

Report No.	18-38
Decision Required	

DRAFT REGIONAL TARGETS FOR SWIMMABLE LAKES AND RIVERS

1. PURPOSE

- 1.1. This paper provides an update on work towards setting regional and national targets for primary contact in rivers and lakes under **the National Policy Statement for Freshwater Management (NPSFM)**. Commitments to improving water quality have already been made across the Horizons Region and their effect on water quality has been modelled.
- 1.2. The draft target set in this paper meets a requirement set under the NPSFM and has been calculated via a collaborative process being run between government and the regional sector.
- 1.3. The draft target is based on work already committed by Horizons. Council can choose to be more ambitious in setting its final target which it has to do by December 2018.
- 1.4. This paper seeks your agreement to set a draft target for the Horizons Region based on these existing commitments, of 60 percent of rivers (that are fourth order or larger) and lakes (with perimeters greater than 1.5km) to be “swimmable” (i.e., in the blue, green or yellow category in terms of *E. coli*) by 2030. This represents an increase of around 20% from the estimate of 40% currently meeting NPSFM targets.
- 1.5. These numbers are based on the definition of swimmable in the NPSFM.
- 1.6. The Labour – New Zealand First Coalition has indicated that it may revise the approach to swimmability in the NPSFM.

2. EXECUTIVE SUMMARY

- 2.1. The NPSFM requires regional councils to prepare draft regional targets to improve the quality of freshwater (Policy A6). These targets must contribute to achieving the national target for 90 percent swimmable lakes and rivers by 2040. The draft regional targets must be made publicly available by 31 March 2018, with final regional targets publicly available by 31 December 2018. These targets are distinct from the limits and targets required by Policies A1 and A2 of the NPSFM.
- 2.2. A governance group and taskforce comprising **Ministry for the Environment (MfE)** and **Ministry for Primary Industries (MPI)** officials and staff from regional councils were set up to help councils meet this obligation. The taskforce has compiled information on work committed or underway in each region, to improve water quality for swimming, and the likely associated costs. The information for each region is presented in a report (**Annex A**) that will be made publicly available before 31 March 2018 (a draft was reviewed by Councils in January 2018).
- 2.3. Councils have not had the opportunity to consult with their communities about what rivers and lakes they should focus on for improvements and within what timeframes. Some intend to use the results in the above report as their draft targets and as a starting point for discussion. The taskforce supports this approach.
- 2.4. The information in the taskforce report indicates that a draft regional target for the Horizons Region of 60 percent of rivers and lakes swimmable by 2030, is realistic and achievable given current work programmes. These rates are below the average that is required nationally (80 percent). There is an opportunity for Horizons to be more ambitious when

final targets are set in December noting that the cost of more ambitious targets may be hard to quantify accurately.

- 2.5. The current estimate is that approximately 40% of rivers meet the NPSFM swimmability targets as of 2017/2018.
- 2.6. Swimmability targets are currently set year round rather than reflecting the seasonal use of rivers. The current government is looking at this and whether the approach to swimmability should reflect seasonal use.
- 2.7. The current Government's examination of the NPSFM and swimmability may influence the final targets to be set by Council in December 2018.
- 2.8. The information sheet in **Annex B** fulfils the reporting requirements under the NPSFM.

3. RECOMMENDATION

It is recommended that Council:

- a. receives the information contained in Report No. 18-38 and Annexes.
- b. notes that the NPSFM has set a national target "to increase the proportion of specified rivers and lakes that are suitable for primary contact ... to at least 80 percent by 2030 and 90 percent no later than 2040";
- c. notes that the NPSFM requires regional councils to make draft regional targets to improve the quality of fresh water, that will contribute to achieving the national target, and to make these draft regional targets publicly available by 31 March 2018, with final regional targets publicly available by 31 December 2018;
- d. notes that the Government has indicated it may further amend the NPSFM in respect of "swimmability" and that these amendments may impact on developing our final regional targets;
- e. notes that a report on existing commitments for work underway in each region to improve water quality for swimming has been prepared in a partnership between central government and the Regional Sector and is attached (**Annex A**). The MfE will make this publicly available before 31 March 2018;
- f. notes that the modelling undertaken for the report forms the basis for the draft targets;
- g. agrees to set a draft target for the Horizons Region of 60 percent of rivers and lakes swimmable by 2030, and make this target publicly available with the information sheet (**Annex B**);
- h. notes that staff will be required to undertake further work, which may include community consultation, before reporting back to Council with a recommendation for a final regional target in December 2018;
- i. agrees to recommend that the Regional Sector works collaboratively with the Government on any amendments to the NPSFM and requirements to set final regional targets.

4. FINANCIAL IMPACT

- 4.1. Work already committed to is reflected in the 60% target. A higher target would likely mean additional costs. However Council could set a more ambitious target by December and deal with potential costs via the cycle of long term plans between now and 2040.

5. COMMUNITY ENGAGEMENT

- 5.1. Council may deem this report sufficient to inform the public of the draft swimmability targets. The forthcoming catchment review programme, Our Freshwater Future, will involve significant community engagement and will update the formal consultation processes used through the development of existing One Plan targets.

6. SIGNIFICANT BUSINESS RISK IMPACT

- 6.1. While failing to meet the timeframes within the NPSFM to set swimmability targets does not have any legislative consequences, the significant public and Ministerial interest in this matter could impact on Horizons' reputation. The Minister for the Environment has the power to investigate the reasons for such a failure, and to make recommendations and appoint commissioners.

7. BACKGROUND

- 7.1. The term "specified rivers and lakes" is defined in the NPSFM as rivers that are fourth order or above and lakes with a perimeter greater than 1,500 metres¹. Primary contact is defined as people's contact with water that involves immersion, including swimming.
- 7.2. To achieve the national targets (80 percent by 2030, 90 percent by 2040), the NPSFM directs councils to set regional targets. Draft regional targets must be made available to the public by 31 March 2018 and final targets made available by 31 December 2018. The NPSFM does not specify whether these regional targets should be for the 2030 or 2040 timeframe.
- 7.3. To help councils to respond to the requests for information and develop their regional targets as directed in the NPSFM, central and local government established a governance group and taskforce comprising MfE and MPI officials and staff from regional councils and territorial authorities. The governance group has been responsible for coordinating the sector's response to the policy proposals more generally and overseeing the work of the taskforce. The taskforce has focused on a programme of work to collect the information needed to achieve the deadlines set by government.
- 7.4. Some regional councils have raised concerns with the taskforce about the national targets. Their concerns include:
- The target's focus on *E. coli* and cyanobacteria (human health attributes in the NPSFM) as measures of suitability for swimming. In some regions, the community outcomes sought will mean other contaminants such as nitrogen, phosphorus and sediment may be a higher priority.
 - There is a risk that prioritising actions to achieve the national targets for swimming will affect the process of identifying other community values (such as irrigation or mahinga kai) and setting freshwater objectives and limits for those values as required under the NPSFM.
 - The method of assessing and reporting *E. coli* takes no account of seasonal effects that influence when people swim, or whether there is any public access to the rivers and lakes that are part of the target.
- 7.5. The taskforce will continue to discuss these wider issues related to the setting and achieving of targets, and work with government officials to resolve them.
- 7.6. Developing regional targets is a challenging process because of the delays and uncertainties relating to the Government regulation on stock exclusion, and the work committed to by the coalition Government on seasonality for swimming. Furthermore,

¹ A first order stream is the smallest of the streams and has no tributaries. First order streams, which may not be permanently flowing, flow into second order streams, which flow into third order streams and so on.

while there are areas where the science can be improved (for example, the ability to model all four criteria for *E. coli* results in rivers) it is unlikely these matters will be resolved over the next six months. These uncertainties should not prevent us from making estimations with the tools and knowledge available to meet the deadline set in the NPSFM.

8. DISCUSSION

Draft regional targets for swimmable lakes and rivers

- 8.1. The governance group has interpreted the NPSFM direction as being that the draft targets should be set for the 2030 target date, with the final targets, which must be available by 31 December 2018, to be for both 2030 and 2040. This reflects that there has been insufficient time for a wider community consultation on where water quality improvements should be focussed and how quickly any mitigations works should be implemented. Because of the timing issue, the taskforce modelled the impact on water quality of commitments that have already been made, most of which have already been through a public consultation phase and investment allocated. These existing regional commitments do not add up to 80 percent swimmable by 2030 required nationally – though they do come close. 71 percent of lakes and rivers nationally are currently assessed as being swimmable; modelling suggests that programmed works will see an improvement of around 7 percent for rivers, to around 78 percent.
- 8.2. Council could carry out consultation throughout 2018 to establish what additional work programmes may be necessary to set realistic final targets for 2030 and 2040 or it could decide to set higher final targets and work through community consultation processes in subsequent long term plans and via Our Freshwater Future.
- 8.3. The taskforce used the “water quality for swimming map” on the MfE website as a basis for establishing the extent of water quality improvements that will be required region by region, and the associated costs. Regional councils provided information on areas where the maps were inaccurate; the maps were adjusted accordingly and taken as a baseline of national river “swimmability”.
- 8.4. Councils also provided the taskforce with information about the commitments to water quality mitigation work in their region in regional plans, long term plans, annual plans and asset management plans – the “committed work”. The committed work included investment in infrastructure and was assumed to include the stock exclusion requirements proposed by the Government in *Clean Water* in February 2017, though these have not yet been promulgated as national regulations.
- 8.5. The **National Institute of Water and Atmosphere (NIWA)** used the regional information to model the water quality improvements in rivers that should be achieved. The modelled improvements relate only to improvements in *E. coli* concentrations (a measure of the risk to human health) in rivers. They do not relate to improvements in lake water quality (due to modelling limitations) which are also required as part of achieving the swimmable lakes and rivers target, or to associated water quality improvements (such as nutrient levels or water clarity).
- 8.6. Estimations of the costs of the committed work have been modelled by Professor Graeme Doole of Waikato University.
- 8.7. The modelled water quality improvements in rivers and their associated costs are presented in the taskforce’s report “Regional information for setting draft targets for swimmable lakes and rivers”.
- 8.8. The draft regional targets for the Horizons Region are set out in an information sheet in **Annex B**. Supporting information in the information sheet sets out our focus, and how our work on the targets fits with our wider programme of freshwater management, including our consultation programme for setting freshwater objectives for all water bodies.

Regional information for setting draft targets for swimmable lakes and rivers

- 8.9. The taskforce's report, "Regional Information For Setting Draft Targets For Swimmable Lakes And Rivers" provides information on progress towards the national targets as a result of committed work programmes. It will be released publicly when draft targets are published on 31 March 2018. The report identifies the work committed in each region, and gives an indication of the expected improvement in water quality for swimming and the associated costs arising from that committed work. The improvements and costs have been calculated both regionally and nationally.
- 8.10. The report relies on scientific modelling by NIWA using a national version of the **Catchment Land Use for Environmental Sustainability (CLUES)** water quality model, which is relevant to rivers only. Water-quality improvements related to point-source discharge upgrades were included in the modelled estimations. For improvements that will arise from non-point source discharges, relevant information was provided to a mitigation expert panel that worked with NIWA to determine the effectiveness of mitigations in our region. The mitigation interventions largely fell into three categories: stock exclusion, riparian planting and management of farm dairy effluent.
- 8.11. The report also modelled the economic impacts of the committed work programmes. To establish the cost data, all capital costs were converted into an annual cost, using a discount rate of 6 percent and a 25-year payback period. Included in the cost calculations were:
- Cost of establishing 2-wire electric fences on both sides of waterways
 - Fence maintenance costs (1 percent of total material costs on flat and rolling land and 2 percent on steep land)
 - Three metre wide riparian buffer comprising pasture and one row of native plants on both sides of rivers
 - Opportunity cost of land within each buffer
 - Cost of additional water reticulation (excluding dairy farms where this normally occurs)
 - Remediation of wastewater systems (in Auckland only).
- 8.12. The water quality and economic modelling provides an estimate of how far each council's existing work programmes will go to meet the national targets and provides an informed interim (draft) target.
- 8.13. The assumptions and limitations of the modelling approaches taken are described in the report. The report was distributed to all regional councils in December 2017, for their review and comments. Councils' feedback has further refined the report content.

Our Region

- 8.14. The taskforce report predicts that work already planned in this Region will significantly improve water quality (in terms of *E. coli*). While the modelling inevitably contains assumptions, the indicated improvement is in line with what we have seen in recent years. In February, Strategy and Policy Committee received a report (18-15) outlining work by Ton Snelder that estimated we had made about a 5 to 8 percent improvement over the past 10 years. The modelling suggests we will achieve another 14 percent over the next 22 years. This is double the modelled improvement from programmed works nationally, which sits around 7 percent.
- 8.15. Nonetheless, the modelled results – and the draft regional targets – fall below the rates expected nationally. There is no expectation that all regions will contribute equally, since each region's situation is different. We can, however, expect pressure to adopt more ambitious final targets in December.

- 8.16. We understand that some councils may be considering using the intervening period to consult with their communities on regional swimmability targets. At this point in time, we believe consultation would be unnecessary and potentially counterproductive.
- 8.17. We believe consultation on swimmability targets is unnecessary because the One Plan already contains clear policy to maintain or enhance the suitability of all rivers and lakes in the Region for contact recreation. Methodologically, the One Plan's *E. coli* targets are different to the new national targets; the One Plan's targets are also not time-bound. Nonetheless, the intent is clear.
- 8.18. We believe consultation this year may be counterproductive because we will also be engaging with the community on collaborative catchment planning ("Our Freshwater Future"; reports 17-220 and 18-14 refer) and, subject to Council direction, may also notify changes to the One Plan's nutrient management rules. Setting swimmability targets in advance of a community process to set other targets perplexes many practitioners; *consulting* with the community on swimmability targets at the same time as we signal an intent to *collaborate* on freshwater management makes for confused messaging.
- 8.19. While regional targets must be set by December 2018 (and are then considered "final"), in practice our Freshwater Future programme will provide an opportunity to review progress and adjust our plans for each catchment as more information becomes available over the next few years.
- 8.20. Should further information come to light that modifies this assessment, we will advise Council accordingly.
- 8.21. Officers will bring back a recommendation to members on final targets in December 2018.

9. OPTIONS

Council may set draft regional targets, or choose not to do so. This section provides advice on both scenarios.

Option One – Accept the recommended draft targets (<u>recommended</u>)	
Description of option	
Council sets draft targets of 60 percent of rivers and lakes swimmable by 2030 and makes these publicly available by 31 March 2018, meeting the requirements of the NPSFM.	
Impact assessment	
Legal Implications	The NPSFM does not require the regional targets to be included in regional plans therefore they do not have legal standing in the way plan provisions do. However, achieving the national target will be relevant for catchment limit setting processes. The NPSFM requires regional councils to set freshwater objectives in every catchment, and these must include objectives for the compulsory values of ecosystem health and 'human health for recreation'. Objectives must use the specified attribute tables, including for <i>E. coli</i> . There are no legal repercussions for not achieving targets by the required dates.
Risk	There is a risk that the limitations of the modelling which informed the 60 percent target may mean that the committed work programme in our region is not sufficient to achieve the target by 2030. It is also unlikely that land use will remain static and it is not clear what impact that may have on the achievement of the target.

Policy Implications / Strategic Links	<p>Catchment planning, through Our Freshwater Future programme, will confirm the community's freshwater values and objectives, and the interventions required to achieve them. Swimmability targets, if approved at this time, will predetermine parts of that discussion. We will not, in any case, be starting from a blank slate: the One Plan's existing freshwater values and objectives provide a baseline.</p> <p>The One Plan already identifies contact recreation as a freshwater value – and sets <i>E. coli</i> targets – throughout the Region.</p>
Regional costs and benefits	<p>The draft target for 2030 is based on implementing work programmes already planned and budgeted for in the Horizons Region. The report states that the annual cost of this work is \$12.6 million and an overall increase in swimmability of 14 percent by 2030.</p>
Financial Implications	<p>There are no financial implications arising from setting the 2030 target.</p>
Annual Plan / LTP Implications	<p>The regional targets are not specified in the current Annual Plan or for inclusion in the forthcoming 2018-28 Long Term Plan. The work programme is provided for through these planning documents, and its role in improving freshwater quality explained. The community has the opportunity to make their views known through the forthcoming Long Term Plan consultation.</p>
Community Outcomes	<p>The targets contribute to the current community outcome for Water Quality: clean and healthy rivers and lakes (and more particularly the social goal, "Maintenance of, and access to, clean healthy water for recreation, and to build a sense of pride in the Region's rivers"). They contribute to the draft community outcomes Healthy ecosystems (healthy and diverse ecosystems that provide for community needs now and in the future), and human health and wellbeing (natural and built environments that support healthy people and communities) particularly ensuring there are a range of recreational opportunities accessible to the whole community, both in urban and rural areas.</p>
Community Views	<p>Existing One Plan targets were developed through an extensive, public process. Catchment planning, through Our Freshwater Future programme, will provide further opportunities for the community to express their views as targets are confirmed. The costs and risks (such as financial cost to ratepayers and opportunity cost impacts on staff and community capacity, and risk of 'consultation fatigue' and confusion about the purpose of the consultation) associated render an additional consultation process before the end of 2018 counterproductive.</p>
Customer impact	<p>The targets are considered to be realistic and achievable within current work programmes and resourcing. Customers likely to feel significant impacts from setting targets will be invited to participate in Our Freshwater Future programme, which will provide an opportunity to convey potential impacts to Council and others with an interest.</p>

Option Two – Reject the recommended draft targets (not recommended)	
Description of option	
Council does not set the recommended draft regional targets and does not provide an alternative draft regional targets by 31 March 2018.	
Impact assessment	
Legal Implications	Council will be non-compliant with the NPSFM and failing to provide the information requested by the then Minister for the Environment in February 2017. There are no legal repercussions for not achieving targets by the required dates or failing to provide information when requested to do so by the Minister for the Environment, but the Minister for the Environment has powers to investigate councils and either make recommendations or appoint commissioners.
Risk	There are reputational risks in not setting a draft regional target. Improving the quality of fresh water became an election issue last year and continues to attract media interest. The new Government has indicated a strong focus on improving water quality, and non-compliance with the NPSFM is likely to attract attention from community members, Ministers and the media, particularly if the Horizons Region is the only region not to make a draft target publicly available.
Policy Implications / Strategic Links	Were Council to choose not to set regional targets at this time, they could be worked through as part of Our Freshwater Future programme. This might provide more latitude for community deliberation – though, as noted above, the Region already has values and objectives (including contact recreation) in the One Plan, and changes will need to be clearly reasoned. Our Freshwater Future will take several years to produce catchment plans across the Region. Not setting these targets in the meantime may generate concern about our commitment to improving water quality. This perception could potentially complicate the community process more than having another set of standards to accommodate.
Regional costs and benefits	Not setting a draft regional target does not change existing commitments, therefore the costs and benefits outlined for Option 1 are the same as for Option 2.
Financial Implications	There are no financial implications arising from not setting the 2030 target.
Annual Plan / LTP Implications	Not applicable
Community Outcomes	Not applicable
Community Views	Existing One Plan targets were developed through an extensive, public process. Catchment planning, through Our Freshwater Future programme, will provide further opportunities for the community to express their views as targets are confirmed. The costs and risks (such as financial cost to ratepayers and opportunity cost impacts on staff and community capacity, and risk of ‘consultation fatigue’ and confusion about the purpose of the consultation) associated render an additional consultation process before the end of 2018 counterproductive.
Customer impact	Not applicable.

10. CONSULTATION

- 10.1. Formal consultation on the draft targets is not advised at present; it is considered preferable to engage with the community further through Our Freshwater Future catchment review process. Should this process lead to proposals to change One Plan targets, a formal consultation process will be undertaken as is required by the Resource Management Act 1991.

11. TIMELINE / NEXT STEPS

- 11.1. Officers expect to bring final targets back to Council for adoption in December 2018.

12. SIGNIFICANCE

- 12.1. This is not a significant decision according to the Council's Policy on Significance and Engagement.
- 12.2. Setting the 2030 draft targets is not considered significant in accordance with Horizons Regional Council's Significance and Engagement Policy because it based on committed work which has met the consultation requirements of the Local Government Act 2002. Developing the 2040 target may be considered significant. Further advice on this will be provided before December 2018.

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ANNEXES

- A Regional Information for Setting Draft Targets For Swimmable Lakes and Rivers
- B Draft Regional Targets for the Horizons Region