

23 January 2009



The Chairperson
Board of Inquiry-Water,
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freshwaternps@mfe.govt.nz

Submission on Proposal for National Policy Statement for Freshwater Management

Made under Section 49 of the Resource Management Act 1991.

Please find attached the submission from the National Institute of Water & Atmospheric Research Ltd (NIWA) on the Proposed National Policy Statement for Freshwater Management.

NIWA's submission covers the content requested by the Board in its letter of 19 September 2008, by identifying what NIWA agrees with, what it suggests should be changed and providing brief reasons where appropriate.

NIWA would like to appear before the Board to be heard and to expand upon and clarify the issues raised in the attached submission. We can provide examples to support our recommendations.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Bryce Cooper', is written over a light blue horizontal line.

Dr Bryce Cooper
General Manager, Strategy

cc.

Dr Clive Howard-Williams, Chief Scientist, Freshwater and Coasts
Dr Kit Rutherford, Principal Scientist, Freshwater

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PROPOSED NATIONAL POLICY STATEMENT FOR FRESHWATER MANAGEMENT

Submission from the National Institute for Water and Atmospheric Research Ltd (NIWA)

23 January 2009.

The following NIWA scientists contributed to this submission:

J.C. Rutherford, C.W. Howard-Williams, G.B. McBride, R.J. Davies-Colley, M.O. Green, A.B. Cooper, C.W. Hickey, R.A. Woods, R.J. Wilcock, S. Larned, J.M. Quinn, H.L. Rouse, N. Norton

Item	Section	What we agree with	What we suggest be changed	Reasons
1	Preamble	NIWA supports the need for an NPS, and agrees with the statement that ‘...New Zealand now faces real challenges...’.	NIWA suggests changes to some of the methods suggested – details are given below.	
2		NIWA supports the dual role of Central and Local Government.	NIWA recommends a stronger role for Central Government – details under item 3 below.	NIWA works closely with Local Government (predominantly regional Councils) on technical problems. In our experience some Councils lack the capacity to deal with many complex technical problems. Councils struggle to cope with cumulative effects, uncertainty, and application of the precautionary principle. This can result in development at the expense of the ecosystem and the freshwater resource or, alternatively, could lead to unnecessary delays in resource use.

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3		<p>NIWA supports the need for clear Central Government policy that directs Local Government on certain matters.</p> <p>NIWA agrees with the need for Central Government support.</p>	<p>NIWA believes that Central Government needs to be more active in directing the process by:</p> <ol style="list-style-type: none"> 1. Defining national priorities. 2. Ensuring local goals. 3. Setting/enforcing deadlines. <p>NIWA believes that Central Government needs to be more active in ensuring support for the development of national guidelines, monitoring tools, and models.</p>	<p>Local Government by definition is not well placed to identify national priorities.</p> <p>In some cases Local Government has been slow to identify and act on emerging issues (e.g., landuse intensification). We can provide examples.</p> <p>If more comprehensive guidance is available from Central Government, pursuant to an NPS, then Regional Councils and Territorial Authorities would be bound to amend their plans to give effect to the NPS, and include specific principles, objectives, guidelines or provisions.</p> <p>Local Government often does not have the capacity to develop guidelines, monitoring tools, or models needed for integrated management. To avoid unnecessary duplication, Local Government should not develop their own <i>ad hoc</i> tools. The development of such tools should be co-ordinated on a national basis, and made available to all Regional Councils and Territorial</p>

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				Authorities.
4		NIWA supports the flexibility for Local Government to decide how goals are achieved.		Local Government bodies are well placed to implement the RMA as it best suits their region. However, Regional Councils and Territorial Local Authorities need to receive direction/guidance on certain matters, to ensure that goals and measurable objectives are clearly identified and pursued. There also needs to be national consistency, and RC's and TLA's need to be properly supported by Central Government, and have access to the necessary tools.
5		NIWA supports the statements '...improve the integrated management...' and '...requires agreement on and balancing of cultural, ecological, economic and social goals...'.	NIWA believes there needs to be a clearer statement in the NPS that landuse gives rise to many of the contaminants that cause water quality and ecology problems. .	The complexity of the cause/effect relationship between landuse and water quality is poorly understood by Stakeholders and Managers, but models can help. An example is nutrient runoff from farms and algal growth in rivers. Guideline nutrient concentrations have been defined (e.g., 0.015 gP/m ³) but the implications for landuse have not been quantified, although generic models exist to do this.
6			NIWA feels uncomfortable with the statement that '...the NPS will	NIWA believes that the RMA already enables many of the suggested actions.

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			influence RMA decision making...'	Some problems alluded to could be solved by Central and Local Government being more pro-active and using their existing powers. In particular through preparation of strong regional plans and where appropriate National Environmental Standards.
7	Issues not in the Preamble or elsewhere in the NPS		NIWA believes that the NPS does not address the 'first come, first served' aspect of the RMA which hinders management of cumulative effects in an integrated fashion, giving rise to the 'death by a thousand cuts' issue.	NIWA has provided expert evidence in recent consent hearings where the cumulative effects associated with the application have been significant. While the RMA does allow cumulative effects to be considered, this is often hindered by vague or contradictory objectives in regional plans combined with scientific uncertainty. The Courts have stipulated that the cumulative effects of separate/future applications may not be considered in a decision to grant or decline an RC application. It is easier to handle cumulative effects when the RC is able to 'draw a line in the sand' by defining measurable objectives in their Regional Plans and having guidelines or standards (e.g., for minimum flows).

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			<p>NIWA recommends that it be compulsory to define measurable objectives in regional plans, and to also set guidelines or standards to give effect to these objectives.</p>	<p>The draft NPS makes water quality standards and environmental flows & levels compulsory (see Policy 1c and Policy 2a). Measurable <u>objectives</u> should also be compulsory, for two reasons.</p> <ul style="list-style-type: none"> i) Water quality standards or environmental flows cannot be set unless objectives are clearly defined. ii) RMA mechanics require that non-complying activities are tested against regional plan objectives and policies, not rules. Thus, making only measurable rules compulsory (see Glossary terms) will not solve the problem - measurable objectives are needed as well.
8	Objective 1	<p>NIWA supports the objective ‘...to ensure that Freshwater Resources are managed...to provide for...social, economic and cultural well-being, and their health and safety...’.</p>	<p>NIWA recommends that the scope of the term ‘...Freshwater Resources...’ be expanded to include Estuarine Resources, or at least that the relationship of this NPS to Estuarine Resources is clarified.</p>	<p>Freshwaters, estuarine and nearshore coastal waters are all affected by landuse activities. A lot of what is controlled by the RMA within river catchments affects estuaries. We note the definition of ‘coastal environment’ under Policy 1(b) of the Proposed New Zealand Coastal Policy Statement 2008 appears to include areas that may include estuarine resources. Clarification of how the two NPSs</p>

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				relate to estuaries would be useful.
9	Objective 2	NIWA supports the aim to ‘..ensure integrated management including landuse development..’.	NIWA believes that the NPS needs to spell out what ‘...integrated management...’ is trying to achieve. The NPS needs to be consistent with S5 of the RMA which provides guidance on this issue.	Many problems with water are caused by landuse, particularly a change in the type or intensity of any landuse. S30 of the RMA empowers Central and Local Government ‘...to control the use of land...to maintain and enhance water quality and ecosystems...’. Some of these powers are fairly new. Central Government needs to ensure that Local Government is able to, and do, exercise these powers in a consistent manner. This can be achieved by the NPS containing sufficiently targeted policies.
10	Objective 3	NIWA supports the aim of ‘...progressive enhancement of the overall quality of Freshwater Resources...’ and the need for the NPS to set targets that the public will find attractive like ‘swimmable’.	<p>NIWA believes that as well as ‘swimmable’ there need to be other important targets for the public use of water such as ‘fishable’, ‘healthy ecosystems’ and ‘suitable for kai moana’.</p> <p>NIWA believes that target dates should be stated and staged to achieve some improvements sooner than 2035 (e.g.,</p>	<p>Swimming is not the only an important measure of water quality and ‘...swimmable...’ is only appropriate in some locations. Targets need to be set for other areas and other issues. ‘...where appropriate...’ is important. There needs to be a framework to work out what is <u>appropriate</u> in <u>each</u> resource.</p> <p>Objective 3 needs a deadline – This</p>

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			50% by 2015, 65% by 2020, 90% by 2035 etc).	deadline also needs to be stated in the Preamble.
11	Objective 4	NIWA supports the aim ‘...to ensure the life supporting capacity and ecological values of Freshwater Resources are recognised and protected from inappropriate taking, use, damming or diverting of Freshwater, landuse development; and discharges of contaminants...’.	NIWA believes that the NPS should define the role of Central Government in supporting and directing Local Government on these complex issues.	<p>In regional plans this will need clear definitions of ‘...life supporting capacity...’, guidelines and/or standards to quantify these terms, and a clear direction about what is/is not ‘...appropriate...’.</p> <p>These definitions and issues are complex and a national consistent approach is required.</p>
12	Objective 5	<p>NIWA strongly supports the aim ‘...to control the effects of landuse development and discharges of contaminants to avoid further degradation of Freshwater Resources...’.</p> <p>NIWA agrees with the statement that ‘..the existing framework of district and regional plans, and regional policy statements, is not delivering the desired environmental results..(S32 evaluation)’.</p>	<p>The NPS does not appear to recognise that landuse mobilises contaminants and therefore results in diffuse pollution, and that this is New Zealand’s biggest freshwater quality issue.</p> <p>NIWA recommends that the term ‘..diffuse pollution..’ is used wherever appropriate in the NPS with a supporting entry in the Definitions section. Further specificity and guidance is necessary in the NPS to direct regional policy statements and plans.</p>	<p>Landuse intensification (or bad practice) results in diffuse pollution of freshwaters. This degrades freshwater resources and thus directly conflicts with Objective 5.</p> <p>The NPS should explicitly recognise that landuse causes diffuse pollution of waters, so water pollution control requires controls on landuse. In practice by (better) integration of land and water management, and by setting measurable objectives and standards for water quality in regional plans.</p>

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13	Objective 6		Point b mentions “...resilience against...effects of climate change...” with the example given of “...infrastructure for supply storage and distribution of water...”. NIWA believes that an equally important and complementary example is “...to maintain environmental (or ecological) flows...” and recommends its inclusion.	The suggested example better links with Objective 4 and links to the Proposed NES on Ecological Flows and Water Levels. These links need to be reinforced so the objective does not appear as human centric, and explicitly takes into account flora and fauna.
14	Objective 7	NIWA supports this Objective.	NIWA recommends that this objective require taking a holistic approach to Freshwater use and allocation, having regard to the regional and local resources and efficient and sustainable use of that resource as a whole.	
15	Objective 8	NIWA supports this Objective.		
16	Objective 9	NIWA strongly supports the need for effective monitoring.	NIWA recommends that this objective include reference to Central Government support, guidance and resources for Regional Councils and Territorial Authorities to utilise, to assist each other and to undertake sufficient and effective monitoring and reporting.	This objective is technically challenging. The effectiveness and comprehensiveness of RC/TA monitoring and reporting varies materially around New Zealand. Central Government has a key role in providing tools and resources so that Local Government can conduct monitoring in a cost-effective and nationally consistent manner.

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				<p>It is worth noting that NZ's NRWQN has been operated successfully by NIWA for 20 years, and provides a 'model' of consistent water quality monitoring for the country.</p>
17	Policy 1	<p>NIWA supports the requirement to notify regional Policy Statement review within 2 years.</p>		
18	Policy 1(a)	<p>NIWA supports the statement ‘...determine and timetable priorities for Freshwater Quality Standards and Environmental Flows/Levels for all Freshwater Resources of the region...’.</p>		<p>It is clear there are sensitive catchments under pressure (e.g., from landuse intensification) and where a deterioration of water quality/ecology is already occurring or is likely unless action is taken. Action is needed urgently and the (often very) limited resources of Local Government must not be diverted into less pressing aspects of this NPS. We believe that the three most important parts of the NPS are the direction for regional plans to include measurable objectives, Freshwater Quality Standards and Environmental Flows/Levels.</p> <p>Central Government must define national priorities (e.g., Waters of National Importance) and consultation with Local Government, ensure national priorities are considered</p>

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				alongside local priorities, set timetables and keep Local Government on task.
19	Policy 1(b)		<p>NIWA recommends identifying notable values for <u>all</u> resources not just outstanding and degraded ones.</p> <p>NIWA recommends that Policy 1 spell out the implications of 1(b) and 1(c).</p>	<p>Policy 1(b) seems inconsistent with Policy 1(c) and Policy 4 which say ‘...<u>all resources</u>...’. But also see the previous comment about the need to identify high priority issues/areas. The NPS needs to ensure that the definition of notable values encompasses economic, cultural, social and amenity values.</p> <p>Will outstanding resources be managed for ‘at most minor change’? Will degraded resources be managed for ‘restoration’? Resources that are neither outstanding nor degraded – how will they be managed? Many outstanding resources may not be under pressure and hence may not require immediate action. Many degraded resources will take a huge effort and many years to restore and could consume all the available resources. Meanwhile those that are neither outstanding nor degraded are ignored. This creates complexity and the need for priority setting at national,</p>

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				<p>catchment and sub-catchment scales. It is sensible to devolve responsibility to the territorial level (i.e., in regional plans) with assistance from the National Level.</p> <p>Policy 1 does not appear to us to be sensible as written.</p>
20	Policy 1(c)		<p>NIWA recommends that ‘...guide and direct the setting of <u>standards</u>...’ be expanded to include ‘...<u>guidelines</u> where standards are not appropriate...’.</p>	<p>Currently MfE is active in setting <u>guidelines</u> which provide Local Government with scientifically robust methods they can adapt to local conditions. This partnership works well. National <u>standards</u> may be appropriate for some issues. For other issues they are very blunt instruments that lead to poor decision making. Central Government has a key role to play in ensuring Local Government have appropriate tools and are advised how to implement these in a good management approach.</p> <p>The setting of water quality standards and guidelines is a highly technically challenging procedure requiring different standards for different types of waters and areas. Many Regional Councils do not have the expertise to do this. This is an issue which would</p>

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			<p>NIWA recommends that the NPS explicitly recognise the need for <u>national</u> guidelines, best practice guides and standards to support integrated management. These tools include <u>methods</u> (e.g., monitoring protocols, statistical methods, models etc) which use standards and guidelines to support integrated management.</p> <p>NIWA believes there is a need for new simple and effective standards, guidelines and models.</p>	<p>benefit from a national approach.</p> <p>Many guidelines and standards involve contaminant concentrations, flows etc. They can define methods and procedures to avoid duplication and inconsistency. They can include models for complex issues like diffuse source pollution in catchments and monitoring/reporting protocols.</p> <p>Many current standards and guidelines are scientifically robust but hard to use (e.g., nutrient concentration standards). New standards/guidelines need to be developed to simplify planning and decision making (e.g., acceptable catchment loads). This requires some investment in science/management liaison and again few regional Councils will be able to do this. There needs to be national consistency in the approaches.</p> <p>Many existing regional plans contain vague and un-measurable water quality standards or guidelines that have led to deterioration of water quality,</p>

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			<p>NIWA recommends that the word “measurable” be inserted in front of “Freshwater Quality Standards” (FQS) and “Environmental Flows and Levels” (EF&L), in the Policy wording and in the Glossary definitions for these terms.</p> <p>In addition to requiring regional plans to set FQS and EF&L, NIWA recommends that it should also be compulsory to set “measurable” objectives. These should be inserted as Policy 1(c)(i).</p>	<p>particularly as a result of cumulative effects of diffuse discharges.</p> <p>The current Glossary definitions for these terms will not require improvement of this situation.</p> <p>There are two reasons for this:</p> <ul style="list-style-type: none"> i) Defining measurable objectives is a pre-requisite to setting defensible FQS and EF&L. ii) The current Glossary definitions provide for FQS and EF&L only in regional plan <u>rules</u>. When proposed activities do not comply with regional rules under RMA (S104D) they are tested against plan objectives and policies, not the rules. Thus, in the absence of clear measurable objectives and/or policies, activities may be permitted despite possible breaches of FQS and EF&L, rendering the latter ineffective planning tools. This is a key contributor to the current difficulty in managing

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				cumulative effects.
21	Policy 1(h) (i)	NIWA strongly endorses this.		These seem to be new initiatives that are welcomed.
22	Policy 1(j)		NIWA recommends that ‘...guide and direct integrated management...’ be expanded to include ‘...the provision of tools and resources...’.	<ol style="list-style-type: none"> 1. Integrated management is technically challenging. Local Government lacks capacity in some areas (e.g., catchment modelling). Central Government has a key role in providing resources and tools to enable Local Government to implement this Policy. There needs to be national consistency in the approach. 2. The RMA treats applicants on a ‘first come first served’ basis, unless a regional plan provides for alternative mechanisms. Generally plans to date have not provided such mechanisms and this makes integrated decision-making difficult. Central Government has a key role in directing Local Government to use provisions under the RMA (e.g., regional plans) that enable integrated management, and/or reviewing the legislation where it prevents integrated management.

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23	Policy 2(a)		<p>NIWA recommends that ‘...notify a regional plan to set standards and flows ...’ be expanded to include ‘...define specific goals/outcomes within the objectives of the regional plan...’.</p>	<p>Regional plans first need to set specific goals/outcomes which flesh out the more aspirational objectives 3, 4, 5 and 6 of the NPS. Currently many regional policy statements and plans contain contradictions and hence provide little guidance about what is and isn’t ‘appropriate’ (e.g., many plans include the policy of ensuring a net improvement in water quality but also have rules permitting landuse intensification even though this is likely to degrade water quality). It is not possible to set sensible standards (or guidelines) without having a clearly defined ranking of goals/outcomes. Ranking is important so that if there is a conflict (e.g., water quality to support a trout fishery versus economic benefits from agriculture) it is clear which is more important in each part of the region. This prioritisation is best done at a regional level and taking into account national priorities.</p>
24	Policy 2(c)(iii)		<p>NIWA recommends that the statement ‘... require all discharge permits ... integrated management of landuse development ... use of industry good practice...’ needs to be re-thought.</p>	<p>Currently many regional plans do not require permits for landuse development (e.g., intensification of farming). Consequently many activities with significant impacts on water</p>

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				<p>quality and ecology will slip through this net.</p> <p>‘...industry good practice...’ is well defined for some industries but for other industries (e.g., farming) it is poorly defined and is changing (e.g., the effectiveness of the Clean Streams Accord has been challenged).</p>
25	Policy 4	<p>NIWA strongly supports identifying values, sensitivity, needs, interests, costs, values.</p> <p>NIWA supports identifying the sensitivity to ‘..landuse development..’ as well as ‘..discharge of contaminants..’.</p> <p>NIWA supports doing this for ‘..each..’ (viz., all) resources.</p>	<p>NIWA recommends adding ‘...and decide on the principal goals/outcomes and ensure these are clearly articulated in the objectives of the regional plan ...’.</p>	<p>Currently several regional plans contain contradictions. Regional plans need to be quite clear about what are the principal goals/outcomes, what is and is not appropriate in a particular catchment, and hence rank objectives in order of importance. This involves making hard decisions. Central Government need to direct Local Government to ensure that national priorities are catered for, and to ensure that regional plans provide certainty for their communities.</p> <p>We note that Policy 1 says “..<u>any</u>..”. <u>This implies</u> only considering resources perceived to have notable values.</p>

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26	Policy 4(h)		NIWA recommends that in addition to ‘...swimmable...’ that other targets be added.	See earlier comments in Item 10.