



**Local Councils
play an active
role in keeping
our communities
healthy.**

Proposed amendments to the National Policy Statement for Freshwater Management 2011 (NPSFM)

Local Government of New Zealand Submission to the Ministry for the
Environment
February 2014

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Introduction

Local Government New Zealand (LGNZ) welcomes the opportunity to make a submission on the Proposed Amendments to the National Policy Statement for Freshwater Management (NPSFM) 2011.

LGNZ makes this submission on behalf of the National Council, representing the interests of all local authorities of New Zealand. It is the only organisation that can speak on behalf of local government in New Zealand. This submission was prepared following consultation with local authorities. Where possible their various comments and views have been synthesised into this submission. In addition, some councils have also chosen to make individual submissions. The LGNZ submission in no way derogates from these individual submissions.

The submission was prepared following an analysis of the proposed amendments, analysis of feedback from councils, and discussion and feedback from technical experts.

This final submission was endorsed under delegated authority by **Lawrence Yule**, President, Local Government New Zealand and **Fran Wilde**, Chair, Regional Sector Group.

We would like to discuss with the Ministry for the Environment (MfE) the matters raised in this submission.

General comments

The regional sector has been closely involved in developing the National Objectives Framework (NOF) which becomes a cornerstone of the amended NPSFM. The local government sector supports the “direction of travel” and the intent of the amendments. We also support the process used to develop the framework. It has been very inclusive.

We support embedding the concept of Te Mana o te Wai into this National Policy Statement by way of over-arching “aspirational” objective. We understand this is proposed by some iwi. However, the framework also needs to enable regional councils and local iwi to work together to determine local priorities. This is discussed further below.

The release of the amendments is timely given the regional sector is grappling now with the setting of objectives, values and attribute states.

This submission is written on behalf of the local government sector – regional councils and territorial authorities (including unitary authorities).

We point out there will be considerable cost to replace/upgrade infrastructure (especially stormwater and combined stormwater and wastewater infrastructure) to meet national bottom lines and this has not been fully quantified. While work is currently underway to capture some of this data (LGNZ’s 3 waters project¹), the actual costs are currently unknown and therefore neither the Regulatory Impact Statement (RIS) nor the RMA section 32 evaluation can hope to accurately quantify them.

The NPS framework is flexible insofar as it does allow for long timeframes to meet objectives. We support this and it is essential that it remains. In a number of places round the country water

¹ [Link to 3 waters project](#)

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infrastructure is ancient and out-of-date and there will be scenarios where the cost of replacing infrastructure is simply uneconomic. In particular this may be the case where local populations are shrinking or the demographics are changing to predominantly older people on fixed incomes. The role of territorial authorities in setting objectives with the relevant regional council is fundamental in this regard and retaining the flexibility to deal with those matters in an appropriate time frame is critical.

The challenges around stormwater in particular must be considered. There are many factors involved - for instance, local authorities have little influence over the stormwater contamination generated by state highways and roads.

Considerable implementation guidance will be needed to support the work of regional councils and stakeholders. Regional councils, in partnership with the Ministry for the Environment, are best placed to develop the necessary guidance. Regional councils have the skills and capacity to help solve some of these issues. We acknowledge the difficulty in setting national policy for some matters given the science is still evolving and policy approaches – particularly around limit setting – are contentious. We therefore encourage continued dialogue with LGNZ as further work (including guidance material and additions to the Attributes Table) is undertaken. It would also be helpful if there was greater transparency to explain how the work of the Science Advisory Group has informed the contents of Appendix 2 - particularly with respect to definitions and statistical measures. If this is provided, it will support the work of regional councils as they develop their regulatory frameworks.

For ongoing budgeting reasons, councils need certainty about how future defined attributes will be worked into the NOF. For example, if a regional council develops a regional objectives framework for sediment, what will the process be if a sediment provision were introduced into the NOF between 2016 and 2019 and the frameworks were not aligned? Any further changes (proposed to be between 2016 and 2019) to the NPSFM need to be made in the knowledge that by then councils will have been through their second generation plan processes and therefore any future changes would not be incorporated for a further 10 years or more. In parallel to the work required of the local government sector, central government should consider how best to support this work. This should include:

- **fund** key experts (science and policy) who can advise councils on approaches, attributes and limit setting;
- **fund** on-the-ground clean-up activities to improve water quality, including upgrades of sewerage discharges;
- **contribute** to the monitoring and accounting activities that councils will need to undertake – particularly any required for national reporting.

There is also support for the addition of urban issues to the NOF. Key urban freshwater management issues are:

- stormwater contaminants;
- combined stormwater and wastewater discharges;
- changes in hydrology resulting from impervious surfaces; and
- changes in hydrology and water conditions (quality) resulting from stream riparian margin loss.

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Overall, however, Local Government New Zealand is fully supportive of the “direction of travel” of the proposed amendments to the National Policy statement for Freshwater Management.

Relationship between numerical and narrative objectives

An important point that must be addressed is how the numerical objectives sit with narrative objectives. Although Ministry for the Environment officials have advised that numerical objectives have precedence over narrative objectives, this is unclear and needs to be explicitly stated in the proposed amendments.

Many of the “quality” outcomes sought by communities for freshwater bodies relate to habitat loss and modification, which are not measured directly in the framework. The importance of direct measures of biological health (such as Macro-invertebrate Community Index (MCI) indices) cannot be over-estimated. If ecosystem health is accepted as a value there needs to be a measure of habitat quality as a key indicator of ecosystem health. Without it there is the potential to have freshwater environments that have improved water quality, meeting the national bottom lines, but with no habitat value. An example of this is streams that are concrete lined and channelised.

Responses sought:

- **clarify** in the NPS the relationship between numerical and narrative objectives.
- **clarify** in the NPS the relationship between Objectives, Values and Attributes.
- define “Objectives.”
- **make available** the supporting documentation/technical guidance which provides the detailed underpinning of science behind Appendix 2 – cross-referenced to technical publications as appropriate.
- **include** a measure of macro-invertebrate health in Appendix 2.
- **develop**, with the regional sector, a timetable for the inclusion (in Appendix 2) of other direct measures of the health of water bodies.

Consistency with the existing NPSFM

We consider that there is an issue of internal consistency between the NPSFM and the proposed amendments, relating to the Interpretation Section and Objective A2. The amendment to the NPSFM introduces a Freshwater Management Unit (FMU). The FMU has a wide definition in the Interpretation section as the primary management unit for setting objectives and for freshwater management and accounting.

The existing NPSFM requires the overall quality of freshwater within each region to be either maintained or improved. The amendment proposes that this be achieved through a new system based around the FMU. Missing is the link between objective setting, accounting and reporting requirements for FMUs and the overall condition of water quality within each region. There is potential for FMUs to be defined such that they relate to management imperatives that only partially cover a region. It is unclear whether all waterbodies within a region are required to be covered by a FMU. For example, what is the expectation regarding national parks – particularly when they are being managed for conservation and therefore unlikely to change in water quantity and quality?

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Responses sought:

- **Enable** regional councils to determine FMUs within a region and amend the Interpretation Section for a FMU to include: “**Freshwater management unit** is the water body, multiple water bodies or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management.”
- **Provide guidance** on whether all water bodies within a region must be included within a FMU. If this is the case then amend the Interpretation Section needs to state: “*All waterbodies in a region are to be covered by Freshwater Management Units*”; and
- **Insert** in Policies A1 and B1 a further clause before (a):
 - “...define Freshwater Management Units that together extend across the whole region, with all water bodies and land in the region contained within at least one FMU for water quality and water quantity.”
- **Amend** Objective A2 to read:
 - “*The overall quality of freshwater within each Freshwater Management Unit in a region is maintained or improved.*”

“Fit” with the Environmental Reporting Bill

The framework for the forthcoming Environmental Reporting Bill must fit with the requirements imposed by the NPSFM and not duplicate the effort (and cost) which will be borne by a regional council to meet the requirements of each. LGNZ understands that an Environmental Reporting Bill will be introduced early in 2014 and that this Bill will provide a national monitoring framework so that the condition of the nation’s environmental domains (Freshwater is an identified domain) will be consistently reported.

We also understand that Regional Councils will be expected to collect and provide much of the information to support the water domain monitoring. In the Pressure – State - Response framework this would most closely relate to “State” information. We note the recent changes to section 360 (RMA) that allow for the standardisation of information in anticipation of the Environmental Reporting Bill. However there is very little indication as to how such a national picture can be developed through the local selection of freshwater objectives that relate to parts of a region yet to be determined (Freshwater Management Units). This relates to the relationship between section “CB Monitoring Plans” and “CC Accounting for freshwater takes and contaminant loads”.

The monitoring required by the proposed new section “CB Monitoring Plans” is linked specifically to the achievement of freshwater objectives (determined locally) for Freshwater Management Units (Policy CB1). Policy CB1(b) specifically requires that the sites selected are representative of each Freshwater Management Unit. We note that this is in direct conflict with the requirement to measure for the compulsory attribute of Dissolved Oxygen in rivers below discharges (covered elsewhere in this submission) as it is unlikely that below a discharge would be representative of a wider Freshwater Management Unit.

There are no selection criteria for Freshwater Management Units in the amendments to the NPSFM. This matter is also developed elsewhere in this submission. Without criteria it will be up to individual communities to decide the definition and scale of each unit. This could potentially be at the expense of any subsequent ability to aggregate information to a national level.

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We strongly support recognising long-term trends in monitoring information. It is only through repetitive measurement of the same variable using standard protocols that changes in state attributable to pressure or response can be discerned from background signals. Changes to this, either through a requirement to change location of sites, or a need to change protocols to reflect national consistency and therefore allow aggregation of data, may work against this.

The establishment of an accounting system in proposed section “CC Accounting for freshwater takes and contaminant loads” relates specifically to each individual Freshwater Management Unit. This is to quantify the inputs (contaminant loads) to and outputs (takes) from a water body that is a Freshwater Management Unit. This represents the “Pressure” element of the Pressure - State – Response framework. However the wording of Objective CC1(c) creates an expectation that freshwater quality and quantity data should be able to be aggregated for regional and national water management and monitoring purposes. This is unlikely without a nationally consistent approach to the identification of Freshwater Management Units, and protocols for measurement of inputs and outputs.

There is a risk of duplication/inconsistency/inefficiency if councils proceed with accounting systems for water quality before the framework and understanding about monitoring and accounting systems is properly developed at the national level. Also required is more integrated thinking and forward planning about identifying other attributes for values (and associated states). Alignment with existing initiatives - the National Environmental Monitoring Standards (NEMS) and National Environmental Monitoring and Review (NEMaR) - is essential. Work being done through NEMS and NEMaR should be informed by the range of variables required to be monitored and reported on under the NPSFM. All of this work should inform councils about the data they collect to ensure appropriate ‘accounting systems’ are being maintained.

Responses sought:

- **align** the monitoring and accounting framework, with regional councils, to include sampling protocols for the NPSFM with the proposed Environmental Reporting Bill.
- **provide** selection criteria and protocols for Freshwater Management Units to enable the aggregation of data to the national level.

Te Mana o te Wai (as part of Objective A1)

Government has sought feedback on the proposal to include Te Mana o te Wai as an objective in the NPSFM.

LGNZ supports the inclusion of Te Mana o te Wai as an over-arching objective. LGNZ supports the inclusion Te Mana o te Wai as it is central to the philosophy of the NPS and to the protection of water, and is relevant not just to water quality policies, but to all policies in the NPSFM. We are nevertheless concerned that the deconstruction of Te Mana o te Wai into individual value components may compromise its holistic nature and suggest that this is inappropriate. We suggest that further refinement of the Te Mana o te Wai objective is needed to enable it to be delivered as holistic concept and one that can be achieved in a variety of ways that are best developed at the regional scale in partnership with iwi, rather than being prescribed nationally.

The expansion of National values in the proposed Appendix 1 assists interpretation of the values covered by the NPSFWM but in doing so limits the expression of Te Mana o te Wai. In reality, the two proposed compulsory values explained as Ecosystem Health and Human Health (secondary

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contact recreation) are only part of Te Mana o te Wai and additional values are required, with Te Hauora o te Taiao (Natural Form and Character) proposed to cover the other aspects. Consistent with the understanding that Te Mana o te Wai is a central philosophy which captures the holistic nature of values around water. We consider that it is unlikely (and potentially inappropriate) to prescribe at the national scale a list of attributes for Te Mana o te Wai that must be measured. Rather, Te Mana o te Wai is more appropriately set as an over-arching objective and its practical meaning should be developed through partnerships with iwi at the regional scale.

If the concept of Te Mana o te Wai is incorporated into the NPS as proposed it will create inconsistencies within the NPSFM. For example Objective A1(b) with regard to secondary contact is inconsistent with Te Mana o te Wai. "Swimmability" or primary contact would be consistent with Te Mana o te Wai and, we acknowledge that this is a worthy **aspiration**, which we support. However decisions on this need to be made local communities, including iwi. These decisions will take into account the community's priorities, the characteristics of the different catchments and the cost implications.

The elements of Te Mana o te Wai, Te Hauora o te Wai, Te Hauora o te Tāngata and Te Hauora o te Taiao (ecosystem health, human health and natural form and character respectively) are incorporated throughout the NPSFM and proposed amendments. They are expressed through proposed water quality attributes and in policies which support the integrated land management approach. Including Te Mana o Te Wai as (c) in Objective A1 assumes that it will be included as a compulsory national value (in Appendix 1) with specific attributes to be measured (in Appendix 2), as it would be inconsistent to give effect to Objective A1(c) any differently from A1(a) and (b).

If this logic were to be followed, attributes for Te Hauora o te Taiao (natural form and character) would also be needed. We are concerned that if this is a compulsory value there will be practical considerations for councils and iwi associated with identifying attributes for natural form and character. This particularly relates to the functions, roles and obligations of local government agencies with respect to the provision of safe and efficient water management schemes including (but not limited to) flood protection and the diversion of rivers through artificial channels, constriction by way of levees (stopbanks) and the identification of ponding areas. Throughout the country these activities are likely to become more critical with time as a response to climate change/variability. In this regard, Natural Form and Character must not only recognise the existence of past activities and the development of settlements in hazardous situations requiring existing flood protection schemes, but recognise that in the future flows are projected to change (see Policy B1(a)).

If it is the intention to give effect to Te Mana o te Wai in Objective A1 and include attributes for Te Hauora o te Taiao, then a complex schedule of exemptions would be required to cover community owned flood management infrastructure and such a schedule would need to reflect regional variation in approaches and requirements.

LGNZ fully supports the inclusion of Te Mana o Te Wai in the NPSFM, particularly the reflection of Te Mana o Te Wai in the Preamble. However, requiring Councils to give effect to Te Mana o Te Wai through implementation of Objective A1(c) is not consistent with its meaning. It would also be difficult to implement practically as the inclusion in Objective A1(c) is ambiguous without further work. LGNZ wishes to be part of this discussion.

The policy intent for including Te Mana o Te Wai directly in the NPS needs to be clarified and a more appropriate mechanism included to give effect to it. We invite further discussion of this with the local government sector and other stakeholders, including iwi, while the NPSFM is being finalised.

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Responses sought:

- **clarify** the policy intent for including Te Mana o Te Wai in the NPS (in addition to the Preamble);
- **identify** a more appropriate mechanism to give effect to the policy intent (e.g. include Te Mana o Te Wai directly after “safeguard” in both Objective A1 and Objective B1); and
- **consider** the opportunity of also including mention of Te Mana o te Wai in Policy D1(c) in the following manner:
- “(c) reflect tangata whenua values *such as Te Mana o te Wai* and interests in the management of and decision-making regarding fresh water and freshwater ecosystems in the region.”

Detailed comments and consistency with existing NPSFM

We have identified some internal inconsistencies within the policy framework. The specific issues are identified in the table below.

Topic area	Issue and response sought
<p>Interpretation</p> <p><i>Freshwater Management Units,</i> <i>Policy A2, Policy B1, Policy B6, Appendix 1, Page 14</i></p>	<p>The compulsory national value Te Hauora o te Wai/the health and mauri of water (ecosystem health) outlines “...a freshwater management unit supports a resilient ecosystem specific to that of the freshwater body type”.</p> <p>This is inconsistent with the definition outlined in the Interpretation: A Freshwater management unit is a waterbody, multiple water bodies, or any part of a water body...”</p> <p>This interpretation, as well as the discussion on page 14, implies that the freshwater management unit can be “... a single catchment, multiple catchments or part of a catchment.”</p> <p>LGNZ supports the change from freshwater bodies to Freshwater Management Units, but would require further specific definition of a ‘Freshwater management unit’ in the Interpretation.</p> <p>Response sought: If the <i>Freshwater management unit</i> is “...a single catchment, multiple catchments or part of a catchment” amend the wording in Appendix 1 to “...a Freshwater management unit supports resilient ecosystems specific to the freshwater body types within the unit”.</p>
<p>Interpretation</p> <p><i>“Accounting system”</i></p>	<p>The definitions for <i>Freshwater quality accounting systems</i> and <i>Freshwater quantity accounting systems</i> are set at different levels for “sources of relevant contamination” and the corresponding” by each major category”. It is unclear whether there is a particular difference being articulated here for each system – relevant versus major.</p> <p>Response sought: Standardise the application of the level of accounting</p>
<p>Interpretation</p> <p><i>“Minimum acceptable state”</i></p>	<p>The definitions of “<i>Minimum acceptable state</i>” and “<i>National bottom line</i>” appear to be creating a two-part definition that is in practice only one. For example, in Appendix 2 the “<i>minimum</i></p>

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<p><i>and “National bottom line”</i></p>	<p><i>acceptable state”</i> is noted as being a “<i>national bottom line</i>”. It is not clear why both terms are being used and it creates confusion.</p> <p>Regardless of the term used, there are three potential positions for objectives/limits to be referenced in relation to it:</p> <ul style="list-style-type: none"> • above; • at; and • below (for transition period). <p>Response sought: Clarify and simplify the application of terms “<i>Minimum acceptable state</i>” and “<i>National bottom line.</i>”</p>
<p>Objective A2</p> <p><i>Concept of “maintain or improve overall water quality”</i></p> <p><i>See also the related discussion on Freshwater Management Units below</i></p>	<p>Objective A2 requires the overall quality of freshwater within a region to be “<i>maintained or improved while....</i>”</p> <p>The NPSFM as it currently stands offers little direction on the application of the “<i>maintain or improve overall water quality</i>” concept in relation to:</p> <ul style="list-style-type: none"> • water quality outcomes; • scale; and • relevant water quality variables. <p>The proposed changes do not address this shortcoming.</p> <p>There is no date from which measurement of “<i>to maintain</i>” commences.</p> <p>Critically, the role Freshwater Management Units (FMUs) and water quality “bands” need to be clarified with respect to the maintenance and improvement of water quality.</p> <p>FMUs and water quality “bands” are potentially very important tools for giving expression to community objectives, and for dealing with concepts such as “maintain or improve the overall quality of freshwater”, and (for FMUs), water quality accounting. Substantial guidance is needed on the way FMUs and bands should be applied.</p> <p>There is scope for water quality to decline, whilst remaining within a band. If this is not the intention it needs to be clarified.</p> <p>We note there is also no actual duty to set objectives to achieve improvement of water quality as there is with respect to quantity (Policies A3 and B5).</p> <p>Responses sought: Amend the proposed NPSFM to constrain maintenance or improvement of overall water quality to within (as opposed to between) FMUs. Clarify whether “<i>maintain or improve</i>” is within a band or at a particular level. Provide clarity on the purpose and function of water quality bands/states.</p>

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<p><i>Objective CA1</i></p> <p><i>Policy CA1</i></p>	<p>Amend Objective CA1:</p> <p>Insert (c): <i>leads to effective achievement of Objectives A1 and A2</i></p> <p>Amend Policy CA1:</p> <p>Insert in f following criterion i:</p> <p>ii. <i>the need to formulate objectives with attribute states set at or above the current relevant state, where these are not already below any minimum acceptable state</i></p> <p>Provide direction/guidance on the application of the “maintain or improve” concept. This should include guidance on the “equivalence” of outcomes (improvement in one attribute/value versus a decline in another), the spatial scale at which maintenance or improvement will be evaluated, and the range of variables relevant to such considerations.</p> <p>Clarify the date from which measurement “<i>to maintain</i>” commences.</p>
<p>Policy C2</p>	<p>The additional Policy C2(b) has been added to support the idea of integrated management (land, water, coast). However it creates a subset issue where other combinations are not mentioned - such as the impact on water use on land (such as through low water levels having an impact on soil moisture).</p> <p>Response sought:</p> <p>Amend/combine (a) and (b) to capture the desire to see integrated management of resources promoted.</p>
<p>Policy CA1(c)(i)</p>	<p>We understand the intention of this policy to be that when an additional value is selected then the council must check the attributes in Appendix 2 and, if they apply, then must use them. Currently there are only attributes for contact recreation but the intent of the policy is that when more attributes are added then they must be used. If there is no attribute, the council must determine one. This is unclear and needs to be redrafted.</p> <p>Response sought:</p> <p>Clarify the wording of Policy CA1(c)(i) so the intent is clear.</p>
<p>Policy CA3 and Appendix 4</p>	<p>Consultation on transition periods may be an important aspect of some community processes. It is a duplication to then have to carry out a process of consultation in order to add the FMU into Appendix 4. The transitional limits will be part of a RMA document which in itself provides an adequate testing of the need for a transition.</p> <p>Additionally this adds further and unnecessary transaction costs and uncertainty into the process.</p> <p>Response sought:</p> <p>Remove the requirement to have FMUs that are subject to transition added to the NPS (Appendix 4).</p>
<p>Policy CC1 and CC2:</p>	<p>The words “setting” and “set” are used in these policies. The</p>

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<p>timeframes</p>	<p>reporting requirement should relate to any information gathered – regardless of whether a limit has been set. It also should be recognised that the point at which a limit is “set” could be a substantial time away from an accounting system being established to understand a catchment.</p> <p>The timing around the word “set” is recognised in the Interpretation section.</p> <p>Response sought: Re-consider the timeframes for how reporting from water accounting systems should occur.</p>
<p>Objective CC1 and Interpretation</p>	<p>It is unclear whether the accounting of diffuse nutrient contamination is expected to be achieved through <u>modelling</u> or whether <u>specific monitoring of source sites</u> is needed. There are cost and timing implications for each.</p> <p>Assessing contamination sources is a separate matter and relies heavily on resource intensive modelling. It will need to be done at levels of detail that are commensurate with the issues within a FMU – but it is <u>not</u> an accounting matter.</p> <p>Accounting is useful to gather information that is known and specific. Abstraction is known in terms of volume and use (at a property scale), and limits can be set. Clear guidance is needed on the scope of accounting and its relationship to limit setting.</p> <p>Response Sought: Provide guidance about how modelling fits within freshwater accounting as part of the proposed amendments.</p> <p>Discussion with the regional sector is needed as this is developed.</p>
<p>Target <i>and its application to objectives and limits</i></p>	<p>There is no clarity in the current meaning of “<i>target</i>” as it might apply to objectives as well as to limits. This is important as a framework element, as the objectives drive the relevant limits, and where objectives require improvement, these will then drive the limit targets.</p> <p>While “<i>target</i>” is referred to in Policy CA1 (f) (vi), clarity is required. The reason for this is clear when considering limit-setting and dealing with allocation within limits.</p> <p>Response sought: Amend the meaning of target to clearly support the setting of objective state targets. A recommended replacement meaning is: “<i>Target</i>” is:</p> <ul style="list-style-type: none"> i. <i>an attribute state for a freshwater objective, or</i> ii. <i>a quality or quantity limit;</i> <p><i>which must be met at a defined time in the future, and applies in the context of the development of freshwater objectives, transitions for achieving national bottom lines, and reducing over-allocation.”</i></p>

<p>Freshwater Management Unit</p>	<p>The amendment introduces a Freshwater Management Unit (FMU). It has a wide definition in the Interpretation Section as the primary management unit for setting objectives and for freshwater management and accounting. It was also referred to during public consultation and technical discussions as representing an integrated social and hydrologically coherent management entity. LGNZ members consider this clarification important as it reflects the need to select units that are a suitable scale. All relevant stakeholders involved should be involved in selecting FMUs.</p> <p>The existing NPSFM requires the overall quality of freshwater within each region to be either maintained or improved. The amendment proposes that this be achieved through a new system based around FMUs. However there is no link between objective setting, accounting and reporting requirements for FMUs and the overall condition of water quality within each region. There is potential for FMUs to be defined so they relate to management imperatives that only partially cover a region. This may not allow Objective A2 to be achieved unless the each region is fully covered by FMUs.</p> <p>LGNZ strongly supports regional councils determining the FMUs within a region and supports an amendment to the Interpretation section to clarify this.</p> <p>Responses Sought: Amend the definition as follows: “Freshwater management unit” is the water body, multiple water bodies or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management. <u>All waterbodies in a region are to be covered by socially and hydrologically integrated Freshwater Management Units.</u></p> <p>Provide guidance on whether all water bodies within a region must be included within a FMU. If this is the case then amend the Interpretation Section needs to state: <i>“All waterbodies in a region are to be covered by Freshwater Management Units”</i>; and</p> <p>Insert in Policies A1 and B1 a further clause before (a): <i>“...define Freshwater Management Units that together extend across the whole region, with all water bodies and land in the region contained within at least one FMU for water quality and water quantity.”</i></p> <hr/> <p>There is a lack of clarity about what national consistency will apply to (Objective CA1)).</p> <p>Responses sought: Clarify that national consistency will only apply with respect to national bottom lines in Freshwater Management Units – all others will recognise local circumstances.</p> <p>Clarify that the national consistency element is the values and</p>
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	<p>attributes and the regional variation is the choice of band within a FMUs.</p>
<p><i>and Objective A2</i></p>	<p>Unless a region is fully covered by FMUs it may not allow Objective A2 to be achieved.</p> <p>It is also unclear whether the expectation is that FMUs will be the same for managing water quantity and water quality. We note that management responses for water quality conceivably may not require the same FMUs for both quality and quantity. Different FMUs may be required.</p> <p>Response sought: Include in implementation guidance discussion of this matter.</p>
<p><i>selecting a FMU</i></p>	<p>There are issues involved with selecting FMUs. For example, an FMU needs to be defined at a scale that enables all values to be accounted for. Regional councils need to retain flexibility in delineating them so guidance is the appropriate mechanism to outline issues associated with selecting FMUs within a region.</p> <p>Greater clarity is required in the wording of Policy CA1 to reflect the iterative process needed in defining the “appropriate” spatial form, extent and scale of FMUs as per the meaning proposed. A recommended amendment is to allow for review of Policy CA1 outputs in reviewing progressive implementation programmes under Policy E1, as new information (including effectiveness monitoring) is gathered.</p> <p>In terms of achieving national consistency in data management and future reporting, (particularly spatially), consideration should be given to a consistent framework. This should include accuracy and methodology for determining catchments, sub-catchments, rivers, river reaches and spot locations that may be used to identify the extent of specific FMUs. In addition these aspects should take into account any revision or development of national datasets - to ensure any data collection at a national scale is useful at a regional and local scale for implementing the NPS.</p> <p>The relationship between FMUs selection and the associated monitoring demands in CB1(b) also needs consideration. There will be pressure to reduce the number of FMUs to reduce the monitoring burden.</p> <p>Response sought: Include in implementation guidance the issues associated with selecting and labelling Freshwater Management Units.</p>

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<p><i>the relationship with coastal waters</i></p>	<p>The influence of freshwater resources on coastal waters is clear in the NZCPS. The link to the management of freshwater bodies through the FMUs in the establishment of freshwater objectives for water quality Policy A1(a)(iii) and water quantity Policy B1(c) reinforces this relationship and is supported. So too is the recognition in section C “Integrated management” of the links between land use and coastal water through freshwater bodies. The NPSFM manages freshwater quality based on concentrations however, the real issue for our estuaries is contaminant loads.</p> <p>The important role of estuaries needs to be acknowledged. It is difficult to set attributes for estuaries nationally but a great deal of work has been done locally and until the science is settled, estuaries should be a local decision.</p> <p>The sector supports the inclusion of attributes for estuaries in the future.</p> <p>Response sought: Include in implementation guidance that a regional council is to have regard to coastal water when setting objectives for their FMUs e.g. an estuary. A Regional Objectives Framework taking into account loads can be developed accordingly.</p> <p>Include in implementation guidance discussion of estuaries.</p>
<p>Exemptions</p> <p><i>naturally occurring processes”; “historic” and “regionally significant infrastructure</i></p>	<p>The wording of Policy CA2 implies that the whole of the FMU would not meet standards and could be subject to any exemption. The clause should be amended so that it is clear that all of the water bodies in the FMU are <u>not</u> necessarily subject to any exemption.</p> <p>Responses sought: Amend Policy CA2(a) so it reads: “the existing freshwater quality of a water body or water bodies within any freshwater management unit is already below the national bottom line and that is caused by naturally occurring processes;</p> <p>Amend Policy CA2(b) so it reads: “<i>impacts of historical activities on the water body or water bodies within the freshwater management unit...</i>”</p> <p>Clarify the reasons that quantity is of itself not an attribute, and the responsibilities of regional councils to account for quantity factors when setting objectives.</p> <p>Wording is introduced in Policy CA2 (exemptions) which could have wide implications, depending upon how they are interpreted. Examples include; “<i>Naturally occurring processes</i>”; “<i>historic</i>” and “<i>regionally significant infrastructure</i>” should be defined.</p> <p>Response sought: Include definitions of “<i>Naturally occurring processes</i>”; “<i>historic</i>” and</p>

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	<p><i>“regionally significant infrastructure”</i> in the Interpretation section.</p> <p>Consider including criteria for exemptions.</p>
<p>Monitoring</p> <p><i>Methodology</i></p>	<p>The requirement for councils to identify representative monitoring sites is supported.</p> <p>A standardised methodology and approach for cultural health monitoring and reporting is required through guidance.</p> <p>Response sought: Include in implementation guidance discussion of the ways monitoring programmes should be aligned to recognise Tāngata Whenua values and interests in freshwater quality outcomes</p>
<p><i>“existing water quality”</i></p>	<p>How <i>“existing water quality”</i> as it appears in Policy CA2 is to be determined needs clarifying.</p> <p>Response sought: Include a definition in relation to NPS promulgation date(s), and/or regional plan processes.</p>
<p>Freshwater quality accounting system</p>	<p>The concept of a freshwater accounting system is sound and reasonable. Guidance in relation to a freshwater quality accounting system is needed. Water quantity is better accounted for now – the water meter regulations have been helpful in that regard.</p> <p>The sector has significant concerns about requirements for freshwater quality accounting in the context of the CC1 Objective seeking aggregation of data for national water management and national consistency (see CA1).</p> <p>Detailed guidance about consistent sampling methods – particularly for freshwater quality accounting in relation to national aggregation of data – is urgently required. This has the potential to significantly impact on council budgeting over the next Long Term Plan cycle and there needs to be serious analysis by central government as to the implications of this policy and alignment with the anticipated requirements of the Environmental Reporting reforms and legislation.</p> <p>The NOF imposes significant information requirements – many of these may already be part of Regional Council work programme, but if the intentions of the NOF around national consistency are to be realised, implementation guidance is critical. Water contaminant accounting is an example. The new section on accounting contains what should be in guidance material in relation to setting limits and in relation to monitoring. It contains detail and complexity and will lead to uncertainty about how accounting systems and monitoring programmes are to work.</p> <p>Responses sought: Delay implementation of any water quality accounting to enable development of nationally consistent approaches.</p>

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	<p>Provide clear expectations of regional councils, preferably within the NPSFM, but at least in guidance material, with respect to national information requirements. These must be developed in partnership with regional councils. There needs to be careful consideration of the potential cost implications to councils of data collection for national water management and monitoring purposes.</p> <p>Provide supporting documentation/technical guidance that clarifies information requirements and timeframes for delivery, with illustrative examples where these would be helpful.</p> <p>Amend this section to reflect the need to account for resource use, including both taking water and in relation to discharge of contaminants and which accounts for the implied need for proper accounting when setting limits in A1 and B5 and B2.</p>
<p><i>Interpretation section: Freshwater quantity Accounting system</i></p>	<p>The Interpretation section, in relation to a “Freshwater quantity accounting system”, states that it means a system that, for each Freshwater Management Unit, records, aggregates and keeps regularly updated, information on the measured, modelled or estimated:.....(c) <i>proportion of freshwater taken by each major category of use....</i></p> <p>The intent of this requirement is unclear. The water measuring regulations only relate to recording the <i>amount</i> of freshwater taken – there is <u>no</u> direction for collecting data about the end uses. While an economic reason could be inferred, there is no supporting information to explain this clause.</p> <p>Response sought: Clarify this provision or delete this clause.</p>
<p><i>Policy CC2(a) and (b) and water quality accounting</i></p>	<p>It is difficult to understand the implications of Policy CC2(a) without greater guidance as to what is required or entailed in water quality accounting. Without such guidance it will be difficult to ensure that any information collected under this policy will be either nationally consistent or in a format that can be aggregated as is contemplated by the objective.</p> <p>Policy CC2 (b) is already influenced by the water metering regulations and could be better aligned with expectations under that regulation.</p> <p>Response sought: Work with the regional sector to develop a framework that:</p> <ul style="list-style-type: none"> - meets the requirements for national environmental reporting; - meets the requirements of the NPSFM; - acknowledges the cost burden imposed for regional councils; - includes a contribution from central government to meet any additional costs incurred by regional councils in meeting national reporting obligations <p>It is difficult to account for all discharges –national level support and</p>

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<p><i>Guidance is needed</i></p>	<p>guidance is required.</p> <p>Response sought: Include in implementation guidance, possibly through examples, what an accounting programme “<i>commensurate with the significance of the freshwater quality and freshwater quantity issues, respectively, in each freshwater management unit</i>” might look like</p> <p>Ecosystem health as a national compulsory value is supported.</p>
<p>Appendix 2 Attribute tables</p> <p><i>Addition of new attributes</i></p> <p><i>Some key attributes are missing</i></p> <p><i>.....water clarity is missing</i></p> <p><i>Support for the inclusion of urban contaminants</i></p> <p><i>include direct measures of urban stream health</i></p>	<p>The value of national consistency is strongly supported.</p> <p>The table on page 21 of the discussion document is indicative only and should be labelled as such.</p> <p>Responses sought: Work with the regional sector to on the programme for new attributes to be developed including the timing for their inclusion in the NPS.</p> <p>Include in implementation guidance the status, and future development, of the attribute list.</p> <p>Key attributes not identified include habitat and metal toxicity (e.g. copper and zinc, for urban streams).</p> <p>Response sought: Amend the table to include these attributes as part of the forward work programme</p> <p>Water clarity is not mentioned but it is one of the key attributes most people wish to see in waterways with high water quality. Water clarity is monitored in just about every region. It is only really base flow conditions when this value really applies, so base flow needs to be defined. (Note that some exceptions may need to be provided where geology is limiting clarity.)</p> <p>Response sought: Include a definition of base flow in the NPS and include clarity as an attribute.</p> <p>Inclusion of urban contaminants demonstrates that the table is a “national” one, and not just rurally focused. However, the extreme difficulty in meeting NOF bottom lines for some urban streams needs acknowledgement, as do the facts that:</p> <ul style="list-style-type: none"> • In the absence of requirements in respect of habitat, sediment and heavy metals, many urban streams that met (or were made to meet) proposed bottom lines would still have little or no habitat or recreational value • There is a lack of remediation options available to arrest the decline of urbanising streams • Some options being developed internationally include opening up urban waterways but these come at significant cost

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<p><i>Partial population of the attribute tables creates a problem</i></p>	<p>Response sought: Include direct measures of urban stream health in Appendix 2.</p> <p>Acknowledge the difficulties in meeting bottom lines in a range of locations in supporting documentation, and emphasise the importance of timeframes.</p>
<p><i>A clear statement on groundwater is needed</i></p>	<p>Partial population of the table means potential inefficiencies as attributes are added</p> <p>Response sought: Include in implementation guidance the status and future development of the attribute list.</p> <p>The exclusion of groundwater is problematic, given the direct importance of this water resource for some communities and surface water quality. To achieve the objective of maintaining or improving water quality, the contribution of groundwater to surface waters must be acknowledged. Where ground water makes a significant contribution to surface water flow there is a need to manage ground water to the ecological thresholds set for surface water, which are more conservative than the commonly used NZDWS standards. Without an ability to manage ground water contributions to surface water using thresholds consistent with those used to manage surface water ecosystems, it will be difficult to maintain or improve water quality in surface water bodies that have a high degree of connectivity with ground waters. The use of ecosystem based guidelines will also recognise and protect the value of ground water for human consumption</p> <p>Response sought: Include, as a note, or in the body of the NPSFM, a statement recognising the hydraulic connection of ground and surface water and the importance of groundwater as a source of drinking water and the regulatory implications for water so managed.</p>
<p><i>Use the existing national monitoring protocols for Cyanobacteria and Periphyton</i></p>	<p>There are already national freshwater monitoring protocols for Cyanobacteria and Periphyton. The NPS amendments depart from the protocol and there is no explanation of why this is the case. There are significant cost implications for regional councils in doing so.</p> <p>Response sought: Incorporate the existing national freshwater monitoring protocol for Cyanobacteria and Periphyton into the NPSFM.</p> <p>There is discrepancy between the background technical report and the attributes chosen for Periphyton, with the former proposing two classes with a different number of permitted exceedances.</p> <p>Response sought: Amend Appendix 2 and revert to using the two classes, with guidance on selection criteria accordingly.</p>
<p><i>Suitable for Recreation Grade</i></p>	<p>Currently there is a push from regional councils to review the primary contact recreational guidelines. Until the Suitable for</p>

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<p><i>(SFRG) guideline needs amending</i></p>	<p>Recreation Grade (SFRG) guideline is amended, or confirmed as the best way to determine water quality suitability for swimming, it should not be used to define attribute states. Note also that as the microbiological water quality guidelines are currently written, there is a need for 20 samples each season before the SFRG can be calculated. This means that even with monthly sampling, an SFRG cannot be calculated.</p> <p>Response sought: Replace the SFRG grades in the primary contact recreation table with the equivalent <i>E coli</i> concentration thresholds for each breakpoint.</p>
<p><i>E coli Secondary contact</i></p>	<p>The choice of annual median for <i>E coli</i> secondary contact needs to be explained along with the associated health implications, given its departure from the general approach</p> <p>Response sought: Incorporate explanatory footnote in the relevant attribute table, or in supporting guidance material.</p>
<p><i>Nitrogen</i></p>	<p>Nitrate – the limit for toxicity should be clearly distinguished from that for periphyton growth. As the limits are listed it looks as if toxicity is the “pollute up to” level. More toxicological research will be required to confirm the appropriateness of this limit as toxicological studies have only been performed on three NZ invertebrates and no fish. Once this research is available the limits will need to be updated in a timely fashion.</p> <p>Response sought: Clearly distinguish the limit for toxicity associated with nitrates.</p>
<p><i>Lakes</i></p>	<p>Ecological health requirements with respect to total Nitrogen in lakes are too stringent. This will lead to apparent inconsistencies eg could be “A” state for Nitrogen toxicity but “D” for plant growth. The question must be asked, is vigorous plant growth in a shallow lake really a problem for ecological health? Nitrogen toxicity may not be a useful attribute for lakes if other unacceptable adverse effects are likely to occur at much lower concentrations.</p> <p>Response sought: Remove lakes from the attribute table for nitrate-Nitrogen toxicity</p> <p>Lake classification is not sufficiently fine-grained enough to recognise important differences between:</p> <ul style="list-style-type: none"> • shallow-turbid; • deep unproductive; and • “classic” eutrophic Lakes. <p>The Attributes are too restrictive. There is a need to define “brackish”.</p> <p>Response sought: Provide a third lake class – “shallow turbid” – with relevant attribute numbers for Nitrogen and Phosphorus.</p>

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<p><i>Biological attributes are needed</i></p>	<p>The absence of biological attributes is a major weakness. This is particularly so with respect to invertebrates but also applies to fish. There are compelling grounds to include a Macro-invertebrate Community Index (MCI) now. The MCI:</p> <ul style="list-style-type: none"> • uses a level of information common across all macro-invertebrate sampling programmes; • has an accepted methodology for application; • responds predictably to many pressures and • has existing bands which are widely applied across the country. <p>Response sought: Include a measure of macro-invertebrate health (nationally standard MCI protocols) in Appendix 2</p>
<p><i>Dissolved Oxygen</i></p>	<p>There are significant issues with Dissolved Oxygen (DO) concentrations in Appendix 2:</p> <ul style="list-style-type: none"> • Which point sources? (organic vs inorganic waste) • How far “downstream”? – It would be difficult finding the point of lowest concentration and the physical location of any DO sag will depend upon the flow of the waterway • Specification of sampling interval. <p>The wording implies continuous monitoring which is not the norm and would impose substantial costs for most councils.</p> <p>The requirement for DO sampling below a discharge should be seen as a resource consent requirement – and the need for sampling should be determined in light of the nature, scale and significance of the discharge and the receiving environment. This is not an appropriate requirement at a national level.</p> <p>Mostly as a consequence of biological activity (plant respiration and photosynthesis), DO can be extremely high by late afternoon in nutrient rich water bodies, whereas for the same water body DO may be in a depleted state in the post dawn hours. Hence the implied requirement for continuous monitoring.</p> <p>The lack of sampling protocols has the potential to reduce the effectiveness of any national aggregation of environmental data for national reporting purposes.</p> <p>Responses sought: Specify requirements with respect to DO measurement in the regulation, or remove DO as an attribute. Indicate a five year time frame for implementation if this attribute is retained, to address cost burden.</p>
<p><i>Cyanobacteria</i></p>	<p>Numeric criteria for cyanobacteria refer to a two-year “average”. LGNZ considers this should be “median”. It is statistically more appropriate and consistent with other attribute measures.</p> <p>Response sought:</p>

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<p><i>Alignment of NEMAR and NOF processes</i></p> <p><i>Determining state</i></p> <p><i>More explanatory notes are needed</i></p> <p><i>Clarity is needed</i></p>	<p>Change to median or provide explanatory footnote, cross-reference to guidance material.</p> <p>Health risk associated with cyanobacteria threshold should be quantified and be with <i>E. coli</i> (equivalence of risk)</p> <p>Response sought: Include the infection/symptom risk for cyanobacteria exposure in the narrative attribute state part of the table.</p> <p>There is a real need to align NEMAR and NOF processes. LGNZ supports the use of the former to help develop the latter.</p> <p>Response sought: Include a discussion in supporting material of the relationship between the two programmes and provide/propose an integrated work programme.</p> <p>Where an attribute has two measures (e.g. Nitrate toxicity with a median and 95th percentile) there is confusion as to which applies as an objective and as a bottom line - do both apply?</p> <p>Response sought: Clarify in the regulation the role of the two measures in determining state with respect to the attribute of concern.</p> <p>Some attributes have explanatory footnotes which are helpful, but there needs to be much more of this so that implementation is clear.</p> <p>Response sought: Expand Appendix 2 to incorporate explanation and/or direction in relation to the measurement and application of all attributes.</p> <p>Clarity is required with respect to those attributes for which there is no expectation of establishing limits directly (eg, <i>E. coli</i>)</p> <p>Response sought: Identify those attributes within the body of the NPS which are amenable to limit setting directly (i.e., can be meaningfully expressed as a (potentially) allocable load), and those which might be managed via limits set for other attributes, or through other types of intervention.</p>
<p>Process</p>	<p>Current wording implies that councils can select which attributes (of those provided) that would apply to compulsory values – e.g. could choose not to apply total Nitrate Bottom Line to lakes that are Phosphorous limited. Is this intended?</p> <p>Response sought: Amend Policy CA1ciA to make clear what “<i>identifying...the attributes...that are applicable</i>” actually means in terms of regional council discretion.</p>

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Conclusion

Local Government New Zealand supports the “direction of travel” of the proposed amendments to the National Policy Statement for Freshwater Management. Specifically, LGNZ supports embedding the concept of Te Mana o te Wai into the NPSFM as an over-arching objective. Te Mana o te Wai is central to the philosophy of the NPS – to all policies in the NPS – not just to the water quality policies.

The Regional Sector of LGNZ has been involved in developing the amendments to the NPSFM and is pleased the process has been an inclusive one. The process of providing national direction onto a devolved model of environmental regulation is a challenging one. This amendment is squeezed between the parent NPS which confirms the devolved regional council model and roles and the fit-for-purpose local management of water. However Central Government, through the NPSFM, now seeks greater influence over the management of water. The reasons for this are well documented.

In addition, there is renewed effort to ensure environmental information is collected and submitted to enable allow national aggregation and reporting. Reform is expected and the central role of regional councils needs to be acknowledged. Alignment between the forthcoming Environmental Reporting Bill, associated regulations and accounting requirements under the NPSFM is essential. The science budget of regional councils is limited and duplication must be avoided.

Many regional councils have embarked on collaborative processes with their communities and with Iwi. They are in the midst of policy and plan development to give effect to the NPSFM which took effect in 2011. The proposal to incorporate the concept of Te Mana o te Wai into the NPSFM is supported. The matter to be resolved is how best to do it. There has been limited discussion about the options to incorporate Te Mana o te Wai into the NPSFM and we would like to be part of discussions with stakeholders to explore this further. We reiterate the sector’s support in principle for Te Mana o te Wai to be incorporated into the NPSFM as an overarching principle but with the details to be determined at regional level.

There are a number of inconsistencies we have identified between the parent NPSFM and within the proposed amendments. We have flagged these and discussed these throughout the submission. The concept of the “Freshwater Management Unit” is a critical component and there are a number of matters that need to be sorted out: whether an entire region is to be covered by Freshwater Management Units and what their relationship is to freshwater accounting.

There are also many areas where clarification and guidance is needed and we have identified these in the submission. The expertise to develop guidance sits with the regional councils. This resource needs to be utilised and the guidance developed as a partnership.

The amendments confirm the direction of travel of the parent NPSFM. The wider local government sector understands the implications for infrastructure - for sewerage discharges and for stormwater disposal. Until some of the accounting work takes place the full extent of some of the water quality issues is unknown. It is essential to retain the flexibility afforded by the NPSFM – enabling communities to set timeframes to meet the objectives they set and to spread costs of upgrading. Also essential is the need to secure ongoing sources of funding from central government to support infrastructure upgrades and to investigate new technologies to address some of the challenges, especially around stormwater.

We look forward to an ongoing relationship with Ministry for the Environment officials and with other stakeholders as the NPSFM is finalised.