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Hon Nanaia Mahuta, Minister of Local Government

Proactive release of Cabinet material about strengthening the regulation of drinking water,
wastewater and stormwater

1 July 2019

The following documents have been proactively released:

1 July 2019, CAB-19-MIN-0332 Minute: Strengthening the Regulation of Drinking Water, Wastewater and Stormwater, Cabinet Office;

1 July 2019, Cabinet Paper: Strengthening the Regulation of Drinking Water, Wastewater and Stormwater, Offices of the Ministers of/for Local Government, Health and Environment; and

1 July 2019, Regulatory Impact Assessment: Strengthening the Regulation of Drinking Water, Wastewater and Stormwater, Department of Internal Affairs.

Some parts of this information would not be appropriate to release and, if requested, would be withheld under the Official Information Act 1982 (the Act). Where this is the case, the relevant sections of the Act that would apply have been identified. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

Key to Redaction Codes:

- 9(2)(h) – maintain legal professional privilege
- 9(2)(f)(iv) – maintain the constitutional conventions for the time being which protect the confidentiality of advice tendered by Ministers of the Crown and officials

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Cabinet

Minute of Decision

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Strengthening the Regulation of Drinking Water, Wastewater and Stormwater

Portfolios **Health / Environment / Local Government**

On 1 July 2019, following reference from the Cabinet Economic Development Committee (DEV), Cabinet:

Background

- 1 **noted** that on 5 November 2018, Cabinet:
 - 1.1 agreed that the government embark on a process of three waters reform over the next 18 months, seeking detailed policy decisions in tranches in 2019, with a view to introducing legislation in 2020;
 - 1.2 invited the Ministers of Local Government, Health, and Environment (the Ministers) to report back to DEV in June 2019, with detailed policy proposals for drinking water and environmental regulation of the three waters;
 - 1.3 invited the Minister of Local Government to report back to DEV in late 2019, with detailed policy proposals for service delivery arrangements;

[CAB-18-MIN-0545]
- 2 **noted** that the paper under CAB-19-SUB-0332 sets out a suite of proposals to strengthen the regulatory arrangements for drinking water, wastewater and stormwater;
- 3 **noted** that the Water Services Bill, which has a category 4 priority on the 2019 Legislation Programme (to be referred to a select committee in 2019), will implement the majority of the policy decisions arising from the paper under CAB-19-SUB-0332, specifically proposals for:
 - 3.1 regulating drinking water and managing risks to source water;
 - 3.2 requiring wastewater and stormwater operators to report annually on a set of nationally-prescribed environmental performance metrics, and for that information to be collected, validated, analysed, and published by a central regulatory agency;
 - 3.3 requiring a central regulator to undertake functions and duties relating to identifying and promoting national good practices for stormwater design and management, and other matters related to wastewater system design and management;

- 4 **noted** that Māori interests are more clearly articulated in a ‘whole of system’ view of water, which does not delineate freshwater, three waters, marine or urban waters;
- 5 **noted** that the Ministers are working to reflect Māori interests throughout the three waters proposals, including in the alignment with the Essential Freshwater work programme, in the design and operation of a central regulator, and by reflecting mātauranga and values throughout the three waters system;

Part A: A better system for regulating drinking water and protecting source water

Ensuring people can access water that is safe to drink

- 6 **noted** that the drinking water regulatory system is currently failing to provide all of the necessary assurances that drinking water supplies are safe and reliable, and that some suppliers are not regulated effectively, while many others are not regulated at all;
- 7 **agreed** that all drinking water suppliers be covered by the drinking water regulatory system, except for individual ‘domestic self-suppliers’;
- 8 **agreed** that:
- 8.1 all drinking water suppliers be required to provide safe drinking water and comply with drinking water standards on a consistent basis;
 - 8.2 to help clarify this new approach, the lesser requirement to take ‘all practicable steps’ to comply would no longer feature in drinking water legislation;
- 9 **agreed** to establish a centrally-located regulator, which would be responsible for overseeing the entire drinking water regulatory system, **subject to** further advice on options for machinery of government arrangements;
- 10 **agreed** that the new regulatory system be implemented over a five year period, but with the following requirements:
- 10.1 from the date of enactment:
 - 10.1.1 all drinking water suppliers would be required to register with the regulator, and ensure the water they provide is safe to drink;
 - 10.1.2 all suppliers that provide drinking water to 500 or more consumers would be required to prepare/update drinking water safety plans to align with proposals in paragraph 26 below, and be operating in accordance with those plans within one year following enactment;
 - 10.2 the regulator’s initial focus would be implementing the core components of the regulatory system, working with suppliers to build capability and understanding, and investigating and addressing serious cases of non-compliance;
 - 10.3 by the end of the third year following enactment, the regulator would:
 - 10.3.1 actively monitor the performance of all suppliers that provide drinking water to 500 or more consumers, and take enforcement action where appropriate;
 - 10.3.2 work with smaller suppliers to bring them into the regulatory system;

- 10.4 by the end of the fifth year following enactment, all drinking water suppliers would be required to comply with all regulatory requirements, and the regulator would take action to deal with non-compliance;
- 11 **noted** that it may be challenging for some suppliers to comply with their obligations, and that this will be managed by allowing for assistance and time to achieve compliance, in a way that is proportionate to supplier capability and the complexity and risks of their water supply systems;
- 12 **noted** that there is a need for further work to determine the phasing of implementation for suppliers that are not currently covered by the regulatory system, particularly very small suppliers, and to ensure regulatory requirements are designed in a way that reflects proportionality, with specific consideration to be given to the implications for marae, particularly those in remote locations;
- 13 **noted** that the Department of Internal Affairs, the Ministry of Health, and the Ministry of Business, Innovation and Employment will provide further advice on the matters referred to in paragraphs 11 and 12 above, for agreement by the Ministers of Local Government, Health, and Commerce and Consumer Affairs in August 2019;
- 14 **agreed** that the regulator will have a general power of exemption for cases where some or all of the requirements in the regulatory system are impracticable or unreasonable (such as back country huts), and will work with affected parties to identify supplies and agree exemptions;
- 15 **noted** that there is a risk that some suppliers may struggle to comply with new or enhanced regulatory requirements and consider ceasing their operations, but that there is no legal obligation on non-council suppliers to maintain their supplies;
- 16 **agreed** to manage this risk by giving local authorities clear responsibilities to ensure communities have access to a reliable source of safe drinking water, and that this approach involve the following provisions:
- 16.1 an obligation on territorial authorities to inform themselves about the supplies of drinking water to communities across their districts – including all non-council supplies, except those owned/operated by the Crown, and domestic self-suppliers;
- 16.2 a requirement that, if problems are identified with a non-council supply, the territorial authority would notify the regulator, and work collaboratively with the supplier, its consumers, and the regulator to identify a sustainable solution;
- 16.3 if a solution cannot be agreed within a specified timeframe, or if the supplier exits, the territorial authority would be obliged to ensure safe drinking water continues to be provided, but that this does not necessarily mean becoming the supplier directly, or that the supply would have to be provided via a reticulated network;
- 17 **noted** that there will need to be further consideration of how this approach might work in practice, and that further information will be included in the further advice referred to in paragraph 13 above;

Protecting drinking water sources

- 18 **noted** that an important principle of drinking water safety is that source water protection is paramount, but that there are a number of deficiencies in the current arrangements for protecting sources of drinking water that need to be addressed in order to give effect to this principle;

- 19 **agreed** to introduce new and enhanced obligations on regional councils, territorial authorities, and water suppliers for managing risks to source waters, including requiring:
- 19.1 water suppliers to develop and implement a source water risk management plan, which would be lodged with a central regulator for auditing and compliance monitoring purposes;
 - 19.2 regional councils and territorial authorities to contribute to the development and implementation of source water risk management plans;
 - 19.3 water suppliers to periodically monitor source water quality at the point of abstraction;
 - 19.4 water suppliers, regional councils and territorial authorities to share information with each other related to source water risks, including the location of drinking water abstraction points and the results of monitoring of source water quality and quantity;
 - 19.5 regional councils to report annual trends in source water quality and quantity, and to periodically assess the effectiveness of actions taken to manage risks to source waters;
- 20 **noted** that additional obligations are proposed to be given effect through revisions to the National Environmental Standard for Sources of Human Drinking Water (NES for Drinking Water), and consequential amendments to other national direction instruments if required, which would provide direction on setting source water risk management areas, and require regional councils and territorial authorities to assess and control risks to source waters;
- 21 **agreed** to include the proposed revisions to the NES for Drinking Water in the Essential Freshwater discussion document, using the content provided in Appendix 1 to the paper under CAB-19-SUB-0332;

A multi-barrier approach to drinking water safety

- 22 **agreed** that all drinking water suppliers be required to adopt a multi-barrier approach to drinking water safety, which considers:
- 22.1 preventing hazards entering raw water;
 - 22.2 removing particles and hazardous chemicals from the water by physical treatment;
 - 22.3 killing or inactivating pathogens in the water by disinfection;
 - 22.4 maintaining the quality of water in the distribution system;
- 23 **agreed** that details of the multi-barrier approaches being adopted by each supplier be given effect through water safety plans, or other instruments agreed by the regulator, and that the regulator be empowered to monitor and enforce compliance;
- 24 **agreed** that the regulator have the ability to exempt suppliers from requirements to use residual treatment in a distribution system, if the supplier can demonstrate, to the regulator's satisfaction, that all risks to the safety of the water are being managed appropriately;

Improving water safety planning

- 25 **noted** that taking a preventative approach to risk management is a principle of safe drinking water, and that effective water safety planning strengthens the focus on preventative measures across the drinking water supply system;

26 **agreed** to improve the approach to water safety planning by requiring all drinking water suppliers to prepare and implement water safety plans that:

- 26.1 include all of the elements of international best practice;
- 26.2 would be proportionate to the scale, complexity and risks of supply arrangements;
- 26.3 would be subject to risk-based audit and monitoring by a central regulator;

A stronger, centralised approach to drinking water compliance, monitoring and enforcement

27 **noted** that there are currently weaknesses in the system for compliance, monitoring and enforcement of drinking water regulation, and that it would be beneficial to centralise these functions within the regulator proposed in paragraph 9 above, and Part C below;

28 **noted** that the regulator would need to have a wide range of appropriate powers and resources to undertake its compliance, monitoring and enforcement functions effectively, which should be commensurate with the powers in similar recent legislation;

29 **agreed** to provide the regulator with a broad range of compliance, monitoring and enforcement tools, including:

- 29.1 providing assistance and advice to suppliers;
- 29.2 requiring suppliers to provide information;
- 29.3 minor penalties, including the ability to issue instant fines and infringement notices for low-level offences;
- 29.4 civil enforcement, such as the power to issue an enforceable compliance notice, with an appropriate penalty attached to failure to comply, and the ability for suppliers to make undertakings to the regulator on actions they will take to comply, with an agreed penalty for failure to do so;
- 29.5 criminal enforcement;
- 29.6 developing and implementing a scheme for accrediting drinking water suppliers, and requiring certain suppliers to participate in this scheme;
- 29.7 developing and implementing a scheme for the registration and licensing of certain people who are involved in water supply operations;

30 **agreed** that a wider range of penalties be available for offences, including fines and the possibility of personal liability for specific persons with responsibilities for water safety;

31 **noted** that there may be circumstances in which the regulator considers these enforcement tools are ineffective or inappropriate for dealing with persistent or serious cases of non-compliance or poor performance by a drinking water supplier;

32 **agreed** that the regulatory framework include the ability for the regulator to:

- 32.1 identify drinking water suppliers that are performing poorly, at risk of failure, or already failing to meet their statutory obligations;
- 32.2 investigate concerns about the performance of drinking water suppliers and determine what corrective actions are needed;

32.3 work with suppliers and other relevant parties to take corrective actions;

33 **agreed** that in situations where the regulator is dissatisfied with the corrective actions taken by a supplier, or has determined that the supplier is not capable of improving its performance or carrying out its statutory functions or duties, the regulator be able to:

33.1 appoint a statutory manager or accredited provider to temporarily manage a drinking water supplier's operations until a sustainable arrangement is put in place;

33.2 require a drinking water supplier to transfer the management of its operations to another supplier, on a long-term basis;

Part B: Protecting people and the environment from the negative effects of wastewater and stormwater systems

Lifting the performance and transparency of wastewater and stormwater systems

34 **noted** that the current regulatory system does not provide assurances that wastewater and stormwater systems are delivering outcomes that are acceptable for communities, iwi/Māori, and the environment;

35 **noted** that measures are proposed to improve the environmental regulation and performance of wastewater and stormwater systems, including:

35.1 the development of a national environmental standard for the treatment of wastewater discharges and the management of wastewater overflows;

35.2 the introduction of new obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment associated with the operation of their infrastructure networks;

35.3 the development of national guidance to improve the regulation and design of stormwater services;

36 **noted** that there is a lack of transparency and public reporting on the environmental performance and compliance of wastewater and stormwater networks, including their contribution to environmental and public health outcomes;

37 **agreed** to introduce a regulatory requirement for wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics;

38 **agreed** that a central regulator be required to specify national environmental performance metrics for wastewater and stormwater networks, and develop suitable methods for collecting, validating, analysing and publishing this information;

39 **agreed** to include the following proposals as part of the Essential Freshwater discussion document, using the content provided in Appendix 1 to the paper under DEV-19-SUB-0184:

39.1 a new national environmental standard for wastewater discharges and overflows;

39.2 new obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment;

39.3 a new regulatory requirement for wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics and compliance;

- 39.4 the development of national guidance to improve the regulation and design of stormwater services;

Improving national-level leadership, oversight and support relating to wastewater and stormwater

- 40 **noted** that there is a lack of national-level oversight of the performance of wastewater and stormwater operators, limited central stewardship of the system that regulates these operators, and concerns that many regional councils do not provide assurance that good environmental outcomes are being achieved;
- 41 **noted** that regional councils and service providers require more clarity about what is expected of them, and more support from a central regulatory agency to help them meet those expectations;
- 42 **agreed** to direct a central regulator to set and publish guidance for local authorities regarding the compliance, monitoring and enforcement approaches to be used for wastewater and stormwater network operators;
- 43 **agreed** to direct a central regulator to identify and monitor emerging contaminants in drinking water, wastewater and stormwater, and to coordinate national-level policy responses, both regulatory and non-regulatory, where required;
- 44 **agreed** that a central regulator be required to undertake functions relating to identifying and promoting national good practices for wastewater and stormwater network design and management, including the development and dissemination of national guidelines;

Part C: A central regulator to oversee the entire drinking water regulatory system

- 45 **noted** that there are a number of shortcomings with the current system of drinking water regulation, including how and where regulatory functions are undertaken;
- 46 **agreed** that the functions of the centrally-located regulator, proposed in paragraph 9 above, would cover all of the drinking water functions referred to in Parts A and C of the paper under CAB-19-SUB-0332, including:
- 46.1 sector leadership;
 - 46.2 setting standards;
 - 46.3 compliance, monitoring and enforcement;
 - 46.4 capability building, accreditation and licensing;
 - 46.5 information, advice and education, including being a centre of technical and scientific expertise;
 - 46.6 performance reporting;
- 47 **noted** that there are significant synergies between these drinking water regulatory functions, and some functions relating to the regulation of wastewater and stormwater, and that aligning these functions would result in a better integrated approach to three waters regulation and a regulator with greater capability and capacity;

- 48 **noted** that detailed proposals and a business case relating to the institutional form of the regulator are still being developed, and need to be informed by decisions about scope and functions being made through the paper under CAB-19-SUB-0332, and by engagement across government and with iwi/Māori;
- 49 **agreed** that the detailed proposals and business case for the regulator be prepared on the basis that the regulator's scope would include the drinking water functions referred to in paragraph 46 above, and that the business case would also consider the relative costs, benefits, and feasibility of the regulator having a role in implementing the proposals in Part B of the paper under CAB-19-SUB-0332 relating to:
- 49.1 reviewing, and recommending changes to, national standards for wastewater discharges and overflows;
 - 49.2 monitoring and auditing the risk management practices of wastewater and stormwater network operators, including consent renewals;
 - 49.3 collecting, analysing and publishing the information provided by wastewater and stormwater operators, in accordance with nationally-prescribed environmental performance metrics;
 - 49.4 identifying and promoting national guidelines and good practices, including for setting consent conditions for discharges from stormwater networks, and approaches to wastewater and stormwater network design and management;
 - 49.5 setting national expectations for compliance, monitoring and enforcement approaches for wastewater and stormwater network operators; and/or
 - 49.6 identifying and monitoring emerging contaminants in drinking water, wastewater, and stormwater;
- 50 **invited** the Minister of Local Government, in consultation with the Minister of Health and Minister for the Environment, to report back to DEV in September 2019 with:
- 50.1 proposals for the institutional form, location, costs, and funding of a centralised drinking water regulator;
 - 50.2 advice on the costs, benefits, and feasibility of the regulator also delivering the functions referred to in paragraphs 49.1 – 49.6 above;
 - 50.3 advice on the scale and costs of the infrastructure improvements needed to meet the new regulatory proposals, and possible sources of funding;

Implementation of proposals

- 51 **agreed** that the proposals in paragraphs 6 to 33, 37, 42, 43 and 44 above be implemented through the Water Services Bill;
- 52 **agreed** to repeal Part 2A of the Health Act 1956, which regulates drinking water, and to carry over existing provisions in the Water Services Bill, along the following lines:
- 52.1 interpretation (sections 69G to 69I): provisions that continue to be relevant would be carried over, with amendments as appropriate;

- 52.2 registration (sections 69J to 69N): provisions would be carried over, with changes to the processes for registration and de-registration, and the information regulated parties are required to provide to the regulator;
- 52.3 drinking water standards (sections 69O to 69R): provisions would be carried over, with moderate changes to reflect that the regulator would have a role in the process for reviewing standards;
- 52.4 duties of drinking water suppliers (sections 69S to 69ZJ): most provisions would be carried over, with minor or moderate amendments, particularly in relation to water safety planning;
- 52.5 drinking water assessors and designated officers (sections 69ZK to 69ZX): provisions would be carried over, but powers would be transferred to the regulator (and specific employees, if appropriate);
- 52.6 emergency powers (sections 69ZZA to 69ZZG): provisions would be carried over; some powers would be retained by the responsible Minister; others would be transferred to the regulator;
- 52.7 recognised laboratories (sections 69ZY to 69ZZ): provisions would be carried over, with powers transferred to the regulator;
- 52.8 compliance orders (sections 69ZZH to 69ZZP): provisions would be carried over, with little or no change;
- 52.9 offences (sections 69ZZQ to 69ZZX): provisions would be carried over, with moderate changes;
- 52.10 miscellaneous (sections 69ZZY to 69ZZZE): regulation-making provisions and requirements to publish annual reports would continue, with amendment, and be adapted to reflect the proposed new responsibilities of the regulator;

53 **directed** officials to progress work on the following proposals alongside the Essential Freshwater programme:

- 53.1 develop a national environmental standard for wastewater discharges and overflows;
- 53.2 new obligations on wastewater and stormwater operators to manage risks to people, property, and the environment associated with the operation of their infrastructure;
- 53.3 develop a set of national environmental performance metrics for wastewater and stormwater networks;
- 53.4 develop and publish guidance on best practice approaches for regulating and designing stormwater networks;

54 **noted** that a technical advisory group (or groups) is expected to be convened to provide advice on the development of the proposals in paragraph 53 above;

Legislative implications

55 **invited** the Ministers to issue drafting instructions to the Parliamentary Counsel Office to give effect to the above proposals;

- 56 **authorised** the Ministers and/or the Minister of Commerce and Consumer Affairs to approve matters of detail consistent with policy that may arise during the course of drafting, including any consequential amendments to other legislation that may be required;
- 57 **agreed** that technical experts from the water sector, and iwi/Māori representatives, may be consulted, if needed, during the drafting process.

Michael Webster
Secretary of the Cabinet

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Cabinet Economic Development Committee

Strengthening the regulation of drinking water, wastewater and stormwater

Proposal

1. This is the second in a series of papers on the Three Waters Review during 2019. It seeks agreement to a package of proposals to strengthen the regulatory arrangements for the three waters system: drinking water, wastewater and stormwater.
 - 1.1 Part A proposes a suite of system-wide reforms to the regulation of drinking water and source water.
 - 1.2 Part B proposes targeted reforms to improve the regulation and performance of wastewater and stormwater systems.
 - 1.3 Part C proposes a central regulator to carry out new and enhanced functions relating to drinking water regulation, and some specific wastewater and stormwater regulatory functions.
2. If agreed, the majority of the proposals would be progressed through a water services bill, which is included in this year's legislative programme. The length of this paper reflects the complexity of the proposals, and the need to provide clear and detailed directions to draft this legislation.

Executive summary

3. The three waters are critical for the health and wellbeing of New Zealand, and for upholding Te Mana o te Wai¹ – the health of the water, the health of the environment, and the health of the people. They are also important contributors to a high-performing economy, to our international reputation and as a tourist destination.
4. However, it has become clear that we cannot always be confident that our water is safe to drink, sources of drinking water are adequately protected, or that acceptable environmental outcomes are being achieved through our management of wastewater and stormwater. This is putting our nation's health, environment, and economy at risk. It is imperative, therefore, that we take a new approach to three waters regulation.
5. The Havelock North contamination event in 2016 drew the nation's attention to the gravity of this situation. Around 5,000 people became ill, with up to four deaths associated with the event. The economic costs have been estimated at \$21 million, spread across individual households, businesses, central and local government, and the health and disability sector. We cannot let this happen again.
6. Even if this event had not occurred, there is still a very strong case for change. Every year, around 34,000 people across New Zealand become ill from their drinking water, and many thousands of households must boil their water to drink it safely.

1 Te Mana o te Wai is currently expressed in the National Policy Statement for Freshwater Management as the integrated and holistic wellbeing of a freshwater body. Upholding Te Mana o te Wai acknowledges and protects the mauri of the water.

7. The Government is also investing significantly in housing, provincial growth, and urban growth, which increases the importance of a resilient and future-proofed three waters system. We must act now to bring about much needed improvements, and build confidence in this system.
8. We are proposing a suite of reforms to the drinking water regulatory system. Together, these proposals are designed to:
 - 8.1 **Provide clear leadership for drinking water regulation, through a new central regulator**, which will be responsible for carrying out a range of new and enhanced functions. There will also be clearer accountabilities throughout the regulatory system.
 - 8.2 **Significantly strengthen compliance, monitoring and enforcement of drinking water regulation**, by equipping the regulator with the powers and resources needed to support ongoing improvements in compliance, to build capability and capacity in the sector, and to take a tougher and more consistent approach to enforcement.
 - 8.3 **Effectively manage risks to drinking water safety and ensure source waters are adequately protected**, through stronger obligations on suppliers and local authorities to protect drinking water sources, and by requiring suppliers to adopt a preventative approach to risk management, including a multi-barrier approach to drinking water safety. The focus on source protection recognises this is an important barrier against contamination, and there is a need for drinking water suppliers and local authorities to play a more proactive role in managing risks to source waters.
 - 8.4 **Ensure people can access water that is safe to drink**, by requiring all suppliers (except individual domestic self-suppliers) to be part of the regulatory system, and to provide safe drinking water on a consistent basis. This means an additional 2000 suppliers would be brought in to the regulatory system over time, including larger self-suppliers, such as schools and other education facilities, prisons, and defence facilities, as well as small rural supplies, and small community schemes that serve fewer than 25 people. (Transition arrangements are proposed that give small suppliers five years to comply.) There will also be a new obligation on local government to ensure communities in their districts have access to safe drinking water, and to work with non-council suppliers that may be struggling to maintain their supplies.
9. We also propose targeted reforms to improve the regulation and performance of wastewater and stormwater systems, and strengthen national-level leadership, oversight and support. The role of government here is different from its role in drinking water regulation. Regional councils will continue to regulate wastewater and stormwater discharges under the Resource Management Act 1991 (RMA), and activities posing risks to drinking water sources. The role of central government relates to proposals for:
 - 9.1 **New national environmental standards for wastewater discharges and overflows**. The standards would prescribe criteria and methods for setting consent conditions on discharges from wastewater treatment plants and engineered overflow points. Regional councils would be able to set higher standards where needed.

- 9.2 **New obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment associated with the operation of their networks**, to ensure these infrastructure networks have appropriate risk management regimes in place.
- 9.3 **New requirements for wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics**, to provide greater transparency about the performance of these networks, and the impacts they have on public and environmental health.
- 9.4 **Publication of guidance for local authorities regarding the compliance, monitoring and enforcement approaches** to be used for wastewater and stormwater network operators. These expectations would be set and published by a central regulatory agency.
- 9.5 **Requirements for a central regulatory agency to identify and promote national good practices for the design and management of wastewater and stormwater networks**. This would involve the development and dissemination of national guidelines and design standards.
10. These proposals have been tested through targeted engagement with local government and public health stakeholders, technical experts, and iwi/Māori. The proposals are also aligned with the Essential Freshwater programme.
11. Local government has expressed its support for an independent water regulator, and a general acknowledgement that a whole of system approach to source protection needs to include wastewater and stormwater systems. Local authorities have the wellbeing of their communities at the heart of their work and support measures to improve the safety of their water services.
12. Māori express a relationship with water as kaitiaki/stewards. Those interests do not distinguish freshwater from three waters, but rather are a connection to the water environs and its systems. Māori are also suppliers or recipients of water services (particularly to rural marae, papakāinga, and rural communities), and members of communities who receive poor quality or no three waters services. The overriding concern Māori have expressed through the three waters engagement hui and workshops is that all proposals need to uphold Te Mana o te Wai, and need to be aligned and integrated with the Government's other work programmes, including Essential Freshwater.
13. We are seeking agreement, in this paper, for a central regulator to undertake drinking water functions, and some specific wastewater and stormwater regulatory functions. However, detailed proposals relating to the institutional form of the regulator, and associated machinery of government arrangements, are still being developed, and will be reported to Cabinet in August 2019.
14. This approach will not affect the timeframe for establishing a regulator. Any decisions that require legislation to implement would be included in the water services bill we are hoping to introduce before the end of this year. The bill will also progress the majority of the other proposals in this paper. In particular, it will repeal provisions in Part 2A of the Health Act 1956, which regulates drinking water, and transfer relevant provisions into new, dedicated legislation.

15. The costs of reform will be significant for some communities. The Minister of Local Government's accompanying paper, *A plan for three waters reform*, sets out these high-level costs, and options and a process for addressing them.
16. The costs of failure are borne across the country and the solutions needed require a system-wide perspective. However, we do not have a mandate to call on a solution that assumes a sole central government contribution to address significant and looming new infrastructure and renewal costs. Options will be explored in a Cabinet paper on service delivery and funding arrangements in late 2019.
17. The costs should not prevent us from proceeding. We consider the actions proposed in this paper are needed to provide basic acceptable services, and assure ratepayers and communities that good environmental outcomes are being achieved and our drinking water supplies are safe.

Background and context

This is the second in a series of papers on the Three Waters Review in 2019, which focuses on reforming the three waters regulatory system

18. The first paper, *A plan for three waters reform* (June 2019), provides a detailed summary of the issues facing the three waters system, Cabinet decisions made to date, and plans for future work. It also explains the broader context for the regulatory reform proposals that follow throughout this associated paper. This context includes connections with the rest of the Three Waters Review (including work on service delivery and funding arrangements), the Essential Freshwater programme, and Te Mana o te Wai.
19. Our most significant concern is that three waters services are inadequately regulated in New Zealand. Drinking water is essential for life, but we cannot be confident that what comes out of the tap is safe. Every year, around 34,000 people become ill from their drinking water, and many thousands of households must boil their water to drink it safely. Effective wastewater and stormwater management systems are essential for the health of the water, the health of the environment, and the health of the people, but these systems frequently have adverse effects on urban waterways, beaches, and harbours.
20. Complex regulatory arrangements currently apply to the three waters system, and responsibilities are shared across multiple central government agencies, District Health Boards (DHBs), and regional councils.
 - 20.1 Provisions for regulating drinking water quality are in Part 2A of the Health Act 1956 (Health Act), and responsibilities lie with the Ministry of Health and DHBs. These provisions are affected by proposals throughout Parts A and C of this paper, and would be repealed and amended by the water services bill.
 - 20.2 The Building Act 2004 and Building Code (administered by the Ministry of Business, Innovation and Employment) regulate drinking water between the toby and the tap, mostly via the building consent process when a building is built or when the plumbing undergoes a consented renovation. For example, there are requirements for backflow preventions, and that new homes and buildings have potable water. These provisions are unaffected by this paper.

- 20.3 There is also a National Environmental Standard (NES) for Sources of Human Drinking Water (NES for Drinking Water), overseen by the Ministry for the Environment. Revisions to this NES are discussed in Part A of this paper: *protecting drinking water sources*.
- 20.4 The regulatory approach to managing the environmental effects of wastewater and stormwater is provided under the RMA, and regulations made under that Act. Responsibilities lie with the Ministry for the Environment and regional councils. Proposals in Parts B and C of this paper are relevant to these regulatory arrangements, but involve limited changes to existing legislation. These proposals would be largely progressed through a new NES for wastewater discharges and overflows, and new provisions in the water services bill to provide necessary risk management and monitoring.
- 20.5 Local authority three waters infrastructure and services are regulated under the Local Government Act 2002, administered by the Department of Internal Affairs. The proposals in this paper only have a small impact on this legislation, in relation to the proposed obligation on local authorities to ensure communities have access to safe drinking water. Most proposals that affect local authorities would be implemented through amendments to the above legislation and regulatory instruments.
- 20.6 The Civil Defence and Emergency Management Act 2002 sets out duties for lifeline utilities relating to risk reduction, readiness, response, and recovery. Responsibilities lie with the Ministry of Civil Defence and Emergency Management. This paper does not have any direct implications for this legislation.
- 20.7 A number of other pieces of legislation include three waters references, such as requirements on specified parties to provide potable drinking water. The water services bill may need to make consequential amendments to this legislation, to ensure consistent terminology and definitions.
21. On 5 November 2018, Cabinet invited the Ministers of/for Local Government, Health, and Environment to report back to Cabinet Economic Development Committee (DEV) with detailed policy proposals for drinking water and environmental regulation of the three waters, to enable drafting of legislation [CAB-18-MIN-0545 refers].
22. The proposals in this paper respond to Cabinet's invitation, by setting out a suite of inter-connected reforms to the drinking water regulatory system, and targeted reforms to improve the regulation and performance of wastewater and stormwater systems.
23. This package of reforms has been developed to address concerns about the three waters regulatory system, which were highlighted in previous papers and are summarised throughout this paper. The proposals have also been designed with the following high-level objectives in mind:
- 23.1 improve public health and wellbeing;
- 23.2 protect and enhance environmental outcomes, including water quality and climate change mitigation;
- 23.3 uphold Te Mana o te Wai, provide for mātauranga Māori to support kaitiakitanga aspirations;
- 23.4 improve the management of risks to people, property, and the environment;

- 23.5 protect public investment in three waters assets, and ensure resilience to the potential effects of climate change;
- 23.6 improve transparency about, and accountability for, the performance of three waters services and delivery of regulatory functions.
- 24. We consider that a dedicated regulator and new legislation will provide a strong basis for achieving these objectives, and help to simplify some regulatory arrangements. In particular, moving the drinking water provisions out of the multi-purpose Health Act, and into a stand-alone piece of legislation, will ensure a greater focus is placed on drinking water safety. There will also be a better integrated approach to regulation across related three waters services.

We are working to reflect Māori interests in the regulatory proposals

- 25. Māori interests are more clearly articulated in a 'whole of system' view of water that does not delineate freshwater, three waters, marine or urban waters. In the Treaty of Waitangi context, water is defined as a taonga and this underpins the important relationship to, and with, this resource.
- 26. Te Mana o te Wai is an avenue and opportunity for the Government to engage with Māori on this matter. A range of issues are equally important to Māori, as suppliers or recipients of water services to marae, papakāinga, and rural communities, and as members of communities who receive poor quality or no three waters services.
- 27. Māori have consistently identified improving water quality and ecosystem health as a priority, and their feedback on the three waters proposals reflected these concerns; that is:
 - 27.1 that the proposals need to uphold Te Mana o te Wai, and promote a holistic approach to water (including having one regulator for all three waters);
 - 27.2 that mātauranga Māori (Māori knowledge and expertise about water management) should be given equal weight to scientific knowledge (recognising that these are not mutually exclusive) throughout the system;
 - 27.3 to enable kaitiakitanga aspirations at a catchment by catchment level;
 - 27.4 protecting existing Treaty settlement arrangements.
- 28. Further detail on the issues raised by Māori during engagement, and our approach to engagement with Māori, is provided in the consultation and Treaty of Waitangi sections later in this paper.
- 29. We are working to reflect Māori interests throughout the proposals, including:
 - 29.1 stewardship of the three waters system, where there are opportunities to align with the work on Essential Freshwater, and reflect the Māori-Crown relationship;
 - 29.2 considering Māori interests and involvement in the design and operation of a central regulator;
 - 29.3 reflecting mātauranga and values throughout the three waters system;
 - 29.4 providing for the practice of kaitiakitanga at the catchment level.

Comment

Part A: A better system for regulating drinking water and protecting source water

Ensuring people can access water that is safe to drink

30. Access to safe and reliable sources of drinking water is essential to life, and to the health, wellbeing, and resilience of our communities. It is also a vital part of a high-performing economy, for our international reputation, and as a tourist destination.
31. Most consumers cannot assess the quality or safety of the water they drink, and have little or no choice about who supplies their water services. This means they have to put their trust in those responsible for supplying and regulating those services.
32. Unfortunately, the drinking water regulatory system is currently failing to provide all of the necessary assurances that water supplies across New Zealand are safe and reliable. There are two core issues: some suppliers are not regulated effectively, while others are not regulated at all.
33. The regulation of networked supplies is fragmented and weak. Many suppliers are effectively unregulated. This includes network supplies to fewer than 500 people. It also includes several kinds of 'specified self-supply', many of which are institutions and facilities that serve a lot of people, such as schools, campgrounds, universities, airports, and defence properties. It is estimated that around 800,000 New Zealanders receive their drinking water from supplies that are not regulated under the Health Act.
34. Even when supplies are regulated, the requirements are not strong. For example:
 - 34.1 Suppliers are required to take "all practicable steps" to supply water that meets drinking water standards, but are deemed compliant if they *start* implementing a water safety plan. In effect, this means they may be technically compliant with the law, even though the water being supplied is not demonstrably safe.
 - 34.2 Affordability is a factor when considering if something is "practicable". Lack of affordability can, therefore, be used as an easy excuse for not providing safe drinking water.
35. We consider that far more drinking water supplies need to be covered by the regulatory system, and that this system needs significant strengthening to operate effectively and ensure the provision of safe drinking water. To help achieve these goals, we are seeking agreement to include a suite of related reforms in the proposed water services bill:
 - 35.1 ***A centrally-located regulator would be responsible for overseeing the entire drinking water regulatory system.*** The regulator would have a wide range of drinking water functions, and some specific wastewater and stormwater regulatory functions. Further details are provided in Part C of this paper.

- 35.2 ***All drinking water suppliers would be required to provide safe drinking water.*** An essential principle of drinking water safety is that suppliers must own the safety of the water. In practice, this means requiring all suppliers to identify and manage risks to their drinking water supplies, ensuring they can deliver safe drinking water on a consistent basis. This is a change from the existing (lesser) requirement to take “all practicable steps” to comply. This change in tone would be reflected in the new legislation, and references to “all practicable steps” would be repealed and not replaced. It is intended that compliance will be based largely around requirements for risk management and water safety plans proportionate to risk.
- 35.3 ***Stronger obligations on suppliers and local government to manage risks to drinking water safety, clearer leadership and accountabilities, and a stronger approach to compliance, monitoring and enforcement.*** Further details on these proposals are provided later in this paper.
- 35.4 ***All drinking water suppliers would be covered by the drinking water regulatory system, and required to register with the regulator.*** The only exception would be for ‘domestic self-suppliers’, who are responsible for the supplies to their properties (using rainwater tanks, for example), and therefore have the ability and incentive to manage the risks to those supplies themselves. The bill would repeal existing categories of drinking water supplier, as defined in the Health Act, and replace these with new categories that are based less on size and more on risk. Domestic self-suppliers would be defined. The bill would also make changes to the current provisions for registration and de-registration, and the information that regulated parties are required to provide (sections 69J to 69N).
36. This approach would address many of the serious shortcomings with the current system, and provide New Zealanders and international visitors with the confidence that our drinking water supplies are safe and reliable. However, it involves a judgement call about how far to extend the regulatory perimeter, and the pros and cons of different options. We have approached the design of the reform proposals from the perspective that everyone should receive safe drinking water, but recognise that this will impose costs in the regulatory system that will be passed on to consumers.
37. For example, proposals to extend the scope of drinking water regulatory requirements affect rural drinking supplies. There are currently approximately 81 rural drinking water supplies, 23 of which serve under 100 people. Research by BECA estimates that only a small number of these supplies are compliant with the current drinking water standards, and that there will be substantial costs associated with upgrading some existing plants and processes to achieve compliance.
38. We are of the view that people in rural New Zealand should have similar access to safe drinking water as people living in urban areas. We also note that point-of-use treatment technology provides a cost-effective solution for many rural supplies, and that while permitted under the current regulatory system, very few rural supplies have taken advantage of this option to date.

39. As part of the implementation of the new regulatory requirements, the regulator will have an important role in working with rural community suppliers and councils to build knowledge, understanding and technical capabilities necessary to ensure feasible, cost-effective approaches to providing safe drinking water. The proposed transition period for implementing the new regulatory requirements will ensure there is a reasonable period of time for this to occur. This is discussed further below.

Transition periods to comply with the new regulatory system

40. Our intention is that anyone who supplies drinking water to a person outside of the supplier's household would be regulated, and be required to register with the regulator. This will enable the regulator to establish a comprehensive list of all drinking water suppliers, regardless of their size. All suppliers would also be required to provide performance information to the regulator, and notify the regulator immediately of any known failure to provide safe drinking water.
41. In effect, this means an estimated 2000 suppliers would be brought in to the regulatory system, in addition to the 800 suppliers (approximately) that are currently regulated.² The new groups include larger self-suppliers, such as schools and other education facilities, prisons, and defence facilities, as well as small rural supplies and small community schemes that serve fewer than 25 people.
42. We consider that a five year period would be appropriate to fully implement the new regulatory system. Drinking water suppliers will need to familiarise themselves with new regulatory arrangements, develop capabilities, and make any necessary changes to their supply arrangements and infrastructure. Suppliers that are currently outside of the regulatory system are likely to require longer to do this than suppliers that are already regulated.
43. We propose that, from the date that the new regulatory system is enacted, all drinking water suppliers would be required to register with the regulator, and ensure the water they provide is safe to drink. All suppliers that provide drinking water to 500 or more consumers would also be required to prepare/update drinking water safety plans to meet the new requirements, pass these to the regulator for audit and compliance monitoring purposes, and be operating in accordance with the plan within one year.
44. It is intended that the regulator's initial focus would be on implementing all of the core components of the regulatory system, ensuring suppliers understand their obligations and are registered, working with suppliers to build capability, monitoring performance, and investigating and dealing with serious cases of non-compliance.
45. We expect that, by the end of the third year of the new regulatory system, the regulator would be actively monitoring the performance of those suppliers that provide drinking water to 500 or more consumers, and be taking enforcement action where appropriate. The regulator would also be working with other (smaller) suppliers to bring them into the regulatory system, so they are able to comply by the end of the fifth year following enactment.

² There is uncertainty about the exact numbers of suppliers/supplies that would be affected by the proposals. There is a lack of information about many small suppliers and specified self-suppliers, either because they are not required to register or because they failed to register.

46. We recognise that it may be challenging for some suppliers to comply with their obligations, particularly those suppliers that are being brought into the regulatory system for the first time. It is envisaged that this would be managed by allowing for assistance and time to achieve compliance, in a way that is proportionate to supplier capability and the complexity and risks of their water supply systems.
47. We are seeking agreement to include the above implementation and transition arrangements in the water services bill, subject to further advice relating to the phasing and proportionality of regulation for very small suppliers.
48. We consider further work is needed to determine the most practicable approach to the phasing of implementation for suppliers that are not currently covered by the regulatory system, particularly very small suppliers. We also need to ensure regulatory requirements (such as water safety plans) are designed in a way that reflects proportionality, and are appropriate for both the regulated parties and the regulator.
49. We propose that the Department of Internal Affairs, Ministry of Health, and Ministry of Business, Innovation and Employment will provide detailed advice on this matter, for agreement by the Ministers of Local Government, Health, and Commerce and Consumer Affairs in August 2019. This advice will also consider provisions for exemptions, as outlined below.

A process for dealing with exemptions

50. There will, of course, be cases where regulation is impracticable or unreasonable. We propose to manage these circumstances by providing the regulator with the power to exempt certain suppliers from complying with any or all of the regulatory requirements, on a case-by-case or 'group' of supply basis. We seek agreement to include this power in the water services bill, and enable the regulator to develop a process and criteria for guiding decisions.
51. By way of example, back-country huts managed by the Department of Conservation (DOC) would fall within the proposed regulatory system, but may warrant an exemption. An exemption may be reasonable given the impracticability of providing potable water supplies to these huts, and the fact that users are unlikely to expect to receive the same quality of supply in these huts as in other facilities. This will be considered further in the advice referred to in paragraph 49.
52. There are also cases where supplies are already adequately regulated by other means. For example, a factory manufacturing food must meet stringent standards for its water supply under food regulation. Hospitals must meet extremely stringent standards for drinking water and wastewater under the Health and Disability Services Standards. We expect the regulator would issue a general exemption for such cases.

Costs of compliance

53. We are aware of concerns about the costs and burdens of compliance. This has been a common theme in stakeholder feedback on the proposals. Māori have also expressed concerns about the impact on rural marae, which are often already struggling to meet other regulatory requirements (for fire safety, for example). The financial implications of the proposals in this paper are discussed in paragraphs 168 to 178, and the attached regulatory impact assessment. The Minister of Local Government's accompanying paper, *A plan for three waters reform*, also sets out the high-level costs, and options and a process to address them.

54. While the costs of reform will be significant, this should not prevent us from proceeding. We consider the actions proposed in this paper are needed to protect our communities, tourists, and international reputation. We need to build confidence in the safety of our drinking water supplies, and the organisations responsible for regulating and providing those supplies. We will all benefit from having water that is reliably safe to drink, across the country.
55. These are system-wide issues, and the costs of failure are borne across the country. The solutions also need to be considered from a system-wide perspective. For example, at a local level, a case might be made for adjoining communities to cooperate, given there are joint interests and that people, water, and health issues move across administrative boundaries.
56. The cost implications, and how these might be addressed, will be explored further in the paper on service delivery and funding arrangements, in late 2019. We do not, however, have a mandate to call on a solution that assumes a sole central government contribution.

An obligation on local government to ensure communities have access to safe drinking water

57. There is a risk that some suppliers will struggle to comply with the new or enhanced requirements, and a few may even cease to operate. There is no legal obligation on non-council suppliers to maintain their supplies, meaning in extreme circumstances consumers could be left without drinking water, unless the Government takes specific measures to prevent that.
58. We must ensure provisions are in place to ensure this risk is managed. This is also an opportunity to address an ongoing issue that there is no clear obligation on any organisation to step in if suppliers exit.
59. We are proposing to give local government clearer responsibilities to ensure communities continue to have access to a reliable source of safe drinking water. This would be consistent with councils' existing roles relating to public health and safety, and community wellbeing, more broadly.
60. We seek agreement that the water services bill provides for the following approach:
 - 60.1 An express obligation on territorial authorities to inform themselves about the supplies of drinking water to communities across their districts. This could build on, but clarify and enhance, existing responsibilities in sections 124 to 126 of the Local Government Act 2002 to assess drinking water services. The responsibilities would be explicitly broadened to include all non-council drinking water supplies, except those owned/operated by the Crown (such as schools and prisons), and domestic self-suppliers. There would be specific time periods for gathering information, as well as the ability for communities to alert councils to issues with their supplies.
 - 60.2 A requirement that, if problems are identified with a non-council supply, the council would be expected to inform the regulator, and work collaboratively with the supplier, its consumers, and the regulator to identify a sustainable solution. Further information on the role of the regulator in these situations is provided in the compliance, monitoring and enforcement section below, regarding supplier failure or risk of failure.

- 60.3 If a solution cannot be agreed, or if the supplier exits, the council would be obliged to ensure safe drinking water continues to be provided. The new legislation would be clear that councils may have a range of options for meeting this obligation, and the costs and funding sources associated with different options would need to be considered. It would not necessarily mean that the council would have to become the supplier directly, or that the supply would have to be provided via a reticulated network. (For example, it could be done by finding an alternative supplier, assisting households to become self-suppliers, or providing water in a tanker.) Councils would be able to charge for supplies they provide.
61. There will need to be further consideration about how this approach might work in practice, and how particular matters might be dealt with (such as how assets would be treated if a private or community supplier ceased to operate). We propose this is included in the August 2019 advice to the Ministers of Local Government, Health, and Commerce and Consumer Affairs, referred to in paragraph 49.

Effectively managing risks to drinking water safety

Protecting drinking water sources

62. A key principle of drinking water safety is that source protection is an important barrier against contamination of drinking water. Giving effect to this principle involves proactively managing risks to source water. However, there are currently a number of deficiencies in the arrangements for protecting sources of drinking water.
63. While source waters are currently regulated under the RMA and the NES for Drinking Water, the scope of the NES is insufficient to manage all risks to source waters. In practice, this means regional councils and territorial authorities are not consistently imposing appropriate controls on land-use activities that can affect the safety of drinking water supplies.
64. Responsibility for source protection is currently fragmented across regional councils, territorial authorities and water suppliers, and there is poor coordination and information sharing between these bodies. Moreover, no central agency has oversight of the risks to source water, or responsibility for ensuring councils and suppliers are taking appropriate actions to address contamination risks.
65. There is also inadequate monitoring of changes in source water quality across the country. There are significant gaps in the data, and limited information on emerging risks and issues, such as increasing concentrations of nitrates in ground water and the impacts of climate change on the reliability of drinking water supplies.
66. To address this situation, we are proposing to introduce new and enhanced obligations and duties on regional councils, territorial authorities and drinking water suppliers for managing risks to source waters. We seek agreement to include the following new obligations in the water services bill:
- 66.1 Require water suppliers to develop and implement a source water risk management plan, as part of water safety plans (currently provided for in the Health Act), and for this plan to be lodged with a central regulator for auditing and compliance monitoring purposes.

- 66.2 Introduce a duty on regional councils and territorial authorities to contribute to the development and implementation of source water risk management plans, including providing information and technical advice to water suppliers, and engaging with iwi/Māori as kaitiaki.
 - 66.3 Require water suppliers to periodically monitor source water quality at the point of abstraction, in order to ensure existing treatment processes are optimised, mātauranga Māori values are provided for, and to detect any significant changes to source water quality that require further investigation.
 - 66.4 Require water suppliers, regional councils and territorial authorities to share information with each other, and iwi/Māori as kaitiaki, related to source water risks, including the location of drinking water abstraction points and the results of monitoring of source water quality and quantity.
 - 66.5 Require regional councils to report annual trends in source water quality and quantity in their region, and to periodically assess the effectiveness of actions taken to manage risks to source waters.
67. These new requirements would build on existing provisions in the Health Act relating to drinking water sources. For example, there are duties on suppliers to contribute to the protection of drinking water sources (section 69U), and provisions relating to contamination of water supplies and sources (sections 69ZZO to 69ZZP). These provisions would be carried over into the new legislation, with amendment.
68. We are also proposing additional obligations, which would be given effect through revisions to the NES for Drinking Water, and consequential amendments to other national directions instruments under the RMA, if required. The proposed revisions would prescribe obligations for regional councils and territorial authorities to assess and control risks to source waters, including:
- 68.1 providing direction on setting source water risk management areas, which will define the spatial area to which the NES for Drinking Water applies, and the types of activities that must be assessed as potential risks to source waters and require public notification;
 - 68.2 expanding the scope of the regulations so they apply to all registered water supplies serving more than 25 people (for at least 60 days per calendar year);
 - 68.3 prescribing a new approach for managing specific contaminants in source waters, including nitrate-nitrogen, based upon the maximum allowable values contained in the drinking water standards;
 - 68.4 ensuring RMA planning and consenting decisions support the ongoing provision of safe drinking water, by placing appropriate controls on the development and use of land in source water risk management zone areas;
 - 68.5 reviewing plan rules for activities located within source water risk management zones, to ensure appropriate controls are in place.
69. These proposed revisions to the NES for Drinking Water are to be signalled in August 2019, as part of the Essential Freshwater discussion document, followed by a statutory process to develop the details of the regulations. This will include consultation with the public and iwi/Māori as kaitiaki. The proposed content for the discussion document is provided in Appendix 1.

70. The Minister for the Environment will make final decisions on the proposed revisions to the NES for Drinking Water, once the Minister has received a report and recommendations on the specific details of the proposed regulations in accordance with section 46A of the RMA.
71. We note that the Essential Freshwater programme will also be considering reforms to the wider freshwater management system, which would contribute towards the protection of drinking water sources.

A multi-barrier approach to drinking water safety

72. Another important principle of drinking water safety is use of a multi-barrier approach. The Government Inquiry into Havelock North Drinking Water (Havelock North Inquiry) recommended that suppliers should be required to adopt a multi-barrier approach, and that one of the barriers should be residual disinfection in the reticulation system, using a disinfectant such as chlorine.
73. The Havelock North Inquiry also accepted that a provision should be made for exemptions. However, any supplier seeking an exemption should have to discharge a “heavy onus” of satisfying an appropriately qualified and experienced body of the safety of the supply.
74. We agree that all suppliers should be required in legislation to adopt a multi-barrier approach to drinking water safety, which considers:
 - 74.1 preventing hazards entering the raw water;
 - 74.2 removing particles and hazardous chemicals from the water by physical treatment;
 - 74.3 killing or inactivating pathogens in the water by disinfection; and
 - 74.4 maintaining the quality of water in the distribution system.
75. The details of the multi-barrier approaches being adopted by each supplier would be given effect through their water safety plans, or another instrument agreed by the regulator. The regulator would have statutory powers to monitor and enforce compliance with these instruments.
76. We recognise there may be situations where suppliers wish to provide unchlorinated water in a distribution system, both for large networked supplies and small community supplies. We also note that, internationally, there are examples of suppliers that provide safe drinking water without residual treatment, though, of course, there are significant cost and other resource implications to consider.
77. We consider the water services bill should provide for the ability to receive an exemption from these requirements, if a supplier is able to demonstrate to the regulator that all risks in a distribution system are being managed appropriately without a residual disinfectant. The burden of proof would lie with the supplier, and the regulator would decide whether or not to grant an exemption.
78. The regulator would assess proposals on a case-by-case basis to ensure all risks are being managed appropriately. Large networked supplies, with hundreds of kilometres of pipes and extensive water storage infrastructure, would have a significant range of risks to manage. A small community supply, with little or no distribution infrastructure, may have fewer risks to manage.

79. It should be noted that the proposed multi-barrier approach does not include the ability to rely on secure bore classification. The Havelock North Inquiry recommended abolishing the secure bore classification system in the drinking water standards. This recommendation is already being implemented through a process for changing those standards.
80. The basis for the Inquiry's recommendation is that the concept of "secure" groundwater is inherently unsafe. While there will be varying degrees of quality of groundwater, and some may be of high quality, the word "secure", and the connotations flowing from it, are misleading in a way that has practical adverse effects.

Improving drinking water safety planning

81. Taking a preventative approach to risk management is a further principle of safe drinking water, which was highlighted throughout the Havelock North Inquiry.
82. Water safety plans are the internationally-accepted mechanism for giving effect to this important principle. If done effectively, water safety planning strengthens the focus on preventative measures across the drinking water supply system. It should enable suppliers to ensure the ongoing supply of safe drinking water.
83. Water safety plans are currently provided for in sections 69Z to 69ZC of the Health Act. However, these provisions are relatively weak and ineffective. They only apply to suppliers that provide water to more than 500 people, and those suppliers are only required to 'start' to implement their plans. There are no clear requirements to complete implementation.
84. In addition, existing provisions only cover a small component of internationally-accepted best practice. Although the Ministry of Health has revised its water safety planning guidance in accordance with best practice, suppliers are not required to follow this guidance, and non-compliance cannot be addressed.
85. We propose to strengthen the approach to water safety planning, by introducing statutory provisions that require all suppliers to prepare and implement water safety plans (within appropriate transition arrangements). These plans would have to include the elements of best practice, based on the World Health Organisation's recommended model.
86. It is intended that suppliers' water safety plans would be subject to risk-based audit and monitoring by a central regulator. The regulator would also have the ability to set specific requirements for individual water safety plans, or types of supplier, and take action in cases of non-compliance.
87. We seek agreement to repeal existing provisions for water safety plans in the Health Act (as part of the wider repeal of Part 2A), and include new provisions in the water services bill. The new provisions would give effect to all of the above proposals relating to drinking water safety planning, including providing for a multi-barrier approach to water safety, and source water risk management plans. There would also be significant revisions to the current framework for water safety planning, such as the process and timeframe for reviewing and amending plans.

88. Concerns about the burden of compliance on small suppliers (such as marae and papakāinga) have been raised through engagement processes. Our expectation is that the regulator would have the capability to work alongside these suppliers throughout the transition period, and to ensure that the requirements it imposes are proportionate to risk (by using standardised templates for smaller suppliers' water safety plans, for example). In practice, this should mean that the amount of information included in a plan would be in proportion to the scale and complexity of individual supply arrangements. This will be considered further in the August 2019 advice to the Ministers of Local Government, Health, and Commerce and Consumer Affairs, referred to in paragraph 49.

A stronger, centralised approach to compliance, monitoring and enforcement

89. There are significant weaknesses in the current drinking water regulatory system regarding compliance, monitoring and enforcement. Critical weaknesses include:
- 89.1 fragmented responsibilities and accountabilities, and a lack of central oversight;
 - 89.2 inconsistent compliance and enforcement across the country (due to decentralised employment arrangements for enforcement officers, and complexities with the system for taking prosecutions, for example);
 - 89.3 limited compliance, monitoring and enforcement actions;
 - 89.4 resourcing issues relating to enforcement staff;
 - 89.5 little or no support for suppliers to help them understand or comply with regulatory requirements;
 - 89.6 gaps relating to the regulation of source waters;
 - 89.7 lack of recognition of mātauranga Māori and how it can be integrated into better water management frameworks and enable kaitiakitanga.
90. While the current regulatory system makes some provision for enforcement powers and penalties, these powers have been used inconsistently, the powers of intervention are limited, and there are gaps at the lower end of the offences scale (such as issuing infringement notices for low-level breaches). More recent legislation, such as the Health and Safety at Work Act 2015, has a wider range of powers.

Compliance, monitoring and enforcement tools

91. We are proposing to significantly strengthen the approach to drinking water compliance, monitoring and enforcement. A core part of the new approach involves centralising these functions and responsibilities within a new regulator. We seek agreement to repeal existing provisions in the Health Act, and include new and amended provisions in the water services bill. (For example, compliance activities and powers would be transferred from drinking water assessors and designated officers to the regulator, with some other minor changes to provisions currently in sections 69ZK to 69ZZN.)
92. We must ensure the regulator has the powers and resources needed to perform these functions consistently and effectively. This means enabling the regulator to support suppliers to comply with all of their regulatory obligations, build capability and capacity in the sector, and take appropriate action to address non-compliance.

93. We propose to provide the regulator with a broad range of compliance, monitoring, and enforcement tools, including:
- 93.1 providing assistance and advice;
 - 93.2 requiring suppliers to provide information;
 - 93.3 minor penalties, and the ability to issue instant fines and infringement notices for low-level offences;
 - 93.4 civil enforcement, such as the power to issue an enforceable compliance notice, with an appropriate penalty for failure to comply, along with the ability for suppliers to make undertakings to the regulator on actions they will take to comply, with an agreed penalty for failure to do so;
 - 93.5 criminal enforcement.
94. Some of these tools and powers are new; others are already provided for in the Health Act but require updating when transferred into the new bill. In particular, current provisions for offences and penalties (sections 69ZZQ to 69ZZX) need to be reviewed.
95. A wider range of penalties would be available for offences, including fines, and the possibility of personal liability for persons with specific responsibilities for water safety.

Introducing accreditation and licensing schemes for drinking water suppliers

96. The regulator will need to be able to take an approach to compliance that is tailored to the capability and characteristics of suppliers. In addition to the tools proposed above, we would like the regulator to be able to develop and implement a scheme for accrediting drinking water suppliers. It would do this in conjunction with an accreditation agent, such as International Accreditation New Zealand (IANZ).
97. An accreditation scheme would be aimed primarily at organisations that manage complex supply networks, and other suppliers' networks, and would place a consistent emphasis on capability building throughout those organisations. Gaining accreditation would be a way for suppliers to demonstrate to the regulator, and consumers, that they have high-performing organisations, people, systems, and processes.
98. An accreditation agent would be accountable to the regulator for managing this scheme, and would work with applicants and accredited suppliers. This means the regulator would be able to focus more of its resources on providing support and guidance to, and monitoring the performance of, non-accredited suppliers. Those suppliers are likely to be smaller and less capable, and in most need of the regulator's assistance and attention.
99. There will be costs associated with achieving and maintaining accreditation. While these costs are likely to be relatively modest, we consider that participating in an accreditation system should be voluntary for most suppliers. The exception would be organisations that manage or operate drinking water supplies on behalf of other suppliers. These organisations would be required to apply for, and maintain, accreditation. The regulator may also wish to extend requirements to be accredited to other network providers over time, and should have the ability to do this.

100. We note that the Health Act already includes accreditation requirements relating to other parties in the regulatory system, such as laboratories used for drinking water testing and sampling (section 69ZY). These requirements would be transferred into new legislation. It may also be desirable to introduce accreditation requirements for other technical disciplines, where it is good regulatory practice to do so. We consider this should be provided for in the water services bill.
101. We also want to enable the regulator to licence or register certain people who are involved in water supply operations, including those responsible for managing the operations. This would provide a means of reinforcing accountability for key roles, and holding individuals to account for their performance (potentially through disciplinary action or deregistration). Registration or licensing would also ensure people in key roles have the necessary skills and experience to perform these roles effectively.
102. To implement this system, the regulator would need the ability to establish registration or licensing requirements for people in certain roles, and take action to address poor performance. The people employed or engaged in these roles would be required to apply for and maintain registration, either with the regulator, or an agent acting on the regulator's behalf.
103. We are seeking agreement that accreditation and licensing systems be provided for in the water services bill. However, further work is required to develop the details of these systems, and consider how they might relate to other compliance, monitoring and enforcement provisions (such as personal liability). We propose that further information be included in the advice to the Ministers of Local Government, Health, and Commerce and Consumer Affairs, in August 2019, referred to earlier in this paper.

Compliance and enforcement: addressing supplier failure, or risks of failure

104. There may be circumstances in which the regulator considers that enforcement actions and penalties are ineffective or inappropriate for dealing with persistent or serious cases of non-compliance, or poor performance by a drinking water supplier.
105. Some suppliers may not be capable of complying with their regulatory obligations, and fail to provide safe drinking water. For example, they may be too small to employ the necessary expertise, or lack the financial resources to upgrade and maintain water infrastructure, and be unable or unwilling to address this situation. There may also be suppliers that persistently fail to meet their obligations or take actions required by the regulator.
106. We would expect the regulator, through its monitoring and information-gathering roles, to identify suppliers that are performing poorly, at risk of failure, or already failing to meet their obligations. The regulator may rely on a range of sources for this information, including its own activities, notifications from an accreditation agent, consumer complaints, and concerns raised by local authorities about non-council supplies in their districts.
107. The regulator would be empowered to investigate these situations and decide what, if any, corrective actions are required. In making this decision, the regulator's primary considerations would be public safety, and the supplier's duty to supply safe drinking water.

108. If the regulator determines the supplier is capable of correcting its performance, the regulator would work with the supplier, and other relevant parties (such as the accreditation agent and local authority), to agree and implement the necessary actions.
109. There may be situations where the regulator is either dissatisfied with the corrective actions taken by the supplier, or has determined that the supplier is not capable of improving its performance and carrying out its statutory functions. In this situation, we consider the regulator should be able to take one or more of the following actions:
 - 109.1 appoint a statutory manager or accredited provider to temporarily manage the drinking water supplier's operations, until a sustainable arrangement can be put in place;
 - 109.2 require a drinking water supplier to transfer the management of its operations to another supplier, on a long-term basis.
110. The regulator would be able to seek to recover costs from the supplier in relation to these actions.
111. In situations involving private and community drinking water suppliers, the regulator would work with the supplier, the relevant local authority, and affected consumers to ensure a sustainable solution is found and safe drinking water is provided. As described earlier in this paper, this solution may involve the local authority taking over responsibility for supplying drinking water to the affected communities.
112. We note that powers of intervention exist in other regulatory systems. For example, the Minister for Building and Construction may appoint one or more persons to act in place of a territorial authority that is not properly performing its functions or duties under the Building Act 2004. The Minister of Local Government has a range of powers under the Local Government Act 2002, which can be used to address significant problems, or potential problems, in local authorities.

Part B: Protecting our people and environment from the negative effects of wastewater and stormwater systems

113. Wastewater and stormwater systems frequently have adverse effects on urban waterways, beaches, and harbours. This is affecting Te Mana o te Wai: the health of the water, the health of the environment, and the health of the people.
114. The proposals in this part of the paper are designed to improve this situation. They are targeted primarily at wastewater and stormwater systems operated by local government, including council-controlled organisations. However, there is potential for some Crown- and privately-owned systems to be included within the scope of the new regulations, which will be considered during consultation processes.
115. It should be noted that regional councils will continue to regulate wastewater and stormwater discharges under the RMA, and activities posing risks to drinking water sources.

Lifting the performance and transparency of wastewater and stormwater systems

116. Wastewater and stormwater systems need to be designed and managed to minimise the risks to people, property, and the environment, while providing levels of service that meet community expectations and provide for iwi/Māori cultural values.

117. However, the current regulatory system does not provide assurances that wastewater and stormwater systems are delivering outcomes that are acceptable for communities, iwi/Māori, and the environment. Specific problems with the regulatory arrangements include:

- 117.1 lack of transparency and public reporting on the environmental performance and compliance of wastewater and stormwater networks, and their contribution to environmental and public health outcomes;
- 117.2 no national-level oversight of the performance of wastewater or stormwater network operators and issues affecting environmental outcomes, including emerging contaminants;
- 117.3 highly variable approaches to regulating the performance of wastewater and stormwater networks under the RMA, with no national guidelines or standards for setting consent conditions for discharges from wastewater treatment facilities, engineered overflow points, or stormwater networks;
- 117.4 a high number (one in 10 – soon to be one in five) of wastewater treatment plants are operating on expired consents for long periods of time;
- 117.5 limited scrutiny of the investment and management decisions of wastewater and stormwater operators, including how they prioritise network upgrades and maintenance activities to address risks;
- 117.6 little enforcement action by regional councils when consent conditions are breached – possibly reflecting that these are essential services that cannot be stopped, even when there are significant breaches;
- 117.7 compliance, monitoring and enforcement practices of regional councils are inconsistent, and there is a lack of tools and knowledge of mātauranga to proactively address risks that may result in significant adverse effects on receiving environments, people, property, or the environment (including, for example, the impacts of discharges on mātaihai – customary fishing areas);
- 117.8 lack of integration between stormwater network planning and design, and wider catchment and land-use planning, with considerable variation in stormwater plan provisions across the country;
- 117.9 best practice design techniques for stormwater networks and urban design are rarely implemented, with capability gaps in developing effective stormwater policy frameworks and system design.

118. To address this situation, we are proposing to introduce a suite of targeted measures to improve the environmental regulation and performance of wastewater and stormwater systems. Some of these proposals would be consulted on in tandem with the Essential Freshwater programme. Other proposals would be addressed through the water services bill, and be included in new legislation.

A national environmental standard for wastewater discharges and overflows

119. We are proposing to initiate work on a national standard for wastewater discharges and overflows. The new standard would prescribe criteria and methods for setting consent conditions on discharges from wastewater treatment plants and engineered overflow points. This could include standards for effluent quality, methods for monitoring compliance, approaches for incorporating culturally acceptable wastewater treatment processes, and a requirement to develop a wastewater network strategy.
120. The new standard would allow regional councils to set more stringent consent conditions, if required to meet national or regional objectives for fresh and coastal waters, in accordance with the requirements of the National Policy Statement for Freshwater Management (Freshwater NPS) or the New Zealand Coastal Policy Statement, and to provide for community and iwi/Māori values and interests in water.
121. This proposal would be progressed through a national environmental standard under the RMA. A high-level proposal for this national environmental standard is proposed to be included in the Essential Freshwater discussion document in August 2019. This will be followed by a statutory process to develop the details of the regulations, including consultation with the public and iwi authorities. The proposed content for the discussion document is provided in Appendix 1.
122. The Minister for the Environment will make final decisions on the proposed new environmental standard, once the Minister has received a report and recommendations on the specific details of the proposed regulations in accordance with section 46A of the RMA.

New risk management obligations for wastewater and stormwater networks, and stormwater guidance

123. We are proposing to undertake further work on new obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment associated with the operation of their infrastructure networks. This obligation is expected to include a new requirement for operators to prepare and implement a risk management plan, which would be lodged with a central regulator for audit and compliance monitoring purposes.
124. In meeting this obligation, network operators would be required to demonstrate that they have an appropriate regime in place for managing risks, which includes how they:
 - 124.1 operate and maintain wastewater and stormwater networks to ensure they consistently meet consent conditions and other regulatory requirements, including the renewal of discharge consents within appropriate timeframes;
 - 124.2 proactively manage any residual risks to Te Mana o te Wai, public health, and the natural and built environment;
 - 124.3 address community and iwi/Māori cultural expectations for safe disposal of wastewater;
 - 124.4 support integrated planning of stormwater networks and land use.
125. We are also proposing that national stormwater guidance be developed to support local authorities and service providers. This is intended as a first step towards improving the regulation and design of stormwater services. It would include:

- 125.1 national guidelines for establishing planning provisions and setting consent conditions for discharges from stormwater networks;
- 125.2 guidance on best practice approaches for stormwater network design and maintenance, including the use of green infrastructure.
- 126. This new obligation could be given effect through national direction under the RMA or another legislative instrument.
- 127. We propose to include both of these proposals in the Essential Freshwater discussion document, in August 2019, and to report back to Cabinet with a detailed proposal in late 2019.

Reporting on nationally-prescribed environmental performance metrics and compliance

- 128. We are proposing to introduce a new obligation on wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics. This information would bring much needed transparency about the performance of these networks and infrastructure, and the impacts they have on Te Mana o te Wai, including environmental and public health.
- 129. We are also proposing that a central regulator would be required to specify the details of the performance metrics, and develop suitable methods for collecting, validating, analysing, and publishing this information. Wastewater and stormwater operators (territorial authorities) would also be required to keep appropriate records on these metrics and provide this information to the central regulator on request.
- 130. The central regulator would be empowered in legislation to undertake these functions (unless the regulator already holds these powers under existing legislation). This proposal will be progressed through the water services bill, if required.
- 131. While further work is required to determine the technical specifications for these national performance metrics, they are likely to encompass matters such as: wastewater/stormwater discharges, sludge disposal practices, greenhouse gas emissions and energy use, environmental impacts, resilience, social/cultural indicators, and certain compliance and enforcement information.
- 132. The regulator would be expected to establish a technical advisory group (or groups) to provide advice on the development of a suitable set of national performance metrics for wastewater and stormwater.
- 133. We propose to include this proposal in the Essential Freshwater discussion document.

Improving national-level leadership, oversight and support relating to wastewater and stormwater regulation

- 134. As highlighted above, there is currently a lack of national-level oversight of the performance of wastewater or stormwater network operators, and limited central stewardship of the regulation of this infrastructure within the devolved RMA regulatory system.
- 135. We consider there is a need for greater national leadership and oversight relating to the regulation and provision of wastewater and stormwater services. Regional councils and service providers need more clarity about what is expected of them, and more support from the centre to help them meet those expectations.

136. We propose that a central regulator be directed to set and publish guidance for local authorities regarding compliance, monitoring and enforcement approaches to be used for wastewater and stormwater network operators.
137. The central regulator would also have a function to undertake and encourage the collection and dissemination of information relating to the environmental performance of wastewater and stormwater networks. This could include requesting information from local authorities on the status of active and expired discharge consents, and compliance information.
138. We also propose that the central regulatory agency would be required to identify and monitor emerging contaminants in drinking water, wastewater, and stormwater, and to coordinate national-level policy responses, both regulatory and non-regulatory, where required.
139. In addition, we would like a central regulatory agency to be required to play a greater role in identifying and promoting national good practices for the design and management of wastewater and stormwater networks. This could involve the development and dissemination of national guidelines, and the establishment of, and ongoing support for, industry training and certification schemes.
140. We envisage that a central three waters regulator would have a role in implementing these and other proposals. This is discussed further in Part C, below.

Part C: A central regulator to carry out new and enhanced functions

141. Proposals in this paper have implications for what is regulated, who is affected by the regulation, and who is responsible for administering, enforcing, and overseeing the regulatory system. Many of the proposals involve the development of new or enhanced central regulatory functions that would be carried out by, or on behalf of, a central regulatory agency. This includes:
 - 141.1 most of the drinking water functions that are discussed in Part A of this paper (including some entirely new functions, and enhancements to existing functions); and
 - 141.2 some of the wastewater and stormwater roles and functions covered in Part B, particularly where these would benefit from greater national-level oversight and support.
142. We are also seeking to address shortcomings with the current system of drinking water regulation, including how and where existing regulatory functions are undertaken. These shortcomings include:
 - 142.1 weak overall leadership for the drinking water sector and regulatory system, and no government agency has drinking water safety as its core focus;
 - 142.2 fragmentation of powers and responsibilities, creating confusion and inconsistency: no single organisation has overall responsibility for drinking water regulation; responsibilities are spread across multiple entities in the health sector, and central and local government;
 - 142.3 ongoing capability and resourcing problems across the drinking water sector: no organisation has clear responsibilities for building capability and capacity, or ensuring training is available or taken up;

- 142.4 no meaningful regulation of small private and community suppliers, or specified self-suppliers, even if they provide water to large numbers of people;
- 142.5 no effective enforcement, contributing to persistent non-compliance by some drinking water suppliers;
- 142.6 inadequate central coordination and leadership of distributed enforcement, which contributes to problems with accountability, consistency, capacity, and capability. In particular, drinking water assessors are responsible for monitoring and enforcement, but have many other public health responsibilities. They are appointed by, and responsible to, the Director-General of Health, but are employed by District Health Boards.

A central regulator would be responsible for the whole drinking water regulatory system

- 143. We are proposing to take a new approach to the administration of the drinking water regulatory system. This would rectify problems with the current system, and accommodate the new measures proposed in this paper.
- 144. At the heart of this new approach is a centrally-located regulator, responsible for overseeing the entire drinking water system. As outlined throughout this paper, this regulator would have a range of responsibilities and functions. Some of the functions are new; others are enhancements to existing functions within the drinking water regulatory system. The functions include:
 - 144.1 **Sector leadership:** The regulator would be responsible for oversight and monitoring of drinking water safety; public communications; ensuring coordination across the sector; leading or overseeing the response to drinking water emergencies; and emergency response planning. Parts of this leadership role are new. There are also existing powers in the Health Act relating to emergency situations (sections 69ZZA to 69ZZG), which will require review before being included in the water services bill.
 - 144.2 **Setting standards:** The regulator would be involved in setting and reviewing standards for drinking water and source water (as currently provided in sections 69O to 69R of the Health Act). It would also develop requirements relating to the multi-barrier approach to drinking water safety, and consider any requests from exemptions from these requirements (as part of a broader process for considering and granting exemptions).
 - 144.3 **Compliance, monitoring and enforcement:** The regulator's role would include compliance auditing and monitoring of water safety plans (including source water risk management plans); monitoring and auditing drinking water suppliers; and monitoring other obligations on local authorities. It would also employ staff, such as drinking water assessors; take enforcement actions; investigate complaints about suppliers; and work with suppliers that are at risk of defaulting on their regulatory duties. Further details about the tools and powers the regulator would need are provided in Part A of this paper.

- 144.4 **Capability building, accreditation, and licensing:** Many of these functions are new. The regulator would work with suppliers and training providers to ensure suitable training is available and being taken up, and ensure the sector has sufficient capability to fulfil its responsibilities. It would also maintain registers for drinking water suppliers, and water sampling and testing laboratories (as currently provided for in the Health Act). In the longer term, we envisage that accreditation, certification and/or licensing systems would be introduced for suppliers and/or key roles. The regulator would need the ability to develop and implement these systems.
- 144.5 **Information, advice and education:** These functions are largely new, and involve the regulator becoming a centre of technical and scientific expertise. It would provide best practice advice and guidance to suppliers, councils, and other entities involved in drinking water safety, supply and management; and facilitate research into drinking water science. This centre would bring together many different types of drinking water expertise, including public health, engineering, risk management, environmental science, and mātauranga Māori.
- 144.6 **Performance reporting:** The regulator would be responsible for collating and publishing drinking water compliance and monitoring information relating to all suppliers (except individual domestic self-suppliers). These functions would build on, but substantially enhance, existing provisions relating to performance reporting under section 69ZZZB of the Health Act.

The regulator would also have a broader role relating to wastewater and stormwater

145. We consider the new regulator should have a broader remit than drinking water. This would result in a less fragmented, better integrated approach to three waters regulation, and a regulator that has greater capability and capacity to do its job.
146. There are important synergies between drinking water, wastewater, and stormwater regulatory functions (and, potentially, wider water regulatory functions), and the underpinning science and technical expertise needed to carry out these functions. For example, there are likely to be similar approaches to standard setting, supporting sector capability and compliance, monitoring and enforcement, and performance reporting, for drinking water and wastewater at least.
147. We propose that a three waters regulator could carry out some of the new responsibilities for wastewater and stormwater oversight and regulation proposed in Part B of this paper. In particular, the regulator could have a role in:
- 147.1 reviewing, and recommending changes to, national standards for wastewater discharges and overflows;
 - 147.2 monitoring and auditing the risk management practices of wastewater and stormwater network operators, including consent renewals;
 - 147.3 collecting, analysing and publishing the information provided by wastewater and stormwater operators, in accordance with nationally-prescribed environmental performance metrics;
 - 147.4 identifying and promoting national good practices, including for wastewater and stormwater network design and management;

- 147.5 setting national expectations for compliance, monitoring and enforcement approaches for wastewater and stormwater network operators;
 - 147.6 identifying and monitoring emerging contaminants in drinking water, wastewater and stormwater.
148. A single regulator would be better equipped to develop and commission scientific and technical knowledge, and apply this to good regulatory practice. It would be able to maintain critical mass and expertise necessary for a consistently effective approach to compliance, monitoring and enforcement. It would also be in a strong position to consider and incorporate mātauranga Māori, and develop the capability needed to work productively with iwi and hapū.
149. Significantly, having a single regulator makes sense for regulated parties, many of which provide all three water services (territorial authorities, as well as some prisons and defence bases). Iwi/Māori and some councils have told us that it would be easier for them to interact with a three waters regulator, rather than with multiple central regulators.

We are proposing to report back in August 2019 on options for the institutional form of a centralised three waters regulator

150. We are seeking in principle agreement to a central three waters regulator in this paper. However, detailed proposals relating to the institutional form of the regulator, and associated machinery of government arrangements, are still being developed. Options for many of these arrangements will be informed by the decisions made through this paper.
151. Ministers need to confirm the nature and scope of the regulatory powers and functions before proposals for the form of the regulator can be finalised. We propose that the detailed proposals, and associated business case, be developed on the basis that the regulator's scope would include all three waters. This reflects that the regulator would be responsible for all of the drinking water functions outlined in paragraph 144, and could also have a role in implementing the wastewater and stormwater proposals in paragraph 147.
152. Iwi/Māori also have significant interests in the options and proposals for the regulator, which need to be considered and explored further. Potential iwi/Māori interests in the regulator include:
- 152.1 advice and inputs regarding the design of the regulator – for example, its roles, functions, and the overarching principles under which it operates;
 - 152.2 inclusion of mātauranga Māori;
 - 152.3 its capability to work with iwi/hapū and Māori communities;
 - 152.4 individual catchment-based approaches.
153. We propose to seek further decisions on this matter in August 2019, including details on the form, location and funding of the regulator. This approach will not affect the timeframe for establishing a regulator. Any decisions that require legislation to implement would be included in the water services bill we are hoping to introduce before the end of this year.

Consultation

Agency consultation

154. The Ministry of Business, Innovation and Employment, the Treasury, the New Zealand Transport Agency, the Ministry for Primary Industries, the Ministry of Civil Defence and Emergency Management, the Ministry of Housing and Urban Development, the Department of the Prime Minister and Cabinet, Te Puni Kōkiri, and Te Arawhiti have been consulted on this Cabinet paper.
155. The Department of Conservation, Ministry of Education, New Zealand Defence Force, and Department of Corrections have operational responsibility for three waters services and have been consulted on this Cabinet paper in this capacity.

Targeted engagement with local government, technical experts, and other stakeholders

156. Between early March and mid-April 2019, our officials held a series of nine regional targeted engagement workshops to test emerging proposals. These workshops included expertise from the local government, health, environment, iwi/Māori, and water industry sectors. The purpose of the workshops was to inform the further development of the proposals.
157. A group of “critical friends” drawn from these sectors provided input and guidance regarding the initial thinking tested in the workshops. The workshops were complemented by other stakeholder briefings and meetings with government agencies, iwi/Māori, public health groups, water advisory bodies, and local government reference groups representing regional councils and territorial authorities.
158. Overall, the targeted engagement provided constructive and useful feedback from a range of water experts, assisting in the development of the proposals. It confirmed that, in general, the direction of travel for the regulatory reforms is appropriate, signalled some areas of likely challenge for water suppliers and operators, and identified other detailed matters on which further consideration is required, or will have to be managed by the water regulator.
159. There was general agreement that the regulation of drinking water requires urgent attention. Discussions highlighted likely compliance costs and funding challenges, particularly for small communities and suppliers that would be brought within regulatory coverage. The proposed obligation on local government to ensure access to safe drinking water, in the event of supplier failure or exit, highlighted similar cost-related issues. The proposal for an independent central regulator was generally endorsed, with the majority view being that this regulator should cover all three waters.
160. Most expert stakeholders agreed with the requirement for mandatory residual treatment, with a few notable and firmly expressed exceptions. Conversely, the proposal for potential exemptions from this provision met with vigorous but minority support by some stakeholders, opposition by the majority, and the proviso that the regulator would need to clearly define exemption requirements.

161. The response to wastewater and stormwater proposals was nuanced, with a range of views and requests for further details. There was support for standardisation, either at the discharge level or in consenting templates. Some opposing voices emphasised that any such standards-based measures should not undermine the value of a catchment-based approach.
162. While some stakeholders saw value in risk management plans for stormwater and wastewater, others were uncertain as to their role and cautious about overlaps with existing asset management plan requirements and resource consent conditions. There was general support for proposals for a central regulator to gather, audit and publish performance information, support industry training and certification, and develop a coordinated approach to emerging contaminants.

Engagement with iwi/Māori

163. Iwi representatives were invited to the targeted stakeholder workshops referred to above, and the workshops included break-out sessions for iwi/Māori perspectives. Discussions were informative and insightful, but attendance of iwi representatives was low – half (or fewer, in some places) of those invited have attended. It is difficult to gauge whether this is because of other calls on their time, or the format of workshops (not being iwi/Māori specific). Informal discussions indicated both, but also that those iwi representatives who attended valued hearing and sharing ideas from different types of stakeholders.
164. Other engagement has included discussions with national representative and advisory groups, including Kāhui Wai Māori, Ara Tahi (the Wellington Regional Council and iwi leadership forum), and the Waikato River iwi under their Accords. The Minister of Local Government has met with a group of representatives from iwi who, due to their post-settlement experience, are well-positioned for three waters discussions. Officials have also undertaken case studies of predominantly Māori communities facing three waters issues. Engagement with the Iwi Chairs Forum has been caught up in the broader discussion about Essential Freshwater.
165. In addition to broad concerns about Te Mana o te Wai, ensuring the Government promotes a holistic approach to water and seeking to have mātauranga Māori given equal weight to scientific knowledge, the relationship between Māori and local government was also reflected in feedback. Both parties emphasised the most successful outcomes were achieved when councils worked closely with Māori from the outset, rather than bringing them in at the end when the council is seeking a response to a resource consent.
166. Much of the feedback from Māori focused on the impact of the proposals on marae and papakāinga. There was support for ensuring marae and papakāinga receive safe drinking water, but concerns about the cost and compliance burden on already stretched hau kainga (home people of a marae who often have to manage that marae with very little financial support).

167. The other main area of discussion was in respect of the disposal of wastewater. The discharge of human waste into water infringes traditional Māori ideals. There are, however, examples around New Zealand where councils have worked closely with Māori (for example, Hastings District Council), resulting in solutions that meet everyone's objectives in a cost-effective way. Engagement reinforced that Māori values and expertise should be incorporated into national standards and environmental performance measures, but that there needs to be enough flexibility to achieve local solutions.

Financial implications

168. The policy proposals in this paper will have a number of financial implications, for the Crown, and for three waters service providers and regulators.
169. The main direct financial implications for the Crown relate to proposals for a central regulator, with new and enhanced functions. Initial high-level operating costs have been estimated within a range of \$15 million to \$40 million, per year. These are indicative costs only, based on the costs associated with existing regulators with a broadly similar scope. There are several factors that will have a significant bearing on the actual costs, including the form of the regulator, whether it is a new or existing entity, and service delivery and employment arrangements.
170. Further advice will be provided in August 2019, to inform Cabinet's decisions on the institutional arrangements for the regulator. That paper will be supported by a business case. It will include consideration of existing appropriations relating to regulatory functions and potential cost recovery mechanisms. It is likely that funding for the regulator would be largely levy based, but there would be establishment costs.
171. The proposals in this paper will also have implications for government agencies that have a role in the supply of drinking water, namely the Department of Conservation, Ministry of Education, New Zealand Defence Force, and Department of Corrections. It is anticipated these agencies will use their own budget processes to consider and address these implications.
172. The implementation of the proposals may have financial implications for local authority providers of three waters infrastructure and services, if that infrastructure needs to be upgraded to comply with new regulatory requirements, for example, and this is not yet included in their long-term plans. These issues will be explored in the Minister of Local Government's paper on service delivery and funding arrangements, which is due to be provided by the end of this year.
173. There will also be financial implications for private and community drinking water suppliers, including marae and papakāinga. It is yet to be determined whether government will provide support to suppliers. Further advice will be provided in the paper on service delivery and funding arrangements, referred to above.
174. The regulatory impact assessment that accompanies this paper contains further information on the financial implications of the proposals, including summary tables showing high-level cost estimates for drinking water suppliers of different sizes and types (starting from page 60). It also discusses the benefits of the proposals, including the avoided costs associated with fewer instances of illness related to drinking unsafe water.

175. As highlighted in the regulatory impact assessment, there is more certainty around the cost estimates for larger drinking water suppliers; that is, networked council supplies and non-council supplies, and specified self-suppliers, serving more than 500 people. Overall, the estimated capital costs for these suppliers are between \$277 million and \$286 million, plus annual operating costs of approximately \$8 million. It is assumed that council suppliers, which are already regulated, are likely to have already included costs within their long-term plans. Some of their planned expenditure may need to be brought forward, though, to meet the implementation timeframes proposed in this paper.
176. The cost implications for smaller supplies (serving fewer than 500 people) are much more difficult to estimate. This group includes community and private networked suppliers, and smaller specified self-suppliers. There is considerable uncertainty around these supplies, how they will be affected by the proposals, and the cost implications. Given this, the cost estimate is very broad – ranging from \$154 million to \$409 million in capital expenditure, and between \$24 million and \$110 million in annual operating expenditure. This provides a strong reason for the five year transition period for smaller suppliers. The proposed regulator can work with the smaller suppliers to achieve compliance.
177. An issue that has been highlighted throughout the Three Waters Review is historic underinvestment in water infrastructure. Existing exemptions from drinking water regulation, and a lack of enforcement around compliance with current drinking water and environmental standards, has meant that investment in water infrastructure has not always been made or prioritised.
178. We note that, for many service providers, it is these legacy issues, and a greater emphasis on compliance, that will drive future costs. In addition, capital expenditure in infrastructure upgrades requires a long-term approach to investment. This means significant costs might be spread out over time, rather than all being incurred immediately.

Treaty of Waitangi

179. How the Crown engages with Māori on the Three Waters Review and the interests of Māori are recognised through the reforms is not only important to ensure effective public policy decision making, but also from a Māori/Crown relationship perspective, and to ensure the Crown meets its obligations under the Treaty of Waitangi.
180. Iwi/Māori interests in anything water-related are broad and integral. Water is a taonga and the holistic Māori world view resists separating out parts of water or the environment (or compartmentalising reviews or work programmes). On the other hand, the Three Waters Review is narrowly focused. It is being progressed in tandem with the Essential Freshwater programme, which is where the broader discussion about Māori rights and interests in water is occurring. We also know that Māori communities are at saturation point with engagement due to all the kaupapa that need attention.

181. Section 9(2)(h) of OIA (maintain legal professional privilege)

182.

183. In determining what are the reasonable steps, we have tried to balance the broad interests of Māori in water, with the more narrow focus of this Review (as within the context of the Essential Freshwater work programme). The result has been targeted engagement, using existing mechanisms wherever possible, supported by broad communications.
184. We have ensured that the groups targeted for engagement (which have included Kāhui Wai Māori, the Māori freshwater forum, and a group of iwi representatives from key regions) included a range of perspectives to help better understand Māori interests in the three waters. Case studies of rural communities with a high Māori population that face three waters issues have also contributed to this understanding.
185. As is noted early in this paper, we are working to reflect and protect Māori interests throughout the proposals. We have taken the opportunity to give effect to Te Mana o te Wai, in particular, through the proposals in relation to source protection and point discharges, and by working to reflect mātauranga and Māori cultural values throughout the three waters system. There are further opportunities in the development of the regulator and providing for iwi/hapū roles in monitoring and compliance.
186. The cost and compliance burden on marae and papakāinga resulting from the proposals is a concern to Māori. Future decisions on funding and ensuring marae and papakāinga are assisted and have time to achieve compliance, in a way that is proportionate to capability and the complexity of water supply and wastewater disposal systems, will be key to managing this risk.

Human rights

187. There are no human rights implications arising from the proposals in this paper.

Legislative implications

188. We seek agreement to implement the proposals in Parts A and C of this paper through a water services bill, which is included in this year's legislative programme with a priority category 4 (to be referred to a select committee in the year).

189. This bill would incorporate some new proposals, and provisions that are currently in Part 2A of the Health Act (which regulates drinking water). We seek agreement to repeal Part 2A, and include provisions that continue to be relevant in the bill and new legislation. These provisions would be amended, as appropriate, to align with and give effect to the proposals in this paper. The main implications for current provisions are as follows:

- 189.1 Interpretation (sections 69G to 69I). All of these provisions would need to be reviewed. Current categories of drinking water supplier would be replaced with new categories and definitions. Definitions of, and subsequent references to, "all practicable steps" would be repealed and not carried over.
- 189.2 Registration (sections 69J to 69N). These provisions would be carried over, with changes to the processes for registration and de-registration, and the information regulated parties are required to provide to the regulator.
- 189.3 Drinking water standards (69O to 69R). These provisions would be carried over, with moderate changes to reflect that the regulator would have a role in the process for reviewing standards.
- 189.4 Duties of drinking water suppliers (sections 69S to 69ZJ). Most of these provisions would be carried over, with minor or moderate amendments. The most significant changes relate to provisions for water safety planning.
- 189.5 Drinking water assessors and designated officers (sections 69ZK to 69ZX). These provisions would be carried over, but the powers would be transferred to the regulator (and specific employees, if appropriate).
- 189.6 Emergency powers (sections 69ZZA to 69ZZG). These provisions would be carried over. Some powers would be retained by the responsible Minister; others would be transferred to the regulator.
- 189.7 Recognised laboratories (sections 69ZY to 69ZZ). These provisions would be carried over, with powers transferred to the regulator.
- 189.8 Compliance orders (sections 69ZZH to 69ZZP). These provisions would be carried over, with little or no change.
- 189.9 Offences (sections 69ZZQ to 69ZZX). These provisions would be carried over, with moderate changes.
- 189.10 Miscellaneous (sections 69ZZY to 69ZZZE). Regulation-making provisions and requirements to publish annual reports would continue, with amendment, and be adapted to reflect the proposed new responsibilities of the regulator.

190. We also seek to implement the following proposals in Part B of this paper through the same bill:

- 190.1 requirements for wastewater and stormwater operators to report annually on a set of nationally-prescribed environmental performance metrics, and for that information to be collected, validated, analysed, and published by a central regulatory agency;
- 190.2 requiring a central regulator to identify and monitor emerging contaminants in drinking water, wastewater and stormwater, and to coordinate national-level policy responses, both regulatory and non-regulatory, where required;

- 190.3 requiring a central regulator to undertake functions relating to identifying and promoting national good practices for the design and management of wastewater and stormwater networks.
191. Subject to Cabinet approval, we may wish to seek input from technical experts from the water sector, and iwi/Māori representatives, during drafting of the bill.

Regulatory impact analysis

192. Regulatory impact analysis requirements apply to proposals in this paper. A regulatory impact assessment has been prepared by the Department of Internal Affairs, and is attached to this paper. The following comments have been provided in relation to the quality assurance assessment of this document.
193. "A Quality Assurance Panel led by the Regulatory Quality Team at the Treasury, with representatives from the Ministry for the Environment, Ministry of Health and Department of Internal Affairs, has reviewed the Regulatory Impact Assessment (RIA) *Strengthening the regulation of drinking water, wastewater and stormwater* produced by the Department of Internal Affairs and dated 17 June 2019. The review team considers that it **meets** the Quality Assurance criteria.
194. Although the RIA is technical and complex, it is clearly presented and concise. The panel considers the RIA clearly identifies that there is a significant problem on a national scale with the current drinking water system. It is difficult to have precise information on all aspects of the problem because incidents can vary in scale and the magnitude of the impacts can potentially be large. There is also limited information about non-council suppliers, particularly small suppliers. However, the RIA draws on information from the Havelock North Inquiry and open and extensive stakeholder consultation.
195. A wide range of options have been considered and a sound case is made for the preferred package: system-wide reforms of drinking water; more detailed work on regulating wastewater and stormwater (through the Essential Freshwater Programme) and stronger reporting requirements; and a central regulator to cover all three waters. The RIA outlines the broad scope and functions of the central regulator, but the detail is yet to be provided in the August report back to Cabinet.
196. The Panel considers it important to ensure that more detailed work is undertaken on implementation and monitoring the preferred package. This detail relates to the central regulator, developing better cost estimates and addressing the risks, including the affordability for small drinking water suppliers (such as marae and papakāinga) and their ability to transition to the new regulatory regime. It is important that the three waters reform builds and maintains connections with the Essential Freshwater programme, review of the RMA, and other related government programmes and initiatives".

Publicity

197. I intend to publish this paper, subject to any redactions, pursuant to Cabinet Office circular CO (18) 4.

Recommendations

198. The Ministers of/for Local Government, Health, and Environment recommend that the Cabinet Economic Development Committee:

Background

1. **note** that, on 5 November 2018, Cabinet invited the Ministers of/for Local Government, Health, and Environment to report back to DEV, in June 2019, with detailed policy proposals for drinking water and environmental regulation of the three waters [CAB-18-MIN-0545];
2. **note** that this paper responds to Cabinet's invitation, by setting out a suite of proposals to strengthen the regulatory arrangements for drinking water, wastewater and stormwater;
3. **note** that a water services bill is included in this year's legislative programme to implement the majority of the policy decisions arising from this paper, specifically proposals for:
 - 3.1 regulating drinking water and managing risks to source water;
 - 3.2 requiring wastewater and stormwater operators to report annually on a set of nationally-prescribed environmental performance metrics, and for that information to be collected, validated, analysed, and published by a central regulatory agency;
 - 3.3 requiring a central regulator to undertake functions and duties relating to identifying and promoting national good practices for stormwater design and management, and other matters related to wastewater system design and management;
4. **note** that Māori interests are more clearly articulated in a 'whole of system' view of water, which does not delineate freshwater, three waters, marine or urban waters;
5. **note** that we are working to reflect Māori interests throughout the three waters proposals, including in the alignment with the Essential Freshwater work programme, in the design and operation of a central regulator, and by reflecting mātauranga and values throughout the three waters system;

Part A: A better system for regulating drinking water and protecting source water

Ensuring people can access water that is safe to drink

6. **note** that the drinking water regulatory system is currently failing to provide all of the necessary assurances that drinking water supplies are safe and reliable: some suppliers are not regulated effectively, while many others are not regulated at all;
7. **agree** that all drinking water suppliers would be covered by the drinking water regulatory system, except for individual 'domestic self-suppliers';
8. **agree** that all drinking water suppliers would be required to provide safe drinking water and comply with drinking water standards on a consistent basis, and that to help clarify this new approach the lesser requirement to take "all practicable steps" to comply would no longer feature in drinking water legislation;
9. **agree** to establish a centrally-located regulator, which would be responsible for overseeing the entire drinking water regulatory system, subject to further advice on options for machinery of government arrangements;
10. **agree** that the new regulatory system would be implemented over a five year period, but with the following requirements:
 - 10.1 from the date of enactment:

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- 10.1.1 all drinking water suppliers would be required to register with the regulator, and ensure the water they provide is safe to drink;
 - 10.1.2 all suppliers that provide drinking water to 500 or more consumers would be required to prepare/update drinking water safety plans to align with proposals in paragraph 26, and be operating in accordance with those plans within one year following enactment;
- 10.2 the regulator's initial focus would be implementing the core components of the regulatory system, working with suppliers to build capability and understanding, and investigating and addressing serious cases of non-compliance;
- 10.3 by the end of the third year following enactment, the regulator would:
 - 10.3.1 actively monitor the performance of all suppliers that provide drinking water to 500 or more consumers, and take enforcement action where appropriate;
 - 10.3.2 work with smaller suppliers to bring them into the regulatory system;
- 10.4 by the end of the fifth year following enactment, all drinking water suppliers would be required to comply with all regulatory requirements, and the regulator would take action to deal with non-compliance;
- 11. **note** that it may be challenging for some suppliers to comply with their obligations, and this will be managed by allowing for assistance and time to achieve compliance, in a way that is proportionate to supplier capability and the complexity and risks of their water supply systems;
- 12. **note** that there is a need for further work to determine the phasing of implementation for suppliers that are not currently covered by the regulatory system, particularly very small suppliers, and to ensure regulatory requirements are designed in a way that reflects proportionality;
- 13. **note** that the Department of Internal Affairs, Ministry of Health, and Ministry of Business, Innovation and Employment will provide further advice on the matters referred to in paragraphs 11 and 12 above, for agreement by the Ministers of Local Government, Health, and Commerce and Consumer Affairs in August 2019;
- 14. **agree** that the regulator will have a general power of exemption for cases where some or all of the requirements in the regulatory system are impracticable or unreasonable (such as back country huts), and will work with affected parties to identify supplies and agree exemptions;
- 15. **note** there is a risk that some suppliers may struggle to comply with new or enhanced regulatory requirements and consider ceasing their operations, but there is no legal obligation on non-council suppliers to maintain their supplies;
- 16. **agree** to manage this risk by giving local authorities clear responsibilities to ensure communities have access to a reliable source of safe drinking water, and that this approach would involve the following provisions:
 - 16.1 an obligation on territorial authorities to inform themselves about the supplies of drinking water to communities across their districts – including all non-council supplies, except those owned/operated by the Crown, and domestic self-suppliers;

- 16.2 a requirement that, if problems are identified with a non-council supply, the territorial authority would notify the regulator, and work collaboratively with the supplier, its consumers, and the regulator to identify a sustainable solution;
- 16.3 if a solution cannot be agreed within a specified timeframe, or if the supplier exits, the territorial authority would be obliged to ensure safe drinking water continues to be provided, but that this does not necessarily mean becoming the supplier directly, or that the supply would have to be provided via a reticulated network;
- 17. **note** that there will need to be further consideration of how this approach might work in practice, and further information will be included in the advice referred to in paragraph 13;

Protecting drinking water sources

- 18. **note** that an important principle of drinking water safety is that source water protection is paramount, but that there are a number of deficiencies in the current arrangements for protecting sources of drinking water that need to be addressed in order to give effect to this principle;
- 19. **agree** to introduce new and enhanced obligations on regional councils, territorial authorities, and water suppliers for managing risks to source waters, including requiring:
 - 19.1 water suppliers to develop and implement a source water risk management plan, which would be lodged with a central regulator for auditing and compliance monitoring purposes;
 - 19.2 regional councils and territorial authorities to contribute to the development and implementation of source water risk management plans;
 - 19.3 water suppliers to periodically monitor source water quality at the point of abstraction;
 - 19.4 water suppliers, regional councils and territorial authorities to share information with each other related to source water risks, including the location of drinking water abstraction points and the results of monitoring of source water quality and quantity;
 - 19.5 regional councils to report annual trends in source water quality and quantity, and to periodically assess the effectiveness of actions taken to manage risks to source waters;
- 20. **note** that additional obligations are proposed to be given effect through revisions to the National Environmental Standard for Sources of Human Drinking Water (NES for Drinking Water), and consequential amendments to other national direction if required, which would provide direction on setting source water risk management areas, and require regional councils and territorial authorities to assess and control risks to source waters;
- 21. **agree** to include the proposed revisions to the NES for Drinking Water in the Essential Freshwater discussion document, using the content provided in Appendix 1;

A multi-barrier approach to drinking water safety

22. **agree** that all drinking water suppliers be required to adopt a multi-barrier approach to drinking water safety, which considers:
 - 22.1 preventing hazards entering raw water;
 - 22.2 removing particles and hazardous chemicals from the water by physical treatment;
 - 22.3 killing or inactivating pathogens in the water by disinfection;
 - 22.4 maintaining the quality of water in the distribution system;
23. **agree** that details of the multi-barrier approaches being adopted by each supplier would be given effect through water safety plans, or other instruments agreed by the regulator, and that the regulator would be empowered to monitor and enforce compliance;
24. **agree** that the regulator would have the ability to exempt suppliers from requirements to use residual treatment in a distribution system, if the supplier can demonstrate, to the regulator's satisfaction, that all risks to the safety of the water are being managed appropriately;

Improving water safety planning

25. **note** that taking a preventative approach to risk management is a principle of safe drinking water, and effective water safety planning strengthens the focus on preventative measures across the drinking water supply system;
26. **agree** to improve the approach to water safety planning by requiring all drinking water suppliers to prepare and implement water safety plans that:
 - 26.1 include all of the elements of international best practice;
 - 26.2 would be proportionate to the scale, complexity and risks of supply arrangements;
 - 26.3 would be subject to risk-based audit and monitoring by a central regulator;

A stronger, centralised approach to drinking water compliance, monitoring and enforcement

27. **note** that there are currently weaknesses in the system for compliance, monitoring and enforcement of drinking water regulation, and it would be beneficial to centralise these functions within the regulator proposed in paragraph 9, and Part C below;
28. **note** that the regulator would need to have a wide range of appropriate powers and resources to undertake its compliance, monitoring and enforcement functions effectively, which should be commensurate with the powers in similar recent legislation;
29. **agree** to provide the regulator with a broad range of compliance, monitoring and enforcement tools, including:
 - 29.1 providing assistance and advice to suppliers;
 - 29.2 requiring suppliers to provide information;
 - 29.3 minor penalties, including the ability to issue instant fines and infringement notices for low-level offences;

- 29.4 civil enforcement, such as the power to issue an enforceable compliance notice, with an appropriate penalty attached to failure to comply, and the ability for suppliers to make undertakings to the regulator on actions they will take to comply, with an agreed penalty for failure to do so;
- 29.5 criminal enforcement;
- 29.6 developing and implementing a scheme for accrediting drinking water suppliers, and requiring certain suppliers to participate in this scheme;
- 29.7 developing and implementing a scheme for the registration and licensing of certain people who are involved in water supply operations;
- 30. **agree** that a wider range of penalties would be available for offences, including fines and the possibility of personal liability for specific persons with responsibilities for water safety;
- 31. **note** that there may be circumstances in which the regulator considers these enforcement tools are ineffective or inappropriate for dealing with persistent or serious cases of non-compliance or poor performance by a drinking water supplier;
- 32. **agree** that the regulatory framework would include the ability for the regulator to:
 - 32.1 identify drinking water suppliers that are performing poorly, at risk of failure, or already failing to meet their statutory obligations;
 - 32.2 investigate concerns about the performance of drinking water suppliers and determine what corrective actions are needed;
 - 32.3 work with suppliers and other relevant parties to take corrective actions;
- 33. **agree** that in situations where the regulator is dissatisfied with the corrective actions taken by a supplier, or has determined that the supplier is not capable of improving its performance or carrying out its statutory functions or duties, the regulator would be able to:
 - 33.1 appoint a statutory manager or accredited provider to temporarily manage a drinking water supplier's operations until a sustainable arrangement is put in place;
 - 33.2 require a drinking water supplier to transfer the management of its operations to another supplier, on a long-term basis;

Part B: Protecting our people and environment from the negative effects of wastewater and stormwater systems

Lifting the performance and transparency of wastewater and stormwater systems

- 34. **note** that the current regulatory system does not provide assurances that wastewater and stormwater systems are delivering outcomes that are acceptable for communities, iwi/Māori, and the environment;
- 35. **note** that measures are proposed to improve the environmental regulation and performance of wastewater and stormwater systems, including:
 - 35.1 the development of a national environmental standard (NES) for the treatment of wastewater discharges and the management of wastewater overflows;

- 35.2 the introduction of new obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment associated with the operation of their infrastructure networks;
- 35.3 the development of national guidance to improve the regulation and design of stormwater services;
- 36. **note** there is a lack of transparency and public reporting on the environmental performance and compliance of wastewater and stormwater networks, including their contribution to environmental and public health outcomes;
- 37. **agree** to introduce a regulatory requirement for wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics;
- 38. **agree** that a central regulator would be required to specify national environmental performance metrics for wastewater and stormwater networks, and develop suitable methods for collecting, validating, analysing and publishing this information;
- 39. **agree** to include the following proposals as part of the Essential Freshwater discussion document, using the content provided in Appendix 1:
 - 39.1 a new national environmental standard for wastewater discharges and overflows;
 - 39.2 new obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment;
 - 39.3 a new regulatory requirement for wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics and compliance;
 - 39.4 the development of national guidance to improve the regulation and design of stormwater services;

Improving national-level leadership, oversight and support relating to wastewater and stormwater

- 40. **note** there is a lack of national-level oversight of the performance of wastewater and stormwater operators, limited central stewardship of the system that regulates these operators, and concerns that many regional councils do not provide assurance that good environmental outcomes are being achieved;
- 41. **note** that regional councils and service providers require more clarity about what is expected of them, and more support from a central regulatory agency to help them meet those expectations;
- 42. **agree** to direct a central regulator to set and publish guidance for local authorities regarding the compliance, monitoring and enforcement approaches to be used for wastewater and stormwater network operators;
- 43. **agree** to direct a central regulator to identify and monitor emerging contaminants in drinking water, wastewater and stormwater, and to coordinate national-level policy responses, both regulatory and non-regulatory, where required;

44. **agree** that a central regulator be required to undertake functions relating to identifying and promoting national good practices for wastewater and stormwater network design and management, including the development and dissemination of national guidelines;

Part C: A central regulator to oversee the entire drinking water regulatory system, and deliver some wastewater and stormwater regulatory functions

45. **note** that there are a number of shortcomings with the current system of drinking water regulation, including how and where regulatory functions are undertaken;
46. **agree** that the functions of the centrally-located regulator, proposed in paragraph 9 above, would cover all of the matters referred to in Part A of this paper, including:
 - 46.1 sector leadership;
 - 46.2 setting standards;
 - 46.3 compliance, monitoring and enforcement;
 - 46.4 capability building, accreditation and licensing;
 - 46.5 information, advice and education, including being a centre of technical and scientific expertise;
 - 46.6 performance reporting;
47. **note** that there are significant synergies between these drinking water regulatory functions, and some functions relating to the regulation of wastewater and stormwater, and that aligning these functions would result in a better integrated approach to three waters regulation and a regulator with greater capability and capacity;
48. **note** that detailed proposals and a business case relating to the institutional form of the regulator are still being developed, and need to be informed by decisions about scope and functions being made through this paper, and by engagement across government and with iwi/Māori;
49. **agree** that the detailed proposals and business case for the regulator be prepared on the basis that the regulator's scope would include all three waters, and that the regulator could have a role in implementing proposals in Part B of this paper relating to:
 - 49.1 reviewing, and recommending changes to, national standards for wastewater discharges and overflows;
 - 49.2 monitoring and auditing the risk management practices of wastewater and stormwater network operators, including consent renewals;
 - 49.3 collecting, analysing and publishing the information provided by wastewater and stormwater operators, in accordance with nationally-prescribed environmental performance metrics;
 - 49.4 identifying and promoting national guidelines and good practices, including for setting consent conditions for discharges from stormwater networks, and approaches to wastewater and stormwater network design and management;

- 49.5 setting national expectations for compliance, monitoring and enforcement approaches for wastewater and stormwater network operators; and/or
- 49.6 identifying and monitoring emerging contaminants in drinking water, wastewater, and stormwater;
- 50. **invite** the Minister of Local Government, in consultation with the Minister of Health and Minister for the Environment, to report back to DEV in August 2019 with proposals for the institutional form, location and funding of a centralised three waters regulator;

Implementation of proposals

- 51. **agree** that decisions in paragraphs 6 to 33, 37, 42, 43 and 44 be implemented through a water services bill, which is included on this year's legislative programme with a priority category 4 (to be referred to a select committee in the year);
- 52. **agree** to repeal Part 2A of the Health Act 1956, which regulates drinking water, and carry over existing provisions in the water services bill, along the following lines:
 - 52.1 interpretation (sections 69G to 69I): provisions that continue to be relevant would be carried over, with amendments as appropriate;
 - 52.2 registration (sections 69J to 69N): provisions would be carried over, with changes to the processes for registration and de-registration, and the information regulated parties are required to provide to the regulator;
 - 52.3 drinking water standards (69O to 69R): provisions would be carried over, with moderate changes to reflect that the regulator would have a role in the process for reviewing standards;
 - 52.4 duties of drinking water suppliers (sections 69S to 69ZJ): most provisions would be carried over, with minor or moderate amendments, particularly in relation to water safety planning;
 - 52.5 drinking water assessors and designated officers (sections 69ZK to 69ZX): provisions would be carried over, but powers would be transferred to the regulator (and specific employees, if appropriate);
 - 52.6 emergency powers (sections 69ZZA to 69ZZG): provisions would be carried over; some powers would be retained by the responsible Minister; others would be transferred to the regulator;
 - 52.7 recognised laboratories (sections 69ZY to 69ZZ): provisions would be carried over, with powers transferred to the regulator;
 - 52.8 compliance orders (sections 69ZZH to 69ZZP): provisions would be carried over, with little or no change;
 - 52.9 offences (sections 69ZZQ to 69ZZX): provisions would be carried over, with moderate changes;
 - 52.10 miscellaneous (sections 69ZZY to 69ZZZE): regulation-making provisions and requirements to publish annual reports would continue, with amendment, and be adapted to reflect the proposed new responsibilities of the regulator;

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53. **agree** to direct officials to progress work on the following proposals through the Essential Freshwater programme:
- 53.1 develop a national environmental standard for wastewater discharges and overflows;
 - 53.2 new obligations on wastewater and stormwater operators to manage risks to people, property, and the environment associated with the operation of their infrastructure;
 - 53.3 develop a set of national environmental performance metrics for wastewater and stormwater networks;
 - 53.4 develop and publish guidance on best practice approaches for regulating and designing stormwater networks;
54. **note** that a technical advisory group (or groups) is expected to be convened to provide advice on the development of the proposals in paragraph 53;

Issuing of drafting instructions

55. **invite** the Ministers of/for Local Government, Health, and Environment to issue drafting instructions to Parliamentary Counsel in accordance with the decisions in this paper;
56. **authorise** the Ministers of/for Local Government, Health, Environment, and/or Commerce and Consumer Affairs to approve matters of detail consistent with policy that may arise during the course of drafting, including any consequential amendments to other legislation that may be required; and
57. **agree** that technical experts from the water sector, and iwi/Māori representatives, can be consulted, if needed, during the drafting process.

Authorised for lodgement

Hon Nanaia Mahuta

Minister of Local Government

Hon Dr David Clark

Minister of Health

Hon David Parker

Minister for the Environment

Appendix 1

Three Waters environmental regulatory proposals –
draft content for Essential Freshwater discussion
document

**Withheld pursuant to section 9(2)(f)(iv) of the Official Information
Act 1982 (under active consideration as part of the Essential
Freshwater programme)**

DRAFT
Proactively released by the Minister of Local Government



Te Tari Taiwhenua
Internal Affairs

Regulatory Impact Assessment

Strengthening the regulation of drinking water, wastewater and stormwater

Proactively released by the Minister of Local Government

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Coversheet: Strengthening the regulation of drinking water, wastewater and stormwater

| | |
|---------------------|--|
| Advising agencies | Department of Internal Affairs, The Ministry of Health, The Ministry for the Environment |
| Decision sought | Agree to policy proposal to strengthen the regulation of drinking water, wastewater and stormwater |
| Proposing Ministers | Minister of Local Government, Minister for the Environment, Minister of Health |

Problem Definition

What problem or opportunity does this proposal seek to address? Why is Government intervention required?

The three waters infrastructure and services are critical for the health and wellbeing of the community and are an important contributor to how we recognise Te Mana o te Wai, protect our environment, and support a high performing economy. However, the current regulatory system for three waters has some significant weakness, that are putting our nation's health, environment and economy at risk. Key problems with the current system that need to be addressed are:

- A fragmented regulatory system
- Poor management of risks
- A lack of accountability
- Limited recognition of Te Mana o te Wai
- A lack of investment in three waters infrastructure and services
- Variable capacity and capability
- Poor access to information for central government and the public
- A lack of national level system oversight

Collectively, these problems mean that we cannot always be confident that drinking water will be safe to drink, and that acceptable environmental outcomes are being achieved. To address that, we are proposing to take a new approach to three waters regulation.

Proposed Approach

How will Government intervention work to bring about the desired change? How is this the best option?

We are proposing a package of reforms to support a new approach to three water regulatory arrangements, and to improve current regulatory settings. That package of reforms has three key elements, with decisions on each of the elements being taken in stages:

1. A suite of system-wide reforms to the regulation of drinking water and source water. These reforms will ensure that people can access water that is safe to drink, by requiring drinking water suppliers (except domestic self-suppliers) to be part of a strengthened regulatory system. The regulatory system will clearly articulate roles and responsibilities to ensure that all suppliers are effectively managing risks to drinking water safety. Improvements to compliance, monitoring and reporting, will support a tougher and more consistent approach to enforcement that will ensure suppliers are held to account when they fail to meet their obligations.
2. Targeted reforms to improve the regulation and performance of wastewater and stormwater systems. These reforms will increase transparency, progress work to improve risk management, better ensure that wastewater and stormwater systems protect the environment and meet the expectations of the community and iwi/Māori. To ensure we take an integrated approach to water management, most of these proposals will be progressed over the next 18 months in tandem with the Essential Freshwater Programme.
3. Underpinning these proposals, we are seeking agreement to establish a centrally located regulator (subject to decisions in August). The regulator will address current gaps in national-level leadership, provide support to the providers of three waters services, and ensure that providers meet their obligations and are held to account if they fail to do so.

Who are the main expected beneficiaries and what is the nature of the expected benefit?

The overall package of three waters reforms will have wider benefits for New Zealand, including, an assurance that all New Zealanders will have access to safe drinking water; that we can achieve our national and local environmental objectives for freshwater and the marine environment; support our economy and ensure that our three waters system is resilient enough to cope with climate change, emergencies and natural hazards.

The primary beneficiaries of proposals will be the consumers of drinking water (who may be New Zealanders or international visitors), who will benefit from reduced incidence of illness from drinking contaminated/unsafe water, and from not being required to boil their water to make it safe to drink. Specific benefits include:

Monetised benefits

- Avoided costs of reduced incidence of illness from drinking water - \$12.5 to \$23.7 million per annum.
- This does not include the benefits of preventing outbreaks because of the difficulty of predicting when they will happen, and the scale, and impact of those events. However, the costs can be substantial, and the Havelock North contamination event in 2016 was estimated at \$21 million. It impacted individual

households, businesses, central and local government, and the health and disability sector.

Non-Monetised benefits include:

- National confidence in reliable, resilient drinking water supplies
- Certainty for regulated parties around requirements
- Improved services to consumers (including the convenience of not boiling water)
- Ensuring equitable access to safe drinking water
- Improvement in wellbeing
- Protection of international reputation, including tourism

The primary beneficiaries of the requirements for wastewater and stormwater to report annually on nationally prescribed environmental performance metrics, will be central government, the public, local authorities and road controlling authorities. These benefits have not been monetised, but the non-monetised benefits include:

- More consistency in reporting requirements for local authorities and road controlling authorities
- Assurance for the central government, and the public that wastewater and stormwater systems are achieving expected environmental outcomes

Where do the costs fall?

Drinking water

The costs of the system-wide reforms to the regulation of drinking water and source water will primarily fall on drinking water suppliers. These costs may be passed on to consumers.

We have more certainty about costs in respect Council suppliers and non-council (e.g. private and community) suppliers that supply drinking water to more than 500 people, because these suppliers are currently within the regulatory system. We have also assumed that most council suppliers, who make most of this group will have included the cost of this within their long-term plans, albeit that some of the planned expenditure may have to be brought forward. Our estimate of monetised costs for this group of suppliers is:

- Estimated capital expenditure (capex) \$ 277.3- 286.1 million
- Estimated operating expenditure (opex) \$ 7.8 – 8 million per year

The costs for non-council suppliers that supply drinking water to less than 500 people, particularly those that supply less than 25 people are much more difficult to estimate. There is also a higher level of uncertainty about when and how, the regulatory requirements will apply to these small suppliers. Our estimate of monetised costs for this group of suppliers is:

- Estimated capex \$153.7 - \$409.4 million
- Estimated opex \$24 - \$109.6 million per year

The total monetised costs for both those groups of suppliers include:

- Total costs for all drinking water suppliers (council and non-council)
 - Estimated capex \$ 431-695.5 million
 - Estimated opex \$ 31.8- 117.6 million per year.

There will also be monetised costs associated with establishing and operating the central regulator. Work to design the regulator and develop a business case (including operating costs and funding sources), is ongoing and subject to further Cabinet decisions in August 2019. A very early estimate of annual operating costs is \$15 to \$40 million per year.

The costs of strengthening the regulation of source waters have not been monetised. Impacts will vary for each region depending on the environmental characteristics of the catchment or aquifer used for drinking water supply, the nature of existing land-use activities, and the policies and rules contained in each council's regional plans. More detailed analysis of costs and benefits will be undertaken once the specific details of the amendments to the Drinking Water NES have been agreed by Cabinet.

Environmental performance metrics

We have used the costs to local authorities and WaterNZ, of undertaking the annual, "National Performance Review" as a comparator, to estimate the cost of reporting on environmental performance metrics. This includes the costs to Councils (wastewater and stormwater operators) and the central regulator.

- Total costs \$ 475,000 – 790,000 per annum

What are the likely risks and unintended impacts, how significant are they and how will they be minimised or mitigated?

The key risk for the drinking water regulatory reform proposals is the ability of some suppliers to comply with their obligations, particularly those suppliers that are being brought into the regulatory system for the first time. The regulatory proposals anticipate that the approach to implementation (and compliance) should be managed a way that is proportionate to supplier capability and the complexity of their water supply systems. However, further work is needed to determine the most practicable approach to the phasing of implementation for suppliers that are not currently covered by the regulatory system, particularly very small suppliers. It is proposed that detailed advice on this matter will be considered by the Ministers of Local Government, Health, and Commerce and Consumer Affairs in August 2019.

Identify any significant incompatibility with the Government's 'Expectations for the design of regulatory systems.'

The proposed regulatory reform is consistent with the Government's Expectations for Good Regulatory Practice.

Agency rating of evidence certainty?*How confident are you of the evidence base?***Low- Medium**

We have developed our proposals by drawing on the evidence provided to, and findings of, the Government Inquiry into Havelock Drinking Water (Havelock North Inquiry), and the technical expertise from the three waters sector. Draft proposals were tested with wider group of stakeholders from the local government, public health, and water sectors, and iwi/Māori, through a series of regional workshops and other meetings, to confirm that our assumptions and approach was valid. We also commissioned research into the costs of upgrading drinking water infrastructure to meet drinking water standards, and to understand supplier capability.

While we have more reliable information about councils (who supply water to most of the population, and who operate almost all wastewater and stormwater systems), our information about non- council drinking water suppliers, particularly smaller suppliers, has been developed from key assumptions, and therefore is less reliable. This is because this group have not been required to register or have not registered because they have not understood that they are required to.

The lack of reliable information about small suppliers means that we cannot be certain about the capability of those small suppliers to transition to the new regulatory regime. While proposals do provide mechanisms to ensure that the regulator, will build their understanding of all drinking water suppliers evidence base, and will work to ensure that compliance requirements are proportionate, we think further work is needed to determine the most practicable approach to phasing in the implementation of the regulatory regime for those smaller suppliers. Further detailed advice on this key implementation issue will be presented to Ministers in August 2019.

Quality Assurance Reviewing Agency:

A joint panel with representatives from the Regulatory Quality Team (RQT), the Ministry for the Environment, Ministry of Health and Department of Internal Affairs has reviewed the Regulatory Impact Assessment for the above legislative/regulatory proposal in accordance with the quality assurance criteria set out in the CabGuide.

Quality Assurance Assessment:

A Quality Assurance Panel led by the Regulatory Quality Team at the Treasury with representatives from the Ministry for the Environment, Ministry of Health and Department of Internal Affairs has reviewed the Regulatory Impact Assessment (RIA) "Strengthening the regulation of drinking water, wastewater and stormwater" produced by the Department of Internal Affairs and dated 17 June 2019. **The review team considers that it meets the Quality Assurance criteria.**

Reviewer Comments and Recommendations:

Although the RIA is technical and complex, it is clearly presented and concise. The panel considers the RIA clearly identifies that there is a significant problem on a national scale with the current drinking water system. It is difficult to have precise information on all aspects of the problem because incidents can vary in scale and the magnitude of the impacts can potentially be large. There is also limited information about non-council suppliers, particularly small suppliers. However, the RIA draws on information from the Havelock North Inquiry and open and extensive stakeholder consultation.

A wide range of options have been considered and a sound case is made for the preferred package: system-wide reforms of drinking water; more detailed work on regulating wastewater and stormwater (through the Essential Freshwater Programme) and stronger reporting requirements; and a central regulator to cover all three waters. The RIA outlines the broad scope and functions of the central regulator, but the detail is yet to be provided in the August report back to Cabinet.

The Panel considers it important to ensure that more detailed work is undertaken on implementation and monitoring the preferred package. This detail relates to the central regulator, developing better cost estimates and addressing the risks, including the affordability for small drinking water suppliers (such as marae and papakāinga) and their ability to transition to the new regulatory regime. It is important that the Three Waters reform builds and maintains connections with the Essential Freshwater Programme, review of the RMA and other related government programmes and initiatives.

Contents

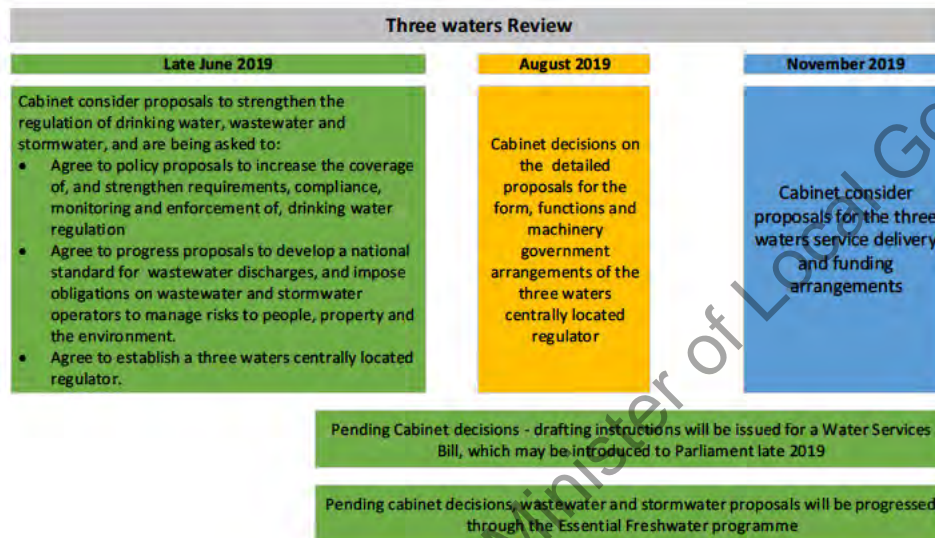
| | |
|---|----|
| Coversheet: Strengthening the regulation of drinking water, wastewater and stormwater | 2 |
| Section 1: General Information | 9 |
| Scope..... | 9 |
| Key limitations | 10 |
| Section 2: Problem definition and objectives..... | 12 |
| Context..... | 12 |
| The problem..... | 20 |
| Stakeholder views..... | 21 |
| Objectives | 23 |
| Section 3: Options Identification | 26 |
| Part A: Reforms to the regulation of drinking water and source water..... | 27 |
| Part B: Improving the regulation and performance of wastewater and stormwater systems | 34 |
| Part C: Establishing a centrally located regulator..... | 39 |
| Section 4: Impact Analysis | 41 |
| Part A: Reforms to the regulation of drinking water and source water..... | 41 |
| Part B: Improving the regulation and performance of wastewater and stormwater systems | 52 |
| Part C: Establishing a centrally located regulator..... | 57 |
| Section 5: Conclusions and recommendations..... | 59 |
| Summary table of costs and benefits of the preferred approach | 60 |
| Section 6: Implementation and operation | 71 |
| Section 7: Monitoring, evaluation, and review | 74 |

Section 1: General Information

Scope

1. This regulatory impact assessment (RIA) has been prepared to support the first stage of the three waters reform package. This stage focuses on detailed policy proposals for drinking water and environmental regulation of the three waters in the following areas:
 - system-wide reform of drinking water regulation;
 - a new risk management regime for sources of drinking water;
 - targeted reform of environmental regulation of wastewater, aimed at lifting its environmental performance within the existing framework of the Resource Management Act 1991 (RMA); and
 - measures to give greater transparency around the operation of wastewater and stormwater systems, to promote better practice.
2. This package of reforms has been developed by an inter-agency team from the Department of Internal Affairs, the Ministry of Health and the Ministry for the Environment.
3. The Ministers of/for Local Government, Health, and Environment will report back to the Cabinet Economic Development Committee (DEV) on this reform package in late June 2019.
4. Some of the policy proposals in this package of regulatory reforms are subject to further decisions, and their final scope and coverage has still to be determined. In practice, this means that the reform package will be implemented in three parts:
 - Part A: Reforms to the regulation of drinking water and source water. Most of these proposals will be progressed through the proposed Water Services Bill, except for the source water proposals which will be progressed through the provisions relating to National Environmental Standards under the Resource Management Act 1991.
 - Part B: Improving the regulation and performance of wastewater and stormwater systems. Most of these proposals will be developed alongside the Essential Freshwater programme, and provisions relating to National Environmental Standards under the Resource Management Act 1991.
 - Part C: Establishment of a centrally located regulator to provide oversight of the regulatory system. Ministers are being asked to agree, to establish a central regulator and agree on its broad scope and functions, subject to further advice on the machinery of government arrangements in August 2019.
5. The Government's concerns about the three waters system also include the funding, capability and affordability challenges facing water service providers and communities. This reform package will highlight those funding and affordability challenges.

6. The second stage of the three waters reform will develop proposals for service delivery and funding arrangements. These will be considered by Cabinet in late 2019. This timeframe has been planned to enable Ministers to consider the regulatory reform proposals in the context of the financial implications that arise from the regulatory proposals in this RIA.
7. The implementation pathways and timeframes for the different elements of the three waters reforms are illustrated in the diagram below, which is intended to provide an overview of what decisions are being made, and when.



Key limitations

8. This package of regulatory reforms is being implemented through different programmes at different timeframes, and in some cases the policy proposals are subject to further decisions before they will be adopted. This means that for some proposals, their scope and coverage has still to be determined. This has impacted on our approach to the evaluation of some of the proposals, in particular the proposals for wastewater and stormwater discharges, and the establishment of central regulator.
9. There is a significant variability in the capacity and capability of drinking water suppliers, and many small suppliers will find complying with the new regulatory proposals challenging. While a key principle of reform is addressing the existing disparities between communities in terms of the safety, reliability and cost of their drinking water, obtaining reliable information about these smaller suppliers is difficult. Many of those suppliers are not currently covered by the existing drinking water regulation, and there is significant under registration amongst the smaller suppliers who are covered.
10. This has implications both for the evidence base we have used to develop the package of regulatory proposals, and how we have approached implementation of the proposed regulatory regime.

11. To address the evidential uncertainty, we have drawn on the findings from the Havelock North Inquiry and then worked with experts in the three waters field to develop our proposals and test our thinking. We then shared these proposals with wider group of stakeholders through a series of regional workshops to confirm our approach, and in some cases refine proposals further.
12. The lack of reliable information about small suppliers also impacts on our certainty about the ability of those small suppliers to transition to the new regulatory regime. While proposals do provide mechanisms to ensure regulatory requirements are proportionate, we have identified that further work is needed to determine the most practicable approach to phasing in the implementation for all suppliers. Further detailed advice on this implementation issue will be presented to Ministers in August 2019.

Allan Prangnell

Director

Central Local government Partnerships

Department of Internal Affairs

Section 2: Problem definition and objectives

Context

Links between the Three Waters Review with other government work programmes

13. Two government work programmes, the Essential Freshwater Programme, and the review of resource management system both have strong connections to the regulatory reforms proposed at this stage of the Three Waters Review.
14. The Essential Freshwater Programme is focused on ensuring an integrated and effective freshwater management system, with an emphasis on improving water quality, ecosystem health and addressing the impacts of agricultural intensification. More narrowly focused, the Three Waters Review is focused on issues related to urban water systems, and the regulation of wastewater and stormwater infrastructure operators. Nevertheless, there is significant overlap between the objectives and outcomes of each initiative.
15. All the wastewater and stormwater proposals will be consulted through that programme. Final decisions on the proposals for a national standard for wastewater and stormwater discharges and creating new obligations for wastewater and stormwater operators to manage risks to people, property and the environment, will be developed alongside the Essential Freshwater programme.
16. To ensure the programmes are coordinated, the Three Waters Review and Essential Freshwater programme have been proceeding in tandem. Governance and project management arrangements are in place to support alignment between the two programmes, including regular Ministers' meetings and fortnightly meetings between the respective agencies water directors. Kāhui Wai Māori (the Māori Freshwater Forum established to advise on the Essential Freshwater work programme) has also been providing advice on the Three Waters Review.
17. The Minister for the Environment has also reported back to Cabinet on a comprehensive review of the resource management system, focused on the RMA. The review will consider the role and use of national direction instruments, but it is not expected to constrain the Three Waters review proposals for national direction on drinking water sources, and wastewater and stormwater networks.
18. However, the review is likely to consider the allocation of regulatory functions under the RMA, and this may impact on the role and functions of the central regulator. Any system architecture developed for the three waters (including the central regulator) will need to fit with, or be able to be adjusted to fit with, the system architecture developed through the Essential Freshwater work programme and Resource Management Act reforms. We expect to have more certainty about those impacts/overlaps when final decisions on the form and functions of the regulator are made in August 2019.
19. As well as these specific connections, the Three Waters Review has broader national and local implications if performance improvements are not delivered across the three waters system, including:

- housing infrastructure supply being unable to meet demand in high-growth areas;
 - a constrained ability to plan and fund robust systems that can cope with climate change, emergencies, and natural hazards;
 - limitations on developing the regions, particularly for areas with declining rating bases, or small tourism centres with high seasonal demand.
20. We are also aware that Productivity Commission is likely to include a discussion on the three waters when it reports back on Local Government Funding and Financing.
21. Consideration of these wider implications, and connections to related government programmes and initiatives including the Productivity Commission report, will be undertaken in the second stage of the three waters reform. This stage will consider proposals for service delivery and funding arrangements. However, our work on this stage of the reforms is just beginning, and further work is required to identify the detailed overlaps and connections between programmes, and how each contributes to the other, and wider government outcomes.

Introduction: The three waters sector

22. The three waters (drinking water, wastewater and stormwater) provide essential services that are critical to public health, environmental sustainability, community wellbeing, growth, and the economic development of New Zealand's communities. Taken together, the three waters represent one of New Zealand's most significant infrastructure sectors, with an estimated replacement value of \$54.7 billion.
23. A significant proportion of that infrastructure was built after World War II. The Office of the Auditor-General estimates that much of the water-related infrastructure owned by local authorities will need to be repaired or replaced between 2040 and 2060¹. However, one of the biggest challenges facing the sector is a lack of reliable asset information, which makes it difficult to understand what the true cost of these upgrades are and when those costs will be incurred².
24. The funding, capability and affordability challenges currently facing three waters service providers and their communities are significant. The Office of the Auditor-General has reported that local authorities might not be reinvesting enough in three waters assets, suggesting that these assets could be deteriorating to an extent that they are unable to meet the levels of service that their communities expect³.
25. The following two sections provide an overview of drinking water, wastewater and stormwater services and their regulation.

¹ Contoller and Auditor -General. Introducing our work programme - Water management. October 2017 ISBN 978-0-478-44275-5. paras 2.9 -2.11

² National Infrastructure Unit (2015). The Thirty Year Infrastructure Plan.

³ Contoller and Auditor -General. Introducing our work programme - Water management. October 2017 ISBN 978-0-478-44275-5. paras 2.9 -2.11

Drinking water assets, services and their regulation

26. Most New Zealanders receive their three waters services from their local council (territorial or unitary authorities), but there are a significant number of mostly smaller private and community-based water suppliers, who supply drinking water to small, mostly rural populations. There are three broad categories of drinking water suppliers:

- *Network suppliers*, who collect, store, treat and distribute drinking water to consumers who are not within the property owned by the supplier (but are connected to the supplier's network). Councils provide networked drinking water supplies to most people on a network/population basis, but the proportion of non-council owned networked water treatment plants significantly increases for smaller networks and population categories⁴.
- *Specified Self suppliers*, who own a drinking water supply that is used to supply water for community purpose to other people, within one property or one or more buildings owned by that supplier⁵. Required to register as a drinking water suppliers, specified self-suppliers, include prisons, camp grounds, hospitals, regional parks, marae, community halls, sports facilities of various kinds, and schools. There is significant under-registration of self suppliers, particularly for smaller self suppliers such as marae.
- *Domestic self-suppliers*, who supply drinking water to themselves or their household, within one property.

27. There is uncertainty about the exact type and distribution of drinking water suppliers in New Zealand, but the following table illustrates the general distribution of suppliers, and the population they serve.

| Type of supplier | Approximate number of schemes | Approximate population served |
|--------------------------------------|-------------------------------|-------------------------------|
| Networked water suppliers | 1,800 | 3,855,000 |
| Specified self-supplier | 921 | 127, 000 ⁶ |
| Domestic self-suppliers ⁷ | 336,000 | 859,000 |

⁴ Beca limited. Cost Estimates for Upgrading Water Treatment Plants to Meet Potential Changes to the New Zealand Drinking Water Standards. 15 March 2018. pp 1-2

⁵ There are also commercial self-suppliers, which would include commercial holiday accommodation in rural areas and some resort areas, rural cafes and restaurants, wineries. Commercial self-suppliers are regulated under the Health and Safety at Work Act, and in many cases the Food Act, Wine Act, and/or Animal Products Act.

⁶ This is a broad estimate, and may include people who get their drinking water from self-supplier e.g. school, and network supplier e.g. council

⁷ Estimated based on census population and population served by networked suppliers.

28. Some central government agencies will also be captured by the regulatory reform. These facilities are often unable to access network (usually local council) suppliers, and include prisons, defence facilities and rural schools, as well as some Department of Conservation facilities⁸.
29. This regulatory reform will impact on both network suppliers and specified self-suppliers. For most network suppliers, the impact will be to strengthen their existing obligations. For specified self-suppliers and for network suppliers to under 25 people, the regulatory proposals will create new obligations. Domestic self-suppliers will be unaffected by the proposed regulatory reform.

Regulatory system for drinking water

30. The current regulatory system for drinking water in New Zealand has three key elements – the management of source water, the regulation of drinking water suppliers, and the management of drinking water within buildings.
31. *Source water*, either from below ground or from a surface catchment, is primarily governed by the Resource Management Act 1991 (RMA) and the National Environmental Standard for Sources of Human Drinking Water (Drinking Water NES). Both impose requirements on regional councils and territorial authorities when making decisions that could affect the quality of drinking water.
32. The Drinking Water NES⁹ has recently been reviewed. This regulatory reform proposes that the Drinking Water NES be revised (using the processes set out in the RMA) to strengthen and clarify the requirements on regional councils and territorial authorities.
33. *Network water suppliers* are regulated under the Health Act 1956, with the size of network determining their regulatory requirements. Any network supplier who supplies water to more than 500 people is required to:
 - Be included in the *Register of Drinking-Water Supplies in New Zealand*. The register provides information on who is registered as a drinking water supplier and gives information about their supplies or sources of water.
 - *Take all practicable steps* to ensure they provide an adequate supply of drinking water that complies with the *New Zealand Drinking-Water Standards*. The drinking water standards are the reference that water quality is measured against.
 - Develop and implement *Water Safety Plans*. Water Safety Plans consider the potential risk to the water supply and identify ways to manage those risks.

⁸ What should be included is still being worked through by the Ministry of Health, and Ministry for the Environment, but may include road-accessible campsites, visitor centres, and Great Walk Serviced and Alpine back country huts.

⁹ www.mfe.govt.nz/fresh-water/freshwater-acts-and-regulations/national-environmental-standards/national-environmental.

- Keep records and provide information about compliance to the Ministry of Health. The Annual Report on Drinking-Water Quality is published each year.
- Assist Drinking Water Assessors, Designated Officers, and Medical Officers of Health to determine compliance with the Health Act and the Drinking Water Standards.

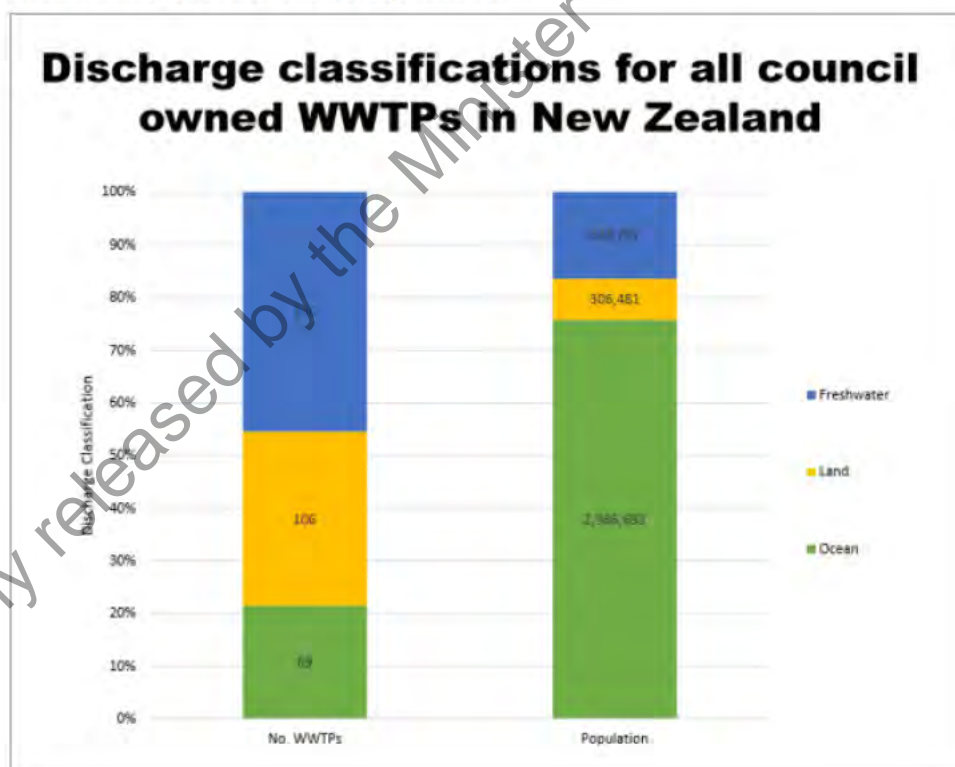
- 33.1 Networked suppliers who supply drinking water to less than 500 people must meet the same duties but are not required to implement a water safety plan. Networked suppliers (including rural agricultural drinking water suppliers) who supply water to less than 25 people are not required to meet any of the above requirements.
34. *Specified self-suppliers* are required to register as drinking water suppliers but are regulated by a range of legislative instruments related to the primary activity of these self-suppliers. Examples include the Food Act 2014, the Building Act 2006, the Local Government Act 2002, campground regulations and standards for schools. While some self-suppliers must meet higher standards (e.g. hospitals), for most specified self-suppliers drinking water is not a focus for the regulatory regimes they operate under.
35. *Domestic self-suppliers* are subject to the Building Act, which takes over responsibility for water once it leaves a networked supply and enters the building-owner's property. The Building Act also cover situations where the buildings have its own self-supply (e.g. a roof tank or bore). This regulatory reform does not propose any change to the existing regulatory arrangements for domestic self-suppliers.
36. The New Zealand Drinking Water Standards (DWSNZ) provide a reference point for drinking water quality. In general terms, the rates of compliance with the DWSNZ fall as the size of the supplier reduces. The rates of non-compliance with the DWSNZ for non-council and small suppliers increase significantly as the size of supplier decreases. However, reliable information about smaller drinking water suppliers, many of whom are currently outside of the regulatory system is difficult to obtain.
37. Compliance and enforcement were identified by the Havelock North Drinking Water Inquiry¹⁰ as a weakness of the existing regulatory system, including the current arrangements for central government oversight of the regulatory system. While the Ministry of Health has oversight over the regulatory system, they have had limited influence over Drinking Water Assessors (DWA) and Medical Officers of Health who are employed by the local District Health Board. The Inquiry found that, both individually and collectively, DWA have struggled to prioritise drinking water amongst their other responsibilities.

¹⁰ The Havelock North Inquiry into drinking water safety followed the 2016 campylobacter outbreak in Havelock North. Up to 5500 people were ill as a result and four people are thought to have died from associated causes. The Inquiry's findings raised broader questions about the effectiveness of the regulatory regime for the three waters, and the capability and sustainability of water service providers. The Inquiry made 51 recommendations to strengthen the regulatory system

38. In summary, while most New Zealanders receive their drinking water from council owned and operated network supplies, there are a significant number of smaller suppliers, particularly in rural areas, about which we have little information. Regulatory oversight of these suppliers is limited, and the significant variability between the scale, capacity and capability of those providers creates a challenge for compliance, monitoring and enforcement of the new regime.

Wastewater and stormwater assets, services and their regulation

39. Most of New Zealand's wastewater and stormwater systems are delivered by local government. These public wastewater and stormwater systems are the focus of these regulatory proposals.
40. There are 321 publicly owned Waste Water Treatment Plants (WWTP) operating in New Zealand¹¹. Unlike drinking water, there is no national standard for wastewater treatment, and the level of treatment (and effluent produced by a WWTP), will depend on the requirements of the resource consent that permits the effluent discharge.
41. On a population basis, most WWTPs (primarily in metro and provincial cities) discharge to coast. On a per plant basis, more WWTPs discharge to freshwater, and most service smaller (mostly rural) populations.



¹¹ Department of Internal Affairs. Three waters review. Cost estimates for upgrading Wastewater Treatment Plants to meet Objectives of the NPS Freshwater. [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/\\$file/Costs-of-wastewater-upgrades-GHD-Boffa-Miskel-Final-report-Oct-2018.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/$file/Costs-of-wastewater-upgrades-GHD-Boffa-Miskel-Final-report-Oct-2018.pdf)

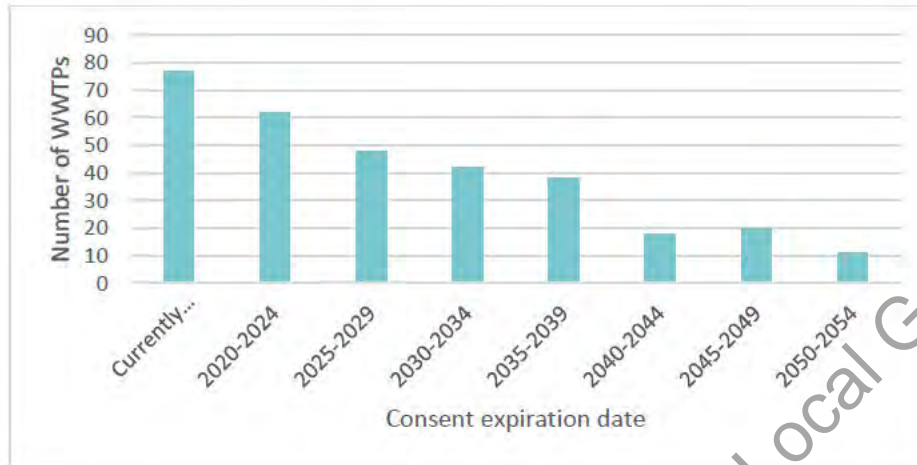
42. Sixty per cent of the WWTPs discharging to freshwater use waste stabilisation pond technology. While pond systems have low operating costs, the effluent quality that they deliver is relatively poor in comparison to more modern treatment technologies¹². As resource consents are renewed, these pond systems are being upgraded to more sophisticated treatment systems.
43. A significant proportion of the stormwater network (e.g. drainage channels and swales) are owned and operated as part of the roading network. Historically focused on reducing the risk of flooding, the increasing frequency and intensity of rainfall events related to climate change is increasing the importance of stormwater systems to resilience of urban areas. Increasingly, stormwater systems also need to be designed with environmental impacts in mind, as these networks can transport significant pollution loads into waterbodies.
44. Wastewater systems are also impacted by stormwater infiltrating into the wastewater network. This increases the volume of wastewater, so that it exceeds the capacity of a wastewater system to convey and treat it. Most wastewater networks include engineered overflow points, to release heavily diluted wastewater into the environment at specific locations. These are referred to as "wet weather" overflows.
45. The capital and operational costs of upgrading wastewater systems are a significant funding challenge for local government. The transition from non-mechanical low input WWTP assets (ponds), to higher input more mechanical plants, will increase operational costs, and require a more capable workforce. However, the ability of the sector to attract, retain and train experienced wastewater engineers is a significant barrier to progress.

Regulation of wastewater and stormwater

46. Wastewater and stormwater discharges are regulated under the RMA. Resource consents to discharge contaminants to the land, freshwater or to the coast are granted and enforced by regional councils. Discharge consents can be granted for up to 35 years. However, consents may be issued for shorter periods depending on the age and condition of the WWTP, the quality of the discharge, and the receiving environment.
47. Discharge consents for WWTPs, and wastewater generally, include conditions relating to the quality and quantity of discharge. Consent conditions will typically include maximum flow rates, and the maximum amounts of some contaminants such as nitrogen, phosphorous, suspended solids, faecal microbes, heavy metals and other hazardous substances. They can also include requirements to monitor impacts of the discharge on receiving environments, including limits on the level of degradation that can occur.
48. Discharge consents are also required for most stormwater systems. However, because stormwater is an open system that is closely associated with roading and urban land use, a wider range of approaches are required to manage its impacts.

¹² Ibid

49. Reconsenting WWTPs, and the consequent requirement to upgrade discharge quality, appear to be the most common trigger for investment to improve wastewater treatment systems. Nearly 60% of all WWTPs are either going through, or will go through, a resource consenting process in the next 10 years.



50. There are significant challenges around consenting WWTP discharges, which, even for small wastewater discharges, can take between two to four years.¹³ The costs of obtaining resource consents can also be significant. Wastewater discharges, particularly to freshwater, are of significant interest to communities (particularly Māori), and resource consent applications are often challenged.
51. The costs of complying with the requirements of consent conditions is also increasing. A stocktake of wastewater compliance, monitoring and enforcement practice by regional councils¹⁴ found significant variability between and within regions regarding discharge consent conditions. While some variability should be expected, a lack of consistent or systematic regulation in this area increases the costs of both obtaining consents, and meeting consent requirements. This is a significant issue when almost two thirds of the WWTPs currently operating need to obtain new resource consents within the next 10 years¹⁵.
52. Another indicator of the consenting challenges is the increasing number of wastewater systems that are operating on expired discharge consents. Water New Zealand's 2017-18 national performance review estimates that the one in ten plants are currently operating on expired consents, and this is expected to rise to one in five by 2024. Some plants have been operating on expired consents for a significant period, with one plant operating on a consent that expired in 1999.

¹³ Department of Internal Affairs. Three waters review. Cost estimates for upgrading Wastewater Treatment Plants to meet Objectives of the NPS Freshwater - [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/\\$file/Costs-of-wastewater-upgrades-GHD-Boffa-Miskel-Final-report-Oct-2018.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/$file/Costs-of-wastewater-upgrades-GHD-Boffa-Miskel-Final-report-Oct-2018.pdf)

¹⁴ National Stocktake of Municipal wastewater Treatment Plant 2019. Prepared for the Department of Internal Affairs. GHD- Boffa Miskell – This report is still draft

¹⁵ Water New Zealand. 2017-2018 National Performance Review. Note only 247 (of the 321) WWTPs are included in Water New Zealand's national performance review.

The problem

53. The three waters system is critical for the health and wellbeing of New Zealand. It is an important contributor to a high performing economy, and to our international reputation as a tourist destination. However, the evidence suggests that there are system wide challenges facing the three waters system.
54. Key problems with the current system that need to be addressed are:
- **A fragmented regulatory system.** There are significant weaknesses in current regulatory system. A lack of central government oversight means that if drinking water suppliers are regulated, they can be regulated under different legislative regimes and/or have different obligations. This means that it is unclear to suppliers, what requirements they must meet, and for consumers what regulation protects them. While the Resource Management Act delegates the regulation of wastewater and stormwater discharges to regional councils, highly variable regulatory approaches, make it difficult to be assured that wastewater and stormwater operators are delivering the best possible environmental outcomes.
 - **Poor management of risks.** A core principle from the Havelock North Inquiry was that “suppliers must own the safety of drinking water”. However, there is a lack of consistent application of preventative risk management practices, by drinking water suppliers. This creates unacceptable risks for residents and visitors to New Zealand. It is also not clear how or if wastewater and stormwater operators are managing existing and future risks. These risks will continue to grow as the aging infrastructure, the impacts of land-use intensification, and climate change increase the frequency and intensity of natural events. To manage these risks will require more active approaches from suppliers and greater awareness and oversight from regulators.
 - **A lack of accountability.** Inconsistent compliance and enforcement practices across the country have meant there is little or no accountability or consequence for failing to meet existing regulatory requirements. Poor central government oversight, competing priorities for both DHBs and regional councils and a lack of effective and/or consistent enforcement have allowed persistent non-compliance by some drinking water suppliers, and wastewater operators to continue.
 - **Limited recognition of Te Mana o te Wai.** Māori interests in water do not delineate between three waters, freshwater and coastal water. Māori have consistently identified improving water quality and ecosystem health as a priority. Te Mana o te Wai, recognises the connection between water and the broader environment – Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people). However, across the regulatory system, there are examples, where Māori interests and/or their knowledge have not been considered by decision makers or used to support engagement and discussion with the community to inform the setting of freshwater objectives and limits.

- **A lack of investment in three waters infrastructure and services.** Three waters infrastructure provides essential services to communities. Significant investment is required to maintain, operate and upgrade three waters services. Limited central government oversight, poor access to information about the performance of three water services, and a lack of formal enforcement action, means that there are limited sanctions for failing to plan for, and commit to those investments. The lack of consistent, and sufficient investment creates an infrastructure deficit, that results in poor levels of service, a lack of resilience, and poor public health and environmental outcomes.
 - **Variable capacity and capability.** There are ongoing capability and resourcing problems across the drinking water sector, and no organisation has clear responsibilities for ensuring the training is available to build capability. Significant variability in capacity and capability across the three waters system, particularly for smaller providers is not keeping pace with developing technology, and the increasing complexity of maintaining and operating three waters infrastructure. With an aging workforce and increasing community expectations, these capability challenges will continue to increase.
 - **Poor access to information for central government and the public.** There is a lack of transparency on the performance of the three waters sector. Limited central government monitoring and reporting, and variable regional approaches make it very difficult or impossible to compare or benchmark the performance of three waters providers. This creates uncertainty about how well three water infrastructure and services are being managed by providers, and how capable they are to meet expected public health, and environmental outcomes.
 - **A lack of national level system oversight.** Central government oversight of the three waters system is weak, with diffuse responsibilities spread across central and local government. No specific government agency has the three waters as its core focus. There are significant gaps in critical areas like drinking water safety, where distributed enforcement has contributed to a lack of accountability across the system. There is also very little help or support for drinking water suppliers, or wastewater and stormwater operators, to identify best practice, understand their regulatory requirements, and respond to new and emerging issues.
55. Collectively, these problems all contribute to the current weaknesses in the regulatory system. Taken together they mean that we cannot always be confident that drinking water will be safe to drink, and that acceptable environmental outcomes are being achieved.

Stakeholder views

56. Between early March and mid-April 2019, officials held a series of nine regional targeted engagement workshops to test emerging proposals. These workshops included attendees from the local government, health, environment, rural, iwi/Māori, and water industry sectors.

57. The workshops informed further development of the proposals. A report on targeted stakeholder engagement has been prepared and has been published on the Three Waters website.¹⁶
58. The workshops were complemented by other stakeholder briefings and meetings with government agencies, iwi/Māori, local government reference groups representing regional councils and territorial authorities, public health groups, and water advisory bodies.
59. In addition to the workshops, a group of “critical friends”, drawn from these sectors, provided detailed input and guidance to shape the proposals. Two sessions were held with the critical friends. The first to test initial thinking and support the development of the proposals, while the second workshop provided an opportunity to test the proposed options.
60. Overall, the stakeholder engagement confirmed that, in general, the direction of travel for the regulatory reforms is appropriate. However, it also signalled some areas of likely challenge for water suppliers and operators and identified other detailed matters on which further consideration is required or will need to be managed by the water regulator. Stakeholder feedback is summarised below:

Drinking Water

61. Overall, there was a high level of agreement that the regulation of drinking water required urgent attention, and that the proposals would address the issues, but some had some concerns about the following:
 - costs, funding and compliance burdens – particularly for small communities and suppliers (e.g. marae) potentially being brought into the regulatory system;
 - capability, support and resources;
 - the obligation on local government to supply or ensure access to safe drinking water, and whether this is reasonable; and
 - mandatory residual treatment and an associated exemption – with strong views for, and some against, this approach.

Wastewater and Stormwater

62. Reaction to wastewater and stormwater proposals was more nuanced, with arguments for and against aspects including, most prominently:
 - new national standards for treatment of wastewater discharges and overflows;
 - risk management plans for wastewater and stormwater networks;
 - stronger central oversight; and
 - costs and funding.

¹⁶ [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/\\$file/Stakeholder-engagement-report-May-2019-a.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/$file/Stakeholder-engagement-report-May-2019-a.pdf)

Māori and Iwi perspectives

63. During our engagement, iwi/Māori reiterated that their interests in anything water related are broad and integral. Water is a taonga and the holistic Māori world view resists separating out parts of water or the environment (or compartmentalising reviews or work programmes).
64. This perspective underlines the importance of ensuring that the Review is being progressed in tandem with the Essential Freshwater programme, where the broader discussion about Māori rights and interests in water is occurring.
65. Regarding the three waters specifically, Māori have articulated the following high-level considerations:
- upholding Te Mana o Te Wai as the guiding principle driving this regulatory work;
 - the importance of having a design role in regulatory arrangements;
 - providing a clear link to the rest of the Government's Essential Freshwater work programme;
 - the need for cultural values and mātauranga Māori to be built into standards, regulations and consenting decisions; and
 - wai is wai – that there needs to be a holistic approach to managing water.
66. Much of the feedback from Māori focused on the impact of the proposals on marae and papakāinga. There was support for ensuring marae and papakāinga receive safe drinking water but concerns about the cost and compliance burden on already stretched hau kainga (home people of a marae who often manage that marae with very little financial support).
67. The other main area of discussion was the disposal of wastewater. The discharge of human waste into water infringes traditional Māori values. However, there are examples around New Zealand where councils have worked closely with Māori to come up with a solution that meets everyone's objectives in a cost-effective way. Engagement reinforced that Māori values and expertise should be incorporated into national standards and environmental performance measures, but that there needs to be enough flexibility to achieve local solutions.

Objectives

68. The Government has a range of concerns about the three waters regulatory system and has considered a suite of papers on the issues affecting the three waters system. Through those papers the following high-level objectives have been developed to guide the design the package of regulatory proposals to address concerns about the three waters regulatory system. They are:
- To improve public health and wellbeing;
 - Protect and enhance environmental outcomes, including water quality and climate change mitigation;
 - Uphold Te Mana o te Wai ;
 - Improve the management of risks to people, property, and the environment;

- Protect public investment in three waters assets, and ensure resilience to the potential effects of climate change;
- Improve transparency about, and accountability for, the performance of three waters services and delivery of regulatory functions.

69. These objectives provide the basis for the following criteria that have been developed to evaluate the effectiveness of the proposed options in section 4.

Criteria 1: Improves public health, wellbeing and environmental outcomes

70. The three waters system provides essential services for communities. People must have reliable access to drinking water that is safe to drink, and wastewater and stormwater systems should protect the environment while reflecting the preferences of communities in which services are situated.
71. This criterion will be met when all people have access to three waters services, and the regulatory system ensures that the drinking water they receive is safe to drink, and the impact of discharges on freshwater and coastal environments is being managed in a way that reflects environmental and community values.

Criteria 2: Contributes to upholding Te Mana o te Wai

72. Māori interests in water are wide ranging. When Te Mana o te Wai is given full effect, the water body will sustain the full range of environmental, social, cultural and economic values held by the iwi, hapū, whānau and the wider community.
73. Examples of where the regulatory system can contribute to upholding Te Mana o te Wai is when regulators and service providers recognise Maori interests through:
- stewardship of the three waters system, where there are opportunities to align with the work on Essential Freshwater, and reflect the Māori-Crown relationship
 - considering Māori interests and involvement in freshwater management decision making processes
 - recognition of Te Mana o te Wai in freshwater management.

Criteria 3: Improves management of risks to people, property and the environment

74. The Havelock North Inquiry found that key risks impacting on drinking water supply were not recognised and acted on by the agencies that had the responsibility to ensure that the drinking water was safe. Wastewater and stormwater operators also need to manage risks to people, property and environment. That includes current risks and future risks, particularly the impact of climate change on the intensity of rainfall and /or the operation of pipe networks.
75. This objective will be met when the regulatory system, includes:
- processes, institutions and commits resources to ensure that providers of three waters systems are actively managing current and future risks, and
 - the regulatory requirements on regulated parties consider the consequence of risks to people, property and the environment in their design and enforcement.

Criteria 4: Improves transparency and accountability

76. A lack of transparent information about three waters services and outcomes limits the ability of the public to have access to information about the performance of three waters systems. Poor information undermines central government's stewardship role and impacts on the ability of agencies to provide consumers and the community with the assurance that their three waters services are effective, efficient, accountable and resilient.
77. Improved transparency and accountability will mean that:
- Regulated parties will clearly understand the regulatory requirements, and their roles and responsibilities.
 - Regulated parties will be held to account for failure to comply with those requirements, and
 - That the public will have access to relevant information that will enable them to identify when their provider of those services is failing to comply with expected requirements.

Criteria 5: Regulatory system is fit for purpose

78. In addition to the wider objectives of the reforms, the regulatory stewardship and systems need to be fit for purpose to ensure that:
- the burden of rules and their enforcement are proportionate to the benefits that are expected to result
 - the regulated parties have certainty as to their legal obligations,
 - the regulated parties can adopt least cost and innovative approaches,
 - the regulators have the people and systems necessary to operate an efficient and effective regulatory regime, and the ability to evolve to respond to changing circumstances.

Section 3: Options Identification

79. The following section describes the key features of the options, the problem or opportunity they seek to address, the counterfactual (continuing with the status quo), and the alternative options (regulatory and non-regulatory) that have been considered.
80. The package of reforms to the three waters regulatory system has three elements:
- 80.1 Significant system-wide reforms to the regulation of drinking water and source water that will require all drinking water suppliers (apart from domestic self-suppliers) to be part of the regulatory system and will significantly strengthen the obligations on suppliers and local government. The reforms will increase central government oversight, make improvements to compliance, monitoring process and create a tougher and more consistent approach to enforcement. Following Cabinet decisions, these proposals will be progressed through a Water Services Bill.
 - 80.2 Targeted reforms to improve the regulation and performance of wastewater and stormwater systems. The proposals will increase transparency, and progress work to improve risk management, and consider a new national environmental standard for wastewater and stormwater discharges. Most of these proposals will be progressed alongside the Essential Freshwater Programme.
 - 80.3 Establishing a central regulator, who will be responsible for overseeing the entire drinking water system, and some specific wastewater and stormwater regulatory functions. Ministers are being asked to agree to the establishment of centrally located three waters regulator, subject to further advice on options for the machinery of government arrangements.

Implementation context

81. We are proposing a five-year transition period for the central regulator, to implement the new regulatory system. However, this timeframe may be challenging for some suppliers to comply with their obligations, particularly small suppliers and those suppliers that are being brought into the regulatory system for the first time.
82. Further work is needed to determine the most practicable approach to phasing in the implementation of the regulatory regime for those small suppliers. We are proposing that the Department of Internal Affairs, Ministry of Health, and Ministry of Business, Innovation and Employment will provide detailed advice on this matter, for agreement by the Ministers of Local Government, Health, and Commerce and Consumer Affairs in August 2019.
83. Further detail on implementation is set out in section 6.

Part A: Reforms to the regulation of drinking water and source water*Increase the coverage of drinking water regulation*

84. The fragmented coverage of the existing regulatory regime means that drinking water suppliers have different obligations, and regulation of those obligations is inconsistent. This undermines the ability for government to provide assurance to people that their drinking water is safe. To address this, we are proposing that:

| Proposed options | Counterfactual | Alternative options considered |
|---|--|--|
| <p>All drinking water suppliers will be included within the scope of the drinking water regulatory system, except for "domestic self-suppliers".</p> <p>The regulator will have a general power of exemption for cases where some or all the requirements in the regulatory system are impracticable or unreasonable (such as back country huts) and will work with affected parties to identify supplies and agree exemptions.</p> | <p>Continuing the status quo will mean many people continue to receive drinking water from suppliers that are effectively unregulated.</p> <p>This undermines the ability for government to ensure that people have access to drinking water that is safe.</p> | <p>Three broad options were considered, retain the status quo, include all drinking water supplies (including domestic self-suppliers), and include all drinking water suppliers except for domestic self-suppliers (the preferred option).</p> <p>The complexity of bringing all suppliers into the regulatory system, the costs it would impose proportionate to the relative risks of small suppliers were arguments for retaining the status quo. However, retaining the status quo was rejected because it would not address current failures in system, and address poor access many communities, particularly rural communities, have to safe drinking water.</p> <p>Including all drinking water suppliers was given less consideration, because of the practical difficulties of the regulator being responsible to monitor and enforce compliance for the thousands of individual self-supplying households in New Zealand. Also, it was considered that domestic suppliers were directly incentivised to ensure that the water they would supply and consume was safe.</p> <p>Providing for different categories of suppliers in legislation or regulation was ruled out as an alternative. This was because of the challenges of providing for flexibility in primary legislation, and the potential uncertainty it could create around categories of suppliers.</p> <p>Instead, the proposal is to set a single set of requirements in the legislation that all suppliers must meet, and then allow the regulator the flexibility to tailor the requirements around how water suppliers demonstrate compliance based on risk.</p> |

All suppliers will be required to comply with the drinking water standards

85. It is a key objective of the proposals that all people who receive water from a drinking water supplier should have assurance that their drinking water is safe to drink.

Acknowledging that there may be implementation challenges that need to be worked through, ensuring that people have equitable access to water that is safe to drink is a core element of the regulatory reforms. Accordingly, it is proposed that:

| Proposed options | Counterfactual | Alternative options considered |
|---|---|---|
| All suppliers will be required to provide safe, reliable and acceptable (potable) drinking water and comply with the Drinking Water Standards on a consistent basis, including removal of current "all practicable steps" requirement. | Continuing the status quo will mean many people continue to receive drinking water from suppliers that do not comply with the drinking water standards. While the risk for specific suppliers will differ, between 34,000 to 100,00 people are made ill from unsafe drinking water each year. | <p>The alternative, retaining the all practicable steps" test, was considered.</p> <p>We received advice that when considering suppliers liability for failure to comply with the drinking water standards, the Courts will still consider, the practicality of actions that would have been required to comply i.e. they will apply an "all practicable steps" test. However, the reference to "all practicable steps" in the legislation has in practical terms created uncertainty about what is required (particularly when it is considered in context of affordability (one of the criteria)). This uncertainty has made it almost impossible to enforce compliance with the Drinking Water Standards.</p> <p>On balance, it was considered that removal of the all practical steps test, will make requirements more certain, and regulatory system more effective.</p> <p>The ability for the regulator to tailor the requirements around how water suppliers demonstrate compliance, and support suppliers to comply with their requirements, will ensure that compliance will be achieved in a way that is proportionate to supplier capacity and capability.</p> |

New obligations on local government

86. There is a risk that some drinking water suppliers may exit the supply of drinking water (as they struggle to comply with new or strengthened regulatory requirements), leaving communities with no access to safe drinking water.

87. Currently, there is a legal obligation on local government¹⁷ to continue providing drinking water if they are doing so already, but this duty does not extend to assuming responsibility for new supplies. In practice, many local authorities do provide support to non-council suppliers, reflecting their wider focus on providing leadership to enable action by and behalf of communities. This proposal is intended to address the current “gap” in current obligations, so that local government has certainty about their obligations.

| Proposed options | Counterfactual | Alternative options considered |
|--|--|--|
| <p>Require local authorities to ensure communities have access to a reliable source of safe drinking water. This approach would involve the following steps:</p> <ul style="list-style-type: none"> • Territorial authorities will inform themselves about the supplies of drinking water in their districts. • If there is an issue, they will work collaboratively with the supplier and consumers to identify a solution. • If a solution cannot be agreed, or if the supplier exits, the territorial authority would be obliged to ensure safe drinking water continues to be provided. • The drinking water regulator would have a role in ensuring territorial authorities are meeting these obligations. | <p>Currently, no-one has an obligation to provide drinking water to the community (although local authorities have an obligation to continue to supply).</p> <p>Continuing with the status quo means that there is a risk that if non-council suppliers cease to operate, communities will have no access to drinking water.</p> | <p>Placing this obligation on the central regulator was considered but regarded as impracticable on the basis, that regulator would not have the same level of local knowledge, and/or key relationships that local authorities have with their communities to identify a sustainable solution.</p> <p>To ensure this obligation is affordable, and to encourage collaborative approaches, territorial authorities will be able to charge for supplying water and will not be obliged to become the supplier directly or provide drinking water via a reticulated network.</p> <p>The proposed central regulator will have a role in supporting local authorities and ensuring that an alternative supplier or other proposed solution is appropriate, including that the community can afford any water charges</p> |

Water safety plans

88. The current regulatory system includes elements of a ‘multi barrier approach’, including water safety plans to ensure that people have access to safe drinking water. However, responsibilities and duties are not well understood, are spread across multiple entities, applied inconsistently, and there is limited oversight and enforcement of those requirements. To address this issue, it is proposed to:

¹⁷ Section 130 of the Local Government Act 2002

| Proposed options | Counterfactual | Alternative options considered |
|---|---|---|
| <p>Require all drinking water suppliers to prepare and implement water safety plans (WSP) that:</p> <ul style="list-style-type: none"> • include all of the elements of international best practice • would be proportionate to the scale, complexity and risks of supply arrangements • would be subject to risk-based audit and monitoring by a central regulator | <p>Most large and medium drinking water suppliers have WSP, but without intervention, the event in Havelock North could happen again, where the responsible agency was able to have a technically compliant water safety plan that did not manage the contamination risk.</p> | <p>Water safety plans (WSP) are a key feature of the existing drinking water regulatory system, and many suppliers are already required to prepare one. However, monitoring and auditing of WSP is critical to ensure that they are being implemented. The failure to meaningfully implement the WSP was a key issue in Havelock North. It was considered whether the existing regional regulatory arrangement through DHB's could be strengthened to monitor and approve WSP, but it was considered that an independent central regulator would provide greater opportunities to build the resources and expertise required to monitor, audit, and take enforcement action when it was necessary.</p> <p>This proposal will require suppliers not currently covered by the regulatory regime to prepare a WSP for the first time. However, it is proposed that WSP requirements should be proportionate to risk. The regulator will be able to manage WSP requirements to ensure compliance costs are proportionate to the benefits for consumers.</p> |

Source water protection

89. One of the principles for safe drinking water highlighted by the Havelock North Inquiry was that source water protection is of paramount importance in the multi-barrier approach. However, there are a range of deficiencies in the current arrangements for protecting sources of drinking water that need to be addressed.
90. In response, we are proposing to prescribe minimum obligations for regional councils, territorial authorities and drinking water suppliers to assess and control risks to sources waters. These obligations will be given effect through the Water Services bill, revisions to the Drinking Water NES, and consequential amendments to other national direction instruments if required. Specific proposals regarding source water protection are:

| Proposed options | Counterfactual | Alternative options considered |
|--|---|--|
| <p>Requirement that regional councils, territorial authorities and water suppliers work together to assess and manage risks to source waters</p> <p>This includes specific obligations relating to:</p> <ul style="list-style-type: none"> • developing, contributing to, and implementing a source water risk management plan; • monitoring source water quality at the point of abstraction; and • sharing information. <p>Requiring regional councils to report annual trends in source water quality and quantity, including the effectiveness of actions taken to manage risks to source waters.</p> | <p>Despite the current Drinking Water NES, the roles and responsibilities of agencies are poorly understood, with poor coordination and information sharing in some regions.</p> <p>This means that these agencies are not consistently taking appropriate action to address the risks of contamination for source water. Source water contamination was one of the contributing factors for the Havelock North outbreak.</p> | <p>Alternative approaches considered include developing national guidance for water suppliers and local authorities, or requiring the establishment of joint-working groups to collaboratively identify and manage risks to source waters</p> <p>However, the critical importance of protecting and managing the risk to source water, and current issues with existing arrangements, indicate that a more prescriptive regulatory response is required to ensure a consistent approach.</p> <p>This does not prevent guidance and funding approaches being used to support the proposed regulatory arrangement in the future.</p> |

Multi-barrier approach to drinking water safety

91. Relying on source protection as the only major barrier in a networked system, exposes people to significant risk. Even where good quality source water is available, there is still risk of contamination once water enters the network. This was a key finding of the Havelock North Inquiry, who recommended that suppliers should be required to develop a multi-barrier approach, and that one of those barriers should be residual disinfection in the reticulation system, using disinfectant such as chlorine.

| Proposed options | Counterfactual | Alternative options considered |
|---|--|---|
| <p>Require all drinking water suppliers to adopt a multi-barrier approach to drinking water safety, which considers:</p> <ul style="list-style-type: none"> • preventing hazards entering raw water; • removing particles and hazardous chemicals from the water by physical treatment; • killing or inactivating pathogens in the water by disinfection; and • maintaining the quality of water in the distribution system. | <p>Without processes and treatment to manage the risk of source water contamination, or to maintain the quality of the water in the distribution system, communities are being exposed to significant risk</p> | <p>While the multibarrier approach has a range of elements, most attention is focused on residual disinfection of network.</p> <p>The key alternative that was considered was to require communities to opt in, i.e. choose to treat their drinking water (opt in). However, the risks that communities would not invest sufficiently in technical investigations and systems to adequately manage the risks of contamination meant that it was considered more effective to create a default position based on requirement to adopt the multi-barrier approach but enable the regulator to grant exemptions.</p> |

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| <p>The regulator would have the ability to exempt suppliers from requirements to use residual treatment in the distribution system, if the supplier can demonstrate, to the regulator's satisfaction, that all risks to the safety of the water are being managed appropriately;</p> | <p>Havelock North's drinking water supply and reticulation network was not disinfected which meant when the source water was contaminated, people were at immediate risk.</p> <p>The Inquiry identified that nearly 600,000 people receive water from networked supplies that are not routinely disinfected.</p> | <p>The details of the multi-barrier approaches being adopted by each supplier would be given effect through water safety plans, or other instruments agreed by the regulator, and that the regulator would be empowered to monitor and enforce compliance;</p> |
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A stronger, centralised approach to compliance, monitoring and enforcement

92. The Havelock North Inquiry identified compliance, monitoring and enforcement (CME) are weaknesses in the existing drinking water system. While the current regulatory system makes some provision for enforcement powers and penalties, these powers have been used inconsistently, the powers of intervention are limited, and there are gaps at the lower end of the offences scale (such as issuing infringement notices for low-level breaches).
93. To address the current weakness, it is proposed to consolidate a broad range of CME tools and roles within the central regulator.

| Proposed options | Counterfactual | Alternative options considered |
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| <p>Provide the regulator with a broad range of compliance, monitoring and enforcement tools and roles, including:</p> <ul style="list-style-type: none"> • assistance and advice to suppliers; • requiring suppliers to provide information; • minor penalties, including the ability to issue instant fines and infringement notices for low-level offences; • civil enforcement, e.g. the power to issue an enforceable compliance notice; • criminal enforcement. | <p>Without intervention, accountability in the existing system will continue to be weak.</p> <p>These will mean that, despite the Havelock North Inquiry finding significant shortfalls in the way that agencies exercised their responsibilities, no one was able to be held to account for the contamination outbreak in Havelock North.</p> | <p>The alternative option, an enhanced status quo, where compliance, monitoring and enforcement powers are improved but continue to be regulated by existing regional regulators (DHBs), was rejected because of the limited ability for the Ministry of Health to direct or require DHBs to employ more drinking water assessors or prioritise their work.</p> |

Introduce accreditation and licencing schemes for drinking water suppliers

94. With many suppliers of different size, capability and risk profile, a flexible approach is required to ensure that compliance and enforcement is proportionate to the capability and characteristics of the supplier.
95. However, some suppliers have strong capability and a voluntary accreditation scheme is proposed that would be aimed at organisations that manage complex supply networks and would place a consistent emphasis on building capability within those organisations.
96. To support that focus on capability we are proposing that the regulator be able to licence or accredit certain people who are involved in water supply operations. This would provide a means of reinforcing accountability for key roles and ensure that people in those roles have the necessary skills and experience to perform those roles.

| Proposed options | Counterfactual | Alternative options considered |
|---|---|--|
| <p>Enable the regulator to:</p> <ul style="list-style-type: none"> Develop and implement a scheme for accrediting drinking water suppliers, and requiring certain suppliers to participate in this scheme develop and implement a scheme for the licensing of certain people who are involved in water supply operations | <p>Currently, there are no regulatory requirements to have specific qualifications or experience to operate drinking water supplies.</p> <p>This makes it difficult to ensure that suppliers have the appropriate capability and hold them to account if they do not.</p> <p>Where suppliers do have the appropriate capability, accreditation allows them to demonstrate that allowing the regulator to focus more of its resources on providing support and guidance to and monitoring the performance of non-accredited suppliers.</p> | <p>This proposal is intended to provide the opportunity for the regulator to develop accreditation and licencing scheme.</p> <p>The alternative is to not enable their development. This was considered but was considered to unnecessarily limit the flexibility of the regulatory regime to allow the regulator to work with capable suppliers to incentivise them to build their capability across systems, processes and people.</p> |

Addressing supplier failure

97. There may be circumstances when enforcement actions and penalties are ineffective or inappropriate for dealing with persistent or serious cases of non-compliance, or poor performance by a drinking water supplier. Where suppliers persistently fail to meet their obligations or take actions required by the regulator, it is proposed to:

| Proposed options | Counterfactual | Alternative options considered |
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| <p>Include the ability for the regulator to:</p> <ul style="list-style-type: none"> • identify drinking water suppliers that are performing poorly, at risk of failure, or already failing to meet their statutory obligations; • investigate concerns about the performance of drinking water suppliers and determine what corrective actions are needed; • work with suppliers and other relevant parties to take corrective actions. <p>In situations where the regulator considers a supplier is not capable of performing its statutory functions or duties, the regulator would be able to:</p> <ul style="list-style-type: none"> • appoint an appropriate person or organisation to manage a drinking water supplier's operation on a temporary basis; • require a drinking water supplier to transfer the management of its operations to another supplier, on a long-term basis. | <p>Without ability to ability to act to address poor performance, communities could continue to be exposed to unsafe drinking water supply, with limited ability for central agencies to intervene.</p> | <p>Providing the regulator with these intervention powers is considered critical for the integrity of the regulatory system.</p> <p>Similar powers of intervention exist in other regulatory systems.</p> <p>For example, the Minister for Building and Construction may appoint one or more persons to act in place of a territorial authority that is not properly performing its functions or duties under the Building Act 2004.</p> <p>The Minister of Local Government has a range of powers under the Local Government Act 2002, which can be used to address significant problems, or potential problems, in local authorities.</p> |

Part B: Improving the regulation and performance of wastewater and stormwater systems

98. There are strong synergies between the objectives and outcomes of the three waters reform and the Essential Freshwater programme. To improve the environmental regulation and performance of wastewater and stormwater systems, we are proposing that Ministers agree to:

- To progress work on a national environmental standard for the treatment of wastewater discharges and the management of wastewater overflows (Wastewater NES). This will be developed in accordance with the requirements of the section 46A of the resource Management Act 1991.

- To progress work on the introduction of new obligations on wastewater and stormwater network operators to manage risks to people, property and the environment. This will be progressed in tandem with the new Wastewater NES, alongside the Essential Freshwater programme
 - To agree to introduce a regulatory requirement for wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics and compliance. These environmental performance metrics would be collected, validated, analysed and published by a central regulatory agency.
99. These regulatory proposals, and the proposal to strengthen the obligations on regional councils and territorial authorities to assess and manage risks to source waters through amendments to the Drinking Water NES, will be progressed alongside the Essential Freshwater programme. An Essential Freshwater discussion document is expected to be released in August 2019.

National standards for the treatment of wastewater discharges and management of wastewater overflows

100. The proposed national standard could include: criteria and methods for setting consent conditions on discharges; standards for effluent quality; methods for monitoring compliance; approaches for incorporating culturally acceptable wastewater treatment processes; and a requirement to develop a wastewater network strategy.
101. Improving water quality, particularly freshwater, will require a combination of actions, and improvements to the quality of wastewater discharges will only be able to contribute to overall environmental outcomes. However, Maori have significant concerns about the cultural impacts of discharges to water, and there are increasing community expectations that wastewater treatment systems will avoid or reduce the impacts on the environment. A more consistent regulatory approach could also create cost efficiencies for wastewater and stormwater system operators, and the community.
102. This proposal would be progressed alongside the Essential Freshwater Programme. If adopted, any national standards would be implemented as a National Environmental Standard (NES) under the Resource Management Act 1991. The Minister for the Environment will make the final decision on whether to adopt the proposed NES.

| Proposed options | Counterfactual | Alternative options considered |
|--|--|--|
| Progress work on a new national environmental standard for the treatment of wastewater discharges and management of wastewater overflows. | Two thirds of WWTPs discharges will require reconsenting in the next 10 years. | Two alternatives were considered: <ul style="list-style-type: none"> • Issuing national guidance on criteria and methods for setting consent conditions for discharges from WWTPs and overflows. The range of existing guidance, and reliance on voluntary adoption, mean that it is unlikely that this option would have a significant impact on current issues. |

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| <p>Regional councils to retain discretion to set higher standards in resource consents.</p> | <p>Community expectations are driving up standards in consenting process and requiring operators to upgrade wastewater and stormwater networks to improve discharges.</p> <p>While that makes it likely that environmental outcomes will improve, the costs and complexity of consenting WW systems is continuing to increase, and many consent processes are delayed by litigation resulting in an increasing number of WWTP operating on expired consents.</p> | <ul style="list-style-type: none"> Establishing an independent wastewater and stormwater technical advisory panel that provides technical advice to councils and applicants on setting consent conditions for wastewater and stormwater networks (e.g. peer review of consent applications/technical design standards prior to submission to regional councils). However, regional councils already have access to technical advice, and while a national body could provide some increased level of consistency, it would rely on regional councils voluntarily accessing and implementing that advice. |
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Managing risk to people, property and the environment

103. We know that if wastewater and stormwater networks fail or are not being operated effectively then they can pose significant risks to people, property and the environment. However, currently there is limited visibility of the investment and management decisions of wastewater and stormwater operators, including how they prioritise network upgrades and maintenance activities to address current and future risks like the impacts of climate change.
104. To address these issues, we propose that government introduce new obligations on wastewater and stormwater network operators to manage risks to people, property and the environment. The specific details of these obligations will be developed and refined in parallel with the Essential Freshwater programme, with final decisions anticipated in 2020.

| Proposed options | Counterfactual | Alternative options considered |
|---|---|--|
| <p>Introduce an new obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment.</p> | <p>Currently, the proposed risk management approach is articulated in a range of different documents, including activity management plans, asset management plans and Long-Term Plans. But there are inconsistencies in how this information is documented, and no mechanism for auditing performance to ensure risk is being addressed in practice and/or in a timely manner. Without intervention, the Government and communities will continue to have poor information, and limited</p> | <p>Issuing national guidance on approaches for preparing risk management plans. The reliance on voluntary adoption, means that it is unlikely that this option would achieved the desired outcome, which is to ensure that all operators are actively managing risks, rather than just producing a technical document.</p> |

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| | transparency about how wastewater and stormwater operators are managing their networks. | |
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105. We are also proposing that the regulator should develop national stormwater guidance to support local authorities and service providers. This is intended as a first step towards improving the regulation and design of stormwater services. It would include:

- national guidelines for establishing planning provisions and setting consent conditions for discharges from stormwater networks; and
- guidance on best practice approaches for stormwater network design and maintenance, including the use of green infrastructure.

Reporting on nationally-prescribed environmental performance metrics

106. There is a lack of transparency and public reporting on the environmental performance and compliance of wastewater and stormwater systems, including their contribution to environmental and public health outcomes. Currently, compliance monitoring of wastewater and stormwater systems is carried out by regional councils, but there is significant variability in both what is monitored and how it is monitored, between regions and between individual wastewater discharges.

107. These inconsistent regional approaches mean that it is difficult to form a national view on the environmental performance of wastewater treatment systems, to be assured that national best practice is being implemented, and that people can access information of national performance to this critical sector. To address these issues, Ministers are being asked to agree to a proposal that would:

| Proposed options | Counterfactual | Alternative options considered |
|--|---|---|
| Require wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics. | <p>Many operators should already be collecting this information, and a significant number provide this information in a voluntary basis to WaterNZ.</p> <p>However, there is a lack of consistency that impacts on the quality of the data, its connection to other data and information collected, e.g. for State of Environment reporting</p> | <p>Alternative options that have been considered included:</p> <p>Requiring regional councils and/or network operators to periodically publish the performance information routinely collected as part of consent conditions (under direction from Minister for the Environment). The lack of certainty between requests will make it difficult for local authorities to develop systems to efficiently collect the information.</p> <p>Establishing a national information repository and platform for hosting performance information was also considered, but still relied on local authorities voluntarily providing the information.</p> |

108. The environmental performance metrics would be collected, validated, analysed and reported publicly by a central regulatory agency. It is proposed to convene a technical advisory group to provide advice on the development of the performance metrics to be reported.

Improving national level leadership, oversight and support relating to wastewater and stormwater

109. There are strong synergies between drinking water, wastewater, and stormwater regulatory functions (and, potentially, wider water regulatory functions) and the science, technical and cultural expertise needed to carry out these functions. This supports enabling a three waters regulator that can carry out responsibilities for oversight of wastewater and stormwater operators' performance alongside its responsibilities for drinking water.
110. There is a lack of national level oversight of the performance of wastewater and stormwater operators, and the system that regulates these operators. There are also concerns that regional councils require more clarity about what is expected of them, and more support from a central regulatory agency to help them meet those expectations.
111. Accordingly, it is proposed that the functions of the regulator should include:

| Proposed options | Counterfactual | Alternative options considered |
|--|---|--|
| <p>The central regulator will:</p> <ul style="list-style-type: none"> • Set and publishing national expectations for local authorities regarding the compliance, monitoring and enforcement approaches for wastewater and stormwater operators, • Set and publish guidance for local authorities regarding the compliance, monitoring and enforcement approaches to be used for wastewater and stormwater network operators, • Identify and monitor emerging contaminants in drinking water, wastewater and stormwater, and to coordinate national-level policy responses, both regulatory and non-regulatory, • Undertake functions relating to identifying and promoting national good practices for stormwater network and management, including the development and dissemination of national guidelines. | <p>Without intervention, there will continue to be a lack of national-level oversight of the performance of wastewater and stormwater operators, and poor evidence to understand and intervene to address continuing concerns that regulation by regional councils is failing to provide assurance that good environmental outcomes are being achieved.</p> | <p>While these functions could be performed by the Ministry for the Environment, they are related to the drinking water functions of the regulator, and a single regulator will be better equipped to develop and commission cultural, scientific and technical knowledge and apply this to good regulatory practice.</p> <p>Providing for these functions will not undermine the existing ability for the Government to issue similar advice.</p> |

Part C: Establishing a centrally located regulator

112. The proposed options anticipate the development of a centrally-located regulator, responsible for overseeing the entire three waters system. While the primary focus of the new regulator will initially be drinking water, we are proposing that the new regulator should have a broader remit across the three waters, to reflect the important synergies between drinking water, wastewater and stormwater regulatory functions.
113. Having a single regulator makes sense for regulated parties (particularly councils) many of which provide all three water services. Iwi/Māori and some councils have told us that it would be easier for them to interact with a three waters regulator, rather than with multiple central regulators.

| Proposed options | Counterfactual | Alternative options considered |
|---|--|---|
| <p>Establish a centrally-located regulator that would be responsible for overseeing the entire three waters regulatory system, subject to further advice on options for machinery of government arrangements. The functions of the regulator would include:</p> <ul style="list-style-type: none"> • sector leadership; • setting standards; • compliance, monitoring and enforcement; • capability building, accreditation and licensing; • information, advice and education, including being a centre of technical and scientific expertise; and • performance reporting. | <p>The lack of a centrally located regulator, with dedicated resource to ensure central oversight, was identified by the Havelock North Inquiry as a key weakness with current regulatory system across all the three waters.</p> <p>Currently, the Ministry of Health (MOH) provides central leadership for drinking water, with key regulatory responsibilities delegated to DHBs. The Havelock North Inquiry was critical of their effectiveness of this system, citing lack of leadership and resources, poor compliance and enforcement practice as examples of deficiencies in the existing system.</p> <p>The Ministry for the Environment, on behalf of the Minister, is responsible for monitoring the effectiveness of the RMA, including the performance of regional councils in discharging their responsibilities under the RMA. However, this function encompasses all activities regulated under the RMA, and there is no</p> | <p>Alternatives that have been considered include:</p> <p>Increase funding resources and bring the regulatory responsibilities that have been delegated to DHB back into the MOH to rebuild capacity and capability with the Ministry. This would support arguments that drinking water is a public health issue and so should stay within the health system to ensure necessary connections are maintained in the event of a disease outbreak.</p> <p>However, if properly designed and funded, the regulator can have enough public health expertise, and this is likely to be enhanced by bringing together all the different aspects of drinking water best practice. While there will need to be a focus on ensuring that regulator is able to communicate effectively with DHB, there are good examples to draw on from the operation of the food safety regime</p> <p>And if the regulatory regime is focused only on drinking water, we will miss the opportunity to take three waters view and require regulated parties (who are often local authorities) to deal with multiple regulators.</p> <p>Regionally based regulators were also considered but it was considered that it would replicate existing regional structures and would miss the opportunity to build a well-resourced and expert regulatory body to provide the sector with the oversight and support that is currently missing from the regulatory system.</p> |

| | | |
|--|--|--|
| | specific mandate to monitor Three Waters infrastructure. | |
|--|--|--|

114. This Cabinet paper is asking Ministers to agree on the broad scope and functions of the three waters regulator. Detailed proposals relating to scope, functions, institutional form of the regulator, and associated machinery of government arrangements, are still being developed, and will be considered in August 2019. Reflecting iwi/Māori interests within the roles and functions of the regulator will be identified as part of developing those detailed proposals.

Proactively released by the Minister of Local Government

Section 4: Impact Analysis

116. The following provides an evaluation of the performance of the proposed options against the objectives. In most cases, that performance has been compared against primary alternative options that was considered but in some cases where alternative option was discounted because it did not provide an improvement on the status quo, the preferred options has been considered against the status quo as the counterfactual.

117. We have rated the performance of proposed options using the following scale:

- ++** **Much better than doing nothing/status quo**
- +** **Better than doing nothing/the status quo**
- 0** **About the same as doing nothing/the status quo**
- **Worse than doing nothing/the status quo**
- **Much worse than doing nothing/the status quo**

Part A: Reforms to the regulation of drinking water and source water

Increasing the obligation for drinking water suppliers

118. Most people in New Zealand receive drinking water from network suppliers that are already part of the drinking water regulatory regime. But nearly 800,000 people currently receive drinking water from suppliers, who are effectively unregulated under the current arrangements. Many of those drinking water suppliers do not comply with the drinking water standards, and there are many examples where consumers have unreliable access and/or poor-quality water. It is proposed to bring all those drinking water suppliers (except for domestic self-suppliers into the regulatory system, although further work is being undertaken to determine how implementation will be phased.

UNCLASSIFIED

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|--|--|--|--|---|---|--|
| Preferred option <i>All drinking water suppliers will be included within the scope of the drinking water regulatory system, except for "domestic self-suppliers"</i> | ++ Many Maori receive poor quality access to safe drinking water | ++ Increasing the coverage and strengthening the regulatory regime will mean more people will have access to safe drinking water | ++ Will improve management of risks | ++ Will allow us to build knowledge of water suppliers based on real world experience | ++ Phased approach to implementation and flexibility around the design of regulatory requirements will ensure a risk-based approach that is proportionate to benefits | General agreement to the principle of supplying safe drinking water for all, but some stakeholders have specific concerns about capability and cost issues arise particularly for small suppliers. Key questions included: |
| Alternative option <i>Providing for different categories of suppliers in legislation or regulation</i> | + Could be included in legislation | + Will increase coverage but categories limits flexibility, and responsiveness | - Lack flexibility to respond to risk proportionately | - Currently we have poor information that increases wrongly categorising suppliers, and their obligations | + Provides greater certainty for suppliers but currently we have poor information that increases wrongly categorising suppliers | Who or what constitutes a water supplier How will the cost/benefits of being brought into the regime be considered? If there is no affordability exemption, who meets the costs to meet standards when small suppliers cannot? |

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|---|--|--|---|--|---|--------------------------------|
| Preferred option <i>All suppliers will be required to provide safe, reliable and acceptable drinking water and comply with the Drinking Water Standards (DWS) on a consistent basis</i> | + Many Maori communities receive poor quality access to safe drinking water. But many Marae are concerned about increasing compliance requirements | ++ Reduce rates of endemic illness | ++ Will require improved management of risk | ++ Provide certainty around requirements | ++ Creates certainty around requirements, ability for regulator to provide for flexible compliance approaches will ensure that benefits proportionate to risk | See comments in previous table |
| Alternative options <i>Continue with the status quo</i> | 0 Limited practical action to improve access to safe drinking water | 0 No incentives to address current DW issues | 0 Many people will continue to receive water that may be unsafe | 0 Inability to hold suppliers to account for failure to meet DWS | 0 Continuing uncertainty about requirements | |

Increasing obligation on local authorities

119. This obligation will impact on Territorial Authorities, but only applies if drinking water suppliers can no longer supply safe drinking water. We have recognised that the capability and capacity of drinking water suppliers, particularly smaller suppliers to respond to new regime, may be challenging. As noted above, further work is planned to determine the most practicable approach to the phasing of implementation for those suppliers is planned, with a report back to Ministers in August. This work will consider the potential impact on local authorities and how this will be managed.

120. However, the proposal already anticipates that if suppliers do exit, territorial authorities will be supported by the central regulator, who will work with supplier and local authorities to identify opportunities to ensure that drinking water is both safe to drink and sustainable to supply. This obligation will not require Territorial Authorities to become the supplier or extend the reticulated network to provide drinking water to the affected consumers. They will also be able to charge for the supply of the drinking water.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder Views |
|---|--|---|--|---|--|--|
| Preferred option <i>Require local authorities to ensure communities have access to a reliable source of safe drinking water</i> | ++ Can build on existing relationships between mana whenua and council | ++ Local authorities have key relationships with community | ++ More opportunity to integrate with other lifelines infrastructure | ++ Local authorities would build better understanding of community access to DW | ++ Local authorities already have systems, and community connections to effectively and efficiently carry out this obligation | Some in local government oppose this on the grounds of potential costs. But others accept that local government is where the responsibility should lie but also question how the costs of picking up existing suppliers that exit might be covered. Some feel the discussion of regulatory issues needs to be joined up with service delivery considerations. |
| Alternative options <i>Placing this obligation on the central regulator</i> | + A centrally located regulator will have cultural expertise and relationships with national iwi/Māori bodies. | + Could perform this role but lacks local knowledge to do it as efficiently | - Would have a single focus of DW | + Could perform this role but lacks local knowledge to do it as effectively | - Would need to build and maintain local knowledge to effectively respond duplicating information, and connections held by local authorities | Response For reasons set out in section 3 local authorities are best placed to meet this obligation and will be supported by the regulator. Stage 2 of the three waters review will consider service delivery, and timeframes will allow Ministers to consider service delivery, and funding arrangements in context of the financial implications of the reform. |

Strengthening the existing regulatory regime for drinking water

121. These proposals strengthen the existing regime. Most people receive drinking water from suppliers who are already subjected these requirements, but the lack of effective monitoring and enforcement has undermined the effectiveness of that regime. However, the requirements will be new for suppliers that are currently outside of the regulatory regime and will be particularly challenging for smaller suppliers. The new regime includes mechanisms to support small suppliers to meet the requirements of the strengthened regime, and further work will be undertaken to consider how best to phase the implementation of the new regime for small suppliers. Key features of the proposals to strengthen the existing regulatory regime include:

Water safety plans

122. Effective water safety planning strengthens the focus on preventative measures across the drinking water supply system and enables suppliers to demonstrate how they will ensure the ongoing supply of safe drinking water. Network suppliers, who supply water to more than 500 people should already be implementing their water safety plans. The estimated costs of preparing water safety plans are proportionate to the size of the suppliers e.g. in the order of, \$15,000 for medium sized suppliers. The proposals anticipate that the central regulators approach for smaller suppliers will be risk based, and the water safety planning requirements will be proportionate to their capacity, capability and risks that the drinking water supply has for consumers of that water. An example of a possible approach are food control plans, which are hosted on New Zealand Food safety website, and allow people to build template or custom plans based on their needs.¹⁸

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|-------------------------|--|--|--|--|--------------------------------------|--|
| Preferred option | <p>+</p> <p>Opportunity to recognise in best practice requirements</p> | <p>++</p> | <p>++</p> | <p>++</p> | <p>++</p> | <p>No specific comments on water safety plans but there was general agreement with the logic of a multi-barrier approach</p> |

¹⁸ <https://www.mpi.govt.nz/food-safety/food-act-2014/food-control-plans/>

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|---|-----------------------------------|---|--|--|---|--|
| <i>All drinking water suppliers to prepare and implement water safety plans (WSP), that are audited by the central regulator</i> | | Primary focus of WSP, and regulator core role to support, and enforce implementation | An increased focus on Water Safety Plans, will increase focus on managing current and future risks | Central regulator will through audit have increased visibility, and powers to enforce implementation of WSP. | Certainty around requirements, and regulator has capacity to support implementation | |
| Alternative options <i>Strengthen the existing regional regulatory arrangement, and used through DHB could be monitor and approve WSP</i> | - Not currently considered | -- Lack of attention to implementing WSP and technical (but not meaningful) compliance will continue | -- Lack of attention to implementing WSP | - MOH limited influence on regional approach to enforcement | - Risk of regional inconsistency | |

Source Water protection

123. This will impact on all drinking water suppliers, territorial authorities and Regional Councils, consent applicants and landowners. Inadequate focus on risks affecting the quality of source water supply was a key factor in the Havelock North contamination event. This proposal is intended to ensure that each drinking water supply has an appropriate management regime in place to mitigate contamination risks in source waters, including recognition in key regulatory documents, such as water safety plans, District and Regional plans. Regions with high levels of intensive land use (agricultural and urban), are likely to be most impacted by the potential imposition of source water risk management zones.
124. The proposal is to amend the existing National Environmental Standard (for drinking water) to expand the scope of the regulations and introduce new requirements on regional councils and territorial authorities, through amendments to provisions in the Health Act. The Minister for the Environment will make final decisions on the proposed new national environmental standard, once satisfied that all the requirements of the RMA have been met. The proposal will also introduce new duties and obligations on water suppliers, regional councils and territorial authorities through the Water Services Bill and impacts are likely to include:
- Administrative costs, although these should be largely marginal
 - Requirement for Drinking Water suppliers to assess risks and monitor their source waters

- Potential requirement for territorial authorities and regional councils to review and update district plans, and monitor activities in drinking water catchments
- Potential restriction on certain types of land use in source water risk management areas, which could impose costs on affected land owners that will vary in magnitude depending on the specific circumstance

125. Ensuring that the risks to source waters are being managed appropriately by water suppliers and councils, will also provide mechanisms for water suppliers to partner with local authorities, industry, and community/iwi groups on wider source protection initiatives (non-regulatory)

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|---|--|--|--|---|--|--|
| <i>Preferred option</i> <i>Requirement (through revised NES for drinking water) and new obligations in the Health Act, that regional councils, territorial authorities and water suppliers work together to assess and manage risks to source waters</i> | ++ NES will contribute to implementation of the NPS for Freshwater management. The NPS which requires the consideration and recognition of Te Mana o te Wai in freshwater management | ++ Strengthen focus of responsible agencies to ensure drinking water is safe | ++ Strengthen focus on identifying risks | ++ Identification (and recording) of source water risk management areas Clear identification of roles and responsibilities | ++ Provide certainty about obligations | Engagement with water suppliers and regional councils in 2018 as part of the Review of the Drinking Water NES indicated broad support for stronger central direction regarding managing risks to source waters |

| | | | | | | |
|---|---|--|------------------------------|---|---|--|
| Alternative options <i>Developing better national guidance and support to water suppliers and local authorities to implement existing regulatory requirements</i> | - Can recognise but compliance voluntary | -- Inconsistent levels of protection will persist | - Compliance is voluntary | - | -- Existing arrangements do not provide adequate levels of consistency | |
|---|---|--|------------------------------|---|---|--|

Multi-barrier approach to drinking water safety

126. All drinking water suppliers will be required to apply residual treatment to their drinking water unless they have an exemption from the central regulator. Mandatory treatment was recommended by the Havelock North Inquiry, to manage the risk of contamination, and provide assurance that drinking water is safe to drink. The Inquiry estimated that nearly 600,000 people receive drinking water from supplies that are not routinely disinfected.
127. Where supplier wishes to provide unchlorinated water, they can request an exemption. We have not estimated costs of applying for an exemption as they will be case specific, but we note that the use of disinfectant (chlorine) is generally a cheaper approach to safety

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|-------------------------|---|--|--|--|--------------------------------------|---|
| Preferred option | - Undermines iwi/hapu decision making | ++ Improve safety of drinking water | ++ Key element of multi-barrier approach | 0 | + | Some small suppliers (e.g. community schemes) oppose mandatory chlorination on the grounds of cost and taste. |

| | | | | | | |
|---|---|-----------------------------------|-----------------------------------|---|---|---|
| Require residual treatment of drinking water, and distribution with ability for the regulator to exempt suppliers from requirements | | | | | Provides certainty but does impose costs for alternatives | Most others, including those with water expertise, are of the view that chlorination is the best and most practicable way to ensure drinking water safety through any reticulated system. Some concerns, again on the part of small suppliers, at how this might work for them – what would they have to do to gain such an exemption? |
| Alternative option An enhanced status quo, where communities are required to choose to treat their drinking water | + | – | --- | 0 | 0 | The need for an exemption clause was widely queried although a vocal minority supported this. An exemption could lead to undue complexity and administration costs. |
| | Recognises tino rangatiratanga by allowing communities to make their own decisions about chlorination | Inadequate consideration of risks | Inadequate consideration of risks | | | |

A stronger centralised approach to compliance, monitoring and enforcement

128. This proposal will impact on all drinking water suppliers except domestic self-suppliers. However, a strengthened compliance, monitoring and enforcement (CME) approach, supported by central located regulator is regarded as critical factor to ensure that regulatory requirements are implemented, and communities can have assurance that those supplying their drinking water, will ensure that it is safe to drink.
129. The costs and impacts of a stronger CME approach on individual suppliers will be on a case by case basis, but the overall impact on the sector will depend on transition timeframes, and how suppliers will be supported to comply. Although all suppliers will be expected to meet their regulatory obligations when the regulatory regime is brought into force, implementation of the new regime will occur over three stages.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|---|--|--|--|---|--|---|
| Preferred option <i>Provide the regulator with a broad range of compliance, monitoring and enforcement tools and roles</i> | 0 Risk that strong enforcement of Māori-owned supplies could damage Crown-Māori relationship | ++ Strengthening CME practice will improve protection and outcomes for the consumers of drinking water | ++ Strengthening CME practice will ensure those responsible for ensuring that risks are managed can be held to account | ++ Strengthening CME practice will significantly improve accountability | ++ Certainty for regulated parties, and consistent application of regime | Concern expressed about the lack of capability in the water industry and lack of young people coming through and need for training and education. Frustration expressed over current practice, and inability to enforce requirements. Some discussion over "liability" and where this might lie. |
| Alternative options <i>An enhanced status quo, where compliance, monitoring and enforcement powers are improved but continue to be regulated by existing regional regulators (DHBs)</i> | 0 Risk equally applies to status quo, although impact could be localised | - Limited ability for the Ministry of Health to direct or require DHBs to employ more drinking water assessors or prioritise their work. | - Limited ability for the Ministry of Health to direct or require DHBs to employ more drinking water assessors or prioritise their work. | - Less independence Risk of inconsistent regional approaches | -- Risk of inconsistent regional approaches, increased uncertainty for regulated parties | General agreement that for compliance to be meaningful there had to be effective monitoring. And that any new enforcement regime has to "have teeth". |

Introduce accreditation and licencing schemes for drinking water suppliers

130. With many suppliers of different size, capability and risk profile, a flexible approach is required to ensure that compliance and enforcement is proportionate to the capability and characteristics of the supplier. To support that focus on capability we are proposing that the regulator be able to licence or accredit certain people who are involved in water supply operations. This would provide a means of reinforcing accountability for key roles and ensure that people in those roles have the necessary skills and experience to perform those roles.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|--|---|--|--|--|---|---------------------|
| Preferred option <i>Enable the regulator to develop and implementing a scheme for accreditation, certification or licencing for water suppliers and or key staff</i> | 0 | ++ Increase suppliers/provider to build capability | ++ Increase suppliers/provider to build capability | + Anticipated that accredited & licenced suppliers will need to have improved reporting processes | ++ Proportionate to the capability and characteristics of the supplier | No specific comment |
| Alternative option <i>The regulator directly regulates every supplier.</i> | 0 | - Overreliance on regulator | -- Overreliance on regulator | - Require significant resource from regulator | -- Requires a large regulator, and limits incentives for suppliers to invest in capability | |

Addressing supplier failure

131. There may be circumstances when enforcement actions and penalties are ineffective or inappropriate for dealing with persistent or serious cases of non-compliance, or poor performance by a drinking water supplier. Without the ability to act to address poor performance, communities could continue to be exposed to unsafe drinking water supply, with limited ability for central agencies to intervene.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|--|---|--|--|---|---|---------------------|
| Preferred option <i>Provide regulator with the ability to intervene when suppliers persistently fail to meet their obligations</i> | 0 | ++ Addresses supplier failure to meet these outcomes | ++ Addresses supplier failure to meet these outcomes | ++ Significant improvement in accountability | ++ Regulator has ability to address poor performance | No specific comment |
| Alternative option <i>Status quo</i> | 0 | -- Supplier failure cannot be addressed | -- Supplier failure cannot be addressed | -- Supplier failure cannot be addressed | -- Regulator has ability to address poor performance | |

Part B: Improving the regulation and performance of wastewater and stormwater systems*National standard for wastewater discharges*

132. This proposal will impact on local government. If it is adopted, regional councils who currently regulate discharges from wastewater treatment system will need to ensure that their regulatory processes will comply with the national standards. Territorial authorities, who currently operate wastewater treatment system will need to meet the national standard when applying for resource consent. Regional councils will continue to administer resource consent processes.

133. The impacts are highly dependent on the scope of the national standard. However, even without the imposition of a discharge standard, wastewater systems, and their discharges are being upgraded as higher standards are being applied through resource consent processes. The development of and the decision whether to adopt a national standard will be subject to the requirements of the Resource Management Act 1991 and will be considered in the context of the Essential Freshwater programme. The costs for Central government to develop and consult on the NES and undertake the science and technical work to develop national standards is estimated at \$500,000.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|--|---|---|---|---|--------------------------------------|-------------------|
| Preferred option <i>Progress work on NES for the treatment of wastewater discharges and management of wastewater overflows</i> | ++ Upholding Mana o te Wai is a key principle of the NPS for freshwater management. | ++ The NES must improve environmental outcomes, or it will not be adopted | ++ Risk is a key consideration in the RMA, for the development of NES | ++ NES will provide an opportunity to create national compliance regime to enforce accountability | ++ | See below |
| Alternative options <i>Issuing national guidance on criteria and methods and/or establishing an independent wastewater and stormwater technical advisory panel</i> | + Could include but compliance voluntary | + Uptake is voluntary, but many plants require consents, so standards are improving | + | 0 No change to status quo | + | See below |

Stakeholder Views

- There is some support for standardisation either at the discharge level or in terms of standardisation of consent conditions and templates, that could help lower costs and reduce timeframes of consenting WWTP. The latter approach appears to be favoured among service providers.
- There is also a view that a new national standard for wastewater discharge may not improve environmental outcomes at a catchment level because of the more significant impact of agricultural discharges. Some think introducing a national standard could promote a “race to the bottom” attitude, and operators would do the minimum required.
- Some attendees questioned how a standard would work alongside the effects-based approach of the RMA and that national standards would need to have enough flexibility to reflect local, community and catchment-based solutions.
- Others feel that the current system does not allow dischargers to be held to account – national standards could help rectify this: regulation could drive performance up.
- There is a concern over how costs for any new standards regime might be met, and whether it would create unnecessary costs to upgrade treatment plans in some cases.
- Some noted the opportunity to reflect mātauranga Māori and other community values

Response

- The issues raised will be considered in more detail, as proposal is developed alongside the Essential Freshwater programme for further consideration

Risk management obligations

134. This proposal will impact on Territorial Authorities, who currently own operate wastewater and stormwater system, and road controlling authorities like New Zealand Transport Authorities who manage stormwater runoff from road infrastructure. Most wastewater and stormwater networks should have an appropriate management regime in place to minimise risks to people, property and the environment, so this obligation is expected to impose low-moderate costs for technical work to prepare wastewater risk management plans and for collecting additional monitoring data.
135. The approach is like Water Safety Plans, and costs of preparation are similar. There are potential cost savings from identification of more efficient approaches for managing risks to public health and environment, and this approach will provide assurance to central government that risks are being managed appropriately by wastewater and stormwater operators
136. However, there is potential overlap with existing reporting asset management plan requirements, and resource consent conditions, and further work is required to support the application of best practice and risk management. This proposal will be progressed alongside the Essential Freshwater Programme.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|---|---|--|--|--|---|--|
| Preferred option <i>Consult on new obligations on wastewater and stormwater network operators to manage risks to people, property, and the environment</i> | ++ Risk management Plans will require Maori interests to be considered, and provide an opportunity for Iwi/hapu to engage in development of RMP | ++ Greater visibility of Wastewater operations. Key objective of RMP is to identify and manage current and future risks to the environment | ++ Key objective of RMP is to identify and manage current and future risks | ++ RMP will be public information, with clear accountabilities for its development | ++ Greater certainty around obligations | Some see value in risk management plans, but participants are cautious about potential overlap with existing reporting asset management plan requirements, and resource consent decisions. |
| Alternative options <i>Establishing an independent wastewater and stormwater technical advisory panel that provides technical advice to councils and applicants</i> | + Guidance, so compliance voluntary but could be included in resource consents | + Some existing resource consent conditions require risk management requirements/plans but regional approaches are inconsistent | + Some resource includes risk management requirements/plans as a requirement, but regional approaches are inconsistent | + Some examples but inconsistent regional approaches to CME, and reporting | 0 Regulation continue to be done by | |

Reporting on nationally prescribed metrics

137. Nationally, the approaches to monitoring and reporting are inconsistent. This proposal will require wastewater and stormwater network operators to report annually on a set of nationally-prescribed environmental performance metrics, that would be collected, analysed, and reported publicly by a central regulatory agency.

138. However, monitoring for greater transparency may increase costs to some local authorities (particularly in transitioning to a new data collection/reporting method), although it is expected that most information will already be available. It is proposed that a technical advisory group (TAG) be convened to identify the most effective metrics and efficient way of collecting the information.
139. It is expected that the costs for the regulator will be absorbed within core functions but will include procurement of technical advice to develop the metrics and metadata standards, and ongoing costs associate with data validation, auditing and maintaining IT infrastructure and customer interface. However, there will be benefits for Regional councils who will have access to additional information for monitoring performance and compliance tools for managing performance issues.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder views |
|---|---|--|--|--|---|--|
| Preferred option <i>Reporting on nationally-prescribed performance metrics</i> | + National reporting could include Maturanga Maori values and indicators | ++ Reporting will allow for national oversight of environmental risks to support intervention | ++ Reporting will allow for national oversight of key risks | ++ Will address current lack of consistent information, and more likely to result in development of long-term measure | ++ Certainty about reporting requirements, and TAG process opportunities to remove overlaps to reduce overall burden | Monitoring for greater transparency is expensive – need to be careful in choosing metrics and involve practitioners. A dedicated body would be required to analyse data. Performance metrics are not useful unless they are integrated into regulatory requirements. |
| Alternative options <i>Requirements under Direction from the Min of Environment</i> | 0 | + | + | + Requirements may change with different government focus | + Requirements may change with different government focus | Auditing needs to inform a national process (e.g. National Environmental Standards developments) |

Part C: Establishing a centrally located regulator*Establish a centrally located regulator*

140. This proposal will impact on all drinking water suppliers (apart from domestic self-suppliers), accredited suppliers, wastewater and stormwater operators. The new regulator is a key element of the proposed regulatory reform and will aid and support suppliers and operators.
141. At this stage additional costs will depend on analysis regarding its form, confirmation of functions and capability requirements, and whether it will be new entity or become part of existing entity/regulator. However, there are already costs associated with current compliance, monitoring, and enforcement (CME) system. The extent of monetary impact would be mainly associated with the regulator employing additional people to undertake a wider range of CME functions, developing the necessary expertise to deliver the proposed new functions, commissioning scientific and technical work to inform the development of new and enhanced regulatory functions, and developing and maintaining information management systems.

| Options | Contributes to upholding Te Mana o te Wai | Improves public health, wellbeing and environmental outcomes | Improves management of risks to people, property and the environment | Improves transparency and accountability | Regulatory system is fit for purpose | Stakeholder Views |
|---|---|--|--|---|---|---|
| Preferred option <i>Establish a centrally-located regulator</i> | + Has capacity and capability to incorporate mātauranga Māori, and tikanga processes to work productively with iwi and hapū. However, it could be difficult for a centralised regulator to develop meaningful relationships with individual iwi and hapū. | ++ The roles and functions of the regulator will support improvements | ++ The regulator will need to take a risk-based approach to carry out its functions | ++ Reporting and compliance are key functions of the regulator | ++ Will provide significant capability and capacity to support regulated parties, monitor the performance of the regulatory system, and enforce compliance | General agreement that compliance, monitoring and enforcement should lie with a central regulator. Expressed the need for a central regulator to be a non-aligned, independent body. |

| | | | | | | |
|---|---|--|--|--|--|--|
| Alternative options <i>Increase funding resources and bring the regulatory responsibilities that have been delegated to DHB back into the MOH to rebuild capacity and capability with the Ministry.</i> | <p>—</p> <p>Similar issues to central regulator but would have to rebuild from existing relationships.</p> | <p>— —</p> <p>Would only focus on drinking water</p> | <p>— —</p> <p>Would only focus on drinking water</p> | <p>— —</p> <p>Would only focus on drinking water</p> | <p>— —</p> <p>Miss opportunity to take a three waters/system approach, and provide a single regulatory body for regulated parties to engage with</p> | <p>Regulator will need to have capability to work with all communities, including iwi/Māori. Some Māori have said iwi/hapū/whanau should play a role in monitoring of waterways and source protection.</p> <p>General support for enforcement to be managed by regulator but it will need to have significant resources.</p> |
| Alternative options <i>Establish regionally based regulators</i> | <p>—</p> <p>Some hapū and iwi have positive relationships with regional/local authorities around the three waters. Others have dysfunctional relationships which make co-operation difficult.</p> | <p>—</p> <p>Likely to have to focus on drinking water only</p> | <p>—</p> <p>Likely to have to focus on drinking water only</p> | <p>—</p> <p>Risk continue to have regional variations and approaches</p> | <p>— —</p> <p>Would replicate existing regional structures, and create significant risk of multiple regulators</p> | |

Section 5: Conclusions and recommendations

142. The three waters are critical for the health and wellbeing of New Zealand. The Havelock North contamination event in 2016 drew the nation's attention to the risks and issues facing our drinking water regulatory and service delivery systems. However, even if this event had not occurred, there is still a very strong case for improvement. Every year, at least 34,000 people become ill from their drinking water, and many thousands must boil their water to drink it safely.
143. There are also issues with the current regulatory arrangements for wastewater and stormwater systems. Inconsistent regulatory approaches, the increasing complexity of consenting process, and the growing number of wastewater plants operating on expired consents is undermining our confidence that the current regulatory system is able to consistently deliver outcomes that are acceptable for communities, iwi/Māori, and the environment.
144. There are also significant disparities between communities, in terms of the safety, reliability and cost of their drinking water, and the environmental outcomes they experience. Māori are particularly over-represented in communities that receive poor quality or no three waters services.
145. Te Mana o te Wai is the key part of an integrated, holistic water management system, but it is not clear that Te Mana o te Wai is always being considered by the regulatory system. The more we can do to uphold Te Mana o te Wai and to reflect Māori interests in the three waters proposals, the better positioned both Maori and the Crown will be when it comes to discussing Māori rights and interests in the Essential Freshwater programme. This will enhance the Māori-Crown relationship.
146. The Government has committed to reform the three waters regulatory system to address these issues. This Regulatory Impact Assessment provides an analysis of the options and alternatives to improve three waters outcomes and address the significant and interrelated problems with the existing regulatory system.
147. Our assessment is the options will deliver meaningful change and improvements to the regulatory system, in a manner that achievable for the sector. Key features of the proposals that give us that confidence are:
- The establishment of Central Regulator, who will focus on three waters system and has as their key functions assistance and support to the sector
 - The phased approach to the implementation of the regime, and flexibility to apply risk-based approaches to how water suppliers comply with the new regime
148. Some of the proposals for the wastewater and stormwater will require further detailed work in the context of the Essential Freshwater programme to ensure that they support the Government's overall objectives for freshwater.

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149. We have engaged extensively with a wide range of stakeholders to develop the proposals. There has been strong support for reform of the drinking water regulation, although some have concerns about affordability. A mixed reaction to wastewater and stormwater proposals has confirmed that our approach to progress work on the national standard for wastewater discharges alongside the Essential Freshwater programme is the right one.
150. This regulatory reform may highlight the existing funding and affordability challenges that the providers of three waters services face. It is recognised that they will be challenging for some suppliers to comply with their obligations, particularly small suppliers and those suppliers that are being brought into the regulatory system for the first time. Further detailed advice on the most practicable approach to the phasing of implementation for those suppliers will be provided to Ministers in August.
151. The reforms are also part of a broader, longer-term strategy to improve the three waters system. Proposals for service delivery and funding arrangements, will be considered by Cabinet in late in 2019. This timeframe has been set to enable Ministers to consider service delivery and funding proposals in the context of the financial implications that arise from the regulatory proposals.
152. In conclusion, we believe that the cumulative impact of these proposal will result in significant improvement in the safety of water, and progress toward ensuring that wastewater and stormwater deliver acceptable environmental outcomes.

Summary table of costs and benefits of the preferred approach

153. The following tables summarise the costs and benefits of the preferred options. A separate summary of costs and benefits have been prepared for the drinking water proposals, the wastewater and stormwater proposals, and the establishment of the central regulator.

Part A: Reforms to the regulation of drinking water and source water

Estimate of costs

154. An estimate of the national cost to comply with the drinking water standards has been developed by Beca Limited, based on estimates undertaken in 2018 for the Department of Internal Affairs¹⁹.
155. The cost estimate includes the costs directly associated with achieving compliance with the drinking water standards. Any costs associated with capacity increases, infrastructure not associated with compliance e.g. access roads, improving resilience or redundancy or improving raw water quality are not included.
156. For the purposes of this analysis it is assumed that impact of strengthened Drinking Water NES will be that the quality of drinking water sources will not decline over time.

¹⁹ [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-Waters-Review-Cabinet-papers-April-2018/\\$file/Beca-report-Cost-Estimates-for-Upgrading-Water-Treatment-Plants.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-Waters-Review-Cabinet-papers-April-2018/$file/Beca-report-Cost-Estimates-for-Upgrading-Water-Treatment-Plants.pdf)

157. There is significant uncertainty around the evidence base for the existing capability and capacity of suppliers, and their current levels of compliance with drinking water standards. As the size of drinking water suppliers decreases, so does the evidence certainty.
158. When and how, the regulatory requirements will apply to those small suppliers, particularly network suppliers that supply water to less than 25 people is also uncertain. Further detailed advice on the most practicable approach to the phasing of implementation for small suppliers (both networked and self-suppliers) will be provided to Ministers in August.

Larger suppliers – estimate of capital and operating expenditure

159. There is more certainty in respect to regulatory requirements for Council suppliers and non-council suppliers that supply drinking water to more than 500 people. Although, they will be expected to comply with requirements when strengthened regime starts, it is only in the third year that the regulator will be actively monitoring the performance of those suppliers and be taking enforcement action where appropriate.
160. Our assumption is that because those large council suppliers are currently regulated (and have relatively high rates of compliance), they will have included the cost of this within their Long-Term Plans, albeit that some of the planned expenditure may have to be brought forward to enable them to comply within the third year.
161. We think that non-council suppliers that supply greater than 500 people (who are currently not part of the regulatory regime) may not have made the same provision. Including network suppliers, we estimate they will likely have \$15.3 to \$24.1 million capital expenditure and an ongoing increase in operating expenditure of \$0.4 to \$0.6 million to meet these requirements. Additional capital and operating costs for Council suppliers are higher, reflecting their greater scale. This is described in the table below.

| Group | Size | Type of supplier | Total number of schemes | Total population served | Number of non-compliant schemes | Number of people affected by non-compliance | Capex (million) | Opex (million) |
|-------------------------|---------------------------|------------------|-------------------------|-------------------------|---------------------------------|---|-------------------|----------------|
| Networked supplies | Greater than 500 people | Council | 357 | 3,737,354 | 161 | 739,669 | \$212 | \$5 |
| | | Non-council | 14 | 29,900 | 9 | 12,600 | \$5 | \$0.1 |
| | Between 25 and 500 people | Council | 212 | 42,717 | 163 | 33,095 | \$50 | \$2.4 |
| Specified self-supplies | Greater than 500 people | All | 20 | 41,000 | 12 | 24,190 | \$10.3 – \$19.1 | \$0.3 – \$0.5 |
| Total | Council | | 569 | 3,780,071 | 324 | 772,764 | \$262 | \$7.4 |
| | Non-council | | 34 | 70,900 | 21 | 36,790 | \$15.3 – \$24.1 | \$0.4 – \$0.6 |
| | Total | | 603 | 3,850,971 | 345 | 809,554 | \$277.3 – \$286.1 | \$7.8 – \$8 |

Smaller Suppliers – estimate of capital and operating expenditure

162. The number of people affected and the cost to meet the drinking water standards of non-council suppliers that supply to less than 500 people, particularly those that supply less than 25 people, are much more difficult to estimate. Further advice will be provided to Ministers on the most practical approach including these suppliers into the regulatory system in August.
163. We have assumed that it is likely that the regulator will allow these suppliers more time to meet the regulatory requirements, and that any requirements will be proportionate to their size and the level of risk. This means there is considerable uncertainty around our estimates of costs.
164. Our estimate of the number of people affected by non-compliance with the drinking water standards, who receive their drinking water from these smaller suppliers ranges from 88 to 174 thousand people. The capital expenditure to meet the drinking water standards ranges from \$153.7 - \$409.4 million and the operating expenditure from \$24 - \$109.6 million.

| Group | Population band | Type of supplier | Total number of schemes | Total population served | Number of non-compliant schemes | Number of people affected by non-compliance | Capex (million) | Opex (million) |
|-------------------------|---------------------------|------------------|-------------------------|-------------------------|---------------------------------|---|-------------------|----------------|
| Networked supplies | Between 25 and 500 people | Non-council | 211 | 22,430 | 159 | 16,756 | \$47 | \$2.6 |
| | Fewer than 25 people | All | 1,130 – 5,650 | 22,600 – 113,000 | 1,070 – 5,370 | 21,500 – 107,400 | \$36 - \$231 | \$15 – \$95 |
| Specified self-supplies | Between 25 and 500 people | All | 772 | 83,255 | 452 | 48,318 | \$68.8 - \$127.8 | \$5.6 – 10.5 |
| | Fewer than 25 people | All | 129 | 2,580 | 82 | 1,648 | \$1.9 - 3.6 | \$0.8 - \$1.5 |
| Total | | | 2,242-6,782 | 130,865-221,265 | 1,759-6,059 | 88,222-174,122 | \$153.7 - \$409.4 | \$24 - \$109.6 |

165. The number of people serviced has a significant impact on the proportionate costs of compliance. Costs rise significantly for smaller suppliers, particularly network suppliers under 25 people. There are over one thousand water suppliers in this group, who provide drinking water to just under 21,500 people. It is likely that many would not currently meet the drinking water standards, and many of those suppliers start from a low base, with poor infrastructure and inadequate processes to manage the safety drinking water supply.

166. Central Government Agencies who will be impacted include, the Minister of Education, the Ministry of Defence, the Department of Corrections, and the Department of Conservation. Like other drinking water suppliers there is significant variability in size of individual drinking water supplies, so for the purposes of this analysis they have been included in the overall costs.
167. The costs of strengthening the regulation of source waters have not been monetised. The magnitude of potential impacts on implementing source water risk management areas on land users was estimated by Aqualinc in 2018²⁰. Their modelled data indicated that the impacts will vary for each region depending on the environmental characteristics of the catchment or aquifer used for drinking water supply, the nature of existing land-use activities, and the policies and rules contained in each council's regional plans. More detailed analysis of costs and benefits will be undertaken once the specific details of the amendments to the Drinking Water NES have been agreed by Cabinet.

Estimate of Benefits

168. The primary benefit of the proposed reform is the reduction in illness caused by contaminated drinking water. The majority of New Zealand's waterborne disease burden is from underlying, sporadic waterborne illness, but the rates of illness are under reported, and actual levels are difficult to estimate. Campylobacter is the most common illness caused by contaminated drinking water. The number of notified cases case is understood to be far lower than the actual number of cases because most people who contract the disease will treat themselves at home.
169. The Havelock North Inquiry noted that while Ministry of Health in 2007 estimated the overall burden of sporadic or underlying drinking water-borne gastrointestinal disease at 18,000 to 34,000 cases per year²¹. The Inquiry heard evidence that a figure of 100,000 cases plus per year was more likely to be accurate, particularly when small private supplies are included. This underlines the uncertainty around the evidence base.
170. In 2010, the Ministry of Health commissioned Law and Economics Consulting Group (LEGC)²² to undertake a cost benefit analysis of requiring compliance with bacterial and protozoal standards from DWSNZ for network suppliers, supplying water to more than 25 people²³. The failure to meet those standards is the largest driver of illness from drinking water in NZ.

²⁰ Aqualinc Research Ltd, 2018, Water Source Protection Zones: Delineation methodology and potential impacts of national implementation, Report prepared for the Ministry for the Environment.

²¹ A Ball "Estimation of the Burden of Waterborne Disease in New Zealand: Preliminary report" (ESR, 2007); Drinking-water Guidelines at [1.1.3

²² https://www.health.govt.nz/system/files/documents/publications/cba-raising-quality-of-networked-drinking-water-jun2010_0.pdf

²³ This includes large, medium, minor, small

171. The LEGC estimated²⁴ that, nationally, if all suppliers larger than very small suppliers were required to comply with the DWSNZ there would be benefits of \$496 million over 40 years (\$12.5 million per year).²⁵ The Havelock North Inquiry used the LEGC work to estimate the costs of illness caused by unsafe drinking water to be in the order of between \$12.5 million and \$23.7 million per year.
172. A strengthened regulatory system will also help to prevent outbreaks of illness, which are unusual but severe in their impact. In practice, these costs can occur within a wide range. Work commissioned by Ministry of Health estimated that the cost of 413 cases of campylobacter in a South Island township²⁶ fell within a range of \$ 308,592- \$ 536,401. In Havelock North, where 5500 people were ill, and four people died, cost was estimated to be around \$21 million. This included costs relating to household inconvenience due to having to boil water, buy bottled water and take time off normal activities during the outbreak.²⁷
173. There is also intangible benefit of the value to New Zealand's international "Pure New Zealand" image of being perceived to have clean safe drinking water. If an outbreak were of enough size or severity, particularly if it affected one of New Zealand's tourism "hotspots", that might affect future tourism activity. The value of the 100% Pure New Zealand Brand was estimated in 2005 at US\$13.6 billion by InterBrand.²⁸ However, the nature of outbreaks means that it difficult to estimate the potential frequency of those events, their magnitude, and therefore the potential costs and benefits.

| Affected parties (identify) | Comment: nature of cost or benefit (eg ongoing, one-off), evidence and assumption (eg compliance rates), risks | Impact \$m present value, for monetised impacts; high, medium or low for non-monetised impacts | Evidence certainty (High, medium or low) |
|--------------------------------|--|---|---|
|--------------------------------|--|---|---|

Additional costs of proposed approach compared to taking no action

²⁴ Their approach to develop this estimate was to:

- estimate the change in the incidence of disease that would result from drinking water supplies complying with DWSNZ and then,
- estimate the avoided cost of illness to society. This can include, health care and medical costs, travel costs to access healthcare, loss of productive time, those that experience illness, and lost productive time for caregivers.

²⁵ https://www.health.govt.nz/system/files/documents/publications/cba-raising-quality-of-networked-drinking-water-jun2010_0.pdf

Table 1: estimated cost of healthcare and lost productivity to NZ over 40 years due to non-compliance of networked supplies with the Standards

Note an 8% discount rate was applied

²⁶ The name of the township was anonymised for privacy reasons

²⁷ Moore D, Drew R, Davies P and Rippon R. August 2017. The Economic Costs of the Havelock North August 2016 Waterborne Disease Outbreak. Wellington: Sapere Research Group Ltd

²⁸ https://www.health.govt.nz/system/files/documents/publications/cba-raising-quality-of-networked-drinking-water-jun2010_0.pdf

| | | | |
|-----------------------------|---|--|--------------------------|
| Regulated parties | <p>Estimated cost includes the costs of complying with the drinking water Standard for;</p> <ul style="list-style-type: none"> Drinking water suppliers who supply water to more than 500 people Drinking water suppliers to less than 500 people <p>Our expectation is that Council suppliers would debt fund the capital costs, however debt funding arrangement between Council and non-council supplies would differ considerably, therefore we have not attempted to calculate annual loan repayments for the capex.</p> | <p>Capex \$277.3 - \$286.1 Opex \$7.8 - \$8</p> <p>Capex \$153.7 - \$409.4 Opex \$24 - \$109.6</p> | <p>Medium</p> <p>Low</p> |
| Regulators | <p>Estimated cost of establishing and operating the central regulator</p> <p>Subject to further decision in August</p> | \$ 15 to 40 m | Low |
| Wider government | Cost of stewardship of the system | Low | Medium |
| Other parties | Potentially increased costs for consumers of drinking water services. Potential shift from small networked supplies to domestic self-supply. This may shift costs to individual households. | Low-medium | Low |
| Total Monetised Cost | Includes total costs for drinking water suppliers to comply with regime, and highest cost (\$ 40 m) of regulator (opex) | Capex \$ 431-695.5 Opex \$ 71.8- 147.6 | Low-Medium |
| Non-monetised costs | Includes stewardship, a potential shift from small networked supplies to domestic self-supply | Low-medium | Low |

Expected benefits of proposed approach, compared to taking no action

| | | | |
|-------------------|--|------------------|--------|
| Regulated parties | Certainty around requirements, improved services to consumers | Medium | High |
| Regulators | n/a | n/a | n/a |
| Wider government | Central government will have assurance that drinking water is safe | High | medium |
| Other parties | Avoided costs of reduced incidence of illness from drinking water | \$12.5 to 23.7 m | Low |

| | | | |
|--------------------------------|---|-------------------|--------|
| Total Monetised Benefit | Includes the avoided costs of illness caused by unsafe drinking water Does not include the avoided costs of preventing outbreaks (e.g. Havelock North outbreak cost \$21 m) | \$ 12.5 to 23.7 m | Medium |
| Non-monetised benefits | Improvement in Wellbeing – improved quality of life and life expectancy International reputation and Tourism- a key element of New Zealand's tourism offering/attraction is our clean green brand. National confidence in water infrastructure Addressing inequality of access | High | Low |

Part B: Improving the regulation and performance of wastewater and stormwater systems

174. As noted above, proposals for a national standard, and new obligation for wastewater and stormwater operators to manage risks, will be implemented in the context of the Essential Freshwater Programme. This regulatory impact assessment has not estimated the costs and benefits of those proposals.
175. This is because, what is included with the scope of national standard e.g. discharge standard, standardised consent conditions and the obligations for wastewater and stormwater operators, has yet to be determined. This work will be undertaken in tandem with the Essential Freshwater Programme, which will carry out detailed evaluation of cost and benefits to support the Minister for the Environment, who will make the final decisions on adoption of the proposals, in accordance with the Resource Management Act 1991, following a formal consultation process.
176. However, Ministers are being asked to agree to require wastewater and stormwater operators to report annually on nationally prescribed environmental performance metrics. It is proposed to form a technical advisory group to provide advice on what data should be collected, with part of function of that group to identify how reporting requirements can be aligned (or replace) existing reporting requirements²⁹.
177. This makes the additional costs of reporting challenging to estimate, as they will depend what data is collected, and the consistency with existing reporting requirements. Both requirements will impose costs on the regulator, but it assumed that these costs will largely be absorbed within core functions.

²⁹ Including Local Government Mandatory Performance Measures, and The Environmental Reporting Act 2015

178. To provide a comparator to estimate potential costs, we have we worked with Water New Zealand, who undertake an annual, "National Performance Review."³⁰ Water New Zealand estimate that the review costs approximately \$250,000 / per annum to operate, which includes staff time, and the procurement of external auditing. We think there are likely to be some efficiencies for the central regulators that will mean that once they are past the initial start up phase, will result in some costs savings. Accordingly, we have estimated costs to regulator to fall with a range from \$150,000 to \$ 300,000.
179. The costs of reporting will also fall on local authorities³¹, and the New Zealand Transport Agency (as a stormwater network operator). We assume that multiple personal within Councils may need to participate in preparing material to meet reporting requirements. To take that into account we have estimated an overall cost based on 10- 15 days of staff time, calculated at a cost of \$465³²/per day, or overall costs of \$ 4650- \$7000/ per annum for each council.
180. We have not identified monetised benefits for the reporting. While reporting on performance will be critical for providing assurance that wastewater and stormwater, providing an estimate of the direct and wider benefits of reporting requires a range of assumptions that would mean that any quantification of benefits is unreliable.

| Affected parties (identify) | Comment: nature of cost or benefit (eg ongoing, one-off), evidence and assumption (eg compliance rates), risks | Impact \$m present value, for monetised impacts; high, medium or low for non-monetised impacts | Evidence certainty (High, medium or low) |
|--------------------------------|---|---|--|
|--------------------------------|---|---|--|

| Additional costs of proposed approach compared to taking no action | | | |
|--|---|--------------------------------|------------|
| Regulated parties | Cost of collecting the required data and providing it to the centrally located regulator. Based on costs for 78 councils at \$2000- \$ 4000 per annum | \$ 150,000- 300, 000 per annum | Low-medium |
| Regulators | Based on cost of Water New Zealand preparation of the National Performance review. Estimate for 67 territorial authorities, and the New Zealand Transport Agency | \$325,000- 490,000 per annum | Low-medium |

³⁰ Not all Council's participate in the review, in the 2017-18 review, only 46 Councils, and two Council Controlled Organisations (of the 78 local, regional and unitary councils) participated in the 2017-18 review.

³¹ There are 67 Territorial Authorities.

³² Based on estimated annual salary of \$120,000 per annum

| | | | |
|-----------------------------|--|--------------------------------|------|
| | <p>This expected to be combined with central regulators other reporting functions, so costs will be marginal addition to operating costs of the regulator.</p> <p>However, there will be some initial upfront costs to procure technical advice to develop metric and metadata standards</p> | | |
| Wider government | Cost are expected to be marginal, and only related to receiving report from the regulator as part of stewardship function | Low | High |
| Other parties | No specific costs expected | n/a | n/a |
| Total Monetised Cost | This includes the costs to Councils (wastewater and stormwater operators) and the central regulator | \$ 475,000 – 790,000 per annum | Low |
| Non-monetised costs | <p>Low Impact</p> <p>The proposed reporting requirements will align with existing reporting requirements within the Local Government Act and Resource Management Act.</p> | Low | Low |

Expected benefits of proposed approach, compared to taking no action

| | | | |
|-------------------|--|--------|-----|
| Regulated parties | Potentially this will remove some duplication with other reporting requirements, but there will be more consistency in reporting requirements | Medium | Low |
| Regulators | This will address lack of transparency around the performance of wastewater and stormwater systems to provide assurance that these systems are achieving environmental outcomes | High | Low |
| Wider government | <p>Provide assurance that wastewater and stormwater systems are achieving environmental outcomes</p> <p>Will provide evidence to support policy and regulatory development processes</p> | High | Low |
| Other parties | <p>Greater public transparency on the performance of wastewater and stormwater systems</p> <p>Greater standardisation will support transfer of knowledge</p> | Medium | Low |

| | | | |
|--------------------------------|--|--------|--------|
| Total Monetised Benefit | Has not been estimated | Low | Medium |
| Non-monetised benefits | Medium Impact Will support to central government stewardship functions and provide more consistent information to evaluate the performance of the three waters sector, against expected outcomes. | Medium | Medium |

Part C: Establishing a centrally located regulator

181. This regulatory impact statement has not analysed the costs and benefits of establishing a centrally located regulator. This is because, while Ministers are being asked to agree to establish a centrally located regulator, this decision is subject to Ministers considering detailed proposals August.
182. A business case is being prepared to support decisions in August. The business case will consider the form of the regulator, the capability it will need to meet functions, and how it will deliver those functions. This business case will undertake an analysis of the potential costs of establishing the central regulator.
183. Until further detailed analysis is undertaken, there is significant uncertainty about factors which will have a significant bearing on cost. This includes decisions about:
- the form of the regulator
 - whether the regulatory functions are delivered by a new entity or by an existing entity
 - the capability and capacity of the regulator
 - service delivery arrangements, including the number of employees and the extent to which the regulator contracts services from third parties (eg technical science capability)
184. However, as part of options development, we have considered the high-level functions that the central regulator is likely to deliver and the capability and capacity it might need to deliver those functions. We also drew on the Havelock North Inquiry's analysis of the number of drinking water assessors that would be required to resource drinking water regulation³³ and then considered that against regulators who would have comparable functions, including:
- the Serious Fraud Office (50 FTEs)
 - the Financial Markets Authority (181 FTE)
185. For both organisations assessed above, we analysed the number of FTEs and the key costs of those organisations (including governance, shared services, personnel and other operating expenditure), and the average operating cost per FTE staff member.

³³ The Havelock North Inquiry estimated that 34 Drinking Water Assessors (DWA) were on the register of DWA at the time of the inquiry, but also heard evidence that up to 45 DWA were required.

186. Using those agencies as a benchmark, we have estimated a high-level range of \$15 million to \$40 million operating cost per annum.
187. The costs are full-year operating cost and exclude any capital costs (e.g. for projects) and exclude any operating or capital establishment costs (which will be highly dependent on machinery of government arrangements). The costs also exclude arrangements to deliver policy and stewardship functions, including any costs associated with a separate entity to deliver those functions.
188. This is very high-level cost estimate ahead of the detailed report back on regulator in August, which will include advice on cost and funding arrangements. The wide range reflects the level of uncertainty.

Proactively released by the Minister of Local Government

Section 6: Implementation and operation

189. The Three Waters Review has three key elements – the regulatory reform set out in the RIA, the establishment of a three waters regulator, and the proposals to address service delivery and funding arrangements.
190. In late 2019, the Minister of Local Government will report back to DEV on progress with the development of proposals for service delivery and funding arrangements. That work is exploring several options, as outlined to Cabinet in November 2018:
- proceed with regulatory reforms only, with voluntary sector-led reforms to service delivery arrangements;
 - establish a three waters fund to support voluntary service delivery improvements; and
 - create an aggregated system of dedicated, publicly-owned, drinking water and wastewater providers.
191. The development of proposals for service delivery and funding arrangements will be important to enable the improvements intended by this regulatory reform to progress. This work is intended to progress in parallel with the drafting of the Water Services Bill, and development of the National Environmental Standard for wastewater and stormwater discharges.

Legislating for the proposed regulatory regime

192. All the drinking water regulatory proposals will be implemented through a Water Services Bill. The Water Services Bill is included in this year's legislative programme and has a priority category 4.
193. Subject to Cabinet approval, the Ministers of/for Local Government, Health and Environment will issue drafting instructions to Parliamentary Counsel. Cabinet is also being asked to authorise the Ministers of/for Local Government, Health and Environment to approve any matters of detail consistent with policy that arise during drafting, including any consequential amendments to other legislation that may be required.
194. Cabinet has also been asked to agree that technical experts from the water sector, and iwi/Māori representatives, are consulted during drafting of the Bill.
195. Some of the regulatory proposals for wastewater and stormwater will be also be implemented through the Water Services Bill, specifically the:
- Requirements for wastewater and stormwater operators to report annually on a set of nationally-prescribed environmental performance metrics, and for that information to be collected, validated, analysed, and published by a central regulatory agency;
 - Enabling functions for the centrally located regulator, including:
 - a. Setting and publishing national expectations for local authorities regarding the compliance, monitoring and enforcement approaches

- b. Local authorities reporting to the regulator on compliance with consent conditions and the status of active and expired discharge consents, including the anticipated timeframes for consent renewal;
 - c. Identify and monitor emerging contaminants in drinking water, wastewater and stormwater, and to coordinate national-level policy responses, both regulatory and non-regulatory
 - d. Undertaking functions relating to identifying and promoting national good practices for stormwater network and management, including the development and dissemination of national guidelines.
196. Proposals to create a national standard for wastewater discharges and overflows and establish obligations on wastewater and stormwater operators to manage risks to people, property and the environment will be progressed alongside the Essential Freshwater programme.
197. If those proposals are adopted, they will be implemented through a National Environmental Standard under the Resource Management Act. The Minister for the Environment will make final decisions on the proposed new environmental standard, once the Minister is satisfied that all the requirements of section 46A of the RMA have been met.

Implementation

198. The central regulator will have a key role in the implementation of the regime. As described earlier in this paper, a key challenge for the compliance and enforcement of the current and future regulatory regime is the variability of supplier capacity and capability. A key function of the regulator will be to support suppliers to comply with all their regulatory obligations, including being able to take an approach to compliance that is tailored to the capability and characteristics of suppliers.
199. Five years will be allowed for full implementation of the regulatory regime. It is intended that the regulator's initial focus would be on implementing all the core components of the regulatory system, ensuring suppliers understand their obligations and are registered, working with suppliers to build capability, and investigating and dealing with serious cases of non-compliance.
200. By the end of the third year of the new regulatory system, the regulator would be actively monitoring the performance of those suppliers that provide drinking water to 500 or more consumers and be taking enforcement action where appropriate. The regulator would also be working with smaller suppliers to bring them into the regulatory system. All suppliers are expected to be compliant with the regulatory system by the end of the fifth year.
201. It may be challenging for some suppliers to comply with their obligations, particularly those suppliers that are being brought into the regulatory system for the first time. This will be managed by allowing for assistance and time to achieve compliance, in a way that is proportionate to supplier capability and the complexity of their water supply systems.

202. Further work is needed to determine the most practicable approach to the phasing of implementation for suppliers that are not currently covered by the regulatory system, particularly very small suppliers. Detailed advice on this matter will be considered by the Ministers of Local Government, Health, and Commerce and Consumer Affairs in August 2019.

Proactively released by the Minister of Local Government

Section 7: Monitoring, evaluation, and review

203. The proposed arrangements for monitoring, evaluation and review of the proposed regulatory regime, has two elements:

- Monitoring evaluation and review *within* the regulatory system of the performance of drinking water suppliers, wastewater and stormwater operators. This will be a core function of the proposed central regulator.
- Monitoring evaluation and review *of* the regulatory system. This is a stewardship function that provides oversight of the regulatory system. This will be a function of the central government Ministry or Department that will be responsible for the administration of the new regulatory regime.

204. Further detail on where those functions are located, and how they will be performed will be identified as we work through the institutional form of the regulator, and associated machinery of government arrangements. As discussed above, it is proposed to seek further decisions on those detailed proposals for the establishment and scope of the central regulator, in August 2019.

*Monitoring evaluation and review **within** the regulatory system*

205. Performance reporting will be a key function of the central regulator. The regulator would be responsible for collating and publishing drinking water compliance and monitoring information relating to all suppliers (except individual domestic self-suppliers). These functions would build on, but substantially enhance, existing provisions relating to performance reporting.

206. Some key elements of the existing regulatory regime that will continue, and form the foundation of the monitoring, evaluation and review framework for the proposed regulatory regime are:

206.1 *The Register of Drinking water supplies in New Zealand.* Currently, network suppliers who supply water to more than 25 people, and community self-suppliers are required to register as a drinking water supplier. Registration is basic requirement for the monitoring framework. However, many smaller suppliers have not registered. Ensuring that all drinking water suppliers are registered will be early priority for the central regulator.

206.2 *The Annual Report on Drinking Water Quality.* Currently, any network supplier who supplies water to more than 500 people is required to keep records and provide information about compliance to the Minister of Health, who prepares and publishes, the Annual Report on Drinking Water Quality. While, what is reported, and how it is presented may be refined over time, these reporting requirements for larger suppliers will continue to apply. How it will apply to smaller suppliers, requires further thought, and will be considered when we provide further advice to Ministers, on the most practical approach to phasing in implementation for all suppliers (small suppliers) in August.

207. We are also proposing that a three waters regulator will carry out some of the new responsibilities for wastewater and stormwater oversight and regulation. This will include collecting, analysing and publishing the information provided by wastewater and stormwater operators, in accordance with nationally-prescribed environmental performance metrics.
208. We have signalled that further work is required to determine the technical specifications for these national performance metrics, but they are likely to encompass matters such as: wastewater/stormwater discharges, sludge disposal practices, greenhouse gas emissions and energy use, environmental impacts, resilience, social/cultural indicators, and certain compliance and enforcement information.
209. It is proposed that the regulator will establish a technical advisory group (or groups) to provide advice on the development of a suitable set of national performance metrics for wastewater and stormwater. This work will be progressed alongside the Essential Freshwater programme over the next 12-18 months.

Monitoring evaluation and review of the regulatory system

210. This stewardship function will sit outside of the regulatory system to provide advice to the government to ensure that the objectives of the regulatory regimes are being met, and/or that impacts are as expected. This will be a function of the Ministry or Department that will be responsible for the administration of the new regulatory regime.
211. The detailed arrangements for stewardship of the system will be identified, as part of the work to determine the institutional form of the regulator, and associated machinery of government arrangements.