



Ministry for the
Environment
Manatū Mō Te Taiao

**Environmental
performance
indicators**

**Technical Paper
No. 41
Marine
Environment**

**Draft policy goals for
coasts estuaries**

Prepared for the Ministry
for the Environment by:
Christina Robb and Jonet Ward –
Lincoln Environmental and Lincoln
University.

January, 1998.

Introduction

As a basis for the development of environmental indicators for coasts and estuaries, the Ministry for the Environment requires performance or policy goals based on key legislation and policy documents (Output 1. 6.8 of the coasts and estuary strand). This report suggests some draft goals that are considered appropriate for the National Environmental Indicators Programme. Relevant information and reports have been provided by the Ministry for the Environment.

This report will be incorporated into a workbook for discussion at the forthcoming workshop on 4 February 1998

Purpose

Indicators are a means of determining whether policies are “working” and achieving their intended outcomes. In theory, the first step for developing indicators is to identify key policy goals (e.g. OECD model for indicator development). Indicators can then be selected to measure performance or progress relative to the goals.

This document contains a set of draft key policy goals for coasts and estuaries. These have been prepared based on existing legislation, policy and knowledge of coastal and estuarine systems and the values people hold on these. The aim is not to develop or refine policy but to summarise key policies into a number of distinct and manageable categories that will be useful in the development of indicators.

Fundamental Policy Goals for the Coastal and Estuarine Environment

In the freshwater indicator development and in preliminary work on coastal and estuarine indicators, the Ministry for the Environment assumed two fundamental goals for coastal management:

- To maintain the life supporting capacity or health of aquatic ecosystems;
- To sustain human uses and values.

These goals of human use and ecosystem health encapsulate “sustainable management” as it is defined in the Resource Management Act (s.5) and also reflect the Environment 2010 Strategy (E2010) vision for New Zealand’s environment.

“A clean, healthy and unique environment, sustaining nature and people’s needs and aspirations”.

E2010 Goals relevant to coasts and estuaries

The E2010 strategy sets out 11 goals for priority issues that lead into an agenda for action. For coastal management, the most relevant goals are:

- Goal 2 - managing water quality and quantity
- Goal 4 - protecting indigenous habitat and biological diversity
- Goal 5 - managing pest, weeds and disease.

Goal 6 which relates to the sustainability of fisheries is also relevant but will be covered under a separate strand of the EPI programme specific to fisheries.

An overview of the E2010 document and its relevance to the coastal marine area is contained in Appendix A (sourced from Keer 1997).

Method for Determining Key Policy Goals

Because the two fundamental goals are very broad and the E2010 goals do not cover all important aspects of managing the coastal/estuarine area, the New Zealand Coastal Policy Statement (NZCPS), Regional Coastal Plans and relevant legislation have been used to determine a more specific and defined set of goals.

The NZCPS and Regional Plans identify and define issues and policies relevant to Coastal/estuarine areas and provide more comprehensive coastal policy than either the RMA or E2010. The objectives, goals or policies from the NZCPS and Regional Coastal Plans were reviewed alongside the E2010 goals and aspects of the RMA (Keer 1997). Summary tables from this report are contained in Appendix B. The table shows the issues, objectives, policies and environmental outcomes contained in each of the 15 Regional Coastal Plans.

As input into this document, Chris Richmond (DoC) drafted a set of key policy goals and identified legislation other than the RMA that is relevant to the coastal environment. Other relevant legislation includes: the Conservation Act 1987, the Foreshore and Seabed Revesting Act 1991, the Marine Mammals Protection Act 1978 and Regulations 1990, the Marine Reserves Act 1971 and the Reserves Act 1977.

For this exercise, the policies, objective and goals of the NZCPS, E2010, the RMA, other legislation and 15 Regional Coastal Plans were grouped into 11 categories and a broad goal stated for each category. These categories and their relationship to the two fundamental goals are shown on Figure 1. The 11 goals are inter-related and are intended to provide a framework for the development of indicators. There is no priority or importance ranking given to any of the goals. Each goal is listed below with the legislative or policy source identified and other relevant information.

Note on “natural character”. Preserving the natural character of the coastal environment is an important policy stated in the RMA, the NZCPS and regional coastal plans. It does not appear as a goal in the list below because it has been difficult to define and includes cultural, ecological, aesthetic, landscape and heritage components (Maplesden 1997). For the purposes of indicator development, the goals below are intended to cover the components of natural character and it is assumed that the goal of preserving natural character is inherent in the combination of goals given below.

Key Policy Goals for the Coastal Marine Environment

1. Protect the biological diversity of coastal ecosystems

Source:
E2010 - Goal 4
“promoting the conservation and sustainable management of biological diversity”
RMA
s.7 *preservation of natural character, “intrinsic value of ecosystems”*
Marine Mammals Protection Act
“protect marine mammals and manage the adverse effects of human interactions on them”
Marine Reserve and Reserves Act
“establish, restore and manage a network of marine protected areas representative of the full range of natural features and marine life of NZ waters”
Wildlife Act
“protect wildlife (seabirds) throughout New Zealand’s fisheries waters” NZCPS - Policy 1.1.4
“protect the ...natural biodiversity, productivity and biotic patterns”, “protect intrinsic value”
Regional Coastal Plans [number of plans]
Restore and rehabilitate indigenous vegetation [10]
Maintenance of ecosystem functioning/biodiversity/intrinsic values [11]

2. Protect areas or habitats of significant indigenous flora and fauna

Source:
E2010 - Goal 4
“enhancing the ecological integrity of remaining indigenous ecosystems”
RMA s.6
“protection of areas of significant indigenous vegetation and habitats of indigenous fauna”
Marine Reserves and Reserves Act
“establish, restore and manage a network of marine protected areas
Conservation Acts s.6a
“preserve as far as practicable all indigenous freshwater (including estuarine) fisheries”
NZCPS - Policy 1.1.2, 3.5.1, 3.2.10
“avoid or remedy adverse effects on significant areas and habitat of any indigenous species”
Regional Coastal Plans [number of plans]
Protect spawning habitats and nursery or feeding areas [7]
Protection, identification, restoration and rehabilitation of areas of significant flora and fauna [7]
Restore and rehabilitate indigenous vegetation [10]

Minimise effects of introduced exotic plants on existing indigenous vegetation [10]

3. Protect the integrity and functioning of ecological processes

Source:

RMA s 5 and 6

“life supporting capacity of land air, water and ecosystems”

“preservation of natural character”

NZCPS - Policy 1.1.2, 1.1.4

“protect ecosystems which are unique to the coastal environment and vulnerable to modification including estuaries, coastal wetlands, mangroves and dunes and their margins”

“protect dynamic processes, natural movement of biota, biodiversity, productivity, and biotic patterns”

Regional Coastal Plans [number of plans]

Protect, maintain and enhance the functioning of ecosystems [7]

Recognise and protect ecosystems and ecological values [7]

4. Protect the integrity and functioning of physical processes

Source:

RMA s 6

“preservation of natural character”, “protection of outstanding natural features and landscapes”

NZCPS - Policy 1.1.4

“protect dynamic processes and features arising from the natural movement of sediments, water and air”

Regional Coastal Plans [number of plans]

Protect and recognise the functioning of coastal processes [7]

Minimising disturbance of the foreshore [4]

Avoid, remedy or mitigate disturbance of the foreshore [14]

5. Maintain and enhance water quality

Source:

E2010 Goal 2

“Manage the quality and quantity of coastal water...”

RMA s 6 and 7

“preservation of natural character”, “Maintenance and enhancement of the quality of the environment”

NZCPS - Policy 1.1.4, 3,2,7, 5.1.1, 5.1.2, 5.1.3, 5.2

“protect natural water and air quality”

“maintenance and enhancement of water quality”

“limiting adverse effects from vessel waste disposal or maintenance”

Regional Coastal Plans [number of plans]

Maintain and enhance water quality [14]

6. Maintain and enhance sediment quality

Source:

RMA s 6 and 7

“preservation of natural character”, “Maintenance and enhancement of the quality of the environment”

NZCPS - Policy 1.1.4, 4,1,4

“protect natural substrate composition”

Regional Coastal Plans [number of plans]

Maintain and enhance sediment quality [14]

7. Protect natural features and landscapes

Source:

RMA s 6

“preservation of natural character”, “protection of outstanding natural features and landscapes”

Marine Reserves and Reserves Act

“establish, restore and manage a network of marine protected areas representative of the full range of natural features and marine life of NZ waters”

NZCPS - Policy 1.1.3

“protect landscapes, seascapes and landforms inc. ... visually or scientifically significant geological features, wild and scenic areas, regionally representative”

Regional Coastal Plans [number of plans]

Protect regionally significant outstanding natural features[7]

Avoid disruption of important views [3],

Maintain diversity, integrity and quality of the landscape [1]

8. Maintain and enhance amenity values

Source:
RMA s 7
“maintenance and enhancement of amenity values”
“recognition and protection of heritage values”
“protect habitat of trout and salmon”
Conservation Act
“protect significant places or areas of historic/cultural significance”
“maintenance and enhancement of amenity values (scenic, recreational, historic, scientific, landscape features and open space)”
“protect habitat or species important for commercial, recreational, traditional or cultural purposes”
Regional Coastal Plans [number of plans]
Recognise and provide for recreational activities [9]
Protection of amenity values [7]
Protection of cultural/heritage values and resources [9]
Protect high recreational value of estuaries [1]
Avoid, remedy or mitigate effects of noise [10]

Note: Amenity value has been assumed to include cultural and heritage values. The RMA definition of amenity values relates to “peoples appreciation of [an area’s] pleasantness, aesthetic coherence and cultural and recreational attributes”.

9. Maintain and enhance public access (to and along the coastal marine environment)

Source:
E2010 - *“A defining feature of New Zealand’s lifestyle is access to our ...coasts”*
p12
RMA s 6
“maintenance and enhancement of public access to and along the coastal marine area”
Foreshore and Seabed Revesting Act
“maintain in public ownership all foreshore and seabed”
NZCPS - Policy 3.5
“maintenance and enhancement of public access”
Regional Coast Plans [number of plans]
Maintain and enhance public access [4]
Provide for appropriate public access [15]

Note: The public ownership goals of the Foreshore and Seabed Revesting Action 1991 has been assumed to relate to public access.

10. Protect public health and safety

Source:
E2010 vision statement
“a clean, safe and healthy environment ...”
RMA s 5, 62, 65
‘allow people to provide for ...their health and safety’
“avoid or mitigate natural hazards”
NZCPS - Policy 3.2.9, Section 3.4, Policy 3.5.1 and 5.1.7
“recognition of natural hazards and avoiding or remedying their effects”
“protect public health and safety”
Regional Coastal Plans [number of plans]
Minimise risks of coastal hazards [10]
Provide safe and efficient navigation [13]
Protect navigational safety, public safety and health [10]

Note: This goal amalgamates safety and health issues with natural hazards.

11. Protect characteristics of the coastal environment of special value to Tangata Whenua

Source:
E2010 - Vision for the environment (p9)
“Taonga of Maori are protected and the cultural practices of Maori associated with the environment are provided for”
Goal 2 - includes “Maori” in definition of community
Section 6, 7 and 8 of the RMA
“relationship of Maori and their culture and traditions with ancestral lands, water sites waahi tapu and other taonga” “kaitiakitanga”, principles of the Treaty of Waitangi”
NZCPS - Policy 1.1.3, 2.1.1, 2.1.2, 2.1.3, 3.2.6, 3.5.1, 3.5.4, 4.2
“identification, protection of characteristics of the coastal environment of special value to Tangata Whenua in accordance with tikanga Maori”
“transfer of functions, duties and powers to iwi authorities”
Regional Coastal Plans [number of plans]
Involve Tangata Whenua in decision making/management [5]
Protect and manage the special characteristics of significance to Tangata Whenua [10]

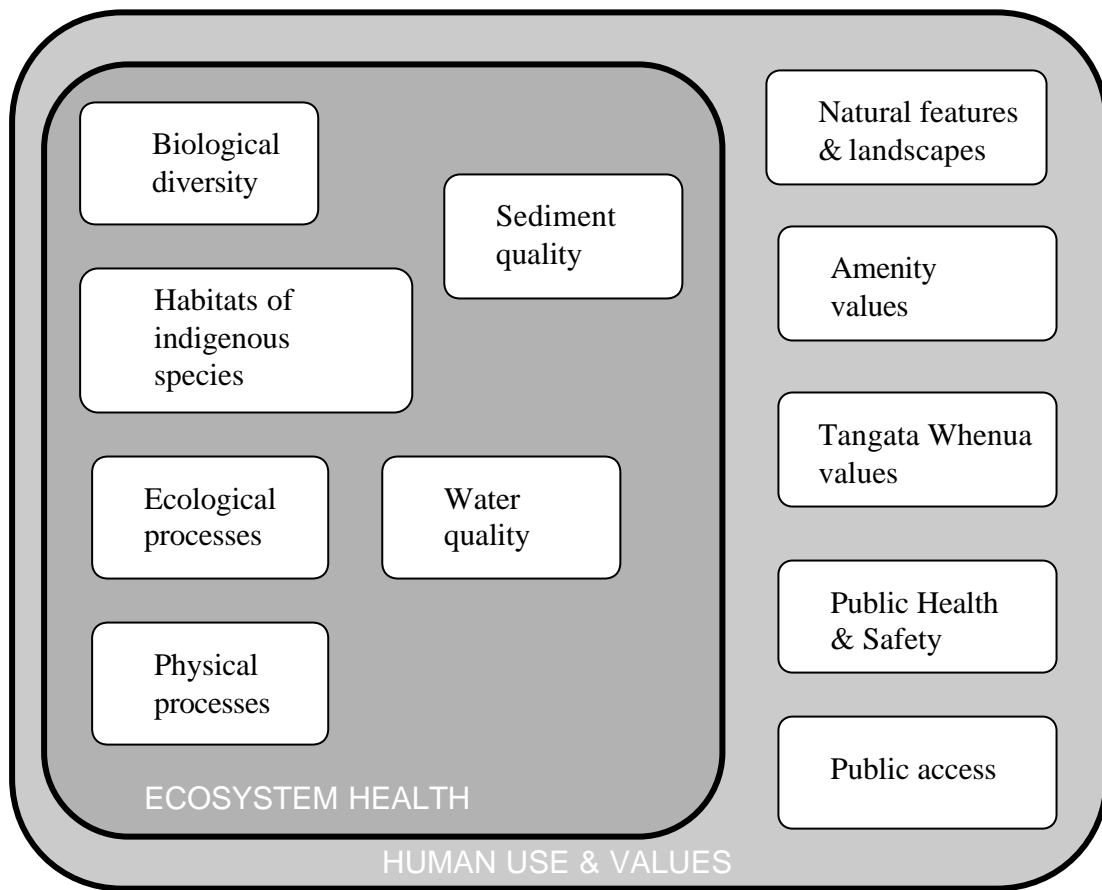


Figure 1 - Draft key policy goals for the coastal marine environment based on existing legislation and coastal policy.

References

Environment 2010 Strategy - A Statement Of The Government Strategy On The Environment. 1995. Ministry for the Environment.

Keer, Janine. 1997. Considering The Regional Coastal Plans, The New Zealand Coastal Policy Statement And The Environment 2010 Strategy To Determine Indicators For The Coastal Environment. Output 1.6.3 Report to Ministry for the Environment.

Maplesden, Rebecca. 1997. Preserving the Natural Character of New Zealand's Coastal Environment. Information report for Environment Waikato.

OECD.1994. Environmental Indicators: OECD Core Set. ISBN 92 63 04263 6

APPENDIX A: Environment 2010 Strategy Goals for the Coastal Marine Area

(extracted from Output 1.6.3 Janine Keer 1997)

The *Environment 2010 Strategy* (E2010) vision for the New Zealand environment by the year 2010 is:

‘A clean, healthy and unique environment, sustaining nature and people’s health and aspirations.’

E2010 Goals for the Coastal Marine Area

To achieve this, the E2010 sets out a series of goals. The following goal is that most relevant to the management and use of the Coastal Marine Area:

Goal 2

To manage the quality and quantity of surface water, groundwater, coastal and geothermal water so that it can meet the current and future needs of ecological systems, communities (including Maori), primary production, and industry, by:

- *maintaining sufficient water in water bodies to meet these current and future needs;*
- *ensuring New Zealand’s surface fresh waters and coastal waters are of a quality suitable to meet community needs for activities such as swimming, fishing and shellfish gathering, and that aquatic life is not significantly affected by discharges and abstractions;*
- *restoring and preventing further degradation of groundwater quality and quantity;*
- *preventing degradation of quality of flow of water resources that are identified as having national significance to New Zealanders for recreational, scenic, scientific or cultural reasons.*

To achieve this goal, there needs to be commitment from government departments, industry, local government and other resource users. The Agenda for Action in the E2010 sets out preliminary steps for achieving these goals by the year 2010. The strategic and action plans (such as the regional coastal management plans) of government departments, industry, local government and other resource users should identify “by whom” and “by when” element of achieving these goals.

The water resource issues which are identified in the E2010 document include the link between fresh water and coastal water quality and quantity and; vegetation and inshore fisheries, Maori values, community needs and aspirations, and the distribution of water throughout New Zealand and the costs associated with this.

The main risks identified include:

- deterioration of water quality
- inefficient/inappropriate use of water
- biosecurity risk to water quality
- over-abstraction and contamination
- changes to natural systems and climatic conditions.

Other Goals of the E2010

Different strands of the Environment Performance Indicators Programme will cover the other goals of the E2010. Many of the issues, objectives, policies and environmental outcomes set out in regional coastal plans also work towards achieving the other goals of the E2010. These are:

Goal 3

To maintain air quality in parts of New Zealand that enjoy clean air, and improve air quality in places where it has deteriorated.

Goal 4

To protect indigenous habitat and biological diversity by:

- *maintaining and enhancing...forests and enhancing the ecological integrity of other remaining indigenous ecosystems;*
- *promoting the conservation and sustainable management of biological diversity so that the quality of our indigenous and exotic ecosystems is maintained or enhanced to guard against extinctions and permit adaptation to changing environmental conditions.*

Goal 5

To manage pests, weeds and diseases by reducing the risks they pose, to levels consistent with New Zealand's established objectives for:

- *biodiversity of ecosystems;*
- *people's health;*
- *biosecurity of the economy*

[10] RCP's contain policy recognising that the introduction of exotic plants is inappropriate and minimising effects on indigenous vegetation needs to be managed.

Goal 6

To conserve and manage New Zealand's fisheries

[1] RCP contains an objective for the 'Sustainable management of coastal fisheries.'

Goal 9

To manage wastes, contaminated sites and hazardous substances

Priorities Set Out in the E2010 for Managing our Water Resources

- establishing guidelines and standards that maintain the biophysical 'bottom line' needs of water quality and quantity;
- promoting integrated land and water management, because catchment management influences water quality and quantity.
- promoting 'land care' type of approaches to management of non-point source discharges;
- establishing accountability mechanisms that require land owners to adopt sustainable land management practices that maintain soil resources and minimise effects on freshwater and marine ecosystems;
- developing and promoting management techniques, such as tradable water permits, which gives users clear incentives to conserve the quality and quantity of water;
- encouraging agriculture and industry to adopt techniques such as the recycling of waste water, so that they use water more efficiently and produce less waste;
- funding and advocating the research and monitoring necessary for effective water management.

APPENDIX B: Regional Coastal Management Plans - A Summary of the Issues, Objectives, Policies and Environmental Outcomes

(from Keer 1997)

Issues	Objectives
<ul style="list-style-type: none"> • Loss of life supporting capacity • Need to recognise and protect ecosystems • Loss of natural character and the need to protect landscape and natural features • Effects of use and development on indigenous flora and fauna • High values of estuaries requiring protection • Degradation of water quality • Loss of habitats from introduction of exotic plants • Recognising the partnership role with tangata whenua • Protection of cultural and heritage values • Providing public access • Conflict over allocation/exclusive occupation of coastal space • Adverse effects of disturbance to foreshore • Recognising need for and managing adverse effects of resource use (taking, use, allocation of, damming or diverting water and the disposal and deposition of material.) • Adverse effects of reclamation • Need for safe navigation • Providing for foreshore, surface of water and recreational activities • Effects of structures • Demand for marinas and moorings • Risk to coastal environment from the storage, use and transportation of hazardous substances • Effects of air discharges • Avoiding the risks of natural hazards • Effects on natural processes from use and development • Increasing demand for aquaculture • Need for co-ordinated management of the coastal environment (cross boundary issues) • Need to continue with efficient management of ports • Obligation to provide for defence facilities and activities • Recognising the need for network utilities • Noise generated from activities • Need to provide good/fair decision making • Need to monitor and review 	<ul style="list-style-type: none"> • Protect, maintain, enhance the functioning of ecosystems including the life supporting capacity of the coastal environment • Preserve and maintain natural character from inappropriate use and development • Maintain diversity, integrity and quality of landscape • Protect, identify, restore and rehabilitate areas of significant indigenous flora and fauna • Maintain and enhance water and sediment quality • Avoid the adverse effects of exotic plants and remedy or mitigate the effects of exotic plants already introduced • Protect and manage special characteristics of significance to tangata whenua • Involve tangata whenua in management of the coastal area • Preserve and protect cultural heritage values and resources • Maintain, enhance public access • Provide for occupation of space while minimising effects of alienation • Provide for the taking, use or diversion of water • Avoid the adverse effects of damming • Avoid inappropriate reclamation or drainage • Maintain safe and efficient navigation • Provide for a wide range of activities while avoiding, remedying or mitigating adverse effects • Concentrate marinas and moorings in appropriate locations to avoid conflict • Manage the use of, and minimise the risk of hazardous substances • Manage the avoidance of effect of air discharges • Avoid, remedy and mitigate the adverse effects of natural hazards • Protect and recognise the functioning of coastal processes • Provide for appropriate aquaculture • Provide for port operations and facilitate their efficient use and development • Provide for defence activities as a nationally importance issue • Encourage upgrading of defence activities • Provide for network activities while ensuring adverse effects are avoided, remedied or mitigated • Avoid, remedy or mitigate the effects of noise • Ensure sufficient information is available to make informed and consistent decisions • Place conditions on resource consents • There to be continued effectiveness of the Plan

Policies	Environmental Outcomes
<ul style="list-style-type: none"> • Avoid the adverse effects of use and development on areas of outstanding landscape and natural character. • Identify opportunities to restore and rehabilitate indigenous vegetation and natural character and protect significant habitats. • Set water quality standards/classifications to be met • Manage discharge of stormwater/ballast water/human sewage and other waste. • Provide mixing zones exempt from standards • Maintain shellfish gathering/food gathering areas at a quality for human consumption. • Protect spawning habitats and aquatic life at spawning time and nursery or feeding areas. • Recognise the introduction of exotic plants into coastal environment is inappropriate. Manage already introduced exotic plants to ensure ecology is not adversely affected. Eradicate <i>Spartina</i>. Minimise effects on existing indigenous vegetation. • Identify characteristics and adopt procedures to accommodate special values to tangata whenua and involve them in decisions that affect them • Protect heritage sites and identify additional sites of heritage value. • Avoid the effects of use and development where there are special amenity, spiritual, historical or cultural features or values • Recognise the landscape, cultural, heritage, amenity, recreational and ecological values that can be affected by exclusive occupation of space. • Recognise the impact of sand, shingle and mineral extraction. Ensure their removal does not exceed natural rates of replenishment. • Manage the effects of deposition of material • Provide for the take, use, damming and diversion of water where they do not affect natural and physical values • Recognise that dredging is a necessary activity and control the effects • Recognise when reclamation and drainage are necessary and manage the effects of these • Manage surface of water activities and structures to provide safe and efficient navigation. • Recognise those activities which cause disturbance of foreshore. • Recognise and provide for recreational activities with regard to adverse effects • Provide for public access, structures and allocation of space where it does not result in adverse effects or conflict of use. • Remove structures that are no longer necessary/upgrade structures which detract from visual amenity • Prevent disposal of hazardous substances and develop emergency responses to spills. Develop procedures for storage, use and transportation of hazardous substances <p><i>(continued next page)</i></p>	<ul style="list-style-type: none"> • The sustainable management of natural and physical resources • Maintenance of the functioning of ecosystems/biological diversity and the lifesupporting capacity of the coastal area • Preserving areas of natural character • Protection of outstanding landscapes and natural features • Maintenance of diversity/integrity of the landscape • Protection of areas of significant indigenous flora and fauna • Protection of areas of significant conservation value including habitat areas • Maintain water quality • Minimise adverse effects of exotic plants • Treaty relationship is recognised and facilitated, including meaningful consultation by including tangata whenua in decision making • Relationship of tangata whenua and their culture and traditions are recognised and provided for. • Sustain mauri of natural and physical resources • Preservation of significant and diverse range of cultural heritage places and areas • Amenity, natural, recreational, heritage, cultural and conservation values maintained • Maintenance and enhancement of public access • Allowing appropriate activities to be undertaken while minimising conflict of occupation. • Protect coastal area from inappropriate use and development • Continuation of necessary dredging and appropriate disposal of material • Effective and sensitive coastal protection works • Avoiding reclamation and drainage except in appropriate circumstances • Navigation safety is protected • Minimising disturbance of the foreshore • Allowing necessary structures while avoiding their proliferation • No disposal of hazardous substances • Air quality maintained and enhanced • Minimise risks of coastal hazards • Provision of aquaculture to provide sustainable and economic benefits • Efficient and effective operation of Defence activities • Noise levels maintained for peoples health, well-being, amenity and for the well-being of coastal fauna • Incorporating updated and new information into the coastal plan • Co-ordination and integration between agencies with responsibilities in coastal environment • Compensation to be provided by operators of activities with adverse effects <p><i>(continued next page)</i></p>

Policies	Environmental Outcomes
<ul style="list-style-type: none"> • Use regional air plans to manage air quality/control air discharge with adverse effects • Take a cautious approach to development in areas at risk of coastal hazards • Implement natural hazard management options while ensuring positive effects outweigh adverse effects • Recognise that aquaculture is an appropriate use subject to protection measures • Specify maximum standards for noise emissions/minimise noise from activities • Place conditions on resource consents including financial contributions and bonds 	<ul style="list-style-type: none"> • Monitoring programmes and establishment of baseline data • Increased certainty and public awareness for coastal users