

Office of the Minister for the Environment
Office of the Minister of Agriculture

Chair**Cabinet Economic Growth and Infrastructure Committee****Regulations on the measurement and reporting of water takes****Proposal**

1. In February 2008, Cabinet approved the drafting of regulations requiring holders of water take consents, authorised under the Resource Management Act 1991(RMA), to measure and report the amount of water taken under their consents [POL Min (08) 2/2 refers].
2. The regulations were to be made under section 43 (national environmental standards) of the RMA. However, it was discovered during early development of the regulation that the same outcomes could be achieved more efficiently and effectively by making regulations under section 360(1)(d) of the RMA instead.
3. This paper outlines our proposed alternative approach and presents a Regulatory Impact Statement.

Executive summary

4. Accurate, complete and current water information is a critical building block in establishing a water management system in which water is effectively allocated and efficiently used. Without accurate information on water use we cannot put a value on our resources or the return from the use of our resources. Essentially, we cannot manage what we don't measure.
5. Information on water use enables New Zealander's to maximise the value of this precious resource. Having access to accurate water take information underpins several key elements of the Government's *New Start for Fresh Water* policy programme. Environmental flows and water measuring are the first of ten agreed core priorities for the *New Start for Fresh Water* programme agreed by Cabinet in September 2009. [EGI Min (09) 20/6 refers]
6. A national regulation will simplify the regulatory framework across the country and reduce uncertainty and variability that would arise if all 17 regional and unitary authorities were required to implement individual processes. National consistency in measurement also provides increased certainty to users and hardware suppliers and installers.
7. If the Government chooses to investigate regulatory or market based instruments to gain the most value from limited water resources then accurate information and a strong evidence base, based on water use, is an essential prerequisite.
8. In February 2008, following widespread consultation, Cabinet approved the policy for a National Environmental Standard (*NES*) on *Measurement of Water Takes* [POL Min (08) 2/2 refers]. A NES is a regulation made under section 43 of the RMA.
9. The policy objectives are to:
 - ensure consistent measuring and reporting of actual water taken at national, regional and catchment levels

- enable water users and regulators to easily determine compliance with water take consents
 - provide accurate information about actual (consented) water taken in any catchment (including the catchments of groundwater resources)
 - ensure the comprehensive uptake of water measuring in a cost effective and timely way ; and
 - improve allocative efficiency through accurate measurement of water abstracted for consumptive uses
10. Objectives one to four were previously agreed by Cabinet [POL Min (08) 2/2 refers] and objective five has been included to address the impact the absence of accurate information is having on the efficient allocation and use of water.
 11. We now propose that these policy objectives can be achieved more efficiently and effectively through regulations made under section 360(1)(d) of the RMA. Using this alternative form of regulation is simpler and is estimated to save regional councils in the order of \$3.3 million in transactions costs compared to a NES. It will also enable the minimum standards to apply to historic mining privileges (deemed water permits) held by some water users in the Otago region. A NES would not have applied to these permits.
 12. Compliance with the proposed regulations will impose costs on consent holders in the order of \$40 million (over 35 years). The quantifiable benefits from allocative efficiency¹ gains alone are estimated to be in the order of \$101 million. This does not include intangible benefits to Māori, communities and key sectors such as irrigation and tourism. Additionally the contribution to improved water management will be considerably greater.

Background

13. Improving freshwater management is a high priority for the Government. The *New Start for Freshwater* programme identifies the need for tools to help set limits and inform difficult decisions between balancing environment, recreational, economic potential, cultural and other values. The value of well managed water to primary production, energy generation and tourism is significant. Accurate measurement of water contributes to better management of resources and can assist with improving security of supply in constrained catchments.
14. In September 2009, Cabinet agreed on the development of freshwater policy options that focussed on 1) setting quality and quantity limits for freshwater management, and 2) developing the management tools to enable water managers and users to stay within those limits, and maximise the value of freshwater. Cabinet further agreed to a core water officials' work programme comprising ten key projects. The first of which is environmental flows and water measuring. [EGI Min (09) 20/6 refers]

The need for consistent, accurate and complete water use information

15. New Zealand does not collect sufficiently accurate information on actual water abstraction at the regional, catchment, or individual levels to make effective management decisions on our fresh water resources. The current regulatory framework does not provide specific direction on how this information should be collected and reported. As a result, information on actual water abstraction across New Zealand is highly variable in terms of consistency, accuracy and completeness.

¹ Allocative efficiency in this context refers to the difference between the volumes of water consented and what is actually used by a consent holder. Measurement can lead to more accurate water use, freeing up additional resource for other uses.

16. At the same time, extraction demands for fresh water are increasing in some regions and cities, and shortages are becoming common at certain times of the year. For example, the volume of water allocated for uses such as irrigation, domestic use and for manufacturing in New Zealand grew by around 50 per cent between 1999 and 2006. The recent water shortages facing the Far North District Council vividly illustrate the problems water shortages can create.
17. Managing the demands on limited freshwater resources can be difficult. For example, two of New Zealand's biggest industries, dairy and tourism rely heavily on fresh water for their profitability. In the year to March 2008, dairy farming earned \$9.9 billion in exports while tourism earned \$9.3 billion. A large proportion of the dairy industry relies on irrigation, while a significant drawcard for international tourists is the high quality of New Zealand's rivers, lakes and natural environment.
18. More accurate measurement of water takes is critical to improving freshwater management. Water managers (primarily regional councils) have relatively good information on the amount of water allocated through the resource consent process, but little information on the actual volumes of water taken under those consents.
19. The gaps in information between what is allocated and what is actually taken makes it difficult for water managers and water users to fully understand:
 - how much water is actually being abstracted
 - how our water resources respond to abstraction pressure
 - how much water may be available for irrigation, industry and other abstractive uses
 - how water could be used to maximise efficiency
 - the impacts of the abstractions on Māori, communities and other users of the resource
 - balancing the demands for abstracting water with other uses such as recreation, tourism, cultural, and environmental.
20. This is especially important as demands for our freshwater resources increase and resources reach full or over-allocation.
21. Many elements of the Government's *New Start for Fresh Water* programme require accurate information on actual water extraction and trends over time. Accurate information is required to inform future decisions such as allocation and developing rural water infrastructure. This is highlighted in the recently released National Infrastructure Plan from the Treasury's National Infrastructure Unit:

A range of strategies will be needed to meet the growing demand, including getting more from the water already available through more efficient technology and by freeing up allocations so water can be directed to the highest value use.
22. Without accurate information on water use we cannot put a value on our resources or the return from the use of our resources. Essentially, we cannot manage what we don't measure.
23. Furthermore, New Zealand is currently failing to meet the United Nations and the Organisation for Economic Cooperation and Development (OECD) reporting expectations regarding water use. More accurate and more extensive information will help to fulfil OECD reporting expectations and domestically it will also assist in the national water accounts prepared by Statistics New Zealand.

The need for a national regulation

24. Most water abstractions in New Zealand are not measured. Around 66%² of water takes (and around 69% of the associated volume of water taken) across New Zealand are not being actively measured. This represents a major gap in our knowledge and affects our ability to effectively manage fresh water.
25. Regional councils are increasing the measurement of water takes, particularly when granting new consents and on the renewal of existing consents. There are also processes underway to require water measurement on existing consents – these processes have been, and will continue to be, assisted by a national emphasis on the importance of measurement as an essential tool for managing fresh water.
26. However, the transition to requiring measurement of all significant water takes across the country is hampered by the facts that just over a third of existing consents (particularly in Canterbury) do not expire for more than 20 years. This gives rise to serious long term implications for the effective management of a resource that is subject to rapidly increasing demands. For example, 20 years ago, few people would have predicted a dairy boom of the present scale and the impact that boom would have on the demand for our water resources.
27. There is also significant variation between councils regarding water meter accuracy, reliability and reporting standards. Requiring national consistency in the technical requirements for measurement will provide more readily comparable data, as well as certainty to water managers, water users and hardware suppliers.
28. A national regulation provides a simple and cost effective way of ensuring both existing and new consents have consistent requirements for accurate and comprehensive measurement of water takes. It also avoids the need for individual councils to undertake separate plan change processes, thus reducing associated costs and complexities.

Approved policy for a national environmental standard

29. On 20 February 2008, the previous Cabinet gave policy approval for a *NES on Measurement of Water Takes* [POL Min (08) 2/2 refers].
30. The agreed policy objectives were to:
 - ensure consistent measuring and reporting of actual water taken at national, regional and catchment levels
 - enable water users and regulators to easily determine compliance with water take consents
 - provide accurate information about actual (consented) water taken in any catchment (including the catchments of groundwater resources); and
 - ensure the comprehensive uptake of water measuring in a cost effective and timely way.
31. The proposed NES would have set minimum standards for measuring and reporting the volume of water taken under all water consents. It was to apply to all new and existing water takes requiring consent under the RMA. It was not to apply to permitted water takes (ie, takes that do not require a resource consent – a description of what constitutes a permitted take is provided in paragraph 42).

² From Aqualinc (2006) '*Water Measuring Devices in New Zealand: Stocktake of existing situation*'. We understand from discussions with councils that this percentage is still representative of the current situation.

32. Only a low percentage of existing consents require water take volumes to be measured and reported. Under the NES process, existing consents would need to be reviewed on a consent-by-consent basis under section 128 of the RMA, to require the measurement of the water abstraction.
33. Regional councils have raised concerns about the high transactional costs and resources associated with reviewing all individual consents to ensure compliance with the NES. These costs are conservatively estimated to be in the order of \$3.3 million.

Proposal to use an alternative form of regulation in place of a national environmental standard

34. Officials have investigated the use of an alternative form of regulation, made under section 360(1)(d) of the RMA, for this purpose (hereafter referred to as s360 regulations).
35. Section 360(1)(d) of the RMA provides for regulations to be made:
“requiring the holders of water permits [water consents] ... to keep records for any purpose under this Act, and prescribing the nature of records, information, and returns, and the form, manner, and times in or at which they shall be kept or furnished.”
36. We consider that the previously agreed policy objectives and outcomes (plus the additional objective of improving allocative efficiency) can be better achieved using this form of regulation instead of a NES.
37. Regulations made under section 360(1)(d) of the RMA apply directly to existing consents without the need for a review of individual consents, therefore reducing the implementation costs imposed on councils and their communities compared to the NES approach.
38. We propose the s360 regulations will apply to all new and existing, consented, water takes that take water at a rate of five litres per second or greater (with some limited exemptions, as described later in this paper). Councils will still be able to require metering of water takes below five litres per second if they choose (through their own plans or resource consents). Transitional arrangements will apply to allow consent holders to comply with the regulations.

Proposed minimum requirements for measuring and reporting water takes

39. The proposed s360 regulations will set minimum data requirements for measuring and reporting the volume of water taken under all qualifying consents. This form of regulation will result in the minimum requirements being framed in a slightly different way than in a NES. The NES option specified that a water meter was required to be installed. The s360 option requires that records of water abstraction are kept. The regulations will incorporate a mechanism to allow councils to specify their own requirements over and above the minimum set by the regulations. Appendix A provides further detail.

Application of the regulation

40. The proposed regulations will apply to all water takes five litres per second or greater that require resource consent under the RMA (with certain proposed exemptions as outlined below).
41. The regulation would come into force 28 days after it is gazetted. The regulation will then apply to new consents as they are granted. A transitional period of up to six years will apply for existing qualifying water takes.

42. As a first principle, the proposed regulations would not apply to activities that are specifically permitted in section 14 of the RMA (and hence do not require consent). These include:
- takes for an individual's domestic purposes
 - takes for animals' drinking water
 - takes for fire-fighting
 - any takes which are permitted by regional plans (these are most often takes of a volume or rate below specified 'permitted take levels').
43. The regulation would require measurement at the point where water is taken from a river, lake or groundwater system. Therefore it would not apply to individual households or businesses that source water from a reticulated supply.
44. Analysis shows that, overall, consented water takes of less than five litres per second account for only 2% of the total volume of water allocated through resource consents. However this proportion varies widely between regions. For example in Canterbury the figure is 0.45% and in Tasman District 37% of the total consented volume. To account for regional variability and the uneven impact local conditions may have on water management, the proposed regulations allow councils to impose requirements on small consented takes via the usual planning, consent and consent review processes.
45. An additional benefit from the use of s360 regulations is that will also apply to historic mining privileges (deemed water permits) in Otago. Appendix B contains further detail relating to mining privileges.

Transitional period for existing consents to comply with the regulations

46. We propose to provide a transitional period for existing, qualifying, consents to comply as follows:
- takes 20 litres per second or greater – within 2 years of gazettal
 - takes greater than 10 litres per second and less than 20 litres per second – within 4 years of gazettal
 - takes of 5 litres per second or greater up to 10 litres per second – within 6 years of gazettal
47. Takes 20 litres per second or greater represent 92% of the total consented allocation nationwide. Once the regulations take effect, any new consents, consents under review, or replacement consents over five litres per second would be required to comply from the grant of the consent.

Proposed exemptions and dispensations

48. Cabinet previously directed officials to engage with regional councils and industry representatives to assess possible exemptions from the regulations (for approval by the Minister for the Environment) and to identify requirements for implementing the proposed regulations. [POL Min (08) 2/2 refers]
49. Officials have been working with the Implementation Taskforce Group³ on developing implementation guidance material and to identify a range of exemptions and possible

³ An Implementation Taskforce Group made up of representatives from regional councils, industry, NGOs and water users was established in early 2008 to address implementation matters.

dispensations. Further detail on the nature and extent of proposed exemptions and dispensations is contained in Appendix C.

Costs and benefits

50. The total costs of the proposal (net present value (NPV) are estimated to be \$41 million, of which 98% will be costs to consent holders (business) associated with the measuring and reporting of their water usage. The total benefits arising from this proposal have not been quantified. However the benefits arising from allocative efficiency gains alone (NPV) are expected to be \$101 million, equating to a positive net NPV of \$60 million. The main costs and benefits are summarised here. Further detail is contained in the attached Regulatory Impact Statement.
51. The main effect of the proposed regulations is to bring forward costs and benefits that would otherwise not occur until (and if) each resource consent was reviewed or replaced and new conditions added. In the absence of the regulation this would be entirely at the discretion of regional councils.
52. The main costs are:
 - capital and ongoing operating costs of the water measuring devices
 - reporting and enforcement costs by councils;
 - implementation, development and monitoring costs for central government.
53. Using the alternative form of regulation made under section 360(1)(d) of the RMA will save around \$3.3 million in transactions costs to councils compared to an NES under section 43 of the RMA.
54. The majority of the overall costs are compliance costs that lie with consent holders (either a NES or the s360 alternative). The costs to consent holders include:
 - initial capital costs of, on average, \$2,855 to \$9,635 depending on the size of water take,
 - per annum costs of \$200 for data download, processing, and provision to council, and
 - average calibration costs every five years of between \$425 and \$2,200.
55. The allocative efficiency benefits of \$101 million do not include the intangible benefits to Māori, communities and key sectors such as irrigation and tourism which are expected to be considerably greater. This is especially the case in regions and catchments where there is significant pressure on the resource from competing uses.
56. Allocative efficiency benefits would accrue to existing consent holders able to exploit the knowledge that they are not fully utilising their consented allocation (e.g. through increasing their irrigable area), or, for example, to potential irrigators seeking consents in catchments that are considered to be highly allocated. Allocative efficiency gains could equally be allocated as environmental flows. That is, the amount of water taken from the water body is reduced, if council determines that the value of water as environmental flows is equal to or greater than its value as consumptive use.
57. Additional benefits will be realised through standardising data requirements to allow greater use of data by local and central government. The cost-benefit analysis shows that the main benefits associated with the proposal are:
 - Consistent, accurate and complete monitoring information across all regions leading to improvements in the management of freshwater resources, including allocation, and environmental flows

- investment security, certainty and economic viability
 - improvements in compliance monitoring and enforcement
 - improvements in the ability to report at the catchment, regional and national scale
 - better capability to measure and demonstrate technical efficiency gains and improved efficiency of use at individual, industry, regional and national levels
 - greater ability to assess the effects of environmental policy on the economy, and economic policy on the environment
58. The proposed regulations will assist in measuring and demonstrating improved efficiency at individual, industry, regional and national levels. It will provide greater ability to assess the effects of environmental policy on the economy, and economic policy on the environment. It will also assist New Zealand in meeting the international expectation that we will report the status of and changes to our natural environment.
59. Existing consent holders will gain knowledge that will enable enhanced performance of their water systems. The knowledge gained from knowing the actual amounts of water taken could be used to help identify where allocative efficiency gains can be made – a benefit that arises where water is scarce through identification of unused allocation – and freeing up water will enable the extension of use, the re-allocation of water to other uses or the extension of productive periods.
60. Nationally, 30% of resource consents to take water (by number) are in Canterbury and 88% of the water take consents in Canterbury are for irrigation. That distribution results in the Canterbury region and the irrigation sector being most affected by the proposal in terms of both costs and benefits.

Risks

61. The main risks are around the implementation of the proposed regulations. A transitional approach will assist in managing the risk of potentially significant non-compliance by existing consent holders. A phased transition period will spread demand for infrastructure and associated installation services more evenly across a six year period. This demand will also be managed by exempting existing consents for less than five litres per second (39% of all consents but less than 2% of allocated volume).
62. The phased transitional period of two, four and six years outline in paragraph 46 differs from the transitional period of five years, for all consents, that was contained in the discussion document. A phased approach ensures a significant proportion of the total consented allocation will be subject to the regulations in a timely manner (92% within 2 years, 96% within 4 years, and 98% within 6 years). There is a risk that some stakeholders may disagree with the new approach that effectively brings forward the compliance date for larger takes by three years. However, a phased timetable for implementation has been adopted partly in response to submissions. There are additional benefits from spreading the demand for infrastructure and services over a longer time frame.
63. Central government will be expected to provide assistance and guidance to regional councils to effectively implement the regulations and to educate consent holders regarding compliance with the regulations. Work has already begun on a package of implementation guidelines which will provide specific guidance to regional councils. Technical guidance to users and contractors on the installation of measuring devices has already been completed. Officials will continue working with the Implementation Taskforce Group to roll out other guidance aimed at the full range of audiences for these regulations.

64. Efforts will focus initially on providing information for consent applicants and larger existing consent holders, as the latter are the first category of existing users required to comply with the regulations. This assistance will be funded from the Ministry for the Environment and Ministry of Agriculture and Forestry baselines.
65. A stocktake will be carried out by the Ministry for the Environment to assess the effectiveness of the regulations in achieving the policy intent.

Consultation

66. Public consultation on this proposal was undertaken through a public process during development of the proposed NES. No separate public consultation process has been undertaken on the use of an alternative form of regulation in place of a NES. The major change is the use of a different regulatory mechanism, that will achieve the same outcomes, be more efficient and less costly than the initial proposal.
67. The only exception is that holders of historic mining privileges are now included. The holders of mining privileges have been notified of the change in proposal.
68. Ministry for the Environment and Ministry of Agriculture and Forestry officials have also consulted with stakeholders and regional council representatives, via an Implementation Taskforce Group, on this alternative proposal. The Implementation Taskforce Group agrees to the proposed use of a s360 regulation.
69. As required by the Government's *Protocol of Engagement with Fresh Water Iwi Leaders*, iwi advisors involved in the relevant policy project of the *New Start for Fresh Water* programme were consulted on the proposal and on this paper. The iwi advisors support the concept of consistent, accurate and complete monitoring information across all regions to support the decision making process on managing freshwater resources.
70. The following departments have been consulted and their comments taken into account in the preparation of this paper: Ministry of Economic Development, Te Puni Kokiri, Treasury, Ministry of Health, Department of Conservation, Department of Internal Affairs, Ministry of Justice and Department of the Prime Minister and Cabinet.
71. The Ministry of Education has indicated they are satisfied (both in regard to this proposal and the previous NES proposal) that a transition period, as proposed, for existing consent holders to comply with the standard would provide time for these schools to budget for these costs. Some schools have water take consents and so would be affected by the proposed regulations (these would also have been affected by the proposed NES). Over 40 schools with water take consents will be required to install water meters and provide regional councils with water flow data.

Financial implications

72. This paper does not contain specific recommendations on expenditure or revenue.

Human rights

73. There are no human rights implications associated with this proposal.

Gender implications

74. There are no gender implications associated with this proposal.

Disability perspective

75. There is no disability perspective associated with this proposal.

Legislative implications

76. If the proposal is approved, the regulations will be made by the Governor-General, by Order in Council. The final regulations must be approved by Cabinet Legislation Committee.

Regulatory impact analysis

Regulatory Impact Analysis requirements

77. The regulatory impact analysis requirements apply to this proposal; a Regulatory Impact Statement (RIS) has been prepared and is attached to this Cabinet paper. The draft Regulatory Impact Statement was circulated with the Cabinet paper for departmental consultation.

Quality of the Impact Analysis

78. The Ministry for the Environment's independent Regulatory Impact Analysis Panel has reviewed the RIS prepared by the Ministry for the Environment and the Ministry of Agriculture and Forestry, and associated supporting material. The Panel considers that the information and analysis summarised in the RIS meets the quality assurance criteria.

Consistency with Government Statement on Regulation

79. We have considered the analysis and advice of our officials, as summarised in the attached RIS, and we are satisfied that, aside from the risks, uncertainties and caveats already noted in this Cabinet paper, the regulatory proposals recommended in this paper:
- are required in the public interest;
 - will deliver the highest net benefits of the practical options available; and
 - are consistent with our commitments in the government statement "*Better Regulation, Less Regulation*".

Publicity

80. Subject to agreement of the Chair of the Committee, I intend to make an announcement on the measuring and monitoring of water takes when I speak at the Jenny Shipley lecture on Canterbury Water on Friday 30 April in Christchurch.
81. We propose that this paper, including Cabinet decisions, and the Regulatory Impact Statement, will be publicly released, including publication on the Ministry for the Environment and Ministry of Agriculture and Forestry websites.
82. The regulations will be subject to the 28 day rule. There will be a transitional period of up to six years for existing consents to comply. If the proposal is approved, we will release press statements prior to the regulations being completed, and the Ministry for the Environment will continue to develop an implementation package with the Implementation Taskforce Group.

Recommendations

The Minister for the Environment and the Minister of Agriculture recommend that the Committee:

1. note that Cabinet minute POL Min (08) 2/2 approved the policy for a national environmental standard under the Resource Management Act for the measurement of water takes. The agreed policy objectives are to:
 - ensure consistent measuring and reporting of actual water taken at national, regional and catchment levels
 - enable water users and regulators to easily determine compliance with water take consents
 - provide accurate information about actual (consented) water taken in any catchment (including the catchments of groundwater resources)
 - improve allocative efficiency through accurate measurement of water abstracted for consumptive uses; and
 - ensure the comprehensive uptake of water measuring in a cost effective and timely way
2. note that consistent, accurate and complete water take information underpins policy objectives of the Government's *New Start for Fresh Water* programme, including objectives on setting appropriate environmental limits, improving freshwater allocation mechanisms and addressing over-allocation issues
3. note that regulations made under section 360(1)(d) of the Resource Management Act can better achieve the same policy objectives and minimum requirements that were approved by Cabinet minute POL Min (08) 2/2 for a national environmental standard, and will result in a simpler regulatory framework across the country
4. agree to the use of regulations made under section 360(1)(d) of the Resource Management Act in place of regulations made under section 43 (a national environmental standard) to ensure consistent, accurate and complete measuring of the water takes across New Zealand
5. agree that the proposal requires that the holders of all water take consents (and deemed permits) for the taking of five litres per second or more shall collect and report records which meet the following minimum requirements:
 - 5.1. they are continuous records of the amount of water taken
 - 5.2. the continuous records shall record daily volumes (or weekly volumes for some takes) in cubic metres in an auditable format
 - 5.3. records must be collected by water measurement / monitoring devices and systems which are:
 - 5.3.1. capable of recording daily volume in cubic metres to an in situ accuracy standard of ± 5 percent for piped takes, and ± 10 percent for open channel takes
 - 5.3.2. capable of providing output in a form suitable for electronic data storage
 - 5.3.3. appropriate to the qualities of the water it is measuring (including temperature and sediment content)
 - 5.3.4. sealed and as tamper proof as practicable
 - 5.3.5. installed to comply with the manufacturers' instructions
 - 5.3.6. installed in a location that measures all water taken (e.g. be installed before the first outlet point downstream of the point of take)

- 5.3.7. independently verified for accuracy every five years or more frequently if recommended by the manufacturer/installer
- 5.4. they are in the form of either manual or electronic records, as elected by the regional council
- 6. agree that the regulations establish the responsibility for recording and transferring data to the regional council rests with the consent holder, and that data is transferred to the regional council on at least an annual basis
- 7. agree that the regulations include the ability for a regulatory authority to apply more stringent requirements on consent holders, including, but not limited to, the ability to require measurement of water takes below five litres per second or further requirements for measurement over the minimum standards specified by the regulations
- 8. agree that the regulations will include a transitional period for existing qualifying consents to comply with the regulations as follows:
 - 8.1. takes 20 litres per second or greater – within 2 years
 - 8.2. takes greater than 10 litres per second and less than 20 litres per second – within 4 years
 - 8.3. takes of 5 litres per second or greater up to 10 litres per second – within 6 years
 - 8.4. new consents, reviewed consents or replacement consents would be required to comply from granting of the consent.
- 9. note that consultation was undertaken on the proposed policy intent during development of the national environmental standard proposal and in accordance with the requirements of the Resource Management Act
- 10. invite the Minister for the Environment to instruct Parliamentary Counsel to draft regulations under section 360(1)(d) of the Resource Management Act to give effect to the minimum requirements listed above, and consequential savings or transitional provisions as necessary
- 11. delegate power to the Minister for the Environment and Minister of Agriculture to approve the final details of the proposed exemptions and any other technical changes required to give effect to the policy in this paper. Any changes will be reported to the Cabinet Legislation Committee when seeking approval for the regulations to be signed by the Governor General by Order in Council
- 12. agree that the Minister for the Environment may publicly release this paper, including Cabinet decisions, any Annexes, and including the Regulatory Impact Statement, once Cabinet has made a decision.

Hon Dr Nick Smith
Minister for the Environment

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Hon David Carter
Minister of Agriculture

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Minimum requirements for measuring and reporting of water takes

1. The s360 regulations require holders of all water take consents (and deemed permits) that have an abstraction rate of five litres per second or greater, shall collect and report records which meet the following minimum requirements:
 - i. they are continuous records of the amount of water taken under each consent (or deemed permit)
 - ii. the continuous records shall record daily volumes (or weekly volumes for some takes) in cubic metres in an auditable format
 - iii. records must be collected by water measurement / monitoring devices and systems which are:
 - capable of recording daily volume in cubic metres to an in situ accuracy standard of ± 5 percent for piped takes, and ± 10 percent for open channel takes
 - capable of providing output in a form suitable for electronic data storage
 - appropriate to the qualities of the water it is measuring (including temperature, algae and sediment content)
 - sealed and as tamper proof as practicable
 - installed to comply with the manufacturers' instructions
 - installed in a location that measures all water taken (e.g. be installed before the first inlet point downstream of the point of take)
 - independently verified for accuracy every five years or more frequently if recommended by the manufacturer/installer
 - iv. they are in the form of either manual or electronic records, as elected by the regional council

Discussion

2. The minimum accuracy requirement of +/- 10% has been set for open channel water takes compared to +/-5% for pipes. It is questionable whether the open channel minimum accuracy requirement is suitably stringent to underpin any future change toward a market based approach toward water management.
3. The cost of achieving an accuracy of +/- 5% for open channel water takes is unquantified. However Ministry of Agriculture and Forestry officials suggest this will be significantly greater than the cost of achieving +/- 10%. We do not consider additional costs to consent holders to achieve a higher level of accuracy is justifiable at present. If the Government chooses to investigate regulatory or market based instruments to gain the most value from limited water resources, then the regulations can be reviewed in the future to set the minimum accuracy requirement necessary to provide the information needed for this framework.
4. It is likely that advancements in technology will in future reduce the cost of improved accuracy of measurement. The priority at present should be the introduction and implementation of consistent measuring and reporting requirements. Changes in accuracy requirements can be introduced in future if they are required in order to implement market based water management policies, if they are developed. This will allow the initial investment costs for consent holders to be kept to a level commensurate with the level of information required.

5. The s360 regulations will place responsibility with the consent holder for recording and transferring collected data to the regional council. The regulations will require that data is transferred to the regional council on at least an annual basis. This would coincide with the anniversary of the transitional compliance dates.

Allowing more stringent conditions on consents and more stringent rules in plans

6. Some regional councils already place more stringent conditions on water take consents, or more stringent rules in plans, in all or parts of their regions, than those specified in the regulations. These councils will be able to continue doing so. Examples of where regional council policy is currently more stringent than the proposed regulations include:
 - Some regional councils (for example, Horizons, Otago Regional Council, Environment Southland) require data transfer by telemetry technology so that water can be measured on a real-time basis for specific consents.
 - Some regional councils (for example, Horizons, Otago Regional Council, Environment Southland) require more frequent data transfer than annually for real-time water management or during water-short times as a means to manage restrictions.
7. Where existing consent conditions are more stringent than the proposed regulations, the existing conditions will continue to take precedence over the regulations.
8. The proposed regulations will provide councils with the flexibility to set more stringent rules in regional plans or conditions of consent. For example, this provision could be used to require more stringent or regular data reporting and transfer, adapted to local situations and reflecting a range of management timescales and changing technologies.

Application to Otago mining privileges

1. An additional benefit from the use of s360 regulations is that will also apply to historic mining privileges (deemed water permits) in Otago.
2. A number of Otago water bodies are subject to historic permissions for the taking of water through “mining privileges in respect of water”. Mining privileges were issued under early mining legislation (some dating back to the late 1800’s) and allow the taking, damming and discharging of water. As gold mining declined, the water allowed under mining privileges was increasingly used for irrigation. The Crown acquired a number of significant mining privileges which were used for irrigation schemes developed in the 1980s. These were then transferred to community irrigation groups.
3. On the enactment of the RMA in 1991, every current mining privilege was deemed under section 413 to become a water permit⁴ for the taking or damming of water, on the same terms and conditions as the original mining privilege. These deemed water permits expire on 1 October 2021 and must be replaced with conventional water consents, if water is to be taken or dammed after that time.
4. Under section 413(1) of the RMA, mining privileges cannot be reviewed in the same way that other water consents can. Therefore, a NES could only apply to these mining privileges in 2021, when they are required to be replaced with conventional water consents.
5. Section 360 regulations would apply immediately to mining privileges as this form of regulation can apply directly to existing consents (including deemed permits) without the need for consent reviews. This is the only option under the RMA to require the measurement of mining privileges where this requirement was not written into the parent privileges.

⁴ For the purposes of this paper, a deemed water permit is the same as a water consent managed under the RMA.

Exemption and dispensation provisions

Full exemptions

1. Full exemption from the regulations would apply to non-consumptive water takes where they have no effect on the availability of water to other users or does not affect environmental flows. Non-consumptive water takes would include 'take and returns' to the same water resource at the same location and time, for example, in-stream gold dredges, dewatering for construction sites and hydro-generators. Measuring the water use data from these 'take and returns' will not add to the catchment, regional or national water balance. Exemptions from the regulations would not preclude regional councils setting their own requirements on these takes, via consent conditions or rules in plans, for their own water management purposes.
2. It is important that these regulations are introduced and implemented with pragmatism. Under section 360(2) of the RMA, the Minister for the Environment is able to exempt any group of consents at any time by issuing a Gazette notice. I intend to use these powers to exempt individual catchments where the allocation status will not result in adverse effects on the resource, environmental values or other users, in the foreseeable future.
3. Regional councils will be required to make a case and provide good justification for this. Any such exemptions would be considered in the context of an assessment of effects in the 'foreseeable future' and impacts on national reporting. Therefore, these exemptions would require a stated sunset clause or review date. This would not affect security or certainty of the resource consent as it applies only to the requirement to measure and report the amount of water taken under the resource consent.

Dispensations

4. In specific circumstances, where it is physically or highly impracticable (excessively costly) to meet certain minimum requirements, we consider that it is appropriate to provide an element of flexibility in how some water takes will be measured. Flexibility will specifically be around point of measurement or reporting frequency. These are not exemptions from the regulations but rather dispensations from the default requirements. Consent holders must still be able to meet the objectives of the regulations, via alternative arrangements.
5. These dispensations, or alternative arrangements, would also require a stated sunset clause or review date. This would not affect security or certainty of the resource consent as it applies only to the requirement to measure and report the amount of water taken under the resource consent.
6. Examples of where it may be physically impracticable to meet the requirement that water is measured at a location that includes all water taken include:
 - Open water races with several take points, from which water records of the required accuracy could not be collected and for which a more accurate (combined) take measurement may be acquired at an alternative point or points.
 - Multiple consents taking from one point. Having the point of measurement on each individual inlet, would provide a better outcome in terms of the ability of councils to monitor compliance with the regulations.
 - Takes which include some permitted volumes (for domestic and stock watering) in addition to irrigation water – Environment Canterbury are requiring these takes to measure consented water take volumes after the permitted volume is diverted.

7. An example of where it is physically impracticable to meet the minimum requirements is open race weirs where the gradient is too steep to provide an accurate measurement. To meet the minimum requirements, these systems would need to be totally redesigned. Instead a dispensation could provide for an alternative point of measurement for the specific circumstances.
8. Examples of where it may be physically impracticable to meet the regulations' requirements around frequency of reporting are those exceptional cases in remote areas where the take would be considerably difficult to access and where electronic data transfer is not possible (i.e., no cellphone or internet coverage). Again, the regulations would set out the alternative standards for exceptional cases.