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# **MARLBOROUGH ENVIRONMENT PLAN**

## **Section 32 Report Chapter 15: Resource Quality - Water**

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## Overview

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### 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 32<sup>1</sup> 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 Plan<sup>2</sup> (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

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<sup>1</sup> See Appendix A.

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

## Section 32: Chapter 15 – Water Quality

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 water quality are included within Chapter 15 - Resource Quality (Water, Air, Soil). A separate section 32 evaluation report has been prepared for water, air and soil. Rules relevant to water quality can be found within the General Rules chapter of Volume 2 as well as through the rules and standards within each of the zones set out in Volume 2. There are also appendices in Volume 3 and mapping overlays in Volume 4 relevant to water quality. This Section 32 evaluation report on provisions relating to water quality is set out as follows:

- Description of issues – this provides an overview of the resource management issues concerning water quality.
- 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 each of the identified issues. 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:

- All water quality issues are dealt with in one chapter.
- Recognition that some waterbodies have degraded water quality and identification of affected waterbodies.
- A commitment to address degraded water quality through catchment management plans.
- Recognition of iwi interest in water.
- Similar approach on management of point source discharges as with non-point source discharges.
- Greater emphasis on justifying why discharge to water is required.
- More comprehensive water quality standards.
- Allowing upgrade of existing discharges to meet water quality standards.
- Implementation of a stormwater strategy.
- Implementation of management to reflect strong community preferences with respect to certain contaminants being discharged to water.

## 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 water quality are set out below; however, the more detailed evaluation is set out in the remainder of this report.

- In 2011, the Government introduced a National Policy Statement for Freshwater Management (NPSFM) to require regions to maintain or improve water quality. The NPSFM was updated in 2014 to require regional councils to account for all water takes and sources of contaminants. The update also set national minimum acceptable standards of water quality for ecosystem and human health. Many of the objectives and policies in the MEP have been included in response to the direction included within the NPSFM. This includes the setting of timeframes to establish cumulative contaminant limits.
- The introduction of the National Environmental Standard for Sources of Human Drinking Water in 2008 requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and regional plans. Partly in response to this, the Council has identified specific Groundwater Protection Areas within which a range of activities now require resource consent to enable assessment of the potential impacts on groundwater quality.
- The New Zealand Coastal Policy Statement 2010 (NZCPS) contains policies in relation to water quality in the coastal environment (which includes a portion of the freshwater environment). The NPSFM and the NZCPS overlap in the freshwater portion of the coastal environment. The NPSFM requires councils to have regard to the connections between freshwater and coastal water when preparing regional plans. The MEP recognises these connections and has included policy accordingly.
- Marlborough's tangata whenua iwi feel that there is a lack of understanding in the community and by decision makers that water has wairua. The Council has included policy to ensure the potential adverse effects of the discharge on spiritual and cultural values of Marlborough's tangata whenua is had regard to in the determination of resource consent applications. This helps to give effect to the purpose and principles of the RMA as well as helping to address resource management issues of significance to iwi as set out in Chapter 3 of Volume 1 of the MEP.

- A number of rivers have been identified in which there is already degraded water quality or potential for degraded water quality. Actions are set out to improve water quality in these waterbodies.
- The Council has previously used water quality classifications standards based on Schedule 3 of the RMA in which water is managed for the purposes of aquatic ecosystems, fisheries, fish spawning, edible shellfish gathering or cultivating, contact recreation, human drinking water supply, irrigation, industrial abstraction, natural water and aesthetic and cultural values. However, since the MSRMP and WARMP were prepared and became operative, there have been advances in water quality assessment. These advances have generally improved the numerical interpretation of attributes, making it easier to assess water quality. For both freshwater and coastal waters, the Council has reconsidered the existing water quality classifications and the most appropriate methods for monitoring the standards within these classifications. This information has been used in the review and the outcomes are now included within Schedule 5 of Volume 3 of the MEP.
- 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 3 of the MEP, including values such as ecology, habitat and natural character. Where resource consent applications are required, the policy directs that these values are to be had regard to in determining the impacts on water quality. Similarly, for the coastal environment Appendix 2 sets out the natural character values for the coastal environment, water quality being an important component of natural character.
- Provisions to prevent stock access to waterbodies and the discharge of human sewage to waterbodies and coastal water have been included in response to community concerns over the nature of these discharges. These provisions, which are intended to result in prohibited activities, do have a lead-in time.
- There is little in the way of guidance in the MSRMP and WARMP for improving the quality of urban stormwater. The MEP proposes the development of stormwater management area plans that will help to identify sources of stormwater contamination and will include actions to reduce the level of contaminants.

## Description of issues

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Marlborough generally enjoys good water quality in our coastal waters, rivers, lakes, wetlands and aquifers. Monitoring has shown that the quality of water in these waterbodies is sufficient to support a wide range of natural and human use values. The contribution that these uses and values make to the community's social and economic wellbeing and to public health means that maintaining the quality of water in Marlborough's coastal waters, rivers, lakes, wetlands and aquifers is essential. Water is also of considerable importance to Marlborough's tangata whenua iwi.

Water quality can be adversely affected by discharges of contaminants resulting from human activities on land or water. Contaminants have the ability to change the physical, chemical or biological condition of the water. There are two types of contaminant discharge that can affect water quality: 'point source' discharges (those that enter water at a definable point, often through a pipe or drain) and 'non-point source' discharges (those that enter water from a diffuse source, such as land run-off or infiltration through soils). The generally good state of water quality in Marlborough reflects the low number of point source discharges into waterbodies and coastal waters, good land management practices and lack of intensive land uses that can impact on water quality (e.g. dairying). However, there is always the potential that point source and/or non-point source discharges will occur and adversely affect the life supporting capacity and community use of Marlborough's rivers, lakes, wetlands, aquifers and coastal waters.

The provisions for water quality included within Chapter 15 are based on three issues:

*Issue 15A – The discharge of contaminants to water can adversely affect the life supporting capacity and the community's use of Marlborough's coastal waters, rivers, lakes, wetlands and aquifers.*

- The main threats to fresh and coastal water quality in Marlborough are from the point source or non-point source discharge of:
  - treated sewage from municipal, commercial or residential activities;
  - urban stormwater, including contaminants from carparks, service stations and roads;
  - industrial and trade stormwater;
  - contaminants from maritime activities (e.g. human sewage and oily bilge water from vessels, boat building/maintenance and potentially feed discharged to water for fin-fish marine farming operations);
  - sediment-laden water from land disturbance activities;
  - point source and non-point source contaminants from rural activities (e.g. stock effluent, sediment, fertilisers and agrichemicals);
  - agricultural waste to land in close proximity to fresh and coastal waters (e.g. winery, vegetable processing, domestic wastewater and dairy shed effluent);
  - sediment from river bed disturbance;
  - contaminants from water abstraction activities (e.g. intrusion of seawater into freshwater systems); and
  - naturally occurring contaminants (e.g. salt, iron, arsenic and bacteria from feral animals faeces).
- Combinations of the threats described above can occur within the same catchment, creating the potential for cumulative adverse effects on freshwater and coastal water quality. In addition, some coastal waters and waterbodies are more susceptible to water quality degradation than others. For example, the enclosed nature of the coastal waters in the Marlborough Sounds renders this environment particularly sensitive to contamination, as dilution and tidal flushing is limited. Unmodified rivers, lakes and wetlands are also particularly vulnerable to the discharge of contaminants. Other coastal waters or waterbodies may have significant values that warrant special protection.

*Issue 15B – Water quality in some of Marlborough's rivers has already been degraded, to the extent that their ability to support aquatic ecosystems and/or contact recreation has been compromised.*

- Monitoring through the Council's state of the environment programme has established that water quality has become degraded or is at risk of degradation in a number of rivers and aquatic ecosystems in Marlborough. Increasing nutrient, sediment and bacteria levels are indicative of the impact of point source and non-point source discharge to rivers. These discharges have reduced the ability of the rivers to safely support primary contact recreation (i.e. swimming) and aquatic ecosystems. This is a significant concern given the contribution that water-based recreation makes to community wellbeing and the intrinsic values of aquatic ecosystems.

*Issue 15C – The mauri of wai (water) has been degraded due to the lack of understanding about its spiritual significance.*

- Mauri is the term used by Marlborough's tangata whenua iwi to describe the cultural concept that all natural resources have a lifeforce. This lifeforce (called wairua) is derived from the physical attributes of the resource as well as the spiritual association iwi have with natural resources. Water is considered to be particularly significant to iwi in this regard, as it sustains all life.

- Marlborough's tangata whenua iwi feel that there is a lack of understanding in the community and by decision makers that water has wairua. It is their view that land and water are currently used and managed in ways that do not recognise the spiritual significance of the resource. As a result, the point and non-point source discharge of contaminants to fresh and coastal water have adversely affected the mauri of water. Of particular concern is the impact of degraded water quality on the ability of each iwi to support traditional uses and values. Given the whakapapa link between Māori and water, waterbodies with poor or deteriorated quality are therefore a reflection of the health of the tangata whenua. Marlborough's tangata whenua iwi wish to avoid making any waterbody waimate (where water quality becomes so degraded that it loses its mauri).

## Statutory obligations

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In achieving the sustainable management purpose set out in Section 5 of the RMA, the Council is required to:

- sustain the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations;
- safeguard the life-supporting capacity of air, water, soil, and ecosystems; and
- avoiding, remedying, or mitigating any adverse effects of activities on the environment.

All of these matters have relevance for water quality. Furthermore, Section 6 matters of relevance to be recognised and provided for as a matter of national importance include Section 6(a), in which the natural character of the coastal environment, wetlands, lakes and rivers and their margins are to be preserved and protected from inappropriate subdivision, use and development and Section 6(e), where the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga are to be recognised and provided for. There is the potential for Section 6(c) to be of relevance if, in the context of freshwater or coastal water environments, there are habitats of indigenous flora and fauna that may be affected by poor water quality.

While Section 7 matters do not specifically refer to water quality, many of the matters to which regard must be had are important considerations in the management of water quality in Marlborough. For example, Section 7(c), which states that the maintenance and enhancement of amenity values is important as many people value the generally good state of Marlborough's water resources for recreational use. Similarly, Section 7(aa) (the ethic of stewardship) and Section 7(f) (the maintenance and enhancement of the quality of the environment) are important in managing water resources.

Sections 30 and 31 of the RMA set out a range of statutory functions for the Council that enable it to establish management frameworks in response to the identified issues. This includes Section 30(1)(c)(ii) regarding the use of land for the purpose of maintaining and enhancing water quality both in freshwater and coastal water environments. There are also specific functions in relation to controlling the discharge of contaminants to water.

Local authorities must give effect to relevant provisions of national policy statements in planning documents and regulations setting national environmental standards. There are two national policy statements and one national environmental standard relevant to water quality.

### National Policy Statement for Freshwater Management 2014

In 2011, the Government introduced the NPSFM to require regions to maintain or improve water quality. The NPSFM was updated in 2014 to require regional councils to account for all water takes and sources of contaminants. It sets national minimum acceptable standards of water quality for ecosystem and human health.

The start of the NPSFM includes a statement that recognises the national significance of freshwater and Te Mana o te Wai. For the purposes of the NPSFM, Te Mana o te Wai represents the innate relationship between te hauora o te wai (the health and mauri of water) and te hauora o te taiao (the health and mauri of the environment) and their ability to support each other while sustaining te hauora o te tāngata (the health and mauri of the people). The recognition and expression of the national significance of freshwater and Te Mana o te Wai is reflected in the national values contained in Appendix 1 of the NPSFM. The national values incorporate tāngata whenua values at a high level and



the National Objectives Framework (NOF) process set out in Policy CA2 allows for regional flexibility in the way tāngata whenua values are defined and expressed by each iwi and hapū.

The Ministry for the Environment identifies that in relation to water quality, the NPSFM directs regional councils to:

- safeguard freshwater's life supporting capacity, ecosystem processes and indigenous species, including their associated ecosystems;
- manage freshwater bodies so people's health is safeguarded;
- maintain or improve the overall quality of freshwater within a region;
- protect the significant values of wetlands and outstanding freshwater bodies;
- set freshwater objectives according to a specified process (the national objectives framework) to meet community and tāngata whenua values, which include the compulsory values of ecosystem health and human health for recreation;
- use a specified set of water quality measures (attributes) to set the freshwater objectives (an objective can only be set below national bottom lines in specified circumstances);
- set limits which allow freshwater objectives to be met (e.g. a total catchment contaminant-load or a total rate of water take);
- put in place measures to account for water takes and sources of contaminants and monitor achievement towards meeting objectives;
- take a more integrated approach to managing freshwater and coastal water; and
- fully implement the National Policy Statement by 2025.

Effectively, the NPSFM sets national bottom lines to achieve the two compulsory values (ecosystem health and human health for recreation). No council is able to set a freshwater objective below a national bottom line and water quality cannot be allowed to degrade across a region. Any decision to allow water in a particular waterbody to decline would require a comparable improvement elsewhere. This must be decided through the development of a regional plan under the First Schedule process of the RMA, which means that communities will be involved in any proposals involving changes to water quality.

#### *National objectives framework*

A new section, CA, was inserted into the NPSFM 2014 to introduce a National Objectives Framework. The intent of the provisions is to support and guide the setting of water quality and quantity objectives. The framework includes a choice of national values for freshwater and sets out attributes (or measurable characteristics) to be managed for each of the values.

The NPSFM establishes two compulsory national values: ecosystem health and secondary contact recreation. There are a total of nine attributes proposed for the two values:

- phytoplankton, total nitrogen and total phosphorus for ecosystem health of lakes;
- periphyton and nitrate toxicity for ecosystem health of rivers;
- ammonia toxicity for ecosystem health of lakes and rivers;
- dissolved oxygen for ecosystem health of rivers below point source discharges; and
- *E. coli* and cyanobacteria for secondary contact recreation in lakes and rivers.

Four states, A to D, are proposed to represent different water quality states for each of the above attributes. Detailed narrative and numeric attribute states are set out for each attribute state within the NPSFM. The Council, in collaboration with the community, has the discretion to determine the appropriate attribute state for each water management unit above the national bottom lines. However, there is still a bottom line objective that requires the overall state of freshwater quality in Marlborough to be maintained or improved.

The National Objectives Framework is helpful in terms of future work to give effect to the NPSFM. In particular, it will assist the setting of water quality objectives by resolving at a national level any

uncertainty around the way in which different waterbody values are measured. The proposal will potentially create savings for the Council as it will no longer have to undertake technical work or defend its science through the First Schedule process of the RMA 1991. In other words, instead of debating the technical detail of how a value is measured, the focus can be on the way in which the community values the water resource.

Given the requirements of Objective A2 of the NPSFM (to maintain or improve overall water quality), cumulative limits will have to be established to maintain an attribute state of A for most of Marlborough's rivers. The Council is currently scoping the technical investigations that may be required to enable the establishment of cumulative contaminant limits.

The NPSFM requires every regional council and unitary authority to implement the NPSFM as promptly as is reasonable in the circumstances. For the most part, the Council has given effect to the provisions of the NPSFM through the review process. However, the requirements of Policy A1 are such that it will take some time to gather this information. The Council therefore adopted a staged implementation programme towards establishing cumulative contaminant limits as required by Policy A1. The programme of staged implementation was adopted by the Council in November 2012 and will see the investigations and plan changes (if necessary) completed by June 2024.

### **New Zealand Coastal Policy Statement 2010**

The NZCPS contains policies in relation to water quality in the coastal environment (which includes a portion of the freshwater environment). The NPSFM and the NZCPS overlap in the freshwater portion of the coastal environment. The NPSFM requires councils to have regard to the connections between freshwater and coastal water when preparing regional plans.

For the NZCPS, poor water quality is identified as contributing to a continuing decline in species, habitats and ecosystems in the coastal environment, often as a consequence of point and non-point sources of contamination, including stormwater and wastewater discharges. The adverse effects of poor water quality on aquatic life and opportunities for marine farming, mahinga kai gathering and recreational uses such as swimming and kayaking are also identified as key issues facing the coastal environment.

Objective 1 requires coastal water quality to be maintained and, where it has deteriorated from what would otherwise be its natural condition, enhanced to help safeguard the integrity, form, functioning and resilience of the coastal environment. Several policies include water quality as a matter that must be considered in giving effect to the NZCPS, including for marine farming, reclamations, integration with land use activities and the discharge of contaminants.

Policy 21 is relevant as it requires that priority is given to improving water quality in the coastal environment where it has deteriorated to the point of having significant adverse effects on ecosystems, natural habitats or water-based recreational activities or where it restricts existing uses such as marine farming, shellfish gathering, and cultural activities. A range of means on how this can be achieved is included within the policy.

### **National Environmental Standard for Sources of Human Drinking Water 2008**

The purpose of the National Environmental Standard for Sources of Human Drinking Water (NES) is to reduce the risk of human drinking water sources becoming contaminated. This includes sources that are a natural waterbody such as a lakes, rivers or groundwater used to supply a community with drinking water. The standard applies to source water before it is treated and only to sources used to supply human drinking water (that is, not drinking water for stock or other animals). This standard complements Ministry of Health legislation for improving drinking water supply and delivery and ensures a comprehensive approach to managing drinking water from source to tap.

The NES requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and regional plans. Specifically, regional councils are required to:

- decline discharge or water permits that are likely to result in community drinking water becoming unsafe for human consumption following existing treatment;

- be satisfied that permitted activities in regional plans will not result in community drinking water supplies being unsafe for human consumption following existing treatment; and
- place conditions on relevant resource consents that require notification of drinking water suppliers if significant unintended events occur (e.g. spills) that may adversely affect sources of human drinking water.

A database of registered drinking water sources was established in 2009 to assist with the implementation of the NES. This is referred to in regulations 4 and 5 of the NES. Rules have been included within the MEP in response to these registered drinking water supplies.

### **Other matters**

Included within each deed forming part of the Te Tau Ihu Claims Settlement Act (2014) is provision for the establishment of a River and Freshwater Advisory Committee. The Advisory Committee will provide a foundation for the participation of iwi with interests in Te Tau Ihu in the management of rivers and freshwater in Marlborough, Tasman and Nelson. The Advisory Committee is intended to work in a collaborative manner with the common purpose of promoting the health and wellbeing of the rivers and freshwater within the jurisdiction of the relevant councils.

## **Information and analysis**

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A number of investigations and monitoring activities have helped to inform the review of water quality provisions, including state of the environment monitoring and compliance monitoring investigations. An overview of some of these is provided below. Reports relevant in this regard are available on the Council's website.

### **State of the environment monitoring**

The Council undertakes annual monitoring of surface water, groundwater and coastal water. The results of this monitoring are reported to the Council's Environment Committee and copies of reports are available on the Council's website. The results of this monitoring have to some extent influenced the nature of the provisions (policy and rules) that have been included in the MEP.

#### *Surface water*

The Council monitors surface water quality in streams and rivers throughout Marlborough as part of its functions for monitoring the state of the environment under Section 35 of the RMA. The monitored waterways cover a broad range of catchment types and developments, from pristine native bush catchments to predominantly urbanised catchments. Monitoring consists of monthly measurements of physical and chemical parameters at 34 sites. The monitoring is usually carried out as close to the bottom of each catchment as possible to allow the assessment of the cumulative effects of land use and uses of surface water resources. This programme was established in February 2007, when 18 sites were monitored. Since then, the number has increased to 34 to better reflect the diversity of catchments and catchment pressures in the District.

The Council uses the Canadian Water Quality Index (CCME WQI) for the reporting of surface water quality. Based on guideline values, the CCME WQI combines a wide array of data and information into a single figure, allowing an easy comparison of the water quality in different streams and rivers. These guidelines were chosen based on the protection of aquatic life and recreational uses of the waterbody; however, it has been taken into consideration that most sampling sites are at the bottom of the catchment and that a certain degree of water quality deterioration will occur naturally.

#### *Groundwater*

To identify groundwater quality issues and potential threats, and to improve understanding of aquifer processes, the Council and its predecessors have actively monitored groundwater quality using various methods since the 1970s. The programme has evolved over time to reflect the issues of the day and monitoring resources or staff levels. Major reviews occurred in 1998 when Marlborough joined the national groundwater monitoring programme and again in 2004 when the programme standards were incorporated across all sites and the network was enlarged to its current size.

The core component of the programme (reported on each year) compares groundwater quality to national and local standards. This ranks a waterbody's suitability for various uses and tracks changes

from year to year. Every five years a more detailed assessment is made to determine whether groundwater quality is improving, deteriorating or staying the same, along with the possible causes. Monitoring involves the collection of groundwater samples from a network of 34 wells chosen to represent the main water supply aquifers, determining vulnerability to pollution and identifying the type of overlying land-use.

#### *Coastal water*

Prior to July 2011, monitoring in the coastal environment was limited to measuring bacteria levels at a number of beaches widely used for contact recreation activities. Shellfish were also analysed for bacteria to assess against shellfish gathering standards. Both of these programmes look at only one aspect of the marine environment: namely, bacteria contamination and its impact on contact recreation. These programmes are ongoing.

In 2011 the Council initiated a regular water quality monitoring programme for Queen Charlotte Sound and Tory Channel, encompassing five stations in total. From July 2012, this was extended to include Pelorus Sound (a further seven stations) and in 2014 a single site was added in Port Gore. The information gathered through this monitoring helps to inform other parts of the Council's coastal monitoring strategy, including for the development and validation of hydrodynamic models, baseline water quality data to assess the current state of coastal waters and long-term monitoring to inform the anticipated environmental results to be included in the MEP.

### **Assessing the state of the environment monitoring results against the NPSFM**

The NPSFM defines numerical ranges for four states or bands for a number of compulsory water quality attributes based on ecosystem health and recreational values. State 'A' represents best water quality, while state 'D' characterises unacceptable water quality. The NPSFM requires that attribute limits are set for all waterways within a region, which are monitored at representative sites. Attributes relevant to rivers and streams in Marlborough are nitrate-nitrogen, ammonia-nitrogen, periphyton and *E. coli*. Of these attributes, all but periphyton are currently monitored on a monthly basis as part of the state of the environment monitoring programme. To assist in the implementation of NPSFM requirements for the MEP, the attribute states for Marlborough's currently monitored waterways were determined for the years 2011, 2012, 2013 and 2014.

As previously explained, the CCME WQI has been used by the Council for the reporting of the state of water quality in Marlborough since 2013. This index incorporates nine parameters from three consecutive years of monitoring. The index ranges from 0-100 and allows the categorisation of sites into quality classes: excellent, good, fair, marginal and poor. The broad range of parameters used for the calculation of the CCME WQI means that it covers a greater range of water quality-related issues than the NPSFM. Therefore, in using the CCME WQI a greater number of waterbodies have been identified as requiring improvements in water quality when compared with the waterbodies identified through Objectives 5.1b to 5.1e, which are based on the attribute limits of the NPSFM.

### **Review of classifications and standards for freshwater and coastal water**

Currently the MSRMP and WARMP contain water quality standards based on Schedule 3 of the RMA, in which there are 11 water quality classes: water managed for the purposes of aquatic ecosystems; fisheries; fish spawning; edible shellfish gathering or cultivating; contact recreation; human drinking water supply; irrigation; industrial abstraction; natural water value; aesthetic values; and cultural values. Schedule 3 also defines a suite of narrative or numerical water quality standards for each class.

Since the MSRMP and WARMP were prepared and became operative, there have been advances in the practices used to assess water quality in freshwater. These advances have generally improved the numerical interpretation of attributes, making it easier to assess water quality. For coastal waters, the current resource management plans classify all water as managed for shellfish gathering. However, other uses of the coastal marine area may have different requirements for water quality standards, depending on which part of the District they are in.

For both freshwater and coastal waters, the Council has reconsidered the existing water quality classifications and the most appropriate methods for monitoring the standards within these classifications. This information has been used in the review and the outcomes are now included within Schedule 5 of Volume 3 of the MEP.

### **Recreational bathing water quality**

A number of freshwater and coastal water bathing sites are routinely monitored throughout Marlborough during the summer period. At present, 13 coastal beaches and nine river sites are monitored, with weekly samples taken from the beginning of November until the end of March and analysed for faecal indicator bacteria. Results are assessed according to national guidelines published by the Ministry for the Environment to evaluate the risk from disease-causing bacteria, viruses and protozoa.

The recreational water quality programme is exclusively focussed on health-based risks associated with faecal contamination and results do not reflect the general water quality of a site, the presence of toxic algae or other risks associated with a site (such as high water flows or strong currents). Despite this, the results may help to highlight localised issues, including runoff from land during heavy rain containing high bacteria numbers.

### **Identification of groundwater protection areas**

Groundwater supply wells provide water to many large communities in Marlborough as well as commercial and industrial activities. The water abstracted from these wells is vulnerable to contamination from discharges that occur in the immediate vicinity of the wells and surrounding areas from which the groundwater is drawn. The risk of contamination of these supply wells can be reduced by the development of Groundwater Protection Areas (GPAs) around each well and by imposing controls on activities within these areas. GPAs mark the area within which contaminants could migrate into the wells at concentrations that may adversely affect the quality of water drawn from the well. GPAs will be specifically identified and mapped in the MEP.

The identification of GPAs and the determination of their boundaries have been completed for the Council predominantly by Pattle Delamore Partners Limited. There has also been input from the Council's Environmental Science and Monitoring Department.

### **Stock crossings through streams in rural areas**

Dairy farming is an important agricultural land use in some parts of Marlborough. Areas with higher rainfall, such as the Rai and Pelorus River valleys, Linkwater, Koromiko and Tuamarina have traditionally supported significant dairy farming activity. Monitoring of water quality in these catchments has regularly shown high sediment, bacteria and nitrate levels. Community concerns were raised about water quality in the Rai River and tributaries in the late 1990s. At times, bacteria levels were so high that the Rai River could not safely be used for contact recreation such as swimming and kayaking.

The monitoring established strong links between dairy farming and degraded water quality. Contaminant levels were high during the eight to nine months of the milking season, but still occurred during dry periods (when there was little run-off). As the herds walk through the waterways, they disturb the substrate resulting in the release of sediment into the water. Individual animals are also more likely to defecate/urinate in the stream than on the race, resulting in the release of bacteria and nutrients into water.

The Council felt it was necessary to take action and subsequently instigated a programme of eliminating all stock crossings in an effort to enhance water quality. A Council survey of all dairy farming properties in the Rai River catchment in 2003 identified 112 dairy herd stream crossings. The crossings were prioritised in terms of their impact on water quality and Council staff negotiated an agreement with affected farmers to eliminate the most significant crossings. Since 2003 a stream crossing survey is completed yearly in conjunction with the annual dairy effluent survey for all dairy farms in Marlborough to determine the number of remaining stream crossings. In general, crossings have been eliminated through the installation of bridges and culverts or by altering access routes and raceways. The total number of stream crossings has significantly declined in Marlborough, from 229 in 2003 to 34 in 2015.

While it was initially envisioned that all stream crossings would be eliminated and that fencing would be completed by the end of December 2013, dairy survey findings for 2014/2015 established that the remaining 34 stream crossings occur on just 13 farms, one of which has 11 crossings not eliminated. Two existing crossings are high priority and 32 are low priority. While these crossings remain to be eliminated, the success of the programme to date has been due in no small part to the cooperation of

the farming community. However, the Council has decided to include rules in the MEP that effectively prohibit the continued use of the remaining stock crossings in an effort to continue to improve water quality in the affected catchments. A delay in the introduction of the rule has been included to allow farmers to eliminate the remaining crossings.

While dairy farm numbers have not grown in Marlborough in recent years, the Council is well aware that other regions of New Zealand have seen significant increases in dairy herd numbers. A change to this more intensive farming in Marlborough could have significant implications for freshwater resources, especially groundwater resources on the Wairau Plain. In 2013 the Council therefore introduced a change to the WARMP and MSRMP to require a resource consent for conversion of land to dairy farming.

In addition, with the NPSFM requiring councils to set cumulative limits for water quality and as the Council has decided on a staged approach to implementing the NPSFM, the dairy farm plan changes were part of that approach. Through these changes the Council aims to avoid degradation of waterways by focussing on dairy farming at the time of development, rather than potential remediation of water resources after damage has occurred. The Council has included the same resource consent requirement in the MEP for dairy conversions.

### **Natural character of the Marlborough coast**

With the specific direction in Policy 13 of the NZCPS to map or otherwise identify at least areas of high natural character, the Council commissioned a technical assessment of natural character values in Marlborough's coastal environment. This was undertaken by Boffa Miskell, with input from Lucas Associates, Landcare Research, the Department of Conservation and the Council. The resulting publication, *Natural Character of the Marlborough Coast – Defining and Mapping the Marlborough Coastal Environment June 2014*, assesses natural character values at different scales, from district to individual bay level. At the more detailed assessment level, the abiotic systems and landforms, biotic systems and experiential attributes were assessed. It is acknowledged that water quality is an important component of abiotic systems, both within freshwater and coastal water.

Areas with high, very high and outstanding natural character values have been mapped. The areas mapped and the descriptions of the key values that contribute to significant natural character are included within the MEP. The level of information proposed for the MEP will help both resource users and those making decisions on consent applications to determine whether an activity may have an adverse effect on natural character values, including in part on water quality.

### **The natural character of selected Marlborough rivers and their margins**

Unlike the coastal environment, there is no statutory requirement for local authorities to determine the degree of natural character of a region or district's rivers. However, there is direction through Section 6(a) of the RMA to preserve the natural character of rivers and their margins and to protect them from inappropriate subdivision, use and development.

In 2009 the Council was involved in a study co-funded by the Foundation for Research Science and Technology (FRST) which examined the values of rivers. The FRST study was a nationwide research programme, analysing different aspects of river values, including rivers in Marlborough. Representative samples of the different types of waterbodies in Marlborough were assessed. This included identifying the diversity of smaller streams and rivers, for example in the Marlborough Sounds and within the drier mountainous environments in the south of the District.

Attributes relating to the natural character of rivers were broadly clustered around three components: a river's morphology (namely the river channel), the riparian edge and the wider landscape context. Within these broad attributes, a set of eight attributes were developed for assessment, with water quality considered in relation to a river's morphology.

A five-point scale was used to rank each primary attribute's degree of natural character on a continuum, from (1) heavily modified to (5) overwhelmingly natural, based on natural elements, natural patterns and processes: the higher the rating, the greater the contribution that specific attribute makes to natural character. The report includes the scores for the 39 river/river segments assessed, with a possible total score of 40. Assessment scores for the rivers ranged from 16 and 17 for the Ōpaoa Loop and Tuamarina Rivers (respectively) to 40 for the Goulter River.

## 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 3 of the MEP. This assessment includes values such as ecological, habitat and natural character.

## Identifying soils at risk

Throughout the review the nature of Marlborough's soils has been considered, including whether some types may be at risk of contamination depending on the activities that occur on them. Subsequently, investigations have been carried out and some high risk soils have been identified. From these assessments the Council has produced a Soil Sensitive Area map that identifies three soil types within Marlborough as high risk: free-draining, impeded and loess. (This map is provided as an overlay in the MEP.)

Free-draining soils are considered high risk because they are located over an underlying shallow, unconfined aquifer and so discharges onto these soils could result in groundwater contamination. The Soil Sensitive Area map will be used to prevent certain activities occurring on these free-draining soil types unless resource consent is granted. Through the consent process, an assessment will be made as to whether it is appropriate for an activity to occur on a particular soil type.

## Stormwater strategy

Stormwater management in Blenheim is a critical challenge for the town, both currently and in terms of potential future growth. Many challenges are created by the flat topography and unique and sensitive receiving environments of the area. Because of this vulnerability, a stormwater strategy has been developed with the purpose of guiding the Council and others in making decisions on the future management of the urban stormwater system within Blenheim. The strategy aims to deliver improved water quality in the receiving environments of the rivers and streams that run through Blenheim and improved stormwater outcomes for the community from a stormwater quantity (flooding) perspective.

This strategy has a number of goals, policies and actions, including an initial identification of a range of issues, both at generic and catchment levels. Stormwater management areas have been identified to assist in managing stormwater and developing priorities.

## Joint project with Department of Conservation

Together the Department of Conservation (DOC) and the Council undertook a project to identify a community vision for the Marlborough Sounds. This was termed the Marlborough Sounds Outcomes for Places Project and aimed to help in the review of the Nelson/Marlborough Conservation Management Strategy (CMS)<sup>3</sup> and regional policy statement. The project was run with guidance from the Marlborough Sounds Advisory Group and involved a series of four interactive, participatory workshops/hui. The purpose of the project was to define a collective community vision for the Marlborough Sounds as an important first step in setting objectives for the management of the Sounds. The hope was that if the CMS and regional policy statement shared a common community vision, then that vision would be much more likely to be realised.

The workshops/hui were designed to build upon the responses the Council had received to discussion papers prepared for the review. Participants were asked to consider:

- the factors that make the Sounds special and/or what they valued;
- the elements of the Sounds that are at risk and the factors contributing to that risk; and
- how the Sounds should look in 50 years' time and what is necessary to achieve that vision.

Participants were asked to consider specific activities, including residential development, pastoral farming, marine farming, commercial forestry, tourist facilities and public facilities for access and

<sup>3</sup> The Nelson/Marlborough Conservation Management Strategy was prepared by the Department of Conservation under the Conservation Act 1987, establishing objectives for the integrated management of the natural and historic resources managed by the Department.

recreation. The outcomes from the project were used in the process of developing new policy for the Council's resource management framework, including confirming the various qualities contributing to the overall importance of the Marlborough Sounds to Marlborough as a whole. Water quality (both freshwater and coastal water) was identified by a number of participants as making the Sounds special and/or that they valued good water quality. It was also stated that water quality in the Marlborough Sounds was at risk from dairy farming, subdivision, freedom campers, land disturbance (including from forestry), septic tanks, biosecurity incursions, use of chemicals, a depletion of plankton and other microorganisms in the water column (from mussel farms) and boat discharges.

## Consultation

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### Early consultation

In 2006, the first round of consultation was initially undertaken 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 find out 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 reduced water quality in freshwater and coastal water, adverse effects from point source and non-point source discharges and the vulnerability of groundwater to leaching of contaminants.

Respondents identified a need for higher standards of effluent disposal and a requirement for existing waste water/sewage systems to be upgraded within a specified timeframe to protect Marlborough Sounds' water quality. It was suggested that fines be imposed for continued non-compliance with discharge standards. However, it was also stated that conditions for the treatment of wastewater should be realistic and practical, taking into account factors such as infrequent occupancy of dwellings in the Sounds. One respondent noted that the Council appeared to be concerned with the standard of septic tanks and their installation, yet did not control discharges from boats without holding tanks operating in the Marlborough Sounds.

Despite protection of water ecosystems being a current issue in the MRPS, one respondent believed that continuing significant damage is being inflicted upon coastal environments, for example where leachate from log loading operations discharges directly into the Havelock estuary.

While respondents acknowledged the importance of managing water quality for recreational use and amenity values, more were focussed on ensuring the protection of water quality for drinking water supplies, particularly in Rarangi, Picton, Awatere and in Sounds streams, as well as how water becomes contaminated.

Respondents suggested the following methods to address concerns about water quality:

- education of landowners about freshwater use and storage;
- prohibition of cats and dogs from the Sounds environment and extermination of possums, ferrets, stoats, goats and pigs;
- provision of potable water at the time of subdivision development; and
- continued monitoring of water quality, with landowners being encouraged in their land management practices to ensure that water quality is maintained.

Following this initial consultation, a series of discussion papers were prepared by the Council and released for public feedback in late 2007. Two discussion papers included issues surrounding water quality: *Discussion Paper 4: The Future of the Marlborough Sounds* and *Discussion Paper 6: Water Quality*.

For *Discussion Paper 4*, which set out issues for the future of the Marlborough Sounds, 72 responses from individuals, iwi, industry, residents and environmental groups were received. This was the greatest number of responses of any of the discussion papers/overviews. The main issue in which water quality issues were highlighted was in relation to the reliance of on-site wastewater management systems for residential development. The feedback noted the following:



- Regarding the value placed on coastal water quality in the Marlborough Sounds, it was agreed that reliance upon on-site wastewater management systems for residential development is a regionally significant issue.
- Several respondents acknowledged the role that Plan Change 7 to the MSRMP had played in improving the standard of design and installation of new on-site systems. Other respondents encouraged the Council to continue using up-to-date technology to determine appropriate on-site systems. However, concern was still evident regarding the effect of existing on-site systems on coastal water quality.
- Several responses stressed the importance of education in ensuring that the necessary maintenance of on-site systems occurs. One respondent suggested this was very important when considering the high rate of turnover in property ownership in the Marlborough Sounds. Several respondents highlighted the need to make maintenance easier by finding a simpler way of removing and disposing of septic tank sludge.
- Other respondents did not believe that a voluntary approach would be sufficient to improve on-site system performance and called for an inspection regime to be implemented.
- The requirement to consider the capacity of the existing on-site wastewater management system when upgrading baches and holiday homes attracted positive feedback.
- Most respondents believed that the Council should require the establishment of community schemes, as opposed to on-site systems, especially for subdivisions and larger residential developments. Others stated that the likely effectiveness of on-site systems should be the overriding factor in determining the scale and density of residential subdivision. It was suggested that the regional policy statement should state that residential activity can only occur where it is practically possible to service the properties.
- There was support for ongoing monitoring of coastal water quality in densely populated bays.

In total, 54 responses were received from individuals, iwi, industry and environmental groups on *Discussion Paper 6*. Eight issues were identified in the paper and feedback noted the following.

On the issue of sustaining the quality of water in our rivers, streams, lakes and coastal areas:

- There was overwhelming agreement amongst respondents that clean water should be protected for current and future generations. The threat to recreational and cultural uses posed by degraded water quality appeared to be of greatest concern, though a number of people also highlighted that degraded water quality will adversely affect ecological values.
- Several groups argued that the regional policy statement should recognise that commercial uses of water also rely on good water quality; for example, marine farming and hydro-electricity generation. Other respondents were concerned about the impact degraded water quality would have on Marlborough's image, citing the negative impact that "*Not safe for swimming*" signs at beaches and on the banks of the Taylor River has had.
- There was overwhelming support that an objective of maintaining and enhancing water quality in Marlborough's fresh and coastal waters be included in the regional policy statement. Similarly, there was strong support for ongoing monitoring of water quality, individual discharges and/or compliance with resource consent conditions. However, some respondents argued that education and publicity would be more effective than regulation.
- There was also strong support for improving water quality where it has already been degraded. Several people argued that any plan to improve water quality must be comprehensive and target all causes of degraded water quality.

On issues associated with point source discharges, the majority of respondents supported working toward the elimination of all point source discharges to water as an objective or expressed a strong preference for discharge into an alternative receiving environment. Other comments included:

## Section 32: Chapter 15 – Water Quality

- The regional policy statement should include recognition that the discharge of community wastewater and sewage into fresh and coastal water is no longer acceptable or sustainable. Respondents understood that such an objective could not be achieved instantly and would be dependent upon technological advances. Others agreed with a suggestion in the discussion paper to review water quality standards, but also sought to extend the standards to apply to the quality of the discharge as well as to the ability of the receiving environment to cope with it.
- There was some support for the regional policy statement to recognise the importance of municipal discharges, as these act to protect the health and safety of the community. However, that support was conditional on recognising that the adverse effects on receiving waters should be minimised. There was strong support for a policy either encouraging or requiring the use of alternative disposal methods, especially land-based methods. A popular view was that water must be treated as a precious commodity and as such, that sewage should be considered as a resource that can be reused.

There was agreement amongst respondents that urban stormwater discharges are a significant issue for Marlborough and that consequently there is a need to reduce the level of contaminants currently present in stormwater. The following methods for achieving a reduction in the level of contaminants present in stormwater were suggested:

- There should be a higher level of stormwater treatment prior to discharge into rivers and streams. The use of more natural treatment options, such as wetlands and riparian vegetation to act as filters, should be encouraged.
- Regulation of land uses, especially industrial land uses, to decrease the amount of contaminants present in stormwater.
- The use of passive management methods; for example, limits on the amount of impervious surfaces permitted for new developments to reduce the amount of stormwater generated and the potential for it to come into contact with contaminants.
- Ongoing education to prevent illegal dumping into the stormwater system, supported by enforcement where necessary.

There was overwhelming support for a total prohibition on discharges from vessels in the Marlborough Sounds to maintain coastal water quality. This prohibition was suggested to apply to both commercial and recreational vessels that can accommodate people overnight. There was general acceptance that such an approach would need support through a requirement for vessels to have holding tanks and a commitment from the Council (or other interests) to provide pump-out facilities in the Marlborough Sounds. A small number of people considered a prohibition was too extreme, particularly for boats with approved on-board treatment systems. It was also considered that this approach would unfairly target boat owners when there are other discharges currently affecting coastal water quality. It was felt that greater effort should be put into publicising and enforcing the existing regulations rather than creating new ones.

Many respondents agreed that discharges from boat maintenance facilities were a significant issue, as there was the potential for anti-fouling chemicals to be released into the surrounding environment. Many people considered such discharges were unacceptable. There was support for a stricter stance to be taken on this issue.

There was a general level of acceptance that stock crossings have a significant impact on freshwater quality in rural areas. There was support for the suggested methods of dealing with dairy herd stream crossings in the future. There also seemed to be a high level of awareness of the Council's existing initiatives in dairy farming catchments to eliminate dairy herd stream crossings. It was accepted that a similar approach is not required by hill country farmers, although these farmers should also be encouraged to eliminate stream crossings.

The difficulty in managing non-point source discharges arising from land use activities was identified as an issue. The most common concerns highlighted were the grazing of stock next to/within waterbodies and forestry harvesting operations. The feedback on this issue included:

- Several industry groups defended the operations of their members, stating that there were very few intensive farming activities likely to result in water quality problems in Marlborough. Industry also stated that research material comparing the runoff from pasture and forestry catchments has shown that runoff from forested catchments is negligible and considerably less than from a pasture catchment.
- Many people suggested the use of non-regulatory methods to tackle the adverse effects from non-point source discharges, including encouraging appropriate land management practices such as fencing and riparian planting to provide a buffer between land use activities and waterbodies.
- One respondent argued that those companies with a proven environmental record should be able to self-regulate when a best industry approach has been adopted.
- Some respondents expressed concern regarding the increasing density of housing in the Marlborough Sounds and stated that this could adversely affect coastal water quality due to the reliance on on-site wastewater management systems. It was suggested that there should be a policy in the regional policy statement requiring the use of community schemes instead of the traditional reliance on on-site wastewater management systems. It was acknowledged that there may need to be some form of population or allotment threshold for the application of such a policy.

While few responses commented on the vulnerability of groundwater to contaminant leaching, those respondents who did comment supported ongoing monitoring of groundwater quality, especially on the Wairau Plain where it was felt the greatest risks exist due to the intensity of land use and the reliance of the community on groundwater. There was also support for land use activities to be regulated over susceptible aquifers in order to prevent groundwater contamination. Several respondents highlighted the potential for cumulative effects on groundwater quality from many different land uses and suggested that land uses should not be managed in isolation.

Several people expressed concern that the discussion paper had not included an issue on the impact of agricultural use on water quality. The most common concern raised was the use of aquatic herbicides and spraydrift of viticultural sprays. In particular, it was highlighted that the use of aquatic herbicides impedes iwi from exercising customary harvest. One respondent suggested that aerial spraying operations are of concern because they have the potential to pollute otherwise unpolluted streams.

### **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 in developing the provisions as possible to reflect the community's views and to resolve any substantive issues prior to notification. The focus groups that assisted the Council in developing the provisions included the Water, Marine, Practitioners and Rural Focus Groups, Sounds Advisory Group and the Iwi Working Group.

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 water quality, was also released. The water quality provisions attracted more feedback than many of the other provisions. In addition (as explained in the statutory obligations and information sections of this report), the change to the NPSFM in 2014 also had an impact on the later development of the water quality provisions, especially through the national objectives framework set out in the NPSFM.

## Evaluation for Issue 15A

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*Issue 15A – The discharge of contaminants to water can adversely affect the life supporting capacity and the community's use of Marlborough's coastal waters, rivers, lakes, wetlands and aquifers.*

*Issue 15B – Water quality in some of Marlborough's rivers has already been degraded, to the extent that their ability to support aquatic ecosystems and/or contact recreation has been compromised.*

*Issue 15C – The mauri of wai (water) has been degraded due to the lack of understanding about its spiritual significance.*

### Appropriateness of Objective 15.1a

*Objective 15.1a – Maintain and where necessary enhance water quality in Marlborough's rivers, lakes, wetlands, aquifers and coastal waters, so that:*

- (a) the mauri of wai is protected;*
- (b) water quality at beaches is suitable for contact recreation;*
- (c) people can use the coast, rivers, lakes and wetlands for food gathering, cultural, commercial and other purposes;*
- (d) groundwater quality is suitable for drinking;*
- (e) the quality of surface water utilised for community drinking water supply remains suitable for drinking after existing treatment; and*
- (f) coastal waters support healthy ecosystems.*

#### *Relevance*

Marlborough's coastal waters, rivers, lakes, wetlands and aquifers contain a diverse range of natural and human use values and are used extensively by the community. The existing water quality in the majority of our waterbodies is sufficient to support these values, but it is important that no degradation of water quality is allowed to occur. In addition to the national values addressed through Objectives 15.1b to 15.1e, the uses and values identified in (a) to (f) of Objective 15.1a are the most susceptible to water quality degradation and are therefore appropriate water quality outcomes. Providing for these uses and values will, by default, also provide for other uses and values. This objective is therefore very relevant in addressing the three water quality issues identified in 15A to 15C.

In achieving the sustainable management purpose set out in Section 5 of the RMA, the Council is required to:

- sustain the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations;
- safeguard the life-supporting capacity of air, water, soil and ecosystems; and
- avoiding, remedying, or mitigating any adverse effects of activities on the environment.

All of these have relevance to water quality, as do a number of Section 6 and 7 matters which have been set in the statutory obligations section of this evaluation report. Sections 30 and 31 of the RMA set out a range of statutory functions for the Council that enable it to establish management frameworks in response to the identified issues. This includes Section 30(1)(c)(ii) on the use of land for the purpose of maintaining and enhancing water quality both in freshwater and coastal water environments. There are also specific functions in relation to controlling the discharge of contaminants to water.

Objective 15.1a is highly relevant in the context of the direction of the NPSFM and the NZCPS.

#### *Feasibility*

The Council considers there is an acceptable level of risk and uncertainty with this objective. Given the extensive water quality monitoring that has occurred in Marlborough over a number of years, the Council considers it has sufficient and detailed information on which to base the proposed policies and methods that flow from this objective to protect or otherwise maintain and enhance water quality.

Through monitoring, the Council is aware that some rivers have suffered water quality degradation, while others are at risk of degradation. These rivers, identified in Tables 1 and 2 and through Policies 15.1.4 to 15.1.7, provide focus for where water quality must be enhanced. The objective is therefore realistically achievable within the Council's skills, powers and resources. A staged approach to improving water quality (where needed) has been set out in subsequent policy.

#### *Acceptability*

The objective is consistent with both iwi and community outcomes expressed through early consultation and subsequently through the development of the MEP provisions for water quality. Given the reliance that the community places on water resources for a wide range of natural and human use values, it is not considered that the objective will result in unjustifiably high costs on the community or parts of the community.

### **Appropriateness of Objectives 15.1b to 15.1e**

*Objective 15.1b – Maintain or enhance freshwater water quality in each Freshwater Management Unit so that the annual median nitrate concentration is <1 milligram nitrate-nitrogen per litre and the annual 95<sup>th</sup> percentile concentration is <1.5 milligrams nitrate-nitrogen per litre, as measured by the Council's State of the Environment monitoring programme.*

*Objective 15.1c – Maintain freshwater water quality in each Freshwater Management Unit so that the annual median ammonia concentration is <0.03 milligrams ammoniacal nitrogen per litre and the annual maximum concentration is <0.05 milligrams ammoniacal nitrogen per litre, as measured by the Council's State of the Environment monitoring programme.*

*Objective 15.1d – Maintain or enhance freshwater water quality in each Freshwater Management Unit so that the annual median E. coli level is <260 per 100 ml, as measured by the Council's State of the Environment monitoring programme.*

*Objective 15.1e – Maintain or enhance freshwater water quality in waterbodies valued for primary contact recreation so that the 95<sup>th</sup> percentile E. coli level is <540 per 100 ml, as measured by the Council's State of the Environment monitoring programme.*

#### *Relevance*

The relevance of these objectives is the same as for Objective 15.1a. In addition, and most significantly, they provide a direct link with the NPSFM, the requirements of which have been set in the statutory obligations section of this evaluation report.

#### *Feasibility*

The Council considers there is an acceptable level of risk and uncertainty with these objectives and therefore that they are feasible, as most of Marlborough's rivers currently have an attribute state of A. The objectives also identify that where water quality in the freshwater management unit does not currently meet the attribute state of A, then the objective is to enhance water quality to meet this state.

The objectives are realistically able to be achieved within the Council's powers, skills and resources. Through subsequent policy, the Council has set out a programme of staged implementation to be able to gather the information necessary to set cumulative contaminant limits to assist in achieving the objectives.

#### *Acceptability*

The objectives are very specific in reference to attributes to determine either ecosystem health or human health for recreation. These are compulsory attributes specific in the NPSFM. These objectives were developed late in the review in response to the amendment made to the NPSFM in 2014, for which there was widespread support through earlier feedback to the Council to ensure that Marlborough's generally good state of water quality was maintained and enhanced where necessary. This ensures that water resources are healthy enough to support robust ecosystems, recreation and economic use. There was also strong support for maintaining and enhancing water quality in degraded waterbodies through consultation with the Iwi Working Group.

Given the contribution that freshwater and coastal waters make to Marlborough’s social, cultural and economic wellbeing, it is important that water quality is maintained and enhanced. For this reason the objectives are not considered to result in unjustifiably high costs on the community.

## Assessment of provisions to achieve Objectives 15.1a to 15.1e

The following policies collectively seek to achieve Objectives 15.1a to 15.1e.

### Policies 15.1.1 and 15.1.2

Policy 15.1.1 – As a minimum, the quality of freshwater and coastal waters will be managed so that they are suitable for the following purposes:

- (a) Coastal waters: protection of marine ecosystems; potential for contact recreation and food gathering/marine farming; and for cultural and aesthetic purposes;
- (b) Rivers and lakes: protection of aquatic ecosystems; potential for contact recreation; community water supply (where water is already taken for this purpose); and for cultural and aesthetic purposes;
- (c) Groundwater: drinking water supply; and
- (d) Wetlands: protection of aquatic ecosystems and the potential for food gathering.

Policy 15.1.2 – Apply water quality classifications (and water quality standards) to all surface water, groundwater and coastal water resources, which reflect:

- (a) the management purposes specified in Policy 15.1.1; and
- (b) other uses and values supported by the waterbody or coastal waters; or
- (c) where water quality has already been degraded, the uses and values that are to be restored.

### Benefits

The policies establish a minimum expectation of water quality in Marlborough’s rivers, lakes, wetlands, aquifers and coastal waters, which will be primarily implemented through the application of water quality classifications, against which the impact of point source discharges on water quality can be assessed.

These water quality classifications and standards reflect the community’s expectations that contact recreation and/or food gathering should always be able to be undertaken safely in fresh and coastal waters. This makes a significant contribution to social, cultural, economic and environmental wellbeing. The water quality classifications and standards described here provide clarity for the resource user and guidance for the decision maker about what is to be managed in the different waterbodies. In particular, these water quality classifications provide the basis for using different levels of control through the rules to enable protection of the water resources.

### Costs

Resource consent will be required to undertake activities where water quality standards are not met, leading to costs to resource users. Furthermore, the aspirations of some resource users may not be met if they are unable to undertake the desired activity because the water quality standards set through these policies and provisions cannot be met. However, given the emphasis on discharging to land and the general suitability of that environment for discharges, there are currently few discharges to water other than stormwater.

### Efficiency

By implementing a management framework through application of water quality classifications and setting water quality standards, it is likely that the objectives for maintaining or enhancing the quality of Marlborough’s fresh and coastal water resources will be met. This approach will result in the highest net benefit to the community, which will be significantly greater than any cost to the individual or resource user.

### Effectiveness

These policies are effective as the application of water quality classifications will establish a minimum baseline of water quality in Marlborough’s rivers, lakes, wetlands, aquifers and coastal waters that must be met by resource users. This baseline will be used to assess the impact on water quality against permitted activity rules and consideration of resource consent applications. This approach is

used in the current MSRMP and WARMP and has been found to be effective in managing point source discharges.

These policies contribute towards achieving the objectives of maintaining or enhancing water quality and therefore address the issue of reduced water quality (whether potential or actual). Additionally, the policies help give effect to the provisions of the NPSFM and the NZCPS as follows: Policy 15.1.1 gives effect to Policies A1, CA2 and D1 of the NPSFM and Objective 1 and Policies 8 and 21 of the NZCPS; and Policy 15.1.2 gives effect Policies A1 and D1 of the NPSFM.

Not only do these policies set out to maintain water quality in those waterbodies rated ‘good,’ but they also set out to enhance or improve those waterbodies that already have degraded water quality. By applying water quality classifications and water quality standards that must be met, there is greater ability to enhance water quality.

### **Policy 15.1.3**

Policy 15.1.3 – To investigate the capacity of fresh waterbodies to receive contaminants from all sources, having regard to the management purposes established by Policy 15.1.1 in order to establish cumulative contaminant limits by 2024.

#### *Benefits*

This policy ensures that the Council meets the requirements of the NPSFM for setting cumulative contaminant limits. It recognises that the establishment of cumulative contaminant limits is a complex task that requires a good understanding of the relationship between land use and water quality. This policy also recognises that the Council does not hold the resource use and environmental data required to set the cumulative contaminant limits at present. The Council is therefore taking a pragmatic approach in setting a target of 2024 to enable the progressive gathering of necessary information and data to establish cumulative contaminant limits relevant for those waterbodies identified in Policy 15.1.1. This approach has additional benefits, in that by delaying the inclusion of cumulative contaminant limits there is less risk that inappropriate limits will be set.

#### *Costs*

There will be costs to the ratepayer through these Council-lead investigations, which are likely to be comprehensive and extensive, including coastal waters, rivers and lakes, groundwater and wetlands.

There may be environmental costs in using a staged implementation plan for setting limits rather than setting those limits immediately. There is the potential for the quality of a fresh waterbody to become degraded or degrade further during the time it takes to complete the investigations. Given current land use trends in Marlborough’s rural environments, this delay would not appear to be a significant risk. However, it is acknowledged that land use can change quickly.

#### *Efficiency*

The staged investigations into the capacity of fresh waterbodies to receive contaminants from all sources will occur at a high cost, both in terms of staff resources and financial commitment. The NPSFM requires the Council to set cumulative contaminant limits; however, the Council does not currently have the resources and environmental data required to set these limits.

By implementing a staged approach for the investigations through this policy, the cost to the ratepayer will be applied over time and provided through the Annual Plan and Long-Term Plan processes, both of which are open to public scrutiny. In addition, the resulting cumulative contaminant limits will be relevant for those fresh waterbodies investigated. The staged implementation approach for setting these limits over the next eight years is therefore considered the most efficient method to achieve the objective of maintaining and enhancing water quality of Marlborough’s fresh waterbodies.

#### *Effectiveness*

As the Council is required to set cumulative contaminant limits under the NPSFM, this policy ensures that the Council commits to undertaking these investigations into the capacity of fresh waterbodies to receive contaminants from all sources. Staging the investigations over the next eight years will result in the limits being relevant to the fresh waterbody investigated, which in turn will enable targeted management of the waterbody investigated. This policy is therefore very effective in achieving the objective of maintaining or enhancing the water quality of Marlborough’s waterbodies and assists

significantly in helping to address Issue 15B, which identifies that some of Marlborough’s rivers are in a degraded state.

**Policies 15.1.4 to 15.1.7**

<p>Policy 15.1.4 – Take action to enhance water quality in the following rivers to meet Objective 15.1b within ten years of the Marlborough Environment Plan becoming operative:</p> <p>(a) Mill Creek; and (b) Murphys Creek.</p>
<p>Policy 15.1.5 – Take action to enhance water quality in the following rivers to meet Objective 15.1d within ten years of the Marlborough Environment Plan becoming operative:</p> <p>(a) Are Are Creek; (b) Cullens Creek; (c) Doctors Creek; and (d) Kaituna River.</p>
<p>Policy 15.1.6 – Take action to enhance water quality in the following rivers to meet Objective 15.1e within ten years of the Marlborough Environment Plan becoming operative:</p> <p>(a) Taylor River; (b) Rai River; and (c) Waihopai River.</p>
<p>Policy 15.1.7 – Take action to enhance water quality in the rivers identified in Tables 15.1 and 15.2 so that water quality is suitable for the purposes specified in Policy 15.1.1 within ten years of the Marlborough Environment Plan becoming operative.</p>

**Benefits**

It is acknowledged that some waterbodies do not meet the values set in the objectives; the benefit of these policies is that they identify those waterbodies where enhancement is considered necessary. These policies enable prioritisation of resources through the use of catchment enhancement plans and provide a timeframe of ten years for enhancement to be carried out. From a compliance perspective, these policies are very useful in targetting specific areas for which action can be taken to enhance water quality. Furthermore, if these policies are achieved there will be significant environmental and cultural benefits as well as social benefits with regards to the community enjoyment and appreciation of the values of the rivers. In addition, there may be benefits from community involvement in enhancement programmes.

**Costs**

There will be costs for the Council in terms of undertaking investigations and preparing management plans, which can be complicated as state of the environment monitoring may identify water quality problems but not the cause of contamination. Until a contamination source is identified and a catchment enhancement plan is established and approved, it is difficult to determine cost. Any catchment enhancement plan will necessarily involve a funding requirement, which will be considered through future annual plans.

Costs will potentially be incurred by resource users and landowners, depending on the source of contamination and the course of action required to enhance water quality. For example, more carefully regulated land use may be necessary in order to reduce contaminant levels. There may also be a cost to the community through health risks to recreational users; for example, people may not be able to swim safely in some rivers until investigations and remediation measures are undertaken to improve water quality. There is also potential for environmental and cultural costs due to further degradation of already compromised water quality. Under these policies these costs may be felt for up to ten years until investigations and subsequent actions have been carried out.

**Efficiency**

It is difficult to determine whether these policies are efficient, as until investigations are undertaken the source of contamination will not be known and therefore the appropriate actions to enhance water quality cannot be determined. The costs of this are unknown at this stage. Despite this level of



uncertainty, the efficiency of these policies will be determined through individual catchment enhancement plans once the nature of the intervention is confirmed.

### *Effectiveness*

These policies are designed to address Issue 15B in particular in the medium to long-term. Until catchment enhancement plans are in place and subsequent monitoring of the identified waterbodies is undertaken, a determination cannot be made of how effective the policies are in achieving the objectives.

### **Policy 15.1.8**

Policy 15.1.8 – Encourage the discharge of contaminants to land in preference to water.

### *Benefits*

This policy recognises that the land resource is an alternative and preferential receiving environment to water, provided the land is capable of receiving the waste product. By encouraging the discharge of contaminants to land, this policy will result in fewer point source discharges to water. This will assist in addressing Marlborough's tangata whenua iwi's concerns that point source discharges of contaminants to fresh and coastal water have adversely affected the mauri of water.

Despite the preference for discharge of contaminants to land, this policy does acknowledge that not all land discharges are appropriate. There can be natural limitations to the capacity of soils to treat and/or absorb contaminants. Encouraging discharges to land where these limits would be reached may give rise to unsustainable outcomes. Reflecting the integrated nature of the MEP, further guidance for managing the adverse effects of discharging contaminants to land is contained within Chapter - 16 Waste (Volume 1 of the MEP).

### *Costs*

It is difficult to quantify the costs of this policy on an individual basis, as soil types differ in their capacity to treat contaminants. However, the cost is considered neutral because treatment of the contaminant is required prior to the discharge to land or water.

There is a greater environmental cost for the discharge of contaminants to water compared to treatment of contaminants to land, as water does not treat or contain contaminants. Therefore, relative to the potential for adverse effects there is less cost in discharging contaminants to land as the soil profile becomes part of the treatment system.

There is a potential environmental cost in discharging contaminants to soil if the discharge occurs on at-risk soils or is undertaken in such a manner that the soils are unable to treat and/or contain the discharge. This policy is integrated with soil quality policies that address the potential adverse effects of discharges to land in Chapter 16 (Volume 1 of the MEP).

### *Efficiency*

This policy is efficient as discharging contaminants to land will benefit waterbodies and the alternative costs of discharging contaminants to water would be greater. In appropriate situations, there will be considerable environmental, cultural and social benefits from discharges to land.

### *Effectiveness*

This policy helps to achieve the objectives by preferentially discharging contaminants to land instead of water. This approach is currently used in the WARMP (Chapter 6, Policy 6.2.1.2.4), which also encourages the discharge of contaminants to land (where the land is suited to accommodating the discharge). Over the life of the current resource management plans, there have been several examples where discharges into water have been eliminated and consequently very few point source discharges to water remain in Marlborough. For example, most lodges within the Marlborough Sounds now discharge their waste to land.

It could be argued that this policy is unnecessary as most point source discharges to water have been eliminated. However, because land use can change relatively quickly and there is community support for this approach, it is considered that the policy should be retained in the MEP.

**Policy 15.1.9**

Policy 15.1.9 – Enable point source discharge of contaminants or water to water where the discharge will not result:

- (a) in any of the following adverse effects beyond the zone of reasonable mixing:
  - (i) the production of conspicuous oil or grease films, scums, foams or floatable or suspended materials;
  - (ii) any conspicuous change in the colour or significant decrease in the clarity of the receiving waters;
  - (iii) the rendering of freshwater unsuitable for consumption by farm animals;
  - (iv) any significant adverse effect on the growth, reproduction or movement of aquatic life; or
- (b) in the flooding of or damage to another person's property.

**Benefits**

This policy sets criteria for authorising discharges to surface waterbodies or coastal waters as permitted activities. In the absence of a regional rule, these discharges would require a discharge permit. These discharges, provided they meet certain conditions, should not cause any of the adverse effects identified in this policy or Section 70 of the RMA. The matters specified in (a) are the statutory tests for permitted activity rules from Section 70 of the RMA. There is little justification for requiring a discharge permit for an activity that has little or no adverse effects. If state of the environment monitoring indicates that the cumulative effects of permitted activities are adversely affecting water quality, then it is appropriate to review the status of those rules. The main benefit of this policy is that it reinforces the requirements of Section 70 of the RMA.

**Costs**

The costs of this policy are limited to the meeting of standards associated with a permitted activity rule. Significant costs will only be incurred where the standards cannot be met. This approach has been carried through from the current resource management plans so no additional costs arise from its inclusion in the MEP beyond that which already occurs through the MSRMP and WARMP.

**Efficiency**

This policy is considered efficient as it enables point source discharges that cause only minor adverse effects on the environment. As the discharge is provided for as a permitted activity, the costs of meeting the standards should be low.

**Effectiveness**

It is difficult to determine how effective this policy will be in helping to achieve the objectives, as it is not known what permitted activities will be contemplated or undertaken by resource users or landowners. State of the environment monitoring over the life of the current resource management plans has indicated no adverse effects on water quality caused by activities carried out under permitted activity rules. The more detailed investigations to be undertaken under Policy 15.1.3 may highlight issues in some water resource units not previously known; this could potentially have implications for whether the permitted activity approach will continue. However, based on the information the Council currently holds, the permitted activity approach is considered to be effective.

**Policy 15.1.10**

Policy 15.1.10 – Require any applicant applying for a discharge permit that proposes the discharge of contaminants to water to consider all potential receiving environments and adopt the best practicable option, having regard to:

- (a) the nature of the contaminants;
- (b) the relative sensitivity of the receiving environment;
- (c) the financial implications and effects on the environment of each option when compared with the other options; and
- (d) the current state of technical knowledge and the likelihood that each option can be successfully applied.

*Benefits*

Reflecting the preference for discharges to land expressed in Policy 15.1.8, it is important that any applicant requesting a discharge permit to water has thoroughly considered all potential land or water receiving environments. This is the most significant benefit of this policy as the best environmental, social and cultural outcomes are likely. The applicant will have to demonstrate that discharging to water is the best practicable option given the alternative receiving environments available. However, even if the discharge of contaminants to water is the best practicable option, it does not necessarily mean that a discharge permit application will be granted; the remainder of the policies will also be relevant in determining the application.

This policy is neither restrictive nor prescriptive and the applicant has the opportunity to consider a range of options having regard to environmental, technical and financial considerations.

*Costs*

Any costs associated with this policy will be incurred by the applicant who must submit a resource consent application to determine the best practicable option. As costs will be site-specific, it is difficult to quantify the total costs related to this policy. However, the RMA states requirements relating to best practicable option in relation to discharge permits, including some of the matters set out in Policy 15.1.10. Therefore, to a large extent the costs associated with this policy are prescribed by the RMA as necessary.

*Efficiency*

This policy is considered efficient for the same reasons as set out in the costs assessment. The policy is also efficient as it provides the applicant the opportunity to consider a wide range of options, including the costs associated with those options.

*Effectiveness*

The policy helps to achieve the objective of maintaining and enhancing water quality in Marlborough's waterbodies as it requires an assessment of all potential receiving environments and a subsequent determination of the most appropriate environment for the discharge. The policy helps to address Issues 15A and 15C in particular.

**Policy 15.1.11**

Policy 15.1.11 – When considering any discharge permit application for the discharge of contaminants to water, regard will be had to:

- (a) the potential adverse effects of the discharge on spiritual and cultural values of Marlborough's tangata whenua iwi;
- (b) the extent to which contaminants present in the discharge have been removed or reduced through treatment; and
- (c) whether the discharge is of a temporary or short term nature and/or whether the discharge is associated with necessary maintenance work for any regionally significant infrastructure.

*Benefits*

There are three distinct components to the policy, each with different benefits:

Policy 15.1.11(a) is beneficial from a cultural perspective, as iwi have an explicit involvement in the consent application process and iwi values are considered through the decision making process. To protect the mauri of nga wai, it is essential to have regard to the potential adverse effects on the spiritual and cultural values of Marlborough's tangata whenua iwi when considering any discharge permit application for the discharge of contaminants to water. The position of iwi will inform the decision making process about the resources or values of significance to tangata whenua, the potential adverse effects of the discharge on these resources and values, and appropriate measures necessary to avoid, remedy or mitigate any adverse effects.

Policy 15.1.11(b) has the potential for significant environmental benefits through encouraging dischargers to minimise the level of contaminants present in discharges to water. The adverse effects of any discharge upon water quality can depend on the level of contaminants present in the discharge. It is therefore appropriate that decision makers have regard to whether the discharge is treated and

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the extent of treatment. They can use this information to determine whether the applicant has reduced the level of contaminants sufficiently in the context of the actual or potential adverse effects.

The anticipated duration of the discharge and the purpose for which it is undertaken are relevant to the consideration of the adverse effects of any discharge requiring a permit (Policy 15.1.11(c)). This provides some flexibility for decision makers in determining whether resource consent should be granted.

### *Costs*

Costs will be incurred through this policy where resource consent is required for a discharge to water. Such costs are currently already incurred under the MSRMP and WARMP. There may be additional costs associated with providing specific information for the consent process, including a cultural impact assessment and the extent to which contaminants present in the discharge have been removed or reduced through treatment. Until assessments are undertaken, the actual costs involved are uncertain. Costs may also be incurred by the applicant through conditions of consent to address the matters in the policy.

It is likely that the costs to community will be low because of the preference to discharge contaminants to land rather than water.

### *Efficiency*

With regards to (a), there is an element of uncertainty for an applicant as they may be unaware of what values are important to iwi until consultation occurs. However, in conjunction with the guidance provided through Chapter 3 - Marlborough's tangata whenua iwi (Volume 1 of the MEP) and consultation, applicants should have an appreciation of what values are of concern. Overall, the policy will be efficient in that it achieves a high net benefit for all of the community relative to the cost to an individual for the resource consent process. This is particularly relevant with respect to regionally significant infrastructure, as there is a recognised whole-of-community benefit from such infrastructure. This is further described in Chapter 4 - Use of Natural and Physical Resources (Volume 1 of the MEP).

### *Effectiveness*

Policy 15.1.11(a) was included in the MEP through the involvement of the Iwi Working Group and specifically helps to achieve Objective 15.1a and address Issue 15C. The policy reflects the importance of good water quality to Marlborough's tangata whenua. By encouraging greater treatment of contaminants prior to discharge, Policy 15.1.11(b) will also help to achieve the objectives and address Issue 15A.

### **Policy 15.1.12**

Policy 15.1.12 – After considering Policies 15.1.10 and 15.1.11, approve discharge permit applications to discharge contaminants into water where:

- (a) the discharge complies with the water quality classification standards set for the waterbody, after reasonable mixing; or
- (b) in the case of non-compliance with the water quality classification standards set for the waterbody:
  - (i) the consent holder for an existing discharge can demonstrate a reduction in the concentration of contaminants and a commitment to a staged approach for achieving the water quality classification standards within a period of no longer than five years from the date the consent is granted; and
  - (ii) the degree of non-compliance will not give rise to significant adverse effects.

### *Benefits*

Where it is determined that a discharge to water is the best practicable option, compliance with the specified water quality classification standards will ensure that the quality of water is sufficient to sustain the natural and human values currently supported by the waterbody or coastal waters. This should result in environmental benefits for the waterbody. Greater certainty is provided for the resource user that consent will be granted as the policy establishes a clear test for water quality and states which standards are to be met.

In the case of an existing discharge, flexibility is provided for applicants as the policy provides a plan for addressing contaminant discharge activities in situations where they may or may not meet water

quality classification standards. Where the discharge does not currently meet the standards, an opportunity is provided to comply with the standards over time. This approach reflects the existing policy but introduces a more limited duration for any such discharge. There is a potential financial benefit to an applicant in these circumstances or where greater costs may be incurred through having to discharge to land. However, given there is a limited duration for such consents, any financial benefit will be temporary only.

#### *Costs*

There are potential environmental costs associated with this policy, particularly where the discharge does not meet the water quality classification standards set for the receiving environment. However, these costs should be limited given the direction that in time, all standards must be met. There will be a cost to individuals in installing or enhancing treatment system(s) for existing discharges to improve the quality of the discharge, although this is difficult to quantify as the proposed system is unknown.

When coupled with Policy 15.1.16, there is a cost in that where there is non-compliance with the standard, no new consent will be granted for the same activity. There will also be a requirement to improve the treatment system or to discharge to an alternative receiving environment (that is, land).

#### *Efficiency*

The policy is considered efficient as the benefit of enhanced water quality for the whole community is greater than the cost to the individual (through the resource consent process or in having to meet water quality classification standards). This efficiency reflects the benefit to the applicant as, assuming the discharge to water is the best practicable option, consent will be granted where (a) and (b) are met.

#### *Effectiveness*

This policy is effective in achieving all of the water quality objectives. If the discharge meets the water quality classification standards, water quality will be maintained. Where it does not meet the standards, there is still the ability for a staged approach to improving the quality of the discharge over time. It is important to note that the policy clearly states that quality of the discharge in terms of (b) is not limitless; there must be a demonstration that the discharge will meet standards within five years. The policy is therefore effective in maintaining water quality in the short- and medium-term and enhancing it in the long-time. This should help to address all three water quality issues (Issues 15A to 15C).

#### **Policy 15.1.13**

Policy 15.1.13 – Where it is proposed to discharge contaminants to water upstream of any registered community drinking water supply providing for more than 501 people, have regard to the effect of the proposed discharge on the quality of water within the river and its subsequent suitability for human consumption after existing treatment.

#### *Benefits*

In accordance with Section 69J of the Health Act 1956, the NES for Sources of Human Drinking Water introduced requirements for the consideration of discharge permit applications upstream of abstraction points for community water supplies. Regulations 7 and 8 of the NES specify circumstances when resource consent must not be granted. This policy compliments the regulations by ensuring regard is had to the effect of the proposed discharge on the suitability of the water for human consumption following existing treatment. This will result in health and wellbeing benefits to the community as the quality of water available for consumptive use will be of a high standard. This policy focusses on maintaining the quality of drinking water for community consumption and preventing contamination of the drinking water supply.

#### *Costs*

Costs will be incurred by the individual making a resource consent application for discharging contaminants to water upstream of any registered community drinking water supply. Additional costs may be incurred by the individual if further treatment of contaminants is required. A discharge permit may not be granted if the adverse effects of the proposed discharge on the quality of water within the river and its subsequent suitability for human consumption is considered significant. In these circumstances, the aspirations of the individual may not be realised.

### *Efficiency*

This policy recognises the importance of protecting Marlborough’s drinking water supplies by requiring resource users to consider the location of discharge in relation to abstraction points for community water supplies. Costs are incurred for the individual through discharge permit applications, including treatment (if necessary) of the contaminant prior to discharge. The community benefit of good quality drinking water supplies for consumption outweighs any costs incurred by the individual.

### *Effectiveness*

This policy is considered effective in achieving the objectives, as an assessment of the effects of the discharge on proximity to community’s drinking water supply will be made through the discharge permit application process. Based on this assessment, the decision maker may grant the application as it stands, conditions may be included to address effects of the discharge (e.g. further or additional treatment), or, if the effects are significant, there is the possibility that the permit will be refused. In any of these situations, the quality of drinking water supplies for consumption will be maintained.

### **Policy 15.1.14**

Policy 15.1.14 – Except as provided for by Policy 15.1.15, apply a zone of reasonable mixing to the receiving waters for all point source discharges to water. The zone shall not exceed (as measured from the discharge point):

- (a) For rivers and streams, the lesser of:
  - (i) a distance downstream equal to seven times the width of the river (allowing for low flows); or
  - (ii) 200 metres downstream.
- (b) For rivers subject to tidal influence at the point of discharge:
  - (i) as for rivers in 15.1.14(a), plus a distance upstream equal to half of that allowed downstream.
- (c) For lakes and wetlands (with open standing water):
  - (i) within a radius of 100 metres of the discharge point.
- (d) For coastal waters, limited to the extent necessary to achieve effective mixing, having regard to:
  - (i) the characteristics of the discharge, including the contaminant type, concentration and volume;
  - (ii) the coastal processes that exist at and near the point of discharge; and
  - (iii) the nature, sensitivity and use of the coastal waters.

### *Benefits*

Discharges of contaminants to water authorised under a discharge permit must meet the water quality classification standards set for the receiving waters after reasonable mixing. Reasonable mixing is the dispersal of wastewater through the receiving waters and occurs in a mixing zone, an accepted area of non-compliance. The policy establishes how to size the mixing zone. This policy provides certainty for the Council, resource users and decision makers as to what is considered reasonable mixing, acknowledging that certainty varies between freshwater resources (rivers) and coastal waters. This policy attempts to keep the area of non-compliance (i.e. mixing zone) as small as possible.

### *Costs*

Costs associated with the policy relate to compliance with water quality standards. There is an environmental cost, as the area of non-compliance within the mixing zone has the potential to cause adverse effects. However, this zone of non-compliance is explicitly provided for by the RMA in Section 70 (Rules for discharges) and Section 107(1) (Restriction on grant of certain discharge permits).

### *Efficiency*

This policy is considered efficient as by including criteria on how to size the mixing zone, this zone is kept as small as possible. This policy does incur environmental and community costs, but this cannot be avoided; it is a requirement of the RMA to have a zone of reasonable mixing for discharges.

### *Effectiveness*

The policy helps to achieve the objective of maintaining and enhancing the quality of Marlborough’s waterbodies as it recognises the need to provide a mixing zone through the RMA while attempting to keep the mixing zone as small as possible. The mixing zone requirement has a long history (i.e. prior

to the RMA) and is considered a proven method in assisting to improve the quality of the discharge. A similar approach is provided for in the current resource management plans.

### **Policy 15.1.15**

Policy 15.1.15 – With the exception of stormwater discharges, the water quality classification standards will be met at the point of discharge, where a discharge is:

- (a) within one kilometre upstream of an intake for a registered drinking water supply from a river; or
- (b) to a river where the receiving waters are to be maintained in a natural state; or
- (c) within 500 metres of any marine farming activity in freshwater or coastal waters.

#### *Benefits*

Some waterbodies and coastal waters are particularly sensitive to the point source discharge of contaminants. In these circumstances, a zone of reasonable mixing will generally be incompatible with the values supported by the waterbody or coastal waters. The policy therefore provides a high level of certainty regarding where activities or values (such as registered drinking water supplies, waters in a natural state and marine farming activities) are so sensitive that a zone of non-compliance should not be established.

#### *Costs*

If a discharge is proposed in the receiving environments identified in this policy, significant costs will be incurred by the applicant or resource user to meet water quality standards at the point of discharge.

#### *Efficiency*

This policy is considered efficient as it provides strong direction that discharges into these receiving environments must meet water quality classification standards at the discharge point so that the matters identified in (a) to (c) of the policy are appropriately protected from the effects of the discharge.

#### *Effectiveness*

The policy helps to achieve the objectives in maintaining and enhancing the quality of Marlborough's water resources as it clearly defines those areas or receiving environments where good water quality is extremely important. It is also relevant in terms of achieving Objective 15.1a in terms of recognising that significant values of some receiving environments are vulnerable to contamination.

### **Policy 15.1.16**

Policy 15.1.16 – The duration of any new discharge permit will be either:

- (a) up to a maximum of 15 years for discharges into waterbodies or coastal waters where the discharge will comply with water quality classification standards for the waterbody or coastal waters; or
- (b) up to ten years for discharges into rivers identified in Policies 15.1.4, 15.1.6 or 15.1.7 (where the water quality is to be enhanced) and the discharge will comply with water quality classification standards for the waterbody or coastal waters; or
- (c) no more than five years where the existing discharge will not comply with water quality classification standards for the waterbody or coastal waters.

With the exception of regionally significant infrastructure, no discharge permit will be granted subsequent to the one granted under (c), if the discharge still does not meet the water quality classification standards for the waterbody or coastal waters.

#### *Benefits*

To provide greater certainty to resource users, the policy identifies the appropriate duration for discharge permit applications if they are to be granted. The duration varies depending on compliance with water quality classification standards and the state of water quality in the waterbody or coastal waters in question. Longer durations are warranted where compliance with water quality classification standards will be achieved and there is currently no water quality issue, while short-term consents will be granted where water quality classification standards cannot be met. In the latter case, Policy 15.1.11 identifies that consent holders have just five years to achieve compliance with water quality classification standards.

This policy provides certainty for resource users and guidance for decision makers in terms of the duration of new discharge permits, depending on the receiving environment. The policy is also very clear that, with the exception of regionally significant infrastructure, when a consent is next reviewed discharges must meet the water quality classification standards, otherwise no consent will be granted. This recognises the importance of regionally significant infrastructure as set out in Chapter 4 - Use of Natural and Physical Resources (Volume 1 of the MEP).

*Costs*

Through this policy costs will be incurred by applicants having to apply more frequently for a discharge permit. Though the RMA provides for discharge permits of durations up to 35 years, given the potential for adverse effects to the environment and due to direction from the NPSFM, the Council considers that a shorter duration is appropriate to manage the potential for adverse effects.

*Efficiency*

Fifteen year terms for discharge permits is the current practice employed in the WARMP, as are shorter term consents in cases of non-compliance with water quality classification standards. By providing for differences in the duration of consent, depending on the receiving environment and whether water quality classification standards will be met, there is a whole-of-community benefit as reassessment of those permits that have the potential to result in significant adverse effects is enabled. As such, the whole-of-community benefit is greater than any individual costs incurred through this policy.

*Effectiveness*

This policy allows for the reassessment of consent and different durations in light of technological changes in the treatment of contaminants that may influence the ability to in terms of improving water quality and meeting the water quality classification standards.

**Policy 15.1.17**

Policy 15.1.17 – Review, where appropriate, the conditions of existing discharge permits to impose new conditions requiring the monitoring of the discharge effects to determine compliance with the water quality classification standards.
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*Benefits*

Where there is no requirement in the conditions of consent to monitor effects relative to the standards, it may not be known whether existing discharges comply with the water quality classification standards. As this information will be critical in the consideration of any new discharge permit applications, the policy can be used to require the consent holder to commence monitoring the effects of the discharge. This will help to increase consent holder awareness that they may have to improve the quality of their discharge prior to a subsequent consent being granted, depending on the outcomes of the monitoring.

*Costs*

Costs will be incurred by the consent holder for reviews of consent conditions under Section 128 of the RMA, as well as costs of monitoring to determine compliance with the water quality classification standards. It is difficult to quantify the costs of monitoring, as this will depend on the nature of the discharge and the water quality classification standards.

There is the potential for environmental costs during the term of the consent if monitoring shows there is non-compliance with the water quality classification standards. However, the Council cannot impose conditions through a Section 128 review to require compliance with the water quality classification standards, as that would effectively mean the discharge permit could not continue. It is through the processing of subsequent resource consents that a different approach can be imposed, having regard to the earlier policies.

*Efficiency*

The costs of this policy are considered warranted, given the potential for significant adverse environmental effects if the discharge does not meet the water quality classification standards. This policy also establishes ahead of time the extent of compliance or non-compliance with the water quality classification standards. It provides the resource user (discharger) advance warning that



change(s) to their discharge practice may be necessary. The potential environmental benefit to improving water quality in the long term justifies the monitoring costs.

#### *Effectiveness*

This policy will lead to greater understanding of the quality of the discharge, its subsequent impact(s) on water quality and whether the water quality classification standards are being met. If no measurements are taken it will not be possible to know the scale and/or extent of the effect(s) of the discharge relative to the objective. Having this information then allows the application of other policies through the resource consent process.

#### **Policies 15.1.18 to 15.1.20**

Policy 15.1.18 – Avoid the discharge of untreated human sewage to waterbodies or coastal waters.
Policy 15.1.19 – Progressively work toward eliminating the discharge of human sewage to coastal waters in the Marlborough Sounds, with the exception of regionally significant infrastructure.
Policy 15.1.20 – Except for Grade A or Grade B treated sewage, control the discharge of human sewage from ships in the Marlborough Sounds.

#### *Benefits*

These policies prevent or control the discharge of human sewage to coastal waters and freshwater from most sources, thus creating environmental benefits. The policies recognise the strong community preference expressed through consultation to avoid such discharges and acknowledge iwi cultural/spiritual values with respect to human sewage discharges to water.

The Marlborough Sounds has been identified as one of the District's most significant natural resources and as a predominantly coastal environment, the quality of coastal waters is paramount to their ongoing use and enjoyment by the community and visitors. Some parts of the Marlborough Sounds also support marine farming, an industry that relies upon good coastal water quality. Policies 15.1.19 and 15.1.20 provide significant environmental, social, cultural and economic benefits. In addition, there is a lead-in phase for these policies to be fully implemented, which provides:

- the opportunity to consider alternative receiving environments (and other related policies) in the context of Policy 15.1.19; and
- for Policy 15.1.20, a period within which the public is made aware of the proposed controls as well as providing appropriate facilities for dealing with human waste once the policies are implemented.

An exception has been made for regionally significant infrastructure in recognition of the fact that the discharges from the Council-operated, reticulated community sewerage systems act to maintain public health standards in the towns of Picton and Havelock.

The discharge of human sewage from vessels is regulated by the Resource Management (Marine Pollution) Regulations 1998. The use of an increased setback from the coast and from marine farms for the discharge of untreated human sewage from vessels protects the existing and future use of the Marlborough Sounds for recreational use and for marine farming. It also recognises that in some locations there is limited movement of water due to the enclosed waters of the Marlborough Sounds. This means that there is a reduced capacity for contaminants to mix with the receiving waters, increasing the risks to human health and to food safety.

#### *Costs*

There is already strong direction within the existing resource management plans to avoid the discharge of untreated human sewage into water. There are prohibited activity rules for discharges into freshwater, for example in the General Rules chapter of Volume 2 of the WARMP. The costs associated with Policy 15.1.18 are therefore not considered to be significantly different to those under the current resource management framework, especially when compared with the significant environmental costs that can arise from such discharges.

A policy allowing the progressive elimination of discharges over time recognises that resource users discharging human sewage require time to find alternative receiving environments. This will incur

costs to individuals, but very few discharges to coast waters remain (apart from regionally significant infrastructure) so the costs should be minimal.

The discharge of human sewage from vessels is regulated by the Resource Management (Marine Pollution) Regulations 1998. These regulations currently limit where vessels can discharge human waste, so costs already exist for boat owners. However, the combination of the enclosed nature of the Marlborough Sounds, the prevalence of marine farming throughout this area mean that there are already limited opportunities to discharge human sewage to coastal waters in a manner that complies with the regulations. There will be additional costs for ratepayers in looking at alternatives for discharging human sewage to coastal waters, which may include pump-out facilities, the provision of toilets at appropriate locations or boat owners having to travel out to pump out holding tanks.

#### *Efficiency and Effectiveness*

These policies are efficient because the costs are considered justified given the community's expectations about avoiding the discharge of human sewage to water. The policies help to achieve Objective 15.1a, while Policy 15.1.18 also helps to achieve 15.1d and 15.1e. These last two objectives, related to secondary and primary recreation, are particularly important in the context of avoiding the discharge of untreated human sewage to waterbodies. This approach will also help to significantly resolve the three water quality issues.

Policies 15.1.18 to 15.1.20 give effect to NZCPS Policy 23(2) - Managing discharge of human sewage and recognise the Marlborough Sounds as Marlborough's "jewel in the crown" in terms of natural assets, as identified in Objective 4.3 in Chapter 4 - Use of Natural and Physical Resources (Volume 1 of the MEP). These policies are considered to be effective as they take into account community and iwi expectations with respect to avoiding the discharge of human waste into coastal waters.

#### **Policies 15.1.21 and 15.1.22**

Policy 15.1.21 – Manage the adverse effects of urban stormwater discharges on water quality by applying management to activities within each urban stormwater catchment in order to reduce the potential for stormwater to become contaminated at source.
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Policy 15.1.22 – Recognise that the Taylor, Ōpaoa and Waitohi rivers, Waikawa Stream (and some of their tributaries) and coastal waters at Havelock, Picton and Waikawa will continue to receive urban stormwater for the foreseeable future and, with limited options to treat urban stormwater, may on an episodic basis experience reduced water quality to the extent that the management purposes in Policy 15.1.1 are not achieved.
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#### *Benefits*

Policy 15.1.21 recognises that some waterbodies experience degraded water quality through inputs from stormwater discharges. This is necessary, as without stormwater infrastructure and the associated discharge there would likely be flooding in urban areas. This policy acknowledges that it may be appropriate for these discharges to continue, despite occasional potential adverse effects on water quality, given the greater community benefit from avoiding flooding.

Both policies attempt to integrate the approach for the management of stormwater in urban areas in time and space. Given the practical and financial issues with treatment, these policies attempt to deal with contamination at the source to reduce the need for treatment and therefore reduce costs associated with treatment. Policy 15.1.22 recognises a historical situation, where the waterbodies listed have received stormwater from the towns of Blenheim, Havelock, Picton and Waikawa. At present there is limited ability to treat contaminants in stormwater prior to discharge and consequently there will be reduced water quality after rainfall events. Without the ability to discharge stormwater to the waterbodies set out in Policy 15.1.22, land utilised for these activities would be subject to surface flooding during rainfall events.

#### *Costs*

There may be environmental costs associated with Policy 15.1.21 as at times water quality will be degraded, potentially effecting natural and human use values. However, the degree of environmental cost is difficult to quantify as it depends on the degree of rainfall events in different catchment areas. The effect in terms of cost of the potential degradation on the community varies relative to the value of each waterbody (values set out in Appendix 5 of Volume 3 of the MEP).

There will be a community (ratepayer) cost in terms of implementing both policies; for example, catchment-based stormwater management plans. There could also be a potential cost to the property owner if action is required to reduce the potential for stormwater to become contaminated on-site. These costs need to be balanced against the potential costs to the wider community if treatment of stormwater is required prior to discharge into receiving waters.

#### *Efficiency*

Policy 15.1.21 is efficient as the cost of a periodic, short-term reduction in water quality is lower than treating all stormwater. For both policies, community and environmental benefits outweigh costs to the community or an individual. By addressing the issue of potential stormwater contamination at the source rather than once it is discharged into the receiving waterbody, costs are minimised. The policies allow for an integrated approach to resolving stormwater issues, including assessment of the stormwater source, treatment and mitigation of issues from individual stormwater inputs and Council management of stormwater discharges. This approach increases the likelihood that the objective will be achieved with the highest net benefit for the community.

#### *Effectiveness*

It is difficult to determine the effectiveness of these policies, especially Policy 15.1.21. Stormwater management area plans are to be developed and implemented, taking a catchment-based approach to managing stormwater quality. This will focus on the potential sources of contaminants within a catchment and identify the most appropriate and cost-effective solutions for improving the quality of stormwater discharges. Until these plans have been applied and further monitoring occurs post-implementation, it is unclear whether Policy 15.1.21 will help to achieve the objectives.

At present it may be difficult for Policy 15.1.22 to achieve the objectives, as the policy clearly identifies that there will continue to be adverse effects on water quality from urban stormwater discharges. However, with a focus on identifying appropriate actions through the stormwater management area plans to improve water quality, it is anticipated that in time these policies will help to achieve the objectives.

#### **Policy 15.1.23**

Policy 15.1.23 – Avoid the discharge of animal effluent to fresh waterbodies and stock disturbance of river beds to the extent necessary to meet the management purposes established by Policy 15.1.1, by:

- (a) preventing the direct discharge of collected animal effluent to water; and
- (b) avoiding the access of intensively farmed stock to rivers.

#### *Benefits*

Animal effluent can be discharged directly into rivers and wetlands through either the point source discharge of collected animal effluent (e.g. farm dairy effluent) or through stock access to waterbodies. At present there are no resource consents for a discharge of animal effluent into water and through consultation the community has expressed a desire to avoid such discharges for environmental, social and cultural reasons.

Eliminating dairy herd stream crossings and preventing intensively-farmed stock from accessing rivers will provide significant environmental effects as there will be an improvement of water quality (as set through the objectives and water quality classification standards) in catchments where water quality has previously been degraded by these activities. In addition, this policy will ensure that water quality is maintained where these stock crossings and stock access points have already been eliminated.

This policy reflects the community's desire to address the adverse effects of stock in water bodies on water quality.

#### *Costs*

There will be costs associated with this policy. There are currently no consents in existence under Policy 15.1.23(a) and given the direction in other water quality provisions of a preference for discharges to land, it is unlikely that many of the existing intensive farming operations would switch to a water-based discharge.

Rules for stock access in 15.1.23(b) will take effect six years from the date of notification of the MEP i.e. 9 June 2022. Until the prohibition takes effect, resource consent will be required to undertake any of the listed activities and an assessment of any activities will be required against the objectives and policies of the MEP. Once the prohibition takes effect, no resource consent can be applied for; if a landowner wishes to continue with intensive farming activity or dairy farming, they will need to put in place structures or other means to ensure stock do not access waterways. There is a cost associated with this. However, a lead-in time of six years is provided for landowners to put in place appropriate accessways, such as culverts and bridges, and put in place fencing.

As described in the information and analysis section of this report, many dairy farmers in Marlborough have already eliminated stock crossings or fenced water bodies. The total number of stream crossings has significantly reduced, from 229 in 2003 to 34 in 2015.

#### *Efficiency*

The community benefit of eliminating stock from waterbodies is greater than the cost to any individual. This policy will achieve the objectives in terms of water quality being maintained in those catchments that have eliminated stock crossings and stock access to river beds. For those waterbodies that already have degraded water quality due to stock crossings or stock access of waterbodies by intensively-farmed stock, this policy will help achieve the objective to enhance water quality in those catchments.

This policy is efficient as it targets intensively-farmed stock, not extensively-farmed stock. The cost of this policy is focussed on those undertaking the activity known to cause contamination of surface water in a number of river catchments.

#### *Effectiveness*

Preventing, eliminating or avoiding intensively-farmed stock crossings and access to fresh waterbodies is very effective in meeting the objective of maintaining and, where necessary, enhancing water quality of Marlborough's fresh waterbodies. Meeting the objective will help address the issue of reduced water quality from the discharges of animal effluent to fresh waterbodies, which adversely affects the life-supporting capacity and community's use of the waterbodies. Existing work to eliminate stock crossings through initiatives of the Council, Fonterra and landowners have resulted in improvements in water quality, for example in the Rai River.

#### **Policy 15.1.24**

Policy 15.1.24 – Establish a response capability to deal with spills of hazardous substances that enter waterbodies or coastal waters.
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#### **Benefits**

This policy will reduce the environmental impact of spills of hazardous substances, which will have environmental, social, cultural and economic benefits. There will be a more efficient response to spills due to coordination between agencies (the Council, Fire Service, Police and in the coastal marine area, Maritime Safety) and the development of a spills manual. In addition, it is likely that inter-agency relationships may also improve as a result of the coordinated approach.

#### **Costs**

Costs will be incurred through the preparation of the response capability and through clean-up costs in the event of a spill. However, because responses will be coordinated, costs will be minimised. If the Council was not working towards a coordinated response for spills of hazardous substances, environmental costs could be significant.

#### **Efficiency**

This policy is very efficient as coordination between agencies ensures that the response is appropriate to the circumstance. Potential benefits are significant relative to the costs of establishing capability.

#### **Effectiveness**

This policy is effective, as coordination between agencies ensures that the response is appropriate to the circumstance. This policy also ensures responses are prompt, limiting the environmental effects of a spill. There is integration of this policy with other provisions (e.g. water quality) where a spill may be

on land but there is potential for the hazardous substance to enter waterbodies (either freshwater or coastal waters).

### **Policies 15.1.25, 15.1.26 and 15.1.27**

Policy 15.1.25 – Recognise that, in many situations, non-regulatory methods will be an effective method of managing the adverse effects of non-point source discharges.
Policy 15.1.26 – Encourage, in close association with rural industry groups, the use of sustainable rural land management practices.
Policy 15.1.27 – Promote the retirement and planting of riparian margins in rural areas to intercept contaminated runoff, especially where water quality is degraded or at risk of degradation.

#### *Benefits*

These policies recognise the difficulties in managing non-point source discharges as there is no specific discharge point (such as an outfall) to which treatment or management can be applied. For this reason, the main approach to addressing the adverse effects of non-point source discharges over the life of the MEP will be to work with landowners to improve land use practices to minimise the potential for run-off. The benefit of the non-regulatory approach set out through these policies is that relationships with landowners, resource users and industry groups can be strengthened by working together and sharing information to achieve better water quality outcomes. Although the approaches of the policies are non-regulatory, Policy 15.1.25 signals that in time the Council will establish cumulative contaminant limits to assist with the effective management of the adverse effects of all discharges to freshwater within a catchment. These limits will be established as regional rules and will define a maximum capacity of resource use within a catchment for water quality outcomes.

Policy 15.1.27 prioritises those waterbodies where the positive effects of retiring and planting riparian margins in terms of water quality will be greatest. These are the waterbodies that are degraded or at risk of degradation and these have been identified in Tables 15.1 and 15.2.

#### *Costs*

There are potentially significant whole-of-community costs associated with some methods of implementation, particularly those involving research into the cumulative effects of land use on water quality and improved land management practices. Costs will also be incurred through investigations into the impact of particular rural land use activities on water quality. Liaison, incentives and information costs are unknown but are also potentially significant. There will be some costs to the community and landowners in developing land management programs to address degraded waterbodies.

#### *Efficiency and Effectiveness*

Although it is difficult to say how efficient and effective these policies will be in assisting to achieve the objectives, these are methods that the Council has used previously. What potentially makes the methods more efficient and effective (than when implemented under the current resource management framework) is the focus provided by other water quality policies identifying water bodies that could benefit from improvements in land management practices. This is in the context of waterbodies identified in Tables 15.1 and 15.2. Identifying these waterbodies and those in Policies 15.1. 4 to 15.1.6 provides direction for landowners and resource users and is therefore efficient and effective in terms of prioritising effort and resources to reduce the adverse effects on non-point source discharges on water quality. Overall, the effectiveness of the policies will be determined through subsequent state of the environment monitoring.

### **Policy 15.1.28**

Policy 15.1.28 – To require where appropriate (as part of the subdivision consent process) the creation of esplanade reserves and esplanade strips to maintain or enhance water quality.
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#### *Benefits*

Esplanade reserves or esplanade strips can be taken for the purposes set out in Section 229 of the RMA, including where this will contribute to the protection of conservation values by maintaining or enhancing water quality. This policy signals that where conservation values are known to exist in surface waterbodies and are at risk due to degraded water quality or the potential for reduced water

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quality, then land may be taken or set aside upon subdivision. The resulting esplanade reserve or esplanade strip would act as a buffer between the waterbody and adjoining land use, reducing the potential for land use to adversely affect water quality. There are both community and environmental benefits through the establishment of esplanade reserves and esplanade strips. Conservation values will be protected, which in turn will ensure that water quality of these resources will be maintained or enhanced.

### *Costs*

Costs of this policy are limited to the opportunity forgone for the area of land that may be set aside for an esplanade reserve or esplanade strip as a result of the subdivision application. Costs will already be incurred through the application made by the landowner for subdivision. If the land is over four hectares in area then compensation is payable by the Council to take land for an esplanade reserve. If the area is less than four hectares, no compensation is payable.

### *Efficiency and Effectiveness*

The benefits to the community and environment from this policy are greater than the cost to any individual. This policy is efficient as it enables the taking and/or setting aside of land through the RMA to protect conservation values of some surface waterbodies, achieving a high net benefit to the wider community. However, the policy may only infrequently be applied as it relies on a subdivision application being submitted, so may be less effective in achieving the objectives.

### **Policy 15.1.29**

Policy 15.1.29 – To control land disturbance activities in order to:

- (a) mitigate the effects of increased sediment runoff to fresh waterbodies or coastal water; and
- (b) avoid the potential for direct entry of contaminants into groundwater.

### *Benefits*

This policy provides direction on land disturbance activities (cultivation, excavation, filling and vegetation clearance) that have the potential to affect water quality and directs that controls will be used to manage the potential effects. There are environmental benefits from imposing controls to achieve enhanced water quality, with less sediment reaching surface water and groundwater. This policy provides the ability to influence the way in which land disturbance is undertaken (including the proximity of the activity to a waterbody) to manage suspended sediment discharges to surface water and groundwater.

### *Costs*

The resource user or landowner will bear the cost of compliance with either permitted activity standards or resource consent application, with costs varying depending on the level of control set out in the rules. This approach is currently used in the MSRMP and WARMP and is not new to landowners or resource users. Any additional costs will be limited to those that have arisen as a consequence of reviewing the permitted activity standards through the review process. Costs are otherwise related to a resource consent where the standards cannot be met.

### *Efficiency*

The environmental benefits of this policy outweigh the costs to the resource user or landowner. This policy is efficient as permitted activity standards will apply in many cases and therefore resource consent applications will not be necessary in every case.

### *Effectiveness*

Historically, controls on land disturbance have been effective in maintaining and enhancing water quality. For this reason the Council considers this level of regulation will be similarly effective for the MEP in achieving the water quality Objectives 5.1a to 5.1d.

### **Policy 15.1.30**

Policy 15.1.30 – Protect groundwater sources of community drinking water by identifying land overlying groundwater vulnerable to leachate contamination. Manage, with respect to this land:

- (a) change in land use to activities that have the potential to result in leachate discharges so that

<p>activities are, where practicable, located elsewhere or the contaminants are contained;</p> <p>(b) existing land use activities so that any potential for groundwater contamination is monitored and, where necessary, corrective action is taken;</p> <p>(c) point source discharges of contaminants to land; and</p> <p>(d) excavation.</p>
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### *Benefits*

Groundwater is the source of drinking water for most of Marlborough's towns and small settlements. This policy establishes controls on activities that could result in groundwater becoming unsafe for consumption as a result of contaminants leaching into groundwater. Any area of land above an aquifer considered to be high risk has been mapped in the MEP as a Groundwater Protection Area. Within this area, change of land use to activities likely to generate leachate should, where practicable, be avoided. Where it is not considered possible to do so, provision must be made to contain the leachate generated. The main benefit of the policy is that the controls implemented will assist to protect the health and wellbeing of communities that rely on groundwater as a source of drinking water.

The policy also assists to give effect to the NES for Sources of Human Drinking Water. Regulations 7 and 8 of the NES specify circumstances when resource consent must not be granted. This policy compliments the regulations by ensuring regard is had to the effect of the proposed discharge on the suitability of the water for human consumption following existing treatment. This will result in community health and wellbeing benefits due to a high quality of water available for consumptive use. This policy focusses on maintaining the quality of the drinking water for community consumption and preventing contamination of the drinking water supply.

### *Costs*

This policy will result in resource consent application costs for resource users wishing to undertake activities set in 15.1.30(a), (c) or (d). Additional costs may be incurred by the individual if additional treatment of the contaminant is required. The aspirations of an individual may not be realised if their resource consent application is not granted because the effect of the proposed discharge on the quality of groundwater and its subsequent suitability for human consumption is considered significant. Under 15.1.30(b) there will be wider costs to the community through the Council's monitoring program.

### *Efficiency*

This policy is efficient as it recognises the importance of protecting Marlborough's drinking water supplies by requiring resource users to consider the location of certain activities in relation to abstraction points for community water supplies. Costs are incurred for the individual through resource consent applications, including treatment (if necessary) of the contaminant prior to discharge. The community benefit of having good quality drinking water supplies for consumption outweighs any costs incurred by the individual.

### *Effectiveness*

This policy is considered effective in achieving the objectives, as through the resource consent application an assessment of the effects of the activity on the community drinking water supply will be made. Based on this assessment, the decision maker may grant the application as it is, conditions may be included to address effects of the discharge (e.g. further or additional treatment) or, if the effects are significant, there is the possibility that the application will be refused. Regardless of the decision, the quality of drinking water supplies for consumption will be maintained. The policy will also assist in addressing the issues.

### **Policies 15.1.31 and 15.1.32**

<p>Policy 15.1.31 – Recognise that disturbing the seabed or the wet bed of a lake or river results in a discharge of sediment that has the potential to cause adverse effects on water quality.</p>
<p>Policy 15.1.32 – In considering any resource consent application for the disturbance of a river or lake bed, or the seabed, or land in close proximity to any waterbody, regard will be had to:</p> <p>(a) whether the disturbance is likely to result in non-compliance with the clarity standards set for the waterbody, after reasonable mixing;</p> <p>(b) in the event of possible non-compliance with the clarity standards set for the waterbody, after</p>

<p>reasonable mixing:</p> <ul style="list-style-type: none"> <li>(i) the purpose for undertaking the disturbance and any positive effects accruing from the disturbance;</li> <li>(ii) the scale, duration and frequency of the disturbance;</li> <li>(iii) the extent to which the bed disturbance is necessary and adverse water quality effects caused by the disturbance are mitigated; and</li> <li>(iv) for freshwater, the potential effects of increased turbidity on the values of the waterbody set out in Schedule 1 of Appendix 5 of the Marlborough Environment Plan or on the natural character values of the coastal environment in relation to water quality as set out in Appendix 2 of the Marlborough Environment Plan.</li> </ul>
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**Benefits**

Sections 12 and 13 of the RMA regulate activities that disturb the seabed and the bed of lakes and rivers, respectively. This disturbance usually releases sediment into water, effectively a non-point source discharge of contaminants. As well as bed disturbance, activities along the margins of waterbodies can generate sediment that has the potential to enter the water and adversely affect water quality.

To ensure integrated management of the effects of bed disturbance, Policy 15.1.31 signals that any water quality effects caused by the discharge of sediments through bed disturbance need to be managed. Policy 15.1.32 then sets out criteria to provide guidance for resource consent applications. This guidance is beneficial to both the applicant and the decision maker.

Water quality standards for turbidity and clarity of waterbodies established throughout this chapter are the appropriate starting point for the consideration of any adverse effects of disturbance on water quality. Where water quality standards are not likely to be met, it is important that all of the circumstances of the disturbance are considered. This approach will have environmental, cultural and social benefits for the community.

**Costs**

There are costs for a landowner or resource user in undertaking bed disturbance activities. However, the direction provided by Policy 15.1.32 means the assessment is targetted, particularly with reference to the waterbody values identified in Appendix 5. This may result in lower costs, with targetted assessments related to the values of the fresh waterbodies.

**Efficiency and Effectiveness**

There are situations where waterbodies carry a naturally high load of sediment (e.g. Awatere River) or where natural processes such as high rainfall events cause the same (or greater) extent of sedimentation as deliberate bed disturbance. In such situations, there may be some question as to whether these policies will be efficient or effective in achieving the water quality objectives. However, enabling uncontrolled bed disturbance or land use activities in close proximity to a waterbody or the coastal marine area, when compounded with natural processes, could result in significant adverse effects on the environment. Therefore, although it is difficult to determine the full extent of efficiency and effectiveness, overall the environmental benefit of addressing the effects of discharges of sediment is greater than the cost to an individual through the resource consent process.

**Policies 15.1.33 and 15.1.34**

<p>Policy 15.1.33 – Require land use consent for the establishment and operation of any new dairy farm.</p>
<p>Policy 15.1.34 – Approve land use consent applications for new dairy farms where the proposed farming would have no more than minor adverse effects on ground or surface water quality or on significant wetlands. A land use consent application must identify the risks of new dairy farming and provide measures to address those risks, including as a minimum:</p> <ul style="list-style-type: none"> <li>(a) measures (including fences, bridges or culverts) to prevent stock entering onto or passing across the bed of any river, stream, creek, lake, wetland, significant ephemeral stream or any drain;</li> <li>(b) provision of an appropriate, non-grazed buffer along the margins of any waterbody, including a river, stream, creek, lake, wetland, significant ephemeral stream or any drain, to intercept the runoff of contaminants from grazed pasture, with reference to the values of fresh waterbodies as identified in Appendix 5;</li> </ul>



- (c) provision for storage of dairy effluent, with all storage ponds sufficiently sized to enable deferral of application to land until soil conditions are such that surface runoff and/or drainage do not occur;
- (d) demonstration of appropriate separation distances between effluent storage ponds and any surface waterbodies to ensure contamination of water does not occur (including during flood events); and
- (e) a nutrient management plan that includes nutrient inputs from dairy effluent, animal discharges, fertiliser and any other nutrient input.

### *Benefits*

Policies 15.1.33 and 15.1.34 were implemented through Plan Changes 27 and 62 – New Dairy Farms in the WARMP and the MSRMP, respectively (made operative on 13 November 2013). These policies have recently undergone a robust plan change process. The MEP benefits from this, as the purpose of the plan changes, the issues identified and the proposed provisions within the Section 32<sup>4</sup> assessment are unchanged and resource users, the community and decision maker(s) are already aware of these policies and provisions.

### *Costs*

There are no additional costs of these policies as they have been in place since 2013. Costs will be incurred by resource users to establish and operate new dairy farms.

### *Efficiency and Effectiveness*

An assessment of the efficiency and effectiveness of these policies was undertaken in the Section 32 assessment for Plan Changes 27 and 62 and remain relevant for Section 32 evaluation for the MEP.

## **Methods of implementation**

Several significant changes have been made in the methods of implementation from the current MRPS, WARMP and MSRMP. Most significantly, the introduction of the NPSFM, NZCPS and NES for Sources of Human Drinking Water have contributed to the inclusion of new methods in the MEP in response to the direction of these higher order statutory documents. Those methods new and particularly significant to the MEP are set out below.

- Investigations to establish the cumulative contaminant limits for freshwater resources: while investigation methods have been included previously in the WARMP and MSRMP, this very specific investigation method has arisen out of direction from the NPSFM (see evaluation for Policy 15.1.3).
- Catchment enhancement plans are to be developed as a priority for rivers that have or are at risk of having degraded water quality. The methods to be used to enhance water quality will be determined following an assessment of the cause and effect of degraded water quality and will be clearly identified within the plans (see evaluation for Policies 15.1.4 to 15.1.7).
- Stormwater management area plans will set out the nature, extent and source of contamination of urban stormwater discharges and consider possible means of reducing contaminant levels (see evaluation for Policy 15.1.21 and 15.1.22).
- Groundwater protection areas will be mapped and within these areas rules will apply to activities with the potential to adversely affect groundwater quality (see evaluation for Policy 15.1.30).

In all other cases, the methods of implementation for the water quality provisions have to some degree been previously included in the MRPS, MSRMP and WARMP. All of these methods have been reviewed and updated to reflect the policy direction contained within the MEP as well as the NPSFM and NZCPS.

<sup>4</sup> WARMP Proposed Plan Change No. 62: New Dairy Farms and MSRMP Proposed Plan Change No 27: New Dairy Farms Section 32 Assessment. File Reference: W045-15-62, M135-15-27.

## Other options considered to achieve Objectives 15.1a to 15.1e

Three other options were considered by the Council to achieve Objectives 15.1a to 15.1e. They were:

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

Under the current management framework of the MRPS, MSRMP and WARMP, there are a range of water quality provisions that are similar to those included within the MEP. However, for the reasons set out below these existing provisions have not been preferred:

- In 2011, the Government introduced a National Policy Statement for Freshwater Management (NPSFM) to require regions to maintain or improve water quality. The NPSFM was updated in 2014 to require regional councils to account for all water takes and sources of contaminants. It sets national minimum acceptable standards of water quality for ecosystem and human health. As the MRPS, MSRMP and WARMP were prepared well before the introduction of the NPSFM, they do not reflect these standards, which have now been set out in Objectives 15.1b to 15.1e.
- Timeframes have been set to establish cumulative contaminant limits, as required by the NPSFM.
- The introduction of the NES for Sources of Human Drinking Water in 2008 requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and regional plans. This has resulted in the development of specific Groundwater Protection Areas within which a range of activities now require resource consent to enable assessment of the potential impacts on groundwater quality.
- The NZCPS contains policies in relation to water quality in the coastal environment (which includes a portion of the freshwater environment). Like the NPSFM, the 2010 NZCPS was introduced after the MRPS, MSRMP and WARMP were prepared and so inconsistencies exist between the documents.
- A number of rivers have been identified in which there is already degraded water quality or potential for degraded water quality and the MEP now sets out actions to improve water quality in these waterbodies.
- A review of the water quality classification standards has been undertaken. This has resulted in changes and the current standards in the MSRMP and WARMP would need to be updated.
- A review of the values tables for freshwater bodies from the WARMP has been carried out. An assessment of the various natural and human use values of the waterbodies in these water management units has been prepared (Appendix 3 of the MEP) and includes values such as ecological, habitat and natural character. While the WARMP included a values table, the MSRMP did not.
- Provisions to prevent stock access to waterbodies and the discharge of human sewage to waterbodies and coastal water have been included in response to community concerns over the nature of these discharges. These provisions, which are intended to result in prohibited activities, have a lead-in time. While there are some provisions within the two resource management plans, they are not as rigorous as what has been proposed for the MEP.
- There is greater recognition of iwi interests in water quality, especially when coupled with the provisions of Chapter 3 - Marlborough's tangata whenua iwi.
- Provision of a framework that allows for existing discharges to be upgraded to meet water quality standards.
- The MSRMP and WARMP offer little guidance for improving the quality of urban stormwater. The MEP proposes the development of stormwater management area plans that will help to identify sources of stormwater contamination and include actions to reduce the level of contaminants.

## 2. *Greater regulation*

Policies 15.1.18, 15.1.19 and 15.1.20 within the MEP recognise that the discharge of untreated human sewage to waterbodies or coastal waters is culturally offensive to Marlborough's tangata whenua iwi and the wider community. As such, there is a desire to eliminate the discharge of human sewage to coastal waters of the Marlborough Sounds. Greater regulation could be included in the MEP by prohibiting all discharges of human sewage immediately, rather than the proposed progressive elimination of these discharges. However, the latter approach is considered more appropriate as it recognises that finding alternative receiving environments involves time and financial investment and progressive elimination of such discharges is considered appropriate. Nonetheless, a timeframe is provided and necessary to ensure that these types of discharges are eliminated.

Discharges from Council-operated, reticulated community sewerage systems are not required to be progressively eliminated under Policy 15.1.19 of the MEP. One option is to have greater regulation so that discharges from these systems would be either immediately or progressively eliminated. However, because these systems act to maintain public health standards in the towns of Picton and Havelock, this is not an option. Still, Policy 15.1.19 does require the Council to consider alternative receiving environments when considering new resource consents for these existing discharges and whether the discharge to coastal water is the best practicable option.

Policy 15.1.23 in the MEP reflects the community's desire to eliminate stock crossings and access to rivers in order to prevent contamination. This policy recognises that stock crossing and accessing rivers have historically caused the contamination (through bacterial and increased turbidity) of surface water in a number of river catchments. Given the significant and regular point source input of urine and faeces where stock cross rivers and the likelihood of reduced water quality through contamination, this policy seeks to eliminate existing stock crossings and to prevent the establishment of any new crossings. The policy also seeks to avoid casual stock access where stock is farmed intensively as this creates a significant risk of adverse effects on water quality. Six years after notification of the MEP, intensively-farmed stock will be prohibited from crossing and accessing rivers. Greater regulation could see the prohibition of the discharge of animal effluent through stock accessing and crossing waterbodies when the MEP is notified. However, it is recognised that infrastructure may be required in some locations to avoid stock access and crossings of rivers and it is appropriate to have a lead-in time for this policy to be implemented.

## 3. *Not implementing the stormwater strategy*

Policy 15.1.21 of the MEP sets out a strategy to manage the adverse effects of urban stormwater discharges on water quality. It does this by managing activities within urban stormwater catchments and controlling within each catchment industrial and commercial land uses with the potential to generate contaminants. Managing stormwater quality on a catchment basis will enable a focussed and co-ordinated investigation of potential sources of contaminants within the catchment; these actions will be set out and detailed in Stormwater Management Area Plans. The plans will ensure there is a co-ordinated and integrated approach to managing stormwater quality within each urban stormwater catchment to deal with adverse effects on receiving waters.

There is an option not to implement the stormwater strategy through the MEP, which would result in managing stormwater at the source and not at the point of discharge. Taking this approach would not enable a focussed and co-ordinated investigation of potential sources of contaminants within the catchment. As such, it is highly likely that the quality of the stormwater discharges would be reduced, which would increase the potential for contamination of the receiving environment. Therefore, not implementing the stormwater strategy is not an option.

## **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. Given the extensive water quality monitoring that has occurred in Marlborough for a number of years, the Council considers it has sufficient and detailed information on which to base the proposed policies and methods to protect or otherwise maintain and enhance water quality.

The only exception to this is in relation to the setting of water quality limits for all waterbodies. At the time of notification of the MEP, the Council does not hold the resource use and/or environmental data required to set the cumulative contaminant limits as required under the NPSFM. For this reason, the

## **Section 32: Chapter 15 – Water Quality**

Council has adopted a progressive implementation programme that sets a date of 2024 as a target for implementing cumulative contaminant limits. There is a risk in the meantime that some waterbodies may exceed the limits set in the NPSFM; however, because overall Marlborough's rivers experience good water quality, it is considered prudent to set cumulative limits on actual resource use and environmental data gathered over a longer period of time so as not to unduly constrain land uses in a catchment (existing and potential), or at least the way in which those land uses are managed.

## Appendix A – Section 32 of the RMA

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### 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.

(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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AgResearch (Seth Laurenson and Dave Houlbrooke) (July 2015). *Information to support Marlborough District Council's Land Discharge Permit Trigger Soil Profile Map using the AgResearch Soil and Landscape Risk Framework.*

Beca Carter Hollings & Ferner Ltd (Beca) (18 May 2009). *Blenheim Stormwater Strategy - revised draft.* Prepared for Marlborough District Council.

Boffa Miskell (June 2014). *Natural character of the Marlborough coast – Defining and mapping the Marlborough coastal environment.*

Boffa Miskell (June 2014). *The natural character of selected Marlborough rivers and their margins.*

Clapcott J, Hay J (2014). *Recommended water quality standards for review of Marlborough's resource management plans.* Prepared for Marlborough District Council. Cawthron Report No. 2522.

Corydon Consultants (May 2001). *Perceptions of the Marlborough Sounds and the impacts of marine farms. Results of a nationwide survey.* Report for the Marlborough District Council.

Corydon Consultants Ltd (Dianne Buchan and Kirsty Austin) (April 2009). *Outcomes for Places stakeholder views on future development in the Marlborough Sounds.* Report prepared for Department of Conservation and Marlborough District Council.

Corydon Consultants (April 2012). *New Zealanders' perceptions of the Marlborough Sounds in 2012. Results of a nationwide survey.* Report to the Marlborough District Council.

Marlborough District Council (November 2006). *Community views on significant issues for Marlborough – Summary of responses received on the review brochure.*

Marlborough District Council (2007). *Discussion Paper 4: The Future of the Marlborough Sounds.*

Marlborough District Council (2007). *An overview of the future of the Marlborough Sounds.*

Marlborough District Council (2008). *Summary of responses to Discussion Paper 4/The Future of the Marlborough Sounds.*

Marlborough District Council (2007). *Discussion Paper 6: Water Quality.*

Marlborough District Council (2007). *An overview of water quality Issues.*

Marlborough District Council (2008). *Summary of responses to Discussion Paper 6/Water Quality Issues.*

Marlborough District Council (Lauren Kensington) (2015). *Dairyshed effluent and stream crossing survey 2014/2015.* MDC report No 15-003.

Marlborough District Council (Steffi Henkel) (2013). *State of the Environment surface water quality monitoring report, 2013.* MDC Technical Report No: 13-011.

*National Environmental Standard for Sources of Human Drinking Water 2007.*

*National Policy Statement on Freshwater Management 2014.*

Newcombe E, Gillespie P (2015). *Marlborough's coastal water quality classification: suitability of classifications and feasibility of assessment.* Prepared for Marlborough District Council. Cawthron Report No. 2689.

*New Zealand Coastal Policy Statement 2010.*

Pattle Delamore Partners Limited (March 2012). *Preliminary definition of site-specific groundwater protection zones for community water supply wells in Marlborough.*