaking this review.

2.2 Assessment Process

2.2.1 Desktop information gathering and data analysis

An initial desktop analysis of information relevant to the effectiveness and/or efficiency of the Coastal Plan was undertaken and included analysis of:

- Existing Plan provisions and policy direction, background reports and previous s35 reviews.
- The WRC internal "feedback portal" developed for the Healthy Environments Plan Review Project. This feedback portal is a data repository that includes information on areas of the

Coastal Plan highlighted by staff as problematic to implement and/or areas that are working well/not so well.

- State of the Environment (SOE) monitoring information and indicators to understand environmental state and trends.
- Consent data provided to the Ministry for the Environment (MfE) through the national monitoring programme.

2.2.2 Staff workshops

A series of facilitated workshops were undertaken with WRC staff to draw on their experience and knowledge in working with the Coastal Plan and identify areas of strength and weakness.

To support these workshops the following information was provided to participants:

- Summary information on effectiveness for Coastal Plan topic areas was developed providing WRC staff with context for each topic area to assist in discussion at the workshop. Topic areas were based on the existing Coastal Plan chapters and included the following areas:
    - Topic 1: Coastal Hazards, Habitat, and Coastal Processes
    - Topic 2: Disturbances and Water Quality
    - Topic 3: Marine Farming
    - Topic 4: Public Access and Structures

- An evaluation template including:

    - Specific Plan provisions related to the topic, relevant background monitoring information and key environmental outcomes
    - Relevant feedback as set out in the feedback portal
    - Information on key changes to the Plan provisions
    - Information on future initiatives that may result in changes to the Plan provisions.

2.2.3 Reporting

Based on information gathered during stages 1 and 2 above, a draft section 35 report was developed for staff review in April 2021. This final report incorporates staff feedback on the draft.

2.3 Data Limitations

Through the development of this report it was found that, in some cases, data collected by WRC within the CMA does not link directly to the measurement of the effectiveness of policies, rules or methods or the environmental results anticipated in the Coastal Plan. Similarly, whilst quantitative data from WRC consent and compliance databases has been utilised in this review, this data contains limited information in terms of providing an in-depth understanding of whether environmental results anticipated by the Coastal Plan are being achieved.

Given the above, in relation to some areas of the Coastal Plan, it has been difficult to draw conclusions from monitoring and/or consent/compliance data on how these areas are performing. This means

that the question of causality or assessing the impact of the policy provision and its effectiveness in achieving the desired outcome, could not be considered in detail.

In the absence of quantitative data, the conclusions set out in this report rely on a large extent to qualitative feedback provided by staff through the review.

3 Context for this review

3.1 Regional Coastal Plan

The Coastal Plan was adopted by WRC in July 2004 and was approved by the Minister of Conservation in accordance with clause 19 of Schedule One of the RMA in September 2005. The Coastal Plan became operative in October 2005.

A range of variations/plan changes/amendments related to marine farming, marinas, restricted coastal activities, boundary changes, and minor amendments have been made over the years and adopted into the Coastal Plan since it became operative. The last of these changes were as a result of the Resource Management Amendment Act (No 2) 2011 which inserted new provisions relating to marine farming into the Coastal Plan. These changes took effect on 1 October 2011.

The Coastal Plan applies across the coastal marine area (CMA) of the Waikato region, from the line of Mean High Water Springs (MHWS) out to 12 nautical miles (approximately 20 km). Where the line of MHWS crosses a river, the landward boundary is determined by whichever is the lesser of one kilometre upstream from the mouth, or the point upstream calculated by multiplying the width of the river mouth by five. The CMA boundary has been fixed by agreement between District Councils, WRC, and the Minister of Conservation for some rivers.

The over-riding purpose of the Coastal Plan is to enable WRC, in conjunction with the Minister of Conservation, to promote sustainable management and achieve integrated management of the CMA.

While the Coastal Plan focuses on the management of the CMA, it does recognise that there are management issues across the coastal environment, an area broadly defined as the CMA and including landward features.

The development of the Coastal Plan was based on four principles:

- ***Sustainable Management*** *– In promoting sustainable development, WRC recognises the intrinsic values of the CMA and the importance of the coast to many people and will provide guidance on adverse environmental effects to be avoided, remedied, or mitigated.*
- ***Treaty of Waitangi*** *– In undertaking its management role, WRC must also take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). Matters of special value to tangata whenua need to be protected through provisions in this Plan.*
- ***Precautionary approach*** *– When making decisions about the use, development, and protection of coastal resources where effects are uncertain or where potential risks to the environment are considered to be unacceptable. The precautionary approach will ensure that*

any decision made will err on the side of the environment and that any adverse effects will be avoided, remedied, or mitigated. This approach recognises that there is limited information available on the Region's coast, and the effects activities may have on it in the present or future.

- ***Integrated Management*** *– WRC recognises that MHWS is an arbitrary line in terms of coastal management. Because of this, there is a need to ensure that resource management above and below MHWS is consistent. Other plans (both regional and district) which address issues on the landward side must also consider effects on the CMA.*

3.2 Coastal Plan Policy Framework

The Coastal Plan includes a framework of objectives, policies, rules, and non-regulatory methods to guide implementation, promote sustainable management and achieve integrated management within the CMA. The Plan contains a combination of regulatory (rules) and non-regulatory methods (such as the preparation and development of guidelines and other advice and information) to give effect to the policies in the Coastal Plan. Policies are organised into 14 chapters as follows:

- Chapter 2 - Tangata Whenua Perspective
- Chapter 3 - Natural Character, Habitat and Coastal Processes
- Chapter 4 - Water Quality
- Chapter 5 - Structures
- Chapter 6 - Marine Farming
- Chapter 6A - Marinas
- Chapter 7 - Foreshore and/or Seabed Disturbances
- Chapter 8 - Natural Hazards
- Chapter 9 - Public Access
- Chapter 10 - Air Quality and Noise
- Chapter 11 - Surface Water Activities
- Chapter 12 - Decision Making
- Chapter 13 - Cross-Boundary and Interagency Management
- Chapter 14 - Financial Contributions

The rule framework of the Coastal Plan is set out in Chapter 16 – Implementation methods and includes rules that specify classes of activity as either permitted, controlled, discretionary, non-complying or prohibited. Rules cover a range of activities undertaken within the CMA and are grouped into the following areas:

- Habitat and Coastal Processes
- Water Quality
- Structures
- Marine Farming
- Disturbances
- Natural Hazards
- Public Access

Chapter 17 includes a range of non-regulatory 'other methods' such as advocacy, co-ordination, investigation, and education to support the implementation of the objectives and policies of the Coastal Plan. This section of the Plan addresses the following areas, alongside those listed above:

- Tangata Whenua Values
- Natural character
- Air Quality and Noise
- Foreshore/Seabed disturbances
- Surface Water Activities
- Cross Boundary Management

3.3 Coastal Plan Monitoring Requirements

Chapter 15 of the Coastal Plan sets out the procedures to be used for reviewing the Plan and monitoring its effectiveness. In summary, the monitoring strategy anticipated by the Coastal Plan includes the following:

- Regular consultation with key stakeholder groups, including:
    - The Department of Conservation, with respect to the implementation of the Coastal Plan
    - Other regional councils with respect to any cross-boundary matters
    - Territorial authorities
    - Consent holders
    - Key community groups
    - Tangata whenua
- Monitoring the state of the CMA, specifically:
    - Current status of the various components of the coastal ecosystems, as well as trend monitoring to identify changes or trends in the quality or quantity of resources in the CMA
    - The use of resources within the CMA to assess the extent and way in which resources in the CMA are being used
    - In relation to coastal permits granted:
    - The effects of each permit on physical, biological, and intrinsic qualities and values and compliance with the conditions on the permit.

The Coastal Plan anticipates that the results of the above would be reported annually in either the Council's annual report or in a State of the Environment (SOE) Report.

3.4 Coastal Plan State of the Environment Monitoring

SOE monitoring data collected in relation to the coastal environment has provided an important data source for this review, assisting with understanding environmental trends, the impact of human activities over time and identifying environmental challenges. This data has been cross-referenced with reports by Statistics New Zealand and the MfE on the state of different aspects of the environment within five domains including:

- Air
- Atmosphere
- Climate fresh water
- Land
- Marine.

Monitoring data is provided to support SOE reporting for the Waikato region from the regional data that is shown on Land, Air, Water Aotearoa (LAWA)[1]. SOE monitoring data is also shared with the MfE and Statistics New Zealand for national environmental reporting.

LAWA is part of wider monitoring data that is available through a centralised environmental data hub that includes data on:

- Air quality
- Groundwater levels
- Rainfall and flood management
- River flows
- River levels and flood management
- Water allocation
- Water temperature

This information is used in WRC's primary monitoring database to summarise complex information about the environment into key measures. The Council's coastal and marine SOE programme is comprised of the following areas:

- Coastal and marine ecosystem health
- Coastal water quality for human health
- Coastal hazards
- Coastline ownership

A summary of the outcomes of these programmes for SOE monitoring is provided in **Appendix 1** of this report to provide an overview of the effectiveness of the Coastal Plan.

It is noted that coastal SOE monitoring has not effectively been embedded in a Driver-Pressure-State-Impact-Response (DPSIR) framework, restricting the Council's ability to understand the drivers and pressures that affect the state of the environment. The Council is currently working on re-developing its monitoring programmes to address this.

3.5 Coastal Plan Consent and Compliance Data

Information on Coastal Plan resource consents and compliance (monitoring and enforcement) activities is reported to MfE through the National Monitoring System (NMS). The NMS is a spreadsheet

[1] LAWA is a partnership between New Zealand's regional and unitary councils, the Cawthron Institute and Ministry for the Environment to contribute data to a web-based platform displaying state and trend information for freshwater monitoring sites throughout New Zealand in an easy-to-understand format.

that councils fill in annually and submit to the Ministry providing information on every plan or policy statement worked on, every resource consent issued, and other functions, tools, and processes that councils are responsible for under the RMA. The information provided to MfE has been reviewed to inform this review of the Coastal Plan.

Environmental monitoring data/information is also required to be provided by way of conditions imposed on some resource consents. The scale and nature of this information varies according to the anticipated effects of the activity authorised by the resource consent. WRC Resource Use Directorate (RUD) and Science staff assess the monitoring information provided to determine whether the level of environmental effects that occurs is in line with the effects anticipated by the Coastal Plan.

Currently, this information is available to staff through WRC's internal online system. However, the environmental monitoring data, provided by consent holders, has not been summarised or collated into one database, as this is not a requirement of the RMA. As a result, science staff do not find this data to be readily available and as such it is not contributing to the assessment of the state of the environment or environmental changes and trends.

There are also issues regarding the standards for and use of monitoring information submitted by consent holders; including: access to raw data, consistency and robustness of monitoring methodologies, comparability of data sets and the quality of the data collected. Failure to report on monitoring by consent holders is typically deemed a 'technical non-compliance' and rarely results in investigation or substantive enforcement.

Given the above, monitoring data provided by consent holders is not in a format that has been useful to inform this review. As such there is a significant disconnect between the current coordination of consent monitoring data and the expectations of chapter 15 of the Coastal Plan.

3.6 Previous Effectiveness and Efficiency Reviews

The Council has undertaken two previous reviews of the effectiveness and efficiency of the Coastal Plan in 2011 and 2013 as follows.

The Waikato Regional Plan Policy Effectiveness Review (July 2011) on the Coastal Plan (and Waikato Regional Plan) concluded:

- There were more issues with the effectiveness of the Coastal Plan in general compared to the Waikato Regional Plan (WRP).
- The Coastal Plan only covers activities in the Coastal Marine Area (CMA) such as structures, marine farming, foreshore and seabed disturbances, natural hazards, public access, and surface water activities to manage effects including water quality, natural character, habitats and processes, air quality and noise and does not address any issues associated with the wider coastal environment (i.e. the immediate extents either side of the CMA).
- Where effects of activities are uncertain, the Coastal Plan was developed based on a precautionary approach. Limited information was available on the CMA at the time that the Coastal Plan was produced, and more information is now known. This information should be utilised to develop the new Coastal Plan.

- Despite the above, the state of the coastal environment is still not well understood, and investment into comprehensive long term monitoring is required.
- It is difficult to prove cause and effect in relation to Coastal Plan policies as there is limited ability to measure environmental effects in the CMA. This coupled with a lack of state of the environment monitoring makes it difficult to enforce the Plan and to determine the appropriate strength of policy wording.
- Due to a lack of state of the environment monitoring data linked directly to the policies of the Coastal Plan, it is very difficult to evaluate the effectiveness of the Coastal Plan.

Following this review, in March 2013 a further desktop analysis of the key gaps within the Coastal Plan was undertaken. Overall the conclusions were:

- While the Coastal Plan provides guidance on the sustainable management of the CMA, it is difficult to adequately determine whether or to what extent the Coastal Plan has been effective or efficient in achieving its objectives.
- The Coastal Plan is over 20 years old and would benefit from a range of amendments to bring it into line with the current RMA and national policy requirements. The 2013 review includes a comprehensive summary of the key changes to the national planning framework and the wider legislative context for the Coastal Plan, including a summary of the key requirements of the NZCPS.
- There is a strong need to improve on integrated management not only across the boundary of MHWS but with management directions of other agencies. There is also a need to account for the implications from a range of other legislative changes which have impacts for the management of the marine area.
- There is a significant disconnect between the expectations of the Coastal Plan, in relation to monitoring and implementation of "other methods" as monitoring programmes have not been established to specifically assess policy effectiveness. Likewise, no person or group (within WRC) has the responsibility for ensuring the Coastal Plan is implemented and that information is gathered for the required plan reviews.
- Recent RMA changes offer an opportunity for considering a different plan style (e.g., fewer mandatory requirements) along with a change in scope (e.g., effects vs activities). At a more detailed level, staff have identified a number of areas where clarification of wording would be beneficial for interpretation and application.
- That the Coastal Plan needed to be comprehensively reviewed.

In 2014 WRC commissioned an assessment of the Waikato Regional Plan and the Coastal Plan to identify rule provisions of the Waikato Regional Plan (WRP) and Coastal Plan that are not working and how they might be improved, from the perspective of staff as rule implementers and users.

A range of potential new rules were identified for the Coastal Plan, along with suggested improvements to existing rules. One strong theme that emerged from staff interviews was that permitted activity rules needed to be simple, understood by all and have clear triggers for compliance to assist implementation. A recommendation arising from the interviews was to develop an implementation plan in parallel to the review process, particularly covering mangroves, marine farming, erosion structures, and pest pathways.

The above reports have been an important point of reference for this review in terms of assessing whether the conclusions still stand and/or whether the key matters raised have been addressed. Further evaluation of these aspects is provided in the conclusions (section 8) to this report.

4 Assessing the Effectiveness of the Plan

The following section provides an assessment of the effectiveness of the Coastal Plan. Five high level topic areas have been identified for the purpose of this assessment as set out below. These topic areas address Chapters 2 to 11 of the Coastal Plan as follows:

- Topic 1: Coastal Hazards, Habitat, and Coastal Processes (covering chapters 3 and 8)
- Topic 2: Disturbances and Water Quality (covering chapters 4 and 7)
- Topic 3: Marine Farming (covering chapter 6)
- Topic 4: Public Access and Structures (covering chapters 5, 6A and 9)
- Topic 5: Tangata whenua and heritage values (covering chapter 2)

The effectiveness analysis for each topic area includes:

- A summary of the key trends and environmental monitoring results relevant to the topic, as an indicator of plan performance
- A summary of consent data relevant to the topic
- An analysis of the effectiveness of the relevant policy framework
- Further recommendations from staff for consideration through the Coastal Plan review

A conclusion on effectiveness of the relevant policies, rules, and methods under each topic in terms of achieving the environmental results anticipated within the Coastal is provided based on the above. Overall effectiveness has been determined using the following scale:

Level of effectiveness	***Indicator***
Low	Minor or no anticipated environmental results are being achieved
Moderate	Some anticipated environmental results are being achieved
High	Most anticipated environmental results are being achieved
Data Deficient	Not enough specific data is available to adequately assess effectiveness

4.1 TOPIC 1 - Coastal Hazards, Habitat and Coastal Processes

4.1.1 Monitoring Key Trends and Results

Coastal developments at risk

Monitoring of coastal developments at risk from coastal hazards has indicated that over time there has been a small reduction in the number of dwellings that are at risk from coastal erosion at the current sea level. This is likely to be due to the implementation of development setbacks - as new houses are constructed, they are moved outside or setback from the hazard zone. There has been only a very small increase in the number of properties currently at risk, which reflects District Council controls on subdivision in hazard areas, which is directed by the Regional Policy Statement and the policy framework in section 8.1 of the Coastal Plan.

Hazard areas have been estimated and development controls put in place to manage land development adjacent to many coastlines in the Waikato Region. These areas identify places vulnerable to coastal erosion hazard and define the space that should be left between a building, such as a house, and the shoreline. The aim of development controls and setbacks is to reduce risk to property from coastal erosion in the long term. Setbacks have been used on the eastern Coromandel since the early 1980s but were most recently reviewed in 2009 and 2012. Coastal hazard areas have been in place in some areas within the Waitomo District for a number of years and are currently under review in both Waitomo and Waikato Districts.

In 2017, 523 properties were identified within the region's current coastal hazard areas. Out of these properties, 294 dwellings were found to be at risk. With future sea level rise, the number of properties at risk could increase to 1,284, with 1,101 of these properties defined as dwellings. There has also been an increase in the number of dwellings in the area immediately adjacent to hazard zones overtime and these dwellings could also be at risk over the long term as a result of climate change.

Shoreline change

Sandy beaches are naturally prone to changes in shoreline position, with change occurring in response to major storms and changes in climate patterns over longer time periods. Houses and infrastructure that have been built close to the sea are vulnerable to these natural fluctuations. Engineered structures such as seawalls are sometimes placed on the beach to protect at-risk assets, but these can damage the natural and recreational values of the beach and can transfer the erosion risk adjacent areas of coastline.

Individual storms can cause dune systems to erode by several metres over a period of hours or days. This erosion often recovers naturally in the following months; however it can take many years for a beach to recover from a major storm. A trend for erosion or beach building can also occur over a decadal cycle, usually in response to climatic cycles, such as ENSO (the El Niño - La Niña cycle).

Council data shows that in general, the position of the dune toe along Coromandel beaches fluctuates but does not indicate clear widespread long term (permanent) shoreline change. The results indicate that shorelines don't all respond in the same way to any one event. While most beaches seem quite

stable now, a long-term trend for erosion may occur in response to climate change due to either accelerated sea level rise or a modified wave climate. The Coastal Plan plays a very limited role in actually managing shoreline change, as it focuses the mitigation of the risks associated with shoreline change within the CMA.

Coastal habitats

Council monitors the spatial extent and distribution of different intertidal vegetated habitats in selected estuaries within the Waikato region. Habitats are categorised into four communities:

- Mangrove
- Salt marsh
- Seagrass
- Invasive plants

Currently monitoring covers 19 estuaries, 15 on the east coast (including the southern Firth of Thames) and four on the west coast. Estuaries have been identified as one of the coastal areas within the region most at risk from human activities. Many different types of communities are found in and around estuaries, including coastal forest, salt meadows and salt marshes, mangroves, seagrass beds, sand and mud flats, rocky reefs, and shallow open water areas. Protecting the diversity of habitats provided by plant communities is an important factor in maintaining the diverse roles of the region's estuarine ecosystems.

Monitoring shows that vegetated habitats make up a large proportion of the total intertidal area of many of the estuaries and harbours in the region (Graeme series 2005 – 2010, 2012 – 2013)

- >50% - Otama, Purangi, Whangapoua, Wharekawa and Whitianga
- 25-50% - Aotea, Coromandel Harbour, Kennedy Bay, Manaia, Otahu, Tairua, Te Kouma, Waikawau, and Whangamata
- <20% - Kawhia, Waikato River Estuary, Whāingaroa (Raglan), and Colville Bay

Analysis of aerial photography from the last 40-50 years shows a number of important changes in different vegetated habitats have occurred in estuaries in the Waikato region:

- Increases in the area of mangroves in many estuaries (for example, Firth of Thames, Whitianga, Manaia, Whangamata, Coromandel Harbour, Otahu, Whāingaroa (Raglan), Tairua and Te Kouma harbours).
- Increases in the area of invasive plant species in many harbours and estuaries (for example, Waikato River mouth, Waikawau, Kennedy Bay, Otahu, Otama, Wharekawa, Tairua and Whāingaroa (Raglan).
- Decreases in the amount of wetland areas around some estuaries (for example, Manaia, Coromandel, Whitianga, Tairua, Wharekawa, Whangamata and Otahu harbours).

Similar trends have been reported elsewhere in estuaries around New Zealand.

Current available monitoring results indicate that the Firth of Thames, Whāingaroa (Raglan) and Tairua harbours are relatively healthy, with high biomass and diversity of animals at the sampling sites.

Sediment mud content ranges from 2-14 per cent in Tairua Harbour, 5-30 per cent in Firth of Thames and 25-55 per cent in Whāingaroa (Raglan) Harbour. Sediment level measurements show that although estuaries are experiencing sedimentation in some areas, the patterns of sedimentation are highly variable. Reasons for this variability could include the movement of bedforms across the seabed, variations in current speed between spring and neap tides, and seasonal changes in water flow, wind, and waves.

4.1.2 Consent/Permit data

A total of 23 consents or coastal permits as they are also known were issued between 2005 – 2020 and have been identified in WRC's Integrated Regional Information System (IRIS) system as being related to natural hazards, coastal habitat, and coastal processes. This is a relatively low number of permits over a 15 year period, particularly given the scale and complexity of the issues/trends noted through state of the environment monitoring results above.

The low number of permits in relation to the removal of vegetation (7 permits) may indicate that the Coastal Plan is too permissive in managing issues associated with the loss of vegetation in estuarine areas, notably loss of wetland areas identified within Council monitoring.

However, the low number of permits is also, in part, a function of the Plan which only requires consent to be obtained for certain activities and could also be related to the interpretation and application of the relevant provisions of the Coastal Plan.

4.1.3 Analysis of Effectiveness

The following table provides an analysis of effectiveness against the Coastal Plan objectives and environmental results anticipated in relation to Topic 1 as informed by workshops with Council staff.

Table 2: Analysis of Effectiveness

Topic 1: Coastal Hazards, Habitats and Processes		**Analysis**
Plan Objectives	*Coastal Hazards* Objective 8.1 Coastal hazard risk to people and property avoided or mitigated. *Habitat and Coastal Processes* Objective 3.1 Preservation of the natural character of the coastal environment by: • Protecting it from inappropriate subdivision, use and development; and • Restoring it where appropriate Objective 3.2 Areas of significant indigenous vegetation and significant habitat of indigenous fauna protected. Objective 3.3 Amenity and heritage values within the CMA maintained or enhanced.	SOE data shows that the Coastal Plan is moderately effective managing issues related to sea level rise (i.e. adaptation), however the Coastal Plan provisions are not proactive in identifying and preventing/mitigating the effects from sea level rise before they occur. It is difficult to achieve the coastal hazard objective 8.1 within the remit of the Plan (i.e. having a coastal marine area only focus) as avoidance of hazards is primarily linked to land-use decisions made through local authorities. Rules in relation to network utility structures have tended to favour the provision of infrastructure over maintaining natural beaches. The lack of baseline data and spatial mapping has created issues around monitoring the effects of activities on natural character and the coastal environment and the identification of heritage/archaeological sites in the CMA and MHWS.

	Objective 3.4 The integrity, functioning and resilience of coastal processes protected from the adverse effects of use and development.	
Environmental Results Anticipated	*Coastal Hazards* • Increased public awareness of coastal hazards and associated risks. • Adverse effects on people and property avoided or mitigated. • Dune and wetland habitats are protected. • Amenity and natural character values protected. • Reduction in 'hazard protection' structures. *Habitat and Coastal Processes* • Regionally significant and representative landscapes, seascapes, landforms, and geological features protected. • Adverse effects on natural features, landscapes, seascapes, and landforms that define natural character avoided or remedied. • The remote and isolated characteristics of areas within the coastal environment are maintained. • No further inappropriate subdivision, use or development. • Restoration of natural character in degraded areas. *Significant Vegetation and Habitat* • Significant or vulnerable indigenous vegetation and significant habitats of indigenous fauna protected.	A lack of monitoring and baseline data has made it difficult to draw conclusions on most of the environmental results anticipated in relation to natural hazards. However, SOE data has been collated for areas at risk which indicate an increase in the number of dwellings in the CMA that could be at risk in the long term. It should also be noted that the increase in hazard protection structures within the west coast and Coromandel Peninsula, since the implementation of the Coastal Plan, is likely correlated with the removal of sand dunes from past housing development. Seawalls that have been developed to protect property and infrastructure are not able to be assessed on a cumulative effects basis. Decisions have therefore been made on a case-by-case basis through the consenting/permitting process. The implementation of development setbacks has, however, led to a reduction in the number of dwellings at risk with the current sea level and overall, there has been only a very small increase in the number of properties currently at risk, reflecting district council controls on subdivision in hazard areas. Feedback from workshop participants highlighted that not enough weighting is given to natural hazard risks in relation to the assessment of marine farming applications and information requirements where this is relevant. Staff have also expressed concerns that network utility structures are assessed as a controlled activity meaning applications for these structures cannot be declined by WRC, and assessment of environmental factors is limited.

	• Net increase in habitat margins and transitional environments. • No exotic plants introduced to the CMA unless authorities are certain there will be no adverse effects resulting from the introduction. *Protection of Coastal Processes* • Biological diversity and abundance protected. • Coastal processes not compromised.	Furthermore, SOE monitoring has outlined that there is no consistent monitoring data of shoreline protection structures to determine trends over time. In relation to wetland habitats, SOE data from the last 40-50 years indicates the extent of wetland areas in some estuaries has decreased. In light of the increased number of structures and implementation of development setbacks, it would be difficult to assess whether there is an increased level of awareness of hazards and risks.
Conclusion on Effectiveness		The effectiveness of the Coastal Plan has been assessed as **low to moderate** in relation to Topic 1.

4.1.4 Matters for further consideration through the Coastal Plan review

Table 3 provides a summary of key matters were identified by staff in relation to Topic 1 for further consideration through the Coastal Plan review. This summary is supported by the more detailed notes taken through the workshops on the Coastal Plan provided in **Appendix 2**.

Table 3: TOPIC 1 – Further considerations

Issue area	Key considerations

Climate change	• New Coastal Plan needs a more comprehensive view of climate change. Need to include other factors that climate change will have an effect on (broader view).
	• It is important to use and keep up to date with the latest guidance and best practice (i.e. adaptive management options, adaptive pathways approach).
	• Need to have consideration for activities that help manage the effects of climate change.
	  o There is the issue of eutrophication induced acidification that can be tackled through planning/water quality.
	  o Policies can address the broader impacts of acidification and should be included in the Coastal Plan.
	• Adding policies on sea level rise, retaining values and ability for species to migrate.
	  o Both plans could allude to the climate change road map.
	  o Identifying future areas that need to be added to CMA.
	• Backstop walls are being placed landward that will act as seawalls once sea level rise progresses. Will need a mechanism to apply seawall consent considerations to these structures once they become at the CMA boundary.

Structures	• Coastal Plan policy for temporary structures needs to be consistent with policy for natural hazards in NZCPS. • Need more guidance on the assessment criteria for assessing coastal processes in relation to structures.
Coastal Hazards	• Natural hazards and marine pests need to be considered as current provisions do not give effect to 2010 NZCPS.

Cross Boundary	• The Coastal Plan needs to provide stronger direction on cross boundary issues to then inform the Regional Plan review. Need to be clear on what's in and out in relation to coastal environment. • Cross boundary issues relating to natural hazards and climate change need to be addressed. • There is a strong need to improve on integrated management not only across the boundary of MHWS but with management directions of other agencies and the implications from a range of other legislative changes which have implications for the management of the CMA.

4.2 TOPIC 2 - Disturbances and Water Quality

4.2.1 Monitoring Key Trends and Results

Coastal water quality and contaminants

Generally, water quality at Waikato open coast beaches is high, however, heavy rainfall events have been known to temporarily increase the amount of contaminants from urban and rural land into the coastal environment, which can be detrimental to human health.

Council monitors the levels of trace elements and organic compounds in sediments of the inter-tidal sand and mudflats in seven estuaries: the Firth of Thames, Raglan (Whāingaroa) Harbour, Aotea Harbour, Kawhia Harbour, Port Waikato, Tairua Harbour and Whitianga Harbour.

The results have shown that the risk of toxic effects from trace elements on sediment-dwelling organisms is generally low in all sampled estuaries. The Council commenced measuring pollutants in estuarine sediments in 2003 and have repeated the sampling at some sites every five to ten years. Sediment samples are analysed for a range of trace elements and organic compounds. Trace elements that are tested for include antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc. Organic compounds include organochlorine pesticides (including DDT and dieldrin) and polycyclic aromatic hydrocarbons (PAHs).

Trace elements and organic compounds are known to accumulate slowly in sediments. For this reason the Council does not monitor estuaries at a regular frequency. Instead, the frequency of monitoring is determined by the risk of toxic effects on sediment-dwelling organisms revealed in the monitoring results as well as the risk of pollution from activities in the catchment.

The following provides an overview of the likelihood of toxic effects from trace elements on sediment-dwelling organisms among the investigated estuaries in the Waikato region:

- The risk of toxic effects from trace elements on sediment-dwelling organisms is generally low in all sampled estuaries.
- At Port Waikato mercury and silver were not detected, however, arsenic was equal to the low-moderate threshold, indicating a potential risk to sediment dwelling organisms. The arsenic found at Port Waikato is likely from geothermal sources.

- Trace element levels for Port Waikato are analysed through a single sediment sample. Trace metal concentrations are similar to those in 2008, when 19 samples were collected throughout the estuary.
- The Firth of Thames contained the highest concentrations of several trace elements, notably lead, zinc and mercury; but overall represented a low risk of toxic effects on sediment-dwelling organisms.
- Organic compounds (total DDT, dieldrin, and total PAHs) were not analysed in 2018. These have been sampled previously and found to be very low, often below the detection limit of the analytical method.
- The risk to aquatic ecosystems caused by trace elements in Raglan (Whāingaroa) Harbour and Tairua Harbour is particularly low.

It is noted that contaminant data has also more recently been collected from Manaia harbour, Kennedy Bay, Port Charles, Wharekawa, Coromandel Harbour, Marokopa, Awakino, Mokau, Colville, Te Kouma, Waikawau in 2019 and 2020, however, the results are yet to be published.

Coastal Biology

An assessment of the health of coastal biology is informed by monitoring undertaken as part of the Regional Estuarine Monitoring Programme. This programme has been running since 2012 and data collected is analysed using the Traits Based Index (TBI) to assess estuarine health. The TBI summarises animal community characteristics based on the animals' biological traits. Biological traits are the physical and behavioural characteristics that define a particular species (e.g. body size, mobility, feeding behaviour). The TBI monitors the health of our estuaries. It ranges between zero and one, with one being most healthy and zero being least healthy. It can be used to track the health of estuary sites over time, and to compare the health of different estuaries.

Comparison of the three estuaries shows:

- Most of the sites are moderately healthy (having a TBI score between 0.3 and 0.4).
- All the sites in the Firth of Thames had similar TBI scores indicating that these sites are broadly similar to one another in terms of estuarine health.
- There was a much greater range of TBI scores for sites within Whāingaroa (Raglan) Harbour, compared to sites in other estuaries. Haroto Bay was the least healthy, whereas Whatitirinui Island and Ponganui Creek were the healthiest.
- There were differences between sites in Tairua Harbour, with Pauanui and Manaia Road having slightly higher TBI scores (indicating a healthier environment) than those at Pepe Inlet, Gumdigger Gully and Oturu Stream.

There were only slight changes in the TBI (and therefore in estuarine health) between 2012 and 2018 at the monitored sites. The TBI score is expected to vary slightly from year-to-year due to natural variability. There is limited data from which to assess trends in TBI, typically 10 years' worth of data is required. Early indications are that there are no consistent increasing or decreasing trends in TBI scores at any of the monitored sites, although this may change over time.

4.2.2 Consent/Permit data

63 current coastal permits, issued between 2005-2020, are identified in WRC's IRIS system in relation to Topic 2 activities. This is a low number of permits over a 15 year period.

Whilst low permit numbers for these activities may indicate that the Coastal Plan may be too permissive in managing issues associated with coastal water quality and disturbances, monitoring indicates that coastal biology at most sites is in a moderately healthy state and that water quality is generally high within the CMA.

Table 4: Number of consents issued between 2005-2020

Activity	Number of consents issued
Deposit	15
Discharge to water	8
Disturbance	24
Remove material	8
Take/use coastal water	1
Vehicle use	7
TOTAL	**63**

4.2.3 Analysis of Effectiveness

The following table provides an analysis of effectiveness against the Coastal Plan objectives and environmental results anticipated in relation to topic 2 as informed by workshops with Council staff.

Table 5: Analysis of Effectiveness

Topic 2: Water Quality		**Analysis**
Objective/s	*Disturbances* Objective 7.1 Adverse effects on the foreshore or seabed avoided as far as practicable, while allowing for people's use and enjoyment of the coast. Objective 7.2 Adverse effects on natural processes and the functioning of coastal systems, arising from dredging or the removal of sand, shell, and other natural material, avoided as far as practicable. Objective 7.3 Any disposal or deposition of material in the CMA carried out in a manner which avoids as far as practicable adverse effects on natural coastal processes, water quality and ecology. Objective 7.4 Inappropriate reclamation, declamation and drainage in the CMA avoided.	Analysing the SOE monitoring data, it can be concluded that water quality within the CMA has mostly been maintained. However, the declining state of the region's freshwater bodies does make it difficult to achieve the stated objectives within the Coastal Plan.

	Water Quality Objective 4.1 Water quality in the CMA is maintained or enhanced.	
Environmental Results Anticipated	*Disturbances* • People's use and enjoyment of the foreshore provided for. • Sites of historic interest and sites of significance to Maaori protected from unnecessary disturbances. • Coastal ecosystems protected from unnecessary disturbances. • Natural processes unaffected by removal of any material. • Aesthetic values of the coastal margin maintained. • No net loss of marine sediments from coastal sediment systems. • Any disposal of material publicly and environmentally acceptable. • Number and size of reclamations or drained areas kept to a minimum. • CMA protected from inappropriate reclamation, declamation, and drainage. • Net increase in the number and area of esplanade reserves along the coast.	Overall there is not enough monitoring/baseline data to make inferences on whether the anticipated environmental results have been achieved for the disturbances chapter. This issue was commented on in the workshops. The current permitted activity regime and coastal permitting process ensure people's use and enjoyment is provided for, historic sites are appropriately managed and unnecessary disturbances don't occur. The effects of dredging activities are managed/mitigated through the coastal permit process. Within the region dredging has occurred for flood hazard purposes (in streams entering the CMA), for harbour channel maintenance and for marina development. Not all situations have met the "no net loss of marine sediments" outcome. There are challenges in maintaining channels at river mouths in the Hauraki district and Firth of Thames as a result of increased sediment in waterways (outside the Coastal Plan jurisdiction) discharging into the coastal environment. In some areas, aesthetic values have been maintained and enhanced through coast care works involving re-contouring of dunes. In general reclamations have been kept to a minimum, however, there have been seawalls and roading extensions which have resulted in encroachment into the coastal marine area.

	Water Quality • No adverse effects on water quality, or habitats from any take or use of water in the CMA. • Net increase in the area and quality of riparian vegetation zones along the coast. • No inappropriate damming or diversion of water. • Water quality enhanced in degraded areas. • No cumulative degradation of water quality in the CMA.	Point source discharges are managed through resource consents and related conditions. There are internal guidelines (sitting outside the Coastal Plan) on water quality standards for contact recreation, aquatic ecosystems and shellfish gathering. However, standards set on consents are individually set and there is no comparable way to assess or compare the effects of activities, or cumulative effects. Diffuse discharges and the effects on marine water quality from river and streams entering the CMA have been managed primarily through the Waikato Regional Plan provisions. The estuarine monitoring programme assesses the extent of riparian vegetation but is not currently measuring quality or net increases. The data has indicated that the risk of toxic effects from trace elements on sediment-dwelling organisms is generally low in all sampled estuaries. Monitoring also shows most of the estuarine sites within the region are moderately healthy. Water quality in most Waikato rivers and streams has been monitored and assessed as declining, making achievement of the environmental results anticipated very difficult. There is no data to provide an assessment on the area of riparian vegetation or spatial information on “degraded areas.”
Conclusion on Effectiveness		The effectiveness of the Coastal Plan has been assessed **low** in relation to Topic 2

4.2.4 Matters for further consideration through the Coastal Plan review

Table 6 provides a summary of key matters were identified by staff in relation to Topic 2 for further consideration through the Coastal Plan review. This summary is supported by the more detailed notes taken through the workshops on the Coastal Plan as set out in **Appendix 2**.

Table 6: TOPIC 2 – Further considerations

Water quality policy framework	• Creating a spatial plan that shows areas that are clearly prohibited and areas that are permitted, including level of permissibility. • Policy framework needs to be clear on the desired environmental results. • Consider making environmental enhancement activities more permissive (i.e. mangrove maintenance, sediment removal activities, spraying weeds). • Have channel clearance of mangroves within the Firth of Thames as a permitted activity in the Coastal Plan. • Stormwater discharge rules should be tightened. This could cause push back from the public as the current rules are very permissive. • Link Coastal Plan sediment deposition/contaminants to the new National Policy Statement for Freshwater. • Consider adding rules around sedimentation as rules currently only focus on contaminants within sediments. • Dealing with cumulative effects needs to be addressed Coastal Plan. Complicated as most of the cumulative effects being experienced arise from land based activities. We could consider the identification of degraded/at risk areas of water quality as a mechanism to address cumulative effects.
Cross Boundary considerations	• Feedback from the workshops indicated there needs to be a better understanding between the CMA and terrestrial boundaries and transition/integration with rules between Coastal Plan and Regional Plan. • Better management of drainage activities into the CMA. Historic schemes are 70-80 years old and have requirements around volume and capacity. These schemes also include local council infrastructure. • Drains/drainage into the CMA – include a policy framework regarding the maintenance and upgrading of these activities in response to climate change. • Better acknowledgement of the different flood protection roles for local authorities.
Water quality monitoring	• Current monitoring of water quality is limited to a few locations, the monitoring network needs to be expanded and funded long term to identify key trends. • There is a need for more monitoring around health risk from recreation activities. Need to look at WRC responsibilities around this as there is risk of challenge from the Ministry of Health with gaps in the Coastal Plan and monitoring. • Include water quality benchmarks and tracing for tidal rivers and channels to determine what's causing issues.

	• Need some parameters for shellfish beds and high density shellfish beds in the rules to better guide applicants.
Disturbances	• Create more rules around beach disturbances as sediment profiles may be different between adjacent areas (causing cross contamination). The public tend to disagree with WRC carting sediment away rather than building up the beach.

4.3 TOPIC 3 - Public Access and Structures

4.3.1 Monitoring Key Trends and Results

Erosion control structures

The Coastal Plan sets controls for a range of structures located within the CMA. Currently, the most available data on structures relates to erosion control structures.

A large portion of the region's coastline has become intensively developed for housing and infrastructure purposes, particularly on the Coromandel Peninsula. In many cases, this development has occurred very close to the shoreline, leaving insufficient area between development and the sea to protect from processes such as natural coastal erosion and future sea level rise. Shoreline protection works are built when the sea threatens property or infrastructure.

Data collected in June 2011 show the number and length of consented erosion control structures in the Waikato region:

- There are 38 consented coastal protection structures in the Waikato region.
- The total length of structures involved is approximately 4.6 km.
- 2.5 km are located in the Coromandel Peninsula, while 2.1 km are located on the West Coast.
- These structures are present along approximately 0.4 per cent of the total shoreline length of the region.
- This indicator over time will reflect erosion pressure on development or infrastructure located next to the coast.

Public Access

Just under half (48 percent) of the entire Waikato region's coastline is publicly owned. However the percentage of privately and publicly owned land differs greatly between the west coast, western Coromandel, and eastern Coromandel.

On the western Coromandel Peninsula:

- Just under half (44 percent) of coastline is in private ownership
- There is a high percentage (25 percent) of road frontage, due to the steep landscape making inland roads impractical

- Residential development is concentrated adjacent to the coast, so there are many coastal margin reserves
- There is relatively good public access to the coastline from the road and reserves.

On the eastern Coromandel Peninsula:

- 69 percent of the coastline is in public ownership
- Much of the publicly owned coastal land is in the form of a narrow reserve, established during land subdivision.

On the West Coast of the Waikato region:

- A large portion of the coastline is currently in farmland or forestry
- The coastline is much less intensely developed than the Coromandel Peninsula
- 36 percent of the coastline is in public ownership (including roads)
- A relatively small percentage of coastline is fronted by road reflecting the remote and relatively undeveloped nature of the region's West Coast.
- The largely undeveloped nature of the coast makes public access to many parts difficult or impossible.

4.3.2 Consent/Permit data

There were 171 coastal permits granted between 2005-20 for the construction, use and maintenance of structures within the CMA. There are also more than 800 consented moorings in the Waikato providing private/public access within the CMA.

The coastal permit numbers are high relative to the other topics assessed. This may indicate that the Plan rules are ensuring that most new structures are being adequately assessed through the permitting process and that Council records will exist for many structures to enable monitoring and further assessment of their effects/impacts. A key issue identified through the workshops is the lack of available data on existing structures (i.e. those built pre 2005) and the potential effects and/or safety issues associated with these.

4.3.3 Analysis of Effectiveness

The following table provides an analysis of effectiveness against the Coastal Plan objectives and environmental results anticipated in relation to topic 3 as informed by workshops with Council staff.

Table 7: Analysis of Effectiveness

Topic 3: Public Access		**Analysis of Effectiveness**
Objective/s	*Public Access* Objective 3.1 Public access to and along the CMA is maintained and enhanced, while recognising the need to protect some areas. *Structures* Objective 5.1 Any development, maintenance, and removal of structures in the CMA is carried out in a manner which protects natural character and amenity values and avoids adverse effects on the environment (including cumulative effects) and on natural processes, does not constitute a hazard to navigation and takes into account other uses of the CMA and adjacent land.	Public access is generally not restricted through the permitting process, with the exception of some instances outlined below. Public access has mostly been maintained, however, there is limited data to make an assessment surrounding protection of areas within the CMA. As outlined below the policy framework is not effective in protecting the CMA from the adverse effects of structures and shoreline protection works built when the sea threatens property or infrastructure (i.e. the Coastal Plan is reactive rather than proactive). The fallback onto the NZCPS to manage/control structures also highlights the ineffectiveness of the Coastal Plan in protecting the values of the CMA and the processes that occur within.
Environmental Results Anticipated	*Public Access* • Public access to and along the CMA maintained and enhanced.	There is a lack of guidance on dealing with the use of public space within the CMA, which is currently managed through amenity criteria.

	• Protection of areas of the coast vulnerable to disturbance. • Public health and safety safeguarded. • Net increase in the area and quality of esplanade areas along the coast. • No net loss of public access to the CMA. • Remote areas protected from cumulative effects. *Structures* • Cumulative effects and proliferation of structures in the CMA minimised. • Structures in the CMA which have minimal adverse effects on the environment. • Values identified in any area of significant conservation value protected.	Public access is generally not restricted through the application of appropriate resource consent conditions. In some instances shoreline protection structures have restricted access along the beach at high tide levels, particularly where private property is being protected. However, there is a lack of SOE data on the location of shoreline protection structures as well as the effects on the surrounding environment. This is also the case for esplanade reserves (however esplanade reserves are not a matter which the regional council has any control over) and remote areas which makes it difficult to determine trends in public access to the CMA. Overall, what can be inferred from the SOE monitoring, is that shoreline protection structures are being built when the sea threatens property or infrastructure, but the Coastal Plan is not proactive in preparing for Climate Change and the effects that come with it. As outlined in section 5.1 above, there are concerns from staff with the effects on coastal processes from network utility structures being built within the CMA. Staff have found that most structures require resource consent/permit as discretionary activity which works well. Comments were made on the current regime being too permissive particularly where they are Controlled Activities. The NZCPS is also heavily used for direction outlining the failings of the Coastal Plan in protecting the CMA from adverse effects of structures. Furthermore, cumulative effects from permitted activities are not well assessed.
Conclusion on Effectiveness		The effectiveness of the Coastal Plan has been assessed as **low** in relation to Topic 3.

4.3.4 Matters for further consideration through the Coastal Plan review

Table 8 provides a summary of key matters identified by staff in relation to Topic 3 for further consideration through the Coastal Plan review. This summary is supported by the more detailed notes taken through the workshops on the Coastal Plan as set out in **Appendix 2**.

Table 8: TOPIC 3 – Further Considerations

Structures and climate change	• Create some type of adaptive management pathway to allow for changing environmental conditions caused by climate change. • Need strong policy on sea level rise and the effects of structures to be able to then have a more robust resource consent process. Still have opportunity to fix these problems.
Policy Framework for structures	• Definitions for floating homes. • Use NZCPS definitions for soft and hard defence options. These have been used in the past as leverage in consents. • Encourage soft defence options in the Coastal Plan. • Thinking needs to change to consider impacts on coastal processes from structures i.e. sea walls as Coastal Plan doesn't seem to pick up on this (NZCPS does allude to this). • Better to define CMA boundaries in writing and on a case-by-case basis, rather than lines on a map.

4.4 TOPIC 4 - Marine Farming

4.4.1 Monitoring Key Trends and Results

There are large number of coastal permits granted within the CMA for marine farming, primarily for mussel farming. However, monitoring the effects of marine farming is currently limited in its scope as follows:

- Monitoring focuses on seabed effects of mussel farms, and in some areas on near-field water quality indicators of primary productivity, mainly in Wilson Bay Marine Farming Zone (WBMFZ) Areas A and B. These two areas also have a requirement for assessment of physical effects on hydrodynamic characteristics at successive stages of development. Monitoring of mussel farms in WBMFZ Areas A and B is conducted through a consortium approach. In each area only a few farms are monitored to represent effects of the whole area. In general, monitoring requirements (including parameters and sampling design) are inconsistent among farms in the Waikato CMA.
- Monitoring is required in the vicinity of the farms only, without the regional context. Limited monitoring is required for mussel farms outside the WBMFZ. These farms include mussel spat-catching and grow-out sites in Kennedy Bay; recently permitted mussel farm extensions in Coromandel Harbour; and a communal mussel farm at the mouth of Coromandel Harbour.
- No monitoring of oyster farm effects is required, even though the nature and magnitude of effects from oyster culture in New Zealand can be comparable to that for mussel culture (Forrest & Creese 2006; Forrest et al. 2009; Keeley et al. 2009).

The limited ongoing consent/permit-related environmental monitoring, a reasonable knowledge base of the effects of aquaculture on the seabed, and to a lesser extent water quality, has arisen from underpinning scientific research as well as projects commissioned by WRC, aquaculture companies and others. In the Waikato region these include past research in relation to development of mussel aquaculture available in WRC technical reports (e.g. Broekhuizen et al. 2005; Zeldis 2005; Giles 2010) and other reports or publications (e.g. Coffey 2001; Giles et al. 2006; Chamberlain & Stucchi 2007; Clearwater 2010; Taylor et al. 2012). Elsewhere in New Zealand the seabed effects of mussel, oyster and salmon culture have also been researched to varying extents (see reviews in Forrest et al. 2007; Forrest et al. 2009; Keeley et al. 2009; MPI 2013).

The focus of aquaculture monitoring on seabed and water-column effects, and the broad ecological issues associated with aquaculture development are well-recognised by WRC, and to some extent in the Coastal Plan. This is especially the case for finfish aquaculture, for which WRC has already undertaken a number of related studies in anticipation of future development (Kelly 2008; Oldman 2008; Sagar 2008; Forrest et al. 2011). Nonetheless, there is considerable potential for the relatively limited and narrow focus of existing farm-scale monitoring to be expanded and incorporated into a regional framework.

4.4.2 Consent/Permit data

The total number of permits granted for marine farming since 1999 is 248.

Of these:

- 11 permits were for oyster farms previously authorised under Fisheries legislation
- 52 permits were for mussel/spat farms previously authorised under Fisheries legislation
- 152 permits in Wilson Bay Area A
- 26 permits in Wilson Bay Area B
- 1 permit for experimental spat catching

There have been 2 coastal permits granted within the past 5 years relating to marine farming. One for the 20% Maori Allocation in Wilson Bay Area B and a permit renewal for an experimental spat catching station on the west coast.

The Council also anticipates few additional applications for mussel farms in the region given that space is currently limited. However there is a possibility that the industry may seek consent to convert some of the spat-catching sites to grow-out areas.

These permit numbers are high relative to the other topics assessed through this review. This may indicate that the Coastal Plan rules are generating the need for consent/permit and that effects are being adequately assessed through the permitting process. A key issue identified through the staff workshops is the lack of robust policies around the management of the cumulative effects of marine farming with the Coastal Plan. The development of such policies is undermined by a lack of spatial analysis of areas that may be appropriate for future marine farming activities.

4.4.3 Analysis of Effectiveness

The following table provides an analysis of effectiveness against the Coastal Plan objectives and environmental results anticipated in relation to topic 4 as informed by workshops with Council staff.

Table 9: Analysis of Effectiveness

TOPIC 4: Marine Farming		**Analysis**
Objective/s	Objective 6.1 Marine farming is developed in an efficient and sustainable manner which avoids adverse effects on the coastal environment as far as practicable.	A marine farming moratorium has been in place for much of the region during a significant part of the lifetime of the Plan. In addition, there have been a number of legislative changes that have impacted on any further marine farming development. Overall, there is a lack of monitoring data and knowledge of ecological values to determine whether adverse effects on the coastal environment have been avoided. Also the issue of the absence of consent data availability to be used in the wider assessment of the SOE comes in here again. However, it could be that the outdated rules may be failing to identify adverse effects from marine farming and protecting the surrounding environments from these effects.
Environmental Results Anticipated	• Natural character, landscape, amenity, ecological, coastal processes, water quality and cultural values protected. • Sprawling and sporadic development of marine farm structures is avoided.	Feedback from workshop participants highlighted that the rules are outdated because aquaculture in the Waikato was in its infancy when they were written. A plan variation in 2011 relating to fish farming is the most up to date. Furthermore, staff expressed that there was not enough weighting given to risks from natural hazards in marine farming information requirements and that there is a lack of

	• Marine farms that do not cause recreation and navigation hazards. • Integrated and consistent management between all agencies with marine farming responsibilities and relevant network utility operators.	knowledge on ecological values within the CMA. Cross boundary rules encouraging collaboration with other agencies does not work on the ground very well and creates issues for the region. SOE monitoring suggests inconsistencies in the monitoring requirements for marine farms (e.g. oyster farming consents have no associated monitoring and limited monitoring is required for mussel farms outside the WBMFZ). As outlined in the consent data, there have been 248 permits issued for marine farms since 1999, however, there has been no new farms permitted within the past 5 years, rather 2 permits issued for existing farms.
Conclusion on Effectiveness		The effectiveness of the Coastal Plan has been assessed **low to moderate** in relation to Topic 4.

4.4.4 Matters for further consideration through the Coastal Plan review

Table 10 provides a summary of key matters identified by staff in relation to Topic 4 for further consideration through the Coastal Plan review. This summary is supported by the more detailed notes taken through the workshops on the Coastal Plan as set out in **Appendix 2**.

Table 10: TOPIC 4 – Further considerations

Marine farming policy framework	• Review rule 16.5.6 relating to marine farming structures (Prohibited Activity) to allow aquaculture to expand. • Need to incorporate the NZCPS requirements for spatial layers in relation to the location of marine farms and the values to be protected. This will assist in identifying appropriate areas to establish farms. It is noted that there may be issues with time constraints to do this as consultation with the community is needed as well as mapping resources for the public to identify values within the CMA. As a result, it is recommended to do a first cut to identify indicative areas then delve into more detail on the values associated with these areas. • Need to outline in the Coastal Plan the type of technical assessments that have been undertaken as well as indicate areas of uncertainties. This will allow applicants to identify what further technical reports are required for their proposals. It is also recommended to assist applicants with effects assessment as far as applicable. • Provide for small and large scale operators and allow for farming of new species. • Update this section to reflect latest marine farming practices.
Cumulative Effects	• Assessment of cumulative effects needs to be ecosystem-based.
Cross Boundary Matters	• Need to take into account the development of the Upper North Island Pathway Management Plan for marine biosecurity. • Coastal Plan framework needs to support consistent management and monitoring of the Hauraki Gulf. Also need to incorporate the whole Gulf, not just within WRC jurisdiction.

4.5 TOPIC 5 - Tangata Whenua and Heritage Values

4.5.1 State of the Environment Monitoring – Key Trends and Results

Due to a lack of state of the environment monitoring, particularly relating to monitoring of cultural processes, amenity uses and values, and cultural and historic values, the effectiveness assessment of Tangata Whenua and Heritage Values has been largely based on staff feedback in the "feedback portal" supplemented by Britton and Silver s35 (refer to **Appendix 3**) review of the Regional Coastal Plan as follows.

4.5.2 Analysis of Effectiveness

The following table provides an analysis of effectiveness against the Coastal Plan objectives and environmental results anticipated in relation to topic 5 as informed by workshops with Council staff.

Table 11: Analysis of Effectiveness

TOPIC 5: Tangata Whenua and Heritage Values		**Analysis**
Objective/s	*Tangata Whenua* Objective 2.3 Establishment of a constructive partnership with tangata whenua with respect to the management of the CMA. Objective 2.4 Recognise and provide for the special relationship which tangata whenua have with the coastal environment. Objective 2.5 Mutual understanding between tangata whenua and Waikato Regional Council on the application of the principles of the Treaty of Waitangi as they apply to the CMA. *Heritage* Objective 3.3 Amenity and heritage values within the CMA maintained or enhanced.	WRC has made significant steps in the direction of understanding the Treaty of Waitangi as a council-wide approach to resource management, including the establishment of a range of Joint Management Agreements (JMAs) with Iwi. These JMAs are largely focused on rivers, however the JMA with Waikato Tainui does extend to Port Waikato. While the consents/permit process provides for Iwi involvement through consultation, including the identification of sites of significance to Maori, and consideration of iwi matters in the decision-making process, it is not clear to what extent a partnership approach has been achieved. Comments made by staff, in the "feedback" portal, have indicated that there has been limited involvement of tangata whenua in coastal management decision-making and in the practical expression of kaitiakitanga. Furthermore, it has been highlighted that the Coastal Plan is not robust in the way it identifies or manages cultural values. It does not take account of Iwi Management Plans or co-governance agreements and there are no protocols for managing sensitive information. There is a lack of monitoring data to determine whether the Coastal Plan has been effective in achieving objectives relating to heritage. However, staff

		have suggested that the Coastal Plan is not robust in addressing and managing heritage values including their protection within the CMA.
Environmental Results Anticipated	*Tangata Whenua* • Ongoing involvement of tangata whenua in the management of coastal resources. • Historical, spiritual, cultural, and traditional values of tangata whenua recognised and provided for. • The tangata whenua role as kaitiaki provided for. • Ancestral lands, water, sites, waahi tapu and taonga protected. • Mutual understanding of the principles of the Treaty of Waitangi. • The special relationship between the Crown and tangata whenua is recognised. *Heritage* • No net loss of amenity values. • The region's heritage resources protected.	WRC has made significant steps in the direction of understanding the Treaty of Waitangi as a council-wide approach to resource management. However the extent to which the relationship between iwi and the Crown has been recognised is not known. There is no monitoring data of relationships and processes to determine whether the environmental results anticipated have been achieved. There has been no baseline data gathered or on-going monitoring of amenity values or of heritage resources however, comments made from staff in the "feedback portal" has indicated the Coastal Plan is not robust in addressing heritage, including a lack of spatial mapping data of heritage/archaeological sites in the CMA. Feedback from workshops has outlined issues with the mapping of historic sites that cross MHWS and the identification of unrecorded archaeological sites. Furthermore, issues were raised around the deficiencies in management of heritage sites/places and the development of heritage criteria. The lack of spatial mapping also creates issues around communicating the locations of significant landscapes and their characteristics with the public.

Conclusion on Effectiveness	The effectiveness of the Coastal Plan has been assessed **low** in relation to Topic 5.

4.5.3 Matters for further consideration through the Coastal Plan review

The following further considerations have been identified in relation to Topic 5 for the Coastal Plan review based on the information in the effectiveness section above:

Table 12: TOPIC 5 – Further considerations

Monitoring	• Establish baselines for amenity values and for heritage sites as well as spatial mapping data for these features. • Undertake consistent monitoring of relationships and processes between tangata whenua and the Council.
Partnerships	• Improve on engagement with Iwi in coastal management decision-making and provide more opportunities for tangata whenua to express kaitiakitanga.

5 Efficiency of the Plans

5.1 Costs of the Plan

Efficiency is a measure of the benefit of a policy relative to its cost. The most efficient policy is a policy that achieves a given level of benefit for the least cost, or conversely, the most benefit for a given amount of cost.

The efficiency of a policy can be interpreted as the value for money that it represents in terms of costs (for the Council and the community), the ease of administration (which links to cost), and the speed or ability to achieve an environmental outcome.

Costs for the implementation of the Coastal Plan generally fall into three categories:

- **Administration costs** that fall on the Regional Council (policy development/changes, state of the environment monitoring, assessing and issuing consents/permits, compliance monitoring and enforcement);
- **Compliance costs** that fall on applicants (costs associated with applying for and complying with consents/permits, physical works and equipment required to comply with consent conditions); and
- '**Broader economic costs'** which may result from regulation. These involve costs associated with constrained production through limits on scale, discharge or similar, and other constraints on development imposed by either Plan provisions or consent conditions. The level at which industries or activities have been able to establish or expand is one measure of whether the economic costs or economic constraints imposed by the Coastal Plan have been too onerous.

Each of these components of efficiency is evaluated as follows using consent/permit data reported by the Council to the Ministry for the Environment.

5.1.1 Administration Costs

The Council's resource consent system is based on the principle of 'user pays'. As a result, the Council seeks to recover most costs associated with resource consent processing and consent monitoring and compliance from applicants and consent/permit holders.

Other costs incurred by the Council in administering the Coastal Plan include the following:

- Following up unauthorised incidents in the coastal environment.
- Monitoring of the state of the environment.
- Providing information and advice on regulatory matters.

Policy development in relation to the Coastal Plan is an activity where the greatest amount of time is spent and is not cost recoverable. This is important work in terms of advocacy to other agencies, as

well as undertaking research or policy papers to support the implementation of the Coastal Plan. The following plan changes have been progressed since the Coastal Plan was notified:

- Variation 1: Use and occupation (notified October 1999)
- Variation 2: Marine farming (notified October 1999)
- Variation 3: Hazardous substances (notified November 2000)
- Variation 4: Moorings (notified November 2002)
- Variation 5: Marinas (notified March 2003)
- Change 1: Minor – monitoring and research structures (notified June 2007)
- NZCPS 2010: Removal of restricted coastal activities (undertaken in 2011)
- Deemed change: Aquaculture reforms – fish farming and zone (enacted October 2011)

In general, the Council has ensured that these tasks are completed efficiently through methods such as undertaking policy development work in-house where possible. Overall, the Council's costs in administering the Coastal Plan are considered to be relatively low, indicating that the Council's administration of the Coastal Plan is somewhat efficient.

5.1.2 Costs incurred by applicants/holders of coastal permits

5.1.2.1 Costs of obtaining a resource consent/coastal permit

The RMA restricts activities from occurring in the CMA unless authorised by a resource consent/coastal permit. The Coastal Plan permits a number of minor activities that would otherwise be restricted by the RMA thus removing the requirement for a consent/permit, and so reducing the cost of undertaking minor activities. Guidance in the Coastal Plan streamlines the processing of consents/permits for other activities thereby reducing the costs for applicants.

Table 13: Number of coastal permits processed per council between 2014-2019 (MfE 2021) listed in increasing order.

Council	Total
Chatham Islands	2
Gisborne District	22
Nelson City	95
Tasman District	108
Taranaki Regional	115
Environment Canterbury	117
Otago Regional	153
Bay of Plenty Regional	164
Greater Wellington Regional	361

Auckland	376
Environment Southland	635
Waikato Regional	**780**
Northland Regional	1100
West Coast Regional	1689
Marlborough District	2350
Total	**8067**

The implications of whether a coastal permit is notified or non-notified may be significant to an applicant, particularly in relation to the time and cost of processing the application. As shown in Table 14, there is a wide range of costs for the processing of non-notified coastal permits (from $668 - $1338). Costs for coastal permits are generally below the national median.

Nation-wide data collected by the Ministry for the Environment surveys show that the WRC minimum charges for processing coastal permit applications are amongst the lowest for notified and non-notified permits. This reflects the Council's focus on efficiency, the use of technology and prudent financial management. This also potentially reflects the permissive framework of the current Coastal Plan which provides for a range of permitted activities.

Table 14: Average costs by regional/unitary authority for processing consents/coastal permits compared with WRC costs 2014-2019 (MfE 2021). Data has been presented in order of increasing costs.

Council	Limited Notified	Publicly Notified	Average total cost for notified applications	Non notified	Notification not assigned
Gisborne District	$0.00	$0.00	**$0.00**	$438.21	$0.00
West Coast Regional	$1,576.20	$0.00	**$1,576.20**	$770.40	$0.00
Marlborough District	$953.73	$3,842.25	**$4,795.98**	$522.97	$49.83
Waikato Regional	**$2,617.86**	**$2,204.16**	**$4,822.02**	**$656.58**	**$0.00**
Environment Southland	$3,658.58	$6,379.51	**$10,038.09**	$526.51	$387.55
Otago Regional	$1,212.05	$9,701.48	**$10,913.53**	$847.42	$0.00
Bay of Plenty Regional	$12,662.02	$10,391.98	**$23,054.00**	$1,189.39	$428.85

Chatham Islands	$0.00	$23,230.00	**$23,230.00**	$6,210.00	$0.00
Northland Regional	$6,032.79	$17,432.32	**$23,465.11**	$738.77	$159.94
Taranaki Regional	$9,046.41	$47,321.38	**$56,367.79**	$1,835.36	$1,473.08
Environment Canterbury	$3,825.13	$56,895.48	**$60,720.61**	$2,412.73	$0.00
Nelson City	$0.00	$85,184.24	**$85,184.24**	$900.19	$370.01
Auckland	$13,646.96	$76,518.18	**$90,165.14**	$4,703.01	$20,852.69
Tasman District	$0.00	$102,527.03	**$102,527.03**	$1,489.87	$0.00
Greater Wellington Regional	$0.00	$104,211.97	**$104,211.97**	$1,368.98	$0.00

5.1.2.2 Length of Time to get a Consent/Permit Granted

Delays in processing of applications for coastal permits can impose unnecessary costs on applicants. The Council aims to process applications within the timeframes in the RMA, 60 working days for notified and limited-notified applications without a hearing, and 100-130 days for notified applications with a hearing. The timeframe for processing a non-notified application is 20 working days. The processing timeframes can be extended for:

- further information requests (section 92(1) and 92 (2))
- waiting for affected party approvals (section 94)
- and/or other reasons, with or without the approval of the applicant (sections 37A(2)(b) and 37A(2)(a)).

Actual timeframe compliance with the discount regulation timeframe for the 2019/20 year for all WRC consents was 99.8 per cent. In total 951 applications (both Regional Plan and Coastal Plan) were processed to completion. Of these, there were five that were processed outside the statutory RMA timeframe. However, one of these was subject to the queued priority process (i.e. it was an application to take water where the applications need to be processed in priority order) and two applications were processed during COVID-19 so did not trigger the discount regulations. Two applications were processed outside the statutory timeframe one by one day, one by four days and therefore received a discount.

5.1.2.3 Costs of Monitoring Consents

Council is required to monitor compliance with consent/permit conditions. The monitoring programme is based on compliance strategies prepared at the Directorate, Section and Team level. These strategies consider the monitoring priorities based on a range of criteria. From that monitoring targets are set, which also need to align with WRC Annual Plan targets. For instance, the following criteria were used to select sites for monitoring in the 2019/2020 year:

- Sites with recent significant non-compliance or partial compliance that require follow up
- Sites that have never been monitored, or not monitored, for over 3 years
- Sites that require a bond and there is a likelihood that a sufficient bond has not been provided
- Sites for which a consent/permit has been recently granted and where it is highly likely works will occur in the 2019/20 year
- Sites that are due to expire within the next 18 months – to ensure compliance and that the consent holder is aware of requirements for replacing consent if required
- Sites identified as a P1 in the 2018/19 year unless they can be down-graded due to long term high or full compliance
- Sites of importance, political interest or that are contentious

Sites are categorised in priority from P1 to P4, with P1 being the highest priority sites. The Annual Plan requires 95-100 per cent of P1 sites to be monitored annually and the Annual Report monitors the performance of compliance monitoring of consented activities. Since 2013, Council has consistently achieved in monitoring over 99% of identified high priority consented sites, with most years achieving 100% performance rate. However, it is noted that the performance rate for lower priority sites tend to not achieve targets set for each year between 2013 – 2017, with the reporting of compliance monitoring for these types of sites removed from the annual report from 2018 onwards. Furthermore, it is noted that the number of sites being monitored are decreasing whilst the number of consents being processed to completion are increasing[2].

Monitoring of the region's resource use is undertaken on behalf of consent holders, and is cost recovered. This information is made publicly available in the Council's long term council community plans. In 2019/20 WRC costs for consent monitoring was $12,417,000 on consent processing and compliance monitoring of which $7,427,000 was recovered through fees and charges to applicants (private). The remaining funding came from public funding such as general rates.

5.1.3 Broader Economic Costs

Determining how efficient the Coastal Plan has been in terms of potential impacts on 'broader economic costs' was determined by seeking feedback comment on the Plan as the first step in the Plan review process.

The Council has received submissions or correspondence to the effect that the Coastal Plan is imposing unacceptable costs on businesses or the community or has unnecessarily and unreasonably constrained development in relation to new aquaculture development. This indicates that the Plan is constraining some parties wishing to undertake development or activities within the CMA, thus the impacts on 'broader economic costs' in terms of opportunity costs, has been assessed as low to moderate.

5.2 Summary of the economic costs of implementing the Plan

Table 15 summarises the economic costs of implementing the Coastal Plan described above. The Table is based upon a matrix set out in Enfocus (2008).

[2] Waikato Regional Council Annual Report 2013/14, 2014/15, 2015/16. 2016/17, 2017/18, 2018/19, 2019/20

Table 15: Assessment of Costs of Implementing the Coastal Plan

Type of Costs	Measures	Evaluation			Comment
		Low	Medium	High	
Administrative Costs (costs incurred by the Council to administer the Coastal Plan & implement non-regulatory methods)	Number of resource consents issued				Since 2015, 780 coastal permits have been issued by WRC, this is high relative to other regions
	Proportion of consent costs not recovered by WRC				Council normally recovers between 80% to 100% of resource consent processing costs from applicants for resource consents.
	FTEs monitoring Coastal Plan provisions				Monitoring is largely incorporated in the Council's annual reporting and state of environment monitoring programmes, there is no specific monitoring programme related to the environmental results anticipated in the Coastal Plan.
	Condition monitoring, compliance and enforcement actions taken under the Coastal Plan				Since 2013, Council has consistently achieved in monitoring over 99% of identified high priority consented sites, with most years achieving 100% performance rate. However, it is noted that the performance rate for lower priority sites tend to not achieve targets set for each year between 2013 – 2017, with the reporting of compliance monitoring for these types of sites removed from the annual report from 2018 onwards. Furthermore, it is noted that the number of sites being monitored are decreasing whilst the number of consents being processed to completion are increasing.
	Costs incurred by the Council to deliver non-regulatory activities				Includes non-chargeable Council activities such as provisions of advice and information and advocacy, very little resource is allocated to this area.

	Costs incurred by Council to undertake policy development to support implementation of the Coastal Plan				In general, the Council has ensured that these tasks are undertaken efficiently through methods such as undertaking policy development work in house where possible.
Type of Costs	**Measures**	**Evaluation**			**Comment**
		Low	**Medium**	**High**	
Compliance Costs (costs incurred by resource users to comply with regional rules)	Resource consent costs charged to resource users				Waikato Regional Council average costs between 2014-19 are some of the lowest in the country
	Monitoring costs				Monitoring of the region's resource use is taken on behalf of consent holders and is cost recoverable by WRC.
Other Economic Costs (broader costs associated with the Coastal Plan constraining production & innovation, or resulting in the sub-optimal allocation of resources)	Constraints imposed by the Plan limiting resource users' flexibility to achieve environmental results anticipated				No indication from stakeholders that the Coastal Plan has put undue constraints on resource users.
	Production constraints placed upon targeted sectors				No indication of undue constraints on resource users.
	Constraints imposed by the Coastal Plan by the lack of certainty given to				Comments from staff have indicated that some sections of the Coastal Plan are not clear to users and sometimes create confusion

	existing or potential new resource users about what they can do & how the manage resources				
Overall Economic Costs of Coastal Plan Provisions					

Table 16 provides a summary of the benefits and costs of the Coastal Plan and is based on the overall findings from this effectiveness and efficiency assessment.

Table 16: Summary of the Benefits and Costs of the Coastal Plan

<table>
<tr><th>Benefits (Summary from cost effectiveness assessment)</th><th>Costs (Summary from cost estimation)</th></tr>
<tr><td rowspan="2">Environment (outcome) benefit
Water quality within the CMA has largely been maintained
Moderately effective in being reactive to sea level rise</td><td>Administrative costs
Medium
Minimum costs in terms of undertaking state of environment monitoring and policy development</td></tr>
<tr><td>Compliance costs
Cost to consent applicants are kept low compared to other regional and unitary council’s
Council delivered monitoring ensures consistency and keeps costs down for consent holders</td></tr>
<tr><td>Other benefits
Coastal Plan provisions around structures (excluding network utility structures) tends to work well/are effective in managing adverse effects
Public access is generally not restricted through the consent/permitting process
The consent/permitting process identifies sites of significance to Maori and provides for iwi involvement through consultation</td><td>Economic
Few constraints on resource users in terms of the Plan constraining production and innovation</td></tr>
<tr><td>Summary
Benefits of the Coastal Plan assessed as medium</td><td>Summary
Cost and constraints associated with the Coastal Plan administration and implementation have been assessed as low</td></tr>
<tr><td colspan="2">CONCLUSION</td></tr>
<tr><td colspan="2">The benefit is marginally greater than the cost, therefore the Coastal Plan can be regarded as efficient.</td></tr>
</table>

6 Conclusions and further recommendations

This review has set out to assess the effectiveness and efficiency of the Coastal Plan, in accordance with s35 of the RMA. It has been difficult to conclusively determine whether or to what extent the Coastal Plan has been effective or efficient in achieving its objectives given a lack of quantitative data available on the environmental results anticipated within the Plan.

In assessing data for this review, it has also been noted that there is a disconnect between the expectations of the Coastal Plan, in relation to monitoring and implementation of "other methods" and current monitoring coastal programmes which have not been designed to assess policy effectiveness. In addition, no person or group has the lead responsibility for ensuring the Coastal Plan is implemented and that focused information gathered for required plan reviews.

These gaps in terms of monitoring have been identified in the previous s35 reports (2011 and 2013) and the Council needs to find a way to appropriately align monitoring with outcomes sought through the Coastal Plan. This is particularly important as the Council in its 10 Year Strategy – Making a Stand for the Waikato has identified 'Coastal and marine' as a strategic priority.

Despite the above constraints, staff experiences working with the Plan and high level state of the environment monitoring trends/results indicate, on a qualitative basis, that the effectiveness of the current Coastal Plan is low in relation to the sustainable management of the wide range of complex coastal marine resource management issues within the CMA. Based on collated consent cost data, the Coastal Plan has been found to be efficient in that the low environmental benefits generated by the Plan marginally outweigh the costs of implementing/administering the Coastal Plan.

The Coastal Plan has provided a framework for the sustainable management of the coastal marine area for the past 20 years, it is clear that there have been significant legislative changes during this time which impact on the scope and nature of the Coastal Plan. The Coastal Plan will benefit from the current review to bring it into line with the current RMA requirements and national direction. Notably, as raised in the various workshops through this review, there is a strong need to improve on integrated management not only across the boundary of MHWS but with management directions of other agencies.

Recent RMA changes do offer an opportunity for considering a different plan style (e.g. fewer mandatory requirements) along with a change in scope (e.g. effects vs activities). While at a more detailed level, staff have identified a number of areas where clarification of wording would be beneficial for interpretation and application. This review also identified a range of emerging pressures and future directions that should be considered, if the Coastal Plan is to be a robust plan for the future.

It is important to note that significant legislative reform is also on the near horizon for all plan makers and that this will likely include the replacement of the RMA with the Natural and Built Environments Act (of which an exposure draft has been released) and potentially the replacement of the New Zealand Coastal Policy Statement (NZCPS). Discussion documents have been released on the new Climate Adaptation Act and the Strategic Planning Act both of which will have implications for the long term management of effects and outcomes within the CMA and Coastal Environment. There is a real

opportunity to improve the effectiveness of the Coastal Plan through a greater focus on outcomes and ensuring that these outcomes are measured.

Given the above and the conclusions on effectiveness set out in this report, it is recommended that:

- The Coastal Plan be comprehensively reviewed and that the findings of this report be used as evidence to support the review.
- That establishing better links between coastal monitoring and Plan outcomes be explored and resolved through the review.
- That future monitoring both in terms of state of the environment monitoring and monitoring of consent/coastal permit outcomes be directly linked to outcomes anticipated through the Coastal Plan.

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Appendix 3 - Summary of Legislative Context - adopted from Britten and Silver 2013

Table 1 below provides a timeline of the key changes made to the RMA since its enactment in 1991. Furthermore, details on the national policy statements (NPS) and national environmental standards (NES) developed/under development since the RMA 1991 are outlined below.

Table 1: Key changes to the RMA

Act	***Nature of change***
RM Amendment Act 1993	Various – amended s 12, 13, 14 – restriction on use of CMA, discharges and noise; transition provisions about existing coastal uses.
RM Amendment Act 1994	Various changes including changes to s12 (CMA restrictions on uses).
RM Amendment Act 1996	Various procedural changes.
RM Amendment Act 1997	Changes to s12 (CMA restrictions on uses); imposition of coastal occupation charges; matters to be considered in plans; unlawful reclamations.
RM (Aquaculture Moratorium) Amendment Act 2002	Introduced a moratorium on aquaculture activities.
RM Amendment Act 2003	Various changes including: new functions for RC re: water quality and biodiversity; requirement to take into account iwi management plans; new contents for regional plans; transitional provisions relating to existing plans - not bound by requirement to “give effect to” NZCPS.

RM (Energy and Climate Change) Amendment Act 2004	Introduced efficiency of use of energy; climate change and renewable energy.
RM Amendment Act (No 2) 2004	Improved planning for aquaculture – required aquaculture management areas and authorisations.
RM (Foreshore and Seabed) Amendment Act 2004	Inserted recognised customary activities provisions.
Aquaculture Reforms (Repeals & Transitional Provisions) Act 2004	Repealed the Marine Farming Act; transitional provisions for Fisheries Act and for ending of moratorium under the RM (Aquaculture Moratorium) Amendment Act 2002.
RM Amendment Act 2005	Wide ranging changes including; new function for RC re: allocation of space in the CMA; power to include material into plans by reference, reviewed contents of plans.
RM Amendment Act 2007	Small amendment re: environment commissioners.
RM Amendment Act 2008	Minor amendments to 2004 aquaculture regime
RM (Simplifying & Streamlining) Amendment Act 2009	Extensive changes to make processes simpler and more efficient and to address technical issues.
RM Amendment Act (No 2) 2011	Wide ranging changes including aquaculture, amendment to RC function re: fisheries; occupation in CMA.
RM Amendment Act 2011	Introduced the Environmental Protection Agency.

RM Amendment Act 2013	Improvements to the resource consent reime. Streamlined process for the first Auckland Unitary Plan. Time limits set for processing medium size consents. Easier direct referral to the Environment Court for major regional projects. Stronger requirements for councils to base their planning decisions on robust and thorough cost-benefit analysis
RM Amendment Act 2017	The Resource Legislation Amendment Act 2017 (RLAA) contained close to 40 amendments. It amended five different Acts: the Resource Management Act 1991 (RMA), Conservation Act 1986, Reserves Act 1977, Public Works Act 1981, and Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2013. Consequential changes were also made to other Acts and the Resource Management (Forms, Fees and Procedure) Regulations 2003.
RM Amendment Act 2020	Improvements made to resource consenting, enforcement and Environment Court provisions within the RMA.
Hauraki Gulf Marine Park Act 2000	Established an NZCPS for the Hauraki Gulf area.
RM (Marine Pollution) Amendment Regulations 1998	Controls on dumping and incineration; discharges; garbage, ballast water, ship operations; and stating how these regulations interlink with rules in a plan.
RM (Marine Pollution) Amendment Regulations 2002	Controls on discharges of sewage into the CMA; including controls near marine reserves and mataitai.

Other national policy statements and national environmental standards

Other national policy statements (NPS) that have been developed since the RMA was enacted in 1991 include the following:

- National Policy Statement on Electricity Transmission, 2008
- National Policy Statement for Renewable Electricity Generation, 2011
- National Policy Statement for Freshwater Management, 2020
- National Policy Statement on Urban Development 2020
- Proposed National Policy Statement on Indigenous Biodiversity (Likely to take effect in April 2021).
- Proposed National Policy Statement for Highly Productive Land (Public consultation undertaken from August - October 2019

In addition there are eight national environmental standards (NES) in force as regulations and one under development:

- National Environmental Standards for Air Quality, 2004
- National Environmental Standards for Sources of Human Drinking Water, 2008
- National Environmental Standards for Telecommunications Facilities, 2016
- National Environmental Standards for Electricity Transmission Activities, 2010
- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, 2012
- National Environmental Standards for Plantation Forestry, 2018
- National Environmental Standards for Freshwater, 2020
- National environmental standards for marine aquaculture, 2020
- Proposed National Environmental Standards for the Outdoor Storage of Tyres (Likely to take effect in 2021)

The WRCP is required to “give effect to” NPSs (s67 RMA) and if there is any duplication or conflict with an NES the WRC must amend its plan (s44A RMA). Given the operative dates of the above list of NPS and NES, the RCP is unlikely to have adequately addressed the policy and regulatory directives of these documents. (NB: all NPS have been listed, as there may be future implications if any decision is taken to develop a coastal environment plan – refer to discussion in section 17).

Appendix 2 - Workshop Summary Sheets and Notes

Workshop Notes - Coastal Hazards, Habitat and Coastal Process

In Attendance: Adam Munro, Hannah Jones, Susan Brennan, Vicki Carruthers, Rick Liefting, Alejandro Cifuentes, Andrew Kramer (Waikato Regional Council), Angus McKenzie and Claudia Richardson (Place Group Limited)

Apologies: Tim Wilson (Place Group Limited)

Subject: Reviewing the effectiveness of the Regional Coastal Plan - Coastal Hazards, Habitat and Coastal Process

Venue: MTG Waipa (12) 401 Grey B4

Date and Time: Wednesday 16 September, 2:30pm - 4:00pm

Gaps and Issues

The following provides a summary of the feedback received from the workshop held with WRC staff on the key gaps and issues within .

- There is an expectation from the community that mangrove removal should be more permissive, whereas NIWA and other research identifies 81 significant sites, and 97 specific sites where mangroves are significant to the ecosystem. This results in challenges in monitoring consents held by ICM for mangrove removal, particularly around compliance being compromised by third parties.
- Issues with habitat and coastal processes and biodiversity being included in this section of the Plan, when there are specific policies in the NZCPS.
- Short term structures 16.7.1 Controlled Activity (CA) - not restrictive enough based on NZCPS. Controlled activity status is not the right threshold.
- Historic places that cross MHWS are not mapped efficiently. Identification of unrecorded archaeological sites is also an issue. There are also deficiencies in management of heritage facilities and development of heritage criteria.
- Not enough weighting given to marine farming information requirements to identify risks from natural hazard processes and marine pests.
- Rules aren't tight enough in current WRCP and new coastal plan should focus on CMA plus compliment the Regional Plan
- Policy is currently limited to sea level rise.

New/emerging issues/activities/effects that need to be managed

The following provides a summary of emerging issues that have been identified by WRC staff as needing to be addressed in the Coastal Plan review. These issues can be generally separated into the following five categories:

- Climate Change - sea level rise, acidification, coastal hazards, increased flood risk
- Structures
- Coastal hazards
- Mangroves - rules not effective in protecting significant values/habitats.
- Changes to the policy framework

Climate change	● Spatial planning - identifying appropriate areas.
Structures	● Structures that fall within high risk erosion areas are managed by the CP. ● Structures - CA rule 16.4.11 around protecting roads. This will proliferate with sea level rise. Need tighter restrictions. Need to look at balancing values.
Coastal Hazards	● Coastal Hazards - having consistency in the rules, policies and methods in both plans relating to flood prone and flood plain areas. ○ Flood mitigation methods and addressing flood risks should be the same between both plans. ○ Both plans should have the same outcome.
Mangroves	● Mangroves removal - mangroves are significant and site by site assessment is required to determine avoid/remedy/mitigate. As a result the CP cannot have

	blanket PA rule for mangrove removal as would not acknowledge NPS.
Policy Framework	● Having clear delineation on the issues that need to be addressed in either plan or both plans ○ Policy direction can have references to land processes (i.e. nesting) ● Issues in dealing with coastal issues outside of the CMA (ie. seawalls essentially outside CMA). ● Current CP gives reference to the coastal environment however the RP does not - this gap has been highlighted by the NZCPS. ○ Not a coastal enviro plan but a CMA plan. ● No hierarchy of policies in the NZCPS ● Concerns about cumulative effects - Important habitats along the shoreline. Without a protection strategy we are stuck on assessing on a consent by consent basis. We are losing these habitats as the plan does not provide a broad effects assessment. Need overarching strategy. ● Spatial aspect - identify areas to protect and where development can occur ○ Ring fence habitat areas and prevent activities from taking place in these areas. ○ Lack of evidence - NIWA report relates to Coastal Environment (not available yet) ● Touches on some dune habitat but does not detail more terrestrial environments. ● Has mapping which could be useful but limited for threatened species and a lot of areas are indicative therefore applicants will require to do their own assessment. ○ New CP looking at having applicants provide surveying information on the site values. ● Cross CMA boundaries

	● Activities that impact the CMA (ie. coastal processes) - issues with managing these through the CP. ○ Will need legal opinion on the extent to how the CP can control these land based activities ● Coastal processes - Not enough protection provided by CA rules relating to disturbances to the foreshore and sea bed.

Workshop Notes - Coastal Disturbances and Water Quality

In attendance: Adam Munro, Andrew Kramer, Dean Allen, Eloise Ryan, Hannah Jones, Janine Kamke, Raewyn Legge, Ryan Morrison, Kristina Healy and Susan Brennan (Waikato Regional Council), Angus McKenzie and Claudia Richardson (Place Group Limited)

Apologies: Bill Vant, Gareth Read, Keri Neilson, Sarah Lealand, Macaela Flanagan (Waikato Regional Council) and Tim Wilson (Place Group)

Subject: Reviewing the effectiveness of the Regional Coastal Plan

Venue: MTG RIG, 401 Grey Street

Dates and Time: Thursday 10 September, 2:00pm - 4:00pm

Gaps and Issues

The following summarises the feedback received from the workshop on this topic.

- Challenges in maintaining the channels of the rivers within the Hauraki river mouths and Firth of Thames as a result of increased sediment in waterways discharging into coastal environment. The definition of CMA is difficult to interpret and therefore at which point the Coastal Plan is relevant.
- Focus is managing sediment around flood schemes
    - Difference between maintenance and artificial reductions of wetlands
    - Community sees thresholds for flood management scheme seen as being to high
- The permitted activity rule for maintenance dredging at river mouths is uncertain as 88 consents for these activities are held by ICM. Little value in having a permitted activity rule that cannot be complied with.
- Weight of NZCP - overrides some of the rules during consenting.
- Impossible to monitor the water quality rules around visible disturbances within 24 hours, making the activity a discretionary activity rather than controlled.
- Ecological advice is required in relation to shellfish beds and high density shellfish beds. This is inefficient.
- Military Rules - questions around whether these need to remain. No consents from relating to military activities since last plan.

- Objectives and policies are not so efficient as a lot of weight sits behind NZCPS. There are also gaps between environmental monitoring and policy direction.
- Little consents for dredging, sand push up and reclamation. Few public enquiries around permitted activity rules. Generally, there is a lack of information around these activities. No regulations on permitted activity monitoring. Most consents focused on structures.There is also a lack of coordination between dredging consents in harbours and understanding around cumulative effects (Hauraki).
- Spatial mapping - proving difficult for the public. Hard to map shellfish beds as they move. Coastal margins and basins could be mapped. Not having spatial mapping makes it hard to communicate to the public.
- Boundary issues between CMA and Regional Plan.
- Lack of environmental monitoring to use for policy effectiveness monitoring
- No specific consideration for tidal areas of rivers

New/emerging issues/activities/effects that need to be managed

The following provides a summary of emerging issues that have been identified by WRC staff as needing to be addressed in the Coastal Plan review. These issues can be generally separated into the following five categories:

- Climate change
- Changes to the policy framework
- Activities that fall within the CMA
- Activities that fall outside the CMA

Climate Change	• Climate change and nitrification • WQ - issues from climate change, nitrification • Water table increasing with climate change is creating problems with storm water as water cannot get out due to being blocked by sea water (intermingling of storm water).

Policy Framework	● Degraded waterbodies - setting standards ● PA - few PAs that have stringent rules. Activities that comply tend to fall off WRC radar. ● Lack of coordination between consents that are issued or cumulative effects which are associated with dredging/deposition ○ Deposit into EEZ ● Marine pests and TON Pathways Plan - not sure if there's decent guidance in these plans. Currently no biosecurity provisions ● How is coastal erosion being addressed with soft options ● Timescale - lot of changes in saline environments further inland. Is the plan adaptable enough to address this ● Dredging consents - plan not well set up for agitation dredging. This type of dredging is more practicable but can be difficult when there's too much sediment in systems. Confusion between the environmental tradeoffs. ● Connection between RP and CP for level based activities for the CMA ● Establishing water quality rules. Setting targets will be tricky due to lack of monitoring. Could do this through indicators or setting specific targets for valuable water bodies i.e. water clarity.

Activities within the Coastal Marine Area	● Effects from boats
	  ○ Sewage discharges - Sewage from boats is not currently controlled, though this is typically managed in marinas
	  ○ Increasing boat traffic (in particular the Coromandel)
	● Dredging - spread of invasive species

Activities outside of the CMA	● CMA is the receiving environment of discharges from catchments throughout the region ● Toxoplasmosis - doesn't leave the CMA once left estuaries therefore is widespread throughout the marine environment ● Natural anoxic conditions - these are generally ignored due to being natural occurrence

Workshop Notes - Public Access and Structures

In Attendance: Michael Townsend, Naomi Crawford, Richard Barnett, Ryan Morrison, Stephen Hunt (Waikato Regional Council)

Apologies: Andrew Kramer (Waikato Regional Council), Tim Wilson (Place Group Limited)

Subject: Reviewing the effectiveness of the Regional Coastal Plan - Public Access and Structures sections

Venue: MTG Waitoa (14) 401 Grey A5

Date and Time: 14 September 2020 - 1pm to 3pm

Gaps and Issues

The following provides feedback from the workshop held in relation to the effectiveness of the provisions in the Coastal Plan relation to public access and structures.

- Previous NZCPS - can address structures parallel to mean high water springs (MHWS), perpendicular structures (related to old NZCPS).
- The controlled activity rule for structures associated with network utility operations gets a lot of use. The rule ensures WRC can't decline consents for these types of activities. This leads to challenges in applicants not providing enough information in applications. Concerns over these structures having significant effects on coastal processes and generally favours roads over beaches. Most other structures fall under Discretionary rule which works well.
- Other structures (boat ramps and jetties) - rely heavily on NZCP for direction. Currently use assessment criteria in CP as a starting point (rather than policies and objectives as these are not helpful).
- Permitted Activity rule for removal of structures - misunderstanding of these rules from the public as wording is quite loose around this.
- Cumulative effects from PAs not well assessed.
- Whitianga and Pauanui waterways - management of structures in these spaces is complex. Mix of highly modified CMA and intended use of waterways with boating and floating homes doesn't fit well with the CP, and needs further consideration.

    - Weird legal space
- Public access - considering this for other consents
    - Rely on NZCPS in consenting
    - Public access along CMA - direction on how to approach structures. Limited notification becomes public notification in certain areas classified as use for public access
- Public access - incident response enforcement
    - Has there been much use of these?
    - Whitebait stands - PA under structures and must be registered
    - Maimai rules is very permissive and different to RP rules
- Structures and biosecurity risks - PAs cumulative effects on ecology - issues from this are going to continue and rules will quickly become outdated therefore need to plan for this.
- Current regime for structures is too permissive
- Boundaries of CMA. effects are sometimes on the other side
- Mooring and marinas is an issue - clear inefficiencies in this space
    - Moorings is part of structures
    - Stated number of moorings in Zoned Mooring Area (ZMA) - not appropriate to put fixed numbers as can create issues around safety
    - Want to move from individual consents to licensing
        - This was piloted in Kawhia harbour. Council holds consent for ZMA and offers spaces through licenses
    - Moorings have varying values - can be bought and traded, land banked. Under licence system council can put in controls determining mooring locations etc.
    - Not many consent holders currently. Will need to consult on the approach harbour by harbour. There's a database on these holders.
- Rules 16.4.5 Navigational aids are not subject to consent and seem to fall off WRC radar.
- Public access to and along CMA - not good guidance on dealing with the use of public space - currently managed through amenity criteria.
- Effects of surfbreaks - NZCPS is directive around this in that it is dealt with through coastal process assessment, however, mapping surf breaks is difficult.

- Temporary structures - conditions around PA rule is quite permissive and WRC is only alerted to their existence if people ring up with questions (no monitoring data). No rules in relation to NZDF around temporary structures.
- Functional needs are not well defined in CP and open for interpretation.
- Lack of information/data around white bait and maimais.
- Research structures - half a dozen in CMA. Good comms between buoy owners and WRC - need some consideration around PA rules
    - More navigational issue than safety
- WRCP doesn't have clear guidance on sea level rise

New/emerging issues/activities/effects that need to be managed

The following provides a summary of emerging issues that have been identified by WRC staff as needing to be addressed in the Coastal Plan review. These issues can be generally separated into the following four categories:

- Climate change
- Existing use rights
- Activities within the CMA
- Activities outside the CMA

Climate Change	● Policy around soft and hard protection options ● How do structures work in managed retreat scenarios, current CP does not mention managed retreat ● Considering climate change over the duration of the consent - can prove difficult for 35 year consents. ● Don't have very good defence mechanisms proposed. ● MHWS line - difficulties around mapping this line as it varies
Existing Use Rights	● No existing rights in the CMA but people think there are so there is a risk around this ○ Need to look at high risk structures that already exist

Activities within the CMA	● Disturbances - instead of shifting structure we allow for sediment buildup and people have suggested to push sediment onto beach. ● Flow on effects from structures i.e. sea walls creating erosion on neighbouring properties therefore requiring more seawalls to be built along coast line (adaptive management)
Activities outside of the CMA	● Structures that aren't in CMA but will be soon (e.g. seawall in front of homes which is now in CMA but wasn't considered in 2013) ○ Look at adding conditions in consents around this

Workshop Notes - Marine Farming

In Attendance: Waikato Regional Council - Chris Staite, Christin Atchinson, Michael Townsend, Janine Kamke. Place Group - Angus McKenzie and Claudia Richardson

Apologies: Gareth Read, Hannah Jones, Tim Wilson

Subject: Reviewing the effectiveness of the Regional Coastal Plan

Venue: Manuka Meeting Room, 418 Grey Street

Date and Time: Thursday 3 September, 3:00pm - 4:30pm

Gaps and Issues

The following summarises the feedback received from WRC staff in relation to the effectiveness of the current provisions in the Coastal Plan relating to marine farming.

- All of the rules in the chapter have been used to greater or lesser extent, however, fish farming rules have not come into effect yet.
- Current farm zone rule is used but will be made redundant with new NES
- Most rules are outdated because aquaculture in the Waikato was in its infancy when they were written.
- Rules created in the 2011 plan variation (Plan Change 1) relating to fish farming are most up to date.
- Rule 16.5.6 Marine Farming Structures (Prohibited Activity) - restrictive to aquaculture expansion as can only farm in specific zones. Prohibited rule prevents existing farms from expanding/moving.
- September 2011 RMA Amendment act (no. 2) rules - have been effective.
- No definition of what a loading and unloading activity is and no one seems to know what it is. There is no definition of an authorised landing and therefore it’s unenforceable.
- Issues identified in the plan are general but rules are specific and therefore don't allow flexibility.
- Cross boundary rules encourage collaboration with other agencies (aquaculture forum). Doesn’t work on the ground very well. Process is questionable and has been difficult. There is also potential for Waikato to miss out on economic value but still bears the burden of the environmental effects.

- Objective 6.1 doesn't align with the prohibited rule.
- RMA amendment act 2011 - WRC on track and haven't missed any dates therefore it has been effective.
- Lack of knowledge on ecological values within the CMA.

New/emerging issues/activities/effects that need to be managed

The following provides a summary of emerging issues that have been identified by WRC staff as needing to be addressed in the Coastal Plan review. These issues can be generally separated into the following three categories:

- Changes to the policy framework that applies to marine farming
- Cumulative effects
- Management of biosecurity

Policy Framework	• Need to question whether WRC completes the technical assessments for spatial planning upfront or whether to allow for technical assessments to be provided as part of a consent by consent regime (i.e. the existing practice).
	• Current framework is not encouraging species diversification e.g. Spat catching on the west coast and mussel farms.
	• Determining natural values is very difficult due to issues with scale. Things can take on different levels of significance when the scale they are assessed at varies.
	• Landscape and natural character
	  ○ Difficult to apply as too restrictive
	  ○ Managing potential landscape and character effects from mussel farms
	• Spat farming - Important to identify appropriate areas where it's easier to establish spat farms (easy, hard and case by case areas)
	  ○ Spat farms are not well accepted in communities however is a precursor to mussel farms
	  ○ Requires a lot of information - currently working on

	getting this. Community involvement is key in determining these areas. ○ Landscape report march next year ○ Need to do targeted consultation - people can point out locations and identify constraints ○ Cumulative effects - zoning will assist in containing these effects. Good to tackle this and monitoring upfront. ○ Spat catching on the west coast - way of dealing with adverse effects and finding a middle ground. ○ Identifying zones - how this will be allocated first in first serve may not be appropriate ○ Need to look at consent process rather than the plan to address the changing environments *Industry* ● Industry requiring flexibility e.g. sub surface farming and open ocean aquaculture. Ensuring we give consideration to this. *New Legislation* ● The new Aquaculture NES due 1 December will provide a criteria for which farms are appropriate. ● NES for Biosecurity that is currently being tested with Councils. Will come into force 2024-25. ● Government aquaculture strategy - 3 billion targets for 2025 (driver) but no space in region for new farms/expansion
Biosecurity	● Biosecurity information sharing between adjoining regions is effective, but within the region not so much. ● New emerging issues in biosecurity are not well addressed.

Appendix 3 - Summary of Legislative Context - adopted from Britten and Silver 2013

Table 1 below provides a timeline of the key changes made to the RMA since its enactment in 1991. Furthermore, details on the national policy statements (NPS) and national environmental standards (NES) developed/under development since the RMA 1991 are outlined below.

Table 1: Key changes to the RMA

Act	***Nature of change***
RM Amendment Act 1993	Various – amended s 12, 13, 14 – restriction on use of CMA, discharges and noise; transition provisions about existing coastal uses.
RM Amendment Act 1994	Various changes including changes to s12 (CMA restrictions on uses).
RM Amendment Act 1996	Various procedural changes.
RM Amendment Act 1997	Changes to s12 (CMA restrictions on uses); imposition of coastal occupation charges; matters to be considered in plans; unlawful reclamations.
RM (Aquaculture Moratorium) Amendment Act 2002	Introduced a moratorium on aquaculture activities.
RM Amendment Act 2003	Various changes including: new functions for RC re: water quality and biodiversity; requirement to take into account iwi management plans; new contents for regional plans; transitional provisions relating to existing plans - not bound by requirement to “give effect to” NZCPS.

RM (Energy and Climate Change) Amendment Act 2004	Introduced efficiency of use of energy; climate change and renewable energy.
RM Amendment Act (No 2) 2004	Improved planning for aquaculture – required aquaculture management areas and authorisations.
RM (Foreshore and Seabed) Amendment Act 2004	Inserted recognised customary activities provisions.
Aquaculture Reforms (Repeals & Transitional Provisions) Act 2004	Repealed the Marine Farming Act; transitional provisions for Fisheries Act and for ending of moratorium under the RM (Aquaculture Moratorium) Amendment Act 2002.
RM Amendment Act 2005	Wide ranging changes including; new function for RC re: allocation of space in the CMA; power to include material into plans by reference, reviewed contents of plans.
RM Amendment Act 2007	Small amendment re: environment commissioners.
RM Amendment Act 2008	Minor amendments to 2004 aquaculture regime
RM (Simplifying & Streamlining) Amendment Act 2009	Extensive changes to make processes simpler and more efficient and to address technical issues.
RM Amendment Act (No 2) 2011	Wide ranging changes including aquaculture, amendment to RC function re: fisheries; occupation in CMA.
RM Amendment Act 2011	Introduced the Environmental Protection Agency.

RM Amendment Act 2013	Improvements to the resource consent reime. Streamlined process for the first Auckland Unitary Plan. Time limits set for processing medium size consents. Easier direct referral to the Environment Court for major regional projects. Stronger requirements for councils to base their planning decisions on robust and thorough cost-benefit analysis
RM Amendment Act 2017	The Resource Legislation Amendment Act 2017 (RLAA) contained close to 40 amendments. It amended five different Acts: the Resource Management Act 1991 (RMA), Conservation Act 1986, Reserves Act 1977, Public Works Act 1981, and Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2013. Consequential changes were also made to other Acts and the Resource Management (Forms, Fees and Procedure) Regulations 2003.
RM Amendment Act 2020	Improvements made to resource consenting, enforcement and Environment Court provisions within the RMA.
Hauraki Gulf Marine Park Act 2000	Established an NZCPS for the Hauraki Gulf area.
RM (Marine Pollution) Amendment Regulations 1998	Controls on dumping and incineration; discharges; garbage, ballast water, ship operations; and stating how these regulations interlink with rules in a plan.
RM (Marine Pollution) Amendment Regulations 2002	Controls on discharges of sewage into the CMA; including controls near marine reserves and mataitai.

Other national policy statements and national environmental standards

Other national policy statements (NPS) that have been developed since the RMA was enacted in 1991 include the following:

- National Policy Statement on Electricity Transmission, 2008
- National Policy Statement for Renewable Electricity Generation, 2011
- National Policy Statement for Freshwater Management, 2020
- National Policy Statement on Urban Development 2020
- Proposed National Policy Statement on Indigenous Biodiversity (Likely to take effect in April 2021).
- Proposed National Policy Statement for Highly Productive Land (Public consultation undertaken from August - October 2019

In addition there are eight national environmental standards (NES) in force as regulations and one under development:

- National Environmental Standards for Air Quality, 2004
- National Environmental Standards for Sources of Human Drinking Water, 2008
- National Environmental Standards for Telecommunications Facilities, 2016
- National Environmental Standards for Electricity Transmission Activities, 2010
- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, 2012
- National Environmental Standards for Plantation Forestry, 2018
- National Environmental Standards for Freshwater, 2020
- National environmental standards for marine aquaculture, 2020
- Proposed National Environmental Standards for the Outdoor Storage of Tyres (Likely to take effect in 2021)

The WRCP is required to “give effect to” NPSs (s67 RMA) and if there is any duplication or conflict with an NES the WRC must amend its plan (s44A RMA). Given the operative dates of the above list of NPS and NES, the RCP is unlikely to have adequately addressed the policy and regulatory directives of these documents. (NB: all NPS have been listed, as there may be future implications if any decision is taken to develop a coastal environment plan – refer to discussion in section 17).