
MARLBOROUGH ENVIRONMENT PLAN

Section 32 Report

Chapter 8: Indigenous Biodiversity

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Contents

Overview.....	1
Background.....	1
Key changes	2
Summary of reasons for the proposed provisions	3
Description of issue	4
Statutory obligations.....	6
Information and analysis	7
Consultation.....	9
Evaluation for Issue 8A	13
Appropriateness of Objectives 8.1 and 8.2.....	13
Assessment of provisions to achieve Objectives 8.1 and 8.2.....	15
Methods of implementation.....	27
Other options considered to achieve Objectives 8.1 and 8.2	27
Risk of acting or not acting.....	30
Appendix A – Section 32 of the RMA.....	31
Appendix B – Bibliography	33

Overview

Background

Section 32 of the Resource Management Act 1991 (RMA) requires that in the process of reviewing its regional policy statement and resource management plans, the Marlborough District Council (the Council) must prepare and publish an evaluation report. The three documents being reviewed are the Marlborough Regional Policy Statement (MRPS), the Marlborough Sounds Resource Management Plan (MSRMP) and the Wairau/Awatere Resource Management Plan (WARMP). Each resource management plan is a combined regional, coastal and district plan.

Section 32¹ of the RMA requires that:

- reviewed regional policy statements and plans must be examined for their appropriateness in achieving the purpose of the RMA;
- the benefits, costs and risks of new policies and rules on the community, the economy and the environment be clearly identified and assessed; and
- the written evaluation must be made available for public inspection.

The Section 32 process is intended to ensure that the objectives, policies and methods the Council decides to include in the new resource management framework have been well-tested against the sustainable management purpose of the RMA. The Section 32 evaluation report for the proposed Marlborough Environment Plan² (MEP) has been prepared on a topic basis, centred on the policy chapters of Volume 1 of the MEP. Individual reports have been prepared on the following:

Topic	Volume 1 Chapter of the MEP
Introduction to Section 32 evaluation reports	
Marlborough's tangata whenua iwi	3
Use of natural and physical resources	4
Allocation of public resources – freshwater allocation	5
Allocation of public resources – coastal allocation	5
Natural character	6
Landscape	7
Indigenous biodiversity	8
Public access and open space	9
Heritage resources	10
Natural hazards	11
Urban environments	12
Use of the coastal environment – subdivision, use and development activities in the coastal environment, recreational activities, fishing, residential activity, shipping activity and Lake Grassmere Salt Works	13
Use of the coastal environment – ports and marinas	13
Use of the coastal environment – coastal structures, reclamation and seabed disturbance	13

¹ See Appendix A.

² The Marlborough Environment Plan is a combined regional policy statement, regional plan, regional coastal plan and district plan.

Section 32: Chapter 8 - Indigenous Biodiversity

Topic	Volume 1 Chapter of the MEP
Use of the rural environment	14
Resource quality – water	15
Resource quality – air	15
Resource quality – soil	15
Waste	16
Transportation	17
Energy	18
Climate change	19

Chapters 1 and 2 of the MEP are not included within the Section 32 evaluation as they provide an introduction and background to the proposed document. These chapters do not include provisions that must be evaluated in accordance with Section 32.

The Introduction report covers the scope of the review that the Council has undertaken, including consultation and the nature of information gathered, investigations and research undertaken and analysis that has occurred. An overview of the Council's statutory obligations, the relationship of the MEP with other plans and strategies and working with Marlborough's tangata whenua iwi is described. A set of guiding principles the Council has used in the development of the objectives, policies and methods for the MEP is provided. The Council acknowledges that the principles have no statutory basis and do not in themselves have specific objectives, policies or methods. However, they have been included as the philosophy and values underlying the content of the MEP and consequently help to inform the Section 32 evaluation.

The policy provisions for indigenous biodiversity values are included within Chapter 8 - Indigenous Biodiversity (Volume 1 of the MEP). Rules are included within the various zones of Volume 2, especially in relation to the clearance of indigenous vegetation. In addition there are areas that have been mapped including significant wetlands, ecologically significant marine sites and threatened environments. This Section 32 evaluation report on the provisions relating to indigenous biodiversity is set out as follows:

- Description of issues – this provides an overview of the resource management issue concerning indigenous biodiversity.
- Statutory obligations – the extent to which there are direct links with Section 6 or 7 matters and whether the provisions are directed or influenced by national policy statements or national environmental standards.
- Information and analysis – whether specific projects, investigations or other information have influenced the inclusion of provisions or other responses to dealing with resource management issues.
- Consultation – an overview of the extent and nature of specific consultation undertaken on the proposed provisions.
- Evaluation – an assessment of the provisions under the identified issue. Where appropriate, reference is made to supporting material that has helped to inform why a particular option has been chosen. In some cases the evaluation is undertaken on an individual provision, while in others groups of policies or methods have been assessed together.

In some parts of this evaluation report there are references to provisions within other chapters of the MEP. This is due to those provisions assisting in implementing the management framework for the subject matter of this report or vice versa. A reader should consider the evaluation for these other provisions where they are referred to in this report.

Key changes

The key changes in the MEP from the approach in the MRPS, WARMP and MSRMP are:

- In general, a more detailed and integrated package of provisions that recognise and acknowledge the significant natural areas project the Council has been undertaking for the past 15 years.
- Greater emphasis and recognition of the Council's functions under the RMA in terms of indigenous biodiversity and clarification that 'protection' in terms of the RMA encompasses a broad range of available options.
- Identification of significant wetlands on private land, with associated rules to protect them. This will provide certainty to landowners that only those wetlands identified in the MEP will be subject to wetland rules.
- The current resource management plans identify some sites of ecological significance in the coastal marine area but there are no links between the maps, rules and policies. The MEP makes the connection between the maps and policies in particular, which provides greater direction for decision makers in determining resource consent applications. A prohibited activity rule is proposed for fishing activities using techniques that disturb the seabed in areas mapped as ecologically significant marine sites.
- Recognition that our knowledge of indigenous biodiversity is far from perfect and that ongoing information gathering and monitoring of significant sites will be required.
- More detailed policy to guide decision makers about matters to be considered in the assessment of resource consent applications where indigenous biodiversity values may be affected.

Summary of reasons for the proposed provisions

Section 32(1)(b)(iii) requires a summary of the reasons for deciding on the provisions included in the MEP. The summary of reasons for the provisions included in the MEP in relation to indigenous biodiversity is set out below; however a more detailed evaluation is set out in the remainder of this report.

Determining sites of significance

- To be able to determine whether a site is significant or not for the purposes of Section 6(c) of the RMA and to know whether it should be protected or not, consistently applied criteria need to be used. The first group of policies (8.1.1 to 8.1.3) have been included to assist in this. As some areas with significant biodiversity value are in public ownership, such as those within the coastal marine area, they have been mapped within the MEP. Marlborough's remnant wetlands have also been mapped and rules apply to activities within and near these wetlands, given that so few sites remain.
- The importance of having adequate information on the state of Marlborough's biodiversity has been highlighted to enable decision makers to assess the impact on biodiversity values from various uses and activities.

Protecting and enhancing indigenous biodiversity

- The second group of policies (8.2.1 to 8.2.13) are directed at protecting and enhancing indigenous biodiversity in Marlborough in freshwater, terrestrial and coastal environments. A wide range of options to assist in this protection and enhancement has been included, reflecting the Council's experience in managing indigenous biodiversity.
- The use of a voluntary partnership approach with landowners as the primary means for achieving the protection of areas of significant indigenous biodiversity on private land will be continued. This reflects the Council's experience in managing biodiversity on private land. The exception to this voluntary approach is for significant wetlands; these have been mapped with associated rules because so many have been lost from Marlborough's lowland environments.
- Priority will be given to protecting areas with significant indigenous biodiversity values, particularly those that are legally protected. This is because there are limited funds available to undertake protection works. A priority is also placed on the re-establishment of indigenous biodiversity in Marlborough's lowland environments, given that in these

areas some ecosystem types have been significantly depleted and fragmented compared to their earlier extent.

- It is also important to recognise that there is value in maintaining, enhancing or restoring ecosystems, habitats and areas of indigenous biodiversity even where these are not identified as being significant in terms of Section 6(c). This helps to achieve a number of matters in Section 7 of the RMA including 7(a) '*kaitiakitanga*', 7(c) '*the maintenance and enhancement of amenity values*', Section 7(d) '*intrinsic values of ecosystems*' and Section 7(f) '*maintenance and enhancement of the quality of the environment*'.
- The Council has recognised that public involvement is key in protecting and maintaining indigenous biodiversity. This has been recognised through policy that seeks to encourage and support private landowners, community groups and others in their efforts to protect, restore or re-establish areas of indigenous biodiversity.

Managing the effects of subdivision, use and development

- The third set of policies (8.3.1 to 8.3.9) is aimed at managing the effects of subdivision, use and development on indigenous biodiversity. Some of the policies are also included to give effect to policies of the New Zealand Coastal Policy Statement 2010 (NZCPS).
- The circumstances where adverse effects are to avoided or otherwise remedied or mitigated are set out. This includes direct reference to NZCPS Policy 11 and to those areas that have been mapped within the MEP.
- Although the Council has adopted an approach in the form of a voluntary partnership with private landowners to identify and protect areas of significant indigenous biodiversity, it is important there is a backstop measure in place to control activities that involve the removal of indigenous vegetation. Vegetation clearance activities will therefore be controlled through rules in order to retain ecosystems, habitats and areas with indigenous biodiversity value.
- Improving the management of drainage channel maintenance activities to mitigate their adverse effects on the habitats of indigenous freshwater species has been identified as important, given these drainage channels often provide habitat to indigenous freshwater fauna, including eel (tuna), other freshwater fish and koura.
- Within the coastal marine area, fishing activities using techniques that disturb the seabed and which will occur in areas identified as having significant biodiversity value are to be prohibited. Some fishing activities use techniques that result in disturbance of the seabed. Depending where this occurs, there is the potential for adverse effects on marine biodiversity. This will help to give effect to Policy 11 of the NZCPS.
- With the exception of areas with significant indigenous biodiversity values, the option of using a biodiversity offset to mitigate residual adverse effects has been included. The goal of a biodiversity offset is to achieve no net loss and preferably a net gain of biodiversity with respect to species composition, habitat structure and ecosystem function.

Description of issue

New Zealand's biodiversity gives our country a unique character that is internationally important. A large proportion of our species are endemic to New Zealand and if they become extinct they are lost to the world. About 90 percent of New Zealand insects, 80 percent of trees, ferns and flowering plants, 25 percent of bird species, all 60 reptile species, four frog species and two species of bat are endemic.

New Zealand's biodiversity has helped shape our national identity, with distinctive flora and fauna contributing to our sense of belonging. The koru and kiwi are internationally recognised. Biodiversity also provides social and economic benefits through recreational opportunities, tourism, research, education, provision of ecosystem services and natural resources for primary industry, customary and medical uses.

Marlborough's central location within New Zealand and its varied landforms, climate and rich human history combine to form an interesting and diverse area. A range of important and unusual natural

features, native plants and animals exist here, a number of which are at their southern or northern limits of distribution. Part of south Marlborough has been identified as one of five areas of high biodiversity concentration within New Zealand.

The policy provisions for the management of issues concerning indigenous biodiversity are found within Chapter 8 of Volume 1 of the MEP. One resource management issue has been identified for indigenous biodiversity and this incorporates terrestrial and freshwater environments, wetlands and marine environments as follows:

Issue 8A – A reduction in the extent and condition of indigenous biodiversity in Marlborough.

- Despite the original diversity and uniqueness of Marlborough's biodiversity and natural areas, human activities have been particularly severe on Marlborough's sensitive landscape and ecosystems, especially in the terrestrial and freshwater ecosystems of lowland south Marlborough. A continuation of past trends will result in further loss of or deterioration in the condition of Marlborough's indigenous biological heritage. For Marlborough's tangata whenua iwi, this will impact on the mauri of natural resources.
- Very few original areas of native forest remain in south Marlborough – most are secondary vegetation that has regenerated after the earliest fires. Further intensive clearance of shrub and tussock subsequently removed most of the remaining vegetation. North Marlborough has a wetter climate and steeper terrain than south Marlborough and has been less modified by human arrival.
- High populations of exotic wild animals and introduced plants have become well-established in Marlborough because of the favourable climate, terrain and land-use. These introduced species have added further pressure on natural habitats. As a result of habitat loss and competition and predation from introduced animals, the original indigenous animals have also largely disappeared; only a few of these species remain in isolated remnant habitats.
- Many of the small streams and waterways on the Wairau Plain, including the largest river in Marlborough, the Wairau River, have been straightened, diverted and channelled over the last 150 years in order to control flooding and enable increased agricultural production. Native riparian or riverside vegetation has been largely replaced by exotic willows and shrubs.
- With intensification of lowland land-use, particularly for viticulture, the demand for water for irrigation purposes has been significant. In the naturally dry landscape of these lowland areas, taking or diverting water from surface and groundwater sources can result in the loss of habitat as headwaters of spring-fed streams recede or waterways dry up altogether.
- The systematic draining of Marlborough's wetlands over the last 150 years has had a profound impact on aquatic ecosystems, especially in the lowland areas of the Wairau Plain. Less than one percent of the Wairau Plain wetlands that existed before Europeans arrived in New Zealand still exists. Remaining wetlands are small and their natural character and habitat quality have been degraded by partial drainage, damage by farm animals and weed invasion. In addition, the taking of groundwater or surface water can affect the habitat and flow regimes of wetlands.
- The condition and state of marine biodiversity can be affected by land- or water-based activities. Adverse impacts can arise from sedimentation, contamination and habitat disturbance. Effects can be temporary, but in particular circumstances can result in permanent loss or damage. Long-term or cumulative smaller scale, localised effects from impacts such as contamination and physical disturbance can also have significant effects on the functioning of marine systems. Many activities, such as recreational swimming, do not affect or impact upon marine biodiversity; however, other activities, including shipping, reclamations or other coastal structures, marine farming and physical disturbance from certain fishing techniques can affect marine biodiversity.
- There are also a variety of marine organisms that can be introduced by transport into our marine environment by ships (including the discharge of ballast water), oil rigs, barges and other boats. Regardless of whether these pest organisms are exotic, there is the

potential for displacement of native species if the introduced organisms are not controlled.

- Despite the extensive length and physical size of Marlborough's coastline, many marine habitats and species are fragile and vulnerable to impact. The increasing use of the coastal environment for recreational, cultural and commercial activities leads to a corresponding increase in the potential for adverse effects on marine biodiversity.

Statutory obligations

The Resource Management Act 1991 (RMA) requires the Council to recognise and provide for as a matter of national importance *'the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna'* (Section 6(c)). The protection of these values, whether on land, in freshwater or coastal environments, also helps to achieve other matters of national importance, including landscape and natural character values and historic heritage. However, biodiversity values are also important components of amenity, kaitiakitanga, quality of the environment and ecosystem values, matters to which regard shall be had in terms of Section 7 of the RMA.

The RMA also provides for the management of aspects of indigenous biodiversity through Section 5(2)(b) in which the life-supporting capacity of air, water, soil and ecosystems are to be safeguarded. In addition, there are specific roles and functions in relation to protecting significant natural areas and habitats and maintaining indigenous biological diversity. These functions enable the Council to:

- establish, implement and review objectives, policies and methods for maintaining indigenous biological diversity [Section 30(1)(ga)]; and
- control any actual or potential effects of the use, development or protection of land for the purpose of maintaining indigenous biological diversity [Section 31(1)(b)(iii)].

National Policy Statements

Currently there is no operative national policy statement for biodiversity, although in 2011 central government published a proposed National Policy Statement on Indigenous Biodiversity that set out provisions for managing natural and physical resources to maintain indigenous biodiversity under the RMA. It was intended to provide clearer direction to local authorities on their responsibilities for managing indigenous biodiversity, with a focus on private land. What was proposed would have required district and some regional plans to identify areas of significant biodiversity within five years of the national policy statement taking effect and included criteria for identifying areas of indigenous vegetation and habitats of indigenous animals that have been recognised as being rare and/or threatened at a national level.

However, the national policy statement has not been advanced to a point where councils are required to give effect to it. This body of work is still a priority for central government and has been indicated through the national direction statements released in August 2015 in which national guidance on the implementation of Section 6(c) of the RMA is indicated to be completed by 2016/17³.

There is one national policy statement in existence that does have direct relevance for biodiversity and that is the NZCPS. Policy 11 of the NZCPS sets out specific species, habitats, etc where adverse effects from activities are to be avoided. This includes indigenous species that are on national and international lists as either being threatened or at risk, areas that have full or partial protection for biodiversity reasons and areas and habitats where species are at the limit of their natural range. Policy 11 also sets out the circumstances where adverse effects are able to be otherwise avoided, remedied or mitigated.

The National Policy Statement on Freshwater Management 2014 (NPSFM) contains very high level objectives concerning the safeguarding of indigenous species and associated ecosystems, protecting the quality of outstanding freshwater bodies and protecting the significant values of wetlands. However, there is no guidance provided in the NPSFM at a policy level as to how this should be implemented or what defines an outstanding freshwater body.

³ Ministry for the Environment. A Way Forward For National Direction. August 2015. INFO 748

The New Zealand Biodiversity Strategy

The New Zealand Biodiversity Strategy was prepared in response to the state of decline of New Zealand's indigenous biodiversity – described in the Ministry for the Environment's 1997 State of New Zealand's Environment report as our "most pervasive environmental issue". The Strategy was also intended to reflect New Zealand's commitment, through ratification of the international Convention on Biological Diversity, to help stem the loss of biodiversity worldwide.

The purpose of the Strategy is to establish a framework for action, to conserve and sustainably use and manage New Zealand's biodiversity. Goals are established to conserve and sustainably manage New Zealand's biodiversity and priority actions are established to achieve these goals.

Statement of National Priorities for protecting rare and threatened native biodiversity on private land

Central government issued a statement of national priorities for protecting rare and threatened native biodiversity on private land in 2007. This statement provides local authorities, communities and private landowners with information about the types of ecosystems and habitats on private land that, from a national perspective, are most threatened and in need of protection. The information about the national priorities is to be used by local and central government agencies and landowners to co-ordinate their decisions and on-the-ground actions in relation to biodiversity.

The national priorities are as follows:

National Priority 1:

To protect indigenous vegetation associated with land environments that have 20 percent or less remaining in indigenous cover.

National Priority 2:

To protect indigenous vegetation associated with sand dunes and wetlands; ecosystem types that have become uncommon due to human activity.

National Priority 3:

To protect indigenous vegetation associated with 'originally rare' terrestrial ecosystem types not already covered by priorities 1 and 2.

National Priority 4:

To protect habitats of threatened and declining indigenous species.

These priorities have a significant influence on how the Council will respond to maintaining or enhancing biodiversity in Marlborough. A large area of lowland and coastal south Marlborough falls under Priority 1 and a number of specific areas will fall into Priorities 2 and 3 (for instance wetlands, the stony beach ridges at Rarangi and coastal limestone cliffs).

Information and analysis

A number of investigations and monitoring activities have helped to inform the review of the biodiversity provisions. An overview of these is provided below.

Significant natural areas project

Since 2000, the Council has established a proactive Significant Natural Areas project to identify and protect significant natural areas and indigenous biodiversity on private land in Marlborough. This was seen as particularly important because of the high degree of modification of the natural environment in Marlborough and the large proportion of land in south Marlborough in private ownership. The surveys have produced a fairly comprehensive picture of the extent and condition of Marlborough's land-based biodiversity and important natural areas.

While the Council carried out most of the survey work overall, the Department of Conservation also contributed to a substantial part of the survey work in south Marlborough through its Protected Natural Areas Programme. This was a national survey programme begun in the 1980s.

The survey work has confirmed that in lowland south Marlborough there remains only a small fraction of the natural ecosystems that once existed. For instance, the remaining wetlands on the Wairau Plain are less than one percent of the area that existed in pre-European times. The ecological surveys have identified a number of threats and pressures on the remaining natural areas, including the very small size and extent of natural areas in lowland parts of Marlborough. An average of about 7% of the total land area still has some form of indigenous vegetation cover, however in lowland areas this is as low as 1-2%.

A part of the Significant Natural Areas project has been to identify what is needed for survival, both in terms of natural processes such as regeneration, and the modification or removal of factors that threaten survival. The Council has established programmes to assist landowners and community groups to protect and restore natural areas and ecosystems. This includes financial assistance to landowners willing to protect ecologically important areas on their properties. Funding is also available from central government's biodiversity fund and through the QEII National Trust, and landowners themselves have also contributed significantly to the restoration and protection efforts.

The Council has worked on the principle of a partnership approach with landowners to achieve improvements in the protection of remaining significant natural areas. The rate of participation in this project reflects the fact that most landowners want to protect unique ecosystems and species where they occur on their properties.

Significant marine sites identification

Identification of ecologically significant marine sites in Marlborough was undertaken as part of the Council's responsibilities under Section 6(a) and (c) of the RMA⁴. It is important to identify the location and composition of significant sites – biological features that have conservation, scientific or ecological value – to ensure their sustainable management and protection into the future. The work undertaken acknowledges that relatively few studies have focussed on identifying, surveying and assessing subtidal marine habitats in New Zealand, including those of Marlborough. Therefore, our understanding and knowledge of the coastal marine environment is limited.

The assessment of significant sites was based on existing data or known information, but was not comprehensive as many marine areas are unsurveyed or poorly documented, especially below the low tide mark. A total of 129 sites of biological significance were identified in the area, from Cape Soucis (Croisilles Harbour) through the Marlborough Sounds and down the east coast of Marlborough. A subsequent survey of selected sites in 2014/2015 has seen a reduction in the overall area of significant sites. The remaining sites and areas of significance have been included in the MEP.

Freshwater values

Marlborough has been divided into a series of freshwater management units based on catchment boundaries. An assessment of the various natural and human use values of the waterbodies in these water management units has been prepared and is included in Appendix 5 of Volume 3 of the MEP. This includes values such as ecological, habitat and natural character.

Wetlands identification

An inventory of Marlborough wetlands was carried out using aerial photography. Where wetlands were identified, the Council contacted landowners and on request visited the property concerned to verify (or otherwise) the significance of the wetland through use of consistently applied criteria. Wetlands found to be significant have been identified in the MEP. These small, fragmented wetlands are all that remain of the once significant areas of wetland that covered lowland Marlborough; because of this, it is important to ensure the values of the significant sites are protected.

⁴ Davidson RJ; Duffy CAJ; Baxter A; DuFresne S; Courtney S; Hamill P. (September 2011). *Ecologically significant marine sites in Marlborough, New Zealand*. Coordinated by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.

Natural character of the Marlborough coast

The Council, in conjunction with the Department of Conservation, has released a report containing an assessment of the natural character of Marlborough's coastal environment. The study was undertaken as an independent assessment by Boffa Miskell Ltd, with input from Lucas Associates and Landcare Research.

The report divides Marlborough's coastal environment into seven coastal marine areas and 10 terrestrial coastal environments. The biotic, abiotic and experiential attributes for each environment are described and evaluated in order to identify areas of high, very high and outstanding natural character. These areas are mapped within the report and will be included as an overlay within the MEP. The attributes or values that contribute to determining whether an area has high, very high or outstanding natural character, including biodiversity values, are also included within Appendix 2 of Volume 3 of the MEP.

The report will assist the Council to give effect to Policy 13 of the NZCPS 2010, which has requirements with respect to the identification and preservation of coastal natural character. The report also provides useful information to resource consent applicants and the community about the nature of coastal natural character in Marlborough's coastal environment.

Natural character of rivers

The Council has released a report containing an assessment of the natural character of selected Marlborough rivers. The study was undertaken as an independent assessment by Boffa Miskell Ltd with the assistance of an expert panel of people familiar with Marlborough rivers. The study was also undertaken as part of a wider project co-funded by the Foundation for Research and Technology to develop methodology to assess the significance of river values.

The various attributes that contribute to the natural character of the river channel, riparian margin and wider landscape character have been scored against specified thresholds to determine the overall level of natural character. The natural character of each river is then identified and mapped.

Consultation

Early consultation

In 2006, the first round of consultation was initially undertaken solely for the review of the MRPS and saw the distribution of a community flyer to all ratepayers advising of the review. The aim of this exercise was to discover the community's views on the most important resource management issues that Marlborough would face over the next ten years. Approximately 380 responses were received, including comments on biodiversity values as follows.

- Many people felt that protecting natural areas was very important, but that in a number of cases this had not been very successful. The loss of many of Marlborough's wetlands was an example where people expressed their concern at how our natural areas had been affected by land use activities. It was also stated in a response that "*natural ecosystems should be contiguous from the sea to alpine ridgelines.*"
- Some responses stated that there was not enough protection and enhancement being given to waterways and wetlands, with the result that only a handful of wetland areas remain in Marlborough. Respondents stated that most of our waterways and wetlands are in various states of degradation because:
 - stock are allowed to enter waterways and wetlands to graze and discharge effluent;
 - remnants of native bush adjacent to and part of wetlands are also being damaged by stock;
 - constant farm and vineyard runoff occurs from chemicals and stock effluent on land adjacent to waterways;
 - water abstraction has occurred from aquifers, streams and rivers for viticulture and farming; and

Section 32: Chapter 8 - Indigenous Biodiversity

- there has been an increased incidence of droughts in east coast areas.
- A number of respondents sought stronger controls for the filling of land, stream diversions or subdivision where wetlands or waterways may be affected. Other concerns highlighted in the responses were:
 - aquatic weed blocking the flow of a number of rivers;
 - willow trees choking wetlands and riverbanks;
 - that the Wairau River should be lined with native species such as kowhai, totara and lancewood; and
 - the wine industry destroying remaining natural areas such as streams, wetlands, trees and visual features and replacing these with modified landscapes and man-made structures.
- Several people commented that it is not enough to plan for protecting existing remnants; there needs to be proactive restoration of natural ecosystems that have been destroyed by historical and unplanned developments. Developing areas similar to the Karori Reserve in Wellington was cited as an example of an area that has been enhanced and become very popular for visitors. Positive support was expressed for the way in which the Council is working with residents in the Blind Creek Road area to re-establish native plants in nearby stream banks.
- Protecting native bush in coastal areas was identified as important. Enhancing these areas by encouraging planting and supporting this with a pest eradication programme was considered necessary as pigs, deer and possum were said to be completely out of control in the Marlborough Sounds, having an adverse impact on ecological values.
- The impact of activities such as marine farming on the ecology of the Marlborough Sounds was also highlighted as a concern.
- In looking at protecting natural areas on land, it was stated that the property rights of landowners were important. In particular, it was stated that policies for rural areas and natural areas must ensure that the livelihood of land owners is protected to enable them to earn a living without high compliance costs and red tape. Given the extent of Government-owned land in Marlborough, respondents said this should be the focus for preserving indigenous biodiversity and habitats.

Following this initial consultation, a series of discussion papers were prepared by the Council and released for public feedback in late 2007. One of these papers is particularly relevant to this Section 32 evaluation: *Discussion Paper 7: Biodiversity and Natural Area Issues*. In total, 56 responses were received from individuals, iwi, industry groups and environmental groups on *Discussion Paper 7*. Comments received through the feedback noted the following:

- A number of respondents sought the preservation and prioritisation of the few remaining areas of natural vegetation in southern Marlborough and some even suggested that these areas should have legal protection. However, some landowners cautioned that costs should not be pushed onto landowners, as unforeseen consequences might arise. It was considered that existing or new programmes promoting the protection and restoration of remaining natural areas and indigenous biodiversity in lowland south Marlborough should be extended to all of Marlborough.
- People commented that Marlborough has an amazing biodiversity and that this should be promoted as part of our identity. Specific suggestions to help promote this biodiversity included removing willows from the Taylor River and re-planting with endemic natives to promote a dryland Marlborough experience for educational purposes, improving the visual outlook, bringing native birds into town and attracting people into Blenheim.
- Many respondents agreed that there are a range of threats to biodiversity and areas of native vegetation. They indicated their support for a robust planning framework that encourages the enhancement of indigenous biodiversity, the preservation of high natural character and the protection of outstanding natural features, especially for the Sounds environment, in order to halt the decline in Marlborough's biodiversity.

- Some very direct actions on a range of land use activities were proposed through the responses, including controlling stock access to waterways, requiring resource consent for burning tussocks on high country farm/forestry land, regulating grazing in areas identified with significant biodiversity value and cat-free subdivisions in sensitive areas. A number of respondents said that Council needs to lead by example in managing biodiversity, through taking a collaborative approach with landowners and the public, management of pest species, improved access to funding for fencing and pest control in areas with significant indigenous species and other vulnerable areas.
- One response described the positive results that have been achieved on an outer Sounds property through pest control, native planting strategies, rubbish removal and retiring and regenerating uneconomic farm and exotic forestry land. Including policy in the regional policy statement to always encourage enhancement and restoration rather than allowing an area that has been degraded in the past to be further degraded, was sought. Additionally, referring to the Sounds as a working landscape was considered counterproductive to enhancing or even maintaining biodiversity values.
- Concern was expressed by respondents about the extent of land conversion to viticulture and the resulting lack of biodiversity, especially on the Wairau Plain. An active programme of replanting native trees was considered necessary to enhance native bird habitat. Another respondent, however, suggested that a lack of landscape diversity has been confused with a lack of biodiversity and that much of the area's loss of biodiversity and drainage of wetlands occurred many years before viticulture arrived.
- Some respondents suggested there should be recognition of the initiatives taken by the viticulture industry in the promotion of biodiversity, for example protection of wetlands and habitat preservation, and the Sustainable Vineyard Management programmes. There was general agreement with the options suggested in the discussion paper, especially in terms of limiting further damage or modification to natural areas and areas with high biodiversity value from subdivision and development activities, irrespective of the degree of demand for such development. This was particularly emphasised for the Marlborough Sounds.
- Responses from the viticulture industry considered that protecting and enhancing natural areas and encouraging biodiversity needs to be given more definition and credence in the regional policy statement and resource management plans. Mapping significant existing areas that need protection and developing criteria to assess areas that are not mapped to determine more clearly what may constitute a natural area worthy of protection or enhancement was suggested.
- In looking at the effects of activities on freshwater biodiversity, respondents sought the inclusion of policies that described the importance and values of wetlands. A number of methods were suggested to manage the effects of activities on wetlands, including undertaking a stock take of all significant wetlands and then applying rules to protect these wetlands. The rules proposed were that:
 - no further loss of Marlborough's wetlands should occur because of land conversion and that the viticulture industry should work around waterways rather than diverting them;
 - Para Swamp should be developed into a significant wetland experience for the community and tourists;
 - farmers should be prevented from grazing stock next to and in waterways;
 - spraying and digging out waterways and any such maintenance must be sympathetic to both instream species and those occupying the riparian margin; and
 - minimum flows should be set on all waterways to allow species to thrive and that culverts should be appropriately designed to enable fish passage.
- In commenting on an issue concerning the loss of iconic species, respondents supported the options set out in the discussion paper. However, one response noted the options do not address the "overfishing and thoughtless killing" concerns expressed in the discussion paper. Nor do they prevent or limit the removal of vast numbers of juveniles from the ecosystem.

Section 32: Chapter 8 - Indigenous Biodiversity

- There was some measure of support for identifying the values of Marlborough's waterways as suggested in the discussion paper. However, it was felt that this should extend to including the productive value of the drainage and flood mitigation works that currently exist. It was noted that the existing plan provisions already stringently control activities in or near waterways and that further controls would seem unnecessary. The ability to be able to maintain and initiate flood control and drainage works was said to be essential.
- An issue included in the discussion paper highlighted a lack of information on the state of biodiversity in Marlborough's marine areas. While marine farming interests disagreed that there is a lack of information, others believed that increasing monitoring and research efforts in respect of marine biodiversity is necessary. Respondents also supported a Council-maintained database of information. A strong emphasis was placed on the Council undertaking baseline research to ascertain what biodiversity we have to be able to gauge what might be affected by proposed activities and to detect changes that take place. Respondents also placed emphasis on the need for a precautionary approach to developments because of uncertainty regarding long-term impacts.
- Some concern was expressed about the quality of the information used by the Council in the past when making decisions on resource consent applications for marine farms. A suggestion to deal with this concern was for the Council to assume responsibility for all future scientific research required for new applications and for the monitoring of existing resource consent conditions with experts reporting directly to the Council.
- There was support for marine reserves to protect marine habitats of significance. Respondents also suggested that the regional policy statement could embrace positive proactive actions towards fisheries, for example the closing of the cod fishery for three years.
- Policy was sought on retaining an effective sea outlet for the Wairau River to provide for a continuity of tidal fluctuations to maintain the Wairau Lagoons and coastal estuarine values and to assist with the development of the 304 kilometres of tidal drainage system to enhance habitat values.
- It was stated that while there is a strong focus on the Marlborough Sounds, extensive coastal areas with issues in east Marlborough were not addressed in the discussion paper.

Later consultation

Early in the review process, the Council decided on an iterative approach in developing provisions for the MEP. This sought to test as many of the provisions as possible before the new resource management documents were formally notified under the First Schedule of the RMA. The rationale for this was that the greatest flexibility for change to provisions exists prior to notification of a proposed document; once notified, only those provisions submitted on can be changed and then only within the scope of those submissions. The Council therefore established a number of focus groups with the task of reviewing the provisions to discuss their likely effectiveness or otherwise. The aim was to have as much community participation as possible in developing the provisions to reflect the community's views and to resolve any substantive issues prior to notification.

The groups that considered the indigenous biodiversity provisions of the MEP included the Significant Natural Areas Working Group, the Sounds Advisory Group, the Iwi Working Group and the groups established for the review, including the Freshwater, Marine, Practitioners and Rural Focus Groups. Other organisations that provided feedback included the Department of Conservation and the Royal Forest and Bird Protection Society of NZ Incorporated.

Specific consultation on the identification of significant wetlands and draft rules to manage activities within and in close proximity to wetlands was undertaken with many landowners in Marlborough. A total of 393 landowners were contacted and 213 (55%) requested site visits. In many instances this resulted in a change to the wetlands identified on their property. Most commonly, wetlands were found to be not significant when assessed on the ground or the boundaries were adjusted to reflect the actual extent of the wetland at the time of the site visit. In addition to the nearly 400 private landowners contacted, consultation was also carried out with the Department of Conservation, the Iwi

Working Group, Land Information New Zealand (for both pastoral lease and non-pastoral lease land) and Crown Forest.

In mid-2013 the Council released a set of draft provisions for community feedback. Although the main focus of the provisions was related to policy and rules for the coastal environment, certain other policy, including that on indigenous biodiversity, was also released. Although limited feedback was received on the indigenous biodiversity provisions specifically, what was received helped to further inform development of the provisions.

Evaluation for Issue 8A

Issue 8A – A reduction in the extent and condition of indigenous biodiversity in Marlborough.

Appropriateness of Objectives 8.1 and 8.2

Objective 8.1 – Marlborough’s remaining indigenous biodiversity in terrestrial, freshwater and coastal environments is protected.

Objective 8.2 – An increase in area/extent of Marlborough’s indigenous biodiversity and restoration or improvement in the condition of areas that have been degraded.

Relevance

The objectives are highly relevant in addressing the resource management issue in 8A. As there has been considerable loss of indigenous biodiversity in Marlborough, it is important that remaining areas are protected and that their condition is maintained and improved where opportunities arise. Protection in this context is intended to be considered in its broadest sense and may include legal protection as well as fencing, active pest control, regulation and improved land management practices. For Objective 8.2 the focus is on the restoration and re-establishment of some of what has been lost or degraded.

The RMA provides for the management of aspects of indigenous biodiversity through Section 5(2)(b) in which the life-supporting capacity of air, water, soil and ecosystems are to be safeguarded. In addition, there are specific roles and functions set out in the RMA in relation to protecting significant natural areas and habitats and maintaining indigenous biological diversity. These functions enable the Council to:

- establish, implement and review objectives, policies and methods for maintaining indigenous biological diversity [Section 30(1)(ga)]; and
- control any actual or potential effects of the use, development or protection of land for the purpose of maintaining indigenous biological diversity [Section 31(1)(b)(iii)].

Matters of national importance in Sections 6(a) and 6(c) of the RMA require the Council to recognise and provide for the preservation of the natural character of the coastal environment, wetlands, lakes, rivers and their margins and the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. These matters help to protect biodiversity as important components of Marlborough’s natural heritage. In addition, Objective 8.2 helps to achieve the purpose of the RMA through having regard to a number of Section 7 matters, namely amenity, kaitiakitanga, quality of the environment and ecosystem values.

The inclusion of these objectives, especially Objective 8.1, helps to achieve the NPSFM, where for both water quantity and quality reasons there are high level objectives concerning the safeguarding of indigenous species and associated ecosystems, protecting the quality of outstanding freshwater bodies and protecting the significant values of wetlands. This objective also helps to achieve the NZCPS in which specific direction to protect biological diversity in the coastal environment is included. For Objective 8.2 there is also direction through NZCPS Policy 14 on the restoration of natural character in relation to enhancing and restoring indigenous biodiversity.

The objectives also help to protect indigenous biodiversity as an important component of Marlborough’s natural heritage and gives recognition to central government’s ‘statement of national priorities’ for protecting rare and threatened indigenous biodiversity on private land (June 2007).

Feasibility

The level of uncertainty and risk as to whether the objectives are feasible is considered acceptable. On the one hand, the Council is in a better position to be able to achieve the objective than it would have been 10 to 15 years ago, given the information that has been gathered through the landowner surveys as part of the Significant Natural Areas project as well as the gathering together of information on Marlborough's ecologically significant marine sites. Having knowledge about where Marlborough's significant natural sites are is an important step in being able to determine the appropriate mechanisms to be put in place to achieve protection. On the other hand, the Council has not had access to every property in Marlborough, so there are gaps in the information base. Additionally, for the coastal marine area, there are significant challenges in identifying areas of marine biodiversity value as they are located under water.

There will always be a level of risk associated with the protection of areas with biodiversity value. Even knowing where the areas or sites are does not always guarantee that protection will occur. For significant areas and sites on private land, protection relies heavily on the willingness of landowners to do so. This is why the Council has taken a strong stance on a non-regulatory approach in the first instance towards protection.

The other factor in determining feasibility is in relation to whether the objectives can be achieved within the Council's powers, skills and resources. The objectives are certainly feasible in relation to the Council's powers, as explained in the statutory obligations section of this evaluation report and the Council has the skills available to achieve the objectives. In terms of resources, there has been significant investment by the Council, landowners and central government to achieve protection of significant sites on private land. The extent to which resources continue to be available may have some bearing in the future as to whether protection efforts are able to be continued.

For the coastal marine area, the resources to determine areas with significant biodiversity value have to date been supplied by the Council for investigations and monitoring. Information has also been gathered through the resource consent process where developers have had to undertake benthic investigations as part of determining the adverse effects of a proposal.

Acceptability

The uptake of landowner involvement in both the Council's significant natural areas project and the Department of Conservation's protected natural areas programme highlights widespread community support for information about significant sites and opportunities for protection. Further, the more recent work undertaken to identify Marlborough's significant wetlands has also shown there to be widespread interest in identifying these sites.

The consultation undertaken throughout the various stages of the review of the MRPS, MSRMP and WARMP has also shown there to be strong support for a need to protect Marlborough's remaining areas with significant indigenous biodiversity value in terrestrial, freshwater and coastal environments as well as for the restoration and enhancement of areas that have become degraded.

It is not considered the objectives will result in unjustifiably high costs to the community or parts of the community. Currently within the coastal marine area, most activities likely to affect marine biodiversity values require a resource consent, so the costs for protection are already apparent under the current resource management framework of the MSRMP and WARMP. For indigenous biodiversity on private land, the current voluntary approach towards protection is being continued. This means there is only a cost to landowners where they may wish to undertake an activity that affects the area with biodiversity value. This is what currently occurs, so there are no additional costs.

There is a cost to the community for the non-regulatory means of protection; however, this is also a cost that currently occurs. What is important to acknowledge is that the partnership approach with landowners is key in protecting as well as restoring and enhancing indigenous biodiversity.

Assessment of provisions to achieve Objectives 8.1 and 8.2

Policies 8.1.1 and 8.1.2

Policy 8.1.1 – When assessing whether wetlands, marine or terrestrial ecosystems, habitats and areas have significant indigenous biodiversity value, the following criteria will be used:

- (a) representativeness;
- (b) rarity;
- (c) diversity and pattern;
- (d) distinctiveness;
- (e) size and shape;
- (f) connectivity/ecological context;
- (g) sustainability; and
- (h) adjacent catchment modifications.

For a site to be considered significant, one of the first four criteria (representativeness, rarity, diversity and pattern or distinctiveness/special ecological characteristics) must rank medium or high.

Policy 8.1.2 – Sites in the coastal marine area and natural wetlands assessed as having significant indigenous biodiversity value will be specifically identified in the Marlborough Environment Plan.

Benefits

Identifying the aspects that contribute to an area having biodiversity value is a complex task and so a set of criteria have been developed to determine whether sites are significant or not. The criteria that have been used by the Council have informed the identification of sites on private land, for wetlands and for the coastal marine area. Because not all sites in Marlborough have been surveyed, the criteria to be used for determining significance where such an assessment may need to be made for a resource consent application is included as part of the MEP. These criteria are set out in Appendix 3 of Volume 3 and include thresholds for determining significance.

The use of consistently applied criteria in determining sites of significance means there is greater certainty about the values contributing to an area's importance.

In relation to Policy 8.1.2 significant wetlands and ecologically significant marine sites have been mapped in the MEP. For wetlands, these small and fragmented areas are all that remain of the once vast areas of wetland that covered lowland Marlborough and therefore need to be protected. Areas that meet the RMA's definition of a wetland but do not have significant values in terms of the criteria in Policy 8.1.1 have not been identified in the MEP and therefore are not subject to wetland rules. This makes it clear to landowners about where they can undertake activities without having to be concerned whether a wetland is affected or not. Sites within the coastal marine area have been identified as these are public resources, with the Council having a more direct role in protecting such areas.

Costs

The costs of undertaking the survey work to identify areas with significant indigenous biodiversity values have been met by ratepayers and are therefore not a cost for an individual landowner. However, these costs are justified given the Council's responsibilities for indigenous biodiversity in terms of Sections 6 and 7 of the RMA, specific functions set out in Sections 30(1)(ga) and 31(1)(b)(iii) of the RMA and the direction through the NPSFM and the NZCPS. There may be significant environmental costs if the Council did not fulfil these obligations, with the potential loss of what remains of Marlborough's indigenous biodiversity.

There has been a perception that in identifying significant sites on private land, there is some loss of productive value of land or more significant restriction than might otherwise exist if sites were not identified. However, in costs terms, there have always been rules in the current resource management plans to manage activities in areas with indigenous biodiversity value, including wetlands. There has also been a perception that in identifying sites, the public will have access to these sites. However, the reality is that a landowner has the ability to restrict the general public from accessing their land.

Efficiency

The policies will be efficient in terms of achieving Objective 8.1 given the direction to protect what remains of Marlborough's indigenous biodiversity. Additionally, the obligations through Section 6 of the RMA, the environmental benefits gained by using consistently applied criteria, the identification of significant wetlands and ecologically significant marine sites and the certainty to landowners outweigh the costs to the community.

Effectiveness

The criteria-based approach for identification has been used by the Council for some time and has been used for terrestrial, wetland and marine site identification. For terrestrial identification, similar criteria are currently included with the WARMP. This approach has been generally accepted by professionals and similarly applied by the Department of Conservation through their programme of identifying protected natural areas on private land. The approach has proven effective in identifying sites of significance.

The policies will be effective in achieving Objective 8.1, as without knowing where significant sites are it is difficult to protect them. The policies will also be effective in achieving the protection required under Section 6(c) of the RMA and in implementing the relevant policies of the NPSFM and the NZCPS.

Policy 8.1.3

Policy 8.1.3 – Having adequate information on the state of biodiversity in terrestrial, freshwater and coastal environments in Marlborough to enable decision makers to assess the impact on biodiversity values from various activities and uses.
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Benefits

Survey work on private land through programmes run by the Council and the Department of Conservation has provided an overview of biodiversity in Marlborough. However, while many landowners have had their land surveyed as part of these programmes, not all land has been surveyed so there are gaps in the knowledge and understanding the Council has of Marlborough's indigenous biodiversity. Having adequate information about the biodiversity values of waterbodies is equally important for decision makers when assessing the impacts of various activities and uses within waterbodies, as well as activities and uses on adjoining land.

For the coastal marine area, the Council has undertaken a review of published and unpublished reports to provide an overview of Marlborough's marine biodiversity. This information is available to the public but it is acknowledged that there are significant gaps in our knowledge. The Council will undertake surveys to improve knowledge of biodiversity patterns and condition and recent work in outer Queen Charlotte Sound, Port Gore and Tory Channel has identified there has been further loss of ecologically significant marine sites since the initial identification was reported in 2011.

Continuing to add to the knowledge of the extent and condition of indigenous biodiversity in Marlborough will be important in assisting decision making on resource consent or plan change applications, as well as for general awareness of the state of Marlborough's environment.

Costs

There will be ongoing costs to ratepayers associated with the gathering of additional information on Marlborough's indigenous biodiversity as well as monitoring of existing sites. This work is budgeted for through the Long Term Plan process. There may be costs for landowners or developers undertaking resource consents or plan changes to determine whether there are significant biodiversity values that could be affected by a proposal.

Efficiency

The policy is efficient in that it acknowledges there are gaps in information and as a consequence the management framework that is applied needs to be cognisant of this fact. This is important, as for terrestrial environments not all landowners have allowed the Council to undertake surveys on their land. This means there could be some costs for individual landowners wanting to carry out an activity requiring a resource consent. This is where an assessment of biodiversity values needs to be undertaken as part of that application process, because no assessment has been carried out as part of the Council's significant natural areas project.

Effectiveness

The policy is effective as it signals that decision makers need adequate information on which to base decisions on where biodiversity values may be important. The information has been proactively gathered by the Council to fulfil its responsibilities under the RMA but it is important that this identification work continues to ensure the Council will be in a position to determine whether Objectives 8.1 and 8.2 are being achieved.

Policies 8.2.1, 8.2.7, 8.2.10, 8.2.12 and 8.2.13

Policy 8.2.1 – A variety of means will be used to assist in the protection and enhancement of areas and habitats with indigenous biodiversity value, including partnerships, support and liaison with landowners, regulation, pest management, legal protection, education and the provision of information and guidelines.
Policy 8.2.7 – A strategic approach to the containment/eradication of undesirable animals and plants that impact on indigenous biodiversity values will be developed and maintained.
Policy 8.2.10 – Promote to the general public and landowners the importance of protecting and maintaining indigenous biodiversity because of its intrinsic, conservation, social, economic, scientific, cultural, heritage and educational worth and for its contribution to natural character.
Policy 8.2.12 – Encourage and support private landowners, community groups and others in their efforts to protect, restore or re-establish areas of indigenous biodiversity.
Policy 8.2.13 – When re-establishment or restoration of indigenous vegetation and habitat is undertaken, preference should be given to the use of native species of local genetic stock.

Benefits

These policies for the protection and enhancement of indigenous biodiversity have been grouped together. They signal that a variety of means will be used but that there is a strong non-regulatory approach being advocated.

The benefits of these policies are that collectively they acknowledge that there are a range of methods available to achieve the protection and enhancement of indigenous biodiversity. They reflect a shared responsibility in achieving biodiversity protection; as a consequence, social and cultural benefits are likely to arise from this approach in addition to the significant environmental benefits likely to result. For example, a non-regulatory approach to the removal of wilding pines throughout the Marlborough Sounds has involved a collaborative process with landowners, the Council and a community group seeking to achieve improved landscape outcomes and reduced impacts on biodiversity values. There are also economic benefits from this approach, with costs being shared.

Costs

The costs associated with implementing these policies will be borne in large part by ratepayers, especially where the Council is supporting non-regulatory approaches to protecting indigenous biodiversity. However, these costs are considered justified given the direction in Section 6(c) of the RMA.

Efficiency

The approaches in these policies, which signal a broad range of options to be used in managing indigenous biodiversity in Marlborough, are efficient. They take advantage of the knowledge and expertise of a wide range of people and organisations and the willingness of many individuals and groups to protect and enhance Marlborough's biodiversity. There is a whole-of-community benefit in this approach from an environmental perspective as well as from an overall community wellbeing perspective that outweighs the costs of implementing the policies.

Effectiveness

There is some difficulty in determining whether the policies will be effective. Until such time as monitoring occurs, especially of the significant natural areas that have been surveyed including significant wetlands, it is difficult to know whether the objectives will be met. To date, the Council has been engaged in many projects involving the practical protection of individual high-value significant natural area sites (including a mix of fencing, weed and animal pest control and restoration planting work). Other broader methods to promote the protection of natural values in south Marlborough have also been undertaken. These have included:

Section 32: Chapter 8 - Indigenous Biodiversity

- the pilot use of farm scale plans to balance the production and conservation values within properties (especially where fencing is not practical);
- three feasibility studies looking at pest and weed control issues (old man's beard and goat control in south Marlborough and wilding pine control on d'Urville Island);
- the collection of native plant seed material to ensure an ongoing supply of locally-sourced plants for re-vegetation and restoration efforts, associated publicity and promotion work (newsletters, a series of newspaper articles and publication of summary reports and native planting guides for both south and north Marlborough); and
- the Tūi to Town restoration project with an original focus on the Wairau Plain area but which has been extended to include the Wairau Valley and lowland areas around Seddon and Ward in 2015.

For ecologically significant marine sites it is even more difficult to determine whether the policies will be effective until the identified sites have been further assessed for their extent and condition.

Policies 8.2.2 and 8.2.8

Policy 8.2.2 – Use a voluntary partnership approach with landowners as the primary means for achieving the protection of areas of significant indigenous biodiversity on private land, except for areas that are wetlands.
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Policy 8.2.8 – Where monitoring of ecosystems, habitats and areas with significant indigenous biodiversity value shows that there is a loss of or deterioration in condition of these sites, then the Marlborough District Council will review the approach to protection.
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Benefits

The significant natural areas project was set up in 2000 to assist the Council to meet its obligations under Section 6(c) of the RMA. The Council of the time decided to meet these obligations through a proactive but non-regulatory programme to identify significant natural areas and offer landowners support to protect and enhance these areas. Integral to this approach was a commitment to hold property-specific information confidentially rather than scheduling it for regulatory purposes. The main benefit of Policy 8.2.2 therefore, is to indicate that this approach is to be continued in the MEP. However, monitoring will be key in determining whether this approach will carry on or whether a more regulatory regime ought to be applied to protect indigenous biodiversity values.

The exception for wetlands reflects that these significant sites will be subject to a regulatory regime, even on private land. This helps give effect to the NPSFM, where for both water quality and quantity purposes the significant values of wetlands are to be protected (Objective A2(b) and Objective B4). This approach also assists in recognising and providing for the preservation of natural character of wetlands as required by Section 6(a) of the RMA.

Costs

Considerable costs have been incurred to date on the significant natural areas project and through identification of significant wetlands as part of the review. In relation to the significant natural areas project, these costs have included the initial survey work as well as ongoing landowner assistance funding in protection works and monitoring of significant sites.

There are costs for landowners who choose to take part in the programme to protect sites of significance on their property, especially if physical works such as fencing or weed control are involved. However, because it is a voluntary approach, landowners can choose not to undertake specific actions on their property.

There is a potential cost to the environment if the voluntary approach does not work and monitoring shows there is a loss of or deterioration in the condition of significant sites as a result. At this point the Council would review this voluntary approach to determine whether increased use of regulation should be pursued. Any changes to the MEP as a result of this review would only occur through the First Schedule process of the RMA. This would incur costs for the community if such a change was needed.

Efficiency and Effectiveness

A significant benefit from the approach adopted by the Council in protecting indigenous biodiversity on private land has been the positive relationships that have developed with landowners. The partnership approach taken, along with the funding provided to assist in protection works, has been very efficient and effective. As of June 2015, a total of 284 landowners had taken part in the surveys in both south and north Marlborough (75% of those approached). A total of 94 landowners declined to participate (25% of those approached). A total of 708 significant natural areas have been identified, with a combined area of 45,099 hectares.

Through the landowner assistance programme of the Council, 85 sites with indigenous biodiversity value have received some form of protection works. Of these, 37 sites have been protected through a covenant. Two of these are protected private land covenants administered by the Department of Conservation and the other 35 are Queen Elizabeth II Trust (QEII) covenants.

While the protection and restoration efforts through the voluntary approach have been promising, sustained effort will be required to ensure that this approach will continue to help to achieve the outcomes in Objectives 8.1 and 8.2.

Policies 8.2.3 – 8.2.5

Policy 8.2.3 – Priority will be given to the protection, maintenance and restoration of habitats, ecosystems and areas that have significant indigenous biodiversity values, particularly those that are legally protected.
Policy 8.2.4 – Priority will be given to the re-establishment of indigenous biodiversity in Marlborough's lowland environments.
Policy 8.2.5 – Encourage the legal protection of sites with significant indigenous biodiversity value through covenanting.

Benefits

Those ecosystems, habitats and areas assessed as having significant indigenous biodiversity value are to be given priority in terms of their protection, maintenance and restoration. This recognises that a targeted approach to indigenous biodiversity is appropriate given that resources to assist landowners are limited. If the Council has to make decisions about which sites should be supported financially for protection works, those sites that have been legally protected through mechanisms such as covenants will be prioritised for funding support.

In Marlborough's lowland environments (the Wairau and Awatere Plains) some ecosystem types are extremely depleted and have been fragmented over time. In these areas fully functioning ecosystems are not common as many native bush birds and insects are present in low numbers (for instance, very few tūī can be found in south Marlborough). Therefore a focus for re-establishing indigenous biodiversity in these areas has been prioritised, particularly as there is little public conservation land in south Marlborough.

Costs

There are costs associated with the legal protection of indigenous biodiversity. However, as explained earlier in this evaluation report protection in its broadest sense includes actions such as fencing, pest control, planting and more.

An overview of the expenditure on the landowner assistance programme, which includes funding from landowners, the Council, central government and the QE II Trust, is provided in a Council report (*Summary Report on the Results of the Significant Natural Areas Project 2014 – 2015*). This report provides a summary of the funding contributions for protecting indigenous biodiversity on private land in Marlborough from 2003 to 2015 as follows:

Marlborough District Council Funding	\$630,838.00
Central Government Biodiversity Fund	\$810,010.00
QEII National Trust	\$78,318.00
Landowners	\$541,087.00
Total	\$2,060,253.00

Section 32: Chapter 8 - Indigenous Biodiversity

There have been significant community costs in fulfilling the Council's responsibilities for indigenous biodiversity under the RMA, but this expenditure does appear to be supported by the community. Landowners have contributed almost as much as the Council in carrying out protection and enhancement works.

Efficiency

The three policies are considered efficient, as in an environment of limited resources they provide a focus or priority for protection of significant sites most in need of protection. There is also a focus on giving recognition to central government's 'statement of national priorities' for protecting rare and threatened indigenous biodiversity on private land, as set out in Objective 8.1.

These priorities will have a significant influence on the Council's future policy and programmes. The policies are also efficient in that they take advantage of existing voluntary mechanisms for protection such as that offered by the Department of Conservation and the QE II Trust, both of which provide a mechanism for landowners to independently covenant protected areas on their properties. The QEII Trust takes responsibility for on-going monitoring of their covenanted sites, reducing the monitoring required to be carried out by the Council.

Effectiveness

The effectiveness of the policies is largely determined by the willingness of landowners to take part and carry out proactive protection works and legal protection. This is reflected in the recent Council report *Summary Report on the Results of the Significant Natural Areas Project 2014 – 2015*. This report noted that while much has been achieved through the project, it appears that momentum to protect sites is decreasing. Of the 700 or so sites identified through the original private landowner surveys, only about 85 have had protection work of some kind applied to them and a number of these have been covenanted to provide permanent legal protection.

The report goes on to say that there are around 600 sites yet to be protected and proactively managed so that their ecological values are sustained in the long term. Some of these sites were revisited during 2014/2105 and a phone survey with the landowners of these sites was also undertaken to determine the awareness and importance of the significant natural areas project and opportunities available for protection. (The results of this survey are reported in the summary report referred to above.) Essentially, the unprotected sites were still in existence, more or less intact, and all were still significant. However, the condition of the sites varied, with the majority being relatively stable (14 out of 25), some deteriorating (8 out of 25) and a few improving slightly (3 out of 25). Many of the stable sites were only in fair condition and had serious infestations of old man's beard. This means that a significant number of the sites are likely to require intervention in the future if they are to be sustainable in the long term.

Most landowners were aware of their significant natural area sites and valued them, though there was a broad spectrum of the degree to which the sites had been nurtured. The sites where the owners treasured the natural values on their properties stood out as exceptional. Overall, the monitoring showed that the significant natural areas project was still well-regarded by landowners and that their state of knowledge of indigenous biodiversity and conservation had been elevated by involvement in the programme.

Policies 8.2.6 and 8.2.11

Policy 8.2.6 – Where areas of significant indigenous biodiversity value are known to exist in riparian margins of rivers, lakes or in the margins of a significant wetland, consideration will be given to acquiring or setting aside these areas to help protect their values.

Policy 8.2.11 – Promote corridors of indigenous vegetation along waterbodies to allow the establishment of native ecosystems and to provide wildlife habitat and linkages to other fragmented bush or wetland remnants.

Benefits

Land along the margins of rivers, lakes and significant wetlands may have significant natural value and serve as important habitats. These areas are the interface between land and water resources and provide important habitat for unique flora and fauna. Vegetation within the riparian area also contributes to freshwater habitat through the provision of refuge and the input of food and shade. Promoting ecological corridors on both public and private land therefore plays an important part in

protecting ecosystems and maintaining and enhancing the quality and diversity of remaining natural areas.

Policy 8.2.6 signals that where significant indigenous biodiversity values are known to exist in riparian margins, then the Council may consider the use of the esplanade reserve or esplanade strip provisions of the RMA to assist in protecting these values.

Costs

If an esplanade reserve was to be taken and a property is over four hectares, compensation would be payable to a landowner by the Council. There is a cost in this for ratepayers. If an esplanade strip was to be set aside then the ownership of this would remain with the landowner and the costs would be limited to the process of preparing an esplanade strip agreement.

There is a potential for the loss of land for production if an esplanade reserve or esplanade strip is set aside. In circumstances where the Council leases land for production purposes, this would result in a loss of revenue to the community. However, given the values to be protected through Policy 8.2.6, these costs are considered to be justified.

The costs associated with implementing Policy 8.2.11 are considered to be minimal as the policy is one of promotion, rather than requiring certain actions.

Efficiency and Effectiveness

The efficiency and effectiveness of these policies is circumstantial in that it depends on a landowner wishing to develop land, such as subdividing or developing in a way that would trigger the need for an esplanade reserve or strip. In addition, it also relies on the Council being aware of locations in riparian margins where there may be significant biodiversity values.

It is considered that Policy 8.2.11 will be effective in achieving Objective 8.2 to improve and/or restore the condition of areas given the fragmented nature of biodiversity in Marlborough, especially in lowland Marlborough. An example of where this is starting to have an impact is the Council's Tūi to Town project, where areas of native vegetation and the planting of new areas will help provide stepping stones of habitat for native birds.

Policy 8.2.9

Policy 8.2.9 – Maintain, enhance or restore ecosystems, habitats and areas of indigenous biodiversity even where these are not identified as significant in terms of the criteria in Policy 8.1.1, but are important for:

- (a) the continued functioning of ecological processes;
- (b) providing connections within or corridors between habitats of indigenous flora and fauna;
- (c) cultural purposes;
- (d) providing buffers or filters between land uses and wetlands, lakes or rivers and the coastal marine area;
- (e) botanical, wildlife, fishery and amenity values;
- (f) biological and genetic diversity; and
- (g) water quality, levels and flows.

Benefits

Policy 8.2.9 identifies a range of factors that are important for the overall functioning of ecological processes even in areas where significant indigenous biodiversity values have not been identified. The main benefit of the policy is to acknowledge there is still value in maintaining, enhancing and restoring ecosystems, habitats and areas of indigenous biodiversity as these areas still add to the overall sustainable management purpose of the RMA. This is particularly the case when having regard to the following Section 7 matters of the RMA:

- (c) *The maintenance and enhancement of amenity values.*
- (d) *Intrinsic values of ecosystems.*
- (f) *Maintenance and enhancement of the quality of the environment.*

Section 32: Chapter 8 - Indigenous Biodiversity

- (g) Any finite characteristics of natural and physical resources.

Costs

The costs of this policy are likely to be limited to circumstances where a resource consent may be required for an activity and decision makers can have regard to the impacts of the activity on areas with indigenous biodiversity values. However, the policy itself does not generate the need for a resource consent so any costs will be limited. There may be some costs associated with non-regulatory methods of achieving the policy, for example working collaboratively with the Marlborough Sounds Restoration Trust in recent years to remove wilding pines from Sounds' properties to enhance visual amenity values.

Efficiency and Effectiveness

While the ecosystems, habitats and areas of indigenous biodiversity are not significant in terms of Policy 8.1.1, through restoration and enhancement efforts the values of these areas may become more significant over time. For this to be achieved, it will rely on the willingness of landowners to carry out maintenance, enhancement or restoration works. It is therefore difficult to determine the effectiveness of the policy.

Policies 8.3.1 and 8.3.2

Policy 8.3.1 – Manage the effects of subdivision, use or development in the coastal environment by:
(a) avoiding adverse effects where the areas, habitats or ecosystems are those set out in Policy 11(a) of the New Zealand Coastal Policy Statement 2010;
(b) avoiding adverse effects where the areas, habitats or ecosystems are mapped as significant wetlands or ecologically significant marine sites in the Marlborough Environment Plan; or
(c) avoiding significant adverse effects and avoiding, remedying or mitigating other adverse effects where the areas, habitats or ecosystems are those set out in Policy 11(b) of the New Zealand Coastal Policy Statement 2010 or are not identified as significant in terms of Policy 8.1.1 of the Marlborough Environment Plan.
Policy 8.3.2 – Where subdivision, use or development requires resource consent, the adverse effects on areas, habitats or ecosystems with indigenous biodiversity value shall be:
(a) avoided where it is a significant site in the context of Policy 8.1.1; and
(b) avoided, remedied or mitigated where indigenous biodiversity values have not been assessed as being significant in terms of Policy 8.1.1.

Benefits

Policy 11 of the NZCPS defines a range of priorities to ensure that indigenous biodiversity in the coastal environment is protected. Policy 8.3.1 of the MEP reflects the priority approach of the NZCPS to subdivision, use and development activities within the coastal environment, especially in terms of paragraphs (a) and (c) of the policy. In addition, the Council has identified through mapping in the MEP significant wetlands and ecologically significant marine sites. In these circumstances, adverse effects from subdivision, use or development in these mapped areas is also to be avoided. Similarly for Policy 8.3.2, a priority approach to avoiding adverse effects on areas, habitats and ecosystems with significant indigenous biodiversity has been included despite these areas not being mapped.

There are environmental, social and cultural benefits from setting out the priorities for protection as expressed in Policy 8.3.1 and Policy 8.3.2.

Costs

The NZCPS effectively directs the priorities that are set out in Policy 8.3.1 in relation to the coastal environment, so the costs of this have been assessed through the development of the NZCPS. In some instances, this may result in a development or activity not being able to proceed, or in extreme cases no application being able to be made for resource consent. This is in relation to fishing activities using techniques that disturb the seabed in mapped, ecologically significant marine sites and activities within some significant wetlands. However, the costs of the policy are considered to be limited, given the discrete nature of the mapped sites within the coastal environment. In addition, the current MSRMP and WARMP contain policies that also direct a priority of avoiding adverse effects from a range of activities.

For Policy 8.3.2, there are likely to be some costs associated with resource consents and assessments required to determine whether a particular activity will affect indigenous biodiversity values. There could be some loss of aspirations for landowners, especially where significant wetlands are involved or where an area is determined as having significant values. There is some uncertainty as to the application of the policy for terrestrial sites, given that the Council has decided not to map significant natural areas on private land. While the Council can use the information it has gathered through the significant natural areas project to determine whether indigenous biodiversity values exist on some properties, not all properties have been surveyed; for landowners land has not yet been surveyed, there is likely to be a higher cost for assessment than for those properties that have already been surveyed.

Efficiency

While potentially there is a cost in terms of lost opportunity for some activities to occur, this is outweighed by the greater community benefit that will result from adverse effects on areas, habitats and ecosystems with significant indigenous biodiversity values being avoided. Opportunity is also given for remediation and mitigation in relation to areas, habitats or ecosystems set out in Policy 11(b) of the NZCPS or not identified as significant in terms of Policy 8.1.1. This is considered an efficient approach, particularly given that so much of Marlborough's original biodiversity has been lost and of that what remains, little is known. This applies to sites within the coastal marine area and on private land that have not been surveyed.

Effectiveness

The policies are considered to be effective in achieving the objectives. For Objective 8.1, in which the protection of Marlborough's remaining indigenous biodiversity is the aim, Policies 8.3.1 and 8.3.2 contain clear direction about the circumstances in which adverse effects from activities are to be avoided. This approach is also likely to help in dealing with Issue 8A to stop the further loss of Marlborough's indigenous biodiversity. In terms of achieving Objective 8.2, giving protection through Policy 8.3.1 to identified significant sites in the coastal environment will help in reestablishment and restoration efforts by removing some activities from areas with significant biodiversity value. This policy also clearly helps to give effect to the matters of national importance in Section 6 of the RMA as well as to direction within the NZCPS. Policy 8.3.2 also helps to give effect to Section 6 and 7 matters of the RMA.

Policies 8.3.3, 8.3.4 and 8.3.6

Policy 8.3.3 – Control vegetation clearance activities to retain ecosystems, habitats and areas with indigenous biodiversity value.
Policy 8.3.4 – Improve the management of drainage channel maintenance activities to mitigate the adverse effects from these activities on the habitats of indigenous freshwater species.
Policy 8.3.6 – Where taking or diversion of water from waterbodies is proposed, water levels and flows shall remain at levels that protect the natural functioning of those waterbodies.

Benefits

The benefit of these policies is that they identify some specific activities that could have an adverse effect on biodiversity values. The variation in management approaches to these activities recognises the different impacts they can have on biodiversity values. The approach in Policies 8.3.3 and 8.3.4 is enabling through the use of permitted activity rules, subject to the meeting of standards; this approach is currently used in the MSRMP and WARMP. Policy 8.3.3 is especially important as a back-stop measure to the voluntary partnership approach the Council has with private landowners for the identification and protection of areas with significant indigenous biodiversity value. For some waterbodies, the values are so significant that to ensure the values are maintained, a prohibited activity status will apply. This approach is consistent with that of the current WARMP.

Costs

There are no additional costs beyond those that currently occur within the framework of the MSRMP and WARMP. As the policies largely establish a permitted activity regime, costs are limited to meeting standards associated with the permitted activity. Additional costs would result if the standards could not be met, however such costs cannot be quantified as they are dependent upon a landowner wishing to undertake a development or an activity.

Efficiency

The policies are considered efficient as they will result in low costs, especially where permitted activity standards are met, while protecting indigenous biodiversity values. There is also efficiency in landowners being best placed to assist in protecting biodiversity values, resulting in beneficial environmental outcomes. Similarly, because the Council has many years' experience in managing a network of drainage channels on the Wairau Plain, they are best placed to ensure that maintenance activities do not adversely affect aquatic animals within the channel, either through direct removal or a reduction of habitat.

Effectiveness

The policies are effective in helping to achieve Objective 8.1 in particular in protecting Marlborough's remaining indigenous biodiversity. They also help to give effect to the NZCPS, NPSFM and the purpose and principles of the RMA.

Policy 8.3.5

Policy 8.3.5 – In the context of Policy 8.3.1 and Policy 8.3.2, adverse effects to be avoided or otherwise remedied or mitigated may include:

- (a) fragmentation of or a reduction in the size and extent of indigenous ecosystems and habitats;
- (b) fragmentation or disruption of connections or buffer zones between and around ecosystems or habitats;
- (c) changes that result in increased threats from pests (both plant and animal) on indigenous biodiversity and ecosystems;
- (d) the loss of a rare or threatened species or its habitat;
- (e) loss or degradation of wetlands, dune systems or coastal forests;
- (f) loss of mauri or taonga species;
- (g) impacts on habitats important as breeding, nursery or feeding areas, including for birds;
- (h) impacts on habitats for fish spawning or the obstruction of the migration of fish species;
- (i) impacts on any marine mammal sanctuary, marine mammal migration route or breeding, feeding or haul out area;
- (j) a reduction in the abundance or natural diversity of indigenous vegetation and habitats of indigenous fauna;
- (k) loss of ecosystem services;
- (l) effects that contribute to a cumulative loss or degradation of habitats and ecosystems;
- (m) loss of or damage to ecological mosaics, sequences, processes or integrity;
- (n) effects on the functioning of estuaries, coastal wetlands and their margins;
- (o) downstream effects on significant wetlands, rivers, streams and lakes from hydrological changes higher up the catchment;
- (p) natural flows altered to such an extent that it affects the life supporting capacity of waterbodies;
- (q) a modification of the viability or value of indigenous vegetation and habitats of indigenous fauna as a result of the use or development of other land, freshwater or coastal resources;
- (r) a reduction in the value of the historical, cultural and spiritual association with significant indigenous biodiversity held by Marlborough's tangata whenua iwi;
- (s) a reduction in the value of the historical, cultural and spiritual association with significant indigenous biodiversity held by the wider community; and
- (t) the destruction of or significant reduction in educational, scientific, amenity, historical, cultural, landscape or natural character values.

Benefits

The policy identifies a range of adverse effects that may result from subdivision, use and development which may need to be avoided to protect indigenous biodiversity values. A benefit of the policy is that it can be used to determine effects whether they occur in terrestrial, freshwater or coastal environments. The effects may not be relevant in every situation, so a case-by-case assessment will be necessary and beneficial to decision makers and resource consent applicants in determining

whether a particular activity will have an adverse effect on biodiversity values. The policy sets out the effects that can occur on indigenous biodiversity values more clearly than the policies of the current resource management plans.

Depending on the environment within which the subdivision, use or development is to take place and the particular values associated with the site and degree of effect likely to result from the proposed activity, a determination can be made as to whether the effects should be avoided in terms of Policies 8.3.1 and 8.3.2 or can otherwise be remedied or mitigated.

Costs

It is anticipated that the costs of the policy will be no greater than those currently incurred under the MSRMP and WARMP. If anything this policy should result in reduced costs, as it provides greater definition regarding identifying the effects that can occur on indigenous biodiversity values.

Efficiency

The policy is considered to be efficient for the same reasons set out in the Costs evaluation.

Effectiveness

Policy 8.3.5 is effective as it sets out guidance for the adverse effects on indigenous biodiversity values to be avoided or otherwise remedied or mitigated in a Marlborough context. It targets those matters that have been highlighted and learned through the Council's significant natural areas project, the investigation and identification of significant wetlands and ecologically significant marine sites. It also helps to achieve Objective 8.1 in relation to protection and Objective 8.2 in terms of restoration and enhancement.

Policy 8.3.7

Policy 8.3.7 – Within an identified ecologically significant marine site fishing activities using techniques that disturb the seabed must be avoided.

Benefits

Some fishing activities use techniques that result in disturbance of the seabed. Depending on where this occurs, there is the potential for adverse effects on marine biodiversity. The policy seeks to avoid use of these techniques in areas identified as having significant biodiversity value in the coastal marine area. There are significant environmental and cultural benefits from this approach, which will be implemented through a prohibited activity rule. This is the first time such an approach has been used in Marlborough and it is put in place in acknowledgement that there have been significant adverse effects on marine biodiversity from some fishing techniques. The ecologically significant marine sites to which the prohibition will apply will be mapped in the MEP, which will provide certainty about where the prohibition applies as well as raising awareness of Marlborough's significant marine sites.

Costs

There will be some opportunity cost for harvesting marine species with the prohibition. However, this is at discrete locations where in many instances techniques that disturb the seabed would not be used; for example, in a reef habitat. Consultation with the Ministry for Primary Industries on the prohibition also highlighted that currently there was little overlap between fishing effort and the ecologically significant marine sites.

Efficiency

While there are some costs associated with a prohibition, consultation has indicated there is little overlap between the ecologically significant marine sites and where fishing effort occurs. It is considered there is a whole-of-community benefit in protecting known sites from potential disturbance by fishing activities and that this benefit is greater than the cost to individual fishers.

Effectiveness

The policy will be very effective in achieving Objectives 8.1 and 8.2. From a protection perspective, preventing activities that will disturb the seabed in ecologically significant marine sites will help to achieve Objective 8.1. From a restoration and enhancement viewpoint, the work undertaken to identify the ecologically significant marine sites in 2011 noted that many of the sites were fragile and therefore vulnerable to human disturbance and damage from a variety of sources. The report went on

to note that: “Many more sites could be considered significant in the future if they were managed and allowed to recover to the state they would have been before human activities degraded them.”⁵ Therefore the prohibition in relation to Objective 8.2 will be effective as these significant sites will be given the opportunity to recover from previous human activities.

Policy 8.3.8

Policy 8.3.8 – With the exception of areas with significant indigenous biodiversity value, where indigenous biodiversity values will be adversely affected through land use or other activities, a biodiversity offset can be considered to mitigate residual adverse effects. Where a biodiversity offset is proposed, the following criteria will apply:

- (a) the offset will only compensate for residual adverse effects that cannot otherwise be avoided, remedied or mitigated;
- (b) the residual adverse effects on biodiversity are capable of being offset and will be fully compensated by the offset to ensure no net loss of biodiversity;
- (c) where the area to be offset is identified as a national priority for protection under Objective 8.1, the offset must deliver a net gain for biodiversity;
- (d) there is a strong likelihood that the offsets will be achieved in perpetuity;
- (e) where the offset involves the ongoing protection of a separate site, it will deliver no net loss and preferably a net gain for indigenous biodiversity protection; and
- (f) offsets should re-establish or protect the same type of ecosystem or habitat that is adversely affected, unless an alternative ecosystem or habitat will provide a net gain for indigenous biodiversity.

Benefits

The main benefit of a biodiversity offset is to ensure there is no net loss and preferably a net gain of biodiversity with respect to species composition, habitat structure and ecosystem function. The ability to use a biodiversity offset to mitigate residual adverse effects provides flexibility in approach to dealing with effects. However, it is clear that an offset is only to compensate for residual adverse effects that cannot otherwise be avoided, remedied or mitigated and that biodiversity offsets should not be considered in areas that have been assessed as having significant biodiversity value and where adverse effects on these values are to be avoided.

The use of biodiversity offsets acknowledges a trend where an applicant undertaking a development has offered compensation in a different location as a means of mitigation. Inclusion of this policy provides some rigour to assessing whether a biodiversity offset may be appropriate. There is a preference for the re-establishment or protection of the same type of ecosystem or habitat to avoid the difficulty of assessing relative values of different ecosystems or habitats of different species. Trade-offs involving different species will not always adequately compensate for the loss of the originally threatened species. However, the policy does recognise that where significant indigenous biodiversity benefits can be achieved, the protection of other habitats may be appropriate.

Costs

Biodiversity offsets will only be used in a resource consent situation, either where standards of a permitted activity cannot be complied with or where a discretionary activity resource consent is otherwise required, so costs are already incurred by an applicant. The opportunity to use a biodiversity offset is provided to applicants but there is no compulsion to use it.

Efficiency and Effectiveness

There needs to be certainty that the proposed offsets will occur. However, it is acknowledged that offset measures such as indigenous planting will take a long time to establish and become useful in a biodiversity role. Therefore, while relative to cost there would be an overall benefit to the wider community from applying a biodiversity as proposed, it is difficult to determine whether this approach will be efficient or effective in the long term. It will only be with subsequent monitoring that a determination can be made as to the efficiency or effectiveness of this policy.

⁵ Davidson RJ; Duffy CAJ; Baxter A; DuFresne S; Courtney S; Hamill P. (September 2011). *Ecologically significant marine sites in Marlborough, New Zealand*. Coordinated by Davidson Environmental Limited for Marlborough District – page 128.

Methods of implementation

The most significant changes in the methods of implementation from the current MRPS and the two resource management plans are:

- the inclusion of new prohibited activity rules for fishing techniques that disturb the seabed in ecologically significant marine sites and for activities in a small number of the significant wetlands; and
- a new method that sees significant wetlands being mapped in the MEP.

An assessment of why these methods have been included has already been undertaken in the preceding evaluation.

The other methods set out in Chapter 8 of Volume 1 of the MEP are not new, having already been implemented to some degree through the current MRPS, MSRMP and WARMP. What is different is that with the benefit of the investigations of Marlborough's significant biodiversity sites over the past 10-15 years, the Council has a greater understanding of Marlborough's environments and the methods can be taken further than they have been in the past. For example, the identification of ecologically significant marine sites in the MEP was acknowledged to be based on existing data or information, but was incomplete. This was because many areas had not been surveyed or the information available was incomplete. Subsequently the Council resurveyed some sites prior to notification of the MEP and a commitment to ongoing monitoring and investigation has been included in policy.

For sites on private land, a move towards monitoring of significant sites as opposed to identification has also occurred. The initial survey work was largely completed in the nine year period from 2001 to 2009 (inclusive) and further occasional field surveys have been carried out at the request of landowners since that period. However, the Council is now moving more towards site monitoring to determine the effectiveness of protection efforts, as well as considering how well non-managed sites have fared. Ongoing commitments to this are included in the MEP.

Other options considered to achieve Objectives 8.1 and 8.2

Three other options were considered by the Council to achieve Objectives 8.1 and 8.2. They were:

1. *Status quo in terms of the existing provisions of the MRSP, MSRMP and WARMP*

The MRPS currently has a range of provisions that apply to indigenous biodiversity and can be found in two of the five regionally significant issues:

- protection of water ecosystems (wetlands, lakes, rivers, groundwater and coastal marine areas); and
- protection of land ecosystems.

The objectives under the issue of protecting water ecosystems are based on fresh and coastal water quality, freshwater quantity, freshwater and coastal marine habitat and natural character and amenity values associated with freshwater. For freshwater, terrestrial and marine environments, the MRPS included a method stating that areas of significant habitat would be identified within the resource management plans and that rules would be included to protect those habitats and the conservation values of those habitats (Methods 5.1.12(a), 5.3.12(a) and 6.1.4(a)). However, the only areas that were subsequently identified in the resource management plans were in the coastal marine area.

Both the MSRMP and WARMP have various objectives and policies relating to biodiversity, natural areas and values. These are addressed in Volume One of each plan within chapters on 'Freshwater', 'Rural Environments', 'Natural Character', 'Coastal Marine' and 'Land Disturbance' and a specific chapter on 'Indigenous Flora and Fauna and their Habitats'. The main emphasis was on protection of areas of significant vegetation and habitats and of freshwater and riparian ecosystems.

Various provisions in Volume Two (Rules) of the plans relate to the protection and management of indigenous biodiversity. This includes assessment criteria to be considered for resource consent

Section 32: Chapter 8 - Indigenous Biodiversity

applications for subdivision and development. Volume Two also contains rules relating to vegetation clearance, wetlands, the margins of waterways and in the coastal marine area.

For terrestrial environments, the approach of non-identification of sites on private land in the MEP is the same in the MSRMP and WARMP. To that extent the MEP approach follows the status quo. However, what has changed is that the other provisions for the protection of indigenous biodiversity in Marlborough have been significantly enhanced. The permitted activity rules have been reviewed as a consequence of information gathered through the significant natural areas project and the species and habitats now identified in these rules reflect the Council's increased knowledge. In addition, there is more detailed policy to guide decision makers in a resource consent situation on how adverse effects of activities on indigenous biodiversity values can be avoided where directed and otherwise remedied or mitigated.

Identification of ecologically significant marine sites in the MEP also follows the approach of the MSRMP and WARMP. However, as with terrestrial environments more detailed policy is provided to guide decision makers in a resource consent situation. In addition, and of considerable importance in developing provisions for indigenous biodiversity in the coastal environment, has been the 2010 NZCPS, which contains more directive policy than the previous NZCPS in 1994, the version that both the MSRMP and the WARMP were prepared under.

The approach to identification of significant wetlands is new to the MEP and as outlined earlier in the evaluation report, this has occurred because these small and fragmented areas are all that remain of the once vast areas of wetland that covered lowland Marlborough. The Council also recognises that identification helps gives recognition to central government's 'statement of national priorities' for protecting rare and threatened indigenous biodiversity on private land. The NPSFM contains very high level objectives concerning the safeguarding of indigenous species and associated ecosystems, protecting the quality of outstanding freshwater bodies and protecting the significant values of wetlands. While there is no specific guidance about how this should occur (unlike in the NZCPS), the Council considers that identification is important to ensure the values of Marlborough's significant wetlands are protected. The existing approach of permitted activity rules for some activities in or near wetlands has been continued, although these rules have also been reviewed.

In summary, some elements of the 'status quo' are being continued, but the Council believes that for the foregoing reasons it is not appropriate to continue entirely with the current approaches of the MRPS, MSRMP or WARMP.

2. Mapping of significant natural areas on private land

This option would see areas on private land identified through the significant natural areas project as having significant biodiversity value being mapped within the MEP and information on the values of these sites being made publically available. When the significant natural areas project was established in 2000 to enable the Council to meet its obligations under Section 6(c) of the RMA, the Council of the time decided to meet these obligations through a proactive but non-regulatory programme. Integral to this approach was a commitment to hold the property-specific information confidentially rather than scheduling it for regulatory purposes.

Information collected through the significant natural areas surveys is held in a database and is only reported publically in a general sense. The two main ways the information is used are to provide a regional overview of significant natural areas and biodiversity on private land in Marlborough and to provide a basis for developing protection programmes with landowners interested in proactively managing and protecting these areas.

The Council has continued to support the non-regulatory approach to provide for the protection of significant natural areas. This stance continued through negotiations on resolving appeals to the WARMP on provisions for indigenous flora and fauna through 2006 and 2007. Appeals had been lodged against decisions made by the Council to not to identify significant natural areas on the planning maps. As a consequence of negotiations to include generic (i.e. non-property specific) rules for indigenous vegetation clearance and with some amendment to policies, agreement was reached that enabled the Council to maintain its approach to non-identification of significant sites on private land.

While the survey work on private land has largely been completed and some could argue that these sites could be identified in the MEP, the Council sees no reason to change its stance. Rules in themselves do not bring about change and will not improve the overall condition of significant natural areas; the Council considers that this can only occur by working with landowners. For this reason a strong landowner assistance programme has been developed and maintained as part of the overall project. This has extended to the development of guidelines to assist landowners, a seed collection project to supply suitable, locally-sourced native plants for restoration projects in Marlborough, support for community groups and encouraging plantings of native species in south Marlborough to provide habitat for the native tūī.

The Council has signalled through Policy 8.2.8 of the MEP that ongoing monitoring of the condition of sites with significant indigenous biodiversity value will be necessary to determine if the methods in the MEP are helping to improve the overall condition of significant indigenous biodiversity in Marlborough. Where state of the environment monitoring shows a loss of or deterioration in the condition of significant sites as a result of the voluntary approach to protection, the Council will review this approach to determine whether increased use of regulation should be pursued. For the time being however, the Council does not consider there is a need to identify within the MEP the significant sites that have been identified through the significant natural areas project.

3. Greater regulation for areas with significant biodiversity value

Greater regulation for areas with significant biodiversity value would see more controls than have been proposed in the MEP. This option would include in part the mapping option described in Option 2 above. Greater regulation could see a requirement for resource consent for any activity that would involve either the clearance of indigenous vegetation or an activity within an identified significant site.

However, for the coastal marine area, most activities that involve disturbance, occupation or reclamation of the seabed already require a resource consent. This is in recognition that the coastal marine area is comprised of public resources and there are no inherent rights to be able to develop these coastal resources. The only activities that have been permitted in the coastal marine area are those that are minor in nature and in some cases, temporary. There are more permitted activities provided for within the Port, Port Landing Area and Marina Zones; however, these areas have already been substantially modified and there are limited indigenous biodiversity values at these locations than other areas in the coastal marine area. Therefore, within the coastal marine area the extent of greater regulation would be limited to:

- including more prohibited activity rules for activities in the ecologically significant marine sites; or
- requiring a resource consent for all activities within the ecologically significant marine sites.

Before either of these approaches were contemplated, the Council would need more information on the state and extent of the ecologically significant marine sites. Until this occurs and appropriate consultation on the possible outcomes of additional regulation are undertaken, the Council considers the level of regulation for the coastal marine is appropriate.

For areas that have been mapped and identified as significant wetland, permitted activity rules in the MEP have been applied. As within the coastal marine area, greater regulation could potentially see a discretionary activity rule status applying to activities within these mapped sites or including more prohibited activity rules for activities within significant wetlands. Some may consider that this would be justified, given the extensive loss of wetlands that has occurred in Marlborough. However, most of the wetlands that have been identified as significant are on private land and the Council's approach to protecting indigenous biodiversity on private land to date has been to work with landowners in a partnership. The most significant benefit of identifying the significant wetlands on the planning maps is for landowners to know exactly where the boundaries of the wetlands lie. The RMA's definition of a wetland is very broad and landowners are concerned that this may extend to boggy patches in paddocks, areas that do not support any wetland values. Through the use of consistently applied criteria to identification, the Council has been able to determine exactly which areas are wetlands in need of protection and which areas do not support wetland values. This includes some regulation through permitted activity rules and standards, but opportunities for protection also exist through the Council's landowner assistance programme. The Council considers that until some monitoring of the

Section 32: Chapter 8 - Indigenous Biodiversity

significant wetlands occurs and more is known about their state, that the use of greater regulation is unwarranted.

For sites with indigenous biodiversity values on private land, greater regulation has not been included in the MEP for the same reasons as set out under Option 2.

Risk of acting or not acting

In terms of Section 32(2)(c) of the RMA, an assessment of the '*risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions*' is required. While there are potentially some risks to the protection of indigenous biodiversity with the approaches included in the MEP, overall the Council is satisfied that it does have certain and sufficient information on which to base the proposed policies and methods for the following reasons.

The non-regulatory approach taken towards identification does pose a potential risk of terrestrial-based significant sites not being protected. Notwithstanding this, the Council does have 'back-up' rules that apply to the clearance of indigenous vegetation (the approach currently used in the MSRMP and WARMP). The Council considers that working with landowners in their efforts to protect Marlborough's indigenous biodiversity will be more beneficial in the long term as a partnership approach is more likely to achieve positive outcomes for the whole community as opposed to what could be achieved under a more stringent regulatory regime.

For significant wetlands there is a different approach; the Council has decided to map these areas within the MEP as there are so few left, particularly in lowland Marlborough. The rules for wetlands apply only to those wetlands included in the MEP. Though other areas may fall within the RMA's broad definition of a wetland, if they have not been identified in the MEP, no wetland rules apply to them. This does pose some risk, as the Council may have missed identifying some significant wetlands through the investigations undertaken for the review. However, an extensive number of significant wetlands have been included in the MEP and the Council is reasonably confident that most wetlands of significance have been identified.

There is some risk that, based on the criteria used to determine significance, some sites have either been inappropriately identified as significant or inappropriately excluded. Criteria are included in Appendix 3 of Volume 3 of the MEP and were initially developed for determining sites of significance on private land. However, the criteria have subsequently been modified and developed for assessing wetland and marine sites. Over time, various techniques have been used throughout the country to determine significance, some of which have evolved through the Environment Court consideration of resource consent or plan appeals. However, at this time there are no nationally-applied criteria available through a national policy statement. While there may be different views on the applicability of the criteria used for the MEP, the Council's criteria have been applied consistently, which helps to reduce any risks associated with this methodology.

Appendix A – Section 32 of the RMA

32 Requirements for preparing and publishing evaluation reports

- (1) An evaluation report required under this Act must—
 - (a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and
 - (b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—
 - (i) identifying other reasonably practicable options for achieving the objectives; and
 - (ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and
 - (iii) summarising the reasons for deciding on the provisions; and
 - (c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.

- (2) An assessment under subsection (1)(b)(ii) must—
 - (a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—
 - (i) economic growth that are anticipated to be provided or reduced; and
 - (ii) employment that are anticipated to be provided or reduced; and
 - (b) if practicable, quantify the benefits and costs referred to in paragraph (a); and
 - (c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

- (3) If the proposal (an **amending proposal**) will amend a standard, statement, regulation, plan, or change that is already proposed or that already exists (an **existing proposal**), the examination under subsection (1)(b) must relate to—
 - (a) the provisions and objectives of the amending proposal; and
 - (b) the objectives of the existing proposal to the extent that those objectives—
 - (i) are relevant to the objectives of the amending proposal; and
 - (ii) would remain if the amending proposal were to take effect.

- (4) If the proposal will impose a greater prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.

- (5) The person who must have particular regard to the evaluation report must make the report available for public inspection—
 - (a) as soon as practicable after the proposal is made (in the case of a standard or regulation); or
 - (b) at the same time as the proposal is publicly notified.

Section 32: Chapter 8 - Indigenous Biodiversity

(6) In this section,—

objectives means,—

- (a) for a proposal that contains or states objectives, those objectives:
- (b) for all other proposals, the purpose of the proposal

proposal means a proposed standard, statement, regulation, plan, or change for which an evaluation report must be prepared under this Act

provisions means,—

- (a) for a proposed plan or change, the policies, rules, or other methods that implement, or give effect to, the objectives of the proposed plan or change:
- (b) for all other proposals, the policies or provisions of the proposal that implement, or give effect to, the objectives of the proposal.

Appendix B – Bibliography

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