

Office of the Minister of Health
Office of the Minister of Local Government

Chair
Cabinet Economic Development Committee

Government Response to Havelock North Drinking-Water Inquiry

Proposal

1. This paper provides an update on the Government actions responding to the *Government Inquiry into the Havelock North Drinking-Water Outbreak* (the Inquiry) and seeks policy approval for initial amendments to the drinking-water provisions of the Health Act 1956.
2. This paper is intended to be read alongside the Cabinet paper *Review of three waters infrastructure: key findings and next steps* which has a similar, but broader scope in the context of drinking-water, wastewater, and stormwater (the three waters).

Executive Summary

3. In December 2017, we informed Cabinet that the Inquiry had completed its Stage Two report, which recommended sweeping changes in relation to how drinking-water is supplied and regulated in New Zealand. Our previous paper outlined immediate actions (Phase One) and some longer term work (Phase Two). We undertook to report back to Cabinet in February 2018, with progress against all 51 recommendations in the Inquiry report [CAB-17-MIN-0563 refers]. Appendix One provides an overview of the response to all 51 actions. Appendix Two provides a summary of the immediate Phase One actions that have been taken to date.
4. A total of 14 recommendations have already been implemented and 12 recommendations are expected to be implemented by end of July 2018. These recommendations may be progressed more effectively through an alternative mechanism than outlined in the Inquiry report (i.e. because of legal impediments) but in such cases, the intent of all recommendations will be fulfilled.
5. The remaining recommendations are being addressed under the following work programmes which are currently underway:
 - 5.1 **A new regulatory regime and drinking-water regulator.** We propose to report back to Cabinet in August 2018 with options for a new regulatory regime for drinking-water, including consideration of the potential functions, form, and costs of a drinking-water regulator. This will include advice on broader regulatory options in the three waters area, such as whether to also strengthen environmental and economic/industry regulation of the three waters. It will also include transition and implementation plans for the workforce. Subject to Cabinet decisions on these options in August 2018, we propose to introduce a Bill to establish the new regulatory regime for drinking-water in 2019.

5.2 Amending Part 2A of the Health Act 1956. We recommend immediate changes to the Health Act to allow more rapid amendments to the Drinking-Water Standards for New Zealand (the Standards) and other minor amendments in the interest of public health. This paper seeks policy approvals for these initial amendments, noting that they will not prejudice further policy advice or further legislative change. Further policy advice in relation to future legislative change will be provided later in 2018. These initial amendments will form an Amendment Bill. A later bill is being contemplated which is intended to achieve more significant changes to how drinking-water is regulated.

5.3 Residual treatment as a default requirement for all networked drinking-water systems. From a public health perspective, unless drinking-water suppliers or network systems can otherwise demonstrate and ensure the appropriate safety and security of their reticulated drinking-water systems, residual treatment should be required.

5.4 Currently, chlorination¹ is the most effective residual treatment mechanism available, however other technologies are constantly being trialled and developed and any new drinking-water regulatory regime should have the flexibility to consider them or propose suitable alternatives. At present, the major network drinking-water suppliers are already applying residual treatment to their drinking-water supplies.

5.6 By August 2018, officials will provide further advice about appropriate exceptions to mandatory treatment, how exceptions are to be determined, and how this position is to be legally implemented.

5.7 Other technologies that may be effective for treating drinking-water, but which currently fall short of having have any or reliable residual effect, include:

5.7.1 Ultra violet disinfection uses UV light to treat the water against bacteria and protozoa. This is currently being used to disinfect drinking-water for over 600,000 people on networked supplies across New Zealand, and

5.7.2 Ozone disinfection, using ozonised water to treat against bacteria and protozoa. This is also being used to treat water to around 45,000 people on networked drinking water supplies.

¹ Chlorine can be used in various forms, sometimes in conjunction with other compounds: e.g. ammonia.

5.8 Full compliance with the Standards for New Zealand for networked supplies.

[REDACTED] This will involve significant reform of the legislative structure underpinning drinking-water, compliance and enforcement practices, and will be closely associated with the establishment of a drinking-water regulator, and considerations of the Inquiry's recommendations for the aggregation of suppliers.

5.9 This decision, alongside decisions on residual treatment, will have implications for networked drinking-water suppliers. This will include questions of how to fund the infrastructure upgrades that will be required, which are likely to be substantial, regulatory impacts as well as the time to transition to the new regime. We recommend that Cabinet agrees to officials engaging with suppliers, Māori, and other key stakeholders to discuss these issues. The outcome of this engagement will inform policy options that we will bring to Cabinet in August 2018.

5.10 The Inquiry recommendations 26 and 27 recommend the removal of the "all practicable steps" test in the Health Act. We are reconsidering the definition of "all practicable steps" in order to narrow the defence by raising the level of performance that water suppliers must demonstrate to rely on the defence. Affordability alone will not be sufficient to rely on the defence.

5.11 **Building the capacity and capability of Drinking-water Assessors.** The Ministry of Health has taken the following actions since December 2017 to build the capability and capacity of the drinking-water sector:

5.11.1 Drinking-water Assessor accountability to district health boards (DHBs) has been clarified.

5.11.2 The Ministry of Health has developed a Memorandum of Understanding with International Accreditation New Zealand (IANZ) so that laboratory issues can be dealt with more quickly and has commissioned the Institute of Environmental Science and Research (ESR) to establish a drinking-water laboratory network.

5.11.3 Subject to a budget bid, actions are being led by the Ministry of Health to improve the capacity and capability of Drinking-water Assessors. These actions seek to pave the way for the proposed new drinking-water regulator while minimising the impact on other public health functions performed by Public Health Units. This bid would allow for the creation of an additional 10 Drinking-water Assessors from June 2018.

5.12 **A Drinking Water Advisory Committee (DWAC) has been established.** DWAC is a committee of technical experts that has been convened to provide advice to the Ministry of Health on updates to the Standards. This advice will be reflected in advice provided to Cabinet in August 2018 and will include specific recommendations relating to:

5.12.1 whether secure bore water status as a legal exemption from mandatory disinfection is appropriate

5.12.2 options to strengthen multi-barrier protections for drinking-water

5.12.3 whether a comprehensive review of the *New Zealand Standard 4411:2001 Environmental Standard for Drilling of Soil and Rock* (NZS 4411) is needed.²

5.13 **Aggregation of dedicated suppliers.** The Cabinet paper on the Review of Three Waters Infrastructure proposes that Inquiry recommendations to aggregate suppliers are considered in the context of the Three Waters Review. This broad perspective reflects the inter-connected nature between local authority drinking-water, wastewater and stormwater infrastructure. The Minister of Local Government will report back to Cabinet in October 2018 with options for policy decisions in this area. The principle of public ownership will underpin the options that are developed, and any legislative changes that are required.

5.14 **Accelerate and expand the review of the National Environmental Standard for Sources of Human Drinking-Water (NES Review).** Having consulted with the Minister for the Environment, we propose that the NES Review consider the Inquiry's findings and recommendations relating to enhancing first barrier protection³ and provide advice to the Minister for the Environment in July 2018. This work includes considering the adequacy of the existing regulatory regime and land-use controls in protecting sources of human drinking water.

Background

6. The Inquiry was established to help identify the underlying causes of the gastroenteritis outbreak in Havelock North in August 2016. That outbreak resulted in an estimated 5,500 of the town's 14,000 residents falling ill with campylobacteriosis. This potentially contributed to four deaths, and resulted in a number of residents suffering ongoing health complications.
7. The Inquiry proceeded in two stages. Stage One focused on identifying the direct causes of the outbreak and assessing the conduct of those responsible for providing safe drinking-water to Havelock North. Stage Two examined the wider regulatory context and steps to be implemented to reduce the likelihood of such an outbreak occurring again.
8. In December 2017, we informed Cabinet that the Inquiry had completed its report. The report recommended sweeping changes in relation to both how drinking-water is supplied in New Zealand and the regulation of that supply [CAB-17-MIN-0563 refers].

Government response to Havelock North Inquiry findings

9. A Government inquiry under the Inquiries Act 2013 does not require the tabling of a formal Government response in the House of Representatives. However, in this case it is important to show the Government's agreement with the Inquiry's finding that there is a need for a change in how drinking-water is supplied and regulated in New Zealand. We recommend the release of this Cabinet paper and the December 2017 Cabinet paper to update the public on progress and actions underway, subject to appropriate redactions.

² New Zealand Standard 4411:2001 Environmental Standard for Drilling of Soil and Rock.

³ Inquiry recommendations 15-17 and 36 refer. See Appendix Two.

Comment

We support the overall findings of the Inquiry

10. The Inquiry's findings highlight emerging risks that pose strategic challenges to the drinking-water regulatory regime and supply arrangements, such as climate change, agricultural intensification and ageing infrastructure, as well as the ongoing risk posed by geological and natural hazards.⁴ We support the overall findings of the Inquiry. We also propose that the current regulatory regime and institutional arrangements for drinking-water are improved to ensure that matters raised by the Inquiry are addressed appropriately.
11. It is important that these risks are addressed now for the sake of future generations. This urgency underpins the immediate actions taken to date, along with other proposals made in this paper to establish a new regulatory regime for drinking-water.
12. The Inquiry excluded assessment of the costs and risks associated with its recommendations for stricter drinking-water regulation and the establishment of a drinking-water regulator. These factors will be incorporated into the development of future policy options which will be provided to Cabinet in August 2018.
13. Early engagement with Māori and key stakeholders will be an important part of the regulatory work. It will also be important to initiate a discussion with the local government sector and other drinking-water suppliers, as well as DHB-based Public Health Units, which will be affected by the proposals made in this paper. Officials will provide a consultation plan to the Minister of Health and Minister of Local Government in April 2018.

Update on progress from December 2017

14. A summary of progress against all 51 recommendations is included in Appendix One.
15. In our December 2017 paper the Inquiry's recommendations were divided into eight broad areas of policy consideration led by different agencies or jointly:
 - 15.1 Water Treatment – *Ministry of Health (MoH)*
 - 15.2 Drinking-water Regulation – *MoH, Department of Internal Affairs (DIA)*
 - 15.3 Leadership, Transparency and Communication - *MoH*
 - 15.4 Compliance and Enforcement - *MoH*
 - 15.5 Drinking-water Standards - *MoH*
 - 15.6 Aggregation of Dedicated Suppliers – *DIA*
 - 15.7 First barrier protection – *Ministry for the Environment (MfE)*
 - 15.8 Design and Engineering – *MoH*.
16. Since grouping recommendations within these eight policy areas this work can be expressed under the following actions:

⁴ "Pressing risks" are discussed in detail in Part Three (General risk landscape) of the Inquiry's Stage Two report.

- 16.1 ***A new regulatory regime and a drinking-water regulator*** – MoH, DIA with support from MBIE, MfE, Treasury and State Services Commission
- 16.2 **Amending Part 2A of the Health Act 1956 to more efficiently update the Drinking-Water Standards for New Zealand** - MoH
- 16.3 **Residual treatment as a default treatment for all networked drinking-water systems** – MoH and DIA
- 16.4 **Full compliance with the Standards for New Zealand for networked supplies** - MoH and DIA
- 16.5 **Building the capacity and capability of Drinking-water Assessors** – MoH
- 16.6 **Aggregation of dedicated suppliers** – DIA
- 16.7 **Accelerate and expand the review of the National Environmental Standard for Sources of Human Drinking-Water (NES Review)** – MfE.

A new regulatory regime and drinking-water regulator

- 17. We propose to report back to Cabinet in August 2018 with advice and options for a new regulatory regime for drinking-water and the establishment of an independent drinking-water regulator as recommended by the Inquiry. A number of fundamental decisions concerning the scope of the proposed regulatory regime and the potential role, powers, duties and functions of a drinking-water regulator must first be made before any design and institutional form can be considered in depth. This will include advice on broader regulatory options in the three waters area, such as whether to also strengthen environmental and economic/industry regulation of three waters.
- 18. Subject to Cabinet decisions on advice and options in August 2018, we propose to introduce a Bill to establish the new regulatory regime for drinking-water in 2019.
- 19. We propose that the Inquiry recommendations relating to drinking-water regulation⁵ be considered with the advice on a regulator. This work will be carried out by officials from the Ministry of Health, the Department of Internal Affairs, the Ministry of Business, Innovation and Employment, the Treasury, and the Ministry for the Environment.
- 20. It will utilise expertise across policy and regulatory design, drinking-water technical expertise, public health, and economics. The principles of effectiveness, efficiency, equity, cost-effectiveness and sustainability will underpin this work.
- 21. Options for Cabinet in August 2018 will include key decisions on:
 - 21.1 The scope of the new regulatory regime for drinking-water, including:
 - 21.1.1 whether it will be limited to drinking-water or will have broader regulatory powers in the three waters area
 - 21.1.2 whether it will have a connection with broader improvements to the regulatory frameworks affecting all three waters

⁵ Inquiry recommendations 9, 10, 11, 12, 19, 21, 24, 25, 26, 27, 28, 29, 31, 35, 40, 43, 44, 49, and 50 refer. See Appendix One.

- 21.1.3 whether it will be responsible for all the regulatory powers, duties and functions carried out by the different entities in the current regulatory regime
 - 21.2 whether the regulatory regime will extend beyond networked supplies to self-suppliers and small community suppliers. This area was beyond the scope of the Inquiry, but it suggested that the Government consider it. More stringent regulation of these water supplies will involve consideration of funding, equity and implementation issues
 - 21.3 how government agencies will fulfil their regulatory stewardship obligations with respect to monitoring and reviewing the performance of the regulator over time
 - 21.4 how the building of capacity and capability of the public health regulatory workforce can be ensured now, and with the transition into a new drinking-water regulatory system
 - 21.5 the impacts of any proposals on rural Māori communities
 - 21.6 the implications for 'first barrier protection' which is administered under the Resource Management Act 1991
 - 21.7 the implications for post-water toby⁶ protection which is administered under the Building Act 2004.
22. Policy work will ultimately culminate in the development of a new regulatory regime for drinking-water. Advice will clearly define the scope of the new regime and the role, function, and form of a regulator and how it interacts with related regulatory regimes of other sectors (such as other Public Health functions, Environment and Building).

Amending Part 2A of the Health Act 1956 to more efficiently update the the Standards for New Zealand

23. While the details for the new regulatory regime for drinking-water are being worked through, some urgent changes can be made to improve the safety of drinking-water in New Zealand. In this regard, we seek policy approval to progress some immediate amendments to the Health Act as outlined below.
24. [REDACTED] We propose that legislative amendments will include:
- 24.1 Removing requirements for the Ministry of Health to consult for three years and gazette changes for two years prior to making any changes to the Drinking-water Standards
 - 24.2 Clarifying that water safety plans must include timetables to implement measures which mitigate risks to drinking-water, and
 - 24.3 Streamlining processes for the appointment of Drinking-water Assessors and the use of accredited laboratories.

⁶ A toby is a water shut-off valve, generally located at the boundary of a property that sits between the water main and a private water pipe.

25. These and a small number of other minor and technical amendments proposed by the Ministry of Health to improve the effectiveness and efficiency of the Health Act's drinking-water provisions are summarised in Appendix Three.
26. Changes to the Standards are required to implement many of the recommendations from the Inquiry. If these proposed amendments are successfully passed, changes to the Standards could be made in a timely manner. Existing statutory grounds available to shorten the length of the process required to amend the Standards are too limited to enable changes to be made that may improve public health.
27. The Ministry of Health is considering whether some changes to the Standards recommended by the Inquiry fall within the existing exceptions to the full five year process, on the basis that they are urgent or minor.⁷

Residual treatment as a default treatment for networked suppliers⁸ of drinking- water systems

28. The reticulation system for drinking-water is the pipe and pump infrastructure that drinking-water passes through to reach the individual taps in buildings such as homes and marae. At present, the water entering the reticulation system can be treated or non-treated, depending on the quality and security of the source water used.

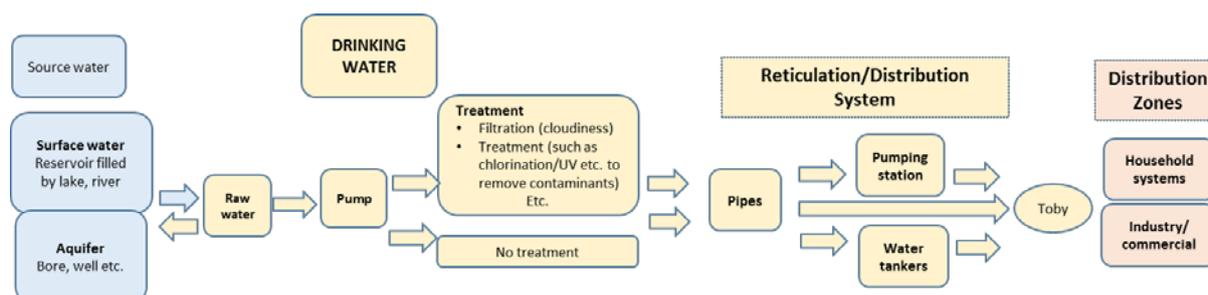


Figure 1. New Zealand water management system

29. Once the drinking-water (treated or untreated) enters the reticulation system there remains a potential risk of contamination should that reticulation system be compromised (through leaks or breaks caused, for example, by aging, earthquakes or industrial development work). Where such an event occurs, there is limited ability to treat the drinking-water to remove the downstream contamination and subsequent risks to human health.
30. From a public health perspective, unless drinking-water suppliers or networked systems can otherwise demonstrate and ensure the safety and security of their reticulated systems, residual treatment should be used. Currently, chlorination is the only effective residual treatment mechanism available. At present, the major network drinking-water suppliers are already chlorinating their drinking water supplies.
31. Christchurch has recently made a decision to chlorinate some drinking-water but only until work has been completed by the water-supplier to regain secure bore status or they can ensure safety through other means.

⁷ Inquiry recommendations 2, 4, 5, 14, 20, 30, 41, 48 refer. See Appendix 1.

⁸ A networked supplier is a drinking water supplier who supplies drinking water from the place where the supply is to 1 or more other properties by means of a pipe connecting those properties

32. [REDACTED] This decision should note that advice in relation to mandatory residual treatment is being developed.
33. We note that the Inquiry's experts have also recognised that exceptions to mandatory treatment may be appropriate in certain limited circumstances. By August 2018, officials will provide further advice about costs and benefits, funding sources regulatory impact and appropriate exceptions to mandatory treatment, how exceptions are to be determined and how this position is to be legally implemented.
34. The introduction of a new requirement on suppliers for a residual disinfectant in drinking-water reticulation systems is likely to be controversial in some communities. This would particularly be the case for suppliers that have traditionally relied on the quality of their bore water as a basis for not chlorinating (but which do not necessarily have reticulation infrastructure of a quality that manages the risk of contamination).
35. In some cases, this decision will require networked drinking-water suppliers to upgrade water infrastructure. This raises questions about how to fund the infrastructure upgrades that will be required, as well as the appropriate timeframe for transitioning to the new regime.
36. We recommend that Cabinet agrees to officials engaging with suppliers, Māori, and other key stakeholders to discuss these issues. The outcome of this engagement will inform policy options that we will report back on in August 2018.
37. The importance of this issue for communities, including Māori communities, is likely to justify a legislative process being used. The Inquiry also recommended that because mandatory disinfection may require legislative change, as a more immediate step, water suppliers should be encouraged to treat their water without delay⁹. A formal statement was issued by the Director-General of Health which included a recommendation that all "water suppliers should urgently reassess the security of their bores and commence treatment if they could not be satisfied of their bore's security". The Director-General has also written to all DHB Chief Executives, asking them to encourage Councils (and private water suppliers) to disinfect any non-disinfected water supplies.
38. It is likely to take a substantial period of time for all drinking-water suppliers to introduce and implement operational processes for residual treatment that meet the requirement of recommendation 20 (or 21).

Full compliance with Drinking-water Standards for New Zealand for networked supplies

39. [REDACTED] This will involve significant reform of the legislative structure underpinning drinking-water, compliance and enforcement practices, and will be closely associated with the establishment of an independent regulator, and considerations of the Inquiry's recommendations for the aggregation of suppliers.

⁹ Inquiry recommendations 6 and 8. See Appendix Two.

40. The Inquiry's report indicated that the drinking-water system could be greatly improved by strengthening compliance and enforcement. The Ministry of Health is undertaking a review of manuals and guidelines for public health staff who are involved in drinking-water activities, particularly in areas of compliance and enforcement. This work is expected to be completed in April 2018.
41. At present, the Health Act requires all water suppliers that are supplying drinking-water to 25 or more people to take "all practicable steps" to comply with the Drinking-water Standards for New Zealand. All practicable steps is defined at section 69H of the Act and allows for suppliers to consider affordability.
42. The Inquiry recommendations 26 and 27 recommend the removal of the "all practicable steps" test in the Health Act. The Inquiry stated these changes would make compliance with the Drinking-water Standards mandatory. We agree that compliance with the Drinking-water Standards should be mandatory, but consider that the Standards are already mandatory, subject to a limited defence which must be proven by the defendant (as offences are strict liability offences).
43. We do not recommend the complete removal of the defence that a water-supplier has taken all practicable steps to avoid the commission of the offence but we are reconsidering the definition of "all practicable steps" in order to narrow the defence and raise the level of performance that water-suppliers must demonstrate to rely on the defence. Affordability alone will not be sufficient to rely on the defence. We are also considering whether there are additional offence provisions and regulatory tools that should be added to increase compliance.
44. Further analysis will be required to determine the types and size of supplies that new or amended legislative duties will apply to. It is likely that compliance costs would be higher per person, and therefore more difficult to achieve, for smaller supplies. Urban supplies tend to be larger than rural supplies. It is also likely that it would be more difficult for supplies sourced from lower quality water sources to achieve compliance.
45. Bringing all drinking-water supplies up to compliance with the Drinking-water Standards will impose significant costs on the drinking-water sector. The Department of Internal Affairs has commissioned a report estimating the cost of compliance with the Drinking-water Standards (i.e. the cost for those networked drinking-water suppliers that do not currently comply with the Drinking-water Standards to upgrade their infrastructure to reach compliance) and the cost of mandatory treatment for all drinking-water sources currently untreated.
46. The report estimates that around 611 water treatment plants (owned by council and non-council networked suppliers) require upgrading throughout the country. This would deliver safer water to 1,400,206 people with an estimated probable capital cost of between \$308.7 and \$573.7 million. (To put these estimated costs in context, average annual expenditure on infrastructure for all three waters - drinking-water, wastewater, and stormwater - is around \$1.2 billion.)
47. Table One summarises the estimated capital and operating costs per region.
48. It should be noted that other experts in the water infrastructure sector have, anecdotally, estimated the costs of upgrades as being much higher.

Region	No. affected water treatment plants	Population affected	Estimate of probable capital cost (\$Million)	Estimate of probable operating cost (per annum)	Estimated annual cost per affected household	Estimated annual cost if spread across total no. of households in region ¹⁰
Auckland	13	19,737	\$1.7 - \$3.1	\$80,000 - \$160,000	\$42	\$0.6
Bay of Plenty	42	75,818	\$15.3 - \$28.5	\$620,000 - \$1,160,000	\$93	\$29
Canterbury	170	506,825	\$102.1 - \$189.6	\$4,470,000 - \$8,300,000	\$95	\$90
Gisborne	4	710	\$0.9 - \$1.7	\$40,000 - \$70,000	\$594	\$13
Hawke's Bay	38	192,062	\$18.1 - \$33.7	\$530,000 - \$990,000	\$59	\$57
Manawatu-Wanganui	64	199,424	\$23.2 - \$43.1	\$640,000 - \$1,190,000	\$47	\$47
Marlborough	19	11,422	\$5.5 - \$10.3	\$210,000 - \$390,000	\$217	\$70
Nelson	2	49,765	\$1.0 - \$1.9	\$150,000 - \$270,000	\$17	\$17
Northland	28	12,293	\$6.3 - \$11.7	\$280,000 - \$520,000	\$243	\$30
Otago	69	71,606	\$66.0 - \$122.6	\$2,160,000 - \$4,010,000	\$394	\$136
Southland	15	68,359	\$8.3 - \$15.5	\$160,000 - \$300,000	\$46	\$44
Taranaki	9	11,540	\$2.7 - \$5.0	\$90,000 - \$160,000	\$100	\$13
Tasman	25	24,655	\$7.4 - \$13.7	\$290,000 - \$550,000	\$136	\$135
Waikato	72	113,357	\$30.3 - \$56.3	\$1,020,000 - \$1,890,000	\$115	\$42
Wellington	18	88,279	\$13.1 - \$24.3	\$180,000 - \$330,000	\$53	\$11
West Coast	23	19,117	\$6.8 - \$12.7	\$350,000 - \$660,000	\$180	\$136
TOTAL	611	1,400,206	\$308.7 - \$573.7 million	\$11.3 - \$20.9 million per annum	\$98	\$36 per household, nationally

Table One: Estimated capital and operating costs per region for water supplies to be upgraded to comply with the Drinking-water Standards, and to treat drinking water sources that are currently untreated.

49. As Table One indicates, the costs are not spread evenly across the country, and are particularly high in regions such as Otago. The research that was commissioned also estimates that approximately one-third of non-compliant networked supplies are not owned by local government. However, the size of the affected population receiving non-council owned supplies is very small.
50. If the cost of upgrades is borne by those directly affected, some communities would have to bear relatively high costs. However, meeting these costs could be significantly more affordable if they were shared across a wider area, such as regionally or nationally.

¹⁰ The annual costs per region are provided for illustrative purposes and present an alternative way to consider how to spread the costs of infrastructure upgrades. The figures show the estimated annual cost to all households served by networked water treatment plants, if capital and operating costs are combined.

51. The decision to move to a regime where full compliance with the Drinking-water Standards for New Zealand is mandatory will have implications for networked drinking-water suppliers. This will include, among other things, how they will fund the infrastructure upgrades that will be required, along with the time to transition to the new regime.
52. We recommend that Cabinet agrees to officials engaging with suppliers, Māori and other key stakeholders to discuss these issues. The outcome of this engagement will inform policy options that we will report back on in August 2018.

Building the capacity and capability of Drinking-water Assessors

53. Drinking-water Assessor accountability to DHBs has been clarified. The Ministry of Health's contracts with DHBs for water assessment services have been amended to require district health boards to facilitate collaborative arrangements with water suppliers, district councils and regional councils within their regions. These collaborative arrangements support the sharing of information about potential risks to drinking-water catchments.
54. A key challenge highlighted by the report is the level of resource required to carry out the drinking-water compliance verification function. Officials advise that Drinking-water Assessor numbers are reducing and are likely to reduce further and that DHB Public Health Unit managers are unable to fill vacancies for a large number of necessary positions.
55. These issues may be addressed partly through the design and implementation of the new regulatory regime but we cannot afford to wait until the significant legislative changes required are completed before taking action on the ground. The building of capability and capacity is a key priority. This must be done in such a way that allows for the creation of the new regulatory regime and does not disrupt other public health regulatory functions.
56. A change recommended as part of the proposed initial Amendment Bill is to remove the requirement for Public Health Units to maintain accreditation by International Accreditation New Zealand (IANZ) in order for new Drinking-water Assessors to be appointed. This streamlines appointments and enables Public Health Units to better prioritise their resources. It also recognises that the loss of accreditation may be triggered by insufficient staffing within the Public Health Unit, which is exacerbated as accreditation must be held prior to new staff being appointed.
57. Subject to a 2018 budget bid, actions are being led by the Ministry of Health to improve the capacity and capability of Drinking-water Assessors in a way that paves the way for the proposed new drinking-water regulator while minimising the impact on other public health functions performed by the Public Health Units. This will allow for the creation of an additional ten Drinking-water Assessors from June 2018.
58. The Ministry of Health has developed a Memorandum of Understanding with International Accreditation New Zealand (IANZ) so that laboratory issues can be dealt with more quickly and has commissioned the Institute of Environmental Science and Research (ESR) to establish a drinking-water laboratory network.
59. These challenges regarding Public Health Unit capacity and the need for a co-ordinated national approach to workforce issues inform the Ministry of Health's recommendation to continue to have centralised national oversight of Drinking-water Assessment functions and to continue to have Drinking-water Assessor appointment by the Director-General, as outlined above.

Review of NZS 4411

60. The Inquiry recommended that a comprehensive review of the *New Zealand Standard 4411:2001 Environmental Standard for Drilling of Soil and Rock* (NZS 4411)¹¹ should be carried out. NZS 4411 broadly sets out the minimum national environmental performance requirements for bores that draw water from any groundwater source. The Inquiry also recommended prohibiting new below-ground bore heads and ensuring appropriate mitigation measures are in place in relation to existing ones.
61. Advice will be sought from the Ministry of Health’s Drinking-Water Advisory Committee regarding the need for a review of NZS 4411. The Inquiry’s other recommendations relating to design and engineering should be addressed by issuing best practice guidance, as well as by the Drinking-water Standards review that has already been initiated¹².

Aggregation of dedicated suppliers

62. The Inquiry argued that there is a compelling case for dedicated and aggregated drinking-water suppliers being established as an effective and affordable means to improve compliance, competence and accountability. It recommended that the Government make a definitive assessment of whether to mandate, or persuade, suppliers to aggregate into larger dedicated water suppliers.
63. The Inquiry argued aggregation has the potential to significantly improve capability and capacity, aid better regulation of the drinking-water sector, and allow the cost of service provision and upgrades to be shared. The Inquiry also recommended establishing a licencing system for all existing and future networked drinking-water suppliers, and noted that licensing requirements could inform decisions on aggregation into large supply entities.
64. These recommendations are best progressed in the context of the Three Waters Review. This reflects the link between local authority drinking-water and wastewater provision, and evidence from the Three Waters Review of organisational capability and capacity challenges across drinking-water, wastewater and stormwater service provision, particularly for smaller local authorities. A consistent theme that emerged from the Review is the role that “scale” plays in relation to service quality, compliance, and asset management and governance capability in the drinking-water sector.
65. We understand some councils may be of the view that the provision of three water services must be retained in order for their organisations to remain viable and have the ability to cover overheads (such as the employment of experienced Chief Executive Officers). However, the broader public good, the health of our communities, and the health of our environment are at stake here. The potential benefits offered by larger, well resourced, and technically capable publicly-owned water providers, and the opportunity for cross subsidisation to address affordability issues, may outweigh this concern.

¹¹ New Zealand Standard 4411:2001 Environmental Standard for Drilling of Soil and Rock.

¹² Inquiry recommendations 47, 49 and 50 refer. See Appendix One.

66. The Minister of Local Government will report back to Cabinet in October 2018 with options for policy decisions in this area. The principle of public ownership will underpin the options and recommendations that are developed. The Local Government Act 2002 contains provisions that ensure ownership interests in water services cannot be divested beyond local government organisations. Similar protections could be enshrined in any future options and legislation, should legislative change be required.

Accelerate and expand the review of the National Environmental Standard for Sources of Human Drinking-Water (NES Review)

67. The Inquiry's report noted the importance of protecting drinking-water sources ('first barrier protection') as a key principle of drinking-water safety. The Inquiry considered that recognition of 'first barrier protection' in the resource management system was currently inadequate. It also noted that pollutants from farmland, urban land use activities, forestry, landfills, and the discharge of sewerage all pose potential risks of contamination of drinking water sources if not managed appropriately.
68. The Ministry for the Environment has advised that the Inquiry's recommendation to amend Sections 6 and 30 of the Resource Management Act 1991 (RMA) using a Statutes Amendment Bill process is inappropriate due to the high profile of the proposed amendments and the desirability of going through the select committee process.
69. Officials will provide advice with recommendations on how to enhance 'first barrier protection' through the resource management system in July 2018. The advice will consider the Inquiry's findings, including the adequacy of the existing regulatory regime and land-use controls in protecting sources of human drinking-water, but may recommend alternative legislative or regulatory approaches to achieve the desired improvements. This advice will also cover the role of drinking-water suppliers, who have responsibility for contributing to 'first barrier protection' under section 69U of the Health Act.
70. As mentioned above, the Ministry for the Environment has accelerated and expanded the Review of the National Environmental Standard for Sources of Human Drinking-Water (NES Review). The Ministry will also be exploring opportunities to improve water quality in drinking-water catchments, which may include controlling increases in the intensity of land use, as part of its wider work programme to restore New Zealand's waterways.
71. Having consulted with the Minister for the Environment, we propose for the NES Review to consider the Inquiry's findings and recommendations relating to first barrier protection¹³ and provide advice to the Minister for the Environment with recommendations for enhancing 'first barrier protection' in July 2018. This advice may also inform the functions of a drinking-water regulator.

¹³ Inquiry recommendations 15-17 and 36 refer. See Appendix One.

Consultation

72. This paper has been jointly prepared by the Ministry of Health and the Department of Internal Affairs. The agencies consulted on this paper are the Ministry for the Environment; the Ministry of Business, Innovation and Employment; Te Puni Kōkiri; the Treasury; and the Policy Advisory Group of the Department of the Prime Minister and Cabinet. These and other relevant government departments will be consulted as appropriate while the ongoing work detailed in this paper continues.
73. Because of time constraints, there has been no opportunity to consult on the proposals for urgent amendments to the Health Act with water suppliers, local government, Māori, or the wider public. The Minister of Health and the Minister of Local Government will consider whether any such consultation may occur prior to the introduction of the Amendment Bill.

Financial Implications

74. There are financial implications for Vote Health associated with progressing the Inquiry work programmes estimated at a total of \$18.6M over four years.
75. A Budget 2018 bid has been prepared seeking funding in 2018/19 to establish a new independent regulator and to progress the Inquiry work programmes. \$2.65M will be used to fund additional Drinking-water Assessors and compliance officers, and strengthen implementation and enforcement of the Health Act 1956. \$2M will be used to fund the costs of providing advice on, and establishment of, a regulator and expert technical input.
76. The proposed urgent amendment to the Health Act is expected to be either cost neutral or in some cases will slightly reduce compliance costs for suppliers.
77. The forthcoming advice on an appropriate regulatory regime for drinking-water will include the powers, duties, functions and form of any regulator. This will enable clearer assessment of implementation and operating costs of any new regulatory regime. Currently drinking-water resources are devolved across the system, including the Ministry of Health, local authorities and DHBs. The advice will consider how these resources might be brought together to meet the costs of the future system.
78. There is a cross-agency initiative being led by the Ministry for the Environment to improve access to drinking-water for small communities, which are in most instances served by non-local government supplies. A budget bid has been submitted for a grant scheme that would support small, rural communities, including marae and papakāinga, to access safe and sustainable drinking-water systems. This grant scheme is expected to be complementary to the Government response and would not preclude any wider system changes.

Legislative Implications

79. Legislative changes will be required to in order to implement many of the Inquiry recommendations.

80. Immediate changes are recommended to the Health Act, including changes to address recommendations of the Inquiry relating to the Drinking-water Standards. [REDACTED]

[REDACTED] this paper seeks policy approval for these amendments.

81. We propose to report back to Cabinet in August 2018 with options for a new regulatory regime for drinking-water, including consideration of the potential functions, form, and costs of a drinking-water regulator. Subject to Cabinet decisions on these options, a new bill will be introduced to establish the new regulatory regime in 2019.

Impact Analysis

82. An impact analysis will be required when Cabinet makes decisions regarding the functions, form and structure of an independent drinking-water regulator.
83. With respect to the initial amendments to the Health Act 1956, based on the information provided by the Ministry of Health, the Regulatory Quality Team at the Treasury has determined that an Impact Analysis is not required for this proposal as it has no or only minor impacts on businesses, individuals or not-for-profit entities.

Human rights, gender and disability perspective

84. There are no human rights, gender, or disability issues or implications arising from the proposals in this paper.

Publicity

85. As noted, a Government inquiry under the Inquiries Act 2013 does not require the tabling of a formal Government response in the House of Representatives. However, in this case we consider it is important to signal the Government's agreement with the Inquiry's finding that there is a need for a step-change in how drinking-water is supplied and regulated in New Zealand. It is also important to provide the interested public with a plan for improving drinking-water safety in New Zealand.
86. Subject to Cabinet's agreement we will release the table in Appendix One as the Government's response to the Inquiry report.
87. We also intend to proactively release this Cabinet paper, the previous Cabinet paper *Government Inquiry into Havelock North Drinking Water* (considered in December 2017), the Cabinet paper *Review of three waters infrastructure: key findings and next steps* and the associated Cabinet minutes, with redaction of information as may be required.
88. We propose to provide embargoed copies of this material to Water New Zealand and Local Government New Zealand the day before publication.

Recommendations

The Minister of Health and the Minister of Local Government recommend that Cabinet:

1. **note** that in December 2017, the Minister of Health and the Minister of Local Government informed Cabinet that [CAB-17-MIN-0563 refers]:
 - 1.1 the Government Inquiry into Havelock North Drinking Water reported its Stage Two findings on 6 December 2017 and that the report made wide ranging recommendations to improve Drinking-water Standards and infrastructure, and
 - 1.2 work was underway to consider the Inquiry's recommendations in depth and of their intention to report back in February 2018 with the draft Government response to the Inquiry.
2. **note** that the Minister of Health and the Minister of Local Government support the Havelock North Inquiry's findings and have directed officials to consider how to best implement them.

A new regulatory regime and drinking-water regulator

3. **agree** that the Minister of Health and the Minister of Local Government report to Cabinet in August 2018 on options for a new regulatory regime for drinking-water (including potential function, forms, and costs of a drinking-water regulator), advice on the broader regulatory options in the three waters area and advice on the transition and implementation plans for the workforce to support a drinking-water regulator.
4. **note** that subject to Cabinet decisions on the regulatory structure, we propose to introduce a bill to establish the new regulatory regime for drinking water in 2019.

Amending Part 2A of the Health Act 1956

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6. **agree** to the following amendments to the drinking-water provisions of the Health Act 1956:
 - 6.1 Remove specified periods for consultation and notice of changes to the Drinking-water Standards for New Zealand
 - 6.2 Clarify that water safety plans must include implementation timetables
 - 6.3 Streamline processes for the appointment of Drinking-water Assessors and use of accredited laboratories
 - 6.4 Other minor and technical amendments as described in Appendix Three.
 7. **authorise** the Minister of Health to approve any further, minor amendments relating to the Health Act's drinking-water provisions that may arise, for example during the drafting of the Bill.

8. **note** that the amendments referred to in recommendation 6 above include urgent changes recommended by the Inquiry and some minor and technical amendments proposed by the Ministry of Health to improve the efficiency and effectiveness of the drinking water provisions of the Act.
9. **agree** that the Minister of Health will issue drafting instructions to the Parliamentary Counsel Office to give effect to the decisions in recommendation 6 above.

Residual treatment as a default treatment for all networked drinking-water systems

11. **note** that the drinking-water regulatory regime will also enable the use of existing and new technologies and systems that can be used to demonstrate the safety of drinking water in the reticulation system.

Full compliance with the Drinking-water Standards New Zealand for networked supplies

13. **agree** that recommendations 10 and 11 above are subject to further advice which will be reported back by the Minister of Health, the Minister of Local Government and the Minister for Finance in August 2018. This includes advice on:
 - 13.1 costs and benefits
 - 13.2 funding sources
 - 13.3 regulatory impacts for mandatory residual treatment
 - 13.4 appropriate exemptions to mandatory residual treatment
 - 13.5 how exceptions are determined, and
 - 13.6 how this decision is to be legally implemented.
14. **note** that this decision will involve significant reform of the legislative structure underpinning drinking-water, compliance and enforcement practices, and will be closely associated with the establishment of an independent regulator, and consideration of the Inquiry's recommendations about aggregation of suppliers.
15. **agree** that officials engage with suppliers, Māori (encompassing different water access scenarios across the Māori population) and other key stakeholders to discuss, among other things, how to fund the infrastructure upgrades that will be required, along with the time to transition to the new regime.
16. **note** that the outcome of this engagement will inform policy options which will be reported back in August 2018.

Building capacity and capability of Drinking-water Assessors

17. **note** that the Ministry of Health has developed a Memorandum of Understanding with International Accreditation New Zealand (IANZ) so that laboratory issues can be dealt with more quickly and has commissioned the Institute of Environmental Science and Research (ESR) to establish a drinking-water laboratory network.
18. **note** that, subject to a Budget 2018 bid, actions are being led by the Ministry of Health to improve the capacity and capability of Drinking-water Assessors in a way that paves the way for the proposed new drinking-water regulator while minimising the impact on other public health functions performed by Public Health Units.

A drinking-water advisory committee (DWAC) has been established

19. **note** that a drinking-water advisory committee of technical experts has been convened to provide advice to the Ministry of Health on updates to the Drinking-water Standards.
20. **note** that advice from the committee relating to the following matters will be reflected in advice provided to Cabinet in August 2018:
 - 20.1 whether secure bore water status as a legal exemption from mandatory disinfection is appropriate
 - 20.2 options to strengthen multi-barrier protections for drinking-water, and
 - 20.3 whether a comprehensive review of the New Zealand Standard 4411:2001 Environmental Standard for Drilling of Soil and Rock (NZS 4411) is needed.

Aggregation of dedicated suppliers

21. **note** that Cabinet has been provided with a companion paper *Review of three waters infrastructure: key findings and next steps*, which proposes that the Inquiry's recommendations for the aggregation of suppliers will be considered as part of the Three Waters Review work outlined in that paper.
22. **note** that the Minister of Local Government will report back to Cabinet in October 2018 with options for policy decisions, and that the principle of public ownership will underpin the options and recommendations that are developed.

Accelerate and expand the review of the National Environmental Standard for Sources of Human Drinking-Water (NES Review)

23. **note** that the Ministry for the Environment has accelerated and expanded the review of the National Environmental Standard for Sources of Human Drinking-Water (NES Review). This work includes considering the adequacy of the existing regulatory regime and land-use controls in protecting sources of human drinking-water.

Publicity

24. **agree** to release the table in Appendix One as the Government's response to the Inquiry report.
25. **agree** to proactively release this Cabinet paper, the previous Cabinet paper *Government Inquiry into Havelock North Drinking Water* ([AD62-14-17] considered in December 2017), the Cabinet paper *Review of three waters infrastructure: key findings and next steps* and the associated Cabinet minutes, with redaction of information as may be required.
26. **agree** that at the time this information is released, the Minister of Health and the Minister of Local Government will make announcements of the decisions made in this paper.

Authorised for lodgement

Hon Dr David Clark
Minister of Health

Hon Nanaia Mahuta
Minister of Local Government