

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

Chair  
Cabinet Economic Development Committee

## **Future state of the three waters system: regulation and service delivery**

### **Proposal**

1. This paper sets out a road map for decisions on the future state of the three waters – drinking water, wastewater, and stormwater.

### **Executive summary**

#### ***Problem definition and case for change***

2. The best evidence available indicates there are system-wide challenges facing the three waters, and the response will need to be system-wide, from source to tap and back again.
3. In many parts of the country, communities cannot be certain that drinking water is safe. The events that led to the Havelock North contamination, along with the findings of the subsequent Inquiry, have demonstrated that the existing system does not adequately safeguard against the risk of catastrophic contamination incidents, or drive improving compliance with the drinking water standards. The Inquiry into Havelock North Drinking Water observed there is little understanding amongst the New Zealand public about the large numbers of people who become ill every year by consuming unsafe drinking water.
4. Council wastewater systems are facing similar system-wide challenges. Wastewater plants are impacting on freshwater and coastal water quality, and sewage overflows are occurring at a frequency that is no longer acceptable for communities, particularly for Māori. In many regions, regional councils do not (and are not required to) publish sufficient information to provide assurance about the impact of wastewater services on the environment. If comprehensive information were available, it is likely many hidden problems would become exposed.
5. There are challenges facing council stormwater services, but their nature (and the options for responding to them) is different to those facing drinking water and wastewater, in large part because stormwater is an open system that is closely associated with roading and urban land use. There is a lack of good quality information about the condition of stormwater infrastructure and its susceptibility to climate change.
6. Hard data and evidence of the extent of problems is variable and, in some cases, limited, which is in itself evidence of a wider systemic issue. However, the following problems exist across all of the three waters:

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- 6.1 *funding and financing to upgrade infrastructure* lies at the heart of the problems facing the three waters. While the challenges manifest in different ways for different councils, it is clear they increase as community size decreases. For many smaller councils, there is no clear way forward given the scale of the challenges. It is also clear that the funding and financing challenges are significantly larger for wastewater than for drinking water;
- 6.2 *capability challenges* sit hand in hand with funding and financing challenges. Again, the challenges increase as population size decreases. Many smaller rural and provincial councils face a greater struggle to access and retain the specialist skills required to operate and maintain infrastructure, and make the complex risk assessments required to safeguard public health and the environment. Smaller councils by nature have smaller teams, with wider and more general skill sets than specialists;
- 6.3 *regulation* is weak across the three waters system. Both drinking water and environmental regulation exhibit inadequate stewardship, and compliance, monitoring and enforcement practices. There is no formal system of economic regulation in place to ensure that consumers' long-term interests are protected, or that services are value for money.

### **Road map for decisions on three waters reform – proposed timetable and scope**

7. The scale of the challenges indicates that the status quo is not sustainable in the long term. There is, moreover, an opportunity to do things differently. Both domestic and international models demonstrate that better quality services can be delivered to consumers more efficiently. Alongside this, the regulatory systems sitting around three waters services could provide greater safeguards to public health and environmental performance than are currently in place.
8. Regulation and service provision for the three waters are complex and interdependent, spanning multiple central and local government responsibilities. The response will therefore need to take account of these interdependencies, by taking a system-wide view, from source to tap and back again. It will be essential for any response to treat council drinking water and wastewater services as a single network.
9. We propose that the Government embark on a process of three waters reform over the next 18 months, seeking detailed policy decisions in tranches in 2019, on the following timetable.
10. In **June 2019**, the Ministers of Local Government, Health, and Environment will report back to Cabinet with detailed policy proposals for regulation of the three waters, to enable drafting of legislation to commence in these areas:
  - 10.1 *drinking water*: system-wide reform of regulation of drinking water, along with a new risk management regime for sources of drinking water;
  - 10.2 *wastewater*: targeted change to environmental regulation of wastewater, aimed at lifting its environmental performance within the existing framework of the Resource Management Act 1991;
  - 10.3 *wastewater and stormwater*: measures to give greater transparency to the operation of wastewater and stormwater systems, and to promote better practice;

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- 10.4 *regulatory institutional arrangements*: the institutions (regulatory bodies) that would give effect to the above reforms, and oversight and stewardship arrangements for drinking water and environmental regulation.
11. In **late 2019**, the Minister of Local Government will report back to Cabinet with detailed policy proposals for service delivery arrangements, to enable drafting of legislation to commence, if required. These decisions will be informed by ongoing engagement with local government and other stakeholders, led by the Minister of Local Government, about reform options.
12. While there are many potential options and geographical configurations for three waters service delivery arrangements, the following high-level options appear to provide the best fit for the New Zealand context and will be the subject of further analysis and engagement.
- 12.1 Proceed with regulatory reform only, with voluntary, sector-led reforms to service delivery arrangements.
- 12.2 Establish a three waters fund to support voluntary service delivery improvements.
- 12.3 Create an aggregated system of dedicated, publicly owned drinking water and wastewater providers.
13. In terms of sequencing, it is important that decisions on service delivery are made after the June 2019 decisions on regulation, to give local government and other stakeholders the opportunity to engage on the options in light of the proposed new regulatory environment.
14. In **late 2019**, the Minister of Commerce and Consumer Affairs, and the Minister of Local Government, will report back to Cabinet with any desired policy proposals for the economic regulation of three waters services, to enable drafting of legislation. These proposals will be dependent on decisions about service delivery arrangements.
15. Finally, in **late 2019**, the Ministers of Local Government, Health, Environment, and Commerce and Consumer Affairs will report to Cabinet on proposals to improve oversight and stewardship across the three waters system. These proposals will take account of decisions on service delivery arrangements and economic regulation, as well as previous decisions on oversight and stewardship to support drinking water and environmental regulation.

### Background

16. The three waters – drinking water, wastewater and stormwater – are the core water services, which comprise the building blocks of New Zealand’s communities. Taken collectively, they are lifeline utilities that comprise one of New Zealand’s key infrastructure sectors, and are essential to public health, environmental sustainability, community wellbeing, growth, and economic development.
17. The significant majority of New Zealand receives three waters services from their local council. Two large scale providers are owned by councils and provide services on their behalf. Watercare provides drinking water and wastewater services across Auckland. Wellington Water provides all three waters services for five councils in the Wellington region.

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18. New Zealand also has approximately 181 private drinking water providers, many of which are run by community groups, servicing around one per cent of the population. Finally, throughout New Zealand there are households and community buildings (such as some hospitals, schools, and marae) that supply their own drinking water and/or wastewater services.

### ***Previous Cabinet decisions – Three Waters Review and response to Havelock North Inquiry***

19. On 9 April 2018, Cabinet invited the Ministers of Local Government and Health to report back on the options for the future regulation and service delivery of the three waters, including the Government response to the Inquiry into Havelock North Drinking Water (CAB-18-Min-0145 and CAB-18-Min-147 refer). The core areas of work were to develop:
  - 19.1 options for a new dedicated drinking water regulator;
  - 19.2 the broader regulatory options in the three waters area, including environmental and economic regulation;
  - 19.3 options for the future service delivery of three waters, including assessment of aggregated service provision as recommended by the Havelock North Inquiry.
20. Cabinet directed that oversight of this work be provided by a group of Ministers with portfolio interests in water infrastructure, comprising the Ministers of Local Government, Finance, Environment, Health, Infrastructure, Climate Change, Commerce and Consumer Affairs, Civil Defence, Housing and Urban Development, Transport, and Conservation. The Minister for Rural Communities subsequently joined this group. This group has met monthly, led by the Minister of Local Government, to provide the strategic direction for the project.
21. Cabinet also directed officials to engage with suppliers, iwi and Māori, and key stakeholders to discuss how any infrastructure upgrades flowing from reform options might be funded, along with the time needed to transition to any new regime. The Minister of Local Government, supported by her officials, has led an active programme of engagement with local government and industry stakeholders since that time. The emphasis has been on an open environment, where stakeholders are encouraged to lead the discussion where possible, and bring any and all options to the table for consideration. Engagement has commenced with iwi and Māori, but is only in its initial stages.
22. This paper reports back on the policy work completed to date, and the results of stakeholder engagement. It seeks Cabinet's agreement to the process for three waters reform over the next 18 months, along with the work programme and high-level service delivery options which, from this point, will guide further engagement with stakeholders.

**Comment**

**Problem definition and case for change**

***Challenges across the three waters system***

23. Looking across the system, the best evidence available indicates there are system-wide challenges facing the three waters, and the response will require a whole-of-system approach, from source to tap and back again. The challenges vary for communities, and there are distinct challenges facing each of the services themselves. A number of themes have emerged across all of the three waters:

- 23.1 ***funding and financing to upgrade infrastructure lies at the heart of the problems facing the three waters.*** Many councils are struggling to fund plant and pipe infrastructure to the level required to meet standards and community aspirations, keep pace with population growth, and build resilience against natural events. The challenges manifest in different ways for councils of all sizes, but for many smaller councils, there is no clear way forward given the scale of the challenges. There is also a relationship with debt levels, with internally and externally imposed debt restrictions contributing to some of the funding and financing challenges;
- 23.2 ***capability challenges sit hand in hand with funding challenges.*** Good capability is the key to designing, procuring, delivering, and managing three waters services, particularly given the specialist nature of much of the infrastructure. Capability is also central to public health and environmental risk assessment in complex areas such as geology, water flows, and the impact of land use. Again, the challenges increase as population size decreases – many smaller rural and provincial councils face a greater struggle to access and retain specialist skills. Smaller councils by nature have smaller teams, with wider and more general skills, rather than specialists;
- 23.3 ***regulation of three waters is weak across the system.*** In many parts of the country, consumers cannot be certain that drinking water is safe, or that the system is contributing to good environmental outcomes. Both drinking water and environmental regulation exhibit, in differing degrees, inadequate stewardship, compliance, monitoring, and enforcement practices. There is also no formal system of economic regulation to ensure that consumers' long-term interests are being protected, and that services are value for money. Given that three waters service providers are natural monopolies, this is at odds both with infrastructure of a similar scale in New Zealand (such as telecommunications or electricity networks), and with good practice in comparable overseas jurisdictions.

***Challenges facing the drinking water system***

- 24. Ongoing annual reports of drinking water quality published by the Ministry of Health make it clear that demonstrably safe drinking water is not always being supplied around the country.
- 25. The current framework in the Health Act 1956 was introduced in 2007, with implementation staged according to size of supply from 2012 to 2016. Prior to this time, drinking water in New Zealand was largely unregulated, and compliance with standards and other measures was largely voluntary.

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26. Compliance with drinking water standards increased following the introduction of the current framework, but since that time progress has been at best incremental. The Havelock North Inquiry observed that overall compliance has not improved significantly since 2009. Compliance of large supplies (serving populations of 10,000 or greater) with drinking water standards is 88.4 per cent. Compliance rates decline significantly as the size of supplies decrease, to 31.5 per cent for small supplies serving populations of 101-500 people.
27. Unlike other areas such as road safety, smoking or alcohol consumption, consumers effectively have very little control over the quality of drinking water that comes from their tap, and must trust the system to safeguard their health.
28. The Havelock North Inquiry observed there is little understanding amongst the New Zealand public about the large numbers of people who become ill every year by consuming unsafe drinking water. The Inquiry accepted an estimate of up to 100,000 people per year. Ministry of Health clinical advice puts the estimate at between 18,000 and 35,000 people per year. The contamination of drinking water in Havelock North has demonstrated the significant implications that can occur when the system fails, including death, long-term chronic health problems, and widespread outbreak of illness.
29. The challenges facing New Zealand's drinking water quality are system-wide. The Havelock North Inquiry found "systemic failure" across service provision, regulation, governance, source protection, and system stewardship, and recommended a step change of major reforms.
30. Key problems and issues with the current drinking water system include:
  - 30.1 challenges meeting the cost of infrastructure upgrades to comply with drinking water standards, as community size decreases. A national estimate of the capital cost required to implement key recommendations of the Havelock North Inquiry, by Beca, was \$375 to \$575 million, with costs described as being unaffordable for many smaller communities;
  - 30.2 a statutory regime that places relatively weak obligations on suppliers to provide demonstrably safe drinking water, including the ability to rely on affordability as a defence for non-compliance with drinking water standards;
  - 30.3 an implementation approach that has focused primarily on practical support, influence and persuasion to ensure compliance, combined with no formal enforcement for serious or persistent non-compliance. No formal enforcement action has been taken against suppliers since the regime came into force, despite widespread annual non-compliance with a range of regulatory requirements that could have a material impact on water quality and safety (including drinking water standards, failures to meet requirements to monitor water supplies, and failures to take action taken following test results indicating *E. coli* contamination);
  - 30.4 lack of coordination between all players in the system, including suppliers, regional councils, district health boards, and the Ministry of Health, combined with inadequate whole-of-system oversight, which has led to poor understanding of risks and system performance;

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- 30.5 obligations in the Building Act 2004 for building owners to provide potable water are not fit for purpose or well integrated with the drinking water regime, and are not consistently monitored or enforced;
- 30.6 a narrowly focused and inadequately implemented framework for addressing risks to sources of drinking water, with little real connection to broader drinking water regulation.

### ***Challenges facing the wastewater system***

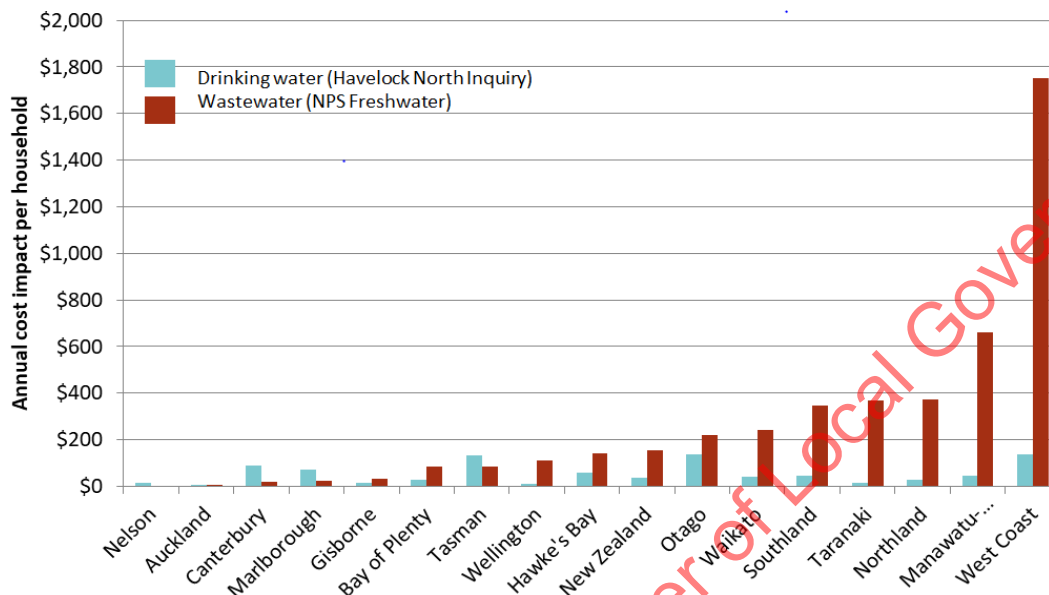
- 31. The best evidence available indicates that council wastewater systems are facing similar system-wide challenges as for drinking water, spanning funding challenges to core infrastructure, variable capability, weaknesses in regulation, and inadequate system stewardship. Wastewater plants are impacting on freshwater and coastal water quality, and sewage overflows are occurring at a frequency that is no longer acceptable for communities. Māori in particular have a strong aversion to the direct discharge of wastewater to water, often regardless of the degree of treatment prior to discharge.

### ***Environmental impact and infrastructure challenges***

- 32. It is clear that agricultural practices are placing the most pressure on freshwater environments. However, discharges from wastewater plants are also having an impact, particularly where multiple plants are scattered across a catchment or are operating poorly. Tackling this publicly-owned infrastructure will be necessary to make progress towards the Government's freshwater priorities, and wider environmental and urban outcomes.
- 33. National freshwater policy and community expectations are driving a push for better environmental outcomes from wastewater infrastructure. Under the National Policy Statement for Freshwater Management, regional councils must set objectives to maintain water quality for ecosystem health, and improve water quality for human health. Many communities are also expressing a strong desire to reduce or eliminate the discharge of sewage to freshwater and the coast. Together, these factors are expected to place significant demands on councils to upgrade wastewater treatment plants:
  - 33.1 a report commissioned by the Department of Internal Affairs from GHD and Boffa Miskell estimates the potential national cost of \$1.4 to \$2.1 billion to upgrade wastewater plants so that the associated catchments can achieve the "B" water quality state under the National Policy Statement for Freshwater Management;
  - 33.2 these costs would fall most heavily on small provincial towns: of 145 treatment plants discharging to freshwater, 122 service towns of 5000 people or less;
  - 33.3 a key challenge for these towns is to transition from relatively simple waste stabilisation pond infrastructure, which has variable performance and is difficult to upgrade, to more advanced treatment methods that are more costly and require more specialist skills to operate.

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34. The following chart demonstrates the scale of the funding challenges by region, comparing the annual cost impact per household quantified by Beca for drinking water (Havelock North Inquiry)<sup>1</sup> to the annual cost impact per household quantified by GHD and Boffa Miskell for wastewater (National Policy Statement for Freshwater Management).



35. These figures are only a portion of the costs facing the wastewater system and do not include significant additional unquantified funding challenges, including:

- 35.1 the cost of upgrading wastewater systems that discharge to the coast or to land, which in overall terms service a significantly larger portion of the population;
- 35.2 the cost of upgrading underground pipe infrastructure to significantly reduce the frequency of sewage overflows to rivers or beaches. Industry indications are this is the largest single cost facing wastewater services;
- 35.3 maintenance and upgrading of ageing plant and pipe infrastructure, to keep pace with population growth, and reduce impacts of disruptions or infrastructure failure from climate change or other natural hazards such as earthquakes.

36. The experience of Watercare in Auckland, and in similar overseas jurisdictions that have engaged in three waters reform, is that upgrading drinking water infrastructure is the public health priority, and generally occurs first. From that point, there is a longer term challenge, and significantly larger cost, to improve the environmental performance of wastewater systems, because of the scale and complexity of the infrastructure upgrades required.

<sup>1</sup> Beca's report was targeted at estimating the national cost of infrastructure upgrades associated with two key areas raised by the recommendations of the Havelock North Inquiry: mandatory compliance with drinking water standards, and abolition of secure bore status.



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### *Regulatory weaknesses relating to wastewater*

37. While each region is facing a different set of challenges, there is a growing national picture of regulatory weakness and lack of stewardship over wastewater services. Many regional councils do not provide assurance that good environmental outcomes are being reached. Key problems are:
- 37.1 the absence of a clear national framework for regulating the performance of wastewater services. Many overseas jurisdictions have adopted minimum wastewater discharge standards, including the European Union, the USA, and Canada;
  - 37.2 lack of public reporting on the environmental performance of wastewater treatment plants and the extent to which they comply with discharge consents. Many regions do not provide any public reporting around this public infrastructure at all, and are not required to by the current regulatory regime. In the Waikato and Manawatu-Whanganui, 50 per cent of plants were non-compliant with consent conditions in 2017-2018, yet this information is not readily available and there is limited transparency or accountability for this poor performance;
  - 37.3 high numbers (one in 10) of wastewater treatment plants legally operating on expired consents for long periods of time (in some cases, decades), with a bow wave of consents (one in five) due to expire by 2022;
  - 37.4 little formal enforcement action on the part of regional councils where consent conditions are breached, and concerns over the technical capability of some regional councils to effectively regulate wastewater services to achieve good outcomes for the environment and local communities;
  - 37.5 no quality assurance procedures for the safe production of biosolids from sewage sludge, and social and cultural resistance to the safe re-use of biosolids, which limits the ability of wastewater operators to recover resources from wastewater and contribute to wider environmental outcomes.

### ***Challenges facing the stormwater system***

38. There are significant challenges facing council stormwater services. The challenges (and the options for responding to them) are, however, different to those facing drinking water and wastewater. In large part, this is because stormwater is an open system that is closely associated with roading and urban land use, and does not include a significant treatment component.
39. In terms of environmental challenges, stormwater discharges are the main contributor to poor water quality in urban areas, which is generally worse than in agricultural catchment areas. This is because impervious surfaces predominate in urban areas, which channel contaminated run-off (such as animal faeces, heavy metals, and industrial contaminants) into stormwater systems and often directly into downstream water bodies. These impervious surfaces also increase the volume and speed of runoff, contributing to significant erosion and habitat degradation.

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40. The solution to improving urban water quality lies across a range of areas: council planning, urban design, development practices, and consumer behaviour. In many cases, urban growth will exacerbate water quality pressures unless councils and developers take a proactive approach to “water-sensitive design” and increasing porous surfaces. This means that improving urban water quality is a longer-term challenge that councils will have to plan their way out of, in addition to investing in significant network upgrades.
41. In many cities and towns, the stormwater network is engineered to provide overflow points where the wastewater network is inundated in high rain events. This means reduction of sewage overflows will need to take account of both networks in a system-wide way.
42. Other challenges facing stormwater systems are maintenance, resilience, and climate change. However, the magnitude of the challenges, where the vulnerable areas are, and whether councils are able to respond on their own, are not well understood. There is currently a lack of consistent information both about the condition of stormwater infrastructure and the impact of climate change and other natural hazards, to which stormwater is particularly susceptible.

### ***Conclusion – there is a clear case for change***

43. The best evidence available about the three waters system indicates that the status quo is not sustainable in the long term. There is, moreover, an opportunity to do things differently. Models both domestically and internationally demonstrate that better quality services can be delivered to consumers more efficiently, and the regulatory systems sitting around them can provide much greater safeguards to public health and environmental performance than are currently in place.
44. In terms of service provision, there is no clear way forward for many communities, particularly those that are small or in provincial areas, to fund the infrastructure maintenance and upgrades necessary to safeguard public health, reduce the environmental impact of wastewater systems, or meet national standards.
45. Even if the funding and financing challenges are addressed, population changes and climate change will continue to place long-term pressure on the system. Alongside this, the existing fragmentation of service provision means that many councils will continue to face capability challenges because of their small scale.
46. In terms of regulation, we think the case has been made for step change reform to regulation of drinking water. There is also a case for targeted reform of environmental regulation of wastewater services within the existing Resource Management Act 1991 framework, and greater transparency of the operation of both wastewater and stormwater systems. Across all three waters services, there is a case for significantly better system coherence and stewardship than currently exists. Finally, there is likely to be a case for economic regulation (as is common in overseas jurisdictions) to provide assurance that the system is providing value for money to consumers, and give better oversight of service performance and infrastructure resilience.

**Engagement with stakeholders – activities and feedback so far**

47. There has been active engagement to date with local government and peak industry representatives on the Three Waters Review, led by the Minister of Local Government. The emphasis has been on an open environment, where stakeholders are encouraged to lead the discussion where possible, and bring any and all options to the table for consideration.
48. Engagement has occurred in a range of forums, including large forums such as:
  - 48.1 the Water Summit convened by Local Government New Zealand, Water New Zealand, and the Institute of Public Works Engineers Australasia, in May 2018;
  - 48.2 the 2018 Local Government New Zealand Annual Conference;
  - 48.3 the 2018 Society of Local Government Managers Annual Summit;
  - 48.4 the 2018 Infrastructure New Zealand Building Nations Symposium.
49. Officials from the Department of Internal Affairs have convened a Three Waters Reference Group with Local Government New Zealand as a forum where ideas can be shared and discussed with selected mayors and local government chief executives.
50. Feedback from stakeholders to date indicates there are a broad range of views:
  - 50.1 there is a widespread view that significant reform of drinking water regulation is required, and many feel this needs to occur as a priority;
  - 50.2 some in the sector do not believe the case has been made for change to environmental regulation;
  - 50.3 views on service provision are mixed among local government stakeholders:
    - 50.3.1 some believe there should be little or no change to current service delivery arrangements;
    - 50.3.2 some believe that central government should set the regulatory framework, and leave local government to sort out service delivery – and if changes to regulation mean infrastructure upgrades are required, central government should contribute funding to enable this to occur;
    - 50.3.3 some local government stakeholders are considering aggregation of service delivery and other shared service arrangements;
  - 50.4 there is greater consensus among peak industry bodies and leading water practitioners about the need for significant reform across both regulation and service provision;
  - 50.5 small communities have highlighted the unaffordability of upgrades of three waters infrastructure for their communities.

**Engagement with iwi and Māori**

51. Engagement with iwi and Māori is important not only from a Crown/Māori relationship and Treaty of Waitangi perspective, but also because of the significant expertise and experience iwi and Māori have in resource management, infrastructure development, and water issues. It will be necessary to engage at the national, catchment, and local levels given the range of iwi and Māori interests, and also the different and often localised way that three waters challenges are experienced by Māori communities.

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52. The Minister of Local Government has commenced initial discussions with iwi and Māori. The approach she intends to take is to engage at different levels and use existing mechanisms and forums wherever possible, given many Māori communities are at engagement saturation point with other government processes.

### Road map for decisions on three waters reform – timetable and work programme

53. We propose that the Government embark on a process of three waters reform over the next 18 months, seeking detailed policy decisions in tranches in 2019, and with a view to introducing legislation in 2020.
54. The proposed timetable for this work is as follows:
  - 54.1 In **June 2019**, the Ministers of Local Government, Health, and Environment will report back to Cabinet with detailed policy proposals for drinking water and environmental regulation of the three waters system, to enable drafting of legislation to commence. Proposals will also include the institutional form and oversight and stewardship arrangements necessary to give effect to these reforms.
  - 54.2 In **late 2019**, the Minister of Local Government will report back to Cabinet with detailed policy proposals for service delivery arrangements, to enable drafting of legislation to commence if required. These decisions will be informed by ongoing engagement, led by the Minister of Local Government, with local government and other stakeholders, about the service delivery reform options summarised in **Appendix 1** to this paper.
  - 54.3 In **late 2019**, the Minister of Commerce and Consumer Affairs, and the Minister of Local Government, will report back to Cabinet with any desired policy proposals for the economic regulation of three waters services, to enable drafting of legislation if appropriate. These proposals will be dependent on decisions about service delivery arrangements.
  - 54.4 Finally, in **late 2019**, the Ministers of Local Government, Health, Environment, and Commerce and Consumer Affairs will report to Cabinet on proposals to improve oversight and stewardship across the whole three waters system. These proposals will take account of decisions on service delivery arrangements and economic regulation, as well as previous decisions on oversight and stewardship to support drinking water and environmental regulation. This approach will ensure coordination, integration, and regulatory coherence across all components of the wider system.
55. This sequencing reflects that it is important for decisions on service delivery to be made after the June 2019 decisions on regulation, to give local government and other stakeholders the opportunity to engage on the options in light of the proposed new regulatory environment. The phasing and sequencing of oversight and stewardship arrangements reflects the need to ensure a whole-of-system perspective continues to be taken as the new three waters system is progressively established.
56. The policy and legislation reform process will continue to be overseen by the group of Ministers with portfolio interests in water infrastructure, comprising the Ministers of Local Government, Finance, Environment, Health, Infrastructure, Climate Change, Commerce and Consumer Affairs, Civil Defence, Housing and Urban Development, Transport, Conservation, and Rural Communities.

***A whole-of-system approach to reform***

57. The response to the challenges facing the three waters requires a whole-of-system approach, from source to tap and back again. Regulation and service provision for the three waters are complex and interdependent, spanning multiple central and local government responsibilities. A response that simply targets one area carries the risk of falling short or undermining outcomes in other areas, even in the short term.
58. Key interdependencies are as follows:
- 58.1 *for service provision*, any future state needs to treat reticulated council drinking water and wastewater services as a single network, where the only gap is between the tap and the drain, where the consumers are the same, and where the expertise and capability are best housed together;
  - 58.2 *for regulation*, any future state needs to recognise that public health, environmental and economic regulation of the three waters have cross-impacts and are synergistic; that is, the combined sum of regulation across these areas is greater than the separate parts. Regulations across these areas therefore need to be viewed as a single coherent system;
  - 58.3 finally, any future state needs to recognise that *regulation and service provision* are interdependent. Good outcomes across the three waters (such as safer drinking water, better environmental performance, or better outcomes for consumers) will only occur if regulation and service provision are dealt with together.

***Proposed outcomes for three waters reform***

59. We have identified the following high-level outcomes for three waters reform, and propose that these guide the reform process and form the basis for the future state of the system:
- 59.1 existing three waters assets and services must remain in public ownership, and the system will incorporate safeguards to protect public ownership of this essential infrastructure both now and in the future;
  - 59.2 there needs to be a sustainable three waters system that operates in the long-term interests of consumers, communities, tangata whenua, and New Zealand generally;
  - 59.3 drinking water needs to be safe, acceptable and reliable;
  - 59.4 environmental performance of wastewater and stormwater needs to realise the aspirations of communities in which services are situated, including tangata whenua, and New Zealand generally;
  - 59.5 there needs to be effective, efficient, accountable, and resilient three waters services, with transparent information about performance, and delivered at prices that consumers can afford;
  - 59.6 regulatory stewardship and systems need to be fit for purpose, and provide assurance that these outcomes are being achieved and safeguarded.

***Engagement from this point forward***

60. There will be ongoing engagement with stakeholders, iwi and Māori throughout the reform process. The Minister of Local Government will lead engagement with these groups on the reform proposals outlined in this paper, and will report back to Cabinet and the group of Ministers overseeing this work as part of the ongoing policy process.

***Proposed scope of June 2019 Cabinet paper(s)***

61. In June 2019, the Ministers of Local Government, Environment, and Health will report back to Cabinet with detailed policy proposals for regulation of drinking water, wastewater, and stormwater, to enable drafting of legislation to commence. This work will cover the following areas.

***Components of a more effective approach to ensuring drinking water safety***

62. Work in this area will include the components of a new drinking water regulatory system, including:
- 62.1 the purpose and intended outcomes for drinking water regulation;
  - 62.2 the scope of drinking water regulation;
  - 62.3 the roles, functions, duties and responsibilities of organisations and persons for ensuring drinking water safety, including the establishment of a dedicated drinking water regulator;
  - 62.4 how the regulator will work to achieve compliance with regulatory objectives and duties, including:
    - 62.4.1 how drinking water standards and other regulatory requirements will be set, maintained, and promoted;
    - 62.4.2 how risks to drinking water safety will be assessed and managed;
    - 62.4.3 how drinking water suppliers will be encouraged and supported to meet regulatory requirements; and
    - 62.4.4 compliance, monitoring and enforcement arrangements;
  - 62.5 how information about the performance of drinking water suppliers and their compliance with regulatory duties will be reported, to provide improved transparency and assurance to the public of the safety of drinking water;
  - 62.6 how the regulator will interface with statutory public health protection functions, including those undertaken by the Director-General of Health, Director of Public Health, Ministry of Health, medical officers of health, and health protection officers (including public health surveillance, investigation and response).

***Managing risks to drinking water sources***

63. Work in this area will comprise a new risk management regime for drinking water sources that is effectively integrated with the other components of the drinking water regulatory system, including the drinking water standards. Key components will include:
- 63.1 the purpose and intended outcome of the new regime;
  - 63.2 how risks to drinking water sources will be assessed and managed;

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- 63.3 roles, functions and responsibilities of organisations and persons in identifying and managing risks to drinking water sources;
- 63.4 the interface with regional planning and regulation of land use under the Resource Management Act 1991.

### *Environmental regulation of wastewater and stormwater*

- 64. Work in this area will comprise targeted reform of environmental regulation of wastewater, aimed at lifting environmental performance within the existing framework of the Resource Management Act 1991. It will also include measures to give greater transparency around the operation of wastewater and stormwater systems, and to promote better practice. These proposals could comprise the following elements:
  - 64.1 national-level environmental performance requirements for wastewater networks. Such requirements could include minimum standards for discharges from wastewater treatment plants, and targets for wastewater overflows;
  - 64.2 good practice guidelines to promote the uptake of water-sensitive urban design in stormwater networks, and for the recovery and re-use of biosolids produced by wastewater treatment plants;
  - 64.3 transparent public information about the environmental performance of wastewater and stormwater networks, and their compliance with regulatory requirements;
  - 64.4 improved compliance, monitoring and enforcement arrangements for wastewater and stormwater services, including for consent holders that rely on section 124 of the Resource Management Act 1991 (which enables resource consent holders to continue operating on expired consents). A focus of this workstream will be to explore links with the Compliance Oversight Unit for the Resource Management Act 1991.
- 65. Officials' advice will include sequencing and prioritisation of proposed functions, and their relationship to broader regulatory arrangements.

### *Institutional arrangements, oversight and stewardship for drinking water and environmental regulation*

- 66. Work in this area will consider the institutional arrangements, and oversight and stewardship needed to support and enable the drinking water and environmental regulatory reforms arising from the work described above. This will include:
  - 66.1 options for the establishment of regulatory functions and the associated institutional arrangements, including the potential for co-location of environmental and drinking water regulatory functions;
  - 66.2 advice on the resources needed to provide for the proposed regulatory and other interventions, and how these could be funded;
  - 66.3 advice on oversight and stewardship arrangements for drinking water and environmental regulation.

***Proposed scope of late 2019 Cabinet paper(s)***

*Service delivery arrangements*

67. In late 2019, the Minister of Local Government will report back to Cabinet with detailed policy proposals relating to service delivery arrangements for the three waters. If required, this Cabinet paper will seek the necessary decisions to enable drafting of legislation to commence.
68. Significant work will be required during late 2018 and 2019 to enable the development of policy proposals in this area. This will involve a thorough analysis of the high-level options outlined below, including cost-benefit analyses, and an examination of implementation issues.
69. Engagement with the local government sector and other stakeholders will be a crucial part of this process. This engagement will be based primarily around the high-level options below, but with sufficient flexibility to ensure the most effective solutions are identified and discussed. It will also be informed by options analysis exercises, and decisions made in June 2019 on the drinking water and environmental regulatory regimes.
70. An aggregation option has been included because the experience of Watercare in Auckland, which provides drinking water and wastewater services for Auckland Council, and Wellington Water, which provides all three waters services for five councils in the Wellington region, has been that significant benefits can flow from aggregation of service delivery.
71. The primary difference between the two organisations is that Watercare owns its assets and has a direct contractual relationship with customers. It is thus able to set standard charges across the entire region, and invest where need is greatest. In contrast, Wellington Water does not own its assets and simply provides services on behalf of its parent councils. Rates continue to be levied by each council, and Wellington Water cannot move this income across council boundaries.
72. In essence, this means that the scale benefits of Wellington Water are largely limited to capability, as it can employ a significantly larger, more specialised workforce than each council could on its own. Watercare, in contrast, has been able to address both funding and capability challenges in the Auckland region, and has been able to upgrade infrastructure in areas that historically have otherwise been unable to afford this (such as Franklin and Rodney). Both Wellington Water and Watercare have been able to take a more strategic regional and catchment view of water services.
73. While there are many potential options and geographical configurations for three waters service delivery arrangements, the following high-level options appear to provide the best fit for the New Zealand context and will be the subject of further analysis and engagement.
  - 73.1 **Proceed with regulatory reforms only, with voluntary, sector-led reforms to service delivery arrangements.** This approach reflects the majority view from elected local government officials and Local Government New Zealand that any reform should be a local government decision. It also reflects that councils in some parts of the country are discussing the development of collaborative arrangements and shared service organisations voluntarily.



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- 73.2 **Establish a three waters fund to support voluntary service delivery improvements.** This approach involves the creation of a national, long-term fund, as a mechanism for supporting improvements to current service delivery arrangements and/or incentivising voluntary changes (the approach described above). Revenue sources for such a fund are yet to be determined.
- 73.3 **Create an aggregated system of dedicated, publicly owned drinking water and wastewater providers.**<sup>2</sup> This approach would involve the creation of statutory, aggregated, self-funding water utilities. These providers could be configured in various ways, such as:
- 73.3.1 on a regional<sup>3</sup> basis, with approximately 12 providers;
  - 73.3.2 on a multi-regional basis, with approximately three to five providers.
74. Further details about these options, including their key features, and some of the high-level advantages and disadvantages, are provided in Appendix 1.

### *Economic regulation to protect consumers*

75. In late 2019, the Minister of Commerce and Consumer Affairs and Minister of Local Government will report to Cabinet on any desirable policy proposals for economic regulation, to protect the interests of consumers.
76. These proposals would be influenced by decisions on future service delivery arrangements, including the numbers and scale of service providers, their purpose, and how they are governed. Once decisions on these areas have been taken, officials will be able to determine whether economic regulation should occur, and what form of economic regulation is likely to be appropriate (for example, relatively light-handed information disclosure, or stronger and more costly price-quality regulation).

### *Three waters system oversight and stewardship*

77. Finally, in late 2019, the Ministers of Local Government, Health, Environment, and Commerce and Consumer Affairs will report to Cabinet on proposals to improve oversight and stewardship across the whole three waters system.
78. Work in this area will include:
- 78.1 the arrangements necessary for effective stewardship and oversight of the drinking water, wastewater and stormwater systems, including linkages between the regulatory and service delivery functions, how system performance will be measured and reported, and how system-wide outcomes will be delivered;
  - 78.2 the resources needed to support effective stewardship and oversight functions;
  - 78.3 the statutory architecture needed to give effect to improved stewardship and oversight across the three waters system, and regulatory and other interventions that are required.

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<sup>2</sup> If established, aggregated providers would be responsible for both drinking water and wastewater services. There could be potential for stormwater service delivery to be retained within councils.

<sup>3</sup> With a regional model, it is likely that most water organisations would be based within existing regional council boundaries. However, we would need to explore the possibility of having fewer than 16 service providers (the number of regional councils). Some regions have relatively small populations (under 50,000), and may not be able to provide water services on a sustainable, affordable basis even if aggregated to this level.

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79. This work will be informed by the June 2019 decisions on drinking water and environmental regulatory institutional and stewardship arrangements (such as the functions, form and location of the regulator/s), and by later decisions on economic regulation and service delivery arrangements. It will ensure these decisions align effectively to produce a well-coordinated, integrated and coherent regulatory system across the three waters.

### Interim measures to improve the current drinking water system

80. Until Government decisions on a new regime for drinking water are implemented, it will be essential for those who have roles and responsibilities in the current drinking water system to continue their focus on drinking water safety.
81. The Government has already adopted a number of the Havelock North Inquiry's recommendations to improve how the current drinking water regime functions.
82. The Ministry of Health is leading the implementation of a range of interim measures, based on recommendations made by the Havelock North Inquiry. For example, the Director-General of Health issued a formal statement under the Health Act 1956 recommending treatment of any untreated drinking water supplies. The majority of previously untreated supplies are now being disinfected with chlorine (although some suppliers intend this to be a temporary measure). Other interim measures have included updated training for statutory officers with a focus on compliance and enforcement, and updating drinking water guidance materials for suppliers.
83. In April 2018, Cabinet invited the Ministers of Finance, Local Government, and Health to report back with further advice on two key recommendations made by the Havelock North Inquiry: mandatory residual treatment of drinking water (such as chlorination), and mandatory full compliance with drinking water standards by networked suppliers (CAB-18-Min-0147 refers).
84. Advice to Cabinet on these matters is dependent on proposals for system-wide reform of the drinking water regulatory regime and a new risk management regime for sources of drinking water, and will therefore occur in June 2019.

### Consultation

85. The Three Waters Review is a cross-departmental working group led by the Department of Internal Affairs, comprising the Ministry of Health, the Ministry for the Environment, the Ministry of Business, Innovation and Employment, the Treasury, the New Zealand Transport Agency, the Ministry for Primary Industries, and the Ministry of Civil Defence and Emergency Management. These agencies, along with the Department of the Prime Minister and Cabinet, and Te Puni Kōkiri, have been consulted on this Cabinet paper.
86. 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.

### Financial implications

87. 9(2)(f)(iv)
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### Human rights / gender implications / disability perspective

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

### Legislative implications

89. There are no direct legislative implications from this paper. However, proposals arising from some of the work programmes described in this paper are likely to require legislation to implement. This would be discussed in the papers to Cabinet proposed for 2019.

### Regulatory impact analysis

90. A regulatory impact statement may be required for the proposals arising from this paper and will be covered in the report back to Cabinet in 2019.

### Publicity

91. There is widespread stakeholder interest in policy proposals for the future state of the three waters. We therefore propose to proactively release this Cabinet paper.
92. This paper proposes ongoing engagement with stakeholders, iwi and Māori as part of the development of policy options for the future state of three waters throughout 2019. As outlined in this paper, this engagement will be led by the Minister of Local Government.

### Recommendations

93. The Ministers of Local Government and Health recommend that the Cabinet Economic Development Committee:

#### Background

1. **note** that on 9 April 2018, Cabinet invited the Ministers of Local Government and Health to report back on the options for the future regulation and service delivery of the three waters, including the Government response to the Havelock North Drinking Water Inquiry (CAB-18-Min-0145 and CAB-18-Min-147 refer);
2. **note** that Cabinet directed that oversight of this work be provided by a group of Ministers with portfolio interests in water infrastructure, comprising the Ministers of Finance, Environment, Health, Infrastructure, Climate Change, Commerce and Consumer Affairs, Civil Defence, Housing and Urban Development, Transport, and Conservation, and that the Minister for Rural Communities subsequently joined this group;

#### Challenges facing the three waters

3. **note** that the best evidence available indicates there are system-wide challenges facing the three waters, and the response will require a whole-of-system approach, from source to tap and back again;
4. **note** that, while the challenges vary across communities and for each of the three waters services, a number of themes have emerged that taken collectively mean the status quo is not sustainable in the long term:

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- 4.1 funding to upgrade infrastructure is unaffordable for many communities, with councils struggling to fund plant and pipe infrastructure to the level required to meet standards and community aspirations, keep pace with population growth, or ensure resilience to climate change and other natural hazards such as earthquakes;
- 4.2 capability is a challenge for many councils, particularly in rural and provincial areas, which can struggle to find and retain staff with specialist skills to design, procure, deliver, and manage three waters services;
- 4.3 across many areas, the challenges increase as population size decreases, and for many small towns and sparsely populated regions there is no clear way forward;
- 4.4 regulation of three waters is weak across the system, with drinking water and environmental regulation not properly providing assurance that good outcomes are always being reached, and no real system of economic regulation to ensure that the long-term interests of consumers are being protected or that services are value for money;

### Road map for future decisions on three waters reform – timetable and scope

5. **agree** 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;
6. **agree** that the overall three waters reform process will be led by the Minister of Local Government, with shared accountability with the Minister of Health (drinking water regulation), Minister for the Environment (environmental regulation), and Minister of Commerce and Consumer Affairs (economic regulation);
7. **agree** that oversight will be provided by a group of Ministers with portfolio interests in water infrastructure, comprising the Ministers of Finance, Environment, Infrastructure, Climate Change, Commerce and Consumer Affairs, Civil Defence, Housing and Urban Development, Transport, Conservation, and Rural Communities;
8. **agree** that the outcomes for reforms will be as follows:
  - 8.1 existing three waters assets and services must remain in public ownership, and the system will incorporate safeguards to protect public ownership of this essential infrastructure, both now and in the future;
  - 8.2 a sustainable three waters system that operates in the long-term interests of consumers, communities, tangata whenua, and New Zealand generally;
  - 8.3 drinking water that is safe, acceptable and reliable;
  - 8.4 environmental performance of wastewater and stormwater realises the aspirations of communities in which they are situated, including tangata whenua, and New Zealand generally;
  - 8.5 three waters services are delivered in a way that is efficient, effective, resilient and accountable, with transparent information about performance, and prices consumers can afford;
  - 8.6 regulatory stewardship of the three waters system is fit for purpose, and provides assurance that these outcomes are being achieved and safeguarded;

## IN CONFIDENCE

9. **agree** that in June 2019, the Ministers of Local Government, Health, and Environment will report back to Cabinet with detailed policy proposals for drinking water and environmental regulation of the three waters, to enable drafting of legislation to commence in the following areas:
  - 9.1 system-wide reform of regulation of drinking water;
  - 9.2 a new risk management regime for sources of drinking water;
  - 9.3 targeted reform of environmental regulation of wastewater, aimed at lifting its environmental performance within the existing framework of the Resource Management Act 1991;
  - 9.4 measures to give greater transparency around the operation of wastewater and stormwater systems, and to promote better practice;
  - 9.5 the institutional arrangements, and oversight and stewardship needed to give effect to these reforms;
10. **agree** that in late 2019, the Minister of Local Government will report back to Cabinet with detailed policy proposals for service delivery arrangements, to enable drafting of legislation if required, following further analysis and engagement on the following high-level options:
  - 10.1 regulatory reforms only, with voluntary, sector-led reforms to service delivery arrangements;
  - 10.2 a three waters fund to support voluntary service delivery improvements;
  - 10.3 an aggregated system of dedicated, publicly-owned, drinking water and wastewater providers;
11. **agree** that the identification of these three high-level options does not preclude or constrain the investigation or development of other options that could be effective in responding to the challenges identified, and deliver a long-term, sustainable three waters system;
12. **agree** that in late 2019, the Minister of Local Government and the Minister of Commerce and Consumer Affairs will report back to Cabinet with policy proposals for the economic regulation of three waters services, to enable drafting of legislation to commence, if appropriate;
13. **agree** that in late 2019, the Ministers of Local Government, Health, Environment, and Commerce and Consumer Affairs will report back to Cabinet with proposals to improve oversight and stewardship across the three waters system (taking account of decisions on service delivery arrangements and economic regulation, as well as previous decisions on oversight and stewardship to support drinking water and environmental regulation);

### Engagement

14. **agree** that there will be ongoing engagement with stakeholders as part of the development of policy options for the future state of three waters, which will be led by the Minister of Local Government;
15. **agree** that ongoing engagement with iwi and Māori, which is important from a Crown/Māori relationship and Treaty of Waitangi perspective, will also be led by the Minister of Local Government;

**Financial implications**

16. 9(2)(f)(iv)



**Publicity**

17. agree that, because there is widespread stakeholder interest in policy proposals for the future state of the three waters system, the Minister of Local Government will proactively release this Cabinet paper and the associated minute of decision.

Authorised for lodgement

Hon Nanaia Mahuta

Minister of Local Government

Hon Dr David Clark

Minister of Health

Proactively released by the Minister of Local Government

Appendix 1: High-level options for water service delivery arrangements, for further analysis and engagement

	Regulatory reforms only, with voluntary, sector-led reforms to service delivery arrangements	Establish a three waters fund to support voluntary service delivery improvements	Create an aggregated system of dedicated, publicly owned drinking water and wastewater providers
<b>Key features</b>	<ul style="list-style-type: none"> <li>Relies on changes to the three waters regulatory system, and a focus on outcomes, with voluntary, sector-led changes to service delivery arrangements.</li> </ul>	<ul style="list-style-type: none"> <li>Involves the creation of a centrally collected and administered three waters fund.</li> <li>Funds would be distributed according to nationally consistent criteria.</li> <li>Conditions could be attached to receipt of funding to support or incentivise voluntary reforms under the 'regulatory reform only' option.</li> </ul>	<ul style="list-style-type: none"> <li>Involves the statutory creation of aggregated, dedicated, self-funding water utilities, which could be configured:                             <ul style="list-style-type: none"> <li>on a regional basis (e.g. with approximately 12 providers – to reflect that regions with relatively small populations may need to join with neighbouring regions)</li> <li>on a multi-regional basis (e.g. with approximately 3 to 5 providers).</li> </ul> </li> <li>The water utilities would be asset owning (similar to the Watercare model), with professional skills-based boards of directors, mechanisms to ensure local democratic input, and local service delivery presence.</li> </ul>
<b>Potential benefits</b>	<ul style="list-style-type: none"> <li>Least change for the local government sector.</li> <li>Likely to have significant support from local government elected members.</li> <li>Builds on existing models, such as Wellington Water, and interest in voluntary approaches to 'aggregation'.</li> </ul>	<ul style="list-style-type: none"> <li>Low to moderate change for the sector.</li> <li>Likely to have significant support from local government elected members.</li> <li>Use of conditions or incentives could deliver the desired outcomes faster than the regulatory reform only option.</li> </ul>	<ul style="list-style-type: none"> <li>Fastest approach to delivering significant, system-wide improvements.</li> <li>Long-term sustainability – large scale and self-funding.</li> <li>Addresses key challenges identified, including:                             <ul style="list-style-type: none"> <li>system-wide capability and capacity gains – ability to attract and retain appropriate numbers of staff, with range of specialist skills</li> <li>affordability for consumers/communities – ability to generate significant revenue streams and spread costs over a wide area; potential for economies of scale.</li> </ul> </li> <li>Small number of similar providers enables benchmarking and a more efficient regulatory system.</li> </ul>
<b>Potential disadvantages and risks</b>	<ul style="list-style-type: none"> <li>Unless large scale voluntary reform is undertaken across all councils it is unlikely to address the:                             <ul style="list-style-type: none"> <li>capability challenge at a system level</li> <li>affordability challenge, unless assets are transferred as per the Watercare model (which was not a voluntary reform).</li> </ul> </li> <li>Likely to take the longest time to deliver a long-term sustainable system.</li> <li>Having a large number of service providers would make it costly to operate an efficient regulatory system and deliver nationally consistent information to consumers.</li> </ul>	<ul style="list-style-type: none"> <li>Uncertainty over the source and security of revenue for the fund (Crown funding or a form of water levy/tax).</li> <li>Cost and bureaucracy of collecting and administering a national fund.</li> <li>Potential for blurring of responsibilities between the fund administrator and three waters regulators/standard-setting agencies.</li> <li>Added complexity for the regulatory system of multiple revenue sources.</li> </ul>	<ul style="list-style-type: none"> <li>Potential for a significant impact on local government – including concerns about:                             <ul style="list-style-type: none"> <li>long-term viability of smaller councils, if they no longer have responsibility for water services</li> <li>possible impact on the ability of some councils to raise debt if they do not own water assets</li> <li>maintaining links between water infrastructure and council roles in planning and development.</li> </ul> </li> <li>Weaker links between elected governance arrangements and local communities.</li> <li>Low level of support from local government elected members.</li> </ul>