

Hawke's Bay Regional Coastal Environment Plan

Section 35: Efficiency & Effectiveness

September 2020
Hawke's Bay Regional Council Publication No. 5526



TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

ISSN 2703-2051 (Online)
ISSN 2703-2043 (Print)

Policy and Planning

Hawke's Bay Regional Coastal Environment Plan

Section 35: Efficiency & Effectiveness

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Contents

Executive summary	1
1 Introduction	3
1.1 Purpose	3
1.2 Methodology.....	3
1.3 Structure	3
1.4 Scope.....	4
2 History of the Regional Coastal Environment Plan	5
2.1 Background	5
2.2 Plan Amendments.....	6
3 Effectiveness of the Plan: Outputs	8
3.1 Regulatory Implementation of the Plan.....	8
3.2 Compliance Monitoring	10
3.3 Conclusion for Regulatory & Compliance Implementation	14
3.4 Interviews with Council Consent Officers	14
3.5 Conclusion from Interviews with Staff.....	17
3.6 Non-Regulatory Implementation of the RCEP	17
3.7 Conclusion for Non-Regulatory Implementation of the Plan	26
4 Effectiveness of the Plan: Outcomes	27
4.1 Part B: Matters of National Importance	27
4.2 Part C - Use and Development: Coastal Margin.....	46
4.3 Part D: Use and Development: Coastal Marine Area	69
5 New Legislation	97
5.1 RMA Legislative Changes	97
5.2 NZCPS, NPS & NES Changes	98
5.3 Other Legislation.....	99
6 Emerging Issues	101
6.1 Climate Change and Natural Hazards	101
6.2 Outstanding Natural Character, Natural Features and Landscapes.....	101
6.3 Water Quality & Regional Plan Changes	102
6.4 Surf Break Protection	103

7	Other Matters.....	105
7.1	NZCPS Review by Department of Conservation 2016/17	105
7.2	Recreational Water Quality Monitoring and Reporting Review	105
7.3	2019 Our Marine Environment	107
7.4	Ahuriri Estuary and Coastal Edge Masterplan.....	109
7.5	Sustainable Seas.....	109
8	Conclusions	110
8.1	Outputs - Have we done what we said we would do?.....	110
8.2	Outcomes – Have we achieved what we said we’d achieve?	110
8.3	Are We Focused On The Right Issues?	111
8.4	Other Matters	112

Executive summary

The Council is required by section 35(2A) of the Resource Management Act (RMA) to report on the efficiency and effectiveness of policies, rules, and other methods in its plans. Such assessment is not only required by legislation but is good planning practice as ongoing implementation and review of plans.

Evaluating the effectiveness of the Regional Coastal Environment Plan (the Plan) was undertaken by first examining the outputs of the plan (consents issued, consent monitoring, unauthorised incidents and non-regulatory methods undertaken).

This found that 241 consents have been granted, varied or renewed since the Plan became operative in 2014. Nearly half of those consents are discharge permits. The majority of consents were processed on a non-notified basis.

From 2014 to 2018, the Council responded to 3,359 unauthorised incidents. During the 2017/18 period Council received 20% more calls to its Pollution Hotline than the previous year. Of the 1,095 calls made, 696 were for air complaints and 224 for surface water complaints. Unfortunately incidents are not recorded by which regional plan or rule they have breached. Coastal related incidents make up only a small proportion of the total number that the Council responds to.

Non-regulatory implementation of the Plan has been very successful with Council introducing region-wide land management programmes, education initiatives, and environmental hotspot funding to help address critical issues in the marine environment, to name just a few.

Up-to-date coastal hazard information and the application of coastal hazard provisions in the Plan is the most pressing issue raised in interviews with Council consent officers.

The second evaluation of the effectiveness of the Plan involved examining the outcomes for the anticipated environmental results. Some key conclusions from this evaluation include:

- For a number of anticipated environment results, the generic nature of the drafting means that it is difficult to assess the performance of the Plan methods.
- For some matters in the Plan, there are information gaps which have made it difficult to adequately assess the effectiveness of some of the anticipated environmental results. Some anticipated environmental results also include out-dated monitoring indicators.
- It is difficult to assess whether outcomes seeking the protection of natural character, historic heritage, and areas of outstanding natural features and landscapes have been achieved, as the identification of these areas is limited.
- The Plan's Significant Conservation Areas (SCAs) need to be reviewed, to ensure areas with outstanding natural character and landscape values are clearly identified and that Plan provisions adequately protects those values.
- State of the environment monitoring shows that estuaries continue to be under significant stress due to land-uses in their catchments.
- Monitoring of recreational water quality shows that the majority of marine sites are suitable for swimming. Lakes and rivers can be compromised after rainfall.
- Current hazard zoning rules are not effective in preventing development in coastal areas considered at risk from coastal erosion, sea-level rise and tsunamis.

- The wider review of the Plan should include reference to Mana Whakahono a Rohe arrangements where they exist, iwi/ hapū management plans, mātauranga Māori monitoring provisions and further measures that better engage and/or support local iwi and hapū as kaitiaki of the coast.
- For the matters contained in the Part C: Use And Development In The Coastal Margin, regional plan changes that give effect to the National Policy Statement for Freshwater Management (NPS-FM) should help improve outcomes for the anticipated environmental results.
- A number of policy directives need to be updated based on a range of legislative and national policy changes which have occurred since the Plan was developed; and there are emerging and existing coastal management pressures which need to be addressed more specifically.
- Regional and national research has highlighted that there are still serious gaps in our knowledge of the coastal environment, in particular marine habitats and the impacts of stressors on these areas.

This report concludes by identifying a number of emerging issues that the wider 10-year review of the Plan will need to consider.

1 Introduction

1.1 Purpose

The purpose of this report is to evaluate the effectiveness of the Hawke's Bay Regional Coastal Environment Plan 2014 (the Plan). Section 35 of the Resource Management Act (RMA) requires councils to monitor the efficiency and effectiveness of the policies, rules or other methods in policy statements and plans and to make the results of such monitoring available to the public at intervals of not more than 5 years. Given the lack of information on Council's administration and compliance costs for specific regional plans, this report does not evaluate the efficiency of the Plan. Therefore, this report fulfils only those requirements that relate to effectiveness of a plan.

The conclusions and recommendations of this report are also suitable for informing the wider 10-year review of the Plan, scheduled to commence in the 2020/21 Financial Year.

1.2 Methodology

This report provides a desktop evaluation of the effectiveness of the Plan. The methodology included:

- Collecting information about the number and types of consents processed under the Plan, November 2014 – August 2019.
- Collecting compliance and incident monitoring information.
- Interviews with council consent officers from the Resource Use Group.
- Gathering information on the implementation of non-regulatory methods, including council work programmes.
- Collating data on the indicators and data sources identified in the anticipated environmental results, including state of the environment monitoring reports.
- Reviewing marine and coastal research in the region.

The evaluation then summarised this information into outputs and outcomes:

- Outputs: whether, and to what extent, commitments to do things have been delivered (implementation of the policies and rules).
- Outcomes: Have the anticipated environmental results been achieved? (Have the Plan's objectives been met?)

This report also provides a summary of legislative changes that have occurred since the plan was developed, case law, and emerging issues for coastal management in New Zealand.

1.3 Structure

This report is divided into 6 sections, as follows:

- Section 1 introduces the purpose of the report, its scope, methodology and structure.
- Section 2 provides background information on the Hawke's Bay Regional Coastal Environment Plan.
- Section 3 assesses effectiveness by examining the outputs of the Plan, including regulatory and non-regulatory methods.

- Section 4 evaluates the effectiveness of the Plan in terms of whether the anticipated environmental results have been achieved.
- Section 5 summarises legislative changes that have occurred since the Plan became operative.
- Section 6 draws together emerging issues and other matters that will need to be considered during the 10-year review of the Plan and provides overall conclusions.
- Section 7 provides conclusions for the report.

1.4 Scope

Not all matters relevant to the Plan are addressed in this report. In particular, the following matters are considered to be out of scope of this report:

- Methods or management options to address the gaps found during the effectiveness and efficiency review.
- Matters landward of the coastal margin.
- Issues more than 12 nautical miles seaward of mean high water springs.
- Fish stocks, fishing, and marine reserves.

Also out of scope is a comprehensive gap analysis of the Plan against the NZCPS 2010. Such a review was undertaken in August 2014. Key points from this review are included in this report.

While this review included qualitative information from interviews with Council consent officers, it did not include interviews or surveys of staff from the Territorial Local Authorities. This will need to occur in the wider 10-year review of the Plan.

Additionally, many provisions contained in Part C of the Plan, Use and Development in the Coastal Margin, are indistinguishable to those in the Regional Resource Management Plan (RRMP). Such provisions have already been subject to plan effectiveness reviews by Council, for example the Mitchell Daysh 2018 RRMP Effectiveness Review. Where relevant, the 2018 findings are used in this report rather than repeating the review process.

2 History of the Regional Coastal Environment Plan

2.1 Background

A Regional Council is required to have a regional coastal plan, which must contain objectives, policies and rules governing activities from the mean high water spring out to 12 nautical miles (coastal marine area). District councils manage land use on the landward side of the mean high water spring mark.

The first generation Hawke's Bay Regional Coastal Plan became operative in June 1999. The Council was required to review this plan in 2009 (ten years after the plan became operative). However, the Council decided to initiate a review of the Regional Coastal Plan in 2003, well before this 'deadline.'

The 2003 review of the Plan resulted in a recommendation to Council to combine the Regional Coastal Plan with other regional plans that apply within the coastal environment (in particular the RRMP). The process of developing the current Plan involved the review and merger of these two principal documents, as well as the preparation of new policy.

The decision to have a coastal environment plan recognised that important management issues for the coastal marine area (CMA) such as coastal hazards, public access, and water quality, cannot be effectively managed in isolation from the land above mean high water springs. The RMA allows for such an approach by empowering regional councils to develop objectives, policies and methods to achieve the integrated management of natural or physical resources.

For the Plan, the Council defined the Hawke's Bay coastal environment as including:

- (a) the coastal marine area
- (b) any areas identified as being affected by, or potentially affected by, coastal flooding or coastal erosion and
- (c) any of the following:
 - i) tidal waters and the foreshore above mean high water springs
 - ii) dunes
 - iii) beaches
 - iv) areas of coastal vegetation and coastal associated fauna
 - v) coastal cliffs
 - vi) salt marshes
 - vii) coastal wetlands, including estuaries and
 - viii) areas where activities occur or may occur which have a direct physical connection with, or impact on, the coast.

The 'second generation' Regional Coastal Environment Plan was publicly notified in 2006 and, after a lengthy hearing and appeal process, became fully operative in 2014.

As the Plan was notified four years before the NZCPS 2010, the objectives, policies and rules do not give effect to the current NZCPS. As highlighted above, a comprehensive gap analysis of the Plan against the NZCPS 2010 was undertaken in August 2014. Key points from this review are included in this report.

2.2 Plan Amendments

Since 2014 a number of amendments have been made to the Plan, as outlined in Table 1 below:

Table 1: Amendments to the Plan

Amendment	Date in Effect
Variation 1 (Rivermouth Hazard Areas)	8 November 2014
Variation 2 (Air quality)	8 November 2014
Variation 3 (onsite wastewater)	8 November 2014
s55 RMA amendments to remove conflict and avoid duplication with revised Resource Management (National Environmental Standards for Air Quality) Regulations 2004	8 November 2014
s55 RMA amendments to remove conflict and avoid duplication with Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.	8 November 2014
Amendments as directed by New Zealand Coastal Policy Statement 2010 Policy 29	8 November 2014
Insertion of policies as directed by National Policy Statement for Freshwater Management 2014	8 November 2014

2.2.1 Structure of the Plan

The Plan is divided into 8 parts. These parts can generally be described as:

- Part A: Introduction
- Part B: Matters Of National Importance
- Part C: Use and Development: Coastal margin
- Part D: Use and Development: Coastal Marine Area
- Part E: Introduction to Coastal Environment Rules
- Part F: Non-regulatory Methods
- Part G: Administrative Matters
- Part H: Schedules

2.2.2 Issue Statements and Anticipated Environmental Results

Sixteen 'coastal environment' issues were identified in the Plan.

For each issue statement, objectives, policies and methods of implementation were identified and regional rules established.

The Plan also includes anticipated environmental results (AERs). These set the outcomes that Council hope to achieve through implementation of the Plan. AERs are key mechanisms to assess the effectiveness of the Plan. Failure to meet AERs can indicate that the plans effectiveness is poor, although this is not automatically the case.

The issue statements and AERs are outlined under section 4 of this report.

3 Effectiveness of the Plan: Outputs

The Plan uses two types of methods to implement its policies: regulatory and non-regulatory. Regulatory methods control activities through the use of rules, resource consents, compliance and abatement action. Non-regulatory methods seek to implement policies and achieve objectives by using a range of “softer” methods.

The following sections summarise available information on the following key implementation areas:

- Regulatory Implementation
- Compliance monitoring
- Non-regulatory Implementation

With regards to regulatory and compliance information, there have been numerous issues with obtaining the correct data from the council database Integrated Regional Information System (IRIS). Unfortunately, IRIS does not provide sufficient information to allow the effectiveness of regional plan rules to be assessed. The information in IRIS covers types of consent and the location but, like the previous database, IRIS was not set up to assess regional plan provisions. This means that information about which regional plan and what rule triggered the need for the consent, notification decisions, costs and consent compliance record, are not readily accessible. Further, the spreadsheets produced by IRIS do not always show the correct information, for example a consent application to deposit sediment may be recorded as a discharge to water permit. Although, this may be due to a clerical error rather than a fault with IRIS.

Non-compliance information was taken from annual reports to Council, where available, this information was provided at a high-level only in these reports.

3.1 Regulatory Implementation of the Plan

A key method of delivering the environmental outcomes in the Plan has been the application of regional rules to provide for activities in the coastal environment. Rules in regional plans have two purposes:

- Assisting the council to carry out its functions under the RMA, and
- Achieving the objectives and policies of the plan.

The Plan contains approximately 183 rules. The rules cover the full range of activity classifications from permitted activities through to prohibited activities. The majority of the rules either outline activities which are permitted (often with conditions) or which require resource consent. As permitted activities do not require resource consent they are not specifically monitored by the Council, therefore this review focuses on those rules that require resource consent.

Information about resource consents can provide both quantitative and qualitative information about the effectiveness of the Plan. At a high level, the number and type of consents processed can provide insight into the level of use and development occurring within the coastal environment. On a more detailed level, individual resource consent decisions can demonstrate how the provisions of the plans are being interpreted and applied in decision-making. Additionally, levels of compliance provide an indicator of the effectiveness of regulation, as do the number of unauthorised incidents that breach the Plan.

Activities classified as prohibited never enter the consents system and so are not recorded as either being applied for, nor of being declined. Equally, the number of times that permitted activity rules are triggered is not recorded. Thus, there are limitations with using the number and type of consent as an output indicator.

3.1.1 Council Consent Data

Table 2 below shows the types and number of activities that have required consent under the Plan, based on the categories used in IRIS. This data has been extracted with a filter showing all consents granted within the Plan spatial zone (coastal environment) on or after 8th November 2014 (operative plan date). This report showed that in the coastal environment a total of 241 consents/permits have been issued, varied or renewed by Council since the Plan became operative in 2014. On average that is approximately 48 consents a year.

Note: During the course of this review four different spreadsheets were produced. Analysis of the first three spreadsheets showed numerous errors. It is hoped that the fourth and final spreadsheet used for this report is the correct one.

Table 2: Types and Number of Consents Issued, Renewed or Altered Since 2014

Type of Consent	Number of consents
Land Use Consents	102 (total land use)
Bore / Well	14
Deposit	8
Erect a structure	47
Excavate	10
Miscellaneous	2
Occupy	12
Vegetaion Planting	6
Vegetation Clearance	3
Water permit	24 (total water permits)
Divert	2
Dam	1
Take – groundwater	17
Take Surface Water	4
Discharge Consents	115 (total discharge)
To land	104
To water	9
To air	2
Total	241

The majority of discharge consents issued under the Plan are for discharges to land, usually for dwellings that cannot connect to a reticulated sewage system. These types of consents would not usually be issued under a coastal plan but, as explained earlier this report, this plan also covers matters within the coastal margin.

3.1.2 Decisions and Notification

As discussed previously, information from the consent database is limited and there was no easily accessible data to show which resource consents applications were declined and/or notified under the Plan.

The consent administration team could, however, report that Council has only declined 50 consent applications in the last 20 years, under all regional plans. They have confidence that no application has been declined under this Plan.

Resource Use annual reports show that the majority of resource consents issued under the plan are processed without notification. Consent applications with many affected parties, strong public interest,

and/or a wide range of effects, such as the Clifton revetment and Napier Port Wharf 6 consent applications, are publicly notified.

National trends show approximately 96% of all resource consents are processed without notification (information retrieved from Ministry for the Environment (national monitoring system)).

3.1.3 Fees and Charges

Council charges for 'actual and reasonable' costs incurred in assessing and processing all consent applications. This is achieved through a combination of fixed charges (deposits) and additional charges for consent processing, including the cost of staff time, contractors, scientists, councillors and commissioners.

The Council does not currently have a charging regime for coastal occupation. The draft 2018-2019 Long Term Plan was to introduce charges for consent holders discharging contaminants into the CMA (to support a proportion of relevant project science work). However, legal opinion advised that Council did not adequately consult with directly affected parties.

It is understood that the Council is undertaking a complete review of RMA Section 36 charging methodology and will consult on any proposed changes in the near future. In the interim, the cost of coastal science work will continue to be recovered as part of the general rate.

3.2 Compliance Monitoring

Compliance monitoring monitors the extent to which consent holders are complying with requirements of the consent. The Council employs a number of compliance monitoring methods, as outlined in the Plan. These are:

- (a) Monitoring programme – Council prepares an appropriate monitoring programme to be placed on a resource consent as a condition of consent. The monitoring programme identifies what the consent holder is required to monitor, when monitoring must take place and how often.
- (b) Compliance officers – Council dedicates staff to monitoring the compliance of resource use activities with the provisions of this Plan, other regional plans and consent conditions.
- (c) Field inspections and sampling – Council undertakes field inspections during the duration of the consent to measure, for example, contaminants discharged and water abstraction rates.
- (d) Self-monitoring – Council encourages self-monitoring by consent holders as a means of increasing the consent holders awareness of complying with conditions, the effects of their activities, and helping to reduce costs to consent holders.

Council's current compliance monitoring approach is focused on monitoring high-risk consents or those consent holders with poor compliance history.

The Council may sometimes use enforcement measures as a means of achieving compliance. The Council Enforcement Policy in part states: "The Council aims to educate wherever possible, and only use enforcement action when education alone is inappropriate. Council uses this policy as opposed to using low level enforcement, such as infringement notices, whenever a rule is breached."

The Resource Use Team also regularly engage in a number of non-enforcement activities such as:

- Dairy and other industry liaison groups
- Organisation and delivery of the annual dairy awards

- National wastewater working groups
- National environmental compliance conferences
- Hazardous wastes and unwanted agricultural collection
- Various special interest groups, school and special events education
- Regional and national oil spill response teams
- Investigative best practice network

As discussed above, information about consent compliance, infringement and abatement notices, and enforcement action is not reported by regional plan or spatial zone. Further, detailed information about incident reporting in the coastal environment is very limited. Instead, this type of information is provided at a high-level only in annual reports.

The compliance team did not respond when asked to provide feedback or information about coastal incidents that were reported in annual reports.

An evaluation of Resource Use annual reports for 2015 through to 2018 shows that over that time period approximately 1550 consents were issued, of which 90% were compliant. Due to the inability to differentiate compliance data for each regional Plan, it is assumed that the same level of compliance is present in the coastal environment.

Examples of notified consents for this period include the Clifton revetment, Pan Pac outfall pipe, gravel takes and Wharf 6 construction at Napier Port.

CASE STUDY:

A 2019 Council report provided an overview of current resource consents that are being exercised to discharge wastewater into the coastal environment (April 2019 Environment and Services Committee). This is a summary of the report, provided as a case study on consent requirements and compliance status.

Napier City Council (NCC) discharge consent requirements:

Continuous monitoring is required of the waste water stream to record the rate of discharge. Quarterly monitoring samples of 31 analytes are to be taken of the wastewater stream before the discharge. Sediment samples are to be taken from the seabed at specified locations twice a year. Samples are to be taken of the seawater at specified distances from the diffuser, quarterly. A benthic survey is to be carried out five-yearly. A quantitative microbial risk assessment (QMRA) of the risk to shell fish at Town Reef was required and was done in 2016. All monitoring is to be included in a report and the results analysed.

Compliance

Compliance status for the 2015-16 and 2016-17 years was non-compliant. Monitoring was not complete and there were exceedances of the BOD limits. The 2017-18 monitoring report records the activity as compliant. There was however a reported leak from the outfall away from the diffuser. This leak could not be repaired and continues. It has been described as a thumb sized hole and smaller than a diffuser port. Monitoring has been occurring to pick up any effect of this discharge.

Discussions will be required to determine how this leak is to be repaired or accommodated. NCC is currently carrying out a study of mussels to examine whether they are being contaminated from the outfall. These have been set around the diffuser and at locations further away including off the Town Reef. The results of this study will be reported when completed.

Hastings District Council (HDC) discharge consent requirements:

Continuous monitoring is required of the waste water stream to record the rate of discharge. Monitoring samples of 28 analytes are to be taken of the wastewater stream before the discharge, quarterly. Samples to test toxicity of the final combined wastewater to at least three marine species are to be undertaken quarterly. Sediment samples are to be taken from the seabed at specified locations twice a year. Samples are to be taken quarterly of the seawater at specified distances from the diffuser, and analysed for faecal coliform and enterococci. A benthic survey is to be carried out at the 8th, 17th and 26th year following the date of issue of the resource consent. Signs are to be placed on bouys marking the diffuser reading "Shellfish unfit for human consumption". All monitoring is to be included in a report and the results analysed annually.

Compliance

Compliance reports for the past three reporting years 2015-16, 2016-17, 2017-18 have reported full compliance with the conditions.

HDC in their resource consent application refer to continuing with and further implementing various HDC asset management policies and strategies, including for example a policy to encourage beneficial reuse of treated waste water and HDC's water conservation and demand management strategy and infiltration and inflow management.

HDC sought and obtained a 35 year consent. In requesting this they indicated that they would be undertaking a comprehensive review every 9 years. The intention is to assess growth/changes in wastewater and contaminant loadings and predictions, changes in environmental procedures and identification of any new treatment technologies, operating procedures and opportunities for beneficial use of (treated) wastewater and other matters. The aim is to ensure appropriate enhancements in terms of a Best Practicable Option (BPO) are made to the Scheme throughout the duration of the consent.

Wairoa District Council (WDC) discharge consent requirements:

Continuous monitoring is required of the waste water stream to record the times and rate of discharge. Monitoring samples of 7 analytes are to be taken of the wastewater stream before the discharge, monthly. Standards are set for COD, total ammonia and suspended solids.

Compliance

The compliance report for 2018 – 2019 records significant non-compliance with the conditions. Reasons include an unconsented discharge from an overflow pipe into the Wairoa River; discharges outside the tidal times; exceedances of COD and TSS limits and failure to carry out follow up sampling and investigations.

WDC are in the process of applying for a replacement consent. An application was lodged for the discharge from the overflow pipe prior to the replacement consent application and this has been integrated into the current application. Other aspects of non-compliance will be reviewed as part of the consent replacement process. WDC has been directed to establish a process to ensure follow up reporting monitoring in the event of monitored non-compliance with the standards set.

PanPac

Conditions are set to limit PH, temperature, suspended solids, enterococci. Continuous monitoring is required of the waste water stream to record the daily discharge volumes, PH, temperature, suspended solids. The diffuser is to be inspected monthly. Toxicity testing is required 6 monthly, COD and BOD is to be sampled fortnightly. Mussel monitoring study required. Mana Whenua Kaitiaki Liaison Group to be established (unless mana whenua do not wish to be involved).

The conditions described above will be replaced by the new resource consent conditions proposed to the Environment Court. Many of these will continue and some new conditions are proposed. These include a 10 yearly review of the developing technologies available for treating this waste stream and consideration of adopting these. Also an Environmental Trust is proposed which will provide funding

towards cultural and environmental projects relevant to the tangata whenua and to the area adjacent to the outfall.

Compliance

PanPac has been compliant with its resource consent conditions over the past year except for the failure of the outfall pipe. The pipe has developed a crack at the land sea edge and is leaking treated wastewater at this point. PanPac is in the process of repairing this. In previous years prior to extending the outfall structure PanPac was non-compliant with the condition to avoid conspicuous change in water colour. This has now been rectified.

3.2.1 National Compliance, Monitoring and Enforcement Report

Independent analysis of compliance, monitoring and enforcement (CME) metrics for the regional sector was commissioned in 2016. All 16 regional and unitary councils provided data, resulting in the most comprehensive report available on the sector's CME activities under the RMA's 27-year history.

Key points from the report include:

- Out of the approximately 200,000 resource consents issued by councils under the RMA, around 50,000 resource consents needed monitoring, and 92 per cent were monitored in the reporting year.
- There were variable levels of compliance from region to region.
- Regional and unitary councils received nearly 30,000 pollution complaints, of which 87 per cent were responded to.
- The sector took more than 4000 formal actions – 905 formal warnings, 1844 abatement notices, 1289 infringement fines and 21 enforcement orders.
- 49 individuals and 60 corporate defendants were convicted, with the dominant offence being the discharge of contaminants. Collectively, the prosecutions resulted in \$2 million in fines, in addition to other approaches such as restorative work.

With regards to Council the following comment was made:

"The Hawke's Bay Regional Council has some of the lowest levels of resourcing across the sector relative to population. Like Taranaki, express provision for the CEO to participate in decision making on prosecutions is an area of reputational risk. Information management, particularly regarding the outcomes of incident response demonstrates room for improvement".

In a report to Council this year, it was acknowledged that additional CME staff will be required by council as new consenting requirements take effect with Plan Change 6 and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū river catchments plan change (referred to as 'TANK'). Other drivers for resourcing include additional legislative and regulatory instruments from central government.

The national report also showed that there was room for improvement around Council's information management, particularly regarding incident responses. In terms of data information, the new IT system for consents and compliance (IRIS) was expected to provide better data to report on, however this has not eventuated.

A report to the Environment and Services committee in June 2019 noted that this national report will be used as a benchmark for future Council compliance updates.

3.3 Conclusion for Regulatory & Compliance Implementation

The greatest number of consents granted are for structures and discharges to land. Consents for activities in the coastal margin make up the majority of consents issued under the Plan. At a basic level, the methods relating to the use of regional rules and resource consents have been implemented as set out in the Plan.

There is limited information about consent compliance monitoring by Council as it relates to consents issued under this Plan. Major consents to discharge contaminants into the CMA have been the subject of ongoing compliance monitoring and enforcement action over the life of the Plan. Broadly, the compliance monitoring and enforcement intents of the Plan have been implemented.

3.4 Interviews with Council Consent Officers

Evaluating the effectiveness of the Plan also involved several interviews of council consent officers, to examine the clarity of the Plan provisions and the frequency that objectives and policies had been considered in consent officers' reports.

The Plan's policies and provisions were generally seen as good. Most feedback was in relation to the Coastal Hazard Zone Rules, comments regarding these provisions included:

- The rules and policies seem to be directing us away from allowing for new development in hazard zones, but I don't think consent decisions have quite reflected this intended outcome.
- There has been an instance where we recommended decline of a new seawall but a hearing panel decided to grant.
- We commonly grant consent to new dwellings in Coastal Hazard Zone 2, and the environment court has done the same.
- The rules recognise risk but are largely symbolic.
- Rule 89 misses the mark. It needs to tie back to the objective and policies, and the NZCPS, to avoid inappropriate development.
- The Plan should prohibit if we don't want development in these areas.
- We are unsure how hard to push for decline of these applications. Case law suggests we would fail in Court e.g. Mexted decision in coastal hazard zone 1, Mahanga.
- The Sea Level Rise information in the Plan needs updating to the most recent IPCC levels.
- Coastal Hazard Zone 3 provisions not always clear for temporary activities. Also Rule 91 very permissible.

Two cases were provided as an example of a judge or hearing panel going against the policy direction in the NZCPS and the Plan (proposed at the time):

Mexted v Mahanga E Tu Environment Court decision (Development in CHZ1) - 2014

In this decision the court allowed development in CHZ1. The Judge ruled that any houses built on two lots nearest the coast must be relocatable and removed "if, or rather when" the sea reaches a point 7m from the house. It was also proposed that a bond be provided in case the house owners were not prepared to move them when the time came.

The Judge also stated that methods for predicting shoreline retreat driven by sea-level rise "remain subject to considerable debate by coastal scientists generally, and this was amply evident in this case", but he settled

on a likely average rate of 40cm a year. At that rate, the most exposed lot would most likely need to be evacuated after about 20 years, "Enjoyment of the developed property for at least 20 years is considered by the court to be a reasonable time frame in determining that the proposal is appropriate in this context," the ruling said.

Bridgeman Seawall At Haumoana - 2012

Another example given was the Bridgeman seawall at Haumoana, which Council recommended to be declined.

The hearing panel agreed to grant a 10-year consent, subject to a range of conditions relating to the construction of the seawall, removal of debris from previous failed seawalls, depositing gravel to mitigate erosion effects and management of stormwater and storm overtopping, as well as keeping regional council informed on the state of the seawall after major storm events. The hearing panel's report said the adverse effects of the activity when managed with conditions will be no more than minor and the seawall was a sustainable use of natural and physical resources within the proposed term of the consent.

Consent officers feel that these decisions mean they would not be successful taking these matters to court.

They also highlighted new construction in CHZ2 at North Shore Rd as an example of a legacy effect. Consent has been granted for construction on the few remaining sections because existing dwellings are already present in CHZ2, even though this is contrary to the policy direction of the NZCPS and objectives of this Plan.

One example given was the construction of a two-storey dwelling on North Shore Rd, approved in 2018. There was no existing residential dwelling on the site, just a garage at the rear of the property. The dwelling is located approximately 20 metres landward of the CHZ2/CHZ1 boundary. The construction was classified as a Restricted Discretionary Activity (RDA) under Rule 95 of the Plan. For RDA rules there are matters over which Council has restricted its discretion, the consent officer included the following comments in their assessment of environmental effects report:

Matter for discretion	Comments
Methods to avoid or mitigate the effects as far as practicable, of coastal hazard building work	The dwelling is designed to be relocatable in the event that erosion threatens its structural integrity.
Consideration of alternative building locations within property to achieve long-term managed retreat from coastal hazard	The applicant has proposed to construct the dwelling on timber piles to ensure they are able to retreat further landward on the property or relocate the dwelling altogether in the future. The property is able to be removed in three different sections, in accordance with the building plans submitted as part of the application.

In addition, the consent report included the following covenants:

That the consent holder understands and accepts the risk of natural hazards at the site including, but not limited to, coastal erosion, tsunami and storm surge inundation and flooding, and understands the potential costs to them, their family and visitors, both monetarily or personally or both;

The consent holder shall not bring any legal action against the Council in relation to the issuing of resource consents; and

The consent holder shall not seek from the Hawke's Bay Regional Council or the Hastings District Council any coastal hazard of flooding protection works to protect the property, provided that nothing in this condition shall prevent the consent holder from supporting any community or local authority initiative aimed at protecting the dune and or road reserve areas fronting the property.

They would also like the sea-level-rise information in the Plan to be updated to reflect current knowledge on expected sea-level-rise for New Zealand over the next 50 and 100 years.

Other issues raised in the interviews include Napier Port matters, comments included:

- *New science presented by the Port at the Wharf 6 hearing showed that the Dredge Disposal Areas in the Plan maps are not in the correct location (statement of evidence by Sylvia Allen). Studies commissioned show that fine sediments deposited would, in most conditions, move in an anti-clockwise direction back towards the dredged channel and potentially in the direction of Pania Reef. These findings align with suggestions from consultation that Pania Reef has experienced higher turbidity in recent years possibly as a result of dredge disposal.*
- *The issue of Port noise was raised at the hearing and it was difficult to find information about transfer of powers to NCC.*
- *Rules permitting dredge activities in Port Management Areas may need re-considering with growth of the Port.*
- *Similarly, rules for disposal at Westshore need to be reviewed given new science and research for this area. The rules seem very relaxed for disposal, even though the science says don't deposit anything containing mud.*

Comments regarding wastewater rules included:

- *Rule 28 new wastewater systems is basically a carbon copy of the RRMP rule. The distance from the CMA included in the conditions (20 metres) is nominal.*
- *Wastewater systems have also been an issue in areas like Mahanga, where discharge is over the Mahia sand aquifer. This aquifer is unconfined and only about 20m deep. A communal system was cost-prohibitive but individual systems remain an issue.*
- *Council need to get rid of failing individual systems.*
- *It would be preferable if communal systems were required at subdivision consent stage, through policies and statutory advocacy.*
- *For existing areas, there needs to be stronger policy direction to require connection to a reticulated system.*
- *Rule 91 non-reticulated wastewater systems in coastal hazard zone 3 is token. Compliance doesn't monitor these consents so how can we be sure the system is watertight?*

Other comments made:

- *There appears to be a breakdown between science information gathering and compliance monitoring/dealing with issues.*
- *There is tension in the region from current beach scraping work.*
- *Half a dozen publicly notified applications in the coastal area had potential effects on surfing e.g. Whakarire Ave, Westshore, Port dredging, NCC dredging inner harbour. It would be helpful*

if the Plan included surf break mapping and/or regionally significant surf break maps and information.

- *Objective 4.1 and supporting policies not helpful when making decisions about applications, such as Port dredging and artificial reefs. The Plan needs to be more specific and identify areas on maps e.g. spawning areas. NIWA has fisheries baseline studies that could assist with monitoring.*
- *Coastal water quality classifications relating to discharges in contact recreation zones do not apply to discharges outside recreation zones. For example, Pan Pac discharge pipe is further out from recreation monitoring zone so the water quality guidelines do not apply. This needs to be revisited.*
- *Rule 147 does not include many matters for discretion. There are quite a few applications for this activity.*

Multiple emails were also sent to the council compliance team to obtain feedback on compliance monitoring and observations in the field. No response was received from this team.

3.5 Conclusion from Interviews with Staff

The staff interviews provided some observations on the effectiveness of the Plan, and highlighted some key areas for consideration in the wider 10-year review of the plan. Up-to-date coastal hazard information and the application of coastal hazard provisions in the Plan are probably the most pressing issues.

3.6 Non-Regulatory Implementation of the RCEP

Part F of the Plan introduces the non-regulatory methods which are intended to support the achievement of the objectives. The non-regulatory methods are categorised under the following headings:

- (a) environmental education and co-ordination
- (b) liaison with territorial authorities
- (c) economic instruments
- (d) works and services
- (e) research and investigation and monitoring

This section of the review summarises some of the key non-regulatory methods used by Council to implement the Plan.

3.6.1 Environmental Education and Co-ordination

Council is placing increasing emphasis on environmental education and co-ordination as a tool for achieving its functions under the RMA. An Environmental Education Strategy has been developed, which sets the direction for the Council's education activities, and a number of environmental education programmes have been implemented.

Enviroschools is one example of an environmental education initiative that the Council has implemented. Enviroschools is a nationwide action-based education programme in schools and early childhood centres. The vision is to foster a generation of people who instinctively think and act sustainably. The local programme is currently funded by Council and Pan Pac. They work closely with other local organisations, and often collaborate with other providers and councils to deliver professional development. The Enviroschools

Hawke's Bay network has grown significantly from 3 schools in 2003 to over 55 schools and early childhood centres.

As noted earlier in this report, the Harbourmaster has a navigational safety education programme in primary and intermediate schools. This is co-funded with Maritime New Zealand. One of the aims of the programme is to have every child in Hawke's Bay go through the programme at least three times before they leave secondary school.

Council has also established a number of Landcare groups and projects across the region. One example is 'Cape to City', a 5 year, landscape scale project between Cape Kidnappers and the Tukituki Valley, targeting ferrets, stoats, rats, hedgehogs, possums and feral cats, and assessing new technology in pest control. This project is jointly funded by a partnership between the Aotearoa Foundation, the Department of Conservation (DOC), Council, Landcare Research and Cape Sanctuary (privately funded restoration project).

3.6.2 Liaison with Territorial Authorities

It is important that the regional council and territorial authorities adopt a consistent and co-ordinated approach to resource management issues. The Plan outlines several ways that the council can achieve this, including statutory advocacy, joint hearings, transfer of powers, and joint strategies.

In relation to joint strategies, to date Council has been party to the development and implementation of the Clifton to Tangoio Coastal Hazards Strategy 2120; the Heretaunga Plains Urban Development Strategy (HPUDS); the Hawke's Bay Marine and Coastal Group Research Roadmap, and the Ahuriri Master Plan, to name just a few.

The Council has also made submissions and been involved in a range of planning processes within the region, including being regularly identified as an affected party in relation to resource consent applications. As part of this process, Council staff provide advice to applicants and to the relevant territorial authority about appropriate use, development and mitigation as outlined in regional plans and the Regional Policy Statement. There have also been occasions where Council has submitted on applications and subsequently been involved in hearings.

Other initiatives include:

- A contacts database - as of September 2019 this database was still being completed.
- Contaminated Sites Database – as of 2019, some sites have been added to the Hazardous Activities and Industries List (HAIL) database. Currently, no information has been transferred to TLAs. Current records are not being checked unless through a site query.

3.6.3 Economic Instruments

The council uses a number of economic instruments to promote sustainable management, as outlined in the Plan. Initiatives undertaken since the plan became operative include regional land care schemes, such as the Cape to City project, and environmental hotspots funding.

Another example is 'Predator Free Hawke's Bay'. In July 2018, the Predator Free Hawke's Bay team announced plans to get behind the country's goal to become Predator-Free by 2050. The Council is investing \$1.17 million towards the first project, which focuses on removing possums from 14,500 hectares of land on Mahia Peninsula within four years, known as Whakatipu Mahia.

3.6.4 Works and Services

Council undertakes works and provides services as methods of Plan implementation. 'Works' are actual physical developments such as sea exclusion banks, river and flood control works, whereas 'services' include such things as making staff available to provide planning or technical assistance.

Examples of current works and services provided by council include:

- The Council's Wetland enhancement scheme, which included the identification and classification of more than 4,000 wetlands across the region. Work is now underway to collect ecological information on the flora and fauna, nutrient status and hydrology of these areas. Care groups have also been established for some locations, with planting and weeding helping to restore wetlands.
- A Regional Pest Management Plan, which came into effect on 1 February 2019. Its primary aim is to limit the adverse effects of unwanted plants, animals, horticultural and marine pests.
- Two major flood control schemes on the Heretaunga Plains and in the Upper Tukituki River.
- Individual flood protection and drainage schemes. For example the 'Kopuawhara Stream Flood Control Scheme' in the Wairoa District. This gravity system scheme was established in 2000 to alleviate the effects of flooding and bank erosion on adjacent land and to reduce the closure of adjacent access roads.
- Ongoing Emergency management work programmes, as part of council's commitment to the Hawke's Bay Civil Defence Emergency Management Group.

3.6.5 Research and investigation

Examples of key research and investigations that have occurred since the Plan became operative include:

3.6.6 Hawke's Bay Marine Information: Review and Strategy 2016

This research summarised available information on marine habitats within the Hawke's Bay CMA. A report of this type was required due to a general lack of knowledge across the range of coastal habitats of which Council has the task of managing under the RMA. Objectives of the research were to:

- understand how various pressures resulting from land-based activities within the region may have changed these habitats;
- identify gaps in the information base; and
- develop a strategy that could be applied to the CMA to bridge those gaps alongside other agencies (MPI, Iwi, DoC) and various stakeholder groups into the future.

A GIS database collating available information on the different habitat types and their spatial extents within the CMA was also produced as part of the project.

Here is a summary of the main findings of the research:

Coastal Habitats

The research found that much of the habitat-related information for the coastal environment was limited to isolated or ad hoc studies. Interviews undertaken with a range of stakeholder groups identified a reasonably rapid history of degradation to various habitats and coastal species. Unfortunately, for the majority of habitats there was very little baseline data on which to gauge the

rate and scale of any change. A range of consistent themes that came from the interview process included:

- Significant decline in water quality – predominantly underwater visibility (region- wide) since the mid-1970s;
- Reduction of inshore and estuarine bivalve beds, particularly pipi and tuatua; and,
- General perception of increased sediment loading and sedimentation throughout rivers and estuarine systems.

Iwi

The research highlighted that Iwi of Hawke's Bay are deeply concerned over the present day state of the coastal environment including fisheries. Many feel disenfranchised with respect to the management of the CMA, but several hapu are being extremely proactive in terms of their restoration and monitoring of key (taonga) species.

Fisheries

There was widespread concern over the current state of the fishery across all sectors (commercial, customary, and recreational). Some of the more prominent changes emanating from the interview process were:

- Absence of historically abundant species in trawl deployments;
- Inability for Tangata Whenua to collect enough kaimoana to feed marae, as was done in the past; Mixed fishery status is becoming less prominent compared to 1970s-1990s period;
- Absence of baitfish and kahawai feeding fronts;
- Reduction in paddle-crab numbers;
- Change in the faunal composition of the inshore benthos surrounding Napier.

In summary, the research highlighted that there is a lack of basic information around the location and condition of the important subtidal habitats in Hawke's Bay. Little is understood about the drivers of fisheries productivity in the bay, the areas that are important, and the impact of stressors on these areas. There is also limited understanding on how things have changed over time or the influence of climatic variability on the species found within the bay.

Hawkes Bay Marine & Coastal Group Research Roadmap

In response to some of the issues identified in the above research, in 2016 the Council facilitated the establishment of a multi-stakeholder Hawke's Bay Marine and Coastal Group (HBMaC). With the help of funding from the marine hotspot funds, HBMaC have developed a 'roadmap' for future coastal and marine research for the region. The vision is to achieve a healthy and functioning marine ecosystem in Hawke's Bay that supports an abundant and sustainable fishery.

Environmental Hotspots

To help fill some of the knowledge gaps identified in the research, Council also allocated funding to the marine environment under the 'Environmental Hotspot Funding' initiative (Council's 2017-18 Annual Plan identified six environmental hot spot areas that needed urgent action).

Te Whanganui-ā-Orotu (Ahuriri Estuary)

Ahuriri Estuary was one of the hot spots identified by Council. The project vision for this hotspot is:

To work with Mana Ahuriri and associated hapū, Napier City Council, Hastings District Council, Department of Conservation, other landowners and businesses in this area - a national treasure - to clean up water entering the estuary, remove pests and restore the environment to good health.'

Project objectives

Objective one	To restore water flow between the upper and lower estuary by removing patches of Ficopomatus that have formed weirs bunding the estuary.
Objective two	Working with landowners to reduce sediment and nutrient input into the catchment waterways and ultimately, the estuary through subsidising fencing and planting.
Objective three	Undertake a significant 'whole of stream/estuary mouth' restoration to improve water and habitat quality and improve fish access.
Objective four	Water movement and contaminant transfer will be modelled; information to support understanding environmental flow requirements will be gathered.

So far Council has:

- Worked with the Mana Ahuriri Trust to remove 219 tonnes of invasive marine tubeworm from the estuary to improve water flow and quality. Council's Works Group also fabricated a floating pontoon to assist with removal.
- Engaged with six key/large landowners within the catchment. They are committed to fencing, planting and/or wetland enhancement.
- Completed the "Ahuriri Catchment Land Action Plan" for sediment and nutrient control, this identifies high erosion risk land within the catchment.
- Started on the Wharerangi Stream stabilisation plan. The Wharerangi stream is one of the largest tributaries to enter the Ahuriri estuary, the stream banks are highly erodible and a key source of sediment into the Ahuriri estuary. The purpose of this plan is to assess the entire stream and provide mitigation/actions to prevent further erosion of the stream banks and reduce sediment loss.
- Completed the Ministry for the Environment/Hohepa lower Taipo Stream wetland project.

Council is also scoping further research into the hydrology in the catchment – how much water comes through, where from and where to, including what are the contaminant pathways and how much healthy freshwater the estuary needs to function.

This work complements the TANK plan change with restoring Ahuriri estuary.

Marine Hotspot

The marine environment was another hotspot identified by Council in 2017. The project vision is:

To increase our understanding of our marine environments and how they operate to promote a healthier more resilient Hawke's Bay Marine environment.

Project objectives:

Objective one	To identify the extent, structure and qualitative assessment of biological composition of the Wairoa Hard; Springs Box, Clive Hard and Southern HB subtidal reef system (to be defined).
Objective two	To characterise current and historic Hawke Bay sediments and sediment sources, and assess levels of variability.
Objective three	To work with landowners in identified as sources of sediment, nutrients and physical disturbance to encourage riparian fencing and planting.

Work so far includes:

- Council working with Ministry of Primary Industries and hapū looking at the current state of the Wairoa Hard. The NIWA vessel Ikatere used an echo sounder to find out how large the area is and the potential habitats. The Wairoa Hard is named for its coarse cobble sea floor and is an area of national importance as it provides a nursery for juvenile fish, snapper, hammerhead shark, bronze whalers, John Dory and trevally.
- Remote Operated Vehicle (ROV) work is ongoing on the Wairoa Hard to examine and then describe the benthic habitat.
- Benthic habitat investigations for the Clive Hard are set to be completed by the end of 2019. This will provide similar products to the 'Wairoa Hard' and allow Council to assess the spatial extent of the Clive Hard.
- Over the last two years, Council has continued mapping sediment characteristics in Hawke Bay, and measuring the levels of silt and clay that enter the Bay during storm events. Council is currently funding a PhD student through Waikato University to create a hydrodynamic model of the bay with associated sediment transport information. Cawthron Research Institute have done work to provide an initial assessment of coastal water quality so the model can show trends and highlight problem areas, and Cawthron satellite imagery will also be analysed to help develop the model.
- The Council's marine science team has also worked with the Central Catchment Group on catchment works to reduce sediment and nutrient inputs into the Porangahau Estuary. 2km of fencing has been completed with another 3km of fencing to be completed before the end of the 2019 financial year. 500 plants are to be planted over the 2019 winter. A report has been received from NIWA on recommendations for monitoring and land management to protect the isolated area of estuarine seagrass identified earlier this year.

3.6.7 State of the Environment Monitoring

Council undertakes a range of land, water, coastal and air monitoring as part of its statutory responsibility for monitoring the State of the Environment (SOE). This programme is undertaken in accordance with national monitoring and reporting requirements. A comprehensive 'State of the Environment' report is published every five years, supplemented with annual report cards and monthly updates online.

Monitoring key environmental indicators enables the Council to understand the nature of the region's resources and trends in the quality and quantity of those resources. Information within five yearly SOE

monitoring reports should enable trends in environmental conditions to be identified over time. These trends can indicate where problems are, or maybe developing, in relation to the effectiveness of the plan.

In relation to the coastal environment, SOE monitoring that the Council undertakes includes:

- Nearshore Coastal Water Quality
- Recreational Water Quality
- Coastal Sediment Quality
- Estuaries
- Intertidal Reefs

In 2014 the Council published a 10-year State of the Coastal Environment Report. This report provided a comprehensive record of monitoring data for the region's coastal environment from 2004-2013 and provides useful baseline information for future Plan effectiveness reporting. The next 10-year report should be completed in 2023/24.

The following information compares state and trends from the 10-year State of the Coastal Environment report (pre-operative Plan) to the 2014-2018 SOE 'Summary report'. Comparing trends from the 10-year report to the monitoring data in the comprehensive 5-year 2019 report would enable a better analysis of the effectiveness of the Plan, however this is not due to be released by Council until the end of 2019.

Note: While the SOE reports are considered Plan 'outputs', the results and trends shown by this monitoring can also be considered Plan 'outcomes' and would also sit comfortably in the outcomes section of this report.

NEARSHORE COASTAL WATER QUALITY

2004-2013 State of the Coastal Environment

Nearshore coastal water quality was generally good, when compared to monitoring sites in other regions. Land-based sediment delivery to the coast was generally high and variable, highlighting periods of sediment-laden river inputs and nearshore resuspension.

Nutrient levels were similar to or lower than other sites around the country. Relatively high levels of dissolved nutrients at Ocean Beach demonstrate that rivers are not the only inputs of nutrients and highlight the role of oceanic contributions.

2014-2018 SOE Summary

In general, coastal waters have similar nutrient and sediment profiles to those observed elsewhere throughout New Zealand.

At times, large algal blooms can occur that use the nutrients from both the oceanic and land-based sources. When these die off they can cause oxygen levels to decline in the coastal waters.

Nitrogen levels were relatively high in the Mohaka, Waitangi and Tukituki catchments, more work needs to be undertaken to identify whether this is resulting in ecological effects.

RECREATIONAL WATER QUALITY

2004-2013 State of the Coastal Environment

The susceptibility of Hawke's Bay's recreational waters to faecal indicator bacteria is variable. Marine beaches tend to have a high level of compliance with Ministry for the Environment and Ministry of Health national guidelines and can be considered suitable for swimming most, if not all, of the time.

Rivers tend to have more variable recreational water quality, with heavy rainfall rendering some rivers unsuitable for swimming some of the time. Lagoons, at the bottom of the catchment, can exceed guidelines more frequently. This can be due to generally slower flows, with higher temperatures and extensive bird-life.

Faecal source tracking has highlighted the role of avian and ruminant sources when guidelines are exceeded.

2014-2018 SOE Summary

On the whole, beaches tend to have excellent water quality. Rivers can have faecal material enter them, especially in the few days following rain. Estuaries and lagoons can have low flows and high density of bird life, meaning these waterways can exceed national guidelines more often.

Over the last five years of monitoring, beaches have been suitable for swimming 98 per cent of the time. At lakes and rivers, it has been similar, with conditions suitable for swimming 89 per cent of the time. For estuary and lagoon sites, it's a bit lower but still good, with swimming suitable for 81 per cent of the time.

COASTAL SEDIMENT QUALITY

2004-2013 State of the Coastal Environment

In general, nearshore sediments away from point source discharges were well sorted, with low levels of trace metal contaminants. However sediments adjacent to boat maintenance and repair facilities, and stormwater outlets, had ongoing contamination issues. Concentrations of trace metal and organic contaminants exceed sediment quality guidelines at some of the sites within the Inner Harbour and Ahuriri Estuary.

2014-2019 SOE Summary

The Ahuriri, Waitangi and Wairoa Estuaries all show signs of sediment stress. In the Ahuriri, areas at the top of the estuary and adjacent to stormwater inputs showed levels of sediment that prohibit some sensitive species from thriving.

ESTUARIES

2004-2013 State of the Coastal Environment

Infauna (sediment-dwelling organisms) sensitive to elevated mud concentrations indicate that Hawke's Bay estuaries may be experiencing moderate to high levels of sediment stress, with some sites also showing increasing trends in mud concentrations. Increasing mud concentrations are impacting on the benthic communities at monitoring sites with species intolerant to higher mud fractions being largely absent from sites where mud concentration exceeds 25%.

In general nutrient and trace metal contaminant concentrations appear below guideline values for most of the sites with significant contamination confined to areas adjacent to point sources and stormwater discharges.

A Traits Based Index (TBI) was applied to the estuarine macroinvertebrate data, and corresponded well to 'muddiness'. Overall scores were low, although further work needs to verify the TBI fit to Hawke's Bay data.

An overall reduction in sediment volumes entering the estuaries would increase the health of Hawke's Bay estuary systems.

2014-2019 SOE Summary

Estuaries have quite varied nutrient levels depending on their catchment and origin. Trace metal contaminants in estuaries are low.

The Ahuriri, Waitangi and Wairoa Estuaries all showed signs of sediment stress. Much of this stress comes from the nutrients, contaminants and sediments delivered to the estuary by the rivers and streams.

Ahuriri estuary is in a bad state with eutrophic conditions and cyanobacteria in the upper reaches. A massive fanworm infestation is choking the estuary. The fanworm has been present for a long time but its extent has rapidly expanded as the estuary's condition has deteriorated. Areas at the top of the estuary and adjacent to stormwater inputs show levels of sediment that prohibit some sensitive species from thriving.

INTERTIDAL REEFS

2004-2013 State of the Coastal Environment

The absence of the common algae *Hormosira banksii* from Hardinge road reef is currently not understood, further work is required to explain this. Blooms of the cyanobacteria *Lyngbya* sp. at Te Mahia reef may also require investigation.

2014-2019 SOE Summary

In general, intertidal reef systems, while diverse and complex, can be under threat from expansion of non-native species such as the invasive kelp *Undaria pinnatifida*.

Council is continually exploring underwater areas and working out ways to best measure its health.

SANDY BEACHES

2004-2013 State of the Coastal Environment

Sandy beach ecosystems include a vast array of tiny organisms in the infauna that support coastal fisheries, cycle nutrients and filter large volumes of seawater. In Hawke's Bay the infaunal community composition is highly variable, with relatively low numbers of species and individuals. The highest abundance species are amphipod crustaceans, which are likely to be a key food source for coastal ecosystems.

Vehicle usage of Hawke's Bays beaches is high and vehicles can have a deleterious effect on infaunal communities. The designation of many beaches as roads remains a resource conflict for much of New Zealand.

2014-2019 SOE Summary

There was no information about sandy beaches in the summary report.

CONCLUSION

The summaries above show that on the whole the state of the coastal environment has not changed significantly since the 2004-2013 State of the Coastal Environment report, and since the Plan was made operative in 2014. The state of the environment has also not improved.

Overall, Hawke's Bay waters are a safe place to swim. Freshwater and lagoon recreational monitoring still show that some sites are deteriorating.

Estuaries continue to show signs of stress caused from the large volumes of nutrients, contaminants and sediment delivered by the rivers and streams in the catchments. The reasons for their stress are due to land uses outside the CMA. In some areas (particularly Ahuriri Estuary) there are likely to be adverse effects arising from activities occurring within the CMA (such as stormwater discharges). The monitoring results suggest that adverse effects are not being avoided, remedied or mitigated to the extent necessary to sustain the ecological values identified in the Plan.

Intertidal areas continue to be under threat from expansion of non-native species.

Note: Further SOE monitoring information is provided in Section 4 of this report, including for those matters covered in Part C – Use and Development in the Coastal Margin.

3.7 Conclusion for Non-Regulatory Implementation of the Plan

The Council is committed to environmental education and land-based restoration and rehabilitation programmes, such as erosion control schemes and wetland restoration projects. The environmental hotspot funding is enabling many projects to help restore Ahuriri estuary and the marine environment. Overall, a range of non-regulatory methods have been successfully implemented.

With regards to SOE monitoring, the state of the coastal environment has not changed significantly since the 2004-2013 State of the Coastal Environment report, and since the Plan was made operative in 2014.

4 Effectiveness of the Plan: Outcomes

This section of the report assesses the achievement of the Plan in terms of outcomes for the anticipated environmental results (AER) i.e. have the AERs been achieved?

For the AERs contained in Part B: Matters of National Importance, there are no indicators or monitoring programmes to analyse. Instead, consent information, interviews with resource use consent staff, council work programmes, and other relevant information was used to assess the effectiveness of the Plan for these matters.

For Part C and Part D of the Plan, data was sought on the indicators and data sources identified for each AER. As was the case for the 2004 Regional Policy Statement (RPS) effectiveness report and the 2018 Regional Resource Management Plan Effectiveness Review (RRMP Review), this data proved difficult to obtain due to the disconnect between the AER's and the Council's monitoring programme which is focused toward SOE reporting. Additionally, some indicators are out-of-date with national reporting requirements.

In addition, for Part C: Use and Development in the Coastal Margin, due to these matters relating to the landward side of mean high water springs most AERs are indistinguishable to the AERs contained in the RRMP. Instead of replicating an analysis for these AERs, the findings from the 2018 RRMP Review are included in this report. Further, many of the freshwater matters contained in this section of the Plan and the RRMP are currently subject to plan changes. Therefore it is considered that a comprehensive analysis for those matters is not required in this review.

Included in this section of the report are some key recommendations made in the 'Gap Analysis of Hawke's Bay Regional Council's Regional Coastal Environment Plan against the NZCPS 2010' (NZCPS Gap Analysis). Although this information does not relate to the outcomes of the Plan, it does highlight whether the Plan provisions are consistent with current national policy direction and/or are still relevant.

4.1 Part B: Matters of National Importance

4.1.1 Natural Character

The issue statement for this section of the Plan is:

The coastal environment's natural character is being modified and adversely affected through inappropriate subdivision, use and development.

Objectives and Policies

Objective 2.1 is to preserve the natural character of the coastal environment and protect from inappropriate subdivision use and development.

There are 13 policies to implement this objective. Policies elsewhere in the Plan also relate to features that contribute to the natural character of the coast.

Rules and Consents

Only one rule specifically mentions natural character. Rule 124 is a controlled activity rule for aquaculture structures in an Aquaculture Marine Area (AMA), effects on natural character of the coast is included as a matter for control/discretion. Rules relating to structures in coastal hazard zone also include effects on natural coastal processes as a matter for council control/discretion.

Effects on natural character are identified and considered by officers in their assessment of applications for activities in the coastal environment. Consent officers' mentioned recent natural character assessments undertaken for Napier Port Wharf 6, the Clifton revetment, Bridgeman Seawall and Whakarire Ave seawall consent applications. Most applications include natural character elements as part of landscape and/or visual assessment of applications. For example, the Boffa Miskell assessment for the Clifton revetment included natural character in its landscape report.

The Port's consent application included a number of natural character reports covering both the biological and physical environment, as well as a visual, landscape and natural character assessment.

There have also been instances where surf breaks have been considered in consent applications, such as the Whakarire Ave seawall/breakwater and the Port's Westshore dredging disposal consent. Consent officers requested that a 'regionally significant surf break assessment' be carried out for Hawke's Bay, to assist with future consent applications. Surf breaks are included as a natural character matter in the NZCPS.

It does not appear that cumulative effects on the natural character of the coast are regularly considered as part of the assessment of consent applications. Generally, assessments are restricted to the effects of a structure or an activity on the surrounding environment, but not the overall contribution of structures or activities on the surrounding environment. Further, the current plan does not provide any clear direction on what the 'capacity' is of the environment to absorb these types of effects. There is a risk that overlooking cumulative effects may eventually lead to degradation of natural character values in some areas. For example, if coastal protection structures are approved in part because there are already similar structures in place.

Consent officers reported that no consent application has been declined because of effects on natural character.

Besides assessments of surf breaks, staff interviews did not identify any other issues with this section of the Plan.

Monitoring

There is no specific monitoring programme for the natural character of the coast. However, SOE monitoring programmes include the monitoring of elements that make up natural character in the coastal environment.

The Council also regularly monitors shoreline changes over time and is currently developing a hydrodynamic model of the bay.

Council Work Programmes

Policy 2.2 of the Plan recognises that protecting areas of significant indigenous vegetation and habitats of indigenous fauna and flora assists in preserving natural character of the coastal environment. The Council has supported the development of the Biodiversity Strategy and Action Plan for Hawke's Bay, launched March 2016. This strategy takes a regional approach to improve habitats and support native species.

Policy 13 of the NZCPS states that natural character may include matters such as:

- a) natural elements, processes and patterns; and
- d) the natural movement of water and sediment.

As discussed earlier in this report, Council is currently developing a hydrodynamic model of the bay with associated sediment transport information. This model will hopefully assist future policy development for those natural character matters.

Other council work programmes that are assisting with restoration of natural character include the replanting initiatives along the Hawke's Bay coastline and wetland enhancement schemes, also outlined earlier in this report.

NZCPS Gap Analysis

The NZCPS Gap Analysis assessed this chapter of the Plan against NZCPS Policy 13. In summary this report concluded that:

- The Plan partly gives effect to NZCPS Policy 13.
- Objective 2.1 simply paraphrases s6(a) of the RMA and so is of no value to decision makers.
- The thirteen policies that follow are a smorgasbord of provisions and does not give effect to NZCPS Policy13(1)(c) and 13(2).
- The Plan does not map or otherwise identify areas that have outstanding or high natural character.
- The Plan contains a myriad of other references to natural character, including in relation to water quality, water quantity, natural hazards, discharges, structures, diversions, exotic plants and restoration planting. It would be beneficial if these provisions were rationalised so that natural character was dealt with solely in Chapter 2 (apart from within relevant rules).

Suggested amendments include:

- Identify and map parts of the coastal environment that have outstanding natural character.
- Redraft Chapter 2 so that the objectives and policies give effect to the NZCPS Policies. In particular, (all) adverse effects on natural character are to be avoided (not remedied or mitigated) in areas with outstanding natural character.

Note: These NZCPS policies were also tested in the 2014 Supreme Court decision *Environmental Defence Society Inc v New Zealand King Salmon Ltd*. This case law is discussed in more detail later in this report.

Discussion

The Plan identifies 21 Significant Conservation Areas (SCAs). The SCAs are derived from work undertaken by DOC in the early 1990s for input into the first generation Regional Coastal Plan. DOC applied criteria to identify 'Areas of Significant Conservation Value' (ASCV), which encompassed aspects of natural character. The criteria included:

- Māori cultural values of local, regional or national significance;
- presence of protected areas;
- wetlands, estuaries and coastal lagoons of national or international significance;
- habitats, breeding sites, roost sites or feeding sites of marine mammals and birds;
- ecosystems, flora and fauna habitats with regionally, nationally or internationally significant or threatened ecosystems or species;
- scenic sites of regional, national or international importance;

- historic places of outstanding significance;
- representative examples of nationally significant or outstanding coastal landforms and associated processes.

Since the identification of ASCVs and SCAs, it has become apparent that the application of creating a broad-brush ‘catch-all’ can be problematic. Typically the values identified are fairly generic, with little detail on the feature themselves. In these instances it is difficult to determine whether values, such as natural character, are being protected.

Unfortunately natural character is not specifically defined in the RMA or NZCPS. However, there is some guidance on how to undertake an assessment of natural character. A 2011 University of Waikato student thesis introduced a ‘Quantitative Index for Measuring Natural Character of the Coastal Environment’ (QINCCE). Some councils have chosen to use this methodology to assess natural character for plan development.

In light of new methodology, case law and NZCPS 2010 requirements, Council should review the current Plan’s SCAs, including a review of the criteria used to identify these areas, to ensure areas of high and outstanding natural character are clearly identified and protected in the Plan.

The NZCPS 2010 provides clear direction that surf breaks of national significance shall be protected. While there are no surf breaks of national significance within the Hawke’s Bay region, the protection of regionally significant surf breaks is growing within the New Zealand planning context. It is recommended that a comprehensive study of surf breaks be included in any future regional assessment of natural character. Work has been conducted on the methodology of identifying and rating natural surf breaks, with guidelines developed to assist councils and stakeholders.

Outcomes

Broadly speaking AER 2.3 and 2.4 are being met, with most development along the coast occurring in areas already modified by similar activities, and restoration projects taking place along the coast.

Due to the lack of monitoring data it is unclear if the outcomes for AERs 2.1, 2.2, 2.5, 2.6 and 2.7 have been achieved.

Natural Character Anticipated Environmental Results

AER #	Anticipated Environmental Result	Has AER been achieved (Yes / No / Unknown)
AER 2.1	Preservation of the natural character of Hawke’s Bay’s coastal environment and protection of it from inappropriate subdivision, use and development.	Unknown
AER 2.2	Dynamic natural and physical coastal processes are maintained and not altered by inappropriate subdivision, use and development in a way to prevent those processes from occurring.	Unknown
AER 2.3	Appropriate use and development within the coastal marine area occurring in areas already developed or in use by activities with similar environmental effects.	Yes

AER 2.4	Restoration and rehabilitation of identified areas where the natural character of the coastal environment has been degraded by past activities or may be degraded by proposed activities.	Yes
AER 2.5	Greater public awareness of the need to preserve the coastal environment's natural character and what comprises that natural character in different parts of the region's coastal environment.	Unknown
AER 2.6	Maintenance or enhancement of the existing amenity values of the coastal marine area.	Unknown
AER 2.7	Protection of the integrity, function and resilience of the coastal environment in terms of dynamic coastal processes such as wave action, tidal flow, currents and sediment transport, natural water and air quality and natural substrate composition.	Unknown

4.1.2 Outstanding natural features and landscapes

The issue for this section of the Plan is:

Inappropriate subdivision, use and development may degrade the physical integrity and aesthetic values of outstanding natural features and landscapes within the coastal environment.

Objectives and Policies

Objective 3.1 is the protection of outstanding natural features and landscapes within the coastal environment from inappropriate subdivision, use and development. This is almost identical wording to the direction in section 6(b) of the RMA.

There are six policies to implement this objective. None of the policies list outstanding natural features or landscapes or identify relevant SCAs that need to be protected.

Rules and Consents

No rules specifically mention or identify natural features and landscapes. There are a number of rules that prohibit activities in specified SCAs.

As with natural character, natural feature and landscape assessments have been included in consent applications and are matters considered by officers in their assessment of applications. Recent consent applications include the Whakarire Ave and Clifton revetment coastal protections structures.

Consent officers had no issues with this chapter of the Plan.

Monitoring

There is no specific monitoring programme for natural features and landscapes.

With regards to Policy 3.4 of the Plan, SOE monitoring shows that the ecological values for many of the region's lagoons and estuaries have not been protected. Most estuaries have had a significant decline in water quality and a reduction in bivalve beds. However, much of this decline is due to the effects of land-based activities in the surrounding catchments.

Council Work Programmes

It is noted that council is undertaking 'Landscape Scale Ecological Restoration' on the Mahia Peninsula. This work will include identification and prioritisation of key sites of significance, pest control and planting.

Cape to City is another large scale ecological restoration project focused on Cape Kidnappers and approx. 26,000ha of land between the Heretaunga Plains and the Cape Sanctuary and stretching almost to Elsthorpe in the south.

There are also a number of work programmes to improve wetlands and estuaries within the region.

NZCPS Gap Analysis

The NZCPS Gap Analysis evaluated this chapter of the Plan against NZCPS Policy 15. This report concluded:

- The Plan partly gives effect to NZCPS Policy 15.
- Objective 3.1 simply parrots section 6(b) of the RMA and consequently is of no value to decision makers.
- The policy provisions do not give effect to NZCPS Policies 15(a), 15(b) and 15(d).
- The plan does not map or otherwise identify outstanding natural features or outstanding natural landscapes.

The report suggested:

- Council identify and map outstanding natural features and natural landscapes.
- That the provisions of Chapter 3 be amended to give effect to NZCPS Policies 15(a), 15(b) and 15(d).
- The most significant amendment is the need for restrictive policies and rules to give effect to NZCPS Policies 15(a) and (b).

Other Information

The explanation and reasons for this Chapter of the Plan refer to the "Pigeon Bay" criteria for district and regional planning. However, the plan does not adopt the criteria as policy, nor does it identify any landscapes or features of regional significance.

As discussed in the natural character section, the Plan identifies a number of SCAs but no specific natural features or landscapes are referred to in the Policies. The wider review of the Plan will provide an opportunity to review current SCAs and provide more information about regionally outstanding features and landscapes, to 'tighten' this aspect of the policy framework.

Outcomes

Overall, it is difficult to assess whether the AERs have been achieved. The Plan does not identify outstanding, regionally, or nationally important features and landscapes. Further, there has been no monitoring of natural features or landscapes so it is difficult to know whether they have been protected.

Outstanding Natural Features and Landscapes Anticipated Environment Results

AER#	Anticipated Environment Results	Has AER been achieved (Yes / No / Unknown)
AER 3.1	Protection of outstanding natural features and landscapes from inappropriate subdivision, use and development within Hawke's Bay's coastal environment.	Unknown
AER 3.2	Restoration and rehabilitation of identified areas where outstanding natural features and landscapes within the coastal environment have been degraded by past activities.	Yes
AER 3.3	Greater public awareness of the need to protect outstanding natural features and landscapes within the region's coastal environment.	No
AER 3.4	Protection of the visual harmony of the existing landscape, seascape and outstanding natural features in the coastal marine area.	Unknown
AER 3.5	Avoidance, remediation or mitigation of adverse effects on significant landforms and significant geological features in the coastal marine area.	Unknown

4.1.3 Indigenous species and habitats

The issue statement for this section of the Plan is:

Significant areas of indigenous vegetation and significant habitats of indigenous fauna can be adversely affected and incrementally lost through inappropriate subdivision, use and development in the coastal environment.

Objectives and Policies

Objective 4.1 is the protection of the following in the coastal environment from inappropriate subdivision, use and development:

- (a) regionally and nationally important ecosystems;
- (b) areas of regionally or nationally significant indigenous vegetation;
- (c) areas of regionally or nationally significant habitats of indigenous fauna.

There are six policies for this chapter. They are more descriptive than previous chapters, for example Policy 4.1 lists those ecological areas for which adverse effects should be avoided.

Rules and Consents

There are a number of rules that are relevant to this chapter of the Plan, including those relating to the discharge of contaminants, take and use of surface water, structures in the CMA, diversion and discharge of stormwater to the CMA, and vehicles in specific areas.

As discussed earlier in the report, there are a number of major consents to discharge to the CMA. The case study showed that there has been ongoing compliance issues with these consents.

Monitoring

Estuary ecosystems are regionally and nationally important for indigenous species and indigenous fauna. However, the habitats and species of the region's estuaries have not been extensively studied and little is known about where and what species live there. Council had a university student study the habitats and ecosystem services of the Ahuriri, Tukituki and Waitangi estuaries in 2018, and further research will be required.

Monitoring data shows that the region's estuaries are presenting signs of significant degradation. In particular, a decline in water quality, increased sedimentation, and a reduction of bivalve beds, to name just a few issues. For example, Ahuriri estuary (SCA12) is in a bad state with eutrophic conditions and Pōrangahau Estuary (SCA1) has repeatedly had high e-coli levels (see Case Study below). There has been no improvement since the Plan became operative.

Policy 4.3 includes protecting ecological values of dune systems. The Sand Dune SOE Report Card for 2018 states that the condition and extent of the majority of Hawke's Bay sand dunes is currently unknown and uncertain.

As part of SOE monitoring, the Rangaiika Beach (Cape Kidnappers) and Opoutama Beach (Mahia Peninsula) dune systems were mapped in 2017 using a drone. These maps were 'ground truthed' in 2018 so staff could match species on the map with those on the ground. A dune condition index is used to examine the ecological integrity of a dune system by describing the state of it and the pressures on it. This monitoring found that, despite the protected location of Rangaiika as part of the Cape Sanctuary, the dune system is under pressure from large numbers of rabbits and suffers from very minimal buffering from surrounding farmland.

The dunes at Opoutama suffer from a lot of pressure and the overall state is much poorer than Rangaiika.

Council Work Programmes

As stated previously, Council is undertaking a number of work programmes to improve the state of the environment including environmental hotspot funding, landscape restoration, the Biodiversity Strategy Action Plan, and freshwater regional plan changes.

It is expected that further monitoring of the state of the region's sand dunes will also continue.

Case Study

In March 2018, Council staff located patches of seagrass in the Pōrangahau estuary, the following is a summary of a report to the Council's Environment and Services Committee outlining the importance of the find and the necessary response by Council.

CASE STUDY 2

Seagrass in the Pōrangahau Estuary

Pōrangahau Estuary is identified as an SCA in the Plan. The estuary and offshore area are a gazetted taiapure, and of great significance to Ngāti Kere. It is considered a nationally significant wildlife and fisheries habitat, and supports nationally significant dune vegetation

In March 2018, Council staff located patches of seagrass (*Zostera muelleri*) in the Pōrangahau estuary. The last record of seagrass in estuaries within the Region is from the Ahuriri Estuary in 1978 and there are no prior records of seagrass in Pōrangahau Estuary.

Seagrass is an important habitat for many marine species, supporting primary productivity, stabilising the sediment, increasing biodiversity and providing food and habitat for many other marine species.

The loss of seagrass due to increased sedimentation and decreased light availability has been observed both locally and nationally, with an estimated 90% loss in Tauranga Harbour from 1959 to 1996.

Protecting seagrass patches is important to maintaining biodiversity and ecosystem function, as seagrass provides variety in habitat type and form, and is an important habitat as a fish nursery.

However, recreational water quality in Pōrangahau estuary has significantly decreased between 2001 to 2017, with increasing levels of bacteria associated with faeces, and is currently graded as Very Poor for contact recreation. The 2013-2018 State of the Environment report also showed significant increases in faecal indicator bacteria levels.

During the 2018-2019 recreational season the estuary has exceeded guideline values 12 times.

A NIWA report concluded that the conditions for longer-term persistence of seagrass in the Pōrangahau Estuary is likely to be marginal under current water quality conditions. This means that the seagrass in Pōrangahau Estuary, while recently re-discovered, is at risk of loss because of the marginal water quality and sedimentation observed at the site.

The Southern Catchment's team have initiated several projects with the Porangahau catchment that will in time improve the water quality in the catchment. The existence of seagrass supports the imperative for this work.

Conclusions

To respond to the risk of seagrass loss, the NIWA report recommends:

- Annual monitoring of these populations
- Actions be taken to reduce nutrient and sediment inputs into the estuary
- Monitoring water quality and light availability at the site

Actions that might reduce sediment, bacteria and nutrient inputs in the estuary include restricting stock access, targeting land retirement and increasing riparian planting. This would assist seagrass to survive more readily in the Pōrangahau Estuary, and would also improve water quality in the estuary for recreation.

As noted this work is beginning within the Southern Catchment's team's activities.

NZCPS Gap Analysis

The NZCPS Gap Analysis evaluated this chapter of the Plan against NZCPS Policy 11, it concluded that:

- The Plan should prohibit activities giving rise to adverse effects on those taxa, ecosystems and vegetation types listed in NZCPS Policy 11(a). This work should include explicitly defining and mapping the taxa, ecosystems and vegetation types listed by the NZCPS.
- The Plan does prohibit some activities in SCAs and that may give effect to NZCPS Policy 11(a) in part.

Suggested amendments include:

- Chapter 4 should be re-titled to Indigenous biological diversity.
- Hawke's Bay specific lists of taxa and maps of areas that meet the NZCPS Policy 11(a) criteria.
- Use and development activities should be prohibited as required to avoid adverse effects on those taxa and areas.
- Hawke's Bay specific areas, habitats and corridors that meet the NZCPS Policy 11(b) criteria should be mapped and included in the Plan.
- Use and development activities that would cause significant adverse effects on those areas, habitats and corridors should be prohibited. Other activities should be discretionary.
- Rationalise (delete or relocate) the various references to indigenous biological diversity (under similar phraseology) that appear throughout the Plan so that Chapter 4 gives effect to NZCPS Policy 11 in a comprehensive manner.

NZCPS Guidance Notes

According to NZCPS guidance, giving effect to Policy 11 will involve the following:

- Listing indigenous species and habitats: Specify the indigenous taxa, ecosystems and habitat types of relevance to Policy 11 that are present in the region.
- Listing/mapping areas: Determine the locations where threatened and other taxa, ecosystems and habitats of relevance to Policy 11 are known to exist, paying particular attention to sites of regional or national significance.
- Listing/mapping protected areas: Identify areas that have been set aside for the full or partial protection of indigenous biodiversity under other legislation.
- Specifying the adverse effects of activities that are to be avoided in relation to matters listed in Policy 11(a), and the significant adverse effects that are to be avoided in relation to Policy 11(b). The emphasis of Policy 11 is on controlling the effects of activities.
- Specifying in policies the criteria that will be used to assess the significance of ecological areas. Should new or different indigenous ecosystems, ecological areas or indigenous species habitats from those listed in Policy 11 be found during the life of the plan, the significance criteria can be applied to assess the necessity for and support a plan change.

Policy 11 adopts a tiered approach for the management of indigenous biodiversity in the coastal environment:

- Policy 11(a) - The first tier applies to indigenous taxa, ecosystems, vegetation types, habitats

and areas that are threatened or most at risk of extinction and provides that the appropriate management response is the avoidance of adverse effects of activities on those taxa, ecosystems, vegetation types, habitats and areas.

- Policy 11(b) - The second tier applies to indigenous ecosystems, habitats and areas more common or less at risk from imminent loss (i.e. still valuable but not threatened or rare). This second tier has two levels. The first level is the avoidance of significant adverse effects. The second level is to avoid, remedy or mitigate other adverse effects of activities.

The Supreme Court has determined that the word 'avoid' means 'not allow or prevent the occurrence of' *Environmental Defence Society v The New Zealand King Salmon Company Limited [2014]*.

Note: The Proposed National Policy Statement for Indigenous Biodiversity (NPSIB) will be open for public consultation in October 2019. The NPSIB will provide national direction and guidance to local councils on how to improve biodiversity management across the country. The draft NPSIB applies across public and private land including terrestrial ecosystems and wetlands. It will especially impact the management of biodiversity on private land where many of our threatened species, habitats, and ecosystems are found

Other Information

The policies for this chapter of the Plan are more descriptive than previous chapters. For example, Policy 4.1 lists ecological areas for which adverse effects should be avoided. However, it is unclear why SCAs are included in Policy 4.2 and not Policy 4.1, where adverse effects are to be avoided.

In relation to avoiding adverse effects on fishing grounds and areas of cultural value, the 2016 Hawke's Bay Marine Review highlighted that iwi are deeply concerned over the present state of the coastal environment. Additionally, there was widespread concern over the current state of the fishery across all sectors (commercial, customary, and recreational). This included concern about the:

- Absence of historically abundant species.
- Inability for Tangata Whenua to collect enough kaimoana to feed marae.
- Absence of baitfish and kahawai feeding fronts.
- Reduction in paddle-crab numbers.
- Change in the faunal composition of the inshore benthos surrounding Napier.

Estuaries are regionally and nationally important habitats for bird and fish species and indigenous fauna. Unfortunately the region's estuaries continue to show signs of stress caused by increased nutrients, contaminants and sediment loading from the surrounding catchments. This is having a significant impact on fishing grounds, shell fish areas, fish spawning and nursery areas.

Outcomes

Given the poor ecological state of the region's estuaries and waterways, and the lack of knowledge around regionally important indigenous flora and fauna, the objective and AERs have not been achieved.

Indigenous Species and Habitats anticipated environmental results

AER#	Anticipated Environmental Result	Has AER been achieved (Yes / No / Unknown)
AER 4.1	Protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna within the coastal environment from inappropriate subdivision, use and development.	Unknown
AER 4.2	Identification of areas of significant indigenous vegetation and significant habitats of indigenous fauna in the region's coastal environment.	Unknown
AER 4.3	Protection of ecological systems that contribute to the viability and integrity of significant habitats of indigenous fauna and areas of significant indigenous vegetation.	No
AER 4.4	Restoration and rehabilitation of identified areas where significant indigenous vegetation and significant habitats of indigenous fauna of the coastal environment which have been degraded by past activities.	Yes (partly)
AER 4.5	Greater public awareness of the need to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna in the region's coastal environment.	Unknown
AER 4.6	Avoidance, remediation or mitigation of adverse effects on ecological systems, including natural movement of biota, natural biodiversity, productivity and biotic patterns.	Unknown
AER 4.7	The enhancement of degraded habitats of significant indigenous flora and fauna.	Yes (partly)
AER 4.8	The protection of ecosystems within the coastal environment which contribute to the cultural relationships of tangata whenua and which contain taonga species of flora and fauna.	No

4.1.4 Public access to and along the coast

The issue statement for this Chapter of the Plan is:

Appropriate subdivision, use and development within the coastal environment may enhance public access to the coastal marine area. In other cases, restricting public access to the coast may be necessary to protect ecological or cultural values, or for health, safety and security reasons.

Objectives and Policies

Objective 5.1 is maintenance and enhancement of public access to and along the coastal marine area while recognising the need to protect certain areas for ecological, cultural, historic heritage, health, safety, or security (including biosecurity) reasons.

There are 11 policies to implement Objective 5.1.

Policy 5.2 provides a foundation for the other policies by requiring the identification of the location and extent of places where public access is desirable. This policy is derived from Policy 3.5.2 of the NZCPS 1994.

Policies 5.3 to 5.5 outline circumstances where restrictions on access may be necessary, including the protection of sensitive dunes and highly sensitive habitats areas of indigenous species. There are no additional provisions identified to give effect to this direction, although there are various provisions throughout the activity-specific sections of the Plan which address this issue in various ways.

Rules and Consents

Rule 178 through to Rule 183 provide a range of activity classifications relating to occupation of space in the CMA. These range from permitted to prohibited status.

Many of the activity specific provisions are also relevant, for example rules relating to coastal protection structures and structures in the CMA.

Effects on public access from erection of structures and occupation of space are identified and considered by officers in their assessment of applications. Recent consent applications that had to include public access assessment include the Napier Port Wharf 6 extension, Clifton revetment and Whakarire Ave seawall.

Consent staff had no issues with the current policy and rule framework.

Monitoring

There is no specific monitoring programme for public access to and along the coast.

No information could be found in relation to sensitive dunes, except for the condition index scoring for Rangaiika Beach and Opoutama Beach. This monitoring showed that the Opoutama Beach dune systems is under pressure from people walking on the dunes.

The 10-year State of the Coastal Environment report highlighted that vehicle usage of Hawke's Bays sandy beaches is high and vehicles can have a deleterious effect on infaunal communities. The designation of many beaches as roads remains a resource conflict for much of New Zealand.

There were no compliance issues with consents occupying the CMA affecting public access, and no incidents reported for public access to the coast.

Council Work Programmes

There are no specific work programmes relating to public access.

Two of the policies promote and encourage territorial authorities to restrict access where appropriate. This is achieved through rules in city and district plans and through bylaws.

NZCPS Gap Analysis

The NZCPS Gap Analysis evaluated this Chapter of the Plan against NZCPS Policy 19 Walking Access. This report concluded that:

The RCEP partly gives effect to NZCPS Policy 19.

While there is no specific reference to walking access, the eleven policies do promote public access in general terms and signal that it should only be restricted in limited situations.

Some elements of Chapter 5 do not seem to relate directly to public access, for example Policy 5.5 (which deals with maintaining and protecting dunes) and Policies 5.7 to 5.10 (which deal with the occupation of space). These policies should be deleted or relocated to other chapters, whilst avoiding any duplication with other existing provisions.

Suggested Amendments:

Include new provisions on walking access and develop policies and rules that specifically give effect to NZCPS Policy 19.

Other Information

It is noted that there is no baseline information on public access to the coastal marine area and no council monitoring for public access or occupation of space in the CMA.

Policy 5.2 requires identification of the location and extent of places where public access should be formed and enhanced. The explanation notes that this policy is derived from Policy 3.5.2 of the NZCPS 1994. The explanation states that these places may be identified on planning maps, structure plans, concept plans and incorporated into conditions of resource consents, work programmes etc. No information could be found to see if this policy has been implemented.

The 'explanation and reasons' also outlines circumstances when restrictions on access are considered to be appropriate including the protection of areas of significant indigenous vegetation and/or habitats of indigenous fauna, Māori cultural values, public health or safety, historic heritage, national security and in other exceptional circumstances sufficient to justify such restriction. This has been derived from the NZCPS 1994 but it is unclear why these restrictions are not outlined in the Policies? There are no additional provisions identified to give effect to this direction.

Outcomes

Given the generic nature of the AERS it is difficult to assess whether they have been achieved. There is no information available on the accessibility of the CMA to the public. Broadly speaking, consent officers consider the appropriateness of private use of the CMA over public availability. They also consider effects on public access from activities occupying space within the CMA. There are no recorded incidents of public health and safety issues at the Port or with other activities in the CMA.

Assessment of Environmental Effects for Public Access to and Along the Coast

AER #	Assessment of Environmental Effects	Has AER been achieved (Yes / No / Unknown)
AER 5.1	Public access to and along the coastal marine area is maintained and, where it is practicable and in the public interest to do so, enhanced.	Unknown
AER 5.2	Public health and safety is protected from inappropriate means of public access to and along the coastal marine area, at the Port of Napier in particular.	Yes

AER 5.3	Areas of significant indigenous vegetation and significant habitats of indigenous fauna are protected from inappropriate public access to and along the coastal marine area and dune areas.	Unknown
AER 5.4	Māori cultural values are protected from inappropriate public access to and along the coastal marine area.	Unknown
AER 5.5	Adverse effects on private property from inappropriate public access to and along the coastal marine area are minimised.	Unknown
AER 5.6	Adverse effects on public access, use and enjoyment of the coastal environment arising from activities occupying space within the coastal marine area, are avoided, remedied or mitigated.	Yes
AER 5.7	Access to the coast is maintained where appropriate for tangata whenua to preserve mātauranga Māori and enable kaitiakitanga and its practical benefits to people, communities, and the management of coastal resources.	Unknown

4.1.5 Relationship of Māori and the Coast

The issue statement for this Chapter of the Plan is:

The potential for degradation of tangata whenua's relationship with the coast and potential degradation of mauri, the life sustaining force of natural and physical resources in the coastal environment, including waterways, waterbodies and waahi tapu which are of spiritual, heritage, historical and cultural significance to Māori.

Objectives and Policies

Objective 6.1 is the protection of the characteristics of the coastal environment of special spiritual, heritage, historical and cultural significance to tangata whenua.

There are 10 policies to achieve this objective, they vary from protecting sites of significance to Māori to actively involving tangata whenua in management of the coastal environment.

Consents

Maps of the Customary Marine Title (CMT) and Protected Customary Rights application areas in Hawke's Bay are loaded onto Pataka, along with other Statutory Acknowledgement information provided by the Office of Treaty Settlements. The consent team use Pataka and Statutory Acknowledgement information to assess the effects of activities on local sites of significance.

The Council website also states that when applying for resource consent for activities in the CMA there are cases applicants are required to consult with CMT groups. The views of the CMT applicant group are relevant to the Regional Council's assessment of the environmental effects of the proposed activity:

“Any resource consent application that has not followed the required consultation step will not be accepted by the Council. The views of the CMT applicant group are relevant to the Regional Council’s assessment of the environmental effects of your proposed activity.”

Monitoring

There is currently no monitoring programme to assess whether the characteristics of the coastal environment of special spiritual, heritage, historical and cultural significance to tangata whenua have been protected.

From the information available, it does not appear that the Council has a formal procedure for involving tangata whenua in compliance or monitoring activities.

Council Work Programmes

The 2016 Hawke’s Bay Marine Research Review stated that the “Iwi of Hawke’s Bay are deeply concerned over the present day state of the coastal environment. In particular, many feel disenfranchised with respect to the management of the CMA”.

The review also noted that several local mana whenua groups are being proactive in efforts to restore habitats and monitor and conserve populations of taonga species. Often this involves working collaboratively with council staff.

NZCPS Gap Analysis

The NZCPS Gap Analysis assessed this chapter of the Plan against Policy 2 of the NZCPS. The report concluded that:

Chapter 6 provisions give effect to NZCPS Policy 2(a), 2(f) in part and 2(g)(ii) in part.

- The Plan is currently silent with regard to mātauranga Māori. Additional policy is required to give effect to NZCPS Policy 2(c).
- It would be helpful to list the Iwi Resource Management Plans and documents that have been taken into account.
- In terms of NZCPS Policy 2(f)(i) it is unclear if the Plan reflects a cultural understanding of monitoring.
- While Policy 6.6 mentions mahinga mataitai, it is silent on taiapure and other non-commercial Māori customary fishing areas (NZCPS Policy 2(f)(iii)). It would be beneficial to map any such legally established areas and include policy and/or rules addressing non-fishing activities within them, such that the Māori customary practices are enabled (as is required under Plan Policy 6-6).

Other Information

In August 2015 the Hawke’s Bay Regional Planning Committee Act 2015 was enacted. This formalised arrangements to include Post Settlement Governance Entity (PSGE) representatives as co-governors of the Regional Planning Committee (RPC). The role of the RPC is to oversee the review and development of the Regional Policy Statement and regional plans for the Hawke’s Bay region. This Act goes some way in ensuring mana whenua are actively involved in the management of the coastal environment.

In 2018, Council created a new Māori Partnerships team. It is hoped that this team will also help staff and councillors engage more effectively with Tangata Whenua.

The wider 10-year review of the Plan will need to examine the amount of consultation with tangata whenua undertaken through the consenting and submission process.

RMA Amendment Act 2017

Previous engagement between councils and Māori in RMA planning and consenting hasn't been consistent across the country, and the effectiveness of existing relationships between iwi and councils has varied. Further, the lack of any statutory requirement for councils to establish working relationships with iwi has led to disagreements and delays in the planning process. The RMA Amendment Act 2017 aimed to address this issue by:

- enhancing opportunities for iwi input to the RMA plan-making processes,
- introducing a new process for establishing agreements between tangata whenua (through iwi authorities) and councils, called Mana Whakahono a Rohe: Iwi participation arrangements.

Outcomes and recommendations

It is difficult to assess the AER outcomes for this chapter of the Plan. It is considered that such an assessment would require meeting Iwi, Hapu and Whanau of the region to discuss matters in the Plan and wider resource management issues for the coastal environment. This is outside the scope of this review.

It is expected that the next generation Plan will include Mana Whakahono a Rohe arrangements, mātauranga Māori monitoring provisions and further measures that better engage and/or support local iwi and hapu as kaitiaki of the coast.

Relationship of Māori and the coast: Anticipated Environment Results

AER#	Anticipated Environment Results	Has AER been achieved (Yes / No / Unknown)
AER 6.1	Protection of mauri, the life sustaining force of natural and physical resources of the coastal environment.	Unknown
AER 6.2	Protection of areas of significant value to Māori including waahi tapu, nga toka, tauranga waka, mahinga mataitai, taiapure and taonga raranga.	Unknown
AER 6.3	Protection of ancestral lands, water, sites, waahi tapu and other taonga.	Unknown
AER 6.4	Ongoing partnership between the Council and tangata whenua in the management of coastal resources.	Yes
AER 6.5	Spiritual, heritage, historical and cultural values of the coastal environment are recognised and provided for.	Unknown
AER 6.6	Access to the coast is maintained where appropriate for tangata whenua to preserve mātauranga Māori and enable kaitiakitanga and its practical benefits to people, communities, and the management of coastal resources.	Unknown

4.1.6 Historic heritage

The issue statement for this Chapter of the Plan is:

Both identified and unidentified historic heritage resources within the coastal environment can be adversely affected by inappropriate subdivision, use and development.

Objectives and Policies

Objective 7.1 is the protection of historic heritage within the coastal environment from inappropriate subdivision, use and development.

There are five policies that set out to achieve this objective. They range from identifying sites to having regard to avoiding, remedying or mitigating adverse effects on historic heritage resources. Policy 7.1 and

7.3 are very similar in nature. Policy 7.4 ensuring sites of significance to coastal hapu are protected from inappropriate subdivision, use and development is also very similar to Policy 6.4.

Rules and Consents

Schedule M of the Plan includes recorded historic heritage features within the CMA. The policies have been incorporated into rules (including conditions, standards and terms) to protect those identified features.

As discussed in a previous section of the report, for areas of special interest to tangata whenua (e.g. waahi tapu sites) applicants are advised to consult with local hapu and iwi before submitting an application.

Consent staff have referred to the provisions of this chapter infrequently, they had no issues with this section of the plan.

Monitoring

There are no specific monitoring programmes for historic heritage.

Council Work Programmes

There are no specific work programmes relating to historic heritage resources in the region.

It does not appear that Council has identified any new historic heritage resources since the Plan became operative.

NZCPS Gap Analysis

The Gap Analysis assessed this chapter of the Plan against Policy 17 of the 2010 NZCPS. The report concluded that:

The provisions of Chapter 7 partly give effect to Policy 17.

- Objective 3.1 simply parrots s6(b) of the RMA and consequently is of no value to decision-makers.
- Policies 7.1 and 7.3 use the avoid, remedy or mitigate mantra and so provide no guidance to decision-makers beyond that already provided by s5(2)(c) of the RMA.
- The Plan maps purport to include Historic Heritage Areas but it is difficult to ascertain where these are. For example, in what might appear somewhat surprising to a layperson, none are located within the Napier inner harbour area.

- Policy 7.2 is to identify historic heritage resources within the coastal marine area but it does not appear that has occurred to date.
- Numerous other Plan provisions refer to historic heritage, however, only two activities affecting historic heritage are directly controlled by the rules (disturbances and sewage discharges), although some rules specify buffers from historic heritage.

Suggested amendments include:

- To give effect to NZCPS Policy 17(a) historic heritage in the coastal environment should be identified and mapped.
- Schedule I should be reviewed and updated.
- Provisions should be drafted that give effect to s6(b) of the RMA (without simply parroting it), s66(2)(iia) of the RMA, and NZCPS Policy 17(g), (h) and (i).
- It would be beneficial to have a general discretionary activity rule relating to the disturbance or damage of identified historic heritage.

Other Information

Schedule M lists recorded historic heritage features and some SCAs identified in the Plan have cultural and historic values. However, through searching Council records it appears there is no comprehensive record of heritage sites covering the Hawke’s Bay coastal environment. Some of this knowledge gap may be filled through the development of Iwi Resource Management Plans.

Policies 7.1 and 7.3 are weak. It is unlikely that simply avoiding, remedying or mitigating effects will be sufficient to retain heritage resources without clearer direction on what and where those resources are and their significance for the region.

As noted in the ‘explanation and reasons’, effects of activities on historic heritage resources above MHWS are controlled by city and district councils through district plans. Central Hawkes Bay recently undertook an assessment of natural heritage for the review of the CHB district plan. They are also working with Taiwhenua o Tamatea and Heritage New Zealand to develop a register of sites of heritage and cultural significance and are proposing provisions to protect these.

NCC are also reviewing their heritage provisions for the current district plan review.

The Council will need to update Schedule M if new sites of heritage and cultural significance are identified in the coastal environment through these reviews.

Outcomes

Due to lack of information it is unknown if the AERs have been achieved.

Historic Heritage Anticipated Environmental Results

AER#	Anticipated Environmental Results	Has AER been achieved (Yes / No / Unknown)
AER 7.1	Preservation and protection of historic heritage resources in the coastal marine area which have heritage values.	Unknown

AER 7.2	Retention of a diverse and representative range of historic heritage resources in the coastal marine area.	Unknown
AER 7.3	Avoidance, remediation or mitigation of adverse effects on historic heritage resources within the coastal marine area.	Unknown

4.2 Part C - Use and Development: Coastal Margin

The provisions in Part C of the Plan apply only within the Coastal Margin between mean high water springs and the coastal environment inland boundary identified on the planning maps.

The policies and rules for Part C are indistinguishable to the policies and rules in the RRMP. As discussed, many of these provisions have already been subject to plan effectiveness reviews. Instead of replicating an analysis for the AERs the findings from the 2018 RRMP Review are included in this assessment.

Further, Council is currently undertaking a change to the RRMP with respect to managing water resources in the TANK catchments. The TANK Plan Change reviews and updates the RRMP and gives effect to the NPS-FM. It will address specific water quantity and quality issues within the TANK catchments. As a result of this plan change, there will be new allocation limits and minimum flow levels for these catchments.

Plan Change 5 modified existing objectives and policies in the RRMP relating to freshwater resources. This plan change was made operative in August 2019.

Consequently, some provisions in Part C of the Plan will need to be reviewed following Plan Change 5 implementation and TANK plan change decisions.

4.2.1 Land Resources

There is no issue identified for this chapter of the Plan.

Objectives and Policies

The Objective of this chapter is the sustainable management of the land resource so as to avoid compromising future use and water quality.

Policy 8.1 encourages landowners and occupiers to manage the effects of activities affecting soils, with supporting environmental guidelines. Policy 8.2 sets out how the Council will implement the environmental guidelines.

Rules and Consents

There are a number of rules that relate to the Objective for this chapter of the Plan. There were 102 land use consents and 104 discharges to land consents issued under the Plan. There were only three vegetation clearance consents issued between 2014-2019.

MONITORING (INDICATORS)

AER 8.1 Indicator - Land Use Capability monitoring

The findings of the 2009 – 2013 SOE Report were that 5% of the region is being used beyond its Land Use Capability class. No reporting was available for the 2014-2019 period.

AER 8.2 Indicator – Shelterbelt or Vegetative Cover

As with the RRMP Review, specific data has not been obtained to measure the achievement of this AER. In recent years Council has started monitoring shelterbelt coverage in the region, however no mapping or data is available to review at this stage.

AER 8.3 Indicator – Number of incidents reported

This AER states that areas prone to erosion are replanted within 18 months. Comments made in the 2018 RRMP Review are relevant:

“This AER begs the question, within 18 months of what? No data has been able to be obtained to determine whether or not this AER is being met. The merit of having an AER repeating a regional plan standard is also questionable.”

AER 8.4 Indicator – Flat land ‘500 Soils’ assessments; Hill Country ‘Visual Soil Assessment’

The SOE 2014-2019 summary reports that there are 89 monitoring sites across the region, covering five land use categories and more than 40 soil types. The physical, chemical and biological properties of the soils are monitored. 34 per cent were within recommended guidelines for all seven indicators and 70 per cent met guideline ranges for six out of seven indicators.

Council has conducted routine monitoring of the region’s soil quality since 2011, however more long-term data is required to accurately determine the effect of land-use practices on soil quality. Overall, results show our soils are in good condition.

In 2018, the land science team installed 10 passive dust collectors (PDC) across the Heretaunga Plains. One year of monitoring has indicated a relationship between the amount of wind-blown material and seasonal land management (ploughing and planting from September to November). In future, this information will provide baseline data to inform future investigations and landowners.

In 2018 the Council started using automatic sediment samplers (called ISCOs) to understand the effect of soil erosion and sediment on waterways.

In January 2019 the land science team started a new programme to monitor riparian zones to better understand the condition of these areas across the region. They will measure a range of things including whether or not there is vegetated growth and/or fencing present, along with other factors such as how much erosion is occurring.

AER 8.5 Indicator - Levels Of Contamination Below Toxic Levels

Comments made in the 2018 RRMP Review include:

“The Compliance Team commented on this AER that there are one off records held in the HAIL (Hazardous Activities and Industries List) database relating to specific sites. They point out that there is no programme of ongoing monitoring and that most new reports of contaminated sites are likely to come from residential development of horticultural land (in regard to pesticide residues).

It is noted that since the RRMP was made operative the ‘National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011’ (the ‘NESCS’) has come into effect. The implementation of the NESCS is largely the responsibility of TLAs. Of relevance to this AER is that the NESCS includes soil contaminant standards setting different threshold contaminant levels for

different land uses. These soil contaminant standards would help determine the significance levels for different contaminants.

There is no data or information available to determine whether or not this AER is being met. It would be a fair assumption however that the NESCS has resulted in previously contaminated sites being remediated upon a change of land use, subdivision or development. Further to this since the existence of the NESCS there will have been a significant increase in the number of soil contamination tests undertaken and therefore an increase in the data relating to the soil contamination levels of sites. This data however would be held by the TLAs on the files relating to the tested properties and is not therefore in any readily available form for this report.”

AER 8.6 Indicator - Surface Water Quality Guidelines

SOE monitoring for this AER is discussed in the next section of this report.

Council Work Programmes

There are a number of Council work programmes that implement the non-regulatory methods for this chapter of the Plan. For example:

- The One Billion Trees project and the Erosion Control Scheme (ECS). The ECS aims to help Hawke's Bay landholders keep soil on their hills and out of the water. Council provides significant financial support for erosion control work such as non-commercial tree planting, fencing and land retirement.
- The Land Science team Riparian Monitoring Programme, which includes erosion awareness, restorative planting and fencing plans.
- The HBRC Soil Conservation Nursery, established to provide for the regional community a consistent supply of quality poplar and willow poles for erosion control use in Hawke's Bay.
- Online information and resources for managing erosion on the farm.
- Ongoing staff resource and funding to educate and incentivise land owners through various land management programmes. Many of these programmes aim to improve riparian margins, protect and enhance wetlands, prevent siltation/soil loss and switch land use to forestry in erodible hill country.

Other Information

According to the SOE 2014-2019 summary report, Hawke's Bay has one of the highest rates of wind erosion in New Zealand. Many of the soils on the Heretaunga Plains are at severe or extreme risk of wind erosion and if they're not managed correctly, may lose significant amounts of topsoil.

Recent modelling has projected in excess of 3 million tonnes of soil and sediment being transported by erosion into the marine environment from the regions catchments every year.

The Council has a role to inform landowners and encourage the optimal use of land for social and economic benefit while maintaining and or enhancing environmental sustainability. As highlighted by the council work programmes listed above, there are multiple council projects looking at mitigation and monitoring.

It appears Council has undertaken very little land mapping to determine the percentage of land susceptible to wind erosion.

With regards to the outcomes of the AERs, the findings of the 'HB RRMP 2018 Effectiveness Review' are relevant. This report found that the some of the current AERs are still relevant but additional measures could be useful data sources. It was also noted that some monitoring programmes have been replaced e.g. the "500 soils project" was replaced by the Soil Quality Monitoring Programme in the 2000's. Additionally, it was observed that some data was unavailable or unknown so outcomes could not always be measured.

The Land Management team also commented that AER 8.1 is a measure of land use compared against the LUC class and that a limitation is that this approach does not consider on farm management practices such as erosion control space planted trees.

The proposed NPS for Highly Productive Land (NPS-HPL) may include matters that will affect this section of the Plan.

Outcomes

It is unclear why surface water quality guidelines need to be repeated in this section of the plan as an AER. An AER that notes a reduction of sediment deposited in the region's waterways may be more applicable.

The outcomes for four of the AERs are unknown due to lack of information.

Anticipated Environment Results

AER	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
8.1 Land use activities not exceeding land use capability of subject land	% region being sustainably managed against land use capability	Land cover mapping (5 yearly)	Unknown
8.2 Areas prone to wind erosion have remedial measures applied	% vulnerable land protected by shelterbelts or vegetative cover	Survey (5 yearly)	Unknown (this monitoring programme began in 2018, data is not yet available)
8.3 Areas prone to erosion are replanted within 18 months	Number of incidents reported/ complaints received	Council records	Unknown
8.4 No long term degradation of physical or biological properties	Flat land '500 Soils' assessments Hill country :Visual Soil Assessment technique	State of Environment monitoring	Yes (in part)
8.5 Reduction in number of sites with significant levels of contaminants in soils	Level of contamination below that which causes acute or toxic effects on humans, other non-target species, or reduces long term land use potential	Compliance monitoring	Unknown

8.6 Surface water quality guidelines are complied with	<p>Temperature not changed by more than 3 degrees Celsius, nor raised above 25 degrees Celsius</p> <p>Dissolved oxygen not exceeding guideline values</p> <p>Ammoniacal nitrogen levels not exceeding guideline values</p> <p>Soluble reactive phosphorous</p>	<p>Council surface water quality monitoring programme</p> <p>Annual SOE Reporting</p> <p>Cultural Health Index Monitoring</p>	No
	<p>values not exceeding guideline values</p> <p>No loss of fish species or indigenous invertebrates</p> <p>Clarity in areas used for contact recreation not exceeding guideline values</p> <p>Faecal coliform concentrations not exceeding levels in Schedule D</p> <p>Suspended solid concentrations not exceeding levels in Schedule D</p> <p>Shellfish and other taonga species are safe for human consumption</p>		

4.2.2 Surface Water Quality

There is no issue statement.

Objectives and Policies

Objective 9.1 is the maintenance and enhancement of the water quality of rivers and lakes in order that the existing species and natural character are sustained, while providing for resource availability for a variety of purposes, including groundwater recharge, maintenance or enhancement of mauri, and the protection of aquatic ecosystems.

There are three policies to implement this objective. Policy 9.1 is to manage the effects of activities affecting the quality of water in rivers, lakes and wetlands. Policy 9.2A was inserted in accordance with the direction stated in Policy A4 of the NPS-FM 2014.

Monitoring (AER Indicators)

There is one AER for this section of the Plan with 10 indicators relating to surface water quality. The SOE 2014–2018 summary report provides relevant monitoring information for these indicators. Key points are outlined below:

Rivers and Lakes

Council monitor 77 river sites across Hawke’s Bay. There were a low proportion of sites scoring ‘good’ or ‘excellent’ for four key indicators: nitrogen, phosphorus, water clarity and faecal contamination (E. coli).

Some rivers, lakes have nutrients at levels above the limits for ecological wellbeing.

There was some evidence that nitrogen has improved, but the other three variables showed little change. There are some nitrogen hotspots, driven by the intensification of farming. The Ruataniwha Plains in the upper Tukituki River, the Taharua in the upper Mohaka River and parts of the Heretaunga Plains are the main areas of concern for nitrogen.

The Tukituki River Catchment Plan Change 6 sets a dissolved inorganic nitrogen (DIN) target of 0.8 milligrams per litre for rivers and streams in the catchment. It is likely that seven out of 17 sub-catchments within this area will breach this target.

Nitrogen levels are so high in some sub-catchments they are unlikely to achieve the target using conventional farm management approaches alone.

Strategic and large-scale planting along riverbanks is needed to provide shade and enhance ecosystem health. Council has developed an East Coast Riparian Planting Guide with DairyNZ to help with this issue.

Council monitor five lakes in Hawke’s Bay for water quality and general health. There are two particular hot spots of concern, the Tūtira Lakes and Lake Whakakī. These lakes have been plagued by algal blooms. Whakakī Lake has some of the poorest water quality of any monitored lake in New Zealand.

Various factors influence the state and trends of water quality, with some problems being very widespread while others are highly localised to a particular set of circumstances. Trying to understand and communicate the complexities is a difficult task for scientists during council planning and implementation cycles.

Wetlands

About 98 per cent of the original wetland areas in Hawke’s Bay have been lost. This is compared to 90 per cent across New Zealand.

The council wetland programme is in two parts. The first part is the identification and classification of all wetlands (apart from farm ponds). More than 4,000 wetlands were identified, categorised and catalogued. This took several years to do and has only recently been completed.

The wetlands monitoring programme (the second part of the programme) began in 2015, starting with a focus on the Tukituki catchment. Ten sites were chosen in this area. Thirteen wetland sites within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) catchments were incorporated into monitoring in 2018.

Findings show that the majority of the sites monitored are in a reasonably good condition. However, many of these sites contained threats such as the presence of invasive weeds, pressure from feral and domestic animals, and high risk of sediment and nutrient input from surrounding land.

Council is still building the picture of the state of freshwater wetlands in Hawke's Bay. When the monitoring is rolled out to cover the region, there will be more monitored wetlands with different management regimes including those that are unmanaged. That is when council will have the hard data to describe and predict the fate of many of our wetlands.

Council Work Programmes

Many relevant work programmes have already been discussed in this report, they include:

- Implementation of farm environmental management plans.
- The One Billion Trees project and Erosion Control Scheme.
- Development of an East Coast Riparian Planting Guide.
- New RRMP freshwater provisions and the TANK Plan Change.

Other Information

The policies, environmental guidelines, rules and monitoring indicators for this section of the Plan will need reviewing, to be consistent with new RRMP freshwater provisions.

Outcomes

The SOE information indicates that the outcomes sought for this chapter of the Plan have not been met.

Surface Water Quality Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
9.1 Surface water bodies suitable for sustaining aquatic ecosystems	<ol style="list-style-type: none"> 1. Temperature not changed by more than 3 degrees Celsius, nor raised above 25 degrees Celsius 2. Dissolved oxygen not exceeding guideline values 3. Ammoniacal nitrogen levels not exceeding guideline values 4. Soluble reactive phosphorus values not exceeding guideline values 5. No loss of fish species or indigenous invertebrates 6. Clarity in areas used for contact recreation not exceeding guideline values 7. Faecal coliform concentrations not exceeding guideline values 8. Suspended solid concentrations not exceeding guideline values 9. Enhancement of degraded aquatic habitats 10. Fewer occurrences of algal growth to prevent effects on amenity, cultural values, macroinvertebrates and fish species 	<p>Council water quality monitoring programme</p> <p>Annual SOE monitoring and reporting</p>	No

4.2.3 Surface Water Quantity

There is no issue statement.

Objectives and Policies

Objective 10.1 is the maintenance of the water quantity of specific rivers in order that the existing aquatic ecosystems are sustained.

There are 6 policies, ranging from establishing a minimum flow to water allocation. Policy 10.7A was inserted in accordance with the direction stated in Policy B7 of the NPS-FM 2014.

Consents

There have only been four surface water take consents issued under the Plan between 2014-2019.

MONITORING (INDICATORS)

AER 10.1 Indicator – River flow Measurement

Annual SOE Monitoring 2014-2015:

- Annual mean river flows for the 2014 calendar year were mostly within the normal range of flow. There were only two sites with annual mean flows outside the normal range - the Esk River at Berry Road was 27% above the long-term mean and the Irongate Stream at Clarkes Weir was 30% below.
- During 2015, annual mean river flows were either close to or below the long-term mean. The mean flow in the Irongate Stream at Clarkes Weir showed the greatest deviation from the long-term mean (-47%). Annual mean flows were below the normal range at three other sites: Wairoa River at Marumaru (-26%), Hangaroa River at Doneraille Park (-30%) and Tukituki River at Red Bridge (-29%).

Annual SOE Report Cards 2016 & 2017:

- Both annual reports recorded that annual average river flows were either close to or below the long-term average (Note: 'Report cards' provide information at a high level only, with no data provided).

There was no report card for River Flow in 2018. The SOE 2014–2018 report did not include River Flow monitoring results.

AER 10.2 Indicator – Physical and Biological Parameters

Annual SOE Monitoring 2014-2015

- Only 1 out of 71 sites failed to comply with the National Bottom Lines (for E. coli) in 2015. Throughout 2014 - 2015, most sites were good or excellent for E. coli, and all sites were 'good' or 'excellent' for ammonia and nitrate toxicity.
- 40% of sites have nutrient levels that would encourage nuisance algal growth. Macroinvertebrate community index MCI was moderate to excellent at most river sites.
- Water clarity at most sites was suitable for ecology and recreation most of the year.
- Phormidium is most abundant in the Tukituki River, and HBRC monitors from spring to autumn here. There were very low levels of phormidium in the lower Tukituki in 2014 and 2015, but

the Upper Tukituki near Walker Road and the Tamumu Bridge had concerning levels of phormidium.

- Maximum water temperatures were more than 24°C at 8 sites. Some fish and invertebrates like stoneflies, mayflies and caddisflies get stressed above 18-20°C. Temperatures above 24°C are considered detrimental to ecosystem health.

SOE Report Card 2016:

- Council monitored 70 sites across Hawke's Bay.
- 99% of monitoring sites met the national standard for E. coli.
- 40% of sites suffered excessive algal growth. SOE Report Card 2017:
- Council monitored 69 sites across Hawke's Bay.
- Clarity at 59% of sites was poor, reflecting erosion problems across the region.
- Health warnings were issued for 4 Tukituki River monitoring sites during 2016-2017.
- 99% of monitoring sites met the national standard for E. coli.
- 40% of sites suffered excessive algal growth. 2014–2018 5-yr SOE Summary report:
- Council monitored 77 river sites across Hawke's Bay.
- Some rivers have nutrients at levels above the limits for ecological wellbeing. Land use activities in some areas need to be managed to reduce the discharge of nutrients.
- There were a low proportion of sites scoring 'good' or 'excellent' for four key indicators: nitrogen, phosphorus, water clarity and faecal contamination (E. coli). There was some evidence that nitrogen has improved, but the other three variables showed little change.
- The water temperature in the Karamū catchment is too high and the stream channels are choked with weeds.
- The Tukituki River Catchment Plan Change 6 sets a dissolved inorganic nitrogen (DIN) target of 0.8 milligrams per litre for rivers and streams in the catchment. It is likely that seven out of 17 subcatchments within this area will breach this target.

AER 10.3 Cultural Impact assessments and Cultural Health Index monitoring

Such reports were reviewed and/or developed during the OWB, Plan Change 6 and TANK plan changes. Given many issues are still being deliberated in Council, it is not considered appropriate to review these documents again for this report. Fundamentally, iwi are not happy with current minimum flow levels and freshwater allocation volumes in the region.

Council Work Programmes

Many work programmes have already been discussed in this report, relevant programmes for this section include:

- Implementation of farm environmental management plans.
- The One Billion Trees project and Erosion Control Scheme.
- Development of an East Coast Riparian Planting Guide.

Council has also undertaken various surface water quantity modelling scenarios to explore the potential effects of different management options, as part of the TANK plan change.

Other Information

One of the key issues being addressed in the TANK plan change is how water allocation and abstraction from surface water and groundwater are managed, including how much water is allocated for abstraction and when/what restrictions may apply to abstractions. Council has undertaken various surface water quantity modelling scenarios to explore the potential effects of different management options.

As a result of this modelling, new high flow allocation limits have been proposed for the TANK catchments.

Outcomes

River flows for 2014-2017 were mostly within the normal range of flow, so AER 10.1 has been achieved. SOE monitoring shows that AER 10.2 has not been achieved. The outcome for AER 10.3 is unknown.

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
10.1 The Minimum Flow is established and maintained at levels that provide for the sustaining of aquatic ecosystems and natural character in Hawke's Bay rivers	Measurement of river flow at minimum flow sites	Minimum flow monitoring and analysis	Yes
10.2 The maintenance of surface water quantity (other than by natural events) at a level which sustains the aquatic ecosystems in the relevant surface water bodies	Physical and biological parameters	Council SOE monitoring	No
10.3 Restoration and enhancement of mauri	Physical, biological and cultural parameters	Cultural Impact assessments where available Cultural Health Index monitoring	Unknown

4.2.4 Groundwater Quality

There is no issue statement.

Objectives and Policies

There are two Objectives for Groundwater Quality:

- 11.1 No degradation of existing groundwater quality in aquifers in the Heretaunga Plains aquifer system.
- 11.2 The maintenance or enhancement of groundwater quality in unconfined or semi-confined productive aquifers in order that it is suitable for human consumption and irrigation without treatment, or after treatment where this is necessary because of the natural water quality.

There are three policies to achieve the objectives. Policy 11.1 is to manage the effects of activities affecting the quality of groundwater, with environmental guidelines. Policy 11.2 sets out how to implement the environmental guidelines. Policy 11.3 was inserted in accordance with the direction stated in Policy A4 of the NPS-FM 2014.

Monitoring (Indicators)

AER 11.1, 11.2 & 11.3 Indicators – Nitrate Levels; Pesticides & Herbicides; Faecal Coliform Concentrations

The 2017 'SOE Report for Groundwater Quality & Ecology: Aquifers' summarises monitoring from the 2014-15 period. This monitoring period found:

- 61% of groundwater monitoring sites in the region had low (<1 mg/L) levels of nitrate-N. Only 12% of monitored sites had levels that were between 50% and 100% of the maximum acceptable levels (MAV) (i.e. between 5.65 and 11.3 mg/L) for nitrate-N. None of the monitored sites exceeded the MAV of 11.3 mg/L.
- In Hawke's Bay aquifer systems, 82% of sites monitored during 2014 and 2015 had no detections of E. coli from the quarterly sampling programme. Monitoring bore sites that had E. coli detected were all less than 22 metres in depth and sites less than 10 metres in depth had the highest number of detections.
- 14% of monitoring sites exceeded the MAV for manganese of 0.4 mg/L. In the same period, 53% of sites exceeded the aesthetic guideline value for manganese and 27% of sites exceeded the aesthetic guideline value for iron.
- Total hardness is an indicator of calcium and magnesium salts dissolved in water. 21% of sites had total hardness levels that complied with the DWSNZ guidelines, while 65% of sites had total hardness values that pose a corrosion risk. 14% of sites have hardness that exceeds the guideline value.

SOE 2014-2018 Summary Report:

- Groundwater quality is generally good. There are issues with nutrients in some parts of the region and elevated levels from natural sources in some aquifers.
- Over the last five years, drinking water standards were exceeded for Escherichia coli (E. coli) at 23 wells, nitrate at one well, manganese at 14 wells and arsenic at three wells. For iron, manganese and arsenic, these levels are considered to be natural background and not from a

contamination source.

- Some parts of Hawke's Bay have groundwater with elevated natural concentrations of chloride, sodium, manganese, iron and hardness.

Council Work Programmes

In 2018 the Council carried out a pesticide survey on shallow wells located in intensive land use areas of the Heretaunga and Ruataniwha Plains. The results found no traces of pesticide at levels detectable by analytical laboratory equipment.

In some locations further investigations are planned or underway to inform management options to address the effects of climate variability, abstraction or land use activities.

During summer 2020 the council will be undertaking an airborne electromagnetic survey, known as SkyTEM, throughout the major aquifer systems. This survey will provide rich, detailed information of entire aquifer systems that has never been available before. This will enable council to manage the groundwater resources more effectively.

Other Information

As discussed in the surface water quantity section, one of the key issues being addressed in the TANK plan change is how water allocation and abstraction from surface water and groundwater are managed. Allocations for each aquifer system are used to limit the total abstraction and manage effects on other groundwater users and the environment.

Along with monitoring, the Council is continually developing computer models of major aquifer systems. These models identify issues and then test various management options for the community and decision makers to consider.

As well as revised allocation limits, it is expected that a suite of new planning provisions will be adopted by Council through the TANK Plan change. As a result, the policies, environmental guidelines and rules for this section of the Plan will also need reviewing, to be consistent with the RRMP requirements.

Outcomes

While groundwater quality is generally good, there are still issues with nutrients in some part of the region and water standards were exceeded for E.coli at 23 wells.

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
11.1 No degradation of existing groundwater quality in confined productive aquifers	Nitrate levels Pesticides and herbicides Faecal coliform concentrations not exceeding values in Schedule D	Ministry of Health Council SOE monitoring	Yes (in part)
11.2 Groundwater quality in productive aquifers which meets the 'Drinking Water Quality Standards for New Zealand' (MoH, 2005)	Nitrate levels Pesticides and herbicides Faecal coliform concentrations not exceeding values in Schedule D	Ministry of Health Council SOE monitoring	Yes (in Part)
11.3 Groundwater quality in productive aquifers which meets irrigation guidelines contained in the 'Guidelines for Fresh and Marine Water Quality 2000' (ANZECC, 2000)	Nitrate levels Pesticides and herbicides Faecal coliform concentrations not exceeding values in Schedule D	Ministry of Health Council SOE monitoring	Yes

4.2.5 Groundwater Quantity

There is no issue statement.

Objectives and Policies

Objective 12.1 is the maintenance of a sustainable groundwater resource.

There are 7 policies to achieve this objective. They range from managing takes of groundwater to allocating groundwater for irrigation purposes. Policy 12.6 sets out the environmental guidelines for consent applications.

Policy 12.7A was inserted in accordance with the direction stated in Policy B7 of the NPS-FM 2014.

Monitoring (Indicators)

AERs Indicators - water level trends and flow or level data

The following SOE monitoring data relates to all three AERs for this chapter of the Plan. SOE 2014-2018 Summary: Groundwater Quantity

- There are currently 2,400 water consents operating in Hawke's Bay and approximately 83 per

cent of these are for groundwater.

- There are more than 100 wells across aquifer systems to monitor short and long-term changes in groundwater levels and quality.
- Changes in groundwater levels manifest slowly. In many areas, long-term changes are masked by natural variations between seasons. The most persistent changes noted are declining water levels in parts of the Heretaunga and Ruataniwha Plains. This follows previously identified changes in patterns and trends.
- Many groundwater level declines are associated with groundwater pumping in response to demand: mostly for irrigation, industrial use and town supplies.
- Declines are more pronounced during summer and show a small but marked recovery during April, and into autumn and winter as the peak demand period tapers off.
- General seasonal declines in groundwater have also been found, correlating with an increased demand for groundwater over summer.

For AER 12.3 also see SOE reporting for surface water monitoring.

Other Information

To address environmental impacts caused by groundwater pumping, council is continuing to develop computer models to simulate the effects of pumping and potential management options. As a result of this modelling, new policy and rules governing water allocation will be implemented by Council. See also previous comments about the TANK plan change.

Outcomes

The AERs are been achieved except for low flow levels in summer.

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
12.1 Avoid any significant adverse effects of water takes on the long term quantity of groundwater in the regions aquifers	Water level trends	Council SOE monitoring	Yes / No for summer
12.2 The availability of groundwater for use without it being taken at a rate that depletes the resource beyond a sustainable level	Water level trends	Council SOE monitoring	Yes / No In summer
12.3 Avoid or remedy significant adverse effects of groundwater takes on rivers, lakes, springs and ecologically significant wetlands	Flow or level data	Council surface water monitoring programme	Yes

4.2.6 Beds of Rivers and Lakes

Four of the AERs in this section of the Plan are identical to those contained in the RRMP. The findings from the 2018 RRMP Effectiveness Review are included below.

Objectives and Policies

Objective 13.1 is the maintenance or enhancement of the natural and physical resources, and use and values, of the beds of rivers and lakes within the Region as a whole.

There are three policies. Policy 13.1 sets out the environmental guidelines for the management of activities affecting river beds and lake beds. Policy 13.2 establishes that the environmental guidelines will be used to guide regulation.

Policy 12.7A was inserted in accordance with the direction stated in Policy B7 of the NPS-FM 2014.

Monitoring (AER Indicators)

AER 13.1 Indicator – Abundance of fish in selected locations

No data could be found for this indicator. It would be helpful if the AER specified key locations.

For AER 13.2, see previous comments regarding natural flow regimes for rivers.

For AERs 13.3 – 13.7, the 2018 RRMP Review analysed compliance data for identical AERs contained in the RRMP. This review noted:

“The assessment of whether the AERs and associated indicators are being achieved for section 5.8 Beds of Rivers and Lakes is dependent on the advice received from the Assets Team. The advice from this team was brief as is recorded below, albeit decisive that the AERs are being met.”

In relation to AER 13.3 Indicator: Destabilisation of existing structures or activities, the RRMP Review reported that:

“The indicator only covers the ‘structures’ component of the AER and not the activities. Regardless of this they advise that they consider that the AER is being met.”

In relation to AER 13.4 Indicator: River bed cross section profiles, the RRMP Review reported that:

“There is some conflict with the AER as in some cases there is a reduction in channel capacity owing to the difficulty in getting gravel removed. Overall however they advise that the AER is being met.”

In relation to AER 13.5 Indicator: Reports of damage from river control works, the 2018 RRMP review reported that:

“The only comment from the Assets Team is that overall this AER is being met.”

In relation to AER 13.6 Indicator: As far as practicable the bed is restored to at least its state prior to activity occurring, the 2018 RRMP review reported that:

“Again, the only comment from the Assets Team is that overall this AER is being met.”

Outcomes

When reviewing identical AERs in the RRMP, the 2018 RRMP Review reported that the Council's Assets Team is comfortable that the AERs are being achieved, but suggested that the wording of the AERs and associated indicators could be improved.

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
13.1 Fish passage and spawning are able to continue despite the erection or use of a structure or bed disturbance	Abundance of fish in selected locations	Department of Conservation, Fish and Game, HBRC, tangata whenua	Unknown
13.2 Avoidance, remedy or mitigation of adverse effects on natural flow regimes	Natural flow regimes	Flow monitoring programme	Unknown
13.3 No significant adverse effects on existing structures or activities within the bed of a river or lake	Destabilisation of existing structures or activities	Compliance monitoring	Yes
13.4 No reduction in ability of channels to convey flood flows	River bed cross section profiles	Asset Management Plans and flow monitoring	Yes
13.5 No damage to property by works in river beds, without owners' consent	Reports of damage from river control works	Occasional event reports	Yes
13.6 Restoration of river or lake bed following temporary activity	As far as practicable the bed is restored to at least its state prior to activity occurring	Compliance monitoring	Yes
13.7 Aquatic habitat is maintained at a sustainable level	<ol style="list-style-type: none"> 1. Temperature not changed by more than 3 C nor raised above 25 C 2. Dissolved oxygen not exceeding guideline values 3. Ammoniacal nitrogen levels not exceeding guideline values 	Council water quality monitoring programme, and tangata whenua monitoring programmes where available	No (see monitoring info for surface water and ground water quantity and quality)

	<p>4. Soluble reactive phosphorous values not exceeding guideline values</p> <p>5. No loss of fish species or indigenous invertebrate diversity & abundance</p> <p>6. Clarity in areas for contact recreation not exceeding guideline values</p> <p>7. Faecal coliform concentrations not exceeding guideline values</p> <p>8. Suspended solid concentrations not exceeding guideline values</p> <p>9. Sediment contaminants no adverse effects on sedimentary fauna or aquatic ecosystems</p>		
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4.2.7 Air Quality

The provisions in this chapter apply only within the Coastal Margin between mean high water springs and the Coastal Environment Inland Boundary identified on the Planning Maps.

The AERs in this section of the Plan are identical to those contained in the RRMP. Therefore, the 2018 RRMP Review findings are also relevant.

Objectives and Policies

There are four objectives for this chapter of the Plan, to either maintain or enhance ambient air quality or improve air quality.

There are two policies. Policy 14.1 sets out the environmental guidelines for the management of activities air quality. Policy 14.2 establishes that, unlike the guidelines for land (which will largely be used in a non-regulatory manner), the environmental guidelines for air quality have been used to guide regulation as the principal means of meeting air quality objectives.

Consents

Over the life of the Plan there have only been two permits for discharge to air, both temporary consents. One was to burn slash from a pine forest, the other was aerial spraying of herbicide in a wetland reserve area.

Monitoring (Indicators & Compliance)

Assessment of annual compliance reports shows there are frequently compliance issues with air discharges.

From 1 July 2016 to 30 June 2017, 915 complaints were received. The largest majority of those related to air discharge complaints with the bulk of those related to burning. There were three prosecutions against individuals for substantial burning of prohibited items.

From 1 July 2017 to 30 June 2018 there were 1095 pollution calls. 64% of these were air discharge related, with the bulk of those related to burning

No data was available for 2015 or 2019.

The 2018 RRMP Effectiveness Review also analysed compliance data for identical AERs contained in the RRMP. In relation to AER 14.1, this report found:

“There has been an upward trend in the total number of complaints received in relation to objectionable odour on a per annum basis. The Council Compliance Team have however advised that the high number of complaints between 2014 to the present however are attributed primarily to 4 specific odour sources within the region. Be that as it may, the AER is not being achieved as objectionable odour complaints continue to be received at an increasing rate in total numbers.

The Compliance Team specifically noted, in reference to this AER, that a better measurement would be to record any change in the number of locations (sites) being complained about, rather than the total number of complaints (or reported incidents). This is because there are primarily only four odour sources that are regularly reported for odour issues.”

In relation to AER 14.2, this report found:

“The indicator for this AER includes reference to spray drift and other contaminants, there has been a general downward trend in the number of complaints received about this issue.

The indicator for this AER also refers to other contaminants. The complaints data provided by the compliance team includes categories for both ‘Non Agri-Chemical Spray Drift’ and ‘Fumes / Vapour’. Both of these categories are relevant to this AER.

The number of complaints in the Non Agri-Chemical Spray Drift category has been negligible on a per annum basis, with no complaints received in some years and single figure numbers in years where complaints have been received.

The Fumes / Vapour category has had a general downward trend in the number of complaints received per annum from the 25 received in 2004 through to 12 in 2016. The number of complaints received under this category is relatively insignificant compared to the ‘Odour’ and ‘Smoke’ categories.

The Compliance Team made the same comments regarding this AER as for the Odour category in regard to the need to measure the number of complaint locations rather than just the number of complaints.

In summary, based on the complaints data it can be concluded that there have been improvements in the achievement of this AER, although as the AER is expressed in an absolute value it is not being met.”

In relation to AER 14.3, this report found:

“Although complaints data has been collected in a raw form on complaints about ‘Smoke’ and ‘Dust’ it is not known whether any of these related to reduced visibility or traffic safety. The Compliance Team has advised that they do not collect such information. The achievement of this AER is therefore unknown.”

In relation to AER 14.4, this report found:

“The indicator for this AER is very specific in seeking to measure incidences of the exceedance of the dust deposition guideline value of 4g/m² per 30 days as set out in Policy 69 of section 5.3 of the RRMP. The Compliance Team has advised that they do not collect such information. The achievement of this AER is therefore unknown.

General complaints data has however been collected for a ‘Dust / Particulate’ category. There has been an overall reduction in the number of complaints per annum in this category from the 64 in 2004 and 42 in 2005 down to 34 and 33 for 2015 and 2016 respectively.”

In relation to AER 14.5, this report found:

“As stated above there is a ‘Dust / Particulate’ category for air quality complaints received which has shown an overall reduction in the number of complaints received per annum since 2004. There is however no specific data available on complaints regarding particulate deposition. The achievement of this AER is therefore unknown.”

The SOE 2014-2018 key findings for air quality:

- Napier did not breach NESAQ in the five years to 2018, meaning it achieved unpolluted status.
- Hastings did not breach NESAQ during 2017 and 2018.
- Awatoto breached twice in the six years to 2018. Overall, this indicates improved air quality. Much of this positive result is due to an upsurge in Hawke’s Bay homes transitioning to clean heating, resulting in an estimated reduction of more than 60 per cent in anthropogenic particulate emissions between 2005 and 2015.
- While the PM10 results are good, the council is shifting focus to ultrafine PM2.5 particle concentrations. To meet the target of complying with WHO guidelines by 2025, there will need to be a reduction of PM2.5 in Napier and Hastings.

Other Information

The council has been monitoring air quality across Napier and Hastings since 2005, and Awatoto since 2012. It monitors for the National Environmental Standards for Air Quality (NESAQ) that were first set in 2004. These standards include limits on fine particulates less than 10 micrometres in diameter, known as PM10, and four pollutant gases: carbon monoxide, nitrogen dioxide, ozone and sulphur dioxide.

As stated in the SOE 2014-2018 summary report, the council is shifting focus to ultrafine PM2.5 particle concentrations. Monitoring of PM2.5 started in 2016, so there is limited data to date.

Outcomes

3 outcomes are unknown due to the Compliance Team not collecting this information. Objectionable odour complaints have risen over the last 5-years. There is a decreasing trend of complaints about spray drift.

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
14.1 No offensive or objectionable odour beyond the boundary of any subject property	Number, nature and type of resource consent, and reported incidents of odour	Compliance monitoring Incident monitoring	No
14.2 No noxious or dangerous gases or airborne liquid or other airborne contaminants beyond the boundary of any subject property	Number, nature, type and location of resource consent, and reported incidents of spray drift and other contaminants	Compliance monitoring Incident monitoring	No, but there is a trend of decreasing complaints.
14.3 Reduction in number of incidents where smoke, water vapour or other contaminants reduce visibility or affect traffic safety	Visibility monitoring	5 yearly monitoring for input into State of the Environment Report Incident monitoring	Unknown
14.4 Reduction in occurrences of dust deposition which do not comply with guidelines beyond subject property boundary	Dust deposition should comply with the guidelines value of 4g/m ² per 30 days	Annual State of the Environment update reporting Incident monitoring	Unknown
14.5 Reduction in occurrences of objectionable deposition of particulate matter beyond subject property boundary	The accumulation of particulate matter	Annual State of the Environment update reporting Incident monitoring	Unknown
14.6 Ambient Air Quality	NO ₂ , SO ₂ , and CO	Four yearly monitoring	Yes
14.7 By 1 September 2020 the	PM ₁₀	Compliance	Yes, council is

concentration of PM10 in any airshed is not exceeding 50µg/m3 (24 hour average), more than once in any year		monitoring in accordance with Resource Management (National Environmental Standards for Air Quality) Regulations 2004	shifting focus to ultrafine PM2.5 particle concentrations.
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4.2.8 Coastal Hazards

There is no issue statement for this chapter.

Objectives and Policies

There are three objectives for this chapter of the Plan. These include:

- 15.1 Risks posed by coastal hazards to people and property are avoided or mitigated.
- 15.2 The avoidance of new and further inappropriate development in areas identified as being currently at risk of coastal erosion or inundation (ie: those areas within Coastal Hazard Zone 1).
- 15.3 The avoidance of new and further inappropriate development in areas identified as being at risk of coastal erosion or inundation during the next 100 years (ie: those areas within Coastal Hazard Zone 2 or Coastal Hazard Zone 3), taking into account the risk associated with global sea level rise and the level of protection afforded by natural coastal features and lawfully established coastal protection structures.

There are 2 policies to implement these objectives. Policy 15.1 is to manage coastal erosion and inundation risks in accordance with environmental guidelines. Policy 15.2 sets out how the guidelines will be implemented.

Rules and Consents

There are 21 rules to implement the objectives of this chapter. 13 Rules relate to land use activities in coastal hazard zones, 8 Rules apply to deposition and removal of material in coastal hazard zones.

Since November 2014 there have been 23 consents granted for land use activities in Coastal Hazard 1 (CHZ1) and Coastal Hazard Zone 2 (CHZ2).

Land use activity consents in CHZ1 include coastal protection structures, a cycleway, construction of a deck, and alteration and addition to an existing dwelling.

Land use activity consents in CHZ2 include new decks, 14 new homes and a new addition to an existing dwelling.

Feedback from consent officers is that the objectives for this chapter of the Plan are not being met. Please see section 3.3 of this report for comments.

Monitoring

AER 15.1 and 15.2 Indicator - Coastal Profile Monitoring

Annual beach profile monitoring was completed in December 2017. Analysis of data was planned to occur in the later part of that year, however this was not completed due to other commitments. The analysis and report is supposed to be completed by the end of 2019.

Compliance monitoring

There was no compliance information regarding coastal protection structures.

Incident reports

There have been numerous complaints to Council and HDC regarding storm surge inundation at Haumoana.

NZCPS Gap Analysis

The 2014 Gap Analysis assessed this chapter of the Plan against the requirements of NZCPS Policies 24 to 27. It concluded:

- The Plan only partly gives effect to NZCPS Policy 24 and Policy 25, as provisions do not appear to deal with the risks of tsunami.
- The RCEP gives effect to NZCPS Policy 26.
- NZCPS Policy 27(1)(b) (compared to the do nothing option) does not appear to be addressed by the Plan.
- RCEP Policy 15-1 Guideline 13 probably gives effect to NZCPS Policy 27(2)(c), but the Plan provisions could be amended to specifically refer to likely costs and benefits. RCEP Policy 15-1 Guideline 10(a)(iii) gives effect to NZCPS Policy 27(3).
- It does not appear that the RCEP gives effect to NZCPS Policy 27(4). Suggested amendments include:
 - Confirm that the Plan's various coastal hazard zones have been developed to reflect all of the NZCPS Policy 24 criteria.
 - Ensure that the Plan's provisions provide an appropriate management framework for avoiding or mitigating the risks from tsunami.
 - Amend the Plan provisions to require the consideration of a 'do nothing option' when making decisions in relation to coastal hazards (NZCPS Policy 27(1)(b)) or reference any underpinning Section 32 analysis of that option, refer explicitly to costs and benefits in RCEP Policy 15.1 Guideline 13, and include policy on not locating hard protection structures on public land where those structures protect private assets.

Other Information

See the Emerging Issues section of this report for discussion about national guidance for climate change.

The Clifton to Tangoio Coastal Hazards Strategy provides the most up-to-date coastal erosion and shoreline monitoring data. This information can be used in the wider 10-year review of the Plan.

Work-streams for the Strategy include triggers and signals development and regulatory review. Both of these work-streams will assist with future coastal hazard planning and a new regulatory framework that is more up-to-date with IPCC sea level rise scenarios and national guidance.

The regulatory work-stream may also recommend that changes be made to the Plan, district plans, and the RPS to help prevent any further development in coastal areas at risk from natural hazards.

Outcomes

The policies and objectives set out to avoid use and development in CHZ1 and inappropriate development in CHZ2 and CHZ3, according to consent officers this has not been achieved.

The AER indicators also do not provide an accurate measure of whether the objectives have been achieved.

Anticipated Environmental Results for Coastal Hazards

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
15.1 Avoidance and mitigation of the risk to property and other values from the effects of natural coastal hazards, in particular storm erosion and storm surge inundation.	Position of shoreline and upper beach crest Volumetric change in beach profile	HBRC Coastal Profile Monitoring Compliance monitoring Incident reports	Unknown / No for storm surge inundation
15.2 Coastal protection structures are only constructed where such structures will not exacerbate the coastal hazard and where potential adverse effects on public and private land, amenity values, ecosystems and natural coastal processes can be avoided, remedied or mitigated.	Position of shoreline and upper beach crest Volumetric change in beach profile Number of incident reports / complaints received Physical and biological parameters	HBRC Coastal Profile Monitoring Compliance monitoring Incident reports	Yes

4.3 Part D: Use and Development: Coastal Marine Area

4.3.1 Discharge of Contaminants into CMA

The issue statement for this chapter of the Plan is:

The coastal marine area, dune systems, estuaries wetlands and rivermouths, their ecosystems, their mauri and their potential recreational use are being affected by the dumping and discharging of contaminants directly or indirectly into coastal waters.

Objectives and Policies

There are four objectives for this chapter, covering maintenance or enhancement of water quality, avoidance, remediation or mitigation of the adverse effects of activities, and safeguarding the life supporting capacity of water in the CMA.

There are three policies to support these Objectives. Policy 16.1 is to manage discharges of contaminants in the CMA in accordance with environmental guidelines. Policy 16.2 sets out how council will implement the environmental guidelines. Policy 16.3 includes matters to be taken into account when considering new or renewed discharge permits.

Consents

See earlier case study on local government and industry consents to discharge contaminants into the CMA.

MONITORING

The below information is taken from annual SOE reports and the 5-year SOE 2014-2018 summary report. Where relevant information was not available annual report cards have been used. The report cards only give information at a high level and unfortunately do not provide any specific data for monitoring.

Recreational Water Quality

The Recreational Water Quality Monitoring programme is an annual summer programme undertaken by Council in conjunction with the Public Health Unit of the Hawke's Bay District Health Board and Territorial Local Authorities. Between December and March these sites are monitored weekly and the results are displayed on the Council's website as well as on the Land Air Water Aotearoa (LAWA) website.

Water samples collected at sites are analysed on a weekly basis for faecal indicator (Enterococci and/or Escherichia coli) contamination. The results are compared with the MfE and Ministry of Health (MoH) Microbiological Water Quality Guidelines (2003).

The council also undertakes water quality monitoring at locations favoured for shellfish gathering, as part of the Recreational Water Quality programme.

The below information is taken from the 5-year SOE 2014-2018 summary report: Trends for Recreational Water Quality 2014-2018

- Over the last five years of monitoring the region's marine sites, beaches have been suitable for swimming 98 per cent of the time.
- For estuary and lagoon sites, conditions are lower but still good, with swimming suitable for 81 per cent of the time.
- Overall, recreational water quality is good. When it comes to lagoons and estuaries, many of these areas are important wildlife reserves and bird faeces is a factor.
- Recreational water quality in Pōrangahau estuary has significantly decreased between 2001 to 2017, with increasing levels of bacteria associated with faeces, and is currently graded as Very Poor for contact recreation. During the 2018-2019 recreational season the estuary has exceeded guideline values 12 times.

Nearshore Coastal Water Quality Monitoring Programme

Nearshore coastal water quality is monitored every six weeks at 14 sites along the coast. In general, Hawke Bay coastal waters have similar nutrient and sediment profiles to those observed elsewhere throughout NZ.

The below information is taken from the 5-year SOE 2014-2018 summary report: Trends for Nearshore Coastal Water Quality 2014-2018:

- At times, large algal blooms can occur that use the nutrients from both the oceanic and landbased sources. When these die off they can cause oxygen levels to decline in the coastal waters.
- Estuaries have quite varied nutrient levels depending on their catchment and origin.
- Ahuriri Estuary has high levels of phosphorus coming into the waterways. More work needs to be done to determine whether this is natural for this catchment, based on its history as a coastal lagoon.
- Nitrogen levels are relatively high in the Mohaka, Waitangi and Tukituki catchments, more work needs to be undertaken to identify whether this is resulting in ecological effects.
- There is improved understanding of the nutrient regime in different estuaries, as well as wider Hawke Bay coastal waters. Work is ongoing to understand whether the nutrients delivered to Hawke's Bay estuaries are impacting the ecology of the estuary.

Trends for Sediment Quality Monitoring 2014-2018:

- Estuary monitoring suggests moderate to severe sediment stress in our estuaries, which is getting worse in some areas.
- Estuary contaminant concentrations in the region's estuaries are generally acceptable, but pollutants in some areas of the Ahuriri estuary may be negatively impacting plants and animals.
- Concentrations of contaminants in the Napier Inner Harbour, the downstream end of the Ahuriri estuary, have frequently exceeded ANZECC guidelines. The results indicate a risk of ecological damage from heavy metals like copper, lead and zinc, and compounds like Tributyltin, which are associated with antifouling paints on boats.
- Pesticides like DDT and hydrocarbons associated with stormwater runoff from roads were also detected.
- Copper, which is a common ingredient of antifouling paint, was elevated at sites associated with boat maintenance activities.

Trends for Estuary Monitoring 2014-2018

- The Ahuriri, Waitangi and Wairoa Estuaries all show signs of sediment stress.
- In the Ahuriri, areas at the top of the estuary and adjacent to stormwater inputs show levels of sediment that prohibit some sensitive species from thriving.

Council Work Programmes

As discussed previously in this report, the council has a number of work programmes that will see improvements in both freshwater and coastal water quality. These include:

- The Ahuriri environmental hotspot project.
- The Marine Hotspot programme - habitat mapping of the Wairoa Hard and the Clive Hard.

- Fencing of almost 3km of the Porangahau Estuary to protect sensitive seagrass beds.
- Tracing the sources of faecal contamination in waterways and working within the catchment to reduce these e.g. fencing and planting waterways within the catchment to reduce stock access.
- In 2017 a Waikato University Masters student mapped the biogenic habitats of the Tukituki, Waitangi and Ahuriri estuaries, creating maps that detail the species found in the estuaries.

During 2018/19 summer the council deployed the NIWA glider 'Betty' to run a 4 week voyage of the Hawke Bay area. Betty collected data on dissolved oxygen, salinity, temperature, light, and CDOM. This is the first oceanographic study of Hawke Bay since the 1970s. The council has also trialled the NIWA ColiMinder machine for Pandora Pond.

So far scientists have analysed more than 500 individual samples and are currently working with the data collected.

NZCPS Gap Analysis

The NZCPS Gap Analysis assessed this chapter of the Plan against NZCPS Policy 23. The assessment concluded:

- The Plan appears to be silent on the sensitivity of the receiving environment. That term is only mentioned in Rule 5.
- The Plan does not appear to give effect to NZCPS Policy 23(1)(b) in relation to groundwater.
- The Plan includes a definition of the phrase 'after reasonable mixing'. However, the definition does not appear to be relevant to coastal water. The Plan is otherwise silent on achieving the 'smallest mixing zone necessary'.
- The Plan appears to be silent on the matters covered by NZCPS Policy 23(5) (managing discharges from ports and other marine facilities).

Suggested Amendments:

- Additional Plan provisions are required in relation to the sensitivity of the receiving environment, achieving 'the smallest mixing zone necessary', managing stormwater and managing discharges from ports and other marine facilities.
- The Plan also requires further provisions to give effect to NZCPS Policy 23(1) in relation to groundwater.

Other Information

The SOE monitoring indicates that the AERs have not been achieved. Given there are very limited permitted activities within the CMA that could be impacting water quality, and a low number of resource consents to discharge into the CMA, it is considered that the provisions within the Plan may be performing well, however, land use activities occurring in inland catchments are impacting coastal water quality which makes the performance of the Plan methods difficult to assess.

The TANK plan change has proposed water quality guidelines for estuary systems, as targets for future state. Reductions in sediments and nutrients are a major target for Council.

Outcomes

Overall Hawke’s Bay waters rate good for recreational water quality. Sediment monitoring shows that coastal waters are not being maintained and enhanced for sustaining aquatic ecosystems. Monitoring also shows that residue from boat maintenance operations is still entering the CMA.

Anticipated Environmental Results for Discharge Of Contaminants Into CMA

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
Coastal water Class AE maintained and enhanced where practicable for sustaining aquatic ecosystems	Indicator levels not exceeding values in Schedule E	HBRC Nearshore Coastal Water Quality Monitoring Programme HBRC Recreational Water Quality Monitoring Programme Compliance monitoring	No
Coastal Water Class CR maintained and enhanced where practicable for contact recreation purposes	Indicator levels not exceeding values in Schedule E	HBRC Recreational Water Quality Monitoring Programme Compliance monitoring	Yes
No discharge of human sewage to the coastal marine area that has not passed through land unless it meets the requirements of Policy 16.1(3).	Indicator levels not exceeding values in Schedule E Resource consent condition compliance	HBRC Nearshore Coastal Water Quality Monitoring Programme HBRC Recreational Water Quality Monitoring Programme Compliance monitoring	No -in terms of compliance
Avoidance of residue from boat maintenance operations entering the coastal marine area.	Indicator levels not exceeding values in Schedule E. Contaminant levels not exceeding national guideline values.	Sediment quality monitoring Compliance monitoring	No

4.3.2 Disturbances, Depositions and Extractions in CMA

The issue statement for this chapter of the Plan is:

The coastal marine area, particularly its habitats, ecosystems, natural coastal processes, amenity values, historic heritage and natural character can be adversely affected by foreshore and seabed disturbance, deposition and extraction. However, in some instances, dredging and spoil disposal is necessary for mitigation of coastal hazards, the maintenance of existing waterway channels, and to enhance ecosystems, natural character and recreational opportunities of some coastal lagoons and estuaries.

Objectives and Policies

There are three objectives for this chapter of the plan. The objectives aim to avoid, remedy or mitigate adverse effects from activities such as livestock, motor vehicles, dredging, drilling, and deposition of substances within the CMA.

Policy 17.1 includes environmental guidelines for disturbances, depositions and extractions in the CMA. Policy 17.2 explains how the environmental guidelines are to be implemented.

Rules and Consents

Section 27.9 of the Plan includes a range of rules to implement the objectives from permitted activity status through to prohibited activities. The permitted activity status rules have permitted standards, and all other rules contain clear and descriptive standards or matters for council control/discretion.

A large number of consents have been issued under this framework, including Port dredging, Westshore renourishment and the recent Clifton Revetment, to name a few. All have strict conditions that follow the environmental guidelines in the Plan.

There is a current consent application regarding the deposition of, suitable, Port Wharf 6 dredging material in the inshore area of Westshore. The 'assessment of environmental effects' reports are currently being prepared.

MONITORING

AER 17.1 Indicator - Coastal Habitat Mapping

The last broad-scale habitat mapping of the Hawke's Bay coastline was undertaken in 2005 and some ecological evaluation of sections of the coastline undertaken in 2007. In 2017 a Masters student mapped the biogenic habitats of the Tukituki, Waitangi and Ahuriri estuaries. Since the Plan became operative no broad-scale habitat mapping has been carried out.

AER 17.2 Indicator – Number of Incidents

Council compliance monitoring and incident reporting showed no complaints had been registered about vehicles in sensitive dune areas. It is expected that these types of complaints would be received by the District Councils, however no reporting data could be found on their websites.

AER 17.3 Indicator - Coastal Cross-section Profiles (Asset Management Plans)

There are 12 beach survey stations along the Hawke's Bay coastline that show changes over time. The Asset Management team report that there has been no adverse effect caused by activities managed under this policy and rule framework. There have been positive effects on Westshore beach from the deposition of

gravel. The Port maintenance dredging has been disposed of at sea, with strict conditions to ensure no adverse effects on off-shore reefs.

The 2017-2018 Annual Report includes the following performance targets, required action and progress reports:

Performance Targets	Required Action	Progress Report
Erosion does not extend landward of the 1986 line by more than 10% of the beach length in any 12 month period	Regularly monitor and report Westshore Beach profiles to enable reestablishment of the erosion line, including re-establishment of any of the 10 marker posts along the beach crest on the Esplanade	Achieved Beach measurements have been undertaken. Missing marker posts were reinstated in early 2018.
HBRC will continue to monitor, research and investigate coastal processes to inform coastal planning including climate change and coastal hazards	Prepare, implement and annually report on coastal monitoring and investigation programme, including beach profiles, changes and trends	Partially Achieved Annual Hawke's Bay series of beach profiles completed in December 2017. Analysis of data was planned to occur in later part of year, however this was not completed due to other commitments. The analysis and report will be completed sometime in 2019.

AER 17.4 & 17.5 - see section 5.3.1 regarding SOE recreational water quality, nearshore and sediment quality monitoring.

There are no incident records of hazardous substances being deposited onto the foreshore or seabed.

There are strict conditions relating to Port disposal of dredged material to ensure sensitive areas such as Pania reef are not affected.

Council Work Programmes

In 2011 to 2012, a LIDAR (Light Detection and Ranging) airborne laser survey was carried out along the coastal cliffs. This provided a highly precise record of coastal cliff relief and the nature of cliff landforms. Changes in cliff positions can be assessed by comparing the results of at least two LIDAR surveys to identify coastal cliff erosion rates and sediment supply and transport rates.

A 2017 study used a computer model called Gravel Routing and Textural Evolution (GRATE) developed by NIWA to model sediment transport.

It is expected that the information provided from these surveys/models will inform future policy development for the coastal environment.

NZCPS Gap Analysis

The relevant NZCPS provisions for this chapter include NZCPS Policy 17 and Policy 20. The report suggested the following amendments:

- To give effect to NZCPS Policy 17, it would be beneficial to have a general discretionary activity rule relating to the disturbance or damage of identified historic heritage.
- In relation to NZCPS Policy 20 Vehicle access, the Plan appears silent on where vehicle access should be provided and when general vehicle access can be allowed (NZCPS Policy 20(2) and (3) matters).
- Develop new provisions dealing with vehicle access that give effect to NZCPS Policy 20. In particular, locations where vehicle access is required (NZCPS Policy 20(2)) should be mapped. Some of Plan Chapter 5 and 17 policies should be relocated here.

Other Information

With regards to AER 17.1, some habitat types have been mapped and studied, but tend to be those that are visible and easily accessible. The majority of subtidal habitats across the Hawke's Bay remain poorly described, and there is limited knowledge of how habitats and species associated with them may have changed through time.

To give effect to the objectives of the Plan, there is a need to better understand the present-day diversity of all major habitat types, their quality and their vulnerability. Further, there should be annual monitoring of the state of these environments to better understand effects of those activities being managed.

Outcomes

There appears to be no adverse effects caused by activities consented under the Plan.

There is no record of vehicles on sensitive dunes or intertidal rock areas. If this is not something council records then this AER should be removed.

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
Avoidance, remediation or mitigation of adverse effects on the environment associated with disturbances, depositions or extractions within the coastal marine area.	Physical and biological parameters	Coastal habitat mapping Compliance monitoring	Yes

No vehicles in sensitive dune areas or to be driven onto intertidal rock platforms from Auroa Point to Taiporutu river mouth and from Kairakau Beach to Blackhead Point or through the Maungawhio Lagoon.	Number of incidents reported/complaints received	Council records	Unknown
No exacerbation of erosion from the removal of sand, shell, shingle and other natural material.	Coastal cross-section profiles	Asset Management Plans Shoreline monitoring programme	Unknown (data not available)
Coastal water quality standards are complied with	Indicator levels not exceeding values in Schedule E	HBRC nearshore coastal water quality monitoring programme HBRC Recreational water quality monitoring programme Compliance monitoring	No
No deposition of substances which contain hazardous substances onto the foreshore or seabed in quantities which will adversely affect the life supporting capacity of the coastal marine area.	Indicator levels not exceeding values in Schedule E. Contaminant levels below that which causes acute or toxic effects on humans and other organisms.	Sediment quality monitoring Compliance monitoring Incident reports	Yes

4.3.3 Structures and Occupation of Space in CMA

The issue statement for this Chapter of the Plan is:

Structures in the coastal marine area can affect natural character, public access and amenity values, impact on habitats, marine fauna, historic heritage and natural coastal processes, and conflict with other uses of the coastal marine area. At the same time, structures also assist in providing for the community's social and economic wellbeing by enabling a number of productive activities to operate efficiently.

Objectives and Policies

There are two objectives for this chapter of the Plan to avoid, remedy or mitigate adverse effects arising from use and development and occupation of structures in the coastal marine area.

Policy 18.1 includes environmental guidelines to manage structures in the CMA. The guidelines cover issues relating to removal and demolition of abandoned structures, functional need, public access, aquaculture, and coastal hazards.

Rules and Consents

There are a number of rules in the Plan which implement the objectives of this chapter, they range from permitted to prohibited activity status.

27.7 includes rules for structures in the CMA. 27.16 includes rules for occupation of space in the CMA. There are also other policies and rules in the Plan that help manage those activities identified in the environmental guidelines such as aquaculture, coastal hazards and public access.

There has been a small number of consents issued for structures and occupations in the CMA since the Plan became operative. These consents range from coastal revetments/seawalls to occupation of outfall diffusers. Consent staff did not have any issues with the rules and policy framework for this section of the Plan.

As discussed in the natural character section of this report, discussions with council consent staff suggests at this stage they have not had to consider the cumulative effects of applications. Generally, assessments are restricted to the effects of a structure on the surrounding environment, but not the overall contribution of structures on the surrounding environment. Further, the current plan does not provide any clear direction on what the 'capacity' is of the environment to absorb these types of effects.

There is a risk that overlooking cumulative effects may eventually lead to degradation of natural character values in some areas. For example, if groynes or sea-walls are approved in part because there are already similar structures in place. This issue will need to be considered as part of the wider Plan review.

Monitoring

There were no permits issued for whitebait stands and therefore no compliance data to report.

Likewise, there were no applications for structures in the Porangahau Estuary, Tukituki River Mouth, Waitangi Estuary, Ahuriri Estuary or the Maungawhio Lagoon.

Coastal protection structures have conditions on their consents that require monitoring after significant storm events. No monitoring data was available to assess.

See previous section regarding coastal habitat mapping.

RMA Amendment Bill

Issue 1 in the environmental guideline is 'Removal and demolition of redundant or abandoned structures'. This issue was a matter addressed in the RMA Amendment Bill 2017. As a result of this Bill, there has been subsequent changes to the process of removal for abandoned structures, in summary:

Section 19(3) of the Marine and Coastal Areas (Takutai Moana) Act 2011 (MACA Act) requires that, if a structure in the common marine and coastal area has no resource consent, and its ownership is uncertain, then the relevant regional council must search for an owner.

Previously regional councils had to undertake a formal inquiry under section 19(2) of the MACA Act to search for the owner of any structure in the common marine and coastal area. The formal inquiry process is set out in the Marine and Coastal Area (Takutai Moana) Ownership of Structures Regulations 2015 (the MACA regulations). If this inquiry fails to find an owner, ownership falls to the Crown and the structure is administered by DOC.

The RMA and MACA Act have been amended to introduce a simpler process to search for owners of low-value coastal structures.

The intent of this change is to introduce proportionality to the system of removing abandoned coastal structures, by providing a simpler inquiry process for low-value structures while retaining the more rigorous inquiry process for higher value structures.

To undertake the simpler process, the regional council:

- must search for the owner's contact details through its own records
- must make a reasonable effort to locate the owner using any contact details it finds
- may decide to search more broadly (for example, using any of the procedures in the MACA regulations).

If no owner is found after this search, the council may remove the structure at its own cost, or the council can undertake an inquiry under section 19 of the MACA Act

If the regional council considers any adverse effects of removing the structure are likely to be no more than minor, the council can remove the structure without needing to comply with the rules in its regional plan (including any requirements to obtain a resource consent).

If the regional council considers that removing the structure is likely to have adverse effects that are more than minor (for example disturbances or discharges in the coastal marine area), the council may choose to manage the removal in accordance with the regional coastal plan, or by obtaining a consent.

Councils should also be aware of any heritage restrictions that may apply to a particular structure. For example, any structure built before 1900 may also be an archaeological site, in which case approval from Heritage New Zealand Pouhere Taonga would be required before it could be removed.

NZCPS Gap Analysis

The NZCPS Gap Analysis evaluated this chapter of the Plan against NZCPS Policy 6 Activities in the Coastal Environment and Policy 18 Public Open Space. Conclusions in this report include:

- The Plan is silent on the subject of built development.
- In terms of policy direction, the Plan has provisions relating to providing for structures if and only if they have a functional need to locate in the CMA. However none of those provisions relate to land outside of the CMA.
- The Plan is silent on "activities of national or regional importance that have a functional need to locate and operate in the coastal marine area". However, it does include management overlays that address those matters indirectly, including the Port Management Area.
- The Plan only refers to the efficient use of space in relation to aquaculture. It is silent on

“occupied space” and “multiple use”. The issues of using space “effectively” and with “unreasonable delay” are not addressed.

- The Plan does not give effect to NZCPS Policy 18. The Plan is silent on the matter of “public open space” or even “open space”.
- While Plan provisions do address the “occupation of space” in relation to structures, there is no general policy guidance on the need for public open space and its provision.

Suggested Amendments

- Additional, regionally specific policy guidance is required for the enabling elements of NZCPS Policy 6, particularly in relation to social and economic well-being, infrastructure, built development, coastal settlements, papakāinga and renewable energy. Additional policy guidance is also required on managing visual impacts, providing setbacks and achieving the efficient use of the occupation of space.
- Include new provisions on “public open space” that give effect to NZCPS Policy 18. This matter could possibly be addressed in the provisions that are drafted to more fully address the built environment and coastal settlements (NZCPS Policy 6 and 7 matters).

Other Information

Chapter 15 of the Plan also includes environmental guidelines for coastal hazard structures. Chapter 23 of the Plan includes objectives and policies for Aquaculture.

The new planning standards should assist with removing overlaps within regional plans (i.e. clearer plan structure).

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
18.1 Avoidance, remediation or mitigation of adverse effects on the environment associated with structures located in the coastal marine area.	Physical and biological parameters	Coastal habitat mapping Compliance monitoring Incident reports	Yes
18.2 No whitebait stands or maimai in the Porangahau Estuary, Waitangi Estuary, Ahuriri Estuary and Maungawhio Lagoon.	Structure inventories and physical parameters	Compliance monitoring Incident reports	Yes

18.3 No structures that would impound or effectively contain the coastal marine area to be erected, placed, altered or extended in the Porangahau Estuary, Tukituki River Mouth, Waitangi Estuary, Ahuriri Estuary or the Maungawhio Lagoon.	Structure inventories and physical parameters	Compliance monitoring Incident reports	Yes
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4.3.4 Reclamations and Drainage in CMA

The issue statement for this chapter of the Plan is:

Reclamation and drainage of coastal wetlands, foreshore and/or seabed can have adverse and irreversible effects on habitats, ecosystems, natural coastal processes, amenity values, public access, historic heritage and natural character. Reclamation and drainage may also provide for the community's economic and social wellbeing by enhancing access to and along the coast, or increasing areas of useable land.

Objectives and Policies

This chapter of the Plan contains one objective to avoid, remedy or mitigate adverse effects from reclamations and drainage of estuaries, foreshore or seabed.

Policy 19.1 is to manage reclamation and drainage of the CMA in accordance with environmental guidelines. The guidelines include a number of issues including reclamation of the CMA, esplanade reserves and strips, and drainage of the CMA.

Rules and Consents

There are six rules to implement the policy and objective. These have discretionary, prohibited or non-complying activity status.

There have been no consents for drainage in the CMA.

Reclamation consents have been issued in relation to the Whakarire Ave seawall and the Clifton revetment.

The Whakarire Ave consent application originally included an esplanade strip but this was later removed when the seawall design was altered.

Consent officers had no issues with the policy and rule framework for this chapter of the Plan.

Monitoring

See previous comment in this report regarding coastal habitat mapping.

No council records were found regarding esplanade reserves or strips set aside since the Plan was made operative. Consent officers could not recall any instances when they have been required.

There have been no reclamations using substances described in AER 19.3.

The SOE monitoring results outlined in the indicator and data sources for the AERs are discussed in previous sections of this report.

NZCPS Gap Analysis

The NZCPS Gap Analysis evaluated this chapter of the Plan against NZCPS Policy 10 Reclamation and declamation. Conclusions and suggested amendments in this report include:

- NZCPS Policy 10 is given effect to in part.
- Chapter 19 of the RCEP should be re-titled —Reclamations and declamations.
- In light of the King Salmon case law, reclamations should be prohibited by the Plan unless NZCPS Policy 10(1) applies.
- Chapter 19 should be amended to fully give effect to NZCPS Policy 10, particularly the social, economic and infrastructure related benefits of NZCPS Policy 10(1) compliant reclamations and NZCPS Policy 10(4) declamations. For example declamations that meet the NZCPS Policy 10(4) criteria could be controlled activities.
- The Plan defines the term declamation, but there are no provisions relating to it, namely the Plan appears to be silent on declamations.

Suggested Amendments

- Chapter 19 should be re-titled “Reclamations and declamations”.
- Chapter 19 should be amended to fully give effect to NZCPS Policy 10.

Council Work Programmes

There are no relevant work programmes.

Anticipated Environmental Results for Reclamations and Drainage in CMA

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
Avoidance, remediation or mitigation of adverse effects on wetlands, the foreshore or seabed arising from reclamation and drainage.	Physical and biological parameters Number of incidents reported / complaints received Contaminants not exceeding national guideline values or levels in Schedule E	Coastal habitat mapping Wetlands database Incident reports Department of Conservation, HBRC records	Yes

Esplanade reserves or strips set aside on all reclamations (except reclamations in the Port Management Area and Harbour Management Area) where this will enhance public access to and along the coastal marine area or enhance water quality.	Number of esplanade reserves or strips required	HBRC records	Unknown
No reclamations using septage, hazardous substances, organic materials or domestic or industrial sludge as fill. Also, no clay or clay soils used as fill below sea level.	Physical and biological parameters Number of incidents reported / complaints received Contaminants not exceeding national guideline values or levels in Schedule E	Compliance monitoring Incident reports Sediment quality monitoring HBRC nearshore coastal water quality monitoring programme	Yes
No reclamations occurring in Significant Conservation Areas, unless within the Ahuriri Estuary and the Waitangi Estuary for the purposes of a network utility operation.	Physical and biological parameters Number of incidents reported / complaints received	Compliance monitoring Incident reports	Yes
The Maungawhio Lagoon, Wairoa Estuary and Coastal Lagoons, Ahuriri Estuary, Waitangi Estuary, Tukituki River Mouth and the Porangahau Estuary are not drained in order to reclaim land.	Physical and biological parameters Number of incidents reported / complaints received	Compliance monitoring Incident reports Wetlands database Coastal habitat mapping	Yes

4.3.5 Taking, using, damming and diverting water in CMA

The issue statement for this section of the Plan is:

Taking and using open coastal waters will generally have minor effects on the environment but taking, using, damming and diverting of water in enclosed coastal waters (such as embayments, estuaries,

lagoons and river mouths), can have adverse and irreversible effects on the environment, including habitats and ecosystems, natural coastal processes, water quality, and natural character.

Objectives and Policies

The objective for this chapter of the Plan is that adverse effects on the environment arising from taking, using, damming and diverting water in the coastal marine area are avoided, remedied or mitigated.

Policy 20.1 includes environmental guidelines to help manage take, use, damming and diversion of water in the CMA.

Rules and Consents

There are six rules to implement the policies, the two discretionary rules do not have matters for control/discretion listed, four permitted rules have clear descriptive standards for permitted activity status that include no taking and use of coastal waters from SCAs.

A review of consent data showed there have been no applications made to take or divert water within the CMA. There was one short-term consent permit granted to temporarily dam the CMA while erection of a structure took place.

Pre-2014, there was a land-based pāua rearing plant that pumped sea water over shellfish in large indoor pools and then recirculated back out to sea in cycles. This operation closed in 2014 after a large fire.

Monitoring

The AER indicators have already been assessed in previous sections of this report, see SOE monitoring for nearshore coastal water quality, surface water flow and surface water quality in previous sections of this report.

Given the low number of consents, it is considered the AER outcomes have likely been achieved.

Anticipated Environmental Results for Taking, Using, Damming And Diverting Water In CMA

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
20.1 Avoidance, remediation or mitigation of adverse effects on the environment arising from taking, using, damming and diverting water in the coastal environment.	Natural flow regimes Indicator levels not exceeding values in Schedule E Physical and biological parameters	Surface water flow monitoring programme HBRC Nearshore coastal water quality monitoring programme HBRC Surface water quality monitoring programme Compliance monitoring	Yes

20.2 Protection of larval supply to inlets in the Porangahau Estuary, Waitangi Estuary, the Ahuriri Estuary, the Wairoa River and Coastal Lagoons, and the Maungawhio Lagoon.	Physical and biological parameters	Coastal habitat mapping Rivermouth opening records	Yes
20.3 Maintenance of coastal water in quantities and locations which sustains aquatic ecosystems (including fish passage and spawning areas) in the relevant coastal water bodies.	Physical and biological parameters Abundance of fish in selected locations Implementation of fish passage design guides	Department of Conservation, Fish and Game, HBRC records	Yes

4.3.6 Introduction of Exotic Plants and Animals in CMA

The issue statement for this chapter of the Plan is:

The inappropriate introduction of exotic plants or animals in the coastal marine area can adversely affect the environment, including indigenous flora and fauna, natural coastal processes, loss of habitat and foreshore area, degrading natural character and amenity values.

Objectives and Policies

There are two objectives for this chapter of the Plan. Objective 21.1 is that adverse effects on the environment of introducing exotic plant and animal species in the coastal marine area are avoided, remedied or mitigated. And Objective 21.2 is the prevention of the spread within the coastal marine area of pest plants within the meaning of the Biosecurity Act 1993.

Policy 21.1 outlines environmental guidelines for managing the introduction of plants or animals into the CMA.

Rules and Consents

Section 27.10 of the Plan includes two rules for introduction of plants in the CMA, discretionary and prohibited.

An assessment of council consent database shows there have been no consents issued under the discretionary rule and consent staff cannot recall any applications for the introduction of exotic plants and animals to the Hawke Bay.

The Council's Regional Pest Management Plan came into effect in February 2019. The aim of this plan is to prevent the introduction of new marine pests into Hawke's Bay, particularly Mediterranean fanworm and Clubbed tunicate.

International commercial shipping is governed by international rules about ballast and hull cleaning.

Monitoring

In 2015, 351 non-indigenous species were identified in New Zealand's coastal waters and 187 had established a breeding population. Since 2009, the number of non-indigenous species in New Zealand has risen by 10 percent, with 33 new species recorded between 2010 and 2015. In the Auckland region alone, 141 marine non-indigenous species have been detected to date.

Two of the marine pests already established in Hawke's Bay coastal waters are Asian Kelp (*Undaria pinnatifida*) and Australian tubeworm (*Ficopomatus enigmaticus*).

Two other marine pests, Mediterranean fanworm (*Sabella spallanzanii*) and Clubbed tunicate (*Styela clava*), are classified as Exclusion Pests in the Regional Pest Management Plan. In early 2019 the Council commissioned a survey by divers of the underwater structures in Napier's Inner Harbour to look for these marine pests. This recent survey showed that the harbour is clear of these pests, and the survey will be carried out in another 2 years.

The previous diver survey in 2016 also showed these pests were not present. Alarmingly though, 17% of vessels would have been categorised as high-risk, due to their port of origin having a known, established population of Mediterranean fanworm and/or clubbed tunicate.

Council Work Programmes

A Marine Biosecurity Programme is currently being developed by Council, following the inclusion of the marine area in the Regional Pest Management Plan.

In 2019 regional council biosecurity staff held a workshop to discuss marine pest issues with local boating and harbour interests.

In November 2017 Hawke's Bay Regional Council staff worked with the Mana Ahuriri Trust to remove 219 tonnes of invasive marine tubeworm (*Ficopomatus enigmaticus*) from Ahuriri estuary. See previous comments in this report regarding the Ahuriri and marine environmental hotspot funding.

Hawke's Bay Regional Council is part of the North Marine Biosecurity Partnership with 6 other regional and unitary councils, sharing knowledge and expertise.

With regards to restoration planting, the Council's open spaces team advised that they only use native plants when planting in the coastal environment.

NZCPS Gap Analysis

The NZCPS Gap Analysis evaluated this chapter of the Plan against NZCPS Policy 12 Harmful aquatic organisms. The conclusions and suggested amendments in this report include:

- The focus of this chapter and current provisions appear to be a legacy of the Plan giving effect to the original NZCPS 1994.
- The Plan does not appear to address the spread of harmful aquatic organisms in relation to structures or in relation to the maintenance of moorings, marina berths, jetties and wharves.
- Chapter 17 of the Plan adequately deals with the dredging material disposal issue.
- In terms of aquaculture, Policy 23-1 Guideline 3(v) has passive decision-making criteria relating to the introduction of exotic biota, but it does not provide direction on the outcome to be achieved.

- It would be beneficial to rename Chapter 21 of the Plan “Harmful aquatic organisms” and amend provisions so that they fully give effect to NZCPS Policy 12.

Other Information

The presence of marine pests suggests that the Plan has not been effective in achieving the AERs, although arguably the AERs relate to deliberate introduction rather than accidental which is likely to be how most species are introduced.

Since the NZCPS Gap Analysis was completed in 2014, there has been updated guidance from DOC on NZCPS Policy 12. This states that:

The implementation of Policy 12 should involve identifying high-risk and high value areas and considering the management strategy that is required to maintain these areas.

A strategic assessment should:

- identify which harmful aquatic organisms are currently present in, or pose a threat to, the local coastal environment;
- identify which harmful aquatic organisms are present elsewhere in New Zealand but have not established in the region;
- provide baseline information to establish the extent of any current problems;
- identify any activities that have the potential to introduce or spread harmful aquatic organisms and the way(s) in which this could occur to allow mitigation measures to be put in place (eg cleaning vessel hull biofouling);
- recognise that unlike in the terrestrial environment, neighbouring regions are not contiguous boundaries, so trends and risks across the country should be taken into account – for example, in the marine environment, Northland can be considered a neighbour to Southland;
- identify how the introduction or exacerbation of harmful aquatic organisms occurs;
- identify marine areas that are particularly sensitive to impacts from harmful aquatic organisms these may be high-value areas or degraded areas that have low resilience (e.g. areas where pests are already established, or ports), with these differences potentially resulting in different levels of risk management being required;
- recognise that invasion by harmful aquatic organisms is often part of a bigger issue of degraded environmental values due to cumulative human-caused stressors;
- include rules and related provisions to reduce other press environments that would reduce their resilience;
- manage the risks of introducing known and unknown harmful aquatic organisms associated with vessel biofouling specifically, having regard to relevant guidelines, such as the IMO Guidelines 201147 and the Anti-fouling and In-Water Cleaning Guidelines 201348;
- have regard to relevant Codes of Practice for example, the aquaculture programme;
- design and implement a regular monitoring programme to detect the arrival of new organisms in a timely manner, which would improve the chances of eradication measures being successful *if implemented (e.g. a consent condition for occupation by marine farms could require that regular monitoring is carried out)*;

- this would be in addition to annual Marine High Risk Site Surveillance Programme, which targets ports and marinas;
- develop/employ a risk assessment process to assess the risks associated with biofouling organisms on the hulls of fouled vessels or marine structures (both fixed and moveable) a risk assessment process can be used to inform decisions on whether a particular vessel or structure can be consented to clean biofouling;
- MPI has produced some high-level guidance on this for international vessels that could be modified for domestic vessels.

Other Acts and Strategies

The Biosecurity Act 1993 sets the framework for the management of plant and animal pests and provides for the development of regional pest management strategies. Regional plans, including regional coastal plans, are required to have regard to management plans prepared under other Acts.

Since the Plan was made operative there have been changes to the Biosecurity Act, changes to the types of pests posing threats to the CMA, and the development of a new Regional Pest Management Plan. The wider review of the Plan will provide an opportunity to consider these changes and ensure there is alignment and clarity about management of this issue, as much as possible.

International Vessels

International vessels that stay in New Zealand waters for up to 20 days and are only visiting approved Places of First Arrival, remain under and must abide by the rules of the Craft Risk Management Standard (CRMS): Biofouling.

International vessels staying for 21 days or more, or visiting non-approved Places of First Arrival, must abide by the Plan rules, following the completion of MPI biosecurity inspections in accordance with CRMS.

International vessels arriving in New Zealand waters have additional obligations under the Craft Risk Management Standard: Biofouling on Vessels Arriving to New Zealand (May 2014).

Outcomes

There can be confusion about which activities relating to pest plants are managed under the RMA and which are managed under the Biosecurity Act 1993. It will be important for the review of the Plan to consider the jurisdictions of these Acts and ensure there is alignment and clarity, as much as possible. Overall, the policy framework is designed to achieve this outcome and there is evidence of ongoing programmes to address marine pests, although largely these have been developed and implemented outside the Plan.

Anticipated environmental results

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
21.1 Prevention of the spread of plant and animal pests.	Number of incidents reported / complaints received Plant and animal pest control	Department of Conservation, Biosecurity New Zealand, HBRC records HBRC Plant and Animal Pest Strategy	Yes (in part)
21.2 The use of indigenous species preferably from local genetic stock whenever restoration planting is carried out.	% species planted in restoration planting work	Department of Conservation, territorial authorities, HBRC records	Yes

4.3.7 Surface Water Activities in CMA

The issue statement for this chapter of the Plan is:

Some activities on the surface of coastal waters may affect habitats of coastal flora and fauna while others may create conflicts with other users of the coastal marine area and affect people's amenity values.

Objectives and Policies

There are two objectives for this chapter of the Plan:

Objective 22.1 Adverse effects on the environment resulting from surface water activities in the coastal marine area are avoided, remedied or mitigated.

Objective 22.2 Safe and efficient navigation and the maintenance of navigation channels for shipping activities is recognised.

There are two policies to implement the objectives. Policy 22.1 includes environmental guidelines for surface water activities. The guidelines state that Council will manage navigation safety issues in accordance with the Local Government Act and prohibits vessels and ships in areas where use is likely to have an adverse effect on sensitive habitats and ecosystems.

Policy 22.2 states that both regional rules and non-regulatory methods will be used to implement the environmental guidelines.

Rules and Consents

There are two prohibited surface water activity rules and one permitted rule. These would not trigger a resource consent application.

There have been no applications for non-complying surface water activities.

Monitoring

The Council, as a Harbour Authority under the Local Government Act 1974, is responsible for navigation safety inside the Pilotage Limits. This area is shown on the planning maps in Volume 2 of the Plan. These functions are carried out by the Harbour Master under the Council's Navigation and Safety Bylaws.

A new Navigation and Safety Bylaw came into effect in 2018.

According to Resource Use Annual reports, there have been a limited number of incidents relating to navigation safety. The details of these were not provided.

Outcomes

While detailed incident reporting was not provided, it appears from Annual reports that the AER outcome has been met.

Anticipated Environmental Results for Surface Water Activities in CMA

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
22.1 Avoidance, remediation or mitigation of adverse effects on the environment from activities on the surface of water within the coastal marine area.	Physical and biological parameters Number of incidents reported / complaints received	Incident reports Council records	Yes

4.3.8 Aquaculture

The issue statement for this chapter of the Plan is:

Aquaculture activities are a productive use of coastal resources that may result in many social and economic benefits. However, these activities typically require large areas of space in the coastal marine area. There is a consequent need to ensure aquaculture activities are located, constructed, and managed to minimise potential conflicts between marine farming and other activities in, or values of, the coastal marine area.

Objectives and Policies

Objective 23.1 is any adverse effects on the environment associated with aquaculture activities in the coastal marine area should be avoided as far as practicable. Where complete avoidance is not practicable, adverse effects should be remedied or mitigated.

Rules and Consents

A review of consent information showed that historically there have been a limited number of coastal permits for aquaculture and nearly all of these operations have ceased and/or consents have lapsed.

There was a land-based pāua rearing and production plant 'Pāua Fresh' which burnt to the ground in 2014. While the farming facility was totally destroyed, its heavy-duty saltwater pump and pipeline stretching some 100 metres out to sea remain intact. The sea water was pumped over the shellfish in large indoor pools and then recirculated back out to sea in cycles.

In 2016 coastal permits were granted for a mussel farm off Waipatiki Beach. This operation may still go ahead and the consent holder is currently in discussions with Council about trialling two or three mussel lines.

Monitoring

Given there are no 'operating' marine farms in the region, there is no compliance information to review.

Gap Analysis

The Gap Analysis for this chapter assessed the Plan provisions against NZCPS Policy 8. The report concluded:

- At best the RCEP gives effect to NZCPS Policy 8 in part.
- The focus of Chapter 23, and particularly Objective 23-1, is about avoiding, remedying or mitigating the adverse effects of aquaculture. There is little useful policy guidance on the potential contribution of aquaculture to the social, economic and cultural wellbeing of people and communities.
- Within the Plan there is no provision made for encouraging or enabling aquaculture.
- The Plan contains several Aquaculture Management Areas (AMAs) which are now an outmoded management technique as the RMA no longer requires AMAs to be delineated in regional coastal plans.
- The 2011 aquaculture reforms provide councils with new tools to manage demand to occupy space in the common marine and coastal area (CMCA).

Suggested Amendments

- Update the Plan aquaculture provisions in Chapter 23 to more proactively promote or enable aquaculture in appropriate locations and to realign the provisions relating to the redundant AMA planning technique so that they relate to current legislation relevant to the management of aquaculture.

Other Information

Legislation was changed in 2011 to encourage sustainable aquaculture development and streamline planning and approvals for marine aquaculture. Changes were made to the:

- Resource Management Act 1991
- Aquaculture Reform (Repeals and Transitional Provisions) Act 2004
- Fisheries Act 1996
- Māori Commercial Aquaculture Claims Settlement Act 2004.

The 2011 changes simplified the approval process by removing the need for AMAs.

Cabinet has also recently approved final policy provisions for the drafting of a proposed National Environmental Standard for Marine Aquaculture (NES-MA). This may set national rules to replace regional council rules. The NES-MA:

- proposes changes to the re-consenting process for existing marine farms.
- would require all marine farms (existing and new) to have a biosecurity management plan.

Following drafting of the new regulations, the NES-MA will be put in front of Cabinet for a final decision in early 2020.

With regards to AER 23.3, refer to the natural character and outstanding natural landscapes sections of this review. It is considered that these areas will need to be identified and mapped to ensure they are protected from such activities.

Outcomes

Demand for aquaculture space is not great at present, and environmental conditions are not thought to be highly suitable for aquaculture activities. However, with new technology, changing water temperatures and the introduction of new species, there may be increased interest in aquaculture in the future.

AMAs will need to be replaced, as required by new national legislation.

Anticipated environmental results for Aquaculture

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
23.1 Development of aquaculture activities within Aquaculture Management Areas.	Physical parameters	Compliance monitoring	AMAs replaced
23.2 Avoidance of sprawling and sporadic development of aquaculture activities and associated structures.	Physical parameters	Compliance monitoring	Yes
23.3 Protection of natural character, outstanding natural landscapes, amenity, coastal processes, water quality, ecological and cultural values from inappropriate aquaculture activities.	Physical and biological parameters	HBRC Nearshore coastal water quality monitoring programme Compliance monitoring HBRC records	Yes

4.3.9 Hazardous Substances in CMA

The issue statement for this chapter of Plan is:

There is a risk of adverse effects on the coastal marine area arising from the use, storage, disposal and transportation of hazardous substances within the coastal environment.

Objectives and Policies

There are two objectives for this chapter of the Plan:

Objective 24.1 Risks to human health and the environment associated with the use, storage and transportation of hazardous substances within the coastal environment, are avoided, remedied or mitigated.

Objective 24.2 Adverse effects on the environment associated with the disposal of hazardous substances to the coastal environment are avoided.

Policy 24.1 is to manage hazardous substances in the CMA in accordance with environmental guidelines. Policy 24.2 sets out how the environmental guidelines will be implemented, through consents, rules and non-regulatory methods.

Rules and Consents

There are four rules to implement the policies in the Plan. They range from permitted activity status to prohibited.

There was no council record showing consents granted under Rule 171, consent officers could not recall using this Rule.

Monitoring

There is no information available on the use, storage or transport of hazardous substances within the coastal marine area or coastal environment.

Other Information

The RMA Amendment Bill 2017 saw revised functions for RMA decision makers. In relation to hazardous substances, the bill states:

Previously regional and district councils had an explicit function to control the adverse effects of the storage, use, disposal or transportation of hazardous substances under the RMA. As a result, many RMA plans, regional policy statements and resource consents include controls on hazardous substances.

Since this function was first included in the RMA in 1991, the following Act has been passed:

Hazardous Substances and New Organisms Act 1996 (HSNO), which regulates the management, disposal, classification, packaging and transport of hazardous substances.

Some existing RMA controls on hazardous substances duplicate or increase those in place under HSNO, which can be confusing for users of hazardous substances. Sometimes it is unclear why additional controls are necessary to manage environmental effects under the RMA.

Sections 30 and 31 of the RMA have been amended to remove the control of hazardous substances as an explicit function of councils. This means councils no longer have an explicit

obligation to regulate hazardous substances in RMA plans, policy statements or resource consents. Consequential changes have also been made to the HSNO Act and the HSW Act in light of this change.

In most cases HSNO and Worksafe controls will be adequate to avoid, remedy or mitigate adverse environmental effects (including potential effects) of hazardous substances.

Councils still have a broad function of achieving integrated management, and may use this function to place extra controls on hazardous substance use under the RMA, if existing HSNO or Worksafe controls are not adequate to address the environmental effects of hazardous substances in any particular case (including managing the risk of potential effects on the local environment). Any proposed additional controls through an RMA plan or policy statement must be justified through a section 32 evaluation. Any additional controls through resource consent decisions must be justified under section 104. These assessments should consider the impact of existing HSNO and Worksafe controls on the management of environment effects.

This change came into effect on 19 April 2017. The Council is required to make necessary changes when reviewing plans and policy statements, and when considering private plan changes and resource consent applications.

Outcomes

There is no information available on the use, storage or transport of hazardous substances within the CMA. There also appears to be no incidents reported, besides paint residue from boat cleaning facilities.

The RMA was amended in 2017 to remove the control of hazardous substances from council functions.

Anticipated environmental results for Hazardous Substances in the CMA

Anticipated Environmental Result	Indicator	Data Source	Has AER been achieved (Yes / No / Unknown)
24.1 Risk to water quality, ecosystems, natural coastal processes and people's health and safety from the use, storage and transportation of hazardous substances is minimised.	Physical and biological parameters Number of incidents reported /complaints received Contaminants not exceeding national guideline values or levels in Schedule E	Compliance monitoring Incident reports HBRC Nearshore coastal water quality monitoring programme HBRC Surface water quality monitoring programme	Yes

24.2 No storage or containment of any hazardous substance within a Significant Conservation Area.	Number of incidents reported / complaints received	Compliance monitoring Incident reports	Yes
24.3 No disposal of hazardous substances to the coastal marine area.	Number of incidents reported / complaints received Physical and biological parameters	Compliance monitoring Incident reports	No

4.3.10 Noise in CMA

The issue statement for this chapter of the Plan is:

The emission of noise from activities within the coastal marine area can adversely affect people’s health, safety and amenity values associated with the coastal environment.

Objectives and Policies

Objective 25.1 Adverse effects on amenity values and wildlife values arising from the emission of noise from within the coastal marine area are avoided, remedied or mitigated.

Policy 25.1 is to manage noise in the CMA in accordance with environmental guidelines. The guidelines seek to transfer regional council functions and responsibilities to territorial authorities for the control of noise within the coastal marine area.

Rules and Consents

There are three rules to control the effects of noise in the CMA. Two are permitted activity rules and one is a restricted discretionary rule for noise emissions in CMA not complying with the permitted rules.

It appears that there have been no consents issued under Rule 175.

One consent officer said the issue of Napier Port noise was raised at the recent Wharf 6 Hearings. They found it difficult to find information regarding the transfer of powers to NCC. Such information could be added to the Plan, for example:

The Council has transferred its responsibilities for management of noise in the CMA to the Napier City Council, and are only involved through the Port Noise Liaison Committee.

Napier Port has a “Port Noise Management Plan”, prepared in accordance with Rule 28.15 of the Napier District Plan. The noise limits are based on those recommended in New Zealand Standard 6809:1999 “Acoustics - Port Noise Management and Land Use Planning”. This standard is used to manage Port noise in many parts of New Zealand.

The Port has also carried out assessments for future Port development. Marshall Day Acoustics Limited reviewed the forecast for future operations to assess ongoing compliance with the District Plan noise rules.

Monitoring

A review of Council incident reports showed there were no complaints related to noise in the CMA. This review did not assess territorial authority records.

Anticipated environmental results for Noise in the CMA

Anticipated Environmental Result	Indicator	Has AER been achieved (Yes / No / Unknown)
People's health and amenity values not adversely affected by emissions of noise from within the coastal marine area.	Number of incident reports / complaints received	Yes
Consistent management and control across mean high water springs of noise emissions and mitigation of the effects of noise.	Number of incident reports / complaints received Transfer of HBRC functions to TLAs	Yes

5 New Legislation

Since the time when the Plan was first drafted there has been a range of RMA legislative changes that could potentially impact on the wider review of the Plan. In addition, there has been a wide range of changes to other legislation that is relevant to the management of the coastal environment. A brief summary of these changes is provided below.

5.1 RMA Legislative Changes

Table 6 provides an overview of amendments to the RMA, Table 7 includes new National Policy Statements (NPS), new National Environmental Standards (NES) that will need to be taken into consideration in the 10-year Plan review.

Table 6: RMA Legislative Changes

Act	Nature of Change
RM Amendment Act 2008	Amended 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	Wide ranging changes.
RM Amendment Act 2016	Matters relating to Judges and Environment Court.
Resource Legislation Amendment Act 2017	Close to 40 amendments, amending five different Acts. Included introduction of national planning standards (see below).
RM Amendment Bill 2019 –Phase one	Several amendments proposed for RLAA changes.
RM Amendments – Phase Two	Changes needed to improve environmental outcomes and enable better and timely urban development within environmental limits.
National Planning Standards	<p>The planning standards were introduced as part of the 2017 amendments to the RMA, they came into force on 3 May 2019. The purpose of the national planning standards is to improve consistency in plan and policy statement structure, format and content.</p> <p>Their development is enabled by sections 58B–58J of the RMA.</p> <p>Different timeframes apply to different planning standards and different local authorities. All councils must meet basic electronic accessibility and functionality requirements within one year from when the planning standards come into effect. Regional councils have three years to adopt the standards for their regional policy statements, and ten years for their regional plans.</p>

5.2 NZCPS, NPS & NES Changes

The Plan is also required to “give effect to” the NZCPS 2010, National Policy Statements, and if there is any duplication or conflict with a National Environmental Standard the Council must amend its Plan (s44A RMA).

Table 7 NZCPS, NPS and NES Changes:

NZCPS/NES/NPS	Nature of Change
NZCPS 2010	The NZCPS 2010 replaced the NZCPS 1994. It places a greater emphasis on strategic and integrated planning, anticipating that its implementation will result in key issues being resolved through planning and plan making rather than consenting processes. To support this approach, it requires policy statements and plans to identify key characteristics and values (for use, development and protection) in the coastal environment, and directs policy outcomes for these. The most restrictive policy applies to areas with the highest values, with greater flexibility provided for areas with lower values. Some particular uses are identified and the characteristics of activities in the coastal marine area are highlighted.
NPS-FM 2014, 2017, 2019 & NES-FM	Regional Councils to set objectives for the state of freshwater bodies, including limits on resource use to meet these objectives. Plan amendments were made in 2014, further revision will likely be required in light of 2019 changes, NES requirements, and to implement OWB and TANK Plan changes.
NPS for Indigenous Biodiversity [and NZ Biodiversity Strategy]	Central Government has been engaging with Māori, Regional Councils, Territorial Authorities and other relevant stakeholders to test the workability of the draft NPS. The proposed NPS is likely to recommend identification of Significant Natural Areas, as well as coordinated restoration of land, wetlands and depleted environments.
Proposed NES for Marine Aquaculture (NES-MA)	The NES aims to address variations and regional inconsistencies in processing permit applications for existing marine farms; reduce exposure to biosecurity risks; enable better use of space within existing marine farms and improve environmental outcomes. Regulations are likely to be gazetted in 2020.
Proposed NPS Natural Hazards	Although a NPS on natural hazards was signalled for 2016, this is being reconsidered in light of the recommendations of the Climate Change Adaptation Technical Working Group. Existing national objectives and policies for coastal natural hazards (including the effects of climate change) remain within the NZCPS.
NPS Urban Development (NPS-UDC) 2016	Provides direction to local authorities about when and how urban areas should plan for growth and how to do this. In August 2019 the government released a discussion document for the new proposed NPS-UDC, to replace the 2016 provisions.
NES for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS), 2012	A nationally consistent set of planning controls and soil contaminant values.
NPS Highly Productive Land (NPS-HPL)	MfE and MPI have released a discussion document on a proposed NPS-HPL. The purpose is to improve the management of highly productive land and prevent further loss of this land as a result of urban expansion and changes in land use.

5.3 Other Legislation

There are a number of other changes to legislation and up-coming national directions that are likely to impact on the wider review of the Plan. A brief overview is provided in Table 8 below.

Table 8: Other Legislative Changes

Other Government Acts, Bills and Regulations	Nature of Change
Marine Protected Areas Act	Aim is to achieve a balance between protecting the marine environment and maximising commercial, recreational and cultural opportunities now and into the future. If agreed, the proposed reforms would form the basis of a Marine Protected Areas Act, replacing the Marine Reserves Act 1971.
Marine and Coastal Area (Takutai Moana) Act 2011 (MACA)	<p>Replaces the Foreshore and Seabed Act. Creates a ‘sui generis’ property class for the marine and coastal area, in which it is vested in no one. This is in contrast to the Foreshore and Seabed Act in which the foreshore and seabed was vested in the Crown.</p> <p>MACA provides for primarily two types of rights: protected customary rights, and customary marine title. There are approximately 20 applications for Crown engagement in the Hawke's Bay region. All applications are still being processed.</p>
Oil & Gas Regulation	Development of regulations under the EEZ Act for decommissioning offshore oil and gas infrastructure.
Australian and New Zealand Guidelines for Fresh and Marine Water Quality	<p>These guidelines provide water managers with tools and guidance to assess, manage and monitor the water quality. They complement the Freshwater NPS.</p> <p>The guidelines include Default Guideline Values (DGVs) which if exceeded indicate that further analysis may be needed to make sure aquatic ecosystems are adequately protected. DGVs can provide a generic starting point for assessing water quality.</p>
MFE National Climate Change Risk Assessment (NCCRA)	<p>The NCCRA will improve understanding of the nature and severity of the risks and opportunities posed by climate change, and enable action to adapt to climate change to be prioritised through the national adaptation plan.</p> <p>The potential role of national direction, such as a NPS to assist councils in the management of risk (natural hazards and climate-related), is part of this work programme.</p>

<p>'Environment Aotearoa 2019'</p>	<p>In April MFE released 'Environment Aotearoa 2019', in partnership with Statistics NZ. The report provides a health check on NZ's environment, identifying the top nine issues that we currently face:</p> <ol style="list-style-type: none"> 1. Our native plants, animals, and ecosystems are under threat 2. Changes to the vegetation on our land are degrading the soil and water 3. Urban growth is reducing versatile land and native biodiversity 4. Our waterways are polluted in farming areas 5. Our environment is polluted in urban areas 6. Taking water changes flows which affects our freshwater ecosystems 7. The way we fish is affecting the health of our ocean environment 8. New Zealand has high greenhouse gas emissions per person 9. Climate change is already affecting Aotearoa New Zealand <p>The report suggests more could be done to make better use of the knowledge system – particularly by aligning, coordinating and leveraging efforts across the many organisations involved.</p>
<p>PCE</p>	<p>MFE's environmental reporting programme is currently being reviewed by the Parliamentary Commissioner of the Environment. The recommendations are expected towards the end of the year.</p>
<p>MfE Marine Environment report</p>	<p>MFE's Marine Environment 2019 report was released in October, see emerging issues section of this review for report highlights.</p>

6 Emerging Issues

This section outlines some emerging issues that will need to be considered in the wider review of the Plan.

6.1 Climate Change and Natural Hazards

Since the Plan became operative there has been considerable research on climate change impacts and implications for New Zealand's coastal communities.

While the Plan contains a number of policies and rules which are relevant to natural hazard management in the coastal environment, considerably more information about the scale and significance of climate change as a natural hazard has become available. There is also growing awareness of the issues faced, particularly in relation to erosion, storm surges and the effects of rising sea levels.

While the Council has focused on climate change impacts on people and infrastructure, more investigation will need to be undertaken to understand the risks for the region's marine environment. Both DOC and MfE have identified marine climate change adaptation and mitigation as a priority area of work.

Planning for future sea-level rise

MfE's Coastal Hazards and Climate Change guidance provides four scenarios of future sea-level rise to use in conducting hazard and risk assessments. They also recommend Councils start planning for future sea-level by developing flexible adaptation plans, rather than relying on a single sea-level rise value or scenario. This is because there is a wide range of possible coastal futures with ongoing sea-level rise, particularly heading into next century.

Clifton to Tangoio Coastal Hazards Strategy 2120

The Clifton to Tangoio Coastal Hazard Management Strategy is such a flexible adaptation plan. The strategy represents a cross Council approach to identifying and responding to these hazards. It provides a platform from which decisions to determine the most appropriate coastal hazard responses will be made. The development and outcomes of this strategy will assist with future hazard planning along the coast of Hawke's Bay.

6.2 Outstanding Natural Character, Natural Features and Landscapes

An important issue for the wider 10-year review will be ensuring the Plan gives effect to the requirements of Policies 13 and 15 of the NZCPS (2010). These policies require avoiding the adverse effects of activities in areas of outstanding natural character and outstanding natural features and landscapes in the coastal environment.

These NZCPS policies were also tested in the 2014 Supreme Court decision *Environmental Defence Society Inc v New Zealand King Salmon Ltd*.

In this case, New Zealand King Salmon was seeking a private plan change and concurrent resource consents to establish salmon farms in the Marlborough Sounds.

The key findings of the Supreme Court in the King Salmon case is that Part 2 of the RMA can no longer be resorted to, to 'soften' those policies in the NZCPS which are 'directive'.

In addition, the Court found that words mean what they say. For example, when using words like 'avoid' this means what it says, that is, do not do something.

As many lower order policies and plans were developed at a time when resorting to Part 2 was understood to be acceptable, these provisions may not have been crafted with the precision that the Supreme Court is saying is needed to properly give effect to the direction of provisions higher up in the policy hierarchy. As Part 2 is not able to be resorted to in order to soften the effect of directive protective provisions some proposals in the coastal marine area will not meet the statutory requirements.

What this means in practice is that if policies and plans are not saying what the communities they were developed in wish them to say then they need to be reviewed to ensure they properly reflect community wishes and in light of relevant national direction.

Of relevance to the Plan review, the Supreme Court found that, to give effect to Policies 13 and 15 a Council must:

- assess the natural character and natural features and landscapes of the region;
- identify areas where natural character and natural features and landscapes require preservation or protection;
- ensure plans include objectives, policies and rules which require the preservation of natural character and the protection of natural features and landscapes.

Another case that relates to the Plan is *Man O' War Station Limited v Auckland Council [2017]*. This was a plan change proposed by Auckland Council, which identified significant portions of outstanding natural landscapes on Waiheke and Ponui Islands.

Man O' War Station, an owner of coastal land on Waiheke Island, was seeking that the mapping of outstanding natural landscapes needed to be reconsidered post-King Salmon to ensure the areas subject to outstanding natural landscapes warranted the level of protection that the outstanding natural landscapes afforded. Both the High Court and the Court of Appeal ruled that the test for outstanding natural landscapes should remain the same, and Man O' War Station's arguments were rejected.

Another relevant case is the High Court's decision in *Attorney General v Trustees of the Motiti Rohe Moana Trust (2017)*. In this case the judge confirmed that regional councils can manage the effects of fishing that are not directly related to biological sustainability of the aquatic environment as a resource for fishing needs. Examples of legitimate controls include recognising Māori values, protecting natural character and landscape values, or maintaining indigenous biodiversity.

This case is currently in front of the Court of Appeal.

6.3 Water Quality & Regional Plan Changes

As discussed in this report, many of Hawke's Bay's estuaries are in poor ecological health and suffer from algal blooms and increasing muddiness from sediment entering the estuary.

Policy 21 of the NZCPS provides clear direction that in areas of the CMA where water quality has deteriorated, priority must be given to improve that quality. This includes identifying areas of the CMA with deteriorated water quality, including provisions in plans to address water quality, requiring that stock are excluded from the coastal marine area, and requiring engagement with tangata whenua to identify areas of coastal waters where they have particular interest.

As highlighted in the NZCPS Gap Analysis, the Plan does not give effect to Policy 21. The Plan should be amended to give effect to NZCPS Policy 21(a), 21(b) and 21(c). In doing so the engagement process with tangata whenua required under NZCPS Policy 21(e) would need to be followed.

TANK Plan Change

The TANK plan change is proposing new objectives, policies and rules for the Regional Plan to manage land and water use for the TANK catchments. While the plan change focuses on freshwater issues, it also acknowledges the impact of freshwater inputs on the Ahuriri and Waitangi Estuaries. Objectives for freshwater quality will help to improve the state of the estuaries, including rules that limit how many nutrients, sediments and contaminants enter the estuary. TANK Schedule 2 also acknowledges the need to establish objectives for healthy estuaries. This plan change was notified in 2019.

Outstanding Waterbodies (OWB)

Identifying outstanding water bodies (OWB) within the region is another key part of implementing the provisions of the NPS-FM. This plan change introduces new provisions in the RRMP, including a list of the region's outstanding water bodies together with a framework which prescribes a high level of protection for their significant values.

6.4 Surf Break Protection

The Surf Protection Society website states:

Surf breaks are unique coastal features with natural characteristics that are diverse and connected across a broad range of spatial scales. A significant issue for any surf break is that the quality of the 'surfable' wave can be compromised by increased development and modification of the coastal environment, such as development on nearby coastal headlands, up nearby rivers, on the sea bed and in the swell corridor seaward of the break.

The integrity of the natural features and processes that create the wave are critical to maintaining the quality of a surf break. Swell corridors are also dynamic environments and decisions about activities affecting their management can include quite complex considerations. There are various threats to the existence and values of surf break environments including restricted public access, poor water quality, and the impacts of activities that alter the natural character of the coastal environment.

The NZCPS provides clear direction that surf breaks of national significance shall be protected. The NZCPS contains 'Schedule 1 - Surf breaks of national significance', there are no surf breaks of national significance within the Hawke's Bay.

Following the inclusion of surf break protection in the NZCPS, the protection of regionally significant surf breaks is growing within the New Zealand planning context. Work has been conducted on the methodology of identifying and rating natural surf breaks, with guidelines developed to assist councils and stakeholders.

While this is not considered a 'priority' environmental issue for Hawkes Bay Regional Council, preservation of coastal areas valued for surf riding is gaining momentum across the country. For example, a number of councils across New Zealand (Northland Regional Council, Auckland Council, Bay of Plenty Regional Council, Taranaki Regional Council, and Greater Wellington Regional Council) have undertaken studies to protect these environments.

Taranaki Regional Council identified 81 surf breaks in its Regional Policy Statement. Northland Regional Council had an 'expert panel' assess their initial 82 identified surf breaks, to record their values and to determine their relative significance. The breaks were then assigned as either nationally or regionally significant.

Locally, there have been instances where surf breaks have been considered in consent applications, such as the Whakarire Ave seawall and Napier Port's Westshore dredging disposal consent. In due course, the Council

will need to undertake a more comprehensive study of surf breaks in the region to ensure appropriate protection is given and regionally important surf breaks are not compromised.

7 Other Matters

This section provides a summary of the NZCPS review, recreational water quality monitoring review, MfE's marine environment report, and some current projects in the Hawke's Bay, which may need to be considered in the wider review of the Plan.

7.1 NZCPS Review by Department of Conservation 2016/17

In late 2016, DOC sent out a survey to all regional councils, unitary authorities and territorial councils with a coastal boundary. The survey included questions about the extent to which plans and resource consents have implemented the NZCPS 2010, as well as the major coastal issues facing their region. It also investigated actions that have been taken and are planned to give effect to each individual policy in the NZCPS. This survey informed the effectiveness review of the NZCPS. The Hawkes Bay Regional Council took part in this survey.

Key findings included:

- Councils who resource and implement a strategic and integrated approach to managing their coastal areas are making better progress in using the NZCPS to achieve good coastal management.
- Managing cumulative effects is particularly challenging at the resource consent stage in the absence of a robust, wider strategic planning framework in policy statements and plans.
- Management across the land/coast boundary continues to be an issue. Particular issues of ongoing concern are sedimentation and the land-sea interface, including the downstream impact of land use inland of the coastal environment, and sewage/stormwater management and increasing urban pressures in general.
- A lack of integration between freshwater and coastal water management and standards. In particular, management of the effects of land use on coastal wetlands and estuaries was identified as an issue that falls between the NPS – FM and the NZCPS 2010. Implementation of the NZCPS water quality provisions is hampered in some places by a lack of technical information (particularly with regard to baseline water quality) and the cost of obtaining such information.
- Lack of accepted and consistent methods has been a problem in mapping and risk assessment relating to natural character and outstanding natural landscapes.
- Consistent ways of working and further implementation guidance are still needed for councils
- The need for guidance to support the coastal hazard policies in the NZCPS.
- The views among sector groups on the implications of the Supreme Court's 2014 King Salmon decision for resource management planning and decision making are strongly divided.

7.2 Recreational Water Quality Monitoring and Reporting Review

This 2017 discussion paper was written for Regional and Unitary Councils. It proposes actions to improve the accuracy, robustness, and meaningfulness of recreational water quality monitoring and reporting.

The authors of the report conclude that reporting of recreational water quality needs to be reviewed, with consideration given to statistically robust measures and the needs of different audiences. It states that there is a tension between reporting for public health and more general state of the environment purposes that needs to be resolved.

The report recommends that the regional sector:

1. Advocates and directs through the Environmental Monitoring and Reporting (EMaR) initiative development and implementation of near real-time monitoring, continuous monitoring of proxies, and forecasting of microbial water quality and freshwater cyanobacteria blooms as a priority.
2. Continues discussions with Central Government to have the existing national guidelines for both microbial water quality and cyanobacteria revised, and broadened to:
 - reflect the improved state of scientific understanding since these guidelines were released,
 - clarify the roles and responsibilities of the different organisations involved in recreational water quality monitoring, and
 - form a single, integrated and coherent set of recreational water quality guidelines for New Zealand that also include other hazards (e.g., poor water clarity) and attributes of relevance to the broader recreational experience (e.g., amenity aspects such as nuisance periphyton cover).
3. Actively participates in the design and implementation of the proposed repeat freshwater microbial survey needed to inform an update of the existing national guidelines.
4. Develops a National Environmental Monitoring System (NEMS) for recreational water quality monitoring and reporting, with emphasis given to site selection, sampling frequency and conditions (e.g., during rainfall), test methods, and reporting measures.
5. Establishes with Central Government an appropriate site network and methodology for national scale reporting of state and trends in recreational water quality attributes.
6. Further clarifies, as a high priority, with Central Government the role of the national microbial water quality guidelines in relation to recent amendments to the NPS-FM.
7. Invests in further improvements of the Land, Air, Water Aotearoa (LAWA) “Can I swim here?” recreation module to improve its current scope and scientific robustness.
8. Updates the relevant inter-council Special Interest Group (SIG) research strategies and the overarching Regional Council Science Research & Technology Strategy to direct and incentivise research providers to focus their efforts on research that will advance the needs identified in Section 6 of this paper.
9. Promotes a move away from a primary focus on indicator bacteria test results to one that takes into account site/catchment characteristics and faecal contaminant source knowledge as well as other factors that may impact on human health (e.g., cyanobacteria, marine toxins) or the wider recreational experience (e.g., visual water clarity, nuisance plant growth, water colour, rubbish).
10. Promotes the direct monitoring of pathogens and application of faecal source tracking and Quantitative Microbial Risk Assessment (QMRA) approaches to address recurring or significant microbial contamination at recreation sites.
11. Actively supports community-based initiatives that:
 - empower the public to take personal responsibility in assessing potential health risks associated with contact recreation activities, and
 - provide opportunities for community volunteers to monitor a suite of properties that affect recreational use of fresh and coastal waters.

7.3 2019 Our Marine Environment

Published in October 2019, MfE's Our Marine Environment 2019 report examines the most pressing issues for New Zealand's oceans, seas, coastlines and estuaries. The report summarises four priority issues for the marine environment, as outlined in the following:

Issue 1: Our native marine species and habitats are under threat

- There has been a decline in biodiversity, and habitat condition and extent, as a consequence of our activities.
- An estimated 30% of New Zealand's biodiversity is in the sea but many species and habitats are in trouble. Very few marine species are assessed, but of these 22 percent of marine mammals, 90% seabirds, and 80% of shorebirds are threatened with, or at risk of, extinction.
- The number of identified, non-native marine species established here is rising and now totals 214. Many non-native species can spread rapidly and some affect native species and habitats.
- Estuaries and habitats provide marine life with the food and shelter they need to thrive. Some plants and animals, like seagrass or shellfish, create new habitats and support other species. Many of these are decreasing or under threat.

Issue 2: Our activities on land are polluting our marine environment

- Our activities on land, especially agriculture and forestry, and growing cities, increase the amount of sediment, nutrients, chemicals, and plastics that enter our coasts and oceans.
- Inter-tidal sedimentation rates have generally increased and become highly variable since European settlement. Thick deposits of sediment can smother animals and degrade habitats.
- Coastal water quality is variable. It is generally improving at a national level, but is very site dependent.
- Some pollutants, like pharmaceuticals and cleaning products, end up in the marine environment and the impacts of this are not well understood.
- Plastic is found throughout the ocean including inside shellfish, fish, and birds. Seabirds and other animals that eat plastic can get sick or die.
- Citizen science data collected at 44 sites showed more than 60 percent of beach litter was plastic.

Issue 3: Our activities at sea are affecting the marine environment

- Our activities on coasts and in oceans like fishing, aquaculture, shipping, and coastal development, provide value to our economy and support growth.
- Since 2009, the total commercial catch has remained stable at less than 450,000 tonnes per year.
- In 2018, 84 percent of routinely assessed stocks were considered to be fished within safe limits, an improvement from 81 percent in 2009. Of the 16 percent that were considered overfished, 9 stocks were collapsed.
- Fishing has long-term and wide-ranging effects on species and habitats.
- Seabed trawling and dredging have decreased in the last 20 years. About 24 percent of the fishable area has been trawled since 1990. Shallow areas are trawled more extensively than deeper areas, with varying impacts depending on fishing intensity, gear type, and vulnerability

of habitat.

- As an island nation, 99.5 percent of our imports and exports move by sea, and shipping traffic and vessel size has increased.
- Boat traffic is associated with the spread of non-native species and pollution and requires further construction of wharves and coastal infrastructure.

Issue 4: Climate change is affecting marine ecosystems, taonga species, and us

- Global concentrations of atmospheric greenhouse gas are increasing because of activities like burning fossil fuels for heat, transport, and electricity generation. This is causing unprecedented change in our oceans.
- The rate of sea-level rise has increased. The average rate in the past 60 years (2.44 millimetres per year) was more than double the rate of the previous 60 years (1.22 millimetres per year). Recent data suggests an even faster rate of sea-level rise.
- Extreme wave events may be becoming more frequent.
- Satellite data recorded an average increase of 0.2° Celsius per decade for coastal sea-surface temperature since 1981. Years with an average temperature above the long-term average are more frequent.
- Tohu (environmental indicators that identify trends in the natural world) have changed.
- Long-term measurements off the Otago coast show an increase of 7.1 percent in ocean acidity in the past 20 years. Oceans will continue to become more acidic as more carbon dioxide is absorbed.
- Shellfish, including oysters, pāua and mussels, are vulnerable to increasing ocean acidity and this poses a risk for the shellfish-farming industry.

Priorities for improving understanding

- Investigating how mātauranga Māori can be incorporated into coastal and marine monitoring and management frameworks, in accordance with tikanga Māori.
- Improving our understanding of the ways impacts on estuaries, coasts, and oceans interact and intensify in places and over time.
- Characterising connections between the health of the marine environment and past, current, and future land use in the short and long term.
- Assessing the extent, condition, and ecological integrity of marine habitats.
- Quantifying the benefits that New Zealand's marine ecosystems provide, beyond the income gained from using their resources.

Report Conclusions

Although good progress has been made to better understand our marine environment, gaps in data coverage and consistency remain. This limits some understanding and reporting. These gaps present opportunities: to develop a national picture through coordinated monitoring, and to grow our knowledge about specific places. This could include what people who live in that place do, what they value and want to achieve, as well as understanding the state of the environment in that place.

7.4 Ahuriri Estuary and Coastal Edge Masterplan

The Ahuriri Estuary and Coastal Edge Masterplan was developed by NCC in partnership with Mana Ahuriri Trust, Council, DOC, and through extensive public and stakeholder engagement. It presents a shared vision for the estuary and the surrounding urban environment. This includes improving water quality, encouraging appropriate uses, and creating a resilient estuary environment. It covers the area from Napier Port to Hawke's Bay Airport, and from Napier Hill to the east to the Poraiti foothills in the west.

NCC recently approved \$21.4 million of funding over the next 10 years for projects included in this masterplan. Work has already started on a number of these including storm water improvements, inner harbour planning/assets and the future of Lagoon Farm.

7.5 Sustainable Seas

The Sustainable Seas National Science Challenge was established in 2014. It is one of 11 Ministry of Business, Innovation and Employment-funded Challenges aimed at taking a more strategic approach to science investment.

Funding for this National Science Challenge was allocated for ten years in two five-year periods. Phase I is now complete and Phase II project development commenced in 2019. The objective in Phase II remains the same as Phase I: "To enhance utilisation of our marine resources within environmental and biological constraints". There are four research themes:

1. Understanding degradation and recovery in social-ecological systems
2. Creating value from a blue economy
3. Addressing risk and uncertainty
4. Enhancing ecosystem-based management practices

Sustainable Seas visited the Hawke's Bay in 2018, running a workshop with the HBMaC group. The outcome of this workshop was agreement to co-develop an 'ecosystem based management' collaborative project, and submit the proposal to Sustainable Seas for Phase II.

This Proposal has been approved and Council have provided initial funding to get this project off of the ground.

8 Conclusions

8.1 Outputs - Have we done what we said we would do?

The rules are implemented by permitted and prohibited activity rules, and granting consents under the other activity rules. 241 consents have been granted, varied or renewed since the Plan became operative in 2014. The greatest number of consents granted are for structures and discharges to land. Consents for activities in the coastal margin make up the majority of consents issued under the Plan. At a basic level, the methods relating to the use of regional rules and resource consents have been implemented as set out in the Plan.

The staff interviews provided some observations on the effectiveness of the Plan, and highlighted some key areas for consideration in the wider 10-year review of the plan. Up-to-date coastal hazard information and the application of coastal hazard provisions in the Plan is probably the most pressing issue.

From 2014 to 2018, the Council responded to 3,359 unauthorised incidents. During the 2017/18 period Council received 20% more calls to its Pollution Hotline than the previous year. Of the 1,095 calls made, 696 were for air complaints and 224 for surface water complaints. However, there is limited information about consent compliance monitoring by Council, especially as it relates to consents issued under this Plan. Major consents to discharge contaminants into the CMA have been the subject of ongoing compliance monitoring and enforcement action over the life of the Plan. Where enforcement and compliance complaints are received, or consent monitoring reveals non-compliance, these are acted upon. Broadly, the compliance monitoring and enforcement intents of the Plan have been implemented.

Non-regulatory implementation of the Plan has been very successful. The Council is committed to environmental education and land-based restoration and rehabilitation programmes, such as erosion control schemes and wetland restoration projects.

While SOE monitoring shows that estuaries continue to be under significant stress due to land-uses in their catchments, the environmental hotspot funding is enabling restoration of areas such as the Ahuriri estuary.

Monitoring of recreational water quality shows that the majority of marine sites are suitable for swimming. Overall, a range of non-regulatory methods have been successfully implemented.

8.2 Outcomes – Have we achieved what we said we'd achieve?

Approximately 46 AER outcomes were achieved, 19 were not achieved and 38 outcomes were unknown. Approximately is used because some outcomes were achieved in 'part'.

This report demonstrates that there are a range of AERs that have not been monitored, which makes it difficult to assess the effectiveness of methods. Part of the difficulty is that some AERs have been drafted in a generic manner, particularly those in Part B of the Plan. Further, there are information gaps which have made it difficult to adequately assess the effectiveness of some of the AERs and many also include out-dated monitoring indicators.

It is difficult to assess whether outcomes seeking the protection of natural character, historic heritage, and areas of outstanding natural features and landscapes have been achieved, as the identification of these areas is limited. In addition, the Plan's Significant Conservation Areas need to be reviewed, to ensure areas with outstanding natural character and landscape values are clearly identified and that Plan provisions adequately protects those values.

The Quality Planning website states that "anticipated environmental results should be measurable, should not repeat the objectives of the plan and should not be vague or express generalised expectations". Greater specificity within plan provisions provides greater clarity as to what should be monitored, which makes

developing a robust monitoring programme much more achievable. Monitoring programmes should be specifically designed to assess the achievement of the outcomes sought by the Plan as part of the plan development process. This will help to align plan implementation and state of the environment monitoring so that future reviews can be more targeted in their assessments and certain in their conclusions.

For matters in the CMA, while both the regulatory and non-regulatory interventions contained in the Plan seem to be maintaining the regions relatively good water quality, state of the environment monitoring shows there has not been any improvement.

Estuaries are still receiving sediment and nutrient inputs beyond their assimilative capacity and continue to show signs of eutrophication and degradation. Much of this is due to land-based activities and their effects on the receiving environment. As highlighted in the 2019 Our Marine Environment report, this is a common outcome across New Zealand, where these coastal systems remain vulnerable to current pressures. Many pressures in coastal waters can only be addressed on land, therefore regional plan changes that give effect to the NPS-FM should help improve outcomes for the AERs.

The 2016 Hawke's Bay Marine Research Review highlighted that there is crucial information lacking for the region's coastal waters, limiting the effectiveness of policy and management. Again, this is a nationwide issue, with the 2019 Our Marine Environment report also stating that we need to improve our knowledge of the condition of marine habitats (and their changes) to better quantify their resilience to short- and long-term pressures.

For matters in the coastal margin, comments in the 2004 RPS Plan Effectiveness Report and the 2018 RRMP Effectiveness Review highlighted information gaps and a lack of available monitoring data as a frustration in being able to determine whether the respective AER's are being met. To quote those reviews:

From the 2004 Review:

The report has found there are information gaps which have made it difficult to adequately assess the effectiveness of some of the anticipated environmental results in the Regional Policy Statement...

The report points to Council's SoE monitoring and Compliance monitoring not being well aligned to the Regional Policy Statement. This made it difficult to properly assess the effectiveness of the RPS as considerable time would have to be spent to extrapolate the data and consider it, together with Council's other monitoring efforts, against the RPS.

From the 2018 Review:

Such information gaps have remained a source of frustration in this current review and these comments and recommendations remain valid despite the passage of time since 2004. It is therefore recommended the findings of both the 2004 report and this current report are addressed in the forthcoming review of the RRMP, with a priority for the Council's compliance and monitoring programme to be aligned to provide regional plan effectiveness monitoring. To achieve this efficiently however the AERs will also need to be developed having regard to what is practicable from a monitoring perspective and to what may also be readily available from the ongoing state of the environment monitoring information.

8.3 Are We Focused On The Right Issues?

The greatest focus in the wider 10-year review of the Plan should be on land use consents to erect a structure (in coastal hazard zones) and the discharges to land provisions, as they generate the highest activity. National climate change guidance and new sea-level-rise scenarios will also need to be considered in the review of the Plan.

Conversely, there are a number of provisions in the Plan that have very rarely been implemented (noise in the CMA, exotic plants, discharges to air and taking and damming coastal water) and warrant far less attention. There will be opportunities through the wider review to rationalise provisions that manage particular activities but are rarely applied in practice.

8.4 Other Matters

Many of the provisions in Part B and Part D of the Plan rely on ‘avoiding, remedying or mitigating adverse effects’. This drafting is generally unhelpful as it does not clearly articulate the desired outcome to be achieved and does not provide certainty to users about what can be expected to occur under the Plan, which can lead to fragmented management. In some cases, it does not reflect the shift in interpreting plans that has occurred as a result of the 2014 King Salmon decision of the Supreme Court – i.e. plans mean what they say. Good plan drafting provides clear and transparent links between the provisions which need to be clear, easy to interpret and apply, internally consistent, and consistent between plans.

Since the Plan became operative, amendments have been made to the RMA, the NZCPS, and other national legislation. There is also new national guidance for climate change and natural hazards. Some minor issues could be addressed in the wider 10-year review. There are also some issues that should be addressed (e.g. addressing the gaps between the Plan and the NZCPS 2010).

Many provisions in the Plan will also need reviewing to be consistent with new RRMP provisions included in the TANK and OWB plan changes.

As discussed in the report, the consent and compliance database needs to be updated so regional plan effectiveness monitoring can better assess consent and compliance information as it relates to individual plans and provisions.