

Report

Chatham Islands Resource Management Document Section 35 of the Resource Management Act – Review of Efficiency and Effectiveness

Prepared for Environment Canterbury

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1 Introduction

The Chatham Islands Resource Management Document (CIRMD) was prepared under the Resource Management Act 1991 (the Act) and the Chatham Islands Act 1995.

Section 26 of the Chatham Islands Act states that the Chatham Islands Council (the Council) shall have a single resource management document and that it shall contain:

§ A regional policy statement

§ A regional coastal plan

§ A district plan

The document may also contain provision for contents of regional plans as set out in Section 67 of the Act and regional rules in accordance with Section 68 of the Act.

The CIRMD was subsequently prepared and made operative on 24 January 2001.

Section 35 (2) of the Resource Management Act states the following:

(2) *Every local authority shall monitor*

(b) *the efficiency and effectiveness of policies, rules, or other methods in its policy statement or plan.*

[(2A) *Every local authority must, at intervals of no more than 5 years, compile and make available to the public a review of the results of its monitoring under subsection (2)(b).]*

Accordingly the report presents a review of the monitoring results under Section 35(2) (b) in respect of the efficiency and effectiveness of the CIRMD provisions. This is the first review of the CIRMD under Section 35 of the Act since the document became operative in 2001. This report therefore considers the document provisions since 2001.

2 Monitoring

2.1 The CIRMD

The Chatham Islands Council (the Council) is required to undertake monitoring to determine the effectiveness and efficiency of the CIRMD.

In Part 1.4 of the CIRMD the context of resource management on the Chatham Islands is discussed as follows:

“1.4 Context of Resource Management on the Islands

The islands have a minimal history of statutory resource management. There has not been a statutory planning document in place and planning has generally proceeded on an ad-hoc basis. There has not been the same degree of control and regulation as in New Zealand and as a consequence there has not been the same contact with the bureaucracy. People tend to be more self reliant and self sufficient, which itself reflects the isolated nature of the islands. At the same time there has not been the need for rules and regulations in many cases because of the absence of pressure on resources and community structures and networks in place. There is an absence of

detailed records and background information and the Council itself also has limited resources for enforcing, implementing and monitoring its document.

As indicated in Part 1.1, the extent of control necessary is an issue in itself. In many existing circumstances, little control is required but the effects of future development, which may be low in probability but of high potential impact cannot be ruled out. An appropriate balance must therefore be struck. Part 2.18 refers to the ability to make changes to the document if this is deemed necessary.

While Council is obliged to meet its functions and duties under the Act, it is nevertheless true that the uniqueness of the Chathams means that "New Zealand" solutions may not be applicable. Local perspectives will not necessarily coincide with other perspectives held in a national or New Zealand context.

The document is a first generation one which undoubtedly will become refined as the practical aspects of resource management are worked through in the context of the requirements of the islands. In addition to the resource management document the Chatham Islands Act allows Council the option of preparing specific plans for resources such as water and air.

All of the above factors are relevant therefore in approaching resource management issues on the islands."

Under Part 2.20 of the CIRMD the issue of monitoring is addressed in more detail.

"2.20 Monitoring

The Act requires the document to state the procedures to be used to review the matters contained in the document and to monitor the effectiveness of the document as a means of achieving its objectives and policies. As indicated in Part 2.18 monitoring may lead to a change to the document if necessary.

Council will carry out its responsibilities to administer the plan and any consents, although Council itself has limited resources to carry out extensive monitoring. It does not have access to sophisticated monitoring regimes or staff to carry out extensive checking of resource consents.

The most valuable tool in review and monitoring is likely to be the community itself which is relatively small with extensive networks, as well as key groups such as Chatham Islands Enterprise Trust, Iwi groups, Fisheries Association, Federated Farmers, Department of Conservation and Conservation Board and the Ministry of Fisheries.

This kind of informal contact and feedback is likely to give Council an indication of the necessity to review matters in the document and its effectiveness. Other procedures used to indicate performance include:

- § Documentation of complaints received by Council*
- § Site inspections*
- § Enforcement Action and abatement notices undertaken by Council and/or other parties*
- § Areas covenanted and protected*
- § Record of the number and type of resource consents*
- § Monitoring of and compliance with resource consent conditions*

§ *Records from other organisations such as the Department of Conservation, Ministry of Fisheries, etc.”*

Accordingly the CIRMD recognises the different and unique nature of the islands in a resource management context and that Council does not possess the appropriate resources to undertake detailed and sophisticated monitoring. Accordingly more informal and ad hoc measures are proposed and the following is noted in respect of the methods of monitoring suggested in the CIRMD.

2.2 Monitoring Methods in the CIRMD

2.2.1 Informal Feedback from Community

With less than 700 persons on the islands and well established networks the Council is generally aware of any developments or trends that give rise to resource management issues and/or impacts on the CIRMD. For the purposes of this report, Owen Pickles, General Manager of the Chatham Islands Council who has held this position since 2002; Pat Smith, Mayor of the Chatham Islands, who is servicing his sixth term as mayor and is a long established farmer on the islands; and Ken Hunt, Department of Conservation Area manager, Chatham Islands, were consulted in order to obtain feedback on development on the islands and on the CIRMD.

2.2.2 Documentation of Complaints

One complaint has been received which related to the disposal of fish wastes. Consideration was given to amending the CIRMD but it was decided the most appropriate course of action was the development of protocols with fish factory owners and which potentially includes methods such as recycling rather than disposal.

2.2.3 Site Inspections

Site inspections are carried out as required.

2.2.4 Enforcement Action and Abatement Notices

No enforcement action has been undertaken or abatement notices issued, as the necessity has not arisen. Some concern has been expressed about old fishing boat hulls on the beach at Waitangi but this matter has not been taken any further.

2.2.5 Areas Convenanted and Protected

In the CIRMD 25 areas in private ownership containing areas of indigenous fauna and flora were identified as protected by covenants (Refer Appendix 1 of CIRMD). The Department of Conservation (DOC) advises that in 2009 the number of covenanted areas has increased to 44, although the additional sites are not included in the CIRMD.

2.2.6 Record of Number and Type of Resource Consents

The following resource consents have been received by Council since 2001.

Type of Resource Consent	Number of Resource Consents	Date	Comment
Subdivision	Approximately 70	2001-2009	Subdivisions are usually boundary adjustments and/or the creation of large rural lots. A small number of subdivisions (approximately 3) created rural residential allotments of limited numbers.
Land Use:			
§ Meat works	1	2002	Consent granted but has not proceeded.
§ Bulk and location infringements	approximately 3	-	Works of minor nature.
§ Liquor establishment	1	2002	Consent granted and established.
§ Paua Farm	1	2002	Consent granted but has not proceeded
§ Tourist Lodge, Pitt Island	1	2006	Consent granted and established
§ Café, Te One	1	2007	Consent granted and established
§ Wind Farm Turbines	1	2009	Publicly notified May 2009
Discharge and Water Permits		2002	
§ Meat works	2	2002	Consent granted but has not proceeded.
§ Paua Farm	2	2002	Consent granted but has not proceeded.
§ Waitangi WWTP	2	2004	Consent granted and established.
Coastal Permits			
§ Replacement of Owenga Wharf	1	2008/09	Consent granted and to be constructed in 2009.
Designations			

§ Waitangi WWTP	1	2004	Consent granted and established.
§ Certificates of Compliance	1	2005	Telecom structures

In addition since 1991 approximately 1 – 2 houses have been built per year.

It is apparent that other than subdivision consents, most of which are of a relatively minor nature, there have been relatively few resource consent applications received by Council. Furthermore, a number of proposals have not proceeded. To date only three applications have been publicly notified (the meat works, the Waitangi WWTP and the wind turbines).

2.2.7 Monitoring of and Compliance with Resource Consent Conditions

The only resource consent that currently requires monitoring is Council's Waitangi Wastewater Treatment Plant (WWTP). Monitoring indicates there is full compliance with the conditions of the resource consents.

2.2.8 Records from Other Organisations

Records and documents from organisations such as DOC, MFish and MAF provide information on resource management issues in the Chathams in respect of such matters as indigenous vegetation and habitats; water quality and land use trends. The Chatham Islands Economic Review 2008 (Taylor Baines) provides useful background information.

2.3 Surface Water Quality Monitoring

Since the CIRMD was prepared Council entered into a contract with Environment Canterbury in 2005 for the latter to provide the administration and implementation of regional council functions under the Resource Management Act. This contract has allowed additional resources for monitoring on the islands. In particular Environment Canterbury now monitors surface water quality and in 2007 produced the following document:

"State of the environment monitoring; water quality and ecosystem health of the lakes, streams and Te Whanga Chatham Islands/Rehoku." (Referred to as Ecan Report No R08/3.)

The report states that in 2005, Environment Canterbury began baseline monitoring of 25 streams, 12 lakes and 5 locations at Te Whanga on Chatham Island. Quarterly sampling was undertaken over a year with the main findings summarised as follows:

- § Water quality is good, particularly in less modified water bodies.
- § Life supporting characteristics mostly meet national guideline values and therefore the water is capable of sustaining aquatic ecosystems.
- § Nitrogen concentrations are low compared with New Zealand and reflects naturally low nitrogen content and lack of nitrogen based fertiliser.
- § Waterbodies are naturally high in dissolved phosphorus which can make them susceptible to impacts from grazing.
- § Livestock access to waterbodies rather than channelisation, water abstraction and drainage has the greatest impact.
- § Most lakes are in a steady state.

- § Te Whanga is a unique ecosystem and highly valued ecosystem but is susceptible to contamination from development including grazing animals.

Five yearly monitoring with additional determinants are recommended as well as areas not currently sampled including waterbodies on southern Chatham Island and Pitt Island.

2.4 Events Since 2001 Affecting the CIRMD

Since the CIRMD became operative in 2001 a number of events have occurred which effects the efficiency and effectiveness of the document. The events include the following:

- § In 2004 Council obtained funding from central government to assist in the administration of the Chatham Islands. This funding included monies to address resource management issues on the islands including upgrading of infrastructure including the Waitangi Waste Water Treatment Plant (WWTP) and waste management disposal.
- § A new Waitangi WWTP was commissioned in 2006 at a site in Hospital Road. The previous plant was located adjacent to the beach at Waitangi. The relocation affects a number of the CIRMD outcomes particularly as it relates to water quality, coastal and air quality issues.
- § Council adopted a Waste Management Plan in 2005 which provides for the progressive closure of the existing landfills at Kaingaroa, Owenga and Te One; the establishment of a transfer station system and ; a new landfill designed and operated accordance with MfE guidelines. The landfill at Kaingaroa has been closed and a transfer station established. The Owenga landfill is proposed to be closed in 2010/11. The closure of Owenga and Te One landfills is dependent on finding a new site for a landfill which is yet to be finalised. The strategy affects a number of the CIRMD outcomes particularly as it relates to water quality, coastal, waste management and air quality issues.
- § As part of the funding arrangement with the government Council entered into a contract with Environment Canterbury in 2005 for the latter to provide the administration and implementation of regional council resource management functions under the Resource Management Act. This contract potentially allows for additional monitoring and has resulted in the production of Ecan Report No. R08/3 relating to surface water. Environment Canterbury are undertaking further monitoring focusing on Te Whanga. As yet no other monitoring has been undertaken by Environment Canterbury on behalf of Council.
- § Council prepared a Pest Management Strategy in 2001. The document was subsequently reviewed and made operative in 2008. The 2008 document is more comprehensive than the 2001 document reflecting the additional resources available from Environment Canterbury. The implementation of this document affects CRMD such as the protection of significant indigenous vegetation and fauna.

2.5 Development on the Chatham Islands since 2001

Monitoring indicates that since 2001 the natural and physical resources of the Chatham Islands have not been subject to significant development pressures with little change having occurred. For example, there is relatively few resource consents applied for and the only major activity to be established via this process is the Waitangi WWTP. While some development may have occurred where resource consents are not sought or required (such as development of land for farming purposes) it is considered that any significant development would be known given the nature of the local community. Farming and fishing continue to be the mainstays of the economy, although since 2001 stock units are estimated to have remained static with a total number of approximately 125,000. In fact in the last 2-3 years destocking of sheep and cattle is likely to have occurred in

response to difficulties arranging suitable shipping to New Zealand. This situation may change with the impending arrival of a second ship. Since 2001 it is estimated there is likely to be a slightly greater percentage of cattle compared with sheep with current estimates indicating 65% sheep and 35% cattle. Fish factories operate at Waitangi, Te One, Port Hutt and Owenga (2). The fish factory at Kaingaroa has closed. Tourism has however increased although visitors tend to be on pre-arranged booking tours. The population has remained relatively static since 2001 with a population of approximately 700 residents.

An analysis of the efficiency and effectiveness of the CIRMD provisions should therefore take into account the relative lack of development on the islands and the subsequent testing of these provisions particularly given the relatively low number of resource consents and the necessity to invoke rules.

3 Efficiency and Effectiveness

The monitoring results are therefore reviewed in terms of the efficiency and effectiveness of the policies, rules or other methods of the CIRMD.

“Effectiveness” and “efficiency” can be defined as follows:

- § Efficiency is determined by whether or not the policies and methods are the most cost effective way of achieving the environmental results.
- § Effectiveness is determined by whether or not the policies and methods have achieved the environmental results.

4 Provisions of CIRMD

The objectives, policies, methods and anticipated environmental results of the following Parts of the CIRMD are set out in full below.

- 4.1 The Iwi
- 4.2 Water Resources
- 4.3 Coastal Environment
- 4.4 Indigenous Vegetation and Habitats of Fauna
- 4.5 Landscapes and Natural Features
- 4.6 Heritage Items
- 4.7 Public Access to and Along the Coastal Marine Area, River and Lakes
- 4.8 Natural Hazards
- 4.9 Air Quality
- 4.10 Hazardous Substances
- 4.11 Waste Management
- 4.12 Subdivision and Development
- 4.13 Development Contribution

- 5.3 Rural Management Area
- 5.4 Settlement Management Area
- 5.5 Industrial Management Area
- 5.6 Coastal Marine Area
- 5.7 Off Shore Islands Management Area

Comment is made on the outcome of the anticipated environmental results and then an analysis of the relevant part of the CIRMD is made.

4.1 The Iwi

4.1.1 Objective – Management of Resources

- (i) *The management of natural and physical resources that takes into account the principles of the Treaty of Waitangi and that recognises the relationship, culture and traditions of Iwi with their ancestral lands, water, sites, waahi tapu and other taonga.*

4.1.2 Policies

- (i) *To have regard to Kaitiakitanga in managing the natural and physical resources.*
- (ii) *Iwi should have opportunities to manage their ancestral land and customary land in a sustainable manner.*
- (iii) *Sites of cultural significance, such as waahi tapu and other taonga be protected from the adverse effects of subdivision, use and development.*
- (iv) *Human and other wastes should not be discharged in a manner that is culturally inappropriate to Iwi.*
- (v) *Natural habitats which are important sources of traditional food supplies to Iwi such as kai moana should be protected.*
- (vi) *In the use and development of resources, the appropriate level of access to those resources by Iwi for either protection or accessibility purposes shall be taken into account.*

4.1.3 Methods

- (i) *Development of protocols (which can change over time by agreement of the parties) to guide the nature of Council's consultation with Iwi, and the type and extent of the involvement of tangata whenua throughout the process of administering the Act. Also refer to Part 2.2 and Part 2.3.*
- (ii) *Consideration of Kaitiakitanga and the principles of the Treaty of Waitangi when resource management decisions are made.*

- (iii) *Provision for management plans which allow the off shore islands and other ancestral lands to be managed by their owners.*

4.1.4 Anticipated Environmental Results	Comment
<i>(i) Resource Management assessments and decisions that include an Iwi perspective.</i>	Since the drafting of the CIRMD significant changes have occurred to the organisation of Iwi on the islands. Moriori and Ngati Mutanga are the recognised Iwi on the islands. The Hoktehi Moriori Trust and Ngati Mutanga O Wharekauri Iwi Trust are the respective mandated bodies representing Iwi. The Iwi Liaison Group referred to in Part 2.3 of the CIRMD no longer exists. Council consults with the two groups identified above on resource management matters, including resource consents. Iwi have not been represented on a hearings committee as envisaged in Part 2.3 although since 2001 there have only been two hearings, none of which involved submitters. Protocols have also not been developed as envisaged. However, as indicated, above the liaison group is no longer available to facilitate such a process and there has been considerable changes to Iwi organisations. In addition, six of the nine Councillors themselves identify as Moriori, Maori or both. Iwi are consulted on significant resource consent applications and the matters outlined in Policy 4.1.2 are had regard to in considering applications.
<i>(ii) Management by Iwi of their own resources.</i>	Iwi have not developed management plans for ancestral lands, such as off-shore islands, which likely reflects the changes which have occurred to the Iwi structure and the low priority afforded to this matter by such organisations.
<i>(iii) Cultural sites are undisturbed and mahinga kai available with appropriate access to such resources.</i>	Human remains were disturbed during excavation in proximity to the Te One landfill in 2008. It was not clear as to whether the site was an urupa. Council followed appropriate protocols following the disturbance, although a small section of the community did raise concerns of the handling of the issue. Other than this matter, monitoring indicates that there is no evidence of disturbance of cultural sites and access to mahinga kai has not been impeded.

Analysis of Part 4.1

Changed circumstances relating to Iwi organisation on the islands has meant that Iwi involvement is not as comprehensive as envisaged in Part 2.2 and 2.3 or Method 4.1.3 of the CIRMD. This is a matter that requires addressing in review of the CIRMD now that the Iwi structure is more settled.

In terms of efficiency, most of the policies and methods have significant benefits given that they recognise the Iwi presence on the islands and generally represent sound resource management practice. There will be a cost in developing management plans for the ancestral lands and the lack

of implementation and potential duplication means it is probably appropriate to review these provisions.

The policies and methods may not be so effective in terms of Iwi involvement of the structure envisaged in the CIRMD but this is largely due to organisational changes with Iwi. Nevertheless Iwi are consulted and a high proportion of Iwi are Councillors. The policies and methods are effective in respect of the potential disturbance of cultural sites and access to resources.

4.2 Water Resources

4.2.1 Objective – Water Quantity

- (i) *To retain flows and levels in water bodies and groundwater sufficient to support their life supporting capacity.*

4.2.1.1 Policies

- (i) *Sufficient water should be maintained in water bodies to:*
 - (a) *safeguard life supporting capacity of aquatic ecosystems including the significant habits of indigenous fauna and areas of significant indigenous vegetation*
 - (b) *protect existing value of the water bodies as sources of mahinga kai for Iwi and as food gathering sites for the community*
 - (c) *protect waahi tapu and other waahi taonga of value to Iwi*
 - (d) *preserve natural character of lakes and rivers and protect outstanding natural features and landscapes*
 - (e) *provide for human consumption and stock drinking water*
- (ii) *To record the location and volume of all water takes for information purposes.*

4.2.1.2 Methods

- (i) *Rules requiring resource consent for use of water for activities other than domestic, stock and firefighting purposes, existing takes and small takes.*
- (ii) *Rules that protect natural values of water bodies.*
- (iii) *Encourage landowners to protect natural values by private agreements, covenants and use of guidelines and education.*
- (iv) *All persons taking groundwater and surface water shall notify Council on the location and amount of water.*

4.2.1.3 Anticipated Environmental Results	Comment
(i) <i>Sufficient water is</i>	Ecan Report No. R08/3 indicates sufficient water is available and that the

<i>available to meet the requirements of people and community including future generations and to safeguard the life supporting capacity of ecosystems.</i>	<p>water of most streams, lakes and Te Whanga is considered capable of sustaining aquatic ecosystems. Fish life is generally considered “abundant” which is consistent with earlier studies.</p> <p>Lack of rainfall in summer can affect bores that are used for drinking purposes. Council is investigating a further bore at Waitangi to supplement the existing township supply, and also a new water supply scheme at Owenga, which currently relies on individuals making their own arrangements.</p>
<i>(ii) A record is built up of the location and quality of water takes.</i>	<p>Currently there is not a formal record of takes, other than commonly known takes such as for the Waitangi township supply and the fish factories. Rules in the CIRMD require Council to be notified of any new water takes in order to increase the knowledge of the water resource, although since 1991 only one resource consent for a water take (the meatworks) has been applied for.</p>

4.2.2 Objective – Natural Character of Lakes, Rivers and Wetlands and their Margins

- (i) *Preservation of the natural character of lakes, rivers and wetlands and their margins from inappropriate use, development and subdivision.*

4.2.2.1 Policies

- (i) *The adverse effects of activities on natural character should be avoided, remedied or mitigated in terms of:*
- (a) *natural flows and levels*
 - (b) *water quality*
 - (c) *ecosystem functioning and health*
 - (d) *indigenous vegetation and habitats*
 - (e) *heritage, cultural and recreational values*
- (ii) *Any new structure on the bed of any lake or river, should where necessary provide for fish passage through or past it.*
- (iii) *Structures that do not have a functional need to locate in rivers, lakes or wetlands or their margins should be avoided, particularly in unmodified areas.*
- (iv) *The disturbance of any bed or margin of river, lake or wetland by excavation, dredging, drilling, tunnelling, deposition or reclamation should not have more than a temporary effect on the life supporting capacity of ecosystems, amenity values and downstream users.*
- (v) *Vegetation on the margins of lakes, rivers and wetlands should be sustainably managed where it will:*
- (a) *Enhance or maintain water quality, through the intercept of non-point source contamination from adjacent land*

- (b) *Enhance existing ecosystems*
- (c) *Maintain or enhance the natural character of lakes, wetlands, rivers and their margins*
- (d) *Maintain or enhance amenity values*

4.2.2.2 Methods

- (i) *Encourage landowners to protect natural values by private agreements, conservation covenants, fencing and planting of margins.*
- (ii) *Use of guidelines, Codes of Practice and education workshops.*
- (iii) *Rules which regulate activities which have the potential to have an adverse effect on the natural character of beds and margins of lakes, and rivers and wetlands.*
- (iv) *Esplanade reserves/strips to be set aside as conditions of subdivision consents where appropriate or otherwise negotiated with the landowner.*
- (v) *Purchase/designate land.*

4.2.2.3 Anticipated Environmental Results	Comment
<i>(i) The existing natural character is not adversely affected by use, development and subdivision.</i>	Monitoring indicates natural character has not been detrimentally affected. There has been little development and no evidence of the clearance of riparian vegetation, although stock access to streams does affect water quality and hence natural character. Existing localised uses such as the landfills can potentially affect water quality.
<i>(ii) Passage of fish is not adversely affected by subdivision, use and development.</i>	Ecan Report No R08/3 states several stream culverts do not provide for the passage of indigenous fish, and this situation should be addressed in the installation of new culverts.
<i>(iii) Only those structures which have a functional need are located in proximity to water bodies and their margins, particularly in unmodified areas.</i>	There has been little or no development that has resulted in structures in proximity (either of a functional or non functional need) to waterbodies, other than some culvert replacement.
<i>(iv) Existing areas of riparian vegetation are retained or enhanced and areas of new vegetation are created where they provide environmental benefit.</i>	Monitoring indicates that there has not been any significant clearance of indigenous vegetation although stock access remains an issue. However the number of covenanted areas has increased substantially which is likely to result in greater protection of riparian vegetation.

4.2.3 Objective – Water Quality

- (i) *The maintenance and enhancement of the islands' water quality at a level which sustains its life supporting capacity for natural, economic, recreational and cultural reasons.*

4.2.3.1 Policies

- (i) *Discharges or dumping of contaminants to water or land should not have a greater than minor adverse effect on the standard of water and the discharge should not give rise to any adverse effects on natural ecosystems.*
- (ii) *Discharges of stormwater should not include levels of contaminants that would adversely effect the receiving environment.*
- (ii) *Vegetation on the margins of lakes and rivers should be created, retained and enhanced where it will maintain and enhance water quality.*
- (iii) *As far as practicable land uses should be managed so that contaminants from non-point discharges do not adversely affect water bodies including the following actions:*
 - (a) *controlling stock access to water bodies*
 - (b) *avoiding excessive nutrient runoff*
 - (c) *planting of margins*
 - (d) *stipulating minimum distance between water bodies and effluent disposal fields, waste disposal sites etc*
- (v) *Esplanade reserves/strips may be set aside where it can be established that they will contribute to the maintenance and enhancement of water quality.*

4.2.3.2 Methods

- (i) *To encourage practices which minimise land use runoff.*
- (ii) *To encourage use of programmes, such as "Growsafe" for the application of sprays.*
- (iii) *Esplanade strips/reserves to be set aside as conditions of subdivision consents where appropriate or otherwise negotiated with the landowner.*
- (iv) *Rules to ensure that discharge of contaminants and stormwater from residential, industrial or commercial developments do not adversely affect water quality.*

4.2.4.3 Anticipated Environmental Results	Comment
<i>(i) A water quality that is able to support the resident's economic, recreational and cultural needs and which safeguards the life supporting capacity of ecosystems.</i>	<p>Ecan Report No R08/3 indicates that overall the water quality is relatively good, particularly in waterbodies that are less modified, and capable of sustaining aquatic ecosystems. Fish life is generally described as "abundant".</p> <p>The report states water quality is most affected by livestock access rather than channelization, drainage and abstraction. The report identified other localised uses such as the landfills, septic tank discharge and fish waste disposal potentially affecting water quality.</p> <p>Drinking water accessed from lakes (such as the Kaingaroa supply from Lake Rangitai) can be susceptible to stock and bird contamination and</p>

	therefore requires treatment which is provided for. Other than this issue, water quality for human consumption appears to be good.
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4.2.4 Objective – Te Whanga

- (i) *The maintenance and enhancement of Te Whanga as a significant natural ecosystem and community resource in respect of:*
- *food gathering and recreation*
 - *the functioning of ecosystems*
 - *Iwi values*
- (ii) *The protection of the adjoining road network from rising lagoon levels.*

4.2.4.1 Policies

- (i) *Te Whanga should be retained for community purposes such as food gathering and recreation unless it can be established that non community activities will not adversely effect community values.*
- (ii) *Activities in or adjacent to Te Whanga should not adversely affect:*
- *Iwi values*
 - *Community access*
 - *Water quality*
 - *Ecosystem values*
- (iii) *To enable the opening of Te Whanga to protect the existing roading network provided the Iwi and other affected parties have been consulted and the opening does not affect the life supporting capacity of the lagoon.*

4.2.4.2 Methods

- (i) *Consult with Iwi and other affected parties in the management of the lagoon levels as it relates to artificial opening and carry out works as necessary.*
- (ii) *Rules to regulate activities in the lagoon.*
- (iii) *Undertake studies on the functioning of the lagoon.*

4.2.4.3 Anticipated Environmental Results	Comment
<i>(i) The lagoon is retained as a community resource without activities impacting on this</i>	Te Whanga is retained as a community resource and there are no commercial activities operating in it. There is concern that the inclusion of Te Whanga in the Foreshore and Seabed Act could potentially allow Te Whanga to be exploited for commercial activities. Ecan Report No R08/3 notes that water quality is generally good although susceptible to change

<i>status.</i>	because of its semi-enclosed nature. The report refers to an abundant number of both marine and freshwater species, which is available to the community.
<i>(ii) Lagoon levels which do not adversely effect the functioning of ecosystems of the lagoon or the roading network.</i>	Te Whanga is managed to prevent flooding of the North Road and has on average been artificially opened once every two years to prevent this. Ecan Report No R08/3 note there is a limited understanding of the flows of nutrients between land and sea as a result of manual openings and that more regular openings may be of benefit.
<i>(iii) A better understanding of the functioning of the ecosystems of the lagoon.</i>	Reports such as Ecan Report No R08/3 provide a good basis for an improved understanding of the lagoon and Environment Canterbury is now undertaking further specific monitoring of Te Whanga. Since 2001 other reports on Te Whanga have been undertaken including an assessment of its salinity and its physical and natural characteristics.

Analysis of Part 4.2

In terms of water quantity, the policies and methods are considered to have achieved the anticipated environmental results in an effective and efficient manner given that the monitoring indicates, in general, there sufficient water to cater for people and communities and ecosystems. Rules are in place but have not been tested in any significant manner although resource consent is required for any larger takes. There is not a comprehensive record of water takes partly due to the lack of resource consents and this situation is unlikely to change given the static population and lack of industrial activity.

In respect of natural character, monitoring indicates that this is generally being retained, although stock accessing waterways remains an issue. Overall, the policies and methods are deemed to be efficient and effective and provide sound resource management practice. The most utilised method appears to be the covenanting of private land (Method 4.2.2.2.(i)). This method is voluntary and has significant benefit for the community with little cost. The other methods provide a range of options from regulatory to voluntary although they are sparingly used. For example, rules such as Rule 5.3.4.16 which controls activities in or near waterbodies has not been tested.

Water quality is generally regarded as good although it appears Policy 4.2.3.1 (iii) (a) is not always successfully met in terms of controlling stock access. Controlling stock access generally requires fencing and the reality is that it is a financial cost that many farmers cannot afford (as was the situation in 2001). In these circumstances a rule requiring fencing would achieve little (and in any event is not a common method in New Zealand). Financial incentives, education and covenants are still considered the most efficient and effective methods and the large uptake of covenants on the islands indicate these types of methods are working. It is also noted stock numbers are relatively static and farmers do not apply large amounts of fertiliser.

Other potential effects such as contamination from landfills and the location of septic tanks are controlled by the rules (at least in respect of new landfills and septic tanks). The Solid Waste Management Plan will result in the closure of the existing landfills and the establishment of a new environmentally acceptable landfill.

Potential contamination from fish waste was identified in Ecan Report No. R08/3. Fish factory waste is generally disposed of at the Te One landfill and to a lesser extent at Owenga (there is a dedicated pit at the Te One landfill). Council determined this issue is best dealt with by protocols

with the fish factory owners rather than specific rules and the situation is likely to improve further when the new landfill is established.

In terms of Te Whanga, the lagoon is retained as a community resource in accordance with the plan provisions, although there is concern in respect of its status under the Foreshore and Seabed Act. The cost of Te Whanga being used for commercial activities is clearly of concern for the community and rules in the CIRMD are an efficient and effective method to regulate this. The lagoon is managed at levels that protect the road network (and adjoining farmland) which is of significant benefit compared to the cost of the opening. The effects of the openings on ecosystems may not be fully understood, although further studies undertaken since 2001 (including the current Environment Canterbury monitoring) are increasing the base of knowledge. Currently the provisions generally appear efficient and effective although there will be benefit from ongoing monitoring and further studies.

4.3 Coastal Environment

4.3.1 Objective - Natural Character

- (i) Preservation of the natural character of the coastal environment including its protection from inappropriate use, subdivision and development.*

4.3.1.1 Policies

- (i) The adverse effects of land activities on the natural character of the coastal environment should be avoided, remedied or mitigated in terms of:*
 - (a) Coastal processes*
 - (b) Natural landforms such as landscapes, seascapes and landforms*
 - (c) Ecosystem functioning and health*
 - (d) Significant areas of indigenous vegetation and habitats of fauna*
 - (e) Historic, cultural and recreational values*
 - (f) Water quality*
- (ii) Subdivision, use and development of land should be located, designed and managed in a way that protects areas of significant areas of indigenous vegetation and habitats of fauna and outstanding natural features and landscapes.*
- (iii) Intensive residential, commercial and industrial development should take place in or in proximity to areas which are already developed in preference to unmodified coastal areas.*
- (iv) To restore and rehabilitate the natural character of the coastline where practicable.*

4.3.1.2 Methods

- (i) Encourage landowners to continue to protect significant areas of indigenous vegetation and habitats by conservation covenants, fencing and adoption of good practices.*
- (ii) Use of guidelines and education.*
- (iii) Rules which regulate activities which have the potential to have an adverse effect on the coastal environment.*

- (iv) *Controlling the amount of development permitted in the coastal environment by the delineation of Management Areas.*

4.3.2 Objective - Coastal Water Quality

- (i) *The maintenance and enhancement of the coastal water quality of the Chathams at a standard which safeguards its life supporting capacity.*

4.3.2.1 Policies

- (i) *Discharges or dumping of contaminants to water or land within the land above mean high water springs should not adversely affect the standard of coastal water and the discharges should not give rise to any adverse effects on habitats, feeding grounds or ecosystems in the coastal environment.*
- (ii) *To operate the Waitangi sewerage system in an efficient and environmentally acceptable manner.*
- (iii) *All vessel construction, maintenance and servicing sites should possess facilities for the containment and collecting and treatment or disposal of wastes or contaminants arising from activities on the site.*
- (iv) *As far as practicable land uses should be managed so that contaminants from non-point discharges do not adversely affect coastal water.*

4.3.2.2 Methods

- (i) *Rules to ensure that discharges of contaminants from rural, residential, industrial community or commercial developments do not adversely affect coastal water quality.*
- (ii) *Routine maintenance of the Waitangi sewerage system.*
- (iii) *To encourage practices which minimise land use runoff such as the maintenance and protection of coastal vegetation.*

4.3.3 Anticipated Environmental Results	Comment
<i>(i) Natural features such as significant indigenous vegetation habitats and landscapes along the coast are retained and where practicable enhanced.</i>	Monitoring so far indicates there has been little adverse change in respect of natural features. Significant planting has occurred in some locations such as the Ocean Mail Reserve on the north coast of Chatham Island and the number of covenanted areas has increased substantially (although not all of these will be coastal).
<i>(ii) The openness of the coastal environment in terms of building</i>	The openness has been retained given the negligible amount of development. The only coastal developments that have been undertaken outside the settlements are the small number of dwellings including the

<i>development outside of the settlements is retained.</i>	tourist lodge on Pitt Island.
<i>(iii) Coastal water quality is not adversely affected by land based activities.</i>	Generally it appears coastal water quality is not adversely affected in a significant manner with some improvements made since 1991. The location of the new Waitangi WWTP at Hospital Road has improved coastal water quality as effluent no longer discharges to the CMA. The proposal to establish a new landfill and the closure of existing coastal landfills at Kaingaroa, Te One and Owenga will also improve water quality. Conditions have been imposed on resource consents (e.g. paua farm and Owenga Wharf) to ensure water quality is protected. Discharges to waterbodies as a result of stock access can affect coastal water quality, although numbers of stock units have remained static or reduced. The maintenance of boats is generally undertaken on the “hard” and therefore contaminants do not necessarily discharge to the CMA..

Analysis of Part 4.3

Generally the coastal environment including water quality has been retained, and in some cases enhanced, in terms of the anticipated environmental results. The coastal environment has not been subject to extensive development but enhancements have been made in terms of the relocation of the Waitangi WWTP and the ultimate closure of landfills located on the coast. Where development has occurred on land that could affect the coastal environment, appropriate conditions have been imposed on resource consents to protect this environment. There are rules in the CIRMD requiring a minimum setback from Mean High Water Springs (MHWS) which is considered to be a cost effective method for assisting in the control of development.

Given the standard of water quality the policies and methods are considered efficient and effective. As indicated previously management of contaminants from non-point discharges (4.3.2.1 (iv)) is difficult to achieve given it is often a stock access problem but does not appear to be a significant issue for coastal water quality.

4.4 Indigenous Vegetation and Habitats of Fauna

4.4.1 Objective -Significant Areas of Indigenous Vegetation and Habitats

- (i) *To protect, and where possible, enhance the remaining significant areas of indigenous vegetation and habitats of indigenous fauna.*

4.4.2.1 Policies

- (i) *To recognise areas of significant vegetation and habitats of fauna in accordance with one or more of the following criteria:*
 - (a) *The area is one of the best examples of an association of species which is typical of the Chathams.*
 - (b) *The area is important for the future viability of a threatened species.*
 - (c) *The area is connected to one or more significant areas in a way that makes a major contribution to the overall functioning of those areas.*
 - (d) *The area is greater than 10 hectares with a high degree of non-modification.*
 - (e) *The area is protected by statute or covenant.*

- (ii) *To avoid, remedy, or mitigate adverse effects on the ecological integrity, functioning, habitat values and natural character of areas of significant vegetation and habitats.*
- (iii) *To encourage forestry plantings for among other purposes, firewood.*
- (iv) *Burnoffs should avoid areas of significant indigenous vegetation and habitats of fauna.*

4.4.3 Methods

- (i) *Encourage landowners to consider informal/formal protection options such as conservation covenants/kawenata such programmes as Nature Heritage Fund, Nga Whenua Rahui and Queen Elizabeth II Covenants, Iwi silent files and private management agreements.*
- (ii) *Encourage landowners to fence off areas of significance.*
- (iii) *Consult and liaise with island owners in the management of off-shore islands that contain significant areas.*
- (iv) *Co-operate with Department of Conservation in the implementation of its species recovery, research, surveying and habitat and protection programmes.*
- (v) *Identify areas of significance on planning maps as "Areas of Significant Natural Value" in consultation with landowners and other appropriate agencies.*
- (vi) *Prepare a pest management strategy under the Bio Security Act in consultation with the community to seek to prevent damage to significant areas.*
- (vii) *Allow forestry as a permitted activity subject to compliance with conditions in rural areas.*
- (viii) *To encourage 'good burning practices' by developing burning guidelines with Federated Farmers and other parties.*
- (ix) *Regulate by rules in certain circumstances.*

4.4.4 Anticipated Environmental Results	Comment
<i>(i) Identification and protection of areas of significant indigenous vegetation and habitats.</i>	In Appendix 1 of the CIRMD 25 areas in private ownership containing areas of indigenous fauna and flora were identified as protected by covenants. In 2009 this number has increased to 44. No other known areas have been identified in accordance with the criteria in Policy 4.4.2(i).
<i>(ii) Retention and enhancement of areas of significant existing vegetation and habitats.</i>	As far as is known existing areas have been retained. None of the areas identified in Appendix 1 have been the subject of resource consent and provisions such as Rule 5.3.4.16 controlling riparian vegetation clearance have not been invoked. Monitoring indicates that there has not been significant vegetation clearance on the islands. A comprehensive Pest Management Strategy is now in place which will assist in the control of pests damaging flora and fauna.
<i>(iii) Increased</i>	A number of publicity programmes have been undertaken on the Chatham

<i>knowledge by public and property owners as to natural values of such areas.</i>	Islands by Council and DOC staff highlighting the natural values of the area. Since the contract with Environment Canterbury the Council now publishes the "Chatham Islands Quarterly" which among other matters highlights the natural values of the Islands.
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Analysis of Part 4.4

The monitoring indicates that significant indigenous vegetation and habitats have been retained and possibly enhanced, particularly given the retention and increase in covenanted areas (and which is one of the primary methods identified in 4.4.3 (i) and (ii)). The biggest threat appears to be stock grazing rather than vegetation clearance and as indicated earlier this is a fencing issue, rather than a regulatory matter. There appears to be greater awareness on the islands of the importance of natural values.

The criteria for significant areas outlined in Policy 4.4.2(i) should be reviewed to update its relevance to the Chatham Islands today and how such a policy should be applied. The CIRMD essentially does not contain extensive rules relating to vegetation clearance as this does not appear to be required and is strongly opposed by the community. Significant forestry plantings have not taken place in accordance with Policy 4.4.2(iii) which is intended to reduce the pressure on the use of indigenous timber for firewood. However as indicated under Part 4.9 households are converting to alternative methods of heating, which reduces pressure on firewood.

A number of the methods have been implemented including the preparation (and review) of a pest management strategy, although liaison in the management of off-shore islands has not occurred except for DOC involvement. While good burning guidelines have not been developed (Method 4.4.1 (viii)) Council as the Rural Fire Authority issues permits for any fires and which usually requires sign off from DOC. Most burn offs are for the removal of gorse rather than indigenous vegetation.

Overall the provisions appear efficient and effective given the retention of natural areas. This is of significant benefit and has accrued little cost given the non regulatory approach, not all policies and methods have been implemented.

4.5 Landscapes and Natural Features

4.5.1 Objective - Outstanding Landscapes and Natural Features

- (i) *The protection of outstanding landscapes and natural features which are integral to the character of the Chatham Islands.*

4.5.2 Policies

- (i) *To recognise areas of outstanding landscapes and natural features in accordance with one or more of the criteria listed below:*
 - (a) *the landscape/natural feature is intact and largely unmodified by human activity.*
 - (b) *the landscape/natural feature is an example of a national or international geological landform.*
 - (c) *the landscape/natural feature is one which people travel to view.*

- (d) *the landscape/natural feature is high in visual sensitivity to change.*
- (e) *the area is protected by statute or covenant.*

- (ii) *Development should be undertaken in a manner which avoids, remedies, or mitigates adverse effects on the criteria set out in Policy 4.5.2(i).*

4.5.3 Methods

- (i) *Encourage landowners to consider informal/formal protection options such as covenants, reserves etc.*
- (ii) *Consult and liaise with island owners in the management of offshore islands that contain outstanding areas.*
- (iii) *Identify outstanding areas on planning maps in consultation with landowners as “Areas of Significant Natural Value”*
- (iv) *Regulate by rules in certain circumstances.*

4.5.4 Anticipated Environmental Results	Comment
<i>(i) Identification of outstanding landscapes and natural features.</i>	A number of landscapes and features are identified in Appendix 1 of the CIRMD. As indicated above further areas have been covenanted but it is understood these relate more to indigenous habitats and fauna. Except for the areas in Appendix 1 and the additional covenanted areas other outstanding areas have not been identified under Policy 4.5.2(i).
<i>(ii) Retention of outstanding landscapes/natural features that are not compromised by development.</i>	Monitoring indicates that features are not compromised by development which as indicated previously is not significant. None of the outstanding areas identified in Appendix 1 of the CIRMD have been the subject of resource consents.

Analysis of Part 4.5

The monitoring indicates that outstanding landscapes and features have been retained, (and possibly further ones added primarily by Method 4.5.3(i) and (iii)). However similar to Policy 4.4.2(i), it is considered that Policy 4.5.2(i) should be reviewed in terms of its relevancy and applicability. Method 4.5.3(ii) has not been significantly advanced by Council but DOC is active in the management of at least some of the off-shore islands and their natural values. The Pest management Strategy notes that due to a lack of resources Council will not focus on the off-shore islands but rather will advocate to the community, owners of the islands and central government of the importance of preventing infestation the islands and will continue to work with DOC and Biosecurity New Zealand.

While some of the policies and methods have not been implemented, it is considered that overall the provisions are efficient and effective.

4.6 Heritage Items

4.6.1 Objective - Places and Sites of Heritage Values

- (i) *The recognition and protection of places and sites of heritage value which have a historical and cultural association with the Chatham Islands.*

4.6.2 Policies

- (i) *The identification of items in the document for information and regulatory purposes.*
- (ii) *Demolition, alteration or removal of identified heritage items should not be allowed unless it can be demonstrated that:*
 - (a) *any alteration will not detract from its heritage value*
 - (b) *relocation of the item is able to be accommodated without having a significant adverse effect*
 - (c) *practical utilisation of the item is not possible*
- (iii) *Archaeological sites including those of special significance to Iwi are to be protected from the adverse effects of use and development.*
- (iv) *Consultation with Iwi prior to any development upon discovery of urupa remains.*

4.6.3 Methods

- (i) *Use of guidelines and education.*
- (ii) *Identification on the planning maps of heritage items and their listing in Appendix 3.*
- (iii) *Require resource consent for activities affecting heritage items.*
- (iv) *Compliance with the Historic Places Act 1993 in respect of archaeological sites.*
- (v) *Encourage dissemination of information and/or on the process and protocol for disturbance of Iwi sites.*
- (vi) *The purchase of heritage items by heritage authorities and consideration by Council to purchase such items.*

4.6.4 Anticipated Environmental Results	Comment
<i>(i) Identification of heritage items in the document.</i>	Heritage items are identified in the document (Appendix 3) but there have not been any additions since 2001. It is proposed that Tommy Solomon's statue at Owenga will be registered by the NZHPT and therefore potentially could be added to the list. Appendix 3 should be updated to reflect any changes.
<i>(ii) Increased recognition of heritage items.</i>	Monitoring suggests recognition remains about the same.
<i>(iii) Retention of heritage items including archaeological sites.</i>	Monitoring suggests that there has not been a loss of items.

<i>(iv) Increased understanding of protocol of Iwi if cultural sites are disturbed.</i>	There is an awareness of protocols and were followed for example when human remains were disturbed in proximity to the Te One landfill.
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Analysis of Part 4.6

The provisions are generally considered effective and efficient as heritage items are identified and a statutory process (resource consent) is required if alteration, demolition, etc takes place. Council has not purchased items or undertaken education programmes (Methods 4.6.3 (i) and (iv)) which probably reflects a lack of opportunity and/or budgetary constraints but this does not preclude other organisations undertaking this role such as NZHPT and DOC.

4.7 Public Access to and Along the Coastal Marine Area, Rivers and Lakes

4.7.1 Objective - Maintenance and Enhancement of Public Access

- (i) *The maintenance and enhancement of appropriate public access to and along the coastal marine area, rivers and lakes.*

4.7.2 Policies

- (i) *In considering the maintenance and enhancement of public access, the Council shall have regard to:*
- *The availability of access across private land and existing legal access*
 - *Trends in demand for access.*
 - *The necessity to:*
 - *protect areas of significant indigenous vegetation or significant habitats of indigenous fauna*
 - *protect cultural values*
 - *protect fisheries resources*
 - *protect public health or safety*
 - *ensure a level of security consistent with the purpose of a resource consent*
- (ii) *Public access to the following areas should be enhanced as the opportunity arises;*
- *The western side of Te Whanga (legal and physical access)*
 - *The coast in general and in particular at:*
 - *Matarakau (physical access)*
 - *Mairangi (physical access)*
 - *Waitangi West Beach east of Cape Pattison (physical access)*
 - *South Coast (physical access)*
- (iii) *To consider:*
- *the creation of esplanade reserves/strips for public access on subdivisions which result in the creation of allotments that are less than 4 ha in area subject to the matters set out in Policy 4.7.2(i) and (ii)*
 - *the use of access strips*
- (Refer also to Objective 4.12.4).*

- (iv) *Structures should be designed and located to avoid, remedy or mitigate adverse effects on public access to and along the coastal marine area, rivers and lakes.*

4.7.3 Methods

- (i) *Encouraging landowners to continue to facilitate public access.*
- (ii) *Creation of physical access such as roads and boat ramps.*
- (iii) *Creation of esplanade reserves/strips, access strips or private agreements.*
- (iv) *Monitor visitor numbers to assess the necessity for public access.*

Analysis of Part 4.7

There are no anticipated environmental results in this section which suggests this may be a drafting error. The Chatham Islands have traditionally relied on owner permission to access the coast and lakes and rivers given the general absence of the “Queens Chain”. Monitoring indicates that the situation has not changed since 2001 and that access is usually given provided prior permission is asked for. Access has not been enhanced as set out in Policy 4.7.2(ii) as this has not been a priority matter. This matter requires review particularly given the relatively low benefit and high costs that may accrue.

Policy 4.7.2(ii) has not been implemented to any significant extent given the small number of subdivisions that the policy applies to. The provisions are however considered to be efficient and effective as they recognise the circumstances of the Chatham Islands and provide sufficient flexibility in respect of esplanade reserves.

In terms of Method 4.7.3(iii) there has been an increase in visitor numbers. However these are largely a result of organised tours in which access is pre-arranged and does not result in pressure on access.

4.8 Natural Hazards

4.8.1 Objective - Adverse effects of Natural Hazards

- (i) *Avoid or mitigate the adverse effects of natural hazards on human life and property and other aspects of the environment where feasible.*

4.8.2 Policies

- (i) *Use, development and subdivision should not occur in areas that are prone to erosion, sea level rise and flooding where these hazards are likely to endanger human life and property and other aspects of the environment, unless the hazard can be mitigated.*
- (ii) *To ensure that any mitigation measures in relation to natural hazards do not in themselves lead to unnecessary adverse effects.*

4.8.3 Methods

- (i) *Where appropriate regulate by rules.*
- (ii) *Place conditions on resource consents and/or use provisions of the Building Act.*
- (iii) *Encourage landowners to fence off erosion prone areas from stock where practicable and plant trees where appropriate.*

- (iv) *Monitor information on sea level rise as to its likely effect on human life and property and if necessary regulate subdivision and development to avoid or mitigate its effects.*

4.8.4 Anticipated Environmental Results	Comment
<i>(i) Identification of natural hazard prone areas.</i>	The areas of natural hazards are identified in the CIRMD but are not shown on the planning maps. Since 2001 further sand blow outs have occurred at Ocean Mail Reserve and also at Owenga.
<i>(ii) Use, development and subdivision that is not exposed to the adverse effects of erosion, flooding, etc.</i>	Feedback indicates that no development has occurred on hazard areas. Christchurch City Council has recently assumed responsibility for issuing building consents which may lead to a more rigorous PIM process as it relates to hazards.
<i>(iii) Mitigation of natural hazards where such mitigation measures are acceptable.</i>	It appears no significant mitigation measures have been undertaken although it is understood Environment Canterbury staff will provide advice at Ocean Mail Reserve and that some planting to stabilise local areas has been undertaken by landowners.

Analysis of Part 4.8

It appears development has not occurred in identified hazard prone areas and that any mitigation measures have not exacerbated the situation (Policies 4.8.2(i) and (ii)). The lack of development has generally not resulted in the utilisation of Methods 4.8.3.(i) and (ii). It is not known if erosion prone areas have been fenced off but it appears that at least some planting has occurred, particularly in "sand blow outs". Sea level rise has not been specifically monitored but it has not been necessary in respect of subdivision and development given the general lack of activity.

Overall the provisions are considered effective and efficient given the significant potential costs associated with natural hazards, but the general lack of development means the provisions have not been tested. The resources of Environment Canterbury, however may allow a more thorough analysis of hazards, as is occurring with Ocean Mail Reserve. This would enhance the efficiency and effectiveness of the provisions.

4.9 Air Quality

4.9.1 Objective - Retain Standard of Air Quality

- (i) *To retain the high standard of air quality in the Chathams.*

4.9.2 Policy

- (i) *Discharges of contaminants to air should not have an adverse effect on people's health and amenities, on flora and fauna and on other natural and physical resources.*

4.9.3 Methods

- (i) *Regulate by rules to stop any nuisance arising from a discharge.*
- (ii) *Encouragement of good practices in the operation of activities with potential adverse air discharges.*

4.9.4 Anticipated Environmental Results	Comment
(i) <i>Retention of the existing air quality.</i>	While there has not been any scientific monitoring it appears that overall existing air quality has been retained given the lack of significant development. In Waitangi, air quality in terms of odour has improved with the relocation and upgrading of the WWTP to Hospital road. There are also less open fires with a number of residents installing heat pumps. The proposed closure of the landfill at Kaingaroa will also result in improved air quality and this will be further enhanced with the proposed closures of the Owenga and Te One landfills.

Analysis of Part 4.9

Given that the air quality is at least likely to have been retained the policy and methods are considered to be efficient and effective. The relocation of the WWTP and the closure of the landfill has resulted in better operational practices (Policy 4.9.8 (ii)). The WWTP was also the subject to the resource consent process (Method 4.9.4(ii)).

4.10 Hazardous Substances

4.10.1 Objective - Prevention and Mitigation of Effects of Hazardous Substances

- (i) *To prevent or mitigate the actual and potential effects arising from the storage, use, disposal and transportation of hazardous substances.*

4.10.2 Policies

- (i) *Hazardous substances should be securely contained during their use, storage, and transport so as to minimise the risk of escape.*
- (ii) *Hazardous substances should be disposed of in an environmentally acceptable manner including the avoidance of the Coastal Marine Area, water bodies and wildlife habitats.*

4.10.3 Methods

- (i) *Compliance with all legislation dealing with hazardous substances including the Hazardous Substances and New Organisms Act 1996, Dangerous Goods Act 1974, Transport Act 1962 and Building Act 1991.*
- (ii) *Compliance with industry guidelines eg Code of Practice for the Safe Use of Timber Preservatives and Antisapstain and Chemicals and Growsafe programmes.*
- (iii) *Investigate methods of disposal including an environmentally managed landfill or transportation of hazardous substances off the islands.*

- (iv) *Education and advice on the storage of hazardous substances.*
- (v) *Abatement notices/enforcement orders where management of hazardous substances are not adhered to.*
- (vi) *Rules regulating the location, storage and disposal of hazardous substances.*

4.10.4 Anticipated Environmental Results	Comment
<i>(i) A low level of risk in the Chathams from hazardous substances.</i>	There have been no reported incidents involving hazardous substances.
<i>(ii) Increased awareness from the public of hazardous substances.</i>	Difficult to determine but there has not been any specific dissemination of information from Council.
<i>(iii) The establishment of a method to dispose of hazardous substances in an environmentally acceptable manner.</i>	The Solid Waste Management Plan considered the option of exporting hazardous waste to New Zealand for disposal although this has not occurred. Disposal should at least improve with the closure of the existing landfills and the establishment of the new landfill. Currently hazardous substances are disposed of at landfills without stringent management.

Analysis of Part 4.10

Hazardous substances generally continue to be a low level risk on the Chathams with no reported incidents and as a consequence Policy 4.10.2(i) and the methods are considered to be efficient and effective. The disposal of hazardous substances is still an issue given the existing landfills and Policy 4.10.2(ii) may not be fully met. However, the methods are all considered to be efficient and effective and improvements are likely with further implementation of the Solid Waste Management Plan.

4.11 Waste Management

4.11.1 Objective - Waste Disposal

- (i) *To ensure that waste is disposed of in a manner that avoids, remedies or mitigates adverse effects, having regard to the community's and Council's resources.*

4.11.2 Policies

- (i) *The maintenance of public landfills for the disposal of waste in an environmentally acceptable manner.*
- (ii) *The closure of the existing Kaingaroa landfill depending on the availability of a new site.*
- (iii) *Any waste disposed of on private land should be in an environmentally acceptable manner.*

4.11.3 Methods

- (i) *Education and advice on good waste disposal practices.*
- (ii) *Ensure that good management practices are in place at landfills including regular covering of rubbish, fencing to contain litter etc.*
- (iii) *Investigate alternatives for the Kaingaroa landfill.*
- (iv) *Rules to regulate the disposal of waste.*

4.11.4 Anticipated Environmental Results	Comment
<i>(i) Acceptable standards and sites for the disposal of waste having regard to the Chathams' resources and likely effects.</i>	With the full implementation of the Solid Waste Management Plan the anticipated environmental results will be met.

Analysis of Part 4.11

With the implementation of the Solid Waste Management Plan the anticipated environmental result to be met although the standards of waste management will be significantly higher than envisaged in 2001. It is considered Policy 4.11.2 (i) and (iii) and Methods (i) and (ii) are still applicable. The provisions relating to the Kaingaroa landfill (Policy 4.11.2 (ii) and Method 4.11.3 (ii)) require review to take account of the Solid Waste Management Plan to reflect the efficiency and effectiveness benefits obtained since 2001.

4.12 Subdivision and Development

4.12.1 Objective – Subsequent Uses

- (i) *To ensure that sites which are created by subdivision do not subsequently result in adverse effects on the environment which cannot be avoided, remedied or mitigated.*

4.12.1.1 Policies

- (i) *That sites created should be capable of being put to reasonable use having regard to the objectives and policies for the management area in which it is located.*
- (ii) *Any subdivision should avoid the likely adverse effects on significant indigenous vegetation and habitats, outstanding landscape features, and the natural character of waterbodies and the coastal environment.*
- (iii) *Any subdivision should avoid or be able to mitigate any site identified with a natural hazard.*

4.12.2 Objective - Provision of Services

- (i) *The adequate provision of services, infrastructure and access for sites created by the subdivision and development in a manner that avoids, remedies or mitigates adverse effects.*

4.12.2.1 Policies

- (i) *Subdivision and development should provide for:*
 - (a) *Disposal of sewerage in a manner which maintains public health and avoids, remedies or mitigates effects on the environment*
 - (b) *Adequate water supplies for drinking and firefighting*
 - (c) *Disposal of stormwater in a manner which does not affect water quality and avoids inundation*
 - (d) *Connections into reticulated systems where they are available*
 - (e) *The possible installation of septic tanks in the Waitangi Settlement Area for connection with the present reticulated system*
 - (f) *Supply of electricity, street lighting and telecommunications using a method that is appropriate to the circumstances of the subdivision/development and to the amenity values of the area*
 - (g) *Safe and efficient vehicular and pedestrian access*
 - (h) *In the Settlement Management Areas, the following:*
 - *roads and rights of way to a sealed standard*
 - *underground reticulation of services*
 - *kerb and channelling and footpaths*
- (ii) *The costs of additional new or upgraded services and infrastructure shall be paid for by the developer/subdivider (refer Section 4.13).*

4.12.3 Methods

- (i) *Conditions of resource consents*
- (ii) *Management plans for forestry*

4.12.4 Objective- Esplanade Reserves and Strips

- (i) *To contribute to the protection of conservation values and enable public access and recreational use of rivers, lakes and the coastal environment by the creation of esplanade reserves and strips in locations where the above matters require addressing.*

4.12.4.1 Policies

- (i) *To generally require esplanade reserves or strips to be set aside for allotments of four hectares or less in accordance with the criteria set out in Table 4.12.1.*

4.12.5 Methods

- (i) *Creation of esplanade reserves and strips as a condition of resource consents.*

4.12.6 Anticipated Environmental Results	Comment
<i>(i) An orderly subdivision pattern that facilitates development without adverse effects on the environment.</i>	Most subdivisions that have occurred are mainly boundary adjustments. The small number of subdivisions that have involved the creation of new lots have suitable conditions imposed on them in terms of minimum area, roading, services, etc and have resulted in an “orderly pattern.”
<i>(ii) Subdivisions that are provided with adequate levels of servicing having regard to their location.</i>	As indicated above subdivision consents have suitable conditions imposed on them to ensure there is adequate servicing.
<i>(iii) Creation of esplanade reserves/strips in appropriate locations.</i>	Subdivision applications have generally not resulted in any significant requirements for esplanade reserves/strips under CIRMD Policy 4.12.4.1.

Analysis of Part 4.12

The policies and methods are considered to be efficient and effective given that the environmental results have largely been met. In particular, sites created for rural and residential purposes are capable of reasonable use (Policy 4.12.1.1) which has resulted in an orderly pattern of development. The policies and methods are effective given that costs for upgrading are the responsibility of the developer/subdivider.

The subdivisions have the appropriate levels of servicing in respect of roading, water and effluent disposal and meet Policy 4.12.2.1. The requirement for esplanade reserves/strips has not generally arisen but it is considered the objective and policy (including Table 4.12.1) are an efficient and effective means to address this matter given they recognise the situation on the Chatham Islands while providing flexibility.

5.3 Rural Management Area

5.3.2 Objective – Management of Resources

- (i) The management of resources in the rural area in a manner that enables people and communities to carry out a variety of activities while ensuring that the resource base is sustainable for future generations.*

5.3.2.1 Policies

- (i) *Activities should not significantly reduce the long-term potential or availability of the natural and physical resources*
- (ii) *A wide range of activities should be permitted provided adverse effects are avoided, remedied or mitigated.*

5.3.2.2 Methods

- (i) *Rules which permit a wide range of activities subject to the control of adverse effects.*

5.3.3 Objective – Amenities

- (i) *To retain and enhance the existing amenities of the rural area.*

5.3.3.1 Policies

- (i) *The patterns of subdivision and housing should ensure that the openness of the rural area is retained and the adverse effects on natural features be avoided, remedied or mitigated.*
- (ii) *The bulk and location of structures should not affect the character of the rural area or affect the amenities of adjoining properties.*
- (iii) *Activities should not adversely affect the amenities of the rural area or adjoining properties in terms of such matters as effluent disposal, noise, traffic generation, air emissions, odour, shading and visual impact.*

5.3.3.2 Methods

- (i) *Rules which control subdivision, bulk and location of structures, noise, traffic, odour, taking of water, discharge of contaminants etc.*

5.3.3.3 Anticipated Environmental Results	Comment
(i) <i>Availability of the rural resources for a number of activities.</i>	Rural resources remain generally available for economic, cultural and recreation activities that the Chatham Islanders undertake. Resources generally do not appear to have diminished through over development or use.
(ii) <i>Adverse effects are controlled that are commensurate with the existing amenities of the rural area.</i>	Monitoring indicates that the general amenities of the area are retained and as a consequence adverse effects are controlled.

Analysis of Part 5.3

Generally the anticipated environmental results have been met in respect of the availability of resources and the retention of rural amenities. This situation reflects the low levels of development in the rural area. Rules in the Rural Management Area affect the largest part of the Chatham Islands. Although not tested in any significant way the rules, are considered to still be of relevance and efficient and effective given that they are successful in controlling activities that potentially have significant effects such as the meat works and the Waitangi WWTP. Rule 5.3.4.20 relating to residential units may however require reviewing given its relative permissive nature, notwithstanding the lack of development.

5.4 Settlement Management Area

5.4.2 Objective – Management of Resources

- (i) *The management of the settlement resources in the settlement areas in a manner that provides for the well being of the people and communities of Chatham Islands without creating adverse effects.*

5.4.3 Policies

- (i) *A variety of activities should be permitted in the Settlement Management Area provided that the adverse effects, particularly on residential areas are avoided, remedied or mitigated.*
- (ii) *Higher density development should locate in the Settlement Management Areas rather than along the coast or in the rural areas.*
- (iii) *Activities should not adversely affect the amenities of the settlements or adjoining properties in terms of effluent disposal, noise, traffic, generation, air emissions and odour.*
- (iv) *The bulk and location of structures should not affect the character of the settlement area or affect the amenities of the adjoining properties.*

5.4.4 Methods

- (i) *Rules which control subdivision, effluent disposal, noise, traffic generation, air emission and bulk and location of adjoining properties.*

5.4.5 Anticipated Environmental Results	Comment
(i) <i>The opportunity for a wide range of compatible activities to locate in the settlements.</i>	The settlements continue to contain a mix of uses, predominantly residential with some commercial, although there has been little development of significance since 2001.
(ii) <i>Adverse effects are controlled that are commensurate with the existing amenities of the settlement area.</i>	Existing amenities appear to be satisfactory in the Settlement Areas although little development has occurred since 2001.
(iii) <i>Concentration of higher density development in the settlements.</i>	Little development has occurred in the Settlement Areas or in coastal/rural areas.

Analysis of Part 5.4

While little development has occurred the relevant provisions are still considered to be efficient and effective in providing flexibility for different activities to locate in the settlement areas while maintaining acceptable environmental standards.

5.5 Industrial Management Area

5.5.2 Objective – Management of Resources

- (i) *The efficient use of the resources associated with the airport, ports and industry in a manner that provides for the well being of the islands without creating adverse effects.*

5.5.3 Policies

- (i) *Activities that could conflict with the efficient operation of the airport, port and associated activities should not be located in the Industrial Management Areas.*
- (ii) *Activities should not create adverse effects beyond the boundaries of the Industrial Management Area.*

5.5.4 Methods

- (i) *Rules that control activities in the Industrial Management Area.*

5.5.5 Anticipated Environmental Results	Comment
(i) <i>Industrial areas that can operate in an efficient manner without creating adverse effects, particularly as it relates to adjoining areas.</i>	Monitoring indicates the fish factories, wharves and the airport operate in an efficient manner without effect on adjoining sensitive activities such as residential, which in general maintain a degree of separation. The Owenga wharf replacement was granted on a non notified basis with sign off from adjoining neighbours, Iwi and DOC.

Analysis of Part 5.5

Given that the industrial activities operate without adverse effect the provisions of the Industrial Management Area are deemed to be efficient and effective.

5.6 Coastal Marine Area

5.6.1 Objective – Life Supporting Capacity

- (i) *To safeguard the life-supporting capacity of coastal ecosystems.*

5.6.3.1 Policies

- (i) *Activities should not have more than a minor adverse effect which cannot be avoided, remedied or mitigated adverse effects on the life-supporting capacity of the Coastal Marine Area, including effects on one or more of:*
 - (a) *the quality and quantity of habitats*

- (b) the integrity of essential ecological processes*
 - (c) the viability of species populations*
 - (d) spawning, nursery or feeding areas for marine life (including access by marine life to these areas), energy flows and nutrient cycling*
 - (e) shellfish gathering areas, and fishing areas*
 - (f) flora and fauna*
 - (g) water quality*
 - (h) movement of water, sediment transport or the composition of natural substrates*
- (ii) Activities within the Coastal Marine Area involving the use, storage, transport, and disposal of hazardous substances should be managed or controlled, so as to minimise:*
 - (a) the risk of a spill or leakage occurring, and*
 - (b) the potential for adverse effects in the event of a spill or leakage*
 - (iii) Where opportunities to restore and rehabilitate the life-supporting capacity of the Coastal Marine Area are identified they will where practicable be acted upon.*

5.6.3.2 Methods

- (i) Rules in the document regulating activities which have the potential to create an adverse effect.*
- (ii) Assessment and monitoring of Resource Consent applications.*
- (iii) Compliance with legislation dealing with hazardous substances.*
- (iv) Financial contributions from consent holders for the enhancement of areas.*
- (v) Encouraging community participation in restoration projects.*

5.6.4 Objective – Vegetation, Habitat and Natural Features

- (i) The protection of areas of significant indigenous vegetation, significant habitats of indigenous fauna and outstanding natural features within the Coastal Marine Area.*

5.6.4.1 Policies

- (i) Activities in the Coastal Marine Area should be located and designed in a way which avoids, remedies or mitigates adverse effects and protects areas of significant indigenous vegetation, significant habitats of indigenous fauna, outstanding natural features and landscapes.*
- (ii) The network of non-commercial fishing areas as identified and administered by the community should be maintained and following public consultation, further areas protected if appropriate.*

5.6.4.2 Methods

- (i) Rules regulating activities within the Coastal Marine area which have the potential to cause adverse effects.*
- (ii) Encourage community participation in restoration projects.*
- (iii) Identify areas of significance on planning maps and where appropriate manage these areas with a range of methods.*
- (iv) Educate and promote public awareness of significant and outstanding features.*

5.6.5 Objective – Amenity Values

- (i) The maintenance and enhancement of amenity values within the Coastal Marine Area.*

5.6.5.1 Policies

- (i) Activities within the Coastal Marine Area should avoid, remedy or mitigate adverse effects on amenity values.*
- (ii) Structures should be removed at the expiry of their authorisation or the purpose for which they were erected is no longer relevant, provided that none of the following apply:*
 - (a) the structure will have no more than minor adverse effects on the environment or on public access or use of the area if left in place*
 - (b) the structure has significant heritage value*
 - (c) a new authorisation has been granted, or applied for but not yet determined.*
- (iii) Activities within the Coastal Marine Area should:*
 - (a) permit the unrestricted safe navigation of vessels to and from recognised launching, mooring or berthing areas*
 - (b) not adversely affect the functioning of navigation aids*
 - (c) allow people to have safe access to and along the Coastal Marine Area*
 - (d) retain opportunities for people to make use of the foreshore and coastal waters for contact recreation*
 - (e) ensure that appropriate notice is given when the navigability of an area changes as a result of that use or development*

5.6.5.2 Methods

- (i) Rules regulating activities in the Coastal Marine Area which have a potential to create adverse effects.*
- (ii) Assessment and monitoring of Resource Consent applications.*
- (iii) Other legislative requirements such as the Harbours Act 1950 and Maritime Safety Authority.*

5.6.6 Objective – Coastal Processes

- (i) Natural coastal processes are not adversely affected by activities on the foreshore or seabed.*

5.6.6.1 Policies

- (i) Activities on the foreshore or seabed should avoid, remedy or mitigate adverse effects on natural coastal processes.*
- (ii) Structures should not have more than a minor adversely effect on natural coastal processes.*
- (iii) To adopt a precautionary approach towards those activities which affect coastal processes.*

5.6.6.2 Methods

- (i) Rules regulating activities.*
- (ii) Assessment of resource consents.*
- (iii) Removal of structures that adversely affect coastal processes.*
- (iv) Non regulatory methods such as education, consultation etc.*

5.6.7 Objective – Coastal Water Quality

- (i) Maintenance and enhancement of the quality of the Chatham's coastal water.*

5.6.7.1 Policies

- (i) Coastal water quality standards should be maintained or enhanced to reflect Iwi values and community aspirations for the management of fisheries, fish spawning, aquatic ecosystems and aesthetic purposes, food gathering and cultural purposes.*
- (ii) Discharges to coastal water should not, after reasonable mixing give rise to any significant adverse effects on habitats, feeding grounds or ecosystems.*
- (iii) Discharges should not lead to a further degradation of existing water quality.*
- (iv) When considering new proposals or applications to discharge contaminants directly to water, or reviewing existing discharges, matters to be taken into account shall include:*
 - (a) the total contaminant load (composition/concentration/flow rate) of the discharge*
 - (b) the assimilative capacity of the receiving water to dilute and dispense the contaminant.*
 - (c) actual or potential uses of the water body and the degree to which the needs of other water users are, or may be, compromised*
 - (d) scenic, aesthetic, amenity, recreational and fisheries values*
 - (e) the cultural and spiritual values*
 - (f) the actual or potential risk to human health from the discharge*
- (v) The discharge of human sewage into coastal water should only occur after passing through land in a manner that does not give rise to adverse effects.*
- (vi) The level of contaminants in stormwater discharges to the Coastal Marine Area should be minimised where practicable using screening, filtering or settlement devices.*

- (vii) *Port areas should possess adequate and convenient rubbish facilities to accept rubbish and contaminants from vessels.*
- (vii) *All vessel maintenance sites should possess facilities for the containment, collection, and treatment or disposal, of wastes or contaminants arising from the maintenance or repair of vessels.*
- (ix) *The implementation of the approved oil spill contingency plan to manage any emergency discharge or spillage of environmentally damaging substances.*
- (x) *The public shall be adequately warned when the degradation of water in the coastal environment has rendered the water unsafe for shellfish gathering and other activities.*

5.6.7.2 Methods

- (i) *Rules regulating discharges.*
- (ii) *Liaison with Mfish when setting monitoring requirements for aquaculture discharges or such like so that both Council and Mfish can arrange for monitoring to be done simultaneously.*
- (iii) *Other legislative mechanisms such as the Maritime Transport Act 1994 and Bio Security Act.*
- (iv) *Encourage good practices such as regular maintenance of effluent disposal systems to prevent or minimise discharges affecting the Coastal Marine Area.*
- (v) *Provision of rubbish disposal facilities at the wharves on the Chatham Islands.*
- (vi) *Conditions of resource consents.*
- (vii) *Television and radio notices when water is unsafe for activities.*

5.6.8 Objective – Public Access

- (i) *The maintenance and enhancement of public access along the coastal marine area.*

5.6.8.1 Policies

- (i) *In considering public access the Council shall have regard to:*
 - (a) *the necessity to:*
 - *protect areas of significant indigenous vegetation or significant habitats of indigenous fauna*
 - *protect cultural values*
 - *protect public health or safety*
 - *ensure a level of security consistent with the purpose of a resource consent*
 - *in other exceptional circumstances sufficient to justify the restriction, notwithstanding the national importance of maintaining that access.*
 - (b) *property security and stock safety.*
- (ii) *Occupation of space in the coastal marine area should not be granted, and constraints on public access should not be imposed, unless:*
 - (a) *there is no practical alternative, and*
 - (b) *the effects on public access would not be significant.*

- (iii) *Coastal structures should be designed and located to avoid, remedy or mitigate adverse effects on public access along the coastal marine area.*
- (iv) *Where reclamation occurs in the coastal marine area, public access should be maintained by either the setting aside of esplanade/reserve/strips or some other means.*

5.6.8.2 Methods

- (i) *Rules in the document regulating activities*
- (ii) *Assessment of resource consents*
- (iii) *Physical works by the construction of facilities*
- (iv) *Esplanade reserve/strips*

5.6.9 Objective – Natural Hazards

- (i) *Minimisation of the risks to people, property or other aspects of the environment, arising from the interaction between human development and natural coastal processes in the coastal marine area.*

5.6.9.1 Policies

- (i) *Activities, including structures, within the coastal marine area should be located and designed to take into account existing and potential natural hazards, including sea level rise, and the need to avoid hazard protection works.*
- (ii) *Coastal hazard protection works should only be allowed in relation to existing development in the coastal environment and only where the positive effects of allowing the works are likely to be significantly greater than the adverse effects. Determination of this will include consideration of:*
 - (a) *the probability of the works achieving their stated purpose*
 - (b) *the public benefit from the use or development to be protected*
 - (c) *the effects of the protection works on the environment, including any change in the occurrence and rate of coastal erosion, or its location*
 - (d) *the effects (including costs and benefits) of not proceeding with the works*
 - (e) *measures previously taken, including decisions as to the location of the use and development, to avoid the need for coastal hazard protection works*
 - (f) *alternatives to the development of coastal hazard protection works, and the reasons why those alternatives have not been proceeded with*
- (iii) *Structures or reclamations within the coastal marine area should not interact with or intercept sediment flow in a way that could increase the risk of coastal erosion or accretion.*
- (iv) *Disturbance of the foreshore or seabed should not remove such quantities of sediment as to increase the risk of coastal erosion or accretion.*
- (v) *Accelerated erosion attributable to an existing structure should be remedied when new consents are being sought for works.*

5.6.9.2 Methods

- (i) *Identification of potential natural hazard areas and rules in the document regulating activities in these areas.*
- (ii) *Monitor information of potential hazards such as sea level rise.*

5.6.10 Anticipated Environmental Results	Comment
(i) <i>Coastal ecosystems are retained and enhanced.</i>	<p>Monitoring indicates the anticipated environmental results are met given:</p> <ul style="list-style-type: none">n The coastal water quality is generally exceptional and enhanced by the closure of the Waitangi WWTP and the implementation of the Solid Waste Management Plan. As a consequence there are positive benefits for ecosystems.n Several areas around the coastline are excluded from commercial fishing and available for traditional and community activities.n Access along and to the Coast is generally available provided prior contact is made with the owner.n Natural hazards generally do not impinge on human life and property in a significant manner although coastal erosion at the Ocean Mail Reserve is under investigation given it could impact on the road network.n Appropriate conditions of resource consent have been imposed on the small amount of development that has affected the CMA. Conditions were imposed on the Owenga Wharf and the paua farm to protect the marine environment and ensure natural processes were not interfered with.
(ii) <i>the protection of significant vegetation and habitats and outstanding natural features and landscapes</i>	
(iii) <i>Traditional uses of the coast is retained for economic and social activities.</i>	
(iv) <i>Coastal processes remain largely unaffected by human activities where practicable.</i>	
(v) <i>The public is able to obtain access to and along the coastal marine area without impacting on natural and cultural values.</i>	
(vi) <i>The protection of human life and property and other parts of the environment from natural hazards.</i>	

Analysis of Part 5.6

The anticipated environmental results have generally been met and as such the CIRMD provisions can assume to have been efficient and effective in so far as the limited development that has occurred. There are a large number of provisions in place for the CMA which is expected given the different issues that may arise in this area. While a number of these provisions have not been tested they nevertheless are required to control potential effects in what is a sensitive environment.

5.7 Off Shore Islands Management Area

5.7.2 Objective – Retention of Natural Values

- (i) *To retain the values associated with the off-shore islands including:*
 - *landscape features*
 - *indigenous vegetation and habitats of fauna*
 - *cultural and spiritual values*

5.7.2.1 Policies

- (i) *Activities should not damage, threaten or detract from the natural and cultural values or ecosystems.*
- (ii) *Compliance where applicable with Conservation Act 1987, Reserves Act 1977 and Wildlife Act 1953 and a Conservation Management Strategy.*
- (iii) *Compliance with any management plan approved by Council, otherwise compliance with rules.*

5.7.2.2 Methods

- (i) *Compliance where applicable with Conservation Act 1987, Reserves Act 1977 and Wildlife Act 1953 and a Conservation Management Strategy.*
- (ii) *Compliance with any management plan approved by Council, otherwise compliance with rules.*

5.7.2.3 Anticipated Environmental Results	Comment
(i) The off-shore islands retained in their natural state and values enhanced where possible.	<i>Monitoring indicates that the islands have been retained in their natural state which reflects DOC management of Rangatira and Mangere Islands and other islands, the difficulty of access and their uninhabited state. The Pest Management Strategy notes that due to a lack of resources Council will not focus on the islands but rather will advocate to the community, owners of the islands and central government of the importance of preventing infestation of the islands and will continue to work with DOC and Biosecurity New Zealand.</i>

Analysis of Part 5.7

The anticipated environmental result has been met although it is acknowledged negligible development has taken place. While the likelihood of development on the islands is not significant given their isolation and DOC involvement on some of the islands the rules in place provide some regulatory control should development eventuate. While Council's resources in terms of the Pest Management Strategy are not focused on the islands the Strategy nevertheless has provisions relating to the islands. Overall in the circumstances of the islands the provisions in this part are considered to be efficient and effective. As indicated previously the provision of management plans by Iwi for the islands should be reviewed given the time that has passed since 2001 and the lack of implementation.

5 Conclusion

The CIRMD was made operative in 2001 and this report is the first one under Section 35 of the Act. It presents a review of the results of monitoring in respect of the efficiency and effectiveness of the CIRMD provisions.

Generally the monitoring techniques in the main are not sophisticated and are a reflection of the resources available to the Council in 2001 and the level of development on the islands. In the existing circumstances of the islands, impacts on resources are generally able to be ascertained.

However, monitoring of surface waters has been undertaken on a scientific basis since additional funding was made available to Council and provides a robust analysis of a key natural resource.

It is clear that the monitoring establishes that there has not been significant development on the islands and a consequent pressure on resources. The lack of development reflects the isolation of the islands and a small static population.

The anticipated environmental results in the CIRMD are generally achieved although this is not necessarily a total reflection of the policies, rules or other methods of the document. The small amount of development and additional funding made available to Council which has enabled improvements to infrastructure such as the Waitangi WWTP and waste management facilities have also assisted in outcomes in the CIRMD being met.

Notwithstanding this it is considered there is a robust resource management framework in place in the CIRMD which in general is efficient and effective in respect of the circumstances that apply to the Chatham Islands. The document does not contain a significant amount of rules and seeks to find a “balance between controlling existing effects and future perceived ones without imposing unnecessary regulations on the community” (Part 3.2.1 of the CIRMD). The monitoring indicates that major types of development are controlled by the provisions of the CIRMD with for example resource consents (land use, discharges permits, water take permits and coastal permits) required for the proposed meat works, the Waitangi WWTP and the Owenga wharf replacement. While there are a range of objectives and policies and regulatory and non regulatory tools which have not necessarily tested or implemented, the provisions are nevertheless considered to represent sound management practice that should in general be maintained and available to Council should the need arise. The deletion of such provisions is not considered efficient or effective.

5 Recommendation

While the policies, methods and rules are generally considered efficient and effective it is recommended the following provisions will benefit from a review:

- § The extent and level of Iwi participation in the resource consent processing and decision making and management of their own resources particularly given the more settled Iwi structure on the islands
- § The provisions relating to Te Whanga, (including the openings) particularly as further studies are underway
- § The criteria used to identify significant indigenous vegetation and significant habitats of fauna in terms of Policy 4.4.2 (i)
- § The criteria used to identify outstanding natural features and landscapes in terms of Policy 4.5.2 (i)
- § The provisions relating to natural hazards on the islands given that there may be additional resources to allow further investigation
- § Provision of necessary access to the coastline and Te Whanga in terms of Policy 4.7.2 (ii)
- § Provision for dwellings in the Rural management Area
- § Review of the wording in some of the objectives and policies in terms of the test requiring “no adverse effects” or similar.

Report

Chatham Islands Resource Management Document Section 35 of the Resource Management Act – Review of Efficiency and Effectiveness

Prepared for Environment Canterbury

By Beca Carter Hollings & Ferner Ltd (Beca)

10 June 2009

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1 Introduction

The Chatham Islands Resource Management Document (CIRMD) was prepared under the Resource Management Act 1991 (the Act) and the Chatham Islands Act 1995.

Section 26 of the Chatham Islands Act states that the Chatham Islands Council (the Council) shall have a single resource management document and that it shall contain:

§ A regional policy statement

§ A regional coastal plan

§ A district plan

The document may also contain provision for contents of regional plans as set out in Section 67 of the Act and regional rules in accordance with Section 68 of the Act.

The CIRMD was subsequently prepared and made operative on 24 January 2001.

Section 35 (2) of the Resource Management Act states the following:

(2) *Every local authority shall monitor*

(b) *the efficiency and effectiveness of policies, rules, or other methods in its policy statement or plan.*

[(2A) *Every local authority must, at intervals of no more than 5 years, compile and make available to the public a review of the results of its monitoring under subsection (2)(b).]*

Accordingly the report presents a review of the monitoring results under Section 35(2) (b) in respect of the efficiency and effectiveness of the CIRMD provisions. This is the first review of the CIRMD under Section 35 of the Act since the document became operative in 2001. This report therefore considers the document provisions since 2001.

2 Monitoring

2.1 The CIRMD

The Chatham Islands Council (the Council) is required to undertake monitoring to determine the effectiveness and efficiency of the CIRMD.

In Part 1.4 of the CIRMD the context of resource management on the Chatham Islands is discussed as follows:

“1.4 Context of Resource Management on the Islands

The islands have a minimal history of statutory resource management. There has not been a statutory planning document in place and planning has generally proceeded on an ad-hoc basis. There has not been the same degree of control and regulation as in New Zealand and as a consequence there has not been the same contact with the bureaucracy. People tend to be more self reliant and self sufficient, which itself reflects the isolated nature of the islands. At the same time there has not been the need for rules and regulations in many cases because of the absence of pressure on resources and community structures and networks in place. There is an absence of

detailed records and background information and the Council itself also has limited resources for enforcing, implementing and monitoring its document.

As indicated in Part 1.1, the extent of control necessary is an issue in itself. In many existing circumstances, little control is required but the effects of future development, which may be low in probability but of high potential impact cannot be ruled out. An appropriate balance must therefore be struck. Part 2.18 refers to the ability to make changes to the document if this is deemed necessary.

While Council is obliged to meet its functions and duties under the Act, it is nevertheless true that the uniqueness of the Chathams means that "New Zealand" solutions may not be applicable. Local perspectives will not necessarily coincide with other perspectives held in a national or New Zealand context.

The document is a first generation one which undoubtedly will become refined as the practical aspects of resource management are worked through in the context of the requirements of the islands. In addition to the resource management document the Chatham Islands Act allows Council the option of preparing specific plans for resources such as water and air.

All of the above factors are relevant therefore in approaching resource management issues on the islands."

Under Part 2.20 of the CIRMD the issue of monitoring is addressed in more detail.

"2.20 Monitoring

The Act requires the document to state the procedures to be used to review the matters contained in the document and to monitor the effectiveness of the document as a means of achieving its objectives and policies. As indicated in Part 2.18 monitoring may lead to a change to the document if necessary.

Council will carry out its responsibilities to administer the plan and any consents, although Council itself has limited resources to carry out extensive monitoring. It does not have access to sophisticated monitoring regimes or staff to carry out extensive checking of resource consents.

The most valuable tool in review and monitoring is likely to be the community itself which is relatively small with extensive networks, as well as key groups such as Chatham Islands Enterprise Trust, Iwi groups, Fisheries Association, Federated Farmers, Department of Conservation and Conservation Board and the Ministry of Fisheries.

This kind of informal contact and feedback is likely to give Council an indication of the necessity to review matters in the document and its effectiveness. Other procedures used to indicate performance include:

- § Documentation of complaints received by Council*
- § Site inspections*
- § Enforcement Action and abatement notices undertaken by Council and/or other parties*
- § Areas covenanted and protected*
- § Record of the number and type of resource consents*
- § Monitoring of and compliance with resource consent conditions*

§ *Records from other organisations such as the Department of Conservation, Ministry of Fisheries, etc.”*

Accordingly the CIRMD recognises the different and unique nature of the islands in a resource management context and that Council does not possess the appropriate resources to undertake detailed and sophisticated monitoring. Accordingly more informal and ad hoc measures are proposed and the following is noted in respect of the methods of monitoring suggested in the CIRMD.

2.2 Monitoring Methods in the CIRMD

2.2.1 Informal Feedback from Community

With less than 700 persons on the islands and well established networks the Council is generally aware of any developments or trends that give rise to resource management issues and/or impacts on the CIRMD. For the purposes of this report, Owen Pickles, General Manager of the Chatham Islands Council who has held this position since 2002; Pat Smith, Mayor of the Chatham Islands, who is servicing his sixth term as mayor and is a long established farmer on the islands; and Ken Hunt, Department of Conservation Area manager, Chatham Islands, were consulted in order to obtain feedback on development on the islands and on the CIRMD.

2.2.2 Documentation of Complaints

One complaint has been received which related to the disposal of fish wastes. Consideration was given to amending the CIRMD but it was decided the most appropriate course of action was the development of protocols with fish factory owners and which potentially includes methods such as recycling rather than disposal.

2.2.3 Site Inspections

Site inspections are carried out as required.

2.2.4 Enforcement Action and Abatement Notices

No enforcement action has been undertaken or abatement notices issued, as the necessity has not arisen. Some concern has been expressed about old fishing boat hulls on the beach at Waitangi but this matter has not been taken any further.

2.2.5 Areas Convenanted and Protected

In the CIRMD 25 areas in private ownership containing areas of indigenous fauna and flora were identified as protected by covenants (Refer Appendix 1 of CIRMD). The Department of Conservation (DOC) advises that in 2009 the number of convenanted areas has increased to 44, although the additional sites are not included in the CIRMD.

2.2.6 Record of Number and Type of Resource Consents

The following resource consents have been received by Council since 2001.

Type of Resource Consent	Number of Resource Consents	Date	Comment
Subdivision	Approximately 70	2001-2009	Subdivisions are usually boundary adjustments and/or the creation of large rural lots. A small number of subdivisions (approximately 3) created rural residential allotments of limited numbers.
Land Use:			
§ Meat works	1	2002	Consent granted but has not proceeded.
§ Bulk and location infringements	approximately 3	-	Works of minor nature.
§ Liquor establishment	1	2002	Consent granted and established.
§ Paua Farm	1	2002	Consent granted but has not proceeded
§ Tourist Lodge, Pitt Island	1	2006	Consent granted and established
§ Café, Te One	1	2007	Consent granted and established
§ Wind Farm Turbines	1	2009	Publicly notified May 2009
Discharge and Water Permits		2002	
§ Meat works	2	2002	Consent granted but has not proceeded.
§ Paua Farm	2	2002	Consent granted but has not proceeded.
§ Waitangi WWTP	2	2004	Consent granted and established.
Coastal Permits			
§ Replacement of Owenga Wharf	1	2008/09	Consent granted and to be constructed in 2009.
Designations			

§ Waitangi WWTP	1	2004	Consent granted and established.
§ Certificates of Compliance	1	2005	Telecom structures

In addition since 1991 approximately 1 – 2 houses have been built per year.

It is apparent that other than subdivision consents, most of which are of a relatively minor nature, there have been relatively few resource consent applications received by Council. Furthermore, a number of proposals have not proceeded. To date only three applications have been publicly notified (the meat works, the Waitangi WWTP and the wind turbines).

2.2.7 Monitoring of and Compliance with Resource Consent Conditions

The only resource consent that currently requires monitoring is Council's Waitangi Wastewater Treatment Plant (WWTP). Monitoring indicates there is full compliance with the conditions of the resource consents.

2.2.8 Records from Other Organisations

Records and documents from organisations such as DOC, MFish and MAF provide information on resource management issues in the Chathams in respect of such matters as indigenous vegetation and habitats; water quality and land use trends. The Chatham Islands Economic Review 2008 (Taylor Baines) provides useful background information.

2.3 Surface Water Quality Monitoring

Since the CIRMD was prepared Council entered into a contract with Environment Canterbury in 2005 for the latter to provide the administration and implementation of regional council functions under the Resource Management Act. This contract has allowed additional resources for monitoring on the islands. In particular Environment Canterbury now monitors surface water quality and in 2007 produced the following document:

"State of the environment monitoring; water quality and ecosystem health of the lakes, streams and Te Whanga Chatham Islands/Rehoku." (Referred to as Ecan Report No R08/3.)

The report states that in 2005, Environment Canterbury began baseline monitoring of 25 streams, 12 lakes and 5 locations at Te Whanga on Chatham Island. Quarterly sampling was undertaken over a year with the main findings summarised as follows:

- § Water quality is good, particularly in less modified water bodies.
- § Life supporting characteristics mostly meet national guideline values and therefore the water is capable of sustaining aquatic ecosystems.
- § Nitrogen concentrations are low compared with New Zealand and reflects naturally low nitrogen content and lack of nitrogen based fertiliser.
- § Waterbodies are naturally high in dissolved phosphorus which can make them susceptible to impacts from grazing.
- § Livestock access to waterbodies rather than channelisation, water abstraction and drainage has the greatest impact.
- § Most lakes are in a steady state.

- § Te Whanga is a unique ecosystem and highly valued ecosystem but is susceptible to contamination from development including grazing animals.

Five yearly monitoring with additional determinants are recommended as well as areas not currently sampled including waterbodies on southern Chatham Island and Pitt Island.

2.4 Events Since 2001 Affecting the CIRMD

Since the CIRMD became operative in 2001 a number of events have occurred which effects the efficiency and effectiveness of the document. The events include the following:

- § In 2004 Council obtained funding from central government to assist in the administration of the Chatham Islands. This funding included monies to address resource management issues on the islands including upgrading of infrastructure including the Waitangi Waste Water Treatment Plant (WWTP) and waste management disposal.
- § A new Waitangi WWTP was commissioned in 2006 at a site in Hospital Road. The previous plant was located adjacent to the beach at Waitangi. The relocation affects a number of the CIRMD outcomes particularly as it relates to water quality, coastal and air quality issues.
- § Council adopted a Waste Management Plan in 2005 which provides for the progressive closure of the existing landfills at Kaingaroa, Owenga and Te One; the establishment of a transfer station system and ; a new landfill designed and operated accordance with MfE guidelines. The landfill at Kaingaroa has been closed and a transfer station established. The Owenga landfill is proposed to be closed in 2010/11. The closure of Owenga and Te One landfills is dependent on finding a new site for a landfill which is yet to be finalised. The strategy affects a number of the CIRMD outcomes particularly as it relates to water quality, coastal, waste management and air quality issues.
- § As part of the funding arrangement with the government Council entered into a contract with Environment Canterbury in 2005 for the latter to provide the administration and implementation of regional council resource management functions under the Resource Management Act. This contract potentially allows for additional monitoring and has resulted in the production of Ecan Report No. R08/3 relating to surface water. Environment Canterbury are undertaking further monitoring focusing on Te Whanga. As yet no other monitoring has been undertaken by Environment Canterbury on behalf of Council.
- § Council prepared a Pest Management Strategy in 2001. The document was subsequently reviewed and made operative in 2008. The 2008 document is more comprehensive than the 2001 document reflecting the additional resources available from Environment Canterbury. The implementation of this document affects CRMD such as the protection of significant indigenous vegetation and fauna.

2.5 Development on the Chatham Islands since 2001

Monitoring indicates that since 2001 the natural and physical resources of the Chatham Islands have not been subject to significant development pressures with little change having occurred. For example, there is relatively few resource consents applied for and the only major activity to be established via this process is the Waitangi WWTP. While some development may have occurred where resource consents are not sought or required (such as development of land for farming purposes) it is considered that any significant development would be known given the nature of the local community. Farming and fishing continue to be the mainstays of the economy, although since 2001 stock units are estimated to have remained static with a total number of approximately 125,000. In fact in the last 2-3 years destocking of sheep and cattle is likely to have occurred in

response to difficulties arranging suitable shipping to New Zealand. This situation may change with the impending arrival of a second ship. Since 2001 it is estimated there is likely to be a slightly greater percentage of cattle compared with sheep with current estimates indicating 65% sheep and 35% cattle. Fish factories operate at Waitangi, Te One, Port Hutt and Owenga (2). The fish factory at Kaingaroa has closed. Tourism has however increased although visitors tend to be on pre-arranged booking tours. The population has remained relatively static since 2001 with a population of approximately 700 residents.

An analysis of the efficiency and effectiveness of the CIRMD provisions should therefore take into account the relative lack of development on the islands and the subsequent testing of these provisions particularly given the relatively low number of resource consents and the necessity to invoke rules.

3 Efficiency and Effectiveness

The monitoring results are therefore reviewed in terms of the efficiency and effectiveness of the policies, rules or other methods of the CIRMD.

“Effectiveness” and “efficiency” can be defined as follows:

- § Efficiency is determined by whether or not the policies and methods are the most cost effective way of achieving the environmental results.
- § Effectiveness is determined by whether or not the policies and methods have achieved the environmental results.

4 Provisions of CIRMD

The objectives, policies, methods and anticipated environmental results of the following Parts of the CIRMD are set out in full below.

- 4.1 The Iwi
- 4.2 Water Resources
- 4.3 Coastal Environment
- 4.4 Indigenous Vegetation and Habitats of Fauna
- 4.5 Landscapes and Natural Features
- 4.6 Heritage Items
- 4.7 Public Access to and Along the Coastal Marine Area, River and Lakes
- 4.8 Natural Hazards
- 4.9 Air Quality
- 4.10 Hazardous Substances
- 4.11 Waste Management
- 4.12 Subdivision and Development
- 4.13 Development Contribution

- 5.3 Rural Management Area
- 5.4 Settlement Management Area
- 5.5 Industrial Management Area
- 5.6 Coastal Marine Area
- 5.7 Off Shore Islands Management Area

Comment is made on the outcome of the anticipated environmental results and then an analysis of the relevant part of the CIRMD is made.

4.1 The Iwi

4.1.1 Objective – Management of Resources

- (i) *The management of natural and physical resources that takes into account the principles of the Treaty of Waitangi and that recognises the relationship, culture and traditions of Iwi with their ancestral lands, water, sites, waahi tapu and other taonga.*

4.1.2 Policies

- (i) *To have regard to Kaitiakitanga in managing the natural and physical resources.*
- (ii) *Iwi should have opportunities to manage their ancestral land and customary land in a sustainable manner.*
- (iii) *Sites of cultural significance, such as waahi tapu and other taonga be protected from the adverse effects of subdivision, use and development.*
- (iv) *Human and other wastes should not be discharged in a manner that is culturally inappropriate to Iwi.*
- (v) *Natural habitats which are important sources of traditional food supplies to Iwi such as kai moana should be protected.*
- (vi) *In the use and development of resources, the appropriate level of access to those resources by Iwi for either protection or accessibility purposes shall be taken into account.*

4.1.3 Methods

- (i) *Development of protocols (which can change over time by agreement of the parties) to guide the nature of Council's consultation with Iwi, and the type and extent of the involvement of tangata whenua throughout the process of administering the Act. Also refer to Part 2.2 and Part 2.3.*
- (ii) *Consideration of Kaitiakitanga and the principles of the Treaty of Waitangi when resource management decisions are made.*

- (iii) *Provision for management plans which allow the off shore islands and other ancestral lands to be managed by their owners.*

4.1.4 Anticipated Environmental Results	Comment
<i>(i) Resource Management assessments and decisions that include an Iwi perspective.</i>	Since the drafting of the CIRMD significant changes have occurred to the organisation of Iwi on the islands. Moriori and Ngati Mutanga are the recognised Iwi on the islands. The Hoktehi Moriori Trust and Ngati Mutanga O Wharekauri Iwi Trust are the respective mandated bodies representing Iwi. The Iwi Liaison Group referred to in Part 2.3 of the CIRMD no longer exists. Council consults with the two groups identified above on resource management matters, including resource consents. Iwi have not been represented on a hearings committee as envisaged in Part 2.3 although since 2001 there have only been two hearings, none of which involved submitters. Protocols have also not been developed as envisaged. However, as indicated, above the liaison group is no longer available to facilitate such a process and there has been considerable changes to Iwi organisations. In addition, six of the nine Councillors themselves identify as Moriori, Maori or both. Iwi are consulted on significant resource consent applications and the matters outlined in Policy 4.1.2 are had regard to in considering applications.
<i>(ii) Management by Iwi of their own resources.</i>	Iwi have not developed management plans for ancestral lands, such as off-shore islands, which likely reflects the changes which have occurred to the Iwi structure and the low priority afforded to this matter by such organisations.
<i>(iii) Cultural sites are undisturbed and mahinga kai available with appropriate access to such resources.</i>	Human remains were disturbed during excavation in proximity to the Te One landfill in 2008. It was not clear as to whether the site was an urupa. Council followed appropriate protocols following the disturbance, although a small section of the community did raise concerns of the handling of the issue. Other than this matter, monitoring indicates that there is no evidence of disturbance of cultural sites and access to mahinga kai has not been impeded.

Analysis of Part 4.1

Changed circumstances relating to Iwi organisation on the islands has meant that Iwi involvement is not as comprehensive as envisaged in Part 2.2 and 2.3 or Method 4.1.3 of the CIRMD. This is a matter that requires addressing in review of the CIRMD now that the Iwi structure is more settled.

In terms of efficiency, most of the policies and methods have significant benefits given that they recognise the Iwi presence on the islands and generally represent sound resource management practice. There will be a cost in developing management plans for the ancestral lands and the lack

of implementation and potential duplication means it is probably appropriate to review these provisions.

The policies and methods may not be so effective in terms of Iwi involvement of the structure envisaged in the CIRMD but this is largely due to organisational changes with Iwi. Nevertheless Iwi are consulted and a high proportion of Iwi are Councillors. The policies and methods are effective in respect of the potential disturbance of cultural sites and access to resources.

4.2 Water Resources

4.2.1 Objective – Water Quantity

- (i) *To retain flows and levels in water bodies and groundwater sufficient to support their life supporting capacity.*

4.2.1.1 Policies

- (i) *Sufficient water should be maintained in water bodies to:*
 - (a) *safeguard life supporting capacity of aquatic ecosystems including the significant habits of indigenous fauna and areas of significant indigenous vegetation*
 - (b) *protect existing value of the water bodies as sources of mahinga kai for Iwi and as food gathering sites for the community*
 - (c) *protect waahi tapu and other waahi taonga of value to Iwi*
 - (d) *preserve natural character of lakes and rivers and protect outstanding natural features and landscapes*
 - (e) *provide for human consumption and stock drinking water*
- (ii) *To record the location and volume of all water takes for information purposes.*

4.2.1.2 Methods

- (i) *Rules requiring resource consent for use of water for activities other than domestic, stock and firefighting purposes, existing takes and small takes.*
- (ii) *Rules that protect natural values of water bodies.*
- (iii) *Encourage landowners to protect natural values by private agreements, covenants and use of guidelines and education.*
- (iv) *All persons taking groundwater and surface water shall notify Council on the location and amount of water.*

4.2.1.3 Anticipated Environmental Results	Comment
(i) <i>Sufficient water is</i>	Ecan Report No. R08/3 indicates sufficient water is available and that the

<i>available to meet the requirements of people and community including future generations and to safeguard the life supporting capacity of ecosystems.</i>	<p>water of most streams, lakes and Te Whanga is considered capable of sustaining aquatic ecosystems. Fish life is generally considered “abundant” which is consistent with earlier studies.</p> <p>Lack of rainfall in summer can affect bores that are used for drinking purposes. Council is investigating a further bore at Waitangi to supplement the existing township supply, and also a new water supply scheme at Owenga, which currently relies on individuals making their own arrangements.</p>
<i>(ii) A record is built up of the location and quality of water takes.</i>	<p>Currently there is not a formal record of takes, other than commonly known takes such as for the Waitangi township supply and the fish factories. Rules in the CIRMD require Council to be notified of any new water takes in order to increase the knowledge of the water resource, although since 1991 only one resource consent for a water take (the meatworks) has been applied for.</p>

4.2.2 Objective – Natural Character of Lakes, Rivers and Wetlands and their Margins

- (i) *Preservation of the natural character of lakes, rivers and wetlands and their margins from inappropriate use, development and subdivision.*

4.2.2.1 Policies

- (i) *The adverse effects of activities on natural character should be avoided, remedied or mitigated in terms of:*
- (a) *natural flows and levels*
 - (b) *water quality*
 - (c) *ecosystem functioning and health*
 - (d) *indigenous vegetation and habitats*
 - (e) *heritage, cultural and recreational values*
- (ii) *Any new structure on the bed of any lake or river, should where necessary provide for fish passage through or past it.*
- (iii) *Structures that do not have a functional need to locate in rivers, lakes or wetlands or their margins should be avoided, particularly in unmodified areas.*
- (iv) *The disturbance of any bed or margin of river, lake or wetland by excavation, dredging, drilling, tunnelling, deposition or reclamation should not have more than a temporary effect on the life supporting capacity of ecosystems, amenity values and downstream users.*
- (v) *Vegetation on the margins of lakes, rivers and wetlands should be sustainably managed where it will:*
- (a) *Enhance or maintain water quality, through the intercept of non-point source contamination from adjacent land*

- (b) *Enhance existing ecosystems*
- (c) *Maintain or enhance the natural character of lakes, wetlands, rivers and their margins*
- (d) *Maintain or enhance amenity values*

4.2.2.2 Methods

- (i) *Encourage landowners to protect natural values by private agreements, conservation covenants, fencing and planting of margins.*
- (ii) *Use of guidelines, Codes of Practice and education workshops.*
- (iii) *Rules which regulate activities which have the potential to have an adverse effect on the natural character of beds and margins of lakes, and rivers and wetlands.*
- (iv) *Esplanade reserves/strips to be set aside as conditions of subdivision consents where appropriate or otherwise negotiated with the landowner.*
- (v) *Purchase/designate land.*

4.2.2.3 Anticipated Environmental Results	Comment
<i>(i) The existing natural character is not adversely affected by use, development and subdivision.</i>	Monitoring indicates natural character has not been detrimentally affected. There has been little development and no evidence of the clearance of riparian vegetation, although stock access to streams does affect water quality and hence natural character. Existing localised uses such as the landfills can potentially affect water quality.
<i>(ii) Passage of fish is not adversely affected by subdivision, use and development.</i>	Ecan Report No R08/3 states several stream culverts do not provide for the passage of indigenous fish, and this situation should be addressed in the installation of new culverts.
<i>(iii) Only those structures which have a functional need are located in proximity to water bodies and their margins, particularly in unmodified areas.</i>	There has been little or no development that has resulted in structures in proximity (either of a functional or non functional need) to waterbodies, other than some culvert replacement.
<i>(iv) Existing areas of riparian vegetation are retained or enhanced and areas of new vegetation are created where they provide environmental benefit.</i>	Monitoring indicates that there has not been any significant clearance of indigenous vegetation although stock access remains an issue. However the number of covenanted areas has increased substantially which is likely to result in greater protection of riparian vegetation.

4.2.3 Objective – Water Quality

- (i) *The maintenance and enhancement of the islands' water quality at a level which sustains its life supporting capacity for natural, economic, recreational and cultural reasons.*

4.2.3.1 Policies

- (i) *Discharges or dumping of contaminants to water or land should not have a greater than minor adverse effect on the standard of water and the discharge should not give rise to any adverse effects on natural ecosystems.*
- (ii) *Discharges of stormwater should not include levels of contaminants that would adversely effect the receiving environment.*
- (ii) *Vegetation on the margins of lakes and rivers should be created, retained and enhanced where it will maintain and enhance water quality.*
- (iii) *As far as practicable land uses should be managed so that contaminants from non-point discharges do not adversely affect water bodies including the following actions:*
 - (a) *controlling stock access to water bodies*
 - (b) *avoiding excessive nutrient runoff*
 - (c) *planting of margins*
 - (d) *stipulating minimum distance between water bodies and effluent disposal fields, waste disposal sites etc*
- (v) *Esplanade reserves/strips may be set aside where it can be established that they will contribute to the maintenance and enhancement of water quality.*

4.2.3.2 Methods

- (i) *To encourage practices which minimise land use runoff.*
- (ii) *To encourage use of programmes, such as "Growsafe" for the application of sprays.*
- (iii) *Esplanade strips/reserves to be set aside as conditions of subdivision consents where appropriate or otherwise negotiated with the landowner.*
- (iv) *Rules to ensure that discharge of contaminants and stormwater from residential, industrial or commercial developments do not adversely affect water quality.*

4.2.4.3 Anticipated Environmental Results	Comment
<i>(i) A water quality that is able to support the resident's economic, recreational and cultural needs and which safeguards the life supporting capacity of ecosystems.</i>	<p>Ecan Report No R08/3 indicates that overall the water quality is relatively good, particularly in waterbodies that are less modified, and capable of sustaining aquatic ecosystems. Fish life is generally described as "abundant".</p> <p>The report states water quality is most affected by livestock access rather than channelization, drainage and abstraction. The report identified other localised uses such as the landfills, septic tank discharge and fish waste disposal potentially affecting water quality.</p> <p>Drinking water accessed from lakes (such as the Kaingaroa supply from Lake Rangitai) can be susceptible to stock and bird contamination and</p>

	therefore requires treatment which is provided for. Other than this issue, water quality for human consumption appears to be good.
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4.2.4 Objective – Te Whanga

- (i) *The maintenance and enhancement of Te Whanga as a significant natural ecosystem and community resource in respect of:*
- *food gathering and recreation*
 - *the functioning of ecosystems*
 - *Iwi values*
- (ii) *The protection of the adjoining road network from rising lagoon levels.*

4.2.4.1 Policies

- (i) *Te Whanga should be retained for community purposes such as food gathering and recreation unless it can be established that non community activities will not adversely effect community values.*
- (ii) *Activities in or adjacent to Te Whanga should not adversely affect:*
- *Iwi values*
 - *Community access*
 - *Water quality*
 - *Ecosystem values*
- (iii) *To enable the opening of Te Whanga to protect the existing roading network provided the Iwi and other affected parties have been consulted and the opening does not affect the life supporting capacity of the lagoon.*

4.2.4.2 Methods

- (i) *Consult with Iwi and other affected parties in the management of the lagoon levels as it relates to artificial opening and carry out works as necessary.*
- (ii) *Rules to regulate activities in the lagoon.*
- (iii) *Undertake studies on the functioning of the lagoon.*

4.2.4.3 Anticipated Environmental Results	Comment
<i>(i) The lagoon is retained as a community resource without activities impacting on this</i>	Te Whanga is retained as a community resource and there are no commercial activities operating in it. There is concern that the inclusion of Te Whanga in the Foreshore and Seabed Act could potentially allow Te Whanga to be exploited for commercial activities. Ecan Report No R08/3 notes that water quality is generally good although susceptible to change

<i>status.</i>	because of its semi-enclosed nature. The report refers to an abundant number of both marine and freshwater species, which is available to the community.
<i>(ii) Lagoon levels which do not adversely effect the functioning of ecosystems of the lagoon or the roading network.</i>	Te Whanga is managed to prevent flooding of the North Road and has on average been artificially opened once every two years to prevent this. Ecan Report No R08/3 note there is a limited understanding of the flows of nutrients between land and sea as a result of manual openings and that more regular openings may be of benefit.
<i>(iii) A better understanding of the functioning of the ecosystems of the lagoon.</i>	Reports such as Ecan Report No R08/3 provide a good basis for an improved understanding of the lagoon and Environment Canterbury is now undertaking further specific monitoring of Te Whanga. Since 2001 other reports on Te Whanga have been undertaken including an assessment of its salinity and its physical and natural characteristics.

Analysis of Part 4.2

In terms of water quantity, the policies and methods are considered to have achieved the anticipated environmental results in an effective and efficient manner given that the monitoring indicates, in general, there sufficient water to cater for people and communities and ecosystems. Rules are in place but have not been tested in any significant manner although resource consent is required for any larger takes. There is not a comprehensive record of water takes partly due to the lack of resource consents and this situation is unlikely to change given the static population and lack of industrial activity.

In respect of natural character, monitoring indicates that this is generally being retained, although stock accessing waterways remains an issue. Overall, the policies and methods are deemed to be efficient and effective and provide sound resource management practice. The most utilised method appears to be the covenanting of private land (Method 4.2.2.2.(i)). This method is voluntary and has significant benefit for the community with little cost. The other methods provide a range of options from regulatory to voluntary although they are sparingly used. For example, rules such as Rule 5.3.4.16 which controls activities in or near waterbodies has not been tested.

Water quality is generally regarded as good although it appears Policy 4.2.3.1 (iii) (a) is not always successfully met in terms of controlling stock access. Controlling stock access generally requires fencing and the reality is that it is a financial cost that many farmers cannot afford (as was the situation in 2001). In these circumstances a rule requiring fencing would achieve little (and in any event is not a common method in New Zealand). Financial incentives, education and covenants are still considered the most efficient and effective methods and the large uptake of covenants on the islands indicate these types of methods are working. It is also noted stock numbers are relatively static and farmers do not apply large amounts of fertiliser.

Other potential effects such as contamination from landfills and the location of septic tanks are controlled by the rules (at least in respect of new landfills and septic tanks). The Solid Waste Management Plan will result in the closure of the existing landfills and the establishment of a new environmentally acceptable landfill.

Potential contamination from fish waste was identified in Ecan Report No. R08/3. Fish factory waste is generally disposed of at the Te One landfill and to a lesser extent at Owenga (there is a dedicated pit at the Te One landfill). Council determined this issue is best dealt with by protocols

with the fish factory owners rather than specific rules and the situation is likely to improve further when the new landfill is established.

In terms of Te Whanga, the lagoon is retained as a community resource in accordance with the plan provisions, although there is concern in respect of its status under the Foreshore and Seabed Act. The cost of Te Whanga being used for commercial activities is clearly of concern for the community and rules in the CIRMD are an efficient and effective method to regulate this. The lagoon is managed at levels that protect the road network (and adjoining farmland) which is of significant benefit compared to the cost of the opening. The effects of the openings on ecosystems may not be fully understood, although further studies undertaken since 2001 (including the current Environment Canterbury monitoring) are increasing the base of knowledge. Currently the provisions generally appear efficient and effective although there will be benefit from ongoing monitoring and further studies.

4.3 Coastal Environment

4.3.1 Objective - Natural Character

- (i) Preservation of the natural character of the coastal environment including its protection from inappropriate use, subdivision and development.*

4.3.1.1 Policies

- (i) The adverse effects of land activities on the natural character of the coastal environment should be avoided, remedied or mitigated in terms of:*
 - (a) Coastal processes*
 - (b) Natural landforms such as landscapes, seascapes and landforms*
 - (c) Ecosystem functioning and health*
 - (d) Significant areas of indigenous vegetation and habitats of fauna*
 - (e) Historic, cultural and recreational values*
 - (f) Water quality*
- (ii) Subdivision, use and development of land should be located, designed and managed in a way that protects areas of significant areas of indigenous vegetation and habitats of fauna and outstanding natural features and landscapes.*
- (iii) Intensive residential, commercial and industrial development should take place in or in proximity to areas which are already developed in preference to unmodified coastal areas.*
- (iv) To restore and rehabilitate the natural character of the coastline where practicable.*

4.3.1.2 Methods

- (i) Encourage landowners to continue to protect significant areas of indigenous vegetation and habitats by conservation covenants, fencing and adoption of good practices.*
- (ii) Use of guidelines and education.*
- (iii) Rules which regulate activities which have the potential to have an adverse effect on the coastal environment.*

- (iv) *Controlling the amount of development permitted in the coastal environment by the delineation of Management Areas.*

4.3.2 Objective - Coastal Water Quality

- (i) *The maintenance and enhancement of the coastal water quality of the Chathams at a standard which safeguards its life supporting capacity.*

4.3.2.1 Policies

- (i) *Discharges or dumping of contaminants to water or land within the land above mean high water springs should not adversely affect the standard of coastal water and the discharges should not give rise to any adverse effects on habitats, feeding grounds or ecosystems in the coastal environment.*
- (ii) *To operate the Waitangi sewerage system in an efficient and environmentally acceptable manner.*
- (iii) *All vessel construction, maintenance and servicing sites should possess facilities for the containment and collecting and treatment or disposal of wastes or contaminants arising from activities on the site.*
- (iv) *As far as practicable land uses should be managed so that contaminants from non-point discharges do not adversely affect coastal water.*

4.3.2.2 Methods

- (i) *Rules to ensure that discharges of contaminants from rural, residential, industrial community or commercial developments do not adversely affect coastal water quality.*
- (ii) *Routine maintenance of the Waitangi sewerage system.*
- (iii) *To encourage practices which minimise land use runoff such as the maintenance and protection of coastal vegetation.*

4.3.3 Anticipated Environmental Results	Comment
<i>(i) Natural features such as significant indigenous vegetation habitats and landscapes along the coast are retained and where practicable enhanced.</i>	Monitoring so far indicates there has been little adverse change in respect of natural features. Significant planting has occurred in some locations such as the Ocean Mail Reserve on the north coast of Chatham Island and the number of covenanted areas has increased substantially (although not all of these will be coastal).
<i>(ii) The openness of the coastal environment in terms of building</i>	The openness has been retained given the negligible amount of development. The only coastal developments that have been undertaken outside the settlements are the small number of dwellings including the

<i>development outside of the settlements is retained.</i>	tourist lodge on Pitt Island.
<i>(iii) Coastal water quality is not adversely affected by land based activities.</i>	Generally it appears coastal water quality is not adversely affected in a significant manner with some improvements made since 1991. The location of the new Waitangi WWTP at Hospital Road has improved coastal water quality as effluent no longer discharges to the CMA. The proposal to establish a new landfill and the closure of existing coastal landfills at Kaingaroa, Te One and Owenga will also improve water quality. Conditions have been imposed on resource consents (e.g. paua farm and Owenga Wharf) to ensure water quality is protected. Discharges to waterbodies as a result of stock access can affect coastal water quality, although numbers of stock units have remained static or reduced. The maintenance of boats is generally undertaken on the "hard" and therefore contaminants do not necessarily discharge to the CMA..

Analysis of Part 4.3

Generally the coastal environment including water quality has been retained, and in some cases enhanced, in terms of the anticipated environmental results. The coastal environment has not been subject to extensive development but enhancements have been made in terms of the relocation of the Waitangi WWTP and the ultimate closure of landfills located on the coast. Where development has occurred on land that could affect the coastal environment, appropriate conditions have been imposed on resource consents to protect this environment. There are rules in the CIRMD requiring a minimum setback from Mean High Water Springs (MHWS) which is considered to be a cost effective method for assisting in the control of development.

Given the standard of water quality the policies and methods are considered efficient and effective. As indicated previously management of contaminants from non-point discharges (4.3.2.1 (iv)) is difficult to achieve given it is often a stock access problem but does not appear to be a significant issue for coastal water quality.

4.4 Indigenous Vegetation and Habitats of Fauna

4.4.1 Objective -Significant Areas of Indigenous Vegetation and Habitats

- (i) *To protect, and where possible, enhance the remaining significant areas of indigenous vegetation and habitats of indigenous fauna.*

4.4.2.1 Policies

- (i) *To recognise areas of significant vegetation and habitats of fauna in accordance with one or more of the following criteria:*
 - (a) *The area is one of the best examples of an association of species which is typical of the Chathams.*
 - (b) *The area is important for the future viability of a threatened species.*
 - (c) *The area is connected to one or more significant areas in a way that makes a major contribution to the overall functioning of those areas.*
 - (d) *The area is greater than 10 hectares with a high degree of non-modification.*
 - (e) *The area is protected by statute or covenant.*

- (ii) *To avoid, remedy, or mitigate adverse effects on the ecological integrity, functioning, habitat values and natural character of areas of significant vegetation and habitats.*
- (iii) *To encourage forestry plantings for among other purposes, firewood.*
- (iv) *Burnoffs should avoid areas of significant indigenous vegetation and habitats of fauna.*

4.4.3 Methods

- (i) *Encourage landowners to consider informal/formal protection options such as conservation covenants/kawenata such programmes as Nature Heritage Fund, Nga Whenua Rahui and Queen Elizabeth II Covenants, Iwi silent files and private management agreements.*
- (ii) *Encourage landowners to fence off areas of significance.*
- (iii) *Consult and liaise with island owners in the management of off-shore islands that contain significant areas.*
- (iv) *Co-operate with Department of Conservation in the implementation of its species recovery, research, surveying and habitat and protection programmes.*
- (v) *Identify areas of significance on planning maps as "Areas of Significant Natural Value" in consultation with landowners and other appropriate agencies.*
- (vi) *Prepare a pest management strategy under the Bio Security Act in consultation with the community to seek to prevent damage to significant areas.*
- (vii) *Allow forestry as a permitted activity subject to compliance with conditions in rural areas.*
- (viii) *To encourage 'good burning practices' by developing burning guidelines with Federated Farmers and other parties.*
- (ix) *Regulate by rules in certain circumstances.*

4.4.4 Anticipated Environmental Results	Comment
<i>(i) Identification and protection of areas of significant indigenous vegetation and habitats.</i>	In Appendix 1 of the CIRMD 25 areas in private ownership containing areas of indigenous fauna and flora were identified as protected by covenants. In 2009 this number has increased to 44. No other known areas have been identified in accordance with the criteria in Policy 4.4.2(i).
<i>(ii) Retention and enhancement of areas of significant existing vegetation and habitats.</i>	As far as is known existing areas have been retained. None of the areas identified in Appendix 1 have been the subject of resource consent and provisions such as Rule 5.3.4.16 controlling riparian vegetation clearance have not been invoked. Monitoring indicates that there has not been significant vegetation clearance on the islands. A comprehensive Pest Management Strategy is now in place which will assist in the control of pests damaging flora and fauna.
<i>(iii) Increased</i>	A number of publicity programmes have been undertaken on the Chatham

<i>knowledge by public and property owners as to natural values of such areas.</i>	Islands by Council and DOC staff highlighting the natural values of the area. Since the contract with Environment Canterbury the Council now publishes the "Chatham Islands Quarterly" which among other matters highlights the natural values of the Islands.
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Analysis of Part 4.4

The monitoring indicates that significant indigenous vegetation and habitats have been retained and possibly enhanced, particularly given the retention and increase in covenanted areas (and which is one of the primary methods identified in 4.4.3 (i) and (ii)). The biggest threat appears to be stock grazing rather than vegetation clearance and as indicated earlier this is a fencing issue, rather than a regulatory matter. There appears to be greater awareness on the islands of the importance of natural values.

The criteria for significant areas outlined in Policy 4.4.2(i) should be reviewed to update its relevance to the Chatham Islands today and how such a policy should be applied. The CIRMD essentially does not contain extensive rules relating to vegetation clearance as this does not appear to be required and is strongly opposed by the community. Significant forestry plantings have not taken place in accordance with Policy 4.4.2(iii) which is intended to reduce the pressure on the use of indigenous timber for firewood. However as indicated under Part 4.9 households are converting to alternative methods of heating, which reduces pressure on firewood.

A number of the methods have been implemented including the preparation (and review) of a pest management strategy, although liaison in the management of off-shore islands has not occurred except for DOC involvement. While good burning guidelines have not been developed (Method 4.4.1 (viii)) Council as the Rural Fire Authority issues permits for any fires and which usually requires sign off from DOC. Most burn offs are for the removal of gorse rather than indigenous vegetation.

Overall the provisions appear efficient and effective given the retention of natural areas. This is of significant benefit and has accrued little cost given the non regulatory approach, not all policies and methods have been implemented.

4.5 Landscapes and Natural Features

4.5.1 Objective - Outstanding Landscapes and Natural Features

- (i) *The protection of outstanding landscapes and natural features which are integral to the character of the Chatham Islands.*

4.5.2 Policies

- (i) *To recognise areas of outstanding landscapes and natural features in accordance with one or more of the criteria listed below:*
 - (a) *the landscape/natural feature is intact and largely unmodified by human activity.*
 - (b) *the landscape/natural feature is an example of a national or international geological landform.*
 - (c) *the landscape/natural feature is one which people travel to view.*

- (d) *the landscape/natural feature is high in visual sensitivity to change.*
- (e) *the area is protected by statute or covenant.*

- (ii) *Development should be undertaken in a manner which avoids, remedies, or mitigates adverse effects on the criteria set out in Policy 4.5.2(i).*

4.5.3 Methods

- (i) *Encourage landowners to consider informal/formal protection options such as covenants, reserves etc.*
- (ii) *Consult and liaise with island owners in the management of offshore islands that contain outstanding areas.*
- (iii) *Identify outstanding areas on planning maps in consultation with landowners as “Areas of Significant Natural Value”*
- (iv) *Regulate by rules in certain circumstances.*

4.5.4 Anticipated Environmental Results	Comment
<i>(i) Identification of outstanding landscapes and natural features.</i>	A number of landscapes and features are identified in Appendix 1 of the CIRMD. As indicated above further areas have been covenanted but it is understood these relate more to indigenous habitats and fauna. Except for the areas in Appendix 1 and the additional covenanted areas other outstanding areas have not been identified under Policy 4.5.2(i).
<i>(ii) Retention of outstanding landscapes/natural features that are not compromised by development.</i>	Monitoring indicates that features are not compromised by development which as indicated previously is not significant. None of the outstanding areas identified in Appendix 1 of the CIRMD have been the subject of resource consents.

Analysis of Part 4.5

The monitoring indicates that outstanding landscapes and features have been retained, (and possibly further ones added primarily by Method 4.5.3(i) and (iii)). However similar to Policy 4.4.2(i), it is considered that Policy 4.5.2(i) should be reviewed in terms of its relevancy and applicability. Method 4.5.3(ii) has not been significantly advanced by Council but DOC is active in the management of at least some of the off-shore islands and their natural values. The Pest management Strategy notes that due to a lack of resources Council will not focus on the off-shore islands but rather will advocate to the community, owners of the islands and central government of the importance of preventing infestation the islands and will continue to work with DOC and Biosecurity New Zealand.

While some of the policies and methods have not been implemented, it is considered that overall the provisions are efficient and effective.

4.6 Heritage Items

4.6.1 Objective - Places and Sites of Heritage Values

- (i) *The recognition and protection of places and sites of heritage value which have a historical and cultural association with the Chatham Islands.*

4.6.2 Policies

- (i) *The identification of items in the document for information and regulatory purposes.*
- (ii) *Demolition, alteration or removal of identified heritage items should not be allowed unless it can be demonstrated that:*
 - (a) *any alteration will not detract from its heritage value*
 - (b) *relocation of the item is able to be accommodated without having a significant adverse effect*
 - (c) *practical utilisation of the item is not possible*
- (iii) *Archaeological sites including those of special significance to Iwi are to be protected from the adverse effects of use and development.*
- (iv) *Consultation with Iwi prior to any development upon discovery of urupa remains.*

4.6.3 Methods

- (i) *Use of guidelines and education.*
- (ii) *Identification on the planning maps of heritage items and their listing in Appendix 3.*
- (iii) *Require resource consent for activities affecting heritage items.*
- (iv) *Compliance with the Historic Places Act 1993 in respect of archaeological sites.*
- (v) *Encourage dissemination of information and/or on the process and protocol for disturbance of Iwi sites.*
- (vi) *The purchase of heritage items by heritage authorities and consideration by Council to purchase such items.*

4.6.4 Anticipated Environmental Results	Comment
<i>(i) Identification of heritage items in the document.</i>	Heritage items are identified in the document (Appendix 3) but there have not been any additions since 2001. It is proposed that Tommy Solomon's statue at Owenga will be registered by the NZHPT and therefore potentially could be added to the list. Appendix 3 should be updated to reflect any changes.
<i>(ii) Increased recognition of heritage items.</i>	Monitoring suggests recognition remains about the same.
<i>(iii) Retention of heritage items including archaeological sites.</i>	Monitoring suggests that there has not been a loss of items.

<i>(iv) Increased understanding of protocol of Iwi if cultural sites are disturbed.</i>	There is an awareness of protocols and were followed for example when human remains were disturbed in proximity to the Te One landfill.
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Analysis of Part 4.6

The provisions are generally considered effective and efficient as heritage items are identified and a statutory process (resource consent) is required if alteration, demolition, etc takes place. Council has not purchased items or undertaken education programmes (Methods 4.6.3 (i) and (iv)) which probably reflects a lack of opportunity and/or budgetary constraints but this does not preclude other organisations undertaking this role such as NZHPT and DOC.

4.7 Public Access to and Along the Coastal Marine Area, Rivers and Lakes

4.7.1 Objective - Maintenance and Enhancement of Public Access

- (i) *The maintenance and enhancement of appropriate public access to and along the coastal marine area, rivers and lakes.*

4.7.2 Policies

- (i) *In considering the maintenance and enhancement of public access, the Council shall have regard to:*
- *The availability of access across private land and existing legal access*
 - *Trends in demand for access.*
 - *The necessity to:*
 - *protect areas of significant indigenous vegetation or significant habitats of indigenous fauna*
 - *protect cultural values*
 - *protect fisheries resources*
 - *protect public health or safety*
 - *ensure a level of security consistent with the purpose of a resource consent*
- (ii) *Public access to the following areas should be enhanced as the opportunity arises;*
- *The western side of Te Whanga (legal and physical access)*
 - *The coast in general and in particular at:*
 - *Matarakau (physical access)*
 - *Mairangi (physical access)*
 - *Waitangi West Beach east of Cape Pattison (physical access)*
 - *South Coast (physical access)*
- (iii) *To consider:*
- *the creation of esplanade reserves/strips for public access on subdivisions which result in the creation of allotments that are less than 4 ha in area subject to the matters set out in Policy 4.7.2(i) and (ii)*
 - *the use of access strips*
- (Refer also to Objective 4.12.4).*

- (iv) *Structures should be designed and located to avoid, remedy or mitigate adverse effects on public access to and along the coastal marine area, rivers and lakes.*

4.7.3 Methods

- (i) *Encouraging landowners to continue to facilitate public access.*
- (ii) *Creation of physical access such as roads and boat ramps.*
- (iii) *Creation of esplanade reserves/strips, access strips or private agreements.*
- (iv) *Monitor visitor numbers to assess the necessity for public access.*

Analysis of Part 4.7

There are no anticipated environmental results in this section which suggests this may be a drafting error. The Chatham Islands have traditionally relied on owner permission to access the coast and lakes and rivers given the general absence of the “Queens Chain”. Monitoring indicates that the situation has not changed since 2001 and that access is usually given provided prior permission is asked for. Access has not been enhanced as set out in Policy 4.7.2(ii) as this has not been a priority matter. This matter requires review particularly given the relatively low benefit and high costs that may accrue.

Policy 4.7.2(ii) has not been implemented to any significant extent given the small number of subdivisions that the policy applies to. The provisions are however considered to be efficient and effective as they recognise the circumstances of the Chatham Islands and provide sufficient flexibility in respect of esplanade reserves.

In terms of Method 4.7.3(iii) there has been an increase in visitor numbers. However these are largely a result of organised tours in which access is pre-arranged and does not result in pressure on access.

4.8 Natural Hazards

4.8.1 Objective - Adverse effects of Natural Hazards

- (i) *Avoid or mitigate the adverse effects of natural hazards on human life and property and other aspects of the environment where feasible.*

4.8.2 Policies

- (i) *Use, development and subdivision should not occur in areas that are prone to erosion, sea level rise and flooding where these hazards are likely to endanger human life and property and other aspects of the environment, unless the hazard can be mitigated.*
- (ii) *To ensure that any mitigation measures in relation to natural hazards do not in themselves lead to unnecessary adverse effects.*

4.8.3 Methods

- (i) *Where appropriate regulate by rules.*
- (ii) *Place conditions on resource consents and/or use provisions of the Building Act.*
- (iii) *Encourage landowners to fence off erosion prone areas from stock where practicable and plant trees where appropriate.*

- (iv) *Monitor information on sea level rise as to its likely effect on human life and property and if necessary regulate subdivision and development to avoid or mitigate its effects.*

4.8.4 Anticipated Environmental Results	Comment
<i>(i) Identification of natural hazard prone areas.</i>	The areas of natural hazards are identified in the CIRMD but are not shown on the planning maps. Since 2001 further sand blow outs have occurred at Ocean Mail Reserve and also at Owenga.
<i>(ii) Use, development and subdivision that is not exposed to the adverse effects of erosion, flooding, etc.</i>	Feedback indicates that no development has occurred on hazard areas. Christchurch City Council has recently assumed responsibility for issuing building consents which may lead to a more rigorous PIM process as it relates to hazards.
<i>(iii) Mitigation of natural hazards where such mitigation measures are acceptable.</i>	It appears no significant mitigation measures have been undertaken although it is understood Environment Canterbury staff will provide advice at Ocean Mail Reserve and that some planting to stabilise local areas has been undertaken by landowners.

Analysis of Part 4.8

It appears development has not occurred in identified hazard prone areas and that any mitigation measures have not exacerbated the situation (Policies 4.8.2(i) and (ii)). The lack of development has generally not resulted in the utilisation of Methods 4.8.3.(i) and (ii). It is not known if erosion prone areas have been fenced off but it appears that at least some planting has occurred, particularly in "sand blow outs". Sea level rise has not been specifically monitored but it has not been necessary in respect of subdivision and development given the general lack of activity.

Overall the provisions are considered effective and efficient given the significant potential costs associated with natural hazards, but the general lack of development means the provisions have not been tested. The resources of Environment Canterbury, however may allow a more thorough analysis of hazards, as is occurring with Ocean Mail Reserve. This would enhance the efficiency and effectiveness of the provisions.

4.9 Air Quality

4.9.1 Objective - Retain Standard of Air Quality

- (i) *To retain the high standard of air quality in the Chathams.*

4.9.2 Policy

- (i) *Discharges of contaminants to air should not have an adverse effect on people's health and amenities, on flora and fauna and on other natural and physical resources.*

4.9.3 Methods

- (i) *Regulate by rules to stop any nuisance arising from a discharge.*
- (ii) *Encouragement of good practices in the operation of activities with potential adverse air discharges.*

4.9.4 Anticipated Environmental Results	Comment
(i) <i>Retention of the existing air quality.</i>	While there has not been any scientific monitoring it appears that overall existing air quality has been retained given the lack of significant development. In Waitangi, air quality in terms of odour has improved with the relocation and upgrading of the WWTP to Hospital road. There are also less open fires with a number of residents installing heat pumps. The proposed closure of the landfill at Kaingaroa will also result in improved air quality and this will be further enhanced with the proposed closures of the Owenga and Te One landfills.

Analysis of Part 4.9

Given that the air quality is at least likely to have been retained the policy and methods are considered to be efficient and effective. The relocation of the WWTP and the closure of the landfill has resulted in better operational practices (Policy 4.9.8 (ii)). The WWTP was also the subject to the resource consent process (Method 4.9.4(ii)).

4.10 Hazardous Substances

4.10.1 Objective - Prevention and Mitigation of Effects of Hazardous Substances

- (i) *To prevent or mitigate the actual and potential effects arising from the storage, use, disposal and transportation of hazardous substances.*

4.10.2 Policies

- (i) *Hazardous substances should be securely contained during their use, storage, and transport so as to minimise the risk of escape.*
- (ii) *Hazardous substances should be disposed of in an environmentally acceptable manner including the avoidance of the Coastal Marine Area, water bodies and wildlife habitats.*

4.10.3 Methods

- (i) *Compliance with all legislation dealing with hazardous substances including the Hazardous Substances and New Organisms Act 1996, Dangerous Goods Act 1974, Transport Act 1962 and Building Act 1991.*
- (ii) *Compliance with industry guidelines eg Code of Practice for the Safe Use of Timber Preservatives and Antisapstain and Chemicals and Growsafe programmes.*
- (iii) *Investigate methods of disposal including an environmentally managed landfill or transportation of hazardous substances off the islands.*

- (iv) *Education and advice on the storage of hazardous substances.*
- (v) *Abatement notices/enforcement orders where management of hazardous substances are not adhered to.*
- (vi) *Rules regulating the location, storage and disposal of hazardous substances.*

4.10.4 Anticipated Environmental Results	Comment
<i>(i) A low level of risk in the Chathams from hazardous substances.</i>	There have been no reported incidents involving hazardous substances.
<i>(ii) Increased awareness from the public of hazardous substances.</i>	Difficult to determine but there has not been any specific dissemination of information from Council.
<i>(iii) The establishment of a method to dispose of hazardous substances in an environmentally acceptable manner.</i>	The Solid Waste Management Plan considered the option of exporting hazardous waste to New Zealand for disposal although this has not occurred. Disposal should at least improve with the closure of the existing landfills and the establishment of the new landfill. Currently hazardous substances are disposed of at landfills without stringent management.

Analysis of Part 4.10

Hazardous substances generally continue to be a low level risk on the Chathams with no reported incidents and as a consequence Policy 4.10.2(i) and the methods are considered to be efficient and effective. The disposal of hazardous substances is still an issue given the existing landfills and Policy 4.10.2(ii) may not be fully met. However, the methods are all considered to be efficient and effective and improvements are likely with further implementation of the Solid Waste Management Plan.

4.11 Waste Management

4.11.1 Objective - Waste Disposal

- (i) *To ensure that waste is disposed of in a manner that avoids, remedies or mitigates adverse effects, having regard to the community's and Council's resources.*

4.11.2 Policies

- (i) *The maintenance of public landfills for the disposal of waste in an environmentally acceptable manner.*
- (ii) *The closure of the existing Kaingaroa landfill depending on the availability of a new site.*
- (iii) *Any waste disposed of on private land should be in an environmentally acceptable manner.*

4.11.3 Methods

- (i) *Education and advice on good waste disposal practices.*
- (ii) *Ensure that good management practices are in place at landfills including regular covering of rubbish, fencing to contain litter etc.*
- (iii) *Investigate alternatives for the Kaingaroa landfill.*
- (iv) *Rules to regulate the disposal of waste.*

4.11.4 Anticipated Environmental Results	Comment
<i>(i) Acceptable standards and sites for the disposal of waste having regard to the Chathams' resources and likely effects.</i>	With the full implementation of the Solid Waste Management Plan the anticipated environmental results will be met.

Analysis of Part 4.11

With the implementation of the Solid Waste Management Plan the anticipated environmental result to be met although the standards of waste management will be significantly higher than envisaged in 2001. It is considered Policy 4.11.2 (i) and (iii) and Methods (i) and (ii) are still applicable. The provisions relating to the Kaingaroa landfill (Policy 4.11.2 (ii) and Method 4.11.3 (ii)) require review to take account of the Solid Waste Management Plan to reflect the efficiency and effectiveness benefits obtained since 2001.

4.12 Subdivision and Development

4.12.1 Objective – Subsequent Uses

- (i) *To ensure that sites which are created by subdivision do not subsequently result in adverse effects on the environment which cannot be avoided, remedied or mitigated.*

4.12.1.1 Policies

- (i) *That sites created should be capable of being put to reasonable use having regard to the objectives and policies for the management area in which it is located.*
- (ii) *Any subdivision should avoid the likely adverse effects on significant indigenous vegetation and habitats, outstanding landscape features, and the natural character of waterbodies and the coastal environment.*
- (iii) *Any subdivision should avoid or be able to mitigate any site identified with a natural hazard.*

4.12.2 Objective - Provision of Services

- (i) *The adequate provision of services, infrastructure and access for sites created by the subdivision and development in a manner that avoids, remedies or mitigates adverse effects.*

4.12.2.1 Policies

- (i) *Subdivision and development should provide for:*
 - (a) *Disposal of sewerage in a manner which maintains public health and avoids, remedies or mitigates effects on the environment*
 - (b) *Adequate water supplies for drinking and firefighting*
 - (c) *Disposal of stormwater in a manner which does not affect water quality and avoids inundation*
 - (d) *Connections into reticulated systems where they are available*
 - (e) *The possible installation of septic tanks in the Waitangi Settlement Area for connection with the present reticulated system*
 - (f) *Supply of electricity, street lighting and telecommunications using a method that is appropriate to the circumstances of the subdivision/development and to the amenity values of the area*
 - (g) *Safe and efficient vehicular and pedestrian access*
 - (h) *In the Settlement Management Areas, the following:*
 - *roads and rights of way to a sealed standard*
 - *underground reticulation of services*
 - *kerb and channelling and footpaths*
- (ii) *The costs of additional new or upgraded services and infrastructure shall be paid for by the developer/subdivider (refer Section 4.13).*

4.12.3 Methods

- (i) *Conditions of resource consents*
- (ii) *Management plans for forestry*

4.12.4 Objective- Esplanade Reserves and Strips

- (i) *To contribute to the protection of conservation values and enable public access and recreational use of rivers, lakes and the coastal environment by the creation of esplanade reserves and strips in locations where the above matters require addressing.*

4.12.4.1 Policies

- (i) *To generally require esplanade reserves or strips to be set aside for allotments of four hectares or less in accordance with the criteria set out in Table 4.12.1.*

4.12.5 Methods

- (i) *Creation of esplanade reserves and strips as a condition of resource consents.*

4.12.6 Anticipated Environmental Results	Comment
<i>(i) An orderly subdivision pattern that facilitates development without adverse effects on the environment.</i>	Most subdivisions that have occurred are mainly boundary adjustments. The small number of subdivisions that have involved the creation of new lots have suitable conditions imposed on them in terms of minimum area, roading, services, etc and have resulted in an “orderly pattern.”
<i>(ii) Subdivisions that are provided with adequate levels of servicing having regard to their location.</i>	As indicated above subdivision consents have suitable conditions imposed on them to ensure there is adequate servicing.
<i>(iii) Creation of esplanade reserves/strips in appropriate locations.</i>	Subdivision applications have generally not resulted in any significant requirements for esplanade reserves/strips under CIRMD Policy 4.12.4.1.

Analysis of Part 4.12

The policies and methods are considered to be efficient and effective given that the environmental results have largely been met. In particular, sites created for rural and residential purposes are capable of reasonable use (Policy 4.12.1.1) which has resulted in an orderly pattern of development. The policies and methods are effective given that costs for upgrading are the responsibility of the developer/subdivider.

The subdivisions have the appropriate levels of servicing in respect of roading, water and effluent disposal and meet Policy 4.12.2.1. The requirement for esplanade reserves/strips has not generally arisen but it is considered the objective and policy (including Table 4.12.1) are an efficient and effective means to address this matter given they recognise the situation on the Chatham Islands while providing flexibility.

5.3 Rural Management Area

5.3.2 Objective – Management of Resources

- (i) The management of resources in the rural area in a manner that enables people and communities to carry out a variety of activities while ensuring that the resource base is sustainable for future generations.*

5.3.2.1 Policies

- (i) *Activities should not significantly reduce the long-term potential or availability of the natural and physical resources*
- (ii) *A wide range of activities should be permitted provided adverse effects are avoided, remedied or mitigated.*

5.3.2.2 Methods

- (i) *Rules which permit a wide range of activities subject to the control of adverse effects.*

5.3.3 Objective – Amenities

- (i) *To retain and enhance the existing amenities of the rural area.*

5.3.3.1 Policies

- (i) *The patterns of subdivision and housing should ensure that the openness of the rural area is retained and the adverse effects on natural features be avoided, remedied or mitigated.*
- (ii) *The bulk and location of structures should not affect the character of the rural area or affect the amenities of adjoining properties.*
- (iii) *Activities should not adversely affect the amenities of the rural area or adjoining properties in terms of such matters as effluent disposal, noise, traffic generation, air emissions, odour, shading and visual impact.*

5.3.3.2 Methods

- (i) *Rules which control subdivision, bulk and location of structures, noise, traffic, odour, taking of water, discharge of contaminants etc.*

5.3.3.3 Anticipated Environmental Results	Comment
(i) <i>Availability of the rural resources for a number of activities.</i>	Rural resources remain generally available for economic, cultural and recreation activities that the Chatham Islanders undertake. Resources generally do not appear to have diminished through over development or use.
(ii) <i>Adverse effects are controlled that are commensurate with the existing amenities of the rural area.</i>	Monitoring indicates that the general amenities of the area are retained and as a consequence adverse effects are controlled.

Analysis of Part 5.3

Generally the anticipated environmental results have been met in respect of the availability of resources and the retention of rural amenities. This situation reflects the low levels of development in the rural area. Rules in the Rural Management Area affect the largest part of the Chatham Islands. Although not tested in any significant way the rules, are considered to still be of relevance and efficient and effective given that they are successful in controlling activities that potentially have significant effects such as the meat works and the Waitangi WWTP. Rule 5.3.4.20 relating to residential units may however require reviewing given its relative permissive nature, notwithstanding the lack of development.

5.4 Settlement Management Area

5.4.2 Objective – Management of Resources

- (i) *The management of the settlement resources in the settlement areas in a manner that provides for the well being of the people and communities of Chatham Islands without creating adverse effects.*

5.4.3 Policies

- (i) *A variety of activities should be permitted in the Settlement Management Area provided that the adverse effects, particularly on residential areas are avoided, remedied or mitigated.*
- (ii) *Higher density development should locate in the Settlement Management Areas rather than along the coast or in the rural areas.*
- (iii) *Activities should not adversely affect the amenities of the settlements or adjoining properties in terms of effluent disposal, noise, traffic, generation, air emissions and odour.*
- (iv) *The bulk and location of structures should not affect the character of the settlement area or affect the amenities of the adjoining properties.*

5.4.4 Methods

- (i) *Rules which control subdivision, effluent disposal, noise, traffic generation, air emission and bulk and location of adjoining properties.*

5.4.5 Anticipated Environmental Results	Comment
(i) <i>The opportunity for a wide range of compatible activities to locate in the settlements.</i>	The settlements continue to contain a mix of uses, predominantly residential with some commercial, although there has been little development of significance since 2001.
(ii) <i>Adverse effects are controlled that are commensurate with the existing amenities of the settlement area.</i>	Existing amenities appear to be satisfactory in the Settlement Areas although little development has occurred since 2001.
(iii) <i>Concentration of higher density development in the settlements.</i>	Little development has occurred in the Settlement Areas or in coastal/rural areas.

Analysis of Part 5.4

While little development has occurred the relevant provisions are still considered to be efficient and effective in providing flexibility for different activities to locate in the settlement areas while maintaining acceptable environmental standards.

5.5 Industrial Management Area

5.5.2 Objective – Management of Resources

- (i) *The efficient use of the resources associated with the airport, ports and industry in a manner that provides for the well being of the islands without creating adverse effects.*

5.5.3 Policies

- (i) *Activities that could conflict with the efficient operation of the airport, port and associated activities should not be located in the Industrial Management Areas.*
- (ii) *Activities should not create adverse effects beyond the boundaries of the Industrial Management Area.*

5.5.4 Methods

- (i) *Rules that control activities in the Industrial Management Area.*

5.5.5 Anticipated Environmental Results	Comment
(i) <i>Industrial areas that can operate in an efficient manner without creating adverse effects, particularly as it relates to adjoining areas.</i>	Monitoring indicates the fish factories, wharves and the airport operate in an efficient manner without effect on adjoining sensitive activities such as residential, which in general maintain a degree of separation. The Owenga wharf replacement was granted on a non notified basis with sign off from adjoining neighbours, Iwi and DOC.

Analysis of Part 5.5

Given that the industrial activities operate without adverse effect the provisions of the Industrial Management Area are deemed to be efficient and effective.

5.6 Coastal Marine Area

5.6.1 Objective – Life Supporting Capacity

- (i) *To safeguard the life-supporting capacity of coastal ecosystems.*

5.6.3.1 Policies

- (i) *Activities should not have more than a minor adverse effect which cannot be avoided, remedied or mitigated adverse effects on the life-supporting capacity of the Coastal Marine Area, including effects on one or more of:*
 - (a) *the quality and quantity of habitats*

- (b) the integrity of essential ecological processes*
- (c) the viability of species populations*
- (d) spawning, nursery or feeding areas for marine life (including access by marine life to these areas), energy flows and nutrient cycling*
- (e) shellfish gathering areas, and fishing areas*
- (f) flora and fauna*
- (g) water quality*
- (h) movement of water, sediment transport or the composition of natural substrates*
- (ii) Activities within the Coastal Marine Area involving the use, storage, transport, and disposal of hazardous substances should be managed or controlled, so as to minimise:*
 - (a) the risk of a spill or leakage occurring, and*
 - (b) the potential for adverse effects in the event of a spill or leakage*
- (iii) Where opportunities to restore and rehabilitate the life-supporting capacity of the Coastal Marine Area are identified they will where practicable be acted upon.*

5.6.3.2 Methods

- (i) Rules in the document regulating activities which have the potential to create an adverse effect.*
- (ii) Assessment and monitoring of Resource Consent applications.*
- (iii) Compliance with legislation dealing with hazardous substances.*
- (iv) Financial contributions from consent holders for the enhancement of areas.*
- (v) Encouraging community participation in restoration projects.*

5.6.4 Objective – Vegetation, Habitat and Natural Features

- (i) The protection of areas of significant indigenous vegetation, significant habitats of indigenous fauna and outstanding natural features within the Coastal Marine Area.*

5.6.4.1 Policies

- (i) Activities in the Coastal Marine Area should be located and designed in a way which avoids, remedies or mitigates adverse effects and protects areas of significant indigenous vegetation, significant habitats of indigenous fauna, outstanding natural features and landscapes.*
- (ii) The network of non-commercial fishing areas as identified and administered by the community should be maintained and following public consultation, further areas protected if appropriate.*

5.6.4.2 Methods

- (i) Rules regulating activities within the Coastal Marine area which have the potential to cause adverse effects.*
- (ii) Encourage community participation in restoration projects.*
- (iii) Identify areas of significance on planning maps and where appropriate manage these areas with a range of methods.*
- (iv) Educate and promote public awareness of significant and outstanding features.*

5.6.5 Objective – Amenity Values

- (i) The maintenance and enhancement of amenity values within the Coastal Marine Area.*

5.6.5.1 Policies

- (i) Activities within the Coastal Marine Area should avoid, remedy or mitigate adverse effects on amenity values.*
- (ii) Structures should be removed at the expiry of their authorisation or the purpose for which they were erected is no longer relevant, provided that none of the following apply:*
 - (a) the structure will have no more than minor adverse effects on the environment or on public access or use of the area if left in place*
 - (b) the structure has significant heritage value*
 - (c) a new authorisation has been granted, or applied for but not yet determined.*
- (iii) Activities within the Coastal Marine Area should:*
 - (a) permit the unrestricted safe navigation of vessels to and from recognised launching, mooring or berthing areas*
 - (b) not adversely affect the functioning of navigation aids*
 - (c) allow people to have safe access to and along the Coastal Marine Area*
 - (d) retain opportunities for people to make use of the foreshore and coastal waters for contact recreation*
 - (e) ensure that appropriate notice is given when the navigability of an area changes as a result of that use or development*

5.6.5.2 Methods

- (i) Rules regulating activities in the Coastal Marine Area which have a potential to create adverse effects.*
- (ii) Assessment and monitoring of Resource Consent applications.*
- (iii) Other legislative requirements such as the Harbours Act 1950 and Maritime Safety Authority.*

5.6.6 Objective – Coastal Processes

- (i) Natural coastal processes are not adversely affected by activities on the foreshore or seabed.*

5.6.6.1 Policies

- (i) Activities on the foreshore or seabed should avoid, remedy or mitigate adverse effects on natural coastal processes.*
- (ii) Structures should not have more than a minor adversely effect on natural coastal processes.*
- (iii) To adopt a precautionary approach towards those activities which affect coastal processes.*

5.6.6.2 Methods

- (i) Rules regulating activities.*
- (ii) Assessment of resource consents.*
- (iii) Removal of structures that adversely affect coastal processes.*
- (iv) Non regulatory methods such as education, consultation etc.*

5.6.7 Objective – Coastal Water Quality

- (i) Maintenance and enhancement of the quality of the Chatham's coastal water.*

5.6.7.1 Policies

- (i) Coastal water quality standards should be maintained or enhanced to reflect lwi values and community aspirations for the management of fisheries, fish spawning, aquatic ecosystems and aesthetic purposes, food gathering and cultural purposes.*
- (ii) Discharges to coastal water should not, after reasonable mixing give rise to any significant adverse effects on habitats, feeding grounds or ecosystems.*
- (iii) Discharges should not lead to a further degradation of existing water quality.*
- (iv) When considering new proposals or applications to discharge contaminants directly to water, or reviewing existing discharges, matters to be taken into account shall include:*
 - (a) the total contaminant load (composition/concentration/flow rate) of the discharge*
 - (b) the assimilative capacity of the receiving water to dilute and dispense the contaminant.*
 - (c) actual or potential uses of the water body and the degree to which the needs of other water users are, or may be, compromised*
 - (d) scenic, aesthetic, amenity, recreational and fisheries values*
 - (e) the cultural and spiritual values*
 - (f) the actual or potential risk to human health from the discharge*
- (v) The discharge of human sewage into coastal water should only occur after passing through land in a manner that does not give rise to adverse effects.*
- (vi) The level of contaminants in stormwater discharges to the Coastal Marine Area should be minimised where practicable using screening, filtering or settlement devices.*

- (vii) *Port areas should possess adequate and convenient rubbish facilities to accept rubbish and contaminants from vessels.*
- (vii) *All vessel maintenance sites should possess facilities for the containment, collection, and treatment or disposal, of wastes or contaminants arising from the maintenance or repair of vessels.*
- (ix) *The implementation of the approved oil spill contingency plan to manage any emergency discharge or spillage of environmentally damaging substances.*
- (x) *The public shall be adequately warned when the degradation of water in the coastal environment has rendered the water unsafe for shellfish gathering and other activities.*

5.6.7.2 Methods

- (i) *Rules regulating discharges.*
- (ii) *Liaison with Mfish when setting monitoring requirements for aquaculture discharges or such like so that both Council and Mfish can arrange for monitoring to be done simultaneously.*
- (iii) *Other legislative mechanisms such as the Maritime Transport Act 1994 and Bio Security Act.*
- (iv) *Encourage good practices such as regular maintenance of effluent disposal systems to prevent or minimise discharges affecting the Coastal Marine Area.*
- (v) *Provision of rubbish disposal facilities at the wharves on the Chatham Islands.*
- (vi) *Conditions of resource consents.*
- (vii) *Television and radio notices when water is unsafe for activities.*

5.6.8 Objective – Public Access

- (i) *The maintenance and enhancement of public access along the coastal marine area.*

5.6.8.1 Policies

- (i) *In considering public access the Council shall have regard to:*
 - (a) *the necessity to:*
 - *protect areas of significant indigenous vegetation or significant habitats of indigenous fauna*
 - *protect cultural values*
 - *protect public health or safety*
 - *ensure a level of security consistent with the purpose of a resource consent*
 - *in other exceptional circumstances sufficient to justify the restriction, notwithstanding the national importance of maintaining that access.*
 - (b) *property security and stock safety.*
- (ii) *Occupation of space in the coastal marine area should not be granted, and constraints on public access should not be imposed, unless:*
 - (a) *there is no practical alternative, and*
 - (b) *the effects on public access would not be significant.*

- (iii) *Coastal structures should be designed and located to avoid, remedy or mitigate adverse effects on public access along the coastal marine area.*
- (iv) *Where reclamation occurs in the coastal marine area, public access should be maintained by either the setting aside of esplanade/reserve/strips or some other means.*

5.6.8.2 Methods

- (i) *Rules in the document regulating activities*
- (ii) *Assessment of resource consents*
- (iii) *Physical works by the construction of facilities*
- (iv) *Esplanade reserve/strips*

5.6.9 Objective – Natural Hazards

- (i) *Minimisation of the risks to people, property or other aspects of the environment, arising from the interaction between human development and natural coastal processes in the coastal marine area.*

5.6.9.1 Policies

- (i) *Activities, including structures, within the coastal marine area should be located and designed to take into account existing and potential natural hazards, including sea level rise, and the need to avoid hazard protection works.*
- (ii) *Coastal hazard protection works should only be allowed in relation to existing development in the coastal environment and only where the positive effects of allowing the works are likely to be significantly greater than the adverse effects. Determination of this will include consideration of:*
 - (a) *the probability of the works achieving their stated purpose*
 - (b) *the public benefit from the use or development to be protected*
 - (c) *the effects of the protection works on the environment, including any change in the occurrence and rate of coastal erosion, or its location*
 - (d) *the effects (including costs and benefits) of not proceeding with the works*
 - (e) *measures previously taken, including decisions as to the location of the use and development, to avoid the need for coastal hazard protection works*
 - (f) *alternatives to the development of coastal hazard protection works, and the reasons why those alternatives have not been proceeded with*
- (iii) *Structures or reclamations within the coastal marine area should not interact with or intercept sediment flow in a way that could increase the risk of coastal erosion or accretion.*
- (iv) *Disturbance of the foreshore or seabed should not remove such quantities of sediment as to increase the risk of coastal erosion or accretion.*
- (v) *Accelerated erosion attributable to an existing structure should be remedied when new consents are being sought for works.*

5.6.9.2 Methods

- (i) *Identification of potential natural hazard areas and rules in the document regulating activities in these areas.*
- (ii) *Monitor information of potential hazards such as sea level rise.*

5.6.10 Anticipated Environmental Results	Comment
(i) <i>Coastal ecosystems are retained and enhanced.</i>	<p>Monitoring indicates the anticipated environmental results are met given:</p> <ul style="list-style-type: none">n The coastal water quality is generally exceptional and enhanced by the closure of the Waitangi WWTP and the implementation of the Solid Waste Management Plan. As a consequence there are positive benefits for ecosystems.n Several areas around the coastline are excluded from commercial fishing and available for traditional and community activities.n Access along and to the Coast is generally available provided prior contact is made with the owner.n Natural hazards generally do not impinge on human life and property in a significant manner although coastal erosion at the Ocean Mail Reserve is under investigation given it could impact on the road network.n Appropriate conditions of resource consent have been imposed on the small amount of development that has affected the CMA. Conditions were imposed on the Owenga Wharf and the paua farm to protect the marine environment and ensure natural processes were not interfered with.
(ii) <i>the protection of significant vegetation and habitats and outstanding natural features and landscapes</i>	
(iii) <i>Traditional uses of the coast is retained for economic and social activities.</i>	
(iv) <i>Coastal processes remain largely unaffected by human activities where practicable.</i>	
(v) <i>The public is able to obtain access to and along the coastal marine area without impacting on natural and cultural values.</i>	
(vi) <i>The protection of human life and property and other parts of the environment from natural hazards.</i>	

Analysis of Part 5.6

The anticipated environmental results have generally been met and as such the CIRMD provisions can assume to have been efficient and effective in so far as the limited development that has occurred. There are a large number of provisions in place for the CMA which is expected given the different issues that may arise in this area. While a number of these provisions have not been tested they nevertheless are required to control potential effects in what is a sensitive environment.

5.7 Off Shore Islands Management Area

5.7.2 Objective – Retention of Natural Values

- (i) *To retain the values associated with the off-shore islands including:*
 - *landscape features*
 - *indigenous vegetation and habitats of fauna*
 - *cultural and spiritual values*

5.7.2.1 Policies

- (i) *Activities should not damage, threaten or detract from the natural and cultural values or ecosystems.*
- (ii) *Compliance where applicable with Conservation Act 1987, Reserves Act 1977 and Wildlife Act 1953 and a Conservation Management Strategy.*
- (iii) *Compliance with any management plan approved by Council, otherwise compliance with rules.*

5.7.2.2 Methods

- (i) *Compliance where applicable with Conservation Act 1987, Reserves Act 1977 and Wildlife Act 1953 and a Conservation Management Strategy.*
- (ii) *Compliance with any management plan approved by Council, otherwise compliance with rules.*

5.7.2.3 Anticipated Environmental Results	Comment
(i) The off-shore islands retained in their natural state and values enhanced where possible.	<i>Monitoring indicates that the islands have been retained in their natural state which reflects DOC management of Rangatira and Mangere Islands and other islands, the difficulty of access and their uninhabited state. The Pest Management Strategy notes that due to a lack of resources Council will not focus on the islands but rather will advocate to the community, owners of the islands and central government of the importance of preventing infestation of the islands and will continue to work with DOC and Biosecurity New Zealand.</i>

Analysis of Part 5.7

The anticipated environmental result has been met although it is acknowledged negligible development has taken place. While the likelihood of development on the islands is not significant given their isolation and DOC involvement on some of the islands the rules in place provide some regulatory control should development eventuate. While Council's resources in terms of the Pest Management Strategy are not focused on the islands the Strategy nevertheless has provisions relating to the islands. Overall in the circumstances of the islands the provisions in this part are considered to be efficient and effective. As indicated previously the provision of management plans by Iwi for the islands should be reviewed given the time that has passed since 2001 and the lack of implementation.

5 Conclusion

The CIRMD was made operative in 2001 and this report is the first one under Section 35 of the Act. It presents a review of the results of monitoring in respect of the efficiency and effectiveness of the CIRMD provisions.

Generally the monitoring techniques in the main are not sophisticated and are a reflection of the resources available to the Council in 2001 and the level of development on the islands. In the existing circumstances of the islands, impacts on resources are generally able to be ascertained.

However, monitoring of surface waters has been undertaken on a scientific basis since additional funding was made available to Council and provides a robust analysis of a key natural resource.

It is clear that the monitoring establishes that there has not been significant development on the islands and a consequent pressure on resources. The lack of development reflects the isolation of the islands and a small static population.

The anticipated environmental results in the CIRMD are generally achieved although this is not necessarily a total reflection of the policies, rules or other methods of the document. The small amount of development and additional funding made available to Council which has enabled improvements to infrastructure such as the Waitangi WWTP and waste management facilities have also assisted in outcomes in the CIRMD being met.

Notwithstanding this it is considered there is a robust resource management framework in place in the CIRMD which in general is efficient and effective in respect of the circumstances that apply to the Chatham Islands. The document does not contain a significant amount of rules and seeks to find a “balance between controlling existing effects and future perceived ones without imposing unnecessary regulations on the community” (Part 3.2.1 of the CIRMD). The monitoring indicates that major types of development are controlled by the provisions of the CIRMD with for example resource consents (land use, discharges permits, water take permits and coastal permits) required for the proposed meat works, the Waitangi WWTP and the Owenga wharf replacement. While there are a range of objectives and policies and regulatory and non regulatory tools which have not necessarily tested or implemented, the provisions are nevertheless considered to represent sound management practice that should in general be maintained and available to Council should the need arise. The deletion of such provisions is not considered efficient or effective.

5 Recommendation

While the policies, methods and rules are generally considered efficient and effective it is recommended the following provisions will benefit from a review:

- § The extent and level of Iwi participation in the resource consent processing and decision making and management of their own resources particularly given the more settled Iwi structure on the islands
- § The provisions relating to Te Whanga, (including the openings) particularly as further studies are underway
- § The criteria used to identify significant indigenous vegetation and significant habitats of fauna in terms of Policy 4.4.2 (i)
- § The criteria used to identify outstanding natural features and landscapes in terms of Policy 4.5.2 (i)
- § The provisions relating to natural hazards on the islands given that there may be additional resources to allow further investigation
- § Provision of necessary access to the coastline and Te Whanga in terms of Policy 4.7.2 (ii)
- § Provision for dwellings in the Rural management Area
- § Review of the wording in some of the objectives and policies in terms of the test requiring “no adverse effects” or similar.