

## “Clean Water”

### Marlborough District Council submission to the Ministry for the Environment

#### Introduction

The Marlborough District Council thanks the Ministry for the opportunity to provide comment on the proposed changes to fresh water management, as set out in the Government’s consultation document “Clean Water”.

The Council’s comments are restricted to those matters in the consultation document that could potentially affect the Council’s management of fresh water resources or those matters on which the Council has experience that it believes might be of value to share in the context of the proposals. The Council does not provide comment on all of the proposals.

The Council’s submission is structured according to the consultation document (i.e., it uses the same headings).

The submission contains references to the Proposed Marlborough Environment Plan. This integrated RPS, regional coastal plan, regional plan and district plan was publicly notified on 9 June 2016.

#### 90% of rivers and lakes swimmable by 2040

The consultation document records that the state of water quality in Marlborough’s water bodies is good when modelled against the proposed *E. Coli* guideline value of 540 *E. coli* per 100 mls. 94% of rivers and lakes are fair, good or excellent (i.e., are swimmable).

#### Proposed Marlborough Environment Plan

The Plan identifies swimming as a value relevant for management purposes in addition to the requirements for wadability under the existing NOF. In a comprehensive schedule of water body values, compiled through survey and community consultation, swimming is recorded as a value for the discrete locations or reaches in rivers as appropriate. For those rivers the following objective is set:

*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.*

From the Council’s monitoring, there are three rivers that do not currently meet the objective. In respect of these rivers, the following policy is applied:

*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:*

*Taylor River;*

*Rai River; and*

### *Waihopai River.*

The main method of implementation is through the development of Catchment Enhancement Plans, as follows:

*Catchment Enhancement Plans will be developed as a priority for rivers that have 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. It may take time to establish the nature of the cause, which may delay the completion of the Plans. Other methods may be used in the interim to reduce the effects of non-point source discharges on water quality. Each Catchment Enhancement Plan will be developed in consultation with resource users in the catchment and other affected parties.*

### **Modelled output**

The Council notes with some concern that the modelling exercise undertaken to create the swimmability maps in Section 2 of the consultation document did not utilise any Marlborough District Council data, despite that data having the required number of samples from numerous monitoring sites. It is understood that data held by other regional councils and unitary authorities was used as part of the modelling exercise.

Utilising Marlborough District Council data may have avoided some of the anomalies recorded below.

The Council believes that it is appropriate that the modelling exercise be repeated for Marlborough but that Marlborough District Council data be utilised. The Council is prepared to work with Cawthron as part of the exercise.

### **Anomalies in modelled output**

The Council has referred to the maps available on the MfE website. It appears that there are a number of anomalous results in terms of Marlborough lakes and rivers and these are recorded below:

- Fairhall Diversion: This is a diversion constructed and maintained for flood management purposes and only flows during very high rainfall events. No swimming occurs in the Fairhall Diversion.
- Boundary Creek: This is a small intermittently flowing water body. No swimming occurs in Boundary Creek.
- Blind River: This is a small intermittently flowing water body. No swimming occurs in Blind River.
- Wairau River Mouth Lagoon: This is a small saline estuary that is artificially managed for ecological reasons. No swimming occurs in the Lagoon.
- Lake Grassmere: This is a shallow saline lake, part of which is used for commercial salt production. No swimming occurs in Lake Grassmere.
- Lake Elterwater: This lake is very shallow and is prone to drying up in dry years. It is managed by the Department of Conservation as a wildlife refuge and the large number of waterfowl present would not make this water body suitable for contact recreation when it has water in it.

The Council recommends that these water bodies be removed from the swimmability maps for the reasons given above.

In addition to the above, the Council does not understand the model output with respect to rivers that have variation in suitability along its reach (e.g., Lower reach of the Avon River, Lower reach of the Awatere River, Kaituna River). It has referred to the Cawthron document (“Strategic assessment of NZ’s fresh waters for recreational use: a human health perspective”) and cannot find any explanation for these results. If remodelling is to occur, as recommended by the Council, the reasons for any variation should be clear.

### **Intent of the proposal**

The Council is confused as to the specific nature of the proposal. At page 9 of the consultation document, the following statement is made:

*“Communities will decide which rivers and lakes are most important to them for swimming, what improvements are needed, and how quickly they will be made.”*

This implies an element of discretion afforded regional councils and unitary authorities to record which rivers are important for swimming, in consultation with its community, and set objectives for these rivers. This approach is the same as that applied in the Proposed Marlborough Environment Plan, as detailed above.

However, on page 10 of the consultation document a contradictory statement is made that the target will apply to all rivers deep enough to swim in and lakes with perimeters greater than 1500 metres. Further, Objective A3, Policy A5 and Policy CA2(f) in Annex 1 make it clear that the NOF for human health for recreation applies to all large rivers and lakes.

The Council believes that the appropriate approach is for the target to apply to rivers valued by the community for swimming. In other words, the NOF for human health for recreation should apply where a regional plan records swimming as a value for the water body.

In the Council’s experience, a number of factors influence the suitability of a river for swimming. Although water quality is a critical factor, so is physical access and the nature of the river geomorphology (i.e., is there a swimming hole). The Council has verified the influence of all these factors through surveys run as part of its Recreation Bathing Water Monitoring Programme undertaken over the summer months.

The application of the NOF to all large rivers also creates a significant additional resourcing requirement over and above the Council’s existing water quality monitoring programmes for the reasons set out below.

### **Monitoring**

Appendix 5 in Annex 1 details the monitoring requirements with respect to E.coli. Large rivers and lakes must be monitored weekly, increased to daily if a single sample exceeds 260 *E. coli* per 100 ml. Some of the large rivers and lakes in Marlborough are in extremely remote locations. They include the Clarence and Acheron Rivers (and their tributaries) that flow through Molesworth Station and Lake Chalice; Fish Lake; Bowscale Tarn; Lake Sedgemere; Island Lake and Lake McRae in the Marlborough high country. Those water bodies that are accessible by road are a days journey by

road and require 4WD vehicle (and then a distance of walking), while Lake McRae is not accessible by road. Sampling these remote water bodies on a weekly basis, let alone of a daily basis, is a considerable logistical exercise given their distance from Blenheim. It will also be an exercise that involves considerable cost in terms of staff time and travel. Given the frequency for which these remote water bodies are utilised for swimming<sup>1</sup>, the costs of collecting this data would not justify the expense to the ratepayer in the Council's opinion.

There is no guidance provided as to where on the river water quality is to be sampled. Site selection is important in the Council's opinion given the site specific nature of swimming. For example, the Wairau River is a particularly long river. It is a days journey by road in a 4WD vehicle to get to the headwaters. However, people only swim in specific parts of the Wairau River, predominantly in its very lower reaches, for the factors identified above and due to proximity to urban centres.

The Council's current fresh water quality monitoring programme consists of state of the environment monitoring (involving monthly sampling) and recreational bathing water quality (involving weekly sampling over summer). State of the environment monitoring is focused on determining the effects of land use on water quality and for this reason monitoring sites tend to be located at the end of the catchment. Recreational bathing water quality sampling occurs at discrete sites frequently and regularly used for swimming.

In all reality, Appendix 5 as it is proposed would necessitate the development of a new fresh water quality monitoring programme, but one that would involve sampling sites in very remote locations and sampling rivers not utilised for swimming.

Regardless of the above matters, the Council considers that the requirement to undertake daily sampling if a weekly result exceeds 260 *E. coli* per 100 ml as excessive. This will involve considerable cost to the Council. The Council believes the requirement for daily sampling should trigger if a weekly sample exceeds 540 *E. coli* per 100 ml. This is more consistent with the Recreational Bathing Water Guidelines and better achieves the objective of the proposal given that 540 *E. coli* per 100 ml is set as the threshold for swimmability.

Finally, the Council notes that there is potentially conflicting information on the MfE website with respect to this proposal. At the following address is an *E. coli* attribute table: [www.mfe.govt.nz/fresh-water/freshwater-management-reforms/water-quality-swimming-categories-attribute-states-detail](http://www.mfe.govt.nz/fresh-water/freshwater-management-reforms/water-quality-swimming-categories-attribute-states-detail). This includes three additional measures to potentially determine attribute state, including median *E. coli* per 100 ml. These are introduced on the website as the relevant attribute states. This statement appears to conflict with the attribute table for human health for recreation in Annex 1 of the consultation document. The Council seeks some clarification on the relevance of the table given the content of the consultation document.

## Reporting

The Minister wrote to the Mayor setting out an expectation that the Council will report on proposed regional targets and finalised targets for swimmability within specified time periods. While the

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<sup>1</sup> The Clarence and Acheron Rivers, and Lake Chalice, can and are used for swimming on an occasional basis by recreational users. They will be in the area for other recreational purposes (e.g., tramping, mountain biking, 4WD touring) and the occasional swimming is incidental to that purpose. The Council has no record of the other water bodies listed being used for swimming.

Council understands the seriousness of the proposals and the Council's responsibilities under them, the time periods may be too soon given the matters that the Council considers require resolution (as set out in this submission) and no doubt in other submissions. October is now only five months away but the Council can only undertake a certain amount of planning until the targets and the NPS changes are confirmed. Additional funding may also be required to implement the changes and this is likely to require amendments to the Council's LTP and/or annual plan process.

In terms of reporting, it is not clear what the expectation will be for those councils, like the Marlborough District Council, that already exceed the target.

**Recommendation:**

- 1. That further modelling be undertaken for Marlborough rivers and lakes utilising relevant Council monitoring results.**
- 2. That anomalous modelled outputs, as identified in this submission, be removed from the swimmability maps for Marlborough.**
- 3. That Objective A3, Policy A5 and Policy CA2(f) apply to water bodies that are identified as being important for swimming in a regional plan.**
- 4. That Appendix 5 in Annex 1 be amended so that daily sampling triggers when a single sample exceeds 540 *E. coli* per 100 ml.**
- 5. That clarification is provided with respect to the relevance of the *E. coli* information provided on the MfE website to the attribute states included in the consultation document.**

### **Amending the NPSFM 2014**

There are eight proposed changes to the NPSFM 2014. The Council supports the proposals in 3.2, 3.3 and 3.8. The Council's views on 3.1 are reflected in the Council's response to the proposals for swimmability above. It is either neutral on the other proposals (as they do not apply to Marlborough) or monitoring has not been undertaken to determine the impact of the proposal (e.g., periphyton monitoring in the context of 3.4).

The Council is unclear why economic wellbeing is required to be inserted into the NPSFM, as proposed in 3.5, given Section 5 of the RMA 1991 and the requirements under Section 32 of the RMA 1991 in terms of policy evaluation. However, if this emphasis is to be retained, then the Council supports the proposed wording of Objective A2 in Annex 1 as it creates a clear hierarchy of priority.

### **Funding to improve fresh water**

In submitting on the "Next steps for fresh water" consultation document, the Council supported the Fresh Water Improvement Fund and continues to do so.

The eligibility criteria specified in the consultation document identifies that the minimum request for funding is \$200,000 (Criteria 3). Taking into account that the fund will also cover a maximum of 50% of the total project cost (Criteria 4), the project cost therefore has to be a minimum of \$400,000 to be eligible for funding.

The Council has identified rivers degraded, and at risk of being degraded, in a local context in the Proposed Marlborough Environment Plan. These rivers include those that do not meet objectives set

via the National Objectives Framework (NOF) (and included in the Proposed Marlborough Environment Plan). Most are smaller water bodies with limited catchments. The intervention required to improve water quality may cost less than \$400,000 (i.e., the Council could not seek funding for the intervention).

The Council is currently in the process of developing catchment enhancement plans for these degraded rivers. As such, the final nature of the interventions required and the costs of those interventions have yet to be confirmed. However, the Council would not want criteria to prevent the ability to apply for funding if minimal intervention brings about significant changes in water quality to the extent that the river complies with the NOF.

The Council notes that in the event of the fund becoming heavily subscribed, applications will be prioritised according to “vulnerable catchments”. Although there is no further information in the consultation document, the Ministry website identifies vulnerable catchments in map form, but does so with the comment: “This dataset shows catchments that have been classified as vulnerable (as defined by the criteria for the Fresh Water Improvement Fund)”. The Council cannot find a link between the vulnerable catchments identified in Marlborough and the criteria.

Given its submission above, the Council would like to understand how the mapped catchments in Marlborough came to be identified as the vulnerable. Those catchments do not reflect the results of the Council’s own monitoring against the NOF in this regard.

**Recommendation:**

- 1. That criteria 3 of the Fresh Water Improvement Fund be reviewed and preferably reduced so that it does not limit its application to water bodies where small interventions may create significant improvements in water quality.**
- 2. That further information be provided to regional councils and unitary authorities to explain how vulnerable catchments were identified.**

## **Keeping Stock out of our waterways**

As it stated in its submission on the “Next steps for fresh water” consultation document, the Council supports the principle that excluding stock from water bodies is an effective tool for enhancing water quality. To this end, the Proposed Marlborough Environment Plan also includes proposals for excluding stock access.

Pastoral farming occurs in different environmental settings in Marlborough and the stocking rate reflects these settings. Stock can be grazed extensively in South Marlborough and some parts of the Marlborough Sounds and intensively in other parts of Marlborough, especially in catchments supporting dairy farming. In the Council’s experience, the intensity of stock grazing has a significant influence on the potential for stock to adversely affect water quality. For this reason, the provisions of the Proposed Marlborough Environment Plan concentrate on farming stock under intensive conditions. This includes dairy farming, the farming of pigs, and the grazing of cattle and deer under irrigated conditions or where the stock are break fed.

The Council notes that the proposal for regulations contains more detail than set out in the “Next steps for fresh water” consultation document.

The Council is supportive of the use of regulations and supports in general the way in which the regulations are proposed to be applied.

The Council also notes and supports the inclusion of break feeding in the proposed regulations.

The Council retains some residual concerns regarding the impact of the proposals on extensive beef farming operations. This concern is linked to the way in which slope is proposed to influence the nature of the regulations. Slope will be determined by reference to the LRI slope dataset. There is no further reference within the consultation document to the specific dataset to be used, so it has been difficult to assess the potential impact of the proposals fully. The Council notes that Landcare Research has been undertaking significant work on the LRI for central government in the context of its use to support the NESPF. As part of this work, the Council understands that there have been three reviews to ensure that the dataset is effective with respect to the purpose of that NES.

The scale at which the slope data set is to be applied will be critical. For example, a farm can have paddocks with different slopes and slope may even vary within a paddock. The Council believes further investigation and consultation is required on the use of the LRI dataset in order to ensure that it can be effectively applied at a farm scale.

The Council has two concerns over the potential application of the regulations to water bodies in the way that “water bodies” are described on page 28 of the consultation document.

Firstly, the application of the regulations is to waterways over 1 metre wide at any point. It is the use of “at any point” in the proposal that causes concern. All rivers are less than 1 metre at some point in their headwaters. This wording could be used to justify an argument that the regulations do not apply. What is relevant is the width of the water way flowing through the land that is being grazed.

Secondly, the Council seeks clarification as to the definition of “permanent flowing” as proposed to be used in the regulations. The Proposed Marlborough Environment Plan identifies three types of rivers: permanently flowing; intermittently flowing and ephemeral. The definitions for intermittent and ephemeral are provided below:

Intermittently flowing: means a wetland, lake, river, or reach of river that exists or flows for weeks, or months each year.

Ephemeral: means a wetland, lake, river, or reach of river that only exists or flows for a short period following heavy or persistent precipitation or snowmelt.

Marlborough, particularly South Marlborough, has a large number of intermittent water bodies. These typically flow from late autumn, through winter and into spring (i.e., for between 6 to 9 months). While they flow during this period they are moderately sized rivers and include the Taylor River, Omaka River, Waikakaho River, Ohinemahuta River. It is important that the proposals for permanently flowing rivers also apply to these intermittently flowing rivers when they are flowing.

It is noted that the consultation document uses the phrases “river” and “stream”. Under the RMA 1991 a stream is a river. It is recommended that the regulations avoid using the term “stream” for this reason.

The consultation document contains a proposal to allow supervised stock crossings where they occur less than once per week. The Council understands the need to provide for crossings where there are practical difficulties involved with bridging or culverting. However, the Council submits that the proposed threshold is still a reasonably frequent crossing and is concerned at the potential effect of the crossings on water quality. The Council's own monitoring has shown the adverse effect on downstream water quality from just one crossing.

If the intent of the proposal is to allow infrequent crossings for reasons of practicality, then the Council submits that the threshold should involve less frequent crossings than one in every eight days.

Finally, the Council notes the proposal for "stock exclusion plans". The Council has implemented similar plans in its dairy farming catchments. They record an agreement between the farmer and the Council for stock exclusion. However, the agreements have no status and the Council has found it difficult to enforce them where the partner has not implemented the identified actions. This issue is raised only so that the Ministry is aware of the matter of enforceability.

The Council will have to develop either policy or guidelines to determine whether a "stock exclusion plan" is appropriate and to determine the basis on which agreements would be entered into. The potential effects of ongoing stock access must form part of the assessment process, in addition to the practical difficulties of bridging, culverting or fencing.

**Recommendation:**

- 1. That further work and consultation occurs in terms of the use of the relevant LRI dataset in order to ensure that it can be effectively applied at farm scale.**
- 2. That the proposals for water ways in terms of width (i.e., one metre) apply to the land which is being grazed as opposed to the current "at any point".**
- 3. That the proposals for stock exclusion for permanently flowing rivers also apply to intermittently flowing rivers (as defined in the Proposed Marlborough Environment Plan) when they have water flowing in them.**
- 4. That the threshold for the proposal to allow stock crossings be amended so that it fairly represents occasional (as opposed to regular) crossings.**
- 5. That further work and consultation occurs in terms of the concept of "stock exclusion plans" to address issues of status, enforceability and implementation.**