Regulatory Impact Statement: Wastewater standards

Coversheet

Purpose of Document	
Decision sought:	Cabinet's approval is being sought to release a discussion document that seeks feedback on four wastewater environmental performance standards: • discharge of wastewater to land • discharge of wastewater to water • beneficial reuse of biosolids to land, and • monitoring and reporting requirements for wastewater network overflows.
Advising agencies:	Water Services Authority - Taumata Arowai
Proposing Ministers:	Hon Simon Watts, Minister of Local Government
Date finalised:	10 February 2025

Problem Definition

The effects-based approach to consenting wastewater treatment plants under the Resource Management Act 1991 (the RMA) is costly, time-consuming, and has led to high variability in the consent conditions applied across the country, with inconsistent and sometimes poor public health and environmental outcomes.

Approximately 21 percent of wastewater treatment plants are operating on expired consents due to, for example, capacity and capability constraints of small councils to manage the consenting process, as well as affordability constraints to meet community expectations. Operating on expired consents is a significant indicator of public health and environmental risk.

Executive Summary

This is an interim Regulatory Impact Statement (RIS) that supports the release of a discussion document proposing New Zealand's first set of wastewater environmental performance standards (wastewater standards). Wastewater standards are provided for under the Water Services Act 2021 (the Water Services Act). These standards may include (but are not limited to) requirements, limits, conditions, or prohibitions related to activities associated with wastewater networks.

The policy decision for a single standard approach has been made as part of the Local Government (Water Services) Bill (the Bill), which is expected to be enacted in mid-2025. This will result in changes in legislation, mandating a single standard approach whereby regional councils cannot deviate from the wastewater standards unless on an 'exceptions' basis.

The discussion document is not consulting on the decision to implement wastewater standards. Rather, it seeks feedback on an initial set of wastewater standards that target areas where performance improvements will be most effective and cover most consents for wastewater treatment plants. This is a narrower set of standards than the legislation enables.

Once submissions have been received, a final proposal will be developed for the Minister of Local Government's consideration. The intent is that regulations implementing wastewater standards will come into effect in mid- to late-2025, after the Bill is enacted.

Three options have been assessed

Section 138 of the Water Services Act provides for wastewater standards that relate to discharges to air, water, or land; biosolids and other byproducts from wastewater; energy use; and waste that is introduced by a third party into a wastewater network.

This RIS assesses three options for implementing wastewater standards:

- **Option one: No standards are implemented (counterfactual).** As the legislative provisions for wastewater standards in the Water Services Act and the Bill are permissive rather mandatory, under this option no wastewater standards are introduced. Therefore, there is continued reliance on the existing effects-based approach to consenting wastewater infrastructure.
- **Option two: Standards are implemented for discharges to land and water, beneficial reuse of biosolids, and risk management plans for overflows (the Authority's preferred option).** Under this option, a prioritised set of wastewater standards that are provided for under the Water Services Act would be implemented.
- **Option three: Standards are implemented for all matters provided for under the Water Services Act.** Under this option, there would be implementation of as many wastewater standards to be considered under consents for wastewater treatment plants as possible.

The Water Services Authority (the Authority) recommends option two because it best meets the policy objectives and corresponding assessment criteria in the timeframes available. Option two will address key challenges in the regulatory system by promoting efficiency, and support consistency and transparency in public health and environmental performance across New Zealand, while providing a relatively quick and practical approach to implementation. Over time, option two will also support standardisation of infrastructure and its operation, promoting further efficiencies. Overall, this option finds a balance between achieving the greatest amount of standardisation within the timeframes available. It prioritises the wastewater standards and changes that most effectively manage the challenges facing the regulatory system together with risks to public health and the environment – discharges to land and water, biosolids, as well as risk management plans for overflows. It is considered that this option will lead to more confidence in investment decisions and promote standardisation of design, procurement, material selection, and construction of treatment plants.

This option would not set standards for discharges to air, energy use, or waste that is introduced by a third party into a wastewater network. These matters would not go unregulated. Rather, they would continue to be considered on a case-by-case basis by

regional councils as they are now. This option leaves the door open for learning from the first set of standards to inform future decisions on the setting of standards for other matters.

A glossary of the key terms used in this RIS is available in Appendix A.

Limitations and Constraints on Analysis

Limitations

The discussion document and RIS have been developed at pace

Following Ministerial direction, and pending completion of the legislative process, it is intended that the wastewater standards will be in place as soon as practicable after the enactment of the Bill. This has meant that the discussion document and RIS have been developed at pace to meet this timeframe.

As such, we have relied on limited information available at a point in time

Analysis in this RIS has relied on the information available at the time of writing, and we note that further information is being produced during the development of this RIS and the discussion document, including a stocktake of consents and regional plans.

The RIS was also drafted in parallel with the wastewater standards being produced and the discussion document drafted. This has meant that not all information on the policy proposals is available at this time, including the impacts. This is particularly the case for the impacts on small wastewater treatment plants, where a separate standard is being developed to ensure that proposals are cost effective for this infrastructure. Therefore, our analysis, which relies on case studies to assess impacts, has a number of assumptions and limitations which are outlined further below.[1]

Limited information is available on the state of existing wastewater infrastructure, the levels of locally set conditions and requirements to mitigate impacts on the environment, and compliance by territorial authorities in their provision of wastewater services with these requirements. There is also no national information on the conditions and requirements that regional councils will in future require of territorial authorities in consenting new and reconsenting existing plants, and networks under the current effects-based approach.

The information and analysis behind these proposals has relied on the following:

- Background literature including a comprehensive report prepared for the Ministry for the Environment by Beca, GHD, and Boffa Miskell, and two previous external reports prepared for the Department of Internal Affairs by GHD and Boffa Miskell. These reports provided advice on how New Zealand could create a strong and sustainable wastewater sector, given affordability constraints facing communities.
- Technical reports on what each of the proposed standards should look like and how they should be implemented, covering discharge to water, discharge to land,

[1] Note that the case study approach discussed in the RIS is separate to the case studies discussed in the discussion document.

beneficial reuse of biosolids, and risk-based monitoring and reporting arrangements for overflows.

- Case studies of wastewater treatment arrangements to better understand Māori values and perspectives relating to wastewater treatment and how existing arrangements have reflected these perspectives.
- Insights from the Technical Review Group (discussed further below).
- Additional technical advice for the proposed discharge to water and discharge to land standards proposing detailed treatment limits for both areas, how receiving environments should be categorised, and a “small plant” standard that is tailored to plants serving populations of 1,000 or less.

We have used a case study approach to quantify impacts as far as possible

Given the limited information available at this time, broad quantification of the impacts is challenging. Therefore, the impact analysis below provides a qualitative assessment of the impacts of the proposed wastewater standards using a case study approach.

The case studies focus on two broad categories of impact resulting from proposals relating to wastewater standards. These are:

- efficiencies introduced into the consenting process as a result of nationally consistent standards and reductions in the frequency of consenting required, and
- savings and / or costs associated with meeting conditions of new standards compared to the existing approach.

This RIS focuses on the first category of impacts on the basis that these can be ascertained from our current knowledge of consenting processes and costs under the counterfactual.

It is not yet possible to anticipate the impacts associated with the conditions of new standards without further detail on the wastewater standards themselves and how they compare to the conditions currently imposed, or that are likely to be imposed in future on new and renewed consents under the effects-based regime.

It is anticipated that clearer and more transparent wastewater standards will make future investment decisions for many plants less risky, leading to long-term savings. This is because more transparency and standardisation are likely to reduce uncertainty and allow for better planning, funding, more informed decision-making, and greater certainty in areas like infrastructure design and community engagement.

With efficiencies introduced into the consenting process, the introduction of wastewater standards should create cost savings for water service providers by:

- reducing the costs of consenting new wastewater treatment plants from this point forward, and
- reducing the costs associated with renewing expired and expiring consents (typically every 10-15 years on average), including situations where either:
    - significant upgrades are required as part of a consent renewal, or

- the consent renewal requires limited, minor, or no upgrades.

It is difficult to estimate the total quantum of costs associated with the new wastewater standards as this will vary depending on the infrastructure concerned and matters that are consented, including:

- the age and condition of the treatment plant, and upgrades required to ensure it operates to standard
- the size of the treatment plant and volume of wastewater treated
- the receiving environment for discharge
- its location
- its compliance status, and
- the general health of freshwater bodies in the wider catchment.

Therefore, we have focused on providing some case studies that illustrate the types of costs associated with the typical consenting process and how the new wastewater standards could impact these. These case studies could be complemented by further examples in future to explore the range of characteristics across different plants and receiving environments, and the costs and benefits associated with implementation of wastewater standards.

Assumptions

It has been assumed that the Bill will be passed

At the time of writing this RIS, the Bill has been introduced and referred to select committee. The Bill has a range of implications for wastewater standards, including provisions to amend existing requirements in the Water Services Act and RMA for the regulation of wastewater network performance to provide for a single standard approach. The Bill will also amend local government legislation, and establish economic regulation, for water services providers to put in place a comprehensive regulatory requirement to require operation of water services on a financially sustainable basis in a transparent way. This means revenue charged for water services must be sufficient to recover all costs in providing and operating the services to regulated minimum quality requirements. The impact on wastewater standards is discussed in the context section.

Given the timing of the Bill, and the interconnectedness with the proposals in this RIS, it has been assumed that the Bill will be progressed through select committee and enacted next year. This includes the assumption that there would be no substantive changes to the Bill through select committee and the final stages in the House. As such, our analysis has considered the standards in the context of the Bill as introduced.

It has also been assumed that broader resource management regulatory requirements and processes will continue to apply to matters relating to the design and operation of wastewater services that are not covered by the proposed wastewater standards, and that regional councils will continue to administer resource management consent requirements.

It is important to note that the legislative settings are enabling. This means that even with the passing of the Bill, the counterfactual does not change as wastewater standards will remain a discretionary option for the Minister of Local Government to implement through

advice to Cabinet. If the Bill does not pass, the work underway to develop the wastewater standards could be adapted and implemented under current legislative settings.

Other assumptions

- We have assumed that the process for developing the wastewater standards will provide for a similar, or greater, level of public health protection than the current effects-based system. This is because treatment limits, particularly for indicator pathogens, will be deliberately calibrated to receiving environment sensitivity, and quantitative microbial risk assessment (QMRA) will continue to form part of the determination of treatment requirements for discharges from plants. Alongside this, broader changes made as part of the proposals means there will be more consistency across the country in terms of compliance with treatment limits, and a requirement for comprehensive risk assessment, monitoring, and reporting for overflows of partially or untreated wastewater from plants and networks.
- When considering the counterfactual, we have considered current practice and known implementation challenges in the system – alongside both the existing legislative framework (the Water Services Act) and the Bill.
- We have assumed that when a consent is about to expire or a plant is end-of-life, the operator would plan to upgrade their plant and invest in a more modern approach, taking into account community expectations relating to wastewater treatment and any relevant regulatory requirements (for example, the National Policy Statement for Freshwater Management or the National Coastal Policy Statement).
- We have assumed that the Authority, the Commerce Commission, and regional councils will be adequately resourced to ensure that water service providers comply with regulatory requirements.
- It has been assumed that the wastewater standards will have indirect and direct impacts. For example, aspects of the analysis assume that the standards will create an enabling environment for greater standardisation of plant infrastructure and its operation. This is an indirect impact of standardising treatment requirements for wastewater treatment plants.

Responsible Manager(s) (completed by relevant manager)

Sara McFall

Head of Systems, Strategy, and Performance

Water Services Authority – Taumata Arowai

10 February 2025

Quality Assurance (completed by QA panel)

Reviewing Agency:	Department of Internal Affairs

Panel Assessment & Comment:	The panel considers that the information and analysis summarised in the interim RIS *partially meets* the quality assurance criteria. The interim RIS accompanies a public consultation document on proposed national wastewater environmental performance standards (wastewater standards). The consultation document seeks views on standards covering specific areas (discharge of wastewater to land and water, reuse of biosolids, and monitoring and reporting requirements for wastewater network overflows). The interim RIS sets out analysis that narrows the scope of the wastewater standards to these areas. The interim RIS sets out assumptions and limitations on analysis. This includes having wastewater standards in place as soon as practicable after enactment of the Local Government (Water Services) Bill. This has impacted the assessment of the scope of the standards that can be implemented in the time available. The interim RIS also notes challenges with quantifying the savings from introducing wastewater standards. While efforts have been made to quantify savings, these are based on assumptions and will depend on the details of the wastewater standards. Updated analysis of potential savings that is based on the details of the proposed standards will be important for final policy decisions. The interim RIS partially meets the convincing criteria. It would have been improved with further information on what aspects of the current process for consenting wastewater treatment plants are working effectively and how these have been considered in developing the proposed standards. This information would be useful for final policy decisions. The interim RIS indicates a good level of early consultation on the details of the standards, which will be supported by the planned consultation process. However, the panel considers the interim RIS is only partially consulted because narrowing the scope of the standards to specific areas has not been widely consulted. The interim RIS is clear and complete given the stage in the policy process.

Introduction

1. This interim RIS supports Cabinet's consideration of whether to approve the release of a discussion document: *Consultation on proposed wastewater environmental performance standards*.

2. The proposed wastewater standards are directed at wastewater treatment plants and associated networks and will be implemented primarily through new resource consents. The discussion document seeks feedback on an initial package of proposed standards that cover the following areas:

   - Discharge of wastewater from a wastewater treatment plant to water: This standard proposes treatment requirements for the main contaminants / parameters that are discharged from a treatment plant, which vary across different classes of receiving environments categorised for their risk and sensitivity. The proposal includes a tailored standard for small wastewater treatment plants serving populations of fewer than 1,000 people.

   - Discharge of wastewater from a wastewater treatment plant to land: This standard proposes treatment requirements for nutrients and pathogens where effluent is discharged to land from a wastewater treatment plant, based on a site-specific risk assessment of the discharge site.

   - Beneficial reuse of biosolids to land: This standard proposes a grading system for the processing of biosolids from a wastewater treatment plant, with increasing permissiveness for application of processed biosolids to land depending on the grade.

   - Arrangements for risk-based monitoring and reporting for wastewater network overflows and bypasses of wastewater treatment plants, including changes to the consenting requirements for overflows from existing networks and bypasses of plants. This would increase transparency on the impact of overflows on public health and the environment.

3. This RIS is focused on the **implementation of the standards**, including choices around scope and coverage. It does not relate to the policy decisions that have already been made and are being implemented as part of the Bill. For example, in July 2024, Cabinet agreed to amend the Water Services Act and RMA to make changes to how wastewater environmental performance standards will be implemented through resource consents (CAB-24-MIN-0277.3 refers).

4. A final RIS will be developed at the next stage as part of final policy decisions that will be considered by Cabinet about the implementation of wastewater standards. The final RIS will incorporate the feedback received from stakeholders and submitters, including additional information on the impacts of the standards.

5. The wastewater standards are being developed in parallel with the Bill which proposes to amend the Water Services Act so that the process for making wastewater standards (and stormwater standards) is consistent with the process for making drinking water standards. It is intended that the standards will be in place as soon as practicable after the enactment of the Bill.

Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

Wastewater treatment in New Zealand

Territorial authorities operate wastewater treatment plants and networks in New Zealand

6. Most wastewater is domestic sewage that is produced by households through the use of water (for example kitchens, bathrooms, laundries, and toilets). Domestic wastewater flows through networks of pipes and pump stations to central wastewater treatment plants, where it is treated before being discharged to land or water. Sludge from wastewater treatment plants is disposed of in a variety of ways, including as part of remediation of land or disposal in a landfill.

7. Industrial and commercial industries sometimes discharge wastewater into council networks (trade waste), but this is usually first treated on site. Some households treat wastewater using on-site septic tank systems rather than through a connection to a municipal network.

8. According to the Public Register of Wastewater Networks, there are 334 publicly owned wastewater treatment plants across New Zealand, which are owned and/or operated by councils, t heir council-controlled organisations, or by Crown agencies like the Department of Conservation and the New Zealand Defence Force. All 67 territorial authorities operate one or more wastewater treatment plants.

9. Because of New Zealand's geography and patterns of residential settlement, approximately 50 percent of wastewater treatment plants service populations of less than 1,000 people. The technology used in small-scale wastewater treatment plants tends to be relatively simple (often involving passive biological processes such as oxidation pond-based systems), which often cannot perform to the same standard as more technologically sophisticated plants serving larger communities. In some areas, such as Southland, the cost of consenting and upgrading treatment plants presents challenges because there is a small or declining ratepayer base and geographic constraints mean amalgamating treatment plants is often not feasible.[2]

10. The treatment of wastewater results in the production of effluent (treated wastewater) and sludge and/or biosolids (treated/processed sludge). Most of the plants in New Zealand (232) discharge to water. The remainder discharge to land, with some of those arrangements involving discharge to water for part of the year. Of those plants serving communities of 1,000 or less, approximately half discharge to water and half to land.

11. There are a number of different ways that sludge and/or biosolids produced by wastewater plants are processed or disposed of. The treatment applied is dependent on the type of sludge or biosolids, the cost to treat, and the final disposal route. Around 40 percent of the biosolids produced in New Zealand goes to landfill or "monofils", which are landfills that are intended to be used for only one type of waste.[3] Disposal to landfill is costly and many landfills are already at capacity meaning the opportunity for beneficial reuse is lost. For many rural councils, sludge and/or biosolids are disposed of at the wastewater treatment plant site, as they have available land, and it is more

[2] The Southland Economic Project.

[3] *Trends in the New Zealand Biosolids Industry: The Australia and New Zealand Biosolids Partnerships Survey* (2024), Marcus Richardson (Stantec), Catherine Vero (Ekistica), Rob Tinholt (Australia New Zealand Biosolids Partnership).

cost effective. However, this storage of sludge and/or biosolids creates a legacy issue, as at some point there will no longer be space to hold this effluent.

The existing legislative and regulatory framework

The Water Services Authority – Taumata Arowai is the water services regulator for New Zealand

12. The functions and powers of the Authority are set out in the Taumata Arowai – the Water Services Regulator Act 2020 and the Water Services Act. Alongside its regulatory functions relating to drinking water quality, the Authority is responsible for making wastewater standards for, and oversight of the performance of, publicly owned drinking water, wastewater, and stormwater networks.

13. The Water Services Act empowers the Authority to exercise the following functions relating to these networks:

- Setting environmental performance measures, which local authorities and Crown Infrastructure Owners must monitor for and report against annually.
- Publishing annual reports to provide transparency about the environmental performance of networks, including the extent to which networks are complying with applicable standards, conditions, and requirements.
- Establishing and maintaining public registers for wastewater and stormwater networks.
- Setting wastewater and stormwater standards and targets that regional councils must give effect to when issuing resource consents.
- Setting requirements and issuing guidance for network operators to develop wastewater risk management plans.

Wastewater standards and risk management plans are provided for under the Water Services Act

14. Wastewater standards can be made following public consultation, including with wastewater network operators, regional councils, and any other person that the Authority considers appropriate.

15. Wastewater standards may include (but are not limited to) requirements, limits, conditions, or prohibitions related to activities associated with wastewater networks. This includes discharges land, air, or water; biosolids and any other byproducts from wastewater; energy use; and waste that is introduced by a third party into a wastewater network (for example, trade waste).

16. Wastewater standards may only apply to public networks (that is, one that is owned by a territorial authority or its service delivery arm such as a council-controlled organisation, a government department, or the New Zealand Defence Force). They do not apply to privately owned networks or onsite systems that treat wastewater collected within the same property boundary (for example, septic tanks).

17. Under current legislative settings, wastewater standards are ‘minimum’ requirements. This means that a regional council cannot impose conditions that are less restrictive than the standards, but they can impose more restrictive conditions.

18. The Water Services Act also empowers the Authority to require council network operators to have a comprehensive wastewater network risk management plan. These plans require network operators to:

- identify any hazards that relate to the wastewater network

- assess any risks that are associated with those hazards
- identify how those risks will be managed, controlled, monitored, or eliminated, and
- include any wastewater environmental performance measures, standards, or targets made by the Authority and how the measures, standards, or targets will be met.

Wastewater discharges are regulated under the RMA

19. The regulatory system provided by the Water Services Act operates in tandem with that provided under the RMA.

20. The RMA is New Zealand's overarching resource management legislation. All national policy statements, national environmental standards, regional plans, and district plans, which are planning documents developed under the RMA, provide a hierarchical framework of standards, guidelines, enabling policies, and other requirements to achieve environmental and cultural outcomes while providing for the social and economic wellbeing of communities, as well as the health and safety of residents. The RMA takes an effects-based approach to management of the environment, which requires a thorough investigation into placed-based effects of a proposed activity on the receiving environment.

21. Wastewater treatment plants typically require multiple resource consents, which are granted and enforced by regional councils under the RMA with the planning framework that applies to the area where the plant is located. These can fall into the following categories:
    - Consents for new wastewater treatment plants and networks
    - Consents for renewals where an upgrade to the treatment facilities
    - Consents for renewals where no upgrade is required
    - Consents for networks (note, very few councils operate with network consents).

22. Consent processes often require a bespoke or case-by-case approach to the design and operation of a wastewater plant, which seek to ensure that there are limits placed on the environmental impact of a plant, or that areas of risk are monitored. For some arrangements, land use and pipe outlet structure consents are also required, such as coastal permits for structures in coastal marine areas, land use consents, and contaminated sites. Consents can also be required for wastewater overflows, usually via network consents (reticulation network, pipes, manholes, outfalls) which permit the discharges.[4]

23. Consents can be granted for up to 35 years but are normally issued for significantly shorter periods depending on the age and condition of the plant, the quality of the discharge, and the receiving environment.

24. A typical consenting process depends on the type of discharge; however, it will usually follow four stages:
    - Preparatory stage
        i. Gather consent conditions
        ii. Discuss with the community

[4] A wastewater overflow happens when wastewater spills out from manholes, overflow points, or pump stations. Dry weather overflows are usually caused by something blocking the wastewater mains which causes wastewater to back up behind the blockage, fill the pipes, and overflow out of the manholes upstream of the blockage. Wet weather overflows are caused by the wastewater system becoming inundated with stormwater and groundwater during wet weather events which can cause its capacity to be exceeded.

- Resource consent stage
    i. Develop a preferred option and prepare a consent application
    ii. Lodge an application for the council to process
- Application stage
    i. Regional council decides whether to notify the application
    ii. Regional council determines application
- Implementation stage
    i. Detailed engineering design of plant and monitoring requirements
    ii. Construction of new plant or an upgrade
    iii. Regional council undertakes compliance and enforcement

25. **Appendix B** provides a detailed outline of the consenting process, including for the current settings, as well as for the changes outlined in the Bill (described below). **Appendix C** supplements this with further detail on the costs associated with each stage (excluding implementation).

Legislative change under Local Water Done Well

The Bill will amend some of the provisions relating to wastewater standards

26. Wastewater standards are a core aspect of Local Water Done Well, the Government's approach to addressing long-standing water infrastructure challenges. In July 2024, Cabinet agreed to amend the Water Services Act and the RMA to make changes to how wastewater standards will be implemented through resource consents (CAB-24-MIN-0277.3 refers). These changes are being implemented through the Bill, which has been introduced and is expected to be enacted mid-2025.

27. The main proposed areas of change that relate to wastewater standards are as follows:

- **A single standard approach:** Changes will be made to the RMA to ensure regional councils implement a single standard approach in resource consents and cannot depart from the wastewater standards unless on an 'exceptions' basis. This means that regional councils will be unable to set requirements that are more or less restrictive than those specified in wastewater standards.
- **Exceptions regime:** While the wastewater standards are intended to create certainty and national consistency, there will be cases where a standard may be inappropriate. In situations where an exception applies, the existing resource consent process is reverted to. To maximise the benefits of the wastewater standards, exceptions are intended to be minimal.
- **Minimum consent duration:** Where wastewater infrastructure has been renewed or upgraded to meet wastewater standards, a 35-year consent duration would apply.
- **Standards will take precedence over national directions and plans:** Where there is inconsistency between a wastewater standard and a national direction or plan made under the RMA, the wastewater standard will prevail.
- **Standards will be made by Order in Council:** To align with the process of making drinking water standards, the wastewater standards will be made by Order in Council and considered by Cabinet.

- **Change in approach to Te Mana o te Wai:** Te Mana o te Wai is a core concept in New Zealand's freshwater management. It emphasises the importance of protecting the health and well-being of freshwater bodies and ecosystems. In the Water Services Act, the existing requirements for decision-makers to give effect to Te Mana o te Wai will be replaced with an operating principle requiring the Authority to take account of any national direction (including the National Policy Statement for Freshwater Management) and regional plans when partnering or engaging with Māori.
- **Infrastructure design solutions:** The Authority will be able to set comprehensive infrastructure design and operating requirements for small-scale wastewater treatment plants to enable greater standardisation of infrastructure and its operation. These requirements would provide options for treatment or performance-based infrastructure which, if adopted by public wastewater infrastructure owners or operators, would result in a faster and more efficient consenting process.

28. The table below describes some of the differences between what is enabled under the Water Services Act and the RMA, and the changes proposed under the Bill.

<table>
<tr><th>Water Services Act</th><th>Water Services Bill</th></tr>
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Section 138 enables the Authority to develop wastewater standards following consultation with wastewater network operators, regional councils, and any other person it considers appropriate. Wastewater standards are made via Gazette notice.
When exercising or performing a function, power, or duty under this Act, a person must give effect to Te Mana o te Wai.
No provision for infrastructure design solutions.

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Amendments to Water Services Act:

Wastewater standards will be made via Order in Council on the recommendation of the Minister and following public consultation.
Enables the development of exceptions to the wastewater standard.
Repeals the requirements to give effect to Te Mana o te Wai.
Provides for infrastructure design solutions to be made through regulations.

Amendments to RMA:

Regional councils will be unable to impose conditions that more or less restrictive than any wastewater standards.
Specifies the duration of a resource consent to be 35 years where wastewater infrastructure has been renewed or upgraded to meet wastewater standards.
Clarifies that where there are inconsistencies between a wastewater standard and a national direction or plan made under the RMA, the wastewater standard will prevail.

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<tr><th>Resource Management Act</th></tr>
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Wastewater standards are ‘minimum’ requirements. This means that a regional council cannot impose conditions that are less restrictive than the standards, but they can impose more restrictive conditions.
Regional councils can grant resource consents of up to 35-year duration.

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29. **Appendix B** provides further information on the changes to the consenting process as set out in the Bill. We note that Local Water Done Well also includes requirements for territorial authorities to develop plans for how they will deliver water services in ways that are financially sustainable, while also complying with minimum regulatory requirements for the safety and quality of water services and their environmental effects. These regulatory requirements would include the wastewater standards assessed in this RIS.

30. Over time, territorial authorities will be regulated by the Commerce Commission, who will determine whether charges for water services are sufficient to cover the costs of providing water services to regulated levels of quality. The Bill also includes provisions for interventions in local authorities unable to deliver water services that are financially sustainable.

What is the policy problem or opportunity?

The effects-based approach to consenting under the RMA is costly, time-consuming, and has led to significant variation in consent conditions

31. The RMA provides an effects-based framework that focuses on assessing the actual and potential effects of an activity on the environment, rather than regulating the activity itself. To implement this framework, councils need a detailed understanding of the receiving environment and the impacts that the proposed activity will have on that environment. Councils can then impose consent conditions to mitigate the impacts that an activity will have on the receiving environment.

32. In theory, the case-by-case approach under the RMA enables councils to tailor consent conditions to local environmental sensitivities and public health protection. However, in practice, the effectiveness of providing this protection can be variable. The high levels of variability in consent conditions for wastewater treatment plants are not driven by consistent systemic factors. For example, they do not correlate to plant age, plant capability, the receiving environment, or public health considerations.[5]

33. The effects-based approach has three main issues:

- There are significant costs in investigating and agreeing on the effects of a proposed activity to inform a consent.
- There is significant variation in wastewater treatment requirements across the country, which impacts public health and environmental outcomes, as well as creating compliance challenges.
- There is a lack of transparency about wastewater system performance due to inconsistent monitoring and reporting requirements. This has resulted in a lack of data, or poor-quality data, which makes it challenging to assess impacts on public health and the environment or benchmark performance as is common in other infrastructure sectors.

[5] Source: National stocktake of municipal wastewater treatment plants (2019)

There are significant costs in investigating and agreeing the effects of a proposed activity for a consent

34. The consenting process for infrastructure such as wastewater is complex, time-consuming, and expensive. Costs are often incurred through:

    - engaging technical specialists to assess environmental effects and required plant upgrades
    - consultation with the community, including mana whenua and other potentially affected parties
    - peer review by the regional council, and
    - at times, Environment (or higher) Court appeals.

35. A 2021 report prepared by the New Zealand Infrastructure Commission – Te Waihanga looked at the cost of consenting infrastructure projects in New Zealand.[6] The report found the cost of consenting to be considerably higher in the waste and water sectors, which was largely driven by the amount of expert advice and intensive engagement required. The report also found that the most significant indirect costs were those associated with delay. Funding is often set aside for infrastructure upgrades yet unable to be used due to significant delays in the consenting stage. The cost of construction and availability of resource may change considerably in the meantime, resulting in higher costs.

36. Public notification is a large part of the current consenting process and is at the discretion of the regional council. Where an activity has more than minor effects or is subject to 'special circumstances', a regional council may decide to notify the public and call for submissions on the proposal. A regional council can also choose to limit notification and submissions to a particular group of people that have more than a general interest in the effects of an activity. Public notification can be requested by an applicant where there are likely to be adverse effects on certain parties, or where positive submissions are expected and can support the decision to grant an application.

37. Early identification of potentially affected parties and stakeholders is essential to develop an effective engagement plan, as unplanned hearings can push a project programme and budget out beyond what has been provided for in an approved budget and can delay implementation of a scheme by years.

There is significant variation in wastewater treatment requirements across the country

38. The effects-based framework to consenting has resulted in significant variability in wastewater treatment requirements and consent conditions across the country and the high levels of variability that we see in consent conditions are not driven by consistent system factors, such as receiving environments.

39. Each regional council has unique arrangements and policy settings to give effect to policies and rules in regional plans:

    - Resource consents are developed, assessed, and monitored on a case-by-case basis.

[6] New Zealand Infrastructure Commission, Te Waihanga. (2021). *The cost of consenting infrastructure projects in New Zealand*. https://media.umbraco.io/te-waihanga-30-year-strategy/py0p420w/the-cost-of-consenting-infrastructure-projects-in-new-zealand.pdf

- The conditions applied to each consent vary, including monitoring and reporting requirements. This affects the quality of data available and transparency regarding wastewater system performance. Poor articulation and framing of consent conditions can also make them unenforceable in some cases or can lead to expensive legal disputes.
- The limits that apply to wastewater discharges can vary based on local conditions or community preferences (this is the case even when wastewater treatment plants of similar scale and complexity discharge to similar receiving environments).
- Varying consenting approaches are taken to wastewater overflows, which can create significant public health risk and risks to wildlife, aquaculture, and the environment. Some councils prohibit overflows, while others require resource consents or treat overflows as emergency discharges. Even if a consent arrangement is in place, risk-based monitoring and reporting arrangements are inconsistent and are often not implemented. Many overflows are not consented at all.

40. The ability to take a bespoke approach to consenting has resulted in significant uncertainty and risk for operators as to the performance requirements and conditions that will be required to obtain consents.

41. Variable approaches to consenting also have impacts on providers, including:
    - creating uncertainty for the planning and operating of wastewater infrastructure
    - increasing the costs and time of consent process, and
    - creating significant variations in design of network infrastructure and plants to mitigate effects on receiving environments.

42. The drive towards customised solutions means that economies of scale in plant design, procurement, and operator capability/training, are not being utilised which could provide significant benefits to delivering the required infrastructure.

There is also a lack of transparency about wastewater system performance

43. The variation in monitoring and reporting requirements, particularly for overflows, has impacted the overall transparency of the system and means that robust data on wastewater system performance is often not available. This makes it difficult to quantify risk and determine whether networks are meeting the necessary environmental and public health outcomes. Public information about the performance of wastewater networks is also hard to find despite the impacts they can have on communities.

44. Based on current data, it would not be possible to benchmark wastewater infrastructure performance as is common practice in other infrastructure sectors.

Councils are operating within funding and financing constraints

45. The construction, operation, maintenance, and upgrade of wastewater treatment plants is, in most cases, funded through council rates or wastewater charges.

46. Several water services across the country have not been adequately maintained or renewed, and constraints on existing council balance sheets limit the ability of councils to borrow money to invest in water services. Combined with often insufficient pricing of these services through rates and charges, it becomes challenging to generate the necessary revenue to cover the whole of life costs of providing water services.

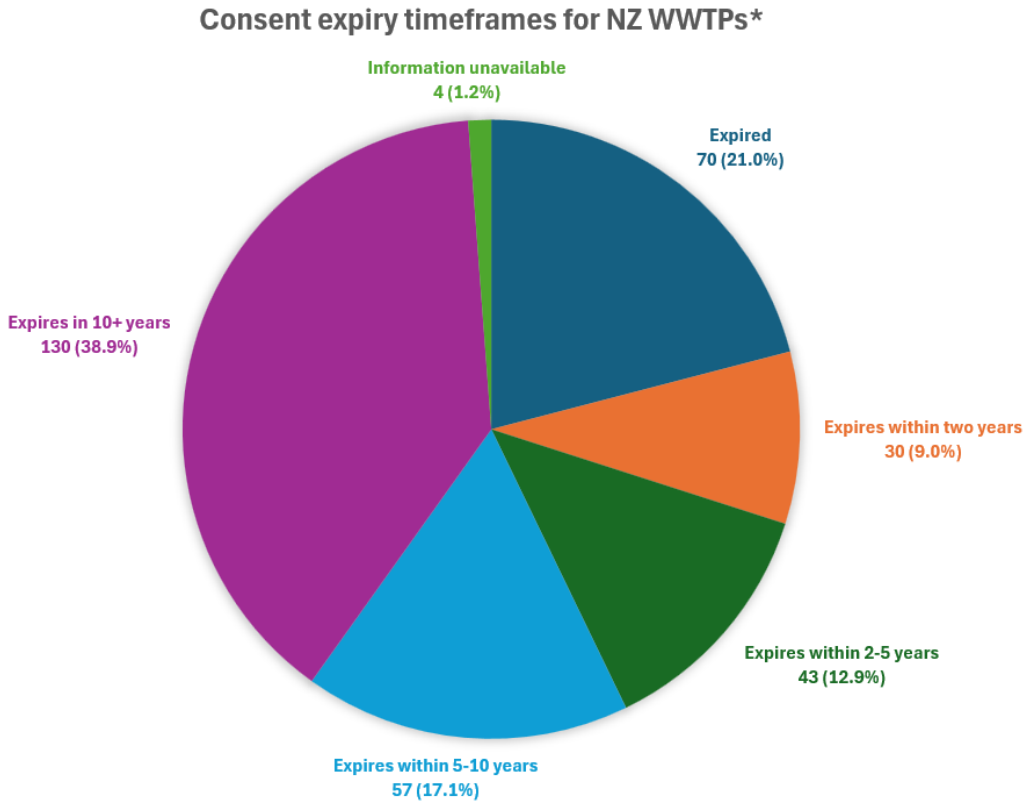
47. Under the Bill, the introduction and implementation of Local Water Done Well

(including economic regulation) will require councils to operate water services in ways that are financially sustainable – as outlined above. This will look to address some of these funding and financing constraints.

Over the next 10 years at least 57 percent of wastewater treatment plants will come up for consent renewal and there is an opportunity to streamline the process

48. Upgrading wastewater treatment plants is one of the greatest infrastructure challenges facing councils in New Zealand. Much of the wastewater infrastructure in New Zealand was built 30-40 years ago, is approaching the end of its useful life, and will need to be upgraded. Many networks have limited capacity to accommodate population growth, which requires both the upgrade of plants to deal with increasing demand, and also increases the rate and frequency of overflows. Within the next 10 years, approximately 57 percent of wastewater treatment plants will come up for consent renewal.[7] The graph below shows a breakdown of the consent expiry timeframes.

Figure 1. Wastewater discharge consent expiry timeframes



Source: Water Services Authority

49. Alongside renewals, new (and upgraded) wastewater treatment plants will also be needed to service urban development and housing growth. In Auckland, for example, there are a number of areas where there are current wastewater network constraints impacting development, such as the Hibiscus Coast and Warkworth.[8]

50. The large number of upcoming renewals will cause a consenting burden on councils as well as communities that engage with the consenting process, often on a voluntary

[7] Water Services Authority stocktake of wastewater treatment plant consents (2025).

[8] Network capacity in Auckland

basis. There is an opportunity to implement a single standard approach ahead of the wave of consents coming up for renewal to:

- give clear expectations to communities about wastewater treatment
- streamline consent processes (design, engagement, and reduce cost of consultants and council staff time)
- improve the quality and amount of data available regarding system performance
- provide certainty to territorial authorities as owners of networks so they can plan for the cost of infrastructure
- enable efficiencies in infrastructure design and procurement, and
- provide consistency for operator and compliance officer training and development.

Variation in consent conditions and plants operating on expired consents raises risks for public health and the environment

51. The effects-based approach to consenting wastewater treatment plants under the RMA is costly, time-consuming, and has led to high variability in the consent conditions applied across the country, with inconsistent and sometimes poor public health and environmental outcomes.

52. Plants operating on expired consents are a significant risk to public health and the environment. There are currently 70 wastewater treatment plants discharging to water with expired consents (approximately 21 percent of all wastewater treatment plants).[9] The average time a plant has been operating on an expired consent is five years, and the longest is 24 years. Common factors that prevent consent renewal include plant and infrastructure being at the end of their life cycle and/or requiring extensive upgrades.

53. When wastewater arrangements are not properly managed – including the collection, treatment, and disposal processes – it can lead to various health issues and risks. A badly maintained wastewater system can expose communities to disease-causing pathogens and in disaster situations (for example, floods), the risk of water-borne diseases travelling through a community can increase.

54. Improper wastewater management can result in localised environmental problems, such as the pollution of rivers, lakes, and coastal areas. This pollution can harm aquatic ecosystems, disrupt local wildlife, and degrade natural habitats. Therefore, it is crucial to ensure that wastewater infrastructure is well-maintained and that wastewater services are effectively regulated to protect public health and the environment.

55. Overflows also tend to occur more frequently in older, poorly maintained networks. Overflows occur where untreated wastewater discharges from a network into the environment and are often due to blockages, plant or equipment damage, or when stormwater or ground water enters the network. With the effects of climate change, including increased and more extreme rainfall, the incidence of overflows will likely increase.

56. A national stocktake of wastewater treatment plants undertaken in 2019 found a range of reasons for why wastewater treatment plants are operating on expired consents. These reasons include the capacity and capability of small councils to manage the

[9] Water Services Authority Database of Wastewater Resource Consents (2025).

consenting process, lengthy and/or difficult consultation processes, and affordability constraints to meet community expectations.[10]

57. GHD and Boffa Miskell completed a study for the Department of Internal Affairs in 2019 into the regulation, extent, and control of wastewater overflows in New Zealand.[11] Study findings included:

- There are no common definitions of what constitutes an overflow event nationally, with many councils employing different ways of counting overflows and regional councils applying different rules including giving them a prohibited activity status.
- Prohibited activity status for overflows does not reflect the reality of the unavoidable nature of some overflows.
- Of the 34 councils that participated in the study, only 19 indicated they have monitoring arrangements in place for overflows. For this subset, the levels of coverage and sophistication varied widely. The majority relied on telemetered systems for pump stations and reporting from the public for overflows elsewhere in the network. Only two participants identified that they had any form of electronic monitoring located at constructed overflow points.
- Only a minority of councils have conducted network modelling. There are a number of councils that do not hold sufficient detailed knowledge of their networks to predict where overflows currently occur, what events trigger them and to develop options and associated cost estimates to meet a specific overflow target.
- Current monitoring practices, knowledge of networks, and the wide range of approaches to regulation of wastewater overflows mean that under current settings, it would not be possible to benchmark regions or engage in basic performance improvement metrics to drive better performance. Consistency in approach across all these areas would lead to considerable benefits.
- In terms of reducing overflow occurances, many councils are on a journey of continual improvement, and only a few councils are working towards a set target of overflow reductions.
- With better knowledge of networks and upgrades to infrastructure, the frequency of wastewater overflows could be significantly lowered in many communities, while safeguarding public health and the environment. Alongside this, community expectations about overflows are changing, and many communities now express a preference for little or no discharge of sewage into freshwater or onto land or beaches. For Māori, there is widespread abhorrence of discharge of sewage to water, both for cultural and spiritual reasons, alongside the risks posed to mahinga kai.

58. A single standard approach to consenting wastewater services will more effectively address environmental and public health risk, by streamlining consent processes, and driving efficiencies in design, consenting, and the ongoing operation of water services.

[10] Source: National stocktake of municipal wastewater treatment plants (2019)

[11] Source: Wastewater Sector Report, Ministry for the Environment (2020)

What objectives are sought in relation to the policy problem?

The objectives for this work are framed under the Local Water Done Well context

59. Local Water Done Well sets a clear direction for developing an enduring and sustainable framework for local council ownership and control of water services, with strict rules for water quality and ongoing investment in water infrastructure.

60. The proposals for wastewater standards will reduce the regulatory burden on councils and other stakeholders, as well as improve certainty and consistency in the regulatory system. Streamlining processes can support a proportionate and more cost-effective approach, while still protecting the environment and public health. They will also help to ensure wastewater infrastructure is proportionate and cost-effective, and able to achieve effective environmental and public health protections.

Three connected policy objectives

61. The main strategic objective is to ensure that wastewater infrastructure can be managed and maintained in a cost effective, proportionate, and sustainable way.

62. To achieve this, we have set out three connected policy objectives:

- **Maintaining acceptable public health and environmental outcomes** through water service organisations' compliance with an appropriate set of standards for the performance of wastewater services.
- **Regulatory efficiency** and reducing regulatory burden through:
    - increasing system capacity to address upcoming reconsenting
    - simplifying and standardising regulatory requirements for the design and operation of wastewater services infrastructure
    - simplifying regulatory processes by reducing the need for difficult and complex regulatory decisions and judgments
    - standardisation of consent conditions and reporting requirements in consents for wastewater discharges, and
    - increasing transparency in reporting.
- **Financially sustainable water services** by:
    - providing greater certainty of regulatory requirements to make it easier and less risky for local water service providers to plan for future investments in local water services infrastructure, and
    - enabling cost and timing efficiencies in wastewater design and operation through standardisation of performance requirements leading to scale efficiencies and benchmarking.

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

63. This section outlines **five key criteria** for which the options will be assessed. These are summarised in the table below.

64. These criteria aim to draw out the key choices available when considering the approach to implementing the standards. These criteria are equally weighted; that is, no one criterion is more or less important than the others.

Table 1: Proposed criteria

Criteria	Description	Link to objectives
Protects public health and the environment	The extent to which the option results in a nationally consistent approach to protection of public health and the environment.	Directly links to the objective of protecting public health and the environment.
Efficiency	The extent to which the option enables efficiencies in the design, consenting, and the ongoing operation of water services.	Directly links to the objectives of: • reducing regulatory burden through increased administrative efficiency in regulatory requirements and processes, and • financially sustainable water services by providing a more certain and less risky regulatory environment to enable better planning and investment decisions in local water services.
Accountability	The extent to which the option strengthens providers' accountability to the public for the quality of wastewater services, compliance with consents, and public access to information.	Directly links to the objective of protecting public health and the environment. Also links to the regulatory efficiency objective in terms of transparency in reporting.
Feasibility	The extent to which an option can be implemented in a way that considers real-world constraints and practicalities, including the complexity of the system and the Ministerial preferences that standards will be put in place as soon as practicable after	Links to all of the objectives and provides an assessment of how practical the options are to implement and administer effectively.

	the enactment of the Bill.	
Provides for Māori, iwi, and hapū interests in water	The extent to which an option impacts the nature of the relationship between councils and iwi/hapū, including the impact of decision-making regarding water bodies of significance to Māori.	

What scope will options be considered within?

65. The table below summarises what is considered in and out of scope for this RIS and the proposals assessed. The sections below then expand on some of these matters.

Table 2: In and out of scope

In scope
The **scope / coverage of matters that the wastewater standards relate to** as set out in section 138 of the Water services Act (discharges to air, water, or land; biosolids and any other byproducts from wastewater; energy use; and waste that is introduced by a third party into a wastewater network).
The **approach to determining the wastewater standards**, such as treatment quality requirements, or frameworks that could apply as part of a resource consent.
The **scope of exceptions** from the wastewater standards requirements, as will be provided for under the Bill.
The approach to the **implementation, administration, and compliance** with the proposed wastewater standards, including the timeframe for implementation and transition of the standards.
Treaty of Waitangi related commitments, such as the commitments that councils might have in the provision of wastewater services to Māori, which could be included in Treaty settlements or otherwise agreed with iwi.
Out of scope
Policy decisions that are being implemented as part of the Bill, for example changes to legislation to provide for a single standard approach.
As options assessed in this RIS are constrained by section 138 of the Water Services Act, it **does not include options for wastewater standards to be set through the RMA** (for example, as part of a National Environmental Standard). Therefore, the resource management system, including role of regional councils in administering resource consent requirements and associated consent processes, is out of scope.
Regulation of stormwater discharges.

Other water and resource management requirements, such as those contained in the Freshwater Policy Direction.
Proposed **infrastructure design solutions and national engineering standards**, which are provided for in the Bill.
Additional consents that make up the suite of consents required to upgrade and operate a wastewater treatment plant (for example, structures, noise, and land use).

The approach to the single national standard has been decided

66. In July 2024, Cabinet agreed to changes to the legislative framework that applies to wastewater standards in the Water Services Act and the RMA. Since then, the Minister of Local Government has introduced the Bill to give effect to these policy proposals.

67. These proposals include a single standard approach – under which regional councils cannot impose more or less restrictive consent conditions in relation to the matters covered in the standards.

68. This RIS is focused on the **implementation of the standards**, including scope and coverage, as opposed to the policy decisions regarding the broader legislative framework that are being implemented as part of the Bill.

The options sit under a prescribed legislative framework

69. Options assessed in this RIS are constrained by section 138 and 139 of the Water Services Act which details provisions relating to wastewater standards. Section 138 prescribes the matters that the Authority may make wastewater standards for, which includes:

    - discharges to air, water, or land
    - biosolids and any other byproducts from wastewater
    - energy use, and
    - waste that is introduced by a third party into a wastewater network (for example, trade waste).

70. This section of the Water Services Act also specifies that wastewater standards may include (but are not limited to) requirements, limits, conditions, or prohibitions. Standards may also apply to all wastewater networks and their operators, or classes of wastewater network and their operators. Standards cannot apply to an individual wastewater network or wastewater operator.

71. Under Section 139 of the Water Services Act, wastewater network operators must prepare and implement a risk management plan for the operator's wastewater network.

Options have been developed working with councils and key stakeholders

72. This RIS will be attached to a discussion document that seeks feedback on an initial set of wastewater standards that target areas where performance improvements will be most effective and cover most consents for wastewater treatment plants. The standards will be finalised following public consultation, considering any matters raised.

73. The legislative provisions that implement a single standard approach through changes to the Water Services Act are being progressed through the Bill. The Bill will be consulted on through the select committee process.

74. When developing the standards and working through the scope of the options considered, the Authority has engaged with industry experts, key stakeholders, and partners to ensure the proposed standards represent a cost effective and proportionate approach to consenting. Advice on initial proposals for the standards was commissioned from engineering and environmental science experts, that looked to both existing arrangements in New Zealand and overseas examples.

Technical Review Group

75. A Technical Review Group was also established to support the wastewater standards work programme. This group was comprised of technical experts, who provided advice on whether the standards are technically fit for purpose – specifically, whether they target the appropriate contaminants and are workable for infrastructure requirements and consenting processes.

76. The Technical Review Group was comprised of individuals with leadership roles and expertise in wastewater management, including representatives from regional councils, territorial authorities, industry professionals, and Water New Zealand.

77. Weekly meetings were held with the Technical Review Group between September and December 2024, where they provided feedback on the draft reports and identified areas for improvement.

78. This approach enabled officials to draw on industry-leading expertise to ensure the wastewater standards:

- reflect appropriate treatment limits comparable to what is set out in consents that apply to wastewater treatment plants that councils commonly build
- are applicable to all plants, including those serving 1,000 or fewer people, and
- support efficient and cost-effective consenting that balances risk and benefit while enabling effective environmental and public health protections.

Engagement with councils

79. The Authority has also engaged directly with territorial authorities in their capacity as network operators, and with regional councils as consenting authorities. This engagement has allowed the priorities and concerns of these councils to be incorporated in the standards framework. Feedback from councils included:

- Smaller councils often have a small rating base and declining population. Approximately half of the wastewater treatment plants in New Zealand service populations of 1,000 or fewer. Many are concerned about affordability and ensuring that wastewater standards are tailored to the specific characteristics of their plants.
- Larger councils have a focus on planning for infrastructure resilience to support population growth and there is positive feedback about the ability of standards to enable better funding and financing of infrastructure, particularly combined with 35-year consents.
- Regional council representatives are cautiously optimistic about proposals but have noted there needs to be clear direction on how the standards interact with existing national direction and regional plans, together with consenting processes. This has been incorporated in the legislative framework proposed in the Bill. Regional council representatives have also said that proposals should ensure that treatment requirements imposed for wastewater treatment plants should continue to be sensitive to differences in, and manage impacts relating to, receiving environments.

Engagement was undertaken during the case study development

80. Engagement was undertaken with local hapū and iwi in the context of a series of case studies about wastewater arrangements that had been implemented throughout New Zealand (note, these case studies are not the same as the ones developed for this RIS and outlined in subsequent sections). Participants were given the opportunity to provide suggestions, add additional material, and verify the gathered information prior to drafting the case studies. Participants were invited to comment and provide feedback on the draft reports.

81. Members of the Technical Review Group were provided with copies of the case studies in their review capacity which informed their discussions.

82. Alongside gathering participants' views, the Authority also engaged with representatives from the relevant territorial authorities and regional councils to hear their perspectives on wastewater arrangements and engagement with iwi and hapū.

Approaches and lessons from international examples were considered

83. Wastewater standards have been in place for decades in many of the jurisdictions that New Zealand compares itself to, including the European Union (EU), the United Kingdom, Australia, and Canada.

84. Internationally, the protection of public health is broadly considered the key driver for setting wastewater discharge regulations, closely followed by environmental protection. A phased introduction of standards is a common approach taken overseas to support the manageability, fiscal impacts, and prioritisation of certain upgrades. For example, the EU has applied standards to different sizes of treatment plants over different timeframes.

85. In many jurisdictions, there is a population (or population equivalent) or flow (volume) component for setting standards, dependent on discharge type. While there are different approaches to setting, implementing, and enforcing standards, there is widespread use of central parameters.

86. There are well-established monitoring and reporting requirements for overflows in many international jurisdictions that provide detailed information on overflow events – for example, the number, location, and volume of overflows.

87. The options consider these international examples as well as our localised context.

National environmental standards are not part of the option set

88. Previous governments have considered imposing additional regulation on areas relating to wastewater management through national directions made under the RMA – for example through a national environmental standard, which would impose controls on resource consents in a broadly similar way to proposals relating to wastewater standards. However, exercise of these powers has not occurred. Previous examples include:

    - A national environmental standard for biosolids was considered in 2002. While considerable background work occurred, these proposals did not proceed, and guidelines were implemented by the sector in their place. These guidelines were reviewed in 2017 and 2023, and their effectiveness is limited by lack of regulatory force.
    - Detailed work on a range of areas relating to wastewater management was completed by the Ministry for the Environment in 2020 to consider areas that

national environmental standards might be made for wastewater management. However, this work did not proceed to policy proposals.[12]

89. Changes are proposed as part of the Bill to enable wastewater standards made under the Water Services Act to have similar scope and coverage to national environmental standards made under the RMA. This means that it is not necessary to consider as part of this RIS whether an alternative option might be to impose additional regulation on wastewater management as part of a national environmental standard made under the RMA.

It is intended that existing Treaty settlement obligations will continue to apply

90. Across the proposals in this RIS to implement wastewater standards, it is intended that existing Treaty settlement obligations will continue to apply. The proposals are not intended to impact the Authority's obligations to Māori or councils' obligations under the RMA when deciding resource consent applications.

91. Most, if not all, iwi have a connection to a body of water whether it is a river, lake, sea, or spring. Māori view water holistically, focusing on the interconnected rights, relationships, practices, tikanga, knowledge, and whakapapa of a waterbody and the wider environment. In this context, iwi/Māori interests in water services are broad.

92. The Authority must ensure that its performance and delivery of its objectives, functions, and duties are guided and informed by the operating principles in section 18 of the Taumata Arowai – the Water Services Regulator Act 2020. Amendment of the operating principles is proposed at clause 296 of the Bill. These operating principles include:

- building and maintaining credibility and integrity, so that the Authority is trusted by Māori, and
- partnering and engaging early and meaningfully with Māori.

93. Decision-makers under the Water Services Act have explicit statutory obligations under the Waikato, Waipā, and Whanganui settlement agreements. This includes iwi in the Lower and Upper Waikato river, Waipā river, and Whanganui River catchments.

94. The relationship between Māori, the environment, and the Treaty is integrated into the overall environmental management system through the principles in Part 2 of the RMA. The RMA's mechanisms require these principles to be applied in several different situations. For example, when drafting district and regional plans, councils must give effect to these priorities and consult with tangata whenua. In addition, councils must consider the principles when deciding on resource consent applications.

95. There are a significant number of consents that include conditions that reflect joint management or monitoring arrangements. Some of these arrangements have been formalised by councils with the setup of committees or sub-committees, whereas others are less formal and take the form of kaitiaki liaison groups. Some of these arrangements are for iwi/hapū only, while others include other community stakeholders and interested parties.

96. Under the Local Government Act 2002, local authorities are required to establish and maintain processes to ensure Māori participation, consider ways to build Māori capacity for engagement, and provide relevant information to Māori. Where significant decisions are proposed in relation to land or water where Māori have a special connection, the Local Government Act 2022 imposes engagement requirements. The

[12] Source: Wastewater Sector Report, Ministry for the Environment (2020)

Bill proposes these requirements will continue under any changes to service delivery in this area.

What strategic options are being considered?

97. This section assesses three potential strategic options to implement wastewater standards:

- **Option one: No standards are implemented (counterfactual).** As the legislative provisions for wastewater standards in the Water Services Act are permissive rather mandatory, under this option no wastewater standards are implemented. Therefore, there is continued reliance on the existing effects-based approach to consenting wastewater infrastructure.
- **Option two: Standards are implemented for discharges to land and water, beneficial reuse of biosolids, and risk management plans for overflows (the Authority's preferred option).** Under this option, a prioritised set of wastewater standards that are provided for under the Water Services Act would be implemented.
- **Option three: Standards are implemented for all matters provided for under the Water Services Act.** Under this option, there would be implementation of as many wastewater standards to be considered under consents for wastewater treatment plants as possible (discharges to land, air, and water; refuse of biosolids, energy use, and waste that is introduced by a third party into a wastewater network).

98. Our analysis of each option is outlined below, with a summary table at the end.

Option One – No standards are introduced (counterfactual)

99. Under this option, no wastewater standards would be implemented. While the existing powers to make wastewater standards under the Water Services Act would remain, this option assumes that no standards would be put in place. While we assume that the Bill would pass in its current form, the changes provided for under the Bill would have no effect under this option because no standards would be implemented.

100. Wastewater service providers would continue to be regulated as they are now under the RMA for all environmental effects. In doing so, regional councils would continue to consider the effects of each wastewater service on the receiving environment and set consent conditions on a case-by-case basis. Under this option, regional councils would continue to administer and enforce consent requirements as per current practice (not utilising all legislative tools).

Public Health and Environment Protection

101. Conditions necessary for public health and environment protection would continue to be considered by regional councils on a case-by-case basis. In theory, the case-by-case approach enables the tailoring of consent conditions to local environmental sensitivities and public health protection. However, in practice, the effectiveness of providing environmental and public health protection can be variable, with a large number of older schemes operating on expired consents. The situation with expired consents is a significant indicator of public health and environmental risk. If plants are not of a standard that can achieve a reissued consent, they are likely to be vulnerable to issues with degradation and lack of capacity to deal with population growth.

102. A second disadvantage of this option is that it would not address the high levels of variability in the treatment limits that apply to wastewater discharges across the country, even when wastewater treatment plants of similar scale, age, and complexity discharge to similar receiving environments. This can result in significant variation in

public health and environmental outcomes. Continued application of the current effects-based approach to consenting will likely continue to result in variability in consent conditions and requirements across the country. This includes variability in the extent to which conditions are adequate to protect public health and the environment, especially for smaller plants that are not currently meeting treatment requirements, and older plants operating under historic consent conditions where renewal of consents is required.

103. A third disadvantage of this option is that it would not address lack of transparency around monitoring and reporting of wastewater treatment plants, and variable / poor compliance by plants with consent conditions. This directly impacts on public health and environment outcomes, as there is limited public visibility about public health and environmental impacts, or lack of compliance by plant infrastructure with consents.

104. A fourth disadvantage of this option is it would not address the ongoing inconsistent regulation, lack of transparency, and inconsistent risk management of overflows of untreated or partially treated wastewater from networks or as bypasses from plants. This is a common occurrence for wastewater networks throughout New Zealand and results in direct and sometimes significant risks to public health, particularly when overflows occur in areas that people bathe or gather shellfish (such as urban beaches or rivers). With councils having better knowledge of networks and upgrades to infrastructure, the frequency of wastewater overflows could be significantly lowered in many communities, while safeguarding public health and the environment.

Efficiency

105. While familiar systems and processes would continue, there are several shortcomings associated with the existing consenting process in terms of regulatory efficiency.

106. Consenting costs (elapsed time and financial cost) are high due to the reliance on specialist assessments needed of the receiving environments to be able to determine the appropriate consent conditions and requirements, and the nature of associated consent processes. Extensive consultation and notification requirements also increase the time and costs of the overall process, as well as increase the risk of litigation. Costs associated with consultation include technical responses to competing technical advice, appeals, and litigation. Unplanned hearings can also push a project programme and budget and can delay implementation of the scheme by years.

107. The current processes provide little certainty and predictability for providers in terms of planning, design, and operation. It has also driven the customised design of treatment plants, which does not support or encourage scale efficiencies in design, procurement, or operator capability and training. This can act as a barrier to long-term investment.

108. Further, because at approximately 60 percent of wastewater treatment plants are coming up for consent renewal in the next 10 years, there will be a large consenting burden on councils as well as communities that engage with the consenting process, often on a voluntary basis.

Accountability

109. Under this option, variation in consent conditions and requirements would continue. Lack of standardisation and inconsistent consent conditions has created challenges with monitoring and enforcement of consent conditions and made it difficult to capture information on a consistent basis. Regional councils also take different approaches to monitoring and reporting of network overflows, with some councils prohibiting overflows and only a very small number of councils utilising network consents. A lack of national consistency also makes it difficult to benchmark and compare the relative performance of environment and public health impacts across providers.

110. Public information about the performance of wastewater networks is hard to find, despite the impacts this can have on communities. Lack of transparency and public reporting on environmental performance and compliance makes it difficult to be assured that wastewater treatment plants are meeting the necessary environmental and public health outcomes.

Feasibility

111. The consenting process is highly complex, but it is understood by councils as it has been in place for a number of decades. The system requires extensive resources to administer and engage with, and interested parties are often constrained and unfamiliar with processes and how to engage with them.

112. This option does not take into account the Ministerial direction to have standards in place as soon as practicable after the Bill passes.

Provides for Māori, iwi and hapū interests in water

113. There are a significant number of consents that include conditions that reflect partnership and co-management arrangements. Some of these arrangements have been formalised by councils with the setup of committees or sub-committees, others are less formal and take the form of kaitiaki liaison groups. Some of these arrangements are for iwi/hapū only, while others include other community stakeholders and interested parties. These arrangements would continue under the counterfactual.

114. The existing system is time and resource intensive for Māori. Many local groups are voluntary and do not have funding to purchase specialist technical advice to properly engage with resource consenting processes or wastewater treatment arrangements. Consenting processes can continue for many years and can place a significant burden on groups and individuals, with no guarantee that the desired outcome will be pursued. This would continue in many instances under the counterfactual.

Option Two – Standards are implemented for discharges to land and water, beneficial reuse of biosolids, and risk management plans for overflows (the Authority's preferred option)

115. Under this option, standards would be implemented for discharges to land, water, and beneficial reuse of biosolids, and councils would be required to produce comprehensive risk management plans that would include requirements for overflows.

116. The standards for wastewater **discharges to land and water** would differentiate between the specific characteristics of receiving environments by classifying them in a way that reflects the risk, sensitivity and assimilative capacity of those receiving environments. For example, the discharge to water standard will categorise receiving environments into a range comprising:

- Open ocean
- Low energy coastal
- Estuaries
- High dilution freshwater
- Medium dilution freshwater
- Low dilution freshwater
- Lakes.

117. The standards would set out specific treatment requirements for each class of receiving environment. These will be focussed on the main contaminants or parameters that are discharged by a treatment plant to mitigate risks to the environment (for example, nutrients) and public health (for example, pathogens) as well as standardise the approach to monitoring and reporting. Assuming the Bill passes in its current form, regional councils would continue to administer resource consents for wastewater treatment plants, but they would not be able to set consent conditions that are higher or lower than the treatment requirements implemented in the wastewater standards.

118. The wastewater standards would set different requirements for small wastewater treatment plants serving populations of 1000 or less. These plants have characteristics that are different to those that service larger towns and cities – they are often oxidation ponds that rely on passive treatment technologies with minimal operating requirements in isolated locations without access to power. These very small plants generally have a low impact on the receiving environment they discharge to, particularly in relation to nutrients where the environmental impact is small in comparison to nutrients from diffuse sources such as fertiliser in a catchment.

119. Under this option, a standard would also be put in place for **biosolids**. At this stage, it is anticipated that the standard would include a grading system for the processing of biosolids, requirements around treatments, contaminant limits, and monitoring and reporting requirements.

120. Under this option, the Authority would require council network operators to have a comprehensive **wastewater risk management plan** in place that includes:

- overflow points across a network
- the categorisation of overflow points based on a risk framework, and
- a summary of approaches taken by the network operator to manage, control, monitor or eliminate risks.

121. Councils would be expected to demonstrate how they had engaged with communities (including Māori communities) on the development of the plan, and plans would be published online. All overflow points from existing networks would be required to have a resource consent, with monitoring and reporting requirements for overflows required based on the risk categorisation of the overflow.

122. Consents issued under the wastewater standards (or an associated Infrastructure Design Solution) would have a 35-year duration.

123. These matters would be prioritised over a wider set of standards because they target areas where performance improvements may be most effective and cover most consents for wastewater treatment plants. Resource consents are required for discharges from a wastewater treatment plant to water or land, for example, and the standard would target the main contaminants or parameters that are present in the discharge and are commonly covered by the consent. A biosolids standard would ensure that there is a clear regulatory framework for management of sludge that is produced by wastewater treatment plants, in a way that promotes its beneficial reuse and the potential of an income stream to operators in preference to legacy contamination. Risk management of overflows would enable prioritisation of improvement to networks by targeting areas where public are exposed to the greatest risk, together with the best cost-effective outcome.

124. This option would not set standards for air, energy, or waste that is introduced by a third party into a wastewater network. These matters would not go unregulated, as they would continue to be considered on a case-by-case basis by regional councils as

they are now. This option, however, does leave open the door for learnings from the first set of standards to inform future decisions on the setting of standards for these types of matters.

Public Health and Environment Protection

125. Over time, as existing plants are reconsented and new plants consented, we expect that a single standard approach will drive more consistency in terms of public health and environment protection when compared to the varied approach that would continue under the counterfactual. Wastewater standards will establish a systematic approach to setting parameters for discharges that focuses on the parameters that directly affect public health / environment. While treatment limits are not "place-based", they would be deliberately calibrated to receiving environment sensitivity through use of categories of receiving environment. This means that receiving environments with a higher sensitivity will have greater treatment requirements.

126. Wastewater standards would also include standardised compliance, monitoring and reporting requirements. This is a key regulatory failure with the existing system, as these aspects of consents vary widely, disincentivising transparency and in many cases including consent conditions that are difficult to enforce. Standardised compliance, monitoring and reporting requirements in consents will directly address existing issues with low data quality and availability, enabling benchmarking of infrastructure performance as is common in other infrastructure sectors, and ensuring that public health and environmental risks resulting from non-compliance are clearly understood and communicated to both the public and regulators. This will be a step change to current arrangements.

127. It is noted that the extent to which this option will be effective will be highly sensitive to the scope, coverage, and discharge values of the standard, as well as provision for exceptions and the approach taken to its implementation, administration, compliance monitoring, and enforcement.

128. Work to develop discharge values and specific requirements relating to contaminants under the standards is ongoing and was subject to final technical review during the development of this interim RIS. It has been assumed that the wastewater standards will result in a similar, or greater, level of public health protection than the current effects-based system.

129. The introduction of a national biosolid standard has the potential in the longer term to enable beneficial re-use on a larger scale and minimising dumping at landfills resulting in better protection of the environment. Existing arrangements that involve storage of sludge at site or disposal at landfills creates a legacy of contaminated land.

130. The requirement to develop a comprehensive risk management plan that includes overflows will also mean that where risk is high, there will be additional reporting requirements to ensure affected people, landowners, neighbourhoods and communities are informed. This will result in significant improvements from a public health perspective where untreated or partially treated wastewater is discharged through overflow points (largely mediated by the stormwater system) in urban areas, often without monitoring and reporting to at-risk groups.

Efficiency

131. This option will result in significant efficiencies in the design, consenting and ongoing operation of water services and simplify consent process for discharges to land and water, and of biosolids. Savings would be obtained by reducing the need for specialist

assessments of receiving environments to determine consent conditions and requirements.

132. These savings are likely to be greater for renewals than for new consents. New consents would still require a range of initial assessments to be done to determine whether discharge will take place to land or water.

133. Requiring network operators to develop a comprehensive wastewater risk management plan that includes overflows may increase initial administrative costs but is likely to enable significant overall savings through better understanding of networks, improved risk management, and improvement of networks in a way that is targeted to overflows that are greatest risk.

134. A single standard approach should result in more consistent and predictable requirements, removing some of the regulatory risk out of associated investments and benefiting the long-term planning for infrastructure. Implementing a single standard approach would also provide the foundation for scale efficiencies. Over time, this option is likely to result in the streamlining of equipment, servicing, asset replacement, operations, and maintenance through the standardisation of plants and materials.

135. While costs may increase to begin with, over time standardisation of discharges to land, water and biosolids, is likely to provide foundation for scale efficiencies, benchmarking, and drive industry and other initiatives to standardise infrastructure design, products, and methods. Standardisation of consent conditions would also optimise operating skills and capability, maintenance and compliance procedures likely achieving savings in the longer term.

136. We estimate that under this option, efficiencies in the consent process could save between 25 to 40% of typical consent-related costs (see case studies in **Appendix D**) while also reducing the time required to seek new or renewed consents. The greatest benefits are likely to come from the reduced need to reconsent existing treatment facilities which will reduce the costs associated with consent processes every 10 to 15 years and provide greater certainty for long-term planning and investment.

137. However, the extent of benefit will be highly sensitive to the scope and coverage of the standard, provision for exceptions, and the approach taken to its implementation, administration, compliance monitoring, and enforcement. For example, regional councils will be required to determine whether a wastewater plant operates in compliance with the requirements of the national standard. For a new plant, this will require technical judgment on whether the design of a proposed plant and the commission, build, and operation will result in a way that it will comply with the national standard. Clear guidance will need to be provided to regional councils on these matters. As is currently the case with the resource consenting system, where a plant is not compliant with standardised consent conditions, an operator will be required to take action and upgrade infrastructure to achieve compliance.

138. Further, the speed and duration over which national benefits from efficiencies and productivity improvements related to standardisation are realised will be sensitive to the approach to implementing the standard. This includes future decisions to produce associated infrastructure design solutions, and the ability of the sector and industry to adapt to a national standard.

139. There may also be a risk of increased complexity with the consenting process being managed under two different pieces of legislation. Normally all consenting matters associated with a plant are dealt with at the same time (and have the same expiry dates). Having additional legislative processes in place may decrease efficiencies, for example if not all consents are renewed with the same duration or have conflicting conditions with the primary discharge consents. As other consents will still be considered under the RMA and include notification with key stakeholders or the public,

it's possible that these additional processes could drive a different outcome. Consideration will need to be given as to how to ensure consistency in consent conditions and duration of consents. Interested parties will also still need to be involved in the RMA process for other consents, so clear information will be required as to why they have limited or no input into areas covered by the wastewater standards.

Accountability

140. The standards being developed are likely to include standardised monitoring and reporting requirements, particularly where there is a breach of the standard. For example, the proposed reporting requirements for discharge to water include:

    - immediate reporting to the relevant regional council in the event of a breach of any parameter
    - monthly reporting to the relevant regional council of compliance against parameters in applicable standards and publication on a public website maintained by the operator, and
    - annual reporting to the relevant regional council and the Authority of compliance against parameters in applicable standards.

141. Standardising these requirements seeks to reduce the amount of variability in monitoring and reporting across the country, as well as increase accountability of providers, and enhance transparency of compliance through publication.

142. Requiring councils to produce comprehensive risk management plans that include overflows also seeks to increase consistency across the country in terms of enabling more systematic monitoring and reporting of overflows and increase accountability of providers.

Feasibility

143. While time would be needed to both develop and implement wastewater standards under this option to ensure it is embedded and well understood, the Authority considers that it can be effectively implemented within the timeframes available. This option balances achieving the greatest amount of standardisation within the timeframes available by prioritising the changes that most effectively manage the risk to public health and the environment.

144. The success of implementing the wastewater standards hinges on appropriate guidance being provided to councils to assist in the determination of whether a proposed plant meets the standard. Guidance would also be required from councils to key stakeholders informing them of the new regime.

145. The future development of infrastructure design solutions would support implementation of this option, particularly for lower risk wastewater treatment plants that serve small communities.

Provides for Māori, iwi and hapū interests in water

146. This option is not intended to impact the Authority or councils' obligations to give effect to the Treaty. Under this option, existing treaty settlements and other obligations regarding decision-making around water services or the management of water bodies of significance would continue but may need to be reviewed and updated to reflect the single standard approach.

147. By providing more certainty and predictability in the consenting process, it may make it easier for iwi and hapū to engage with the consenting process. While iwi and hapū would have reduced ability to influence specific treatment limits for wastewater

treatment plants in their area, councils could continue to work with iwi and hapū to agree on an approach that is acceptable to the context.

148. This option will reduce the ability of iwi and hapū to influence treatment outcomes "at place". Areas covered by the standards (for example the treatment requirements for the key contaminants discharging from a wastewater treatment plant to land, or to a class of freshwater or coastal receiving environment) will be fixed by the standard. From a te ao Māori perspective, this will reduce the ability of mana whenua to exercise kaitiakitanga or guardianship over land and water.

149. This will be offset by standardised and transparent monitoring and reporting requirements for wastewater treatment plants and overflows. Current arrangements lack transparency, both in terms of compliance with plant consent conditions and for the occurrence and frequency of overflows. Transparent monitoring and reporting arrangements will strengthen accountability of infrastructure owners to iwi and hapū. In turn this is likely to increase the influence iwi and hapū have over ensuring compliance and improvement of environmental and public health outcomes over time.

Option three - Standards are implemented for all matters provided for under the Water Services Act

150. Under this option, standards would be introduced to cover all the matters outlined in section 138(1) of the Water Services Act – discharges to land, air and water; refuse to biosolids, energy use and waste that is introduced by a third party into a wastewater network. As described under option two, this option would also require councils to develop risk management plans that consider network overflows. As such, this option seeks to increase standardisation across more of the consenting process by implementing a wider range of standards, for which assessment of effects would not be required.

151. As with option two, there would be tailored requirements for small wastewater treatment plants, with environmental performance standards imposing some different requirements for small wastewater treatment plants.

Public health and environmental protection

152. The public health and environmental outcomes for option 3 are broadly similar to option 2. It is anticipated that this option will likely produce marginally better public health and environmental outcomes because it covers a broader range of matters, such as discharges to air. It will also drive more consistency in terms of public health and environment protection when compared to the counterfactual. However, as with option two, the extent to which this option will be effective, is highly sensitive to the scope and coverage of the standard, provision for exemptions, and the approach taken to its implementation, administration, compliance monitoring, and enforcement.

153. We note that the extent to which the standard results in increases or decreases in the protection of public health and the environment depends on standard values. We have assumed that the wastewater standards will provide for a similar, or greater, level of public health protection than the counterfactual.

Efficiency

154. Greater savings in time and cost associated with the consenting process may be achieved under this option due to an increase in standardisation across a wider range of matters. As with option two, these savings are likely to be greater for renewals than for new consents, as new consents would still require a range of initial assessments to be done to determine whether discharge will take place to land or water. The greatest benefits would be most likely to come from the reduced need to reconsent existing treatment facilities which will not only reduce the costs associated with consent

processes every 10 to 15 years but will also provide greater certainty for long-term planning and investment.

155. Normally all consenting matters associated with a plant are dealt with at the same time (and have the same expiry dates). Therefore, having additional legislative processes may increase complexity and decrease efficiencies, for example if not all consents are renewed with the same duration of have conflicting conditions with the primary discharge consents. In addition, interested parties will also still need to be involved in the RMA process for other consents, so clear information will be required as to why they have limited or no input into the wastewater discharge standards.

156. As this option involves a high degree of change from current process, it's possible that the regulatory efficiencies may be limited due to the need for councils and interested parties to adapt to the new system. A step change over a longer period of time would potentially be more effective at adapting to the new system but could also delay the time it takes for economies of scale to be achieved.

157. This option would result in more consistent and predictable requirements, removing more of the regulatory risk out of associated investments and benefiting the long-term planning for infrastructure. For these benefits to be realised, it is critical that there is consistency in consent duration, conditions, and interpretation of conditions over time. If consistency is not achieved, this would likely lead to inefficiencies and uncertainty for future investment.

158. While costs may increase to begin with, standardisation under this option is likely to provide foundation for scale efficiencies and drive industry and other initiatives to standardise infrastructure design, products, and methods. Standardisation of consent conditions would also optimise operating skills and capability, maintenance and compliance procedures likely achieving savings in the longer term.

159. Speed and period of time over which benefits are realised will be sensitive to approach to implementation including future decisions to produce associated design solutions, and ability of sector and industry to make changes in response.

Accountability

160. This option is likely to lead to additional accountability because it would introduce more comprehensive coverage of standards for treatment levels, as well as monitoring and reporting for a broader range of matters to also include air, energy, and waste that is introduced by a third party into a wastewater network.

161. The wastewater standards are likely to reduce the amount of variability in monitoring and reporting across the country, as well as increase accountability of providers, and enhance transparency of compliance through publication. It would also drive greater accountability to consumers through increased transparency of performance against standards and more systematic monitoring and reporting.

Feasibility

162. A significant amount of time and effort would be needed to develop and implement wastewater standards under this option given the overall complexity of the system and the number of matters in scope. Extensive guidance would be required for councils and key stakeholders to embed the new regime and build understanding. The Authority does not consider that this option could be effectively implemented within the timeframes available.

Provides for Māori, iwi and hapū interests in water

163. This option is not intended to impact existing treaty obligations or other obligations regarding decision-making around water services or the management of water bodies of significance.

164. By providing more certainty and predictability in the consenting process, it may make it easier for iwi and hapū to engage with the consenting process. While iwi and hapū would have reduced ability to influence a wider range of matters under this option, councils could continue to work with iwi and hapū to agree on an approach that is acceptable to the context.

165. Of all options, this option will reduce the ability of iwi and hapū to influence treatment outcomes “at place” to the greatest extent. It would result in most or all treatment requirements covered by the standards, together with many areas of a plant’s operation, becoming fixed, thus significantly minimising the ability of mana whenua to exercise kaitiakitanga through influencing treatment outcomes and the overall health and wellbeing of land and water.

166. Comprehensive standards would however lead to transparent monitoring and reporting requirements for all aspects of wastewater treatment plants and overflows, thus strengthening accountability of infrastructure owners to iwi and hapū to the greatest extent. In turn this is likely to increase the influence iwi and hapū have over ensuring compliance and improvement of environmental and public health outcomes over time.

How do the options compare to the status quo/counterfactual?

Table 3: Strategic options assessment table

	Option One – No standards introduced (counterfactual)	Option Two – Standards are implemented for discharges to land and water, beneficial reuse of biosolids, and risk management plans for overflows (the Authority's preferred option)	Option Three – Standards are implemented for all matters provided for under the Water Services Act
Public Health and Environment Protection: The extent to which the option results in a nationally consistent approach to protection of public health and the environment.	0 The effects-based approach is expensive and unpredictable in the environment and public health protection provided. There is considerable variation consent conditions across the country, including variability in the extent to which conditions adequately protect public health and the environment. A large number of mainly older schemes are operating on expired consents and some smaller plants that are not meeting necessary standards.	+ More consistency and transparency of discharge limits and consent conditions over time. In time, a more certain and cost-effective consenting process is likely to lead to fewer plants operating on expired consents. Biosolid standard has the potential to minimise dumping at landfills resulting in better protection of public health and environment. Requiring operators to develop a risk management plan that includes overflows is likely to increase effectiveness by standardising the approach to overflows across the country and ensuring that all operators take a risk-based approach to managing overflows.	++ Increased standardisation of a broader range of matters considered during the consenting of wastewater schemes. We have assumed that a single standard approach will provide for a similar, or greater, level of public health protection than those provided under the counterfactual.
Efficiency: The extent to which the option enables efficiencies in the design, consenting and ongoing operation of water services. simplifies regulatory processes and requirements and reduces associated regulatory costs.	0 High consenting costs (both time and financial cost), due to reliance on specialist assessments. Extensive consultation and notification requirements increase time and costs of consenting as well as increase risk of litigation. Current process provides very little certainty and predictability for providers in terms pf planning, design and operation, which are a barrier to long-term investment. driven the customised design of treatment plants, which does not support or encourage scale efficiencies in design, procurement, or operator capability and training.	+ Likely to lead to savings by reducing the need for specialist assessments of receiving environments to determine consent conditions and requirements. Scope of the standards under this option means that it would not impact other requirements such as those relating to discharge to air and land use. Efficiencies in the consent process could save between 25 to 40% of typical consent-related costs while also reducing the time required to seek new or renewed consents. Greatest benefits likely to come from the reduced need to reconsent existing treatment facilities. The proposed standards should remove some of the regulatory risk out of associated investments and benefit the long-term planning for infrastructure. It is also likely to provide foundation for scale efficiencies and drive industry and other initiatives to standardise infrastructure design, products, and methods.	++ Greater savings in terms of time and cost associated with the consenting process may be achieved under this option due to an increase in standardisation across a broader range of matters. These savings are likely to be greater for renewals than for new consents. Efficiencies in the consent process could save between 25 to 40% of typical consent-related costs while also reducing the time required to seek new or renewed consents. Greatest benefits likely to come from the reduced need to reconsent existing treatment facilities. The proposed standards should remove some of the regulatory risk out of associated investments and benefit the long-term planning for infrastructure. It is also likely to provide foundation for scale efficiencies and drive industry and other initiatives to standardise infrastructure design, products, and methods. Option involves a high degree of change from the current process, it's possible that the regulatory efficiencies gained may be limited due to the need for councils and interested parties to adapt to the new system.
Accountability: The extent to which the option strengthens accountability of providers in terms of compliance with consents and public access to information.	0 Variation in consent conditions and requirements has resulted in challenges with monitoring and enforcement. There is also variation in monitoring and reporting of network overflows. Difficult to compare the relative performance of environment and public health impacts across providers. Public information about the performance of wastewater networks is hard to find and difficult to be assured that wastewater treatment plants are meeting the necessary environmental and public health outcomes.	+ Drives consistency in monitoring and reporting requirements, reducing variability across the country. Standardised monitoring and reporting requirements are likely increase transparency and accountability in relation to wastewater system performance. Requiring operators to develop a risk management plan that includes overflows is likely to increase accountability through better systematic monitoring and oversight over overflows.	++ Increase in standardisation of conditions including monitoring and reporting requirements for a broader range of matters in addition to the prioritised standards is likely to drive even more consistency and increase accountability of providers.
Feasibility: The extent to which an option can be implemented in a way that takes into account real-world constraints and practicalities.	0 System is understood but requires extensive resources to administer and engage with. Does not take into account the Ministerial direction to have wastewater standards put in place.	+ Given the complexity of the current process, any changes would require time and guidance to implement. Notwithstanding the complexity of the changes, it is considered that this option can be effectively implemented within the timeframes set. This option finds a balance between achieving the greatest amount of standardisation within the timeframes available and achieves this by prioritising the changes that most effectively manage the risk to public health and the environment.	-- As this option results in a high degree of change from current practice, it would require significant effort from Councils to implement effectively in terms of informing/educating stakeholders of the new regime and adjusting council processes. Due to resource constraints, this option is unlikely to be effectively implemented within the timeframes set.
Provides for Māori, iwi and hapū interests in water: The extent to which can option impacts the nature of the relationship between councils and iwi/hapū, including the impact decision-making regarding water bodies of significance	0 Existing partnership, co-management arrangements remain in place. While Māori, iwi and hapū can have input into several different matters under the current consenting process, time, resource and funding commitments are high and there is no guarantee that their desired outcome will be pursued.	- Not intended to impact existing treaty obligations or other obligations regarding decision-making around water services or the management of water bodies of significance. However, this option will reduce the ability of iwi and hapū to influence treatment outcomes "at place". Areas covered by the standards will be fixed by the standard. From a te ao Māori perspective this will reduce the ability of mana whenua to exercise kaitiakitanga.	-- Not intended to impact existing treaty obligations or other obligations regarding decision-making around water services or the management of water bodies of significance. This option will reduce the ability of iwi and hapū to influence treatment outcomes "at place" to the greatest extent. It would result in most or all treatment requirements covered by the standards, together with many areas of a plant's operation, becoming fixed, thus significantly minimising the ability of mana whenua to exercise kaitiakitanga through influencing treatment outcomes and the overall health and wellbeing of land and water.
Overall assessment	0	+	+

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

167. The Authority recommends option two, which is to implement standards for discharges to land, water and biosolids, and require wastewater risk management plans. This is the preferred option of the Authority because it is the option that best meets the objectives in the time available to implement a work programme relating to wastewater standards, and given finite resources available to the Authority. While option three scored higher across several of the assessment criteria and is likely to produce marginally better public health and environmental outcomes, it is not considered feasible to implement within the set timeframes and would be very costly to implement as it would require the highest levels of technical advice to achieve.

168. Option two will address key challenges in the regulatory system by promoting efficiency, and support consistency and transparency in public health and environmental performance across New Zealand, while providing a relatively quick and practical approach to implementation. Implementing a wastewater standard for biosolids will promote beneficial reuse and reduce landfill dumping, and requiring risk management plans for overflows will standardise and enhance the effectiveness of managing overflows nationwide.

169. Under this option, significant **efficiencies** are expected due to the reduction in the need for specialist assessments, especially for renewals. Efficiencies in the consent process under this option could save between 25 to 40% of typical consent-related costs while also reducing the time required to seek new or renewed consents (explained further in the case studies below). The greatest benefits come from reduced reconsenting costs for existing facilities, aiding long-term planning and investment.

170. In terms of **accountability**, option two promotes national consistency in monitoring and reporting for prioritised standards, enhancing transparency and accountability in wastewater system performance, especially for overflows. Requiring operators to develop a risk management plan for overflows is expected to improve accountability through better systematic monitoring and oversight.

171. For **feasibility,** the complexity of the current system and proposed changes under option two will require councils to invest significant effort to educate stakeholders about the new regime. This option is considered feasible as it can be effectively implemented within the set timeframes. Option three on the other hand, would result in a much higher degree of change from the status quo. It would require much more effort from councils to implement effectively and is unlikely to be achievable within the timeframes.

172. This option, as well as option three, are not intended to impact existing **Treaty obligations** or other obligations regarding decision-making around water services or the management of water bodies of significance. Option two will reduce the ability of iwi and hapū to influence treatment outcomes “at place”, though to a lesser extent than option three. Option two would also significantly promote transparent monitoring and reporting requirements for all aspects of wastewater treatment plants and overflows, thus strengthening accountability of infrastructure owners to iwi and hapū.

173. Overall, option two finds a balance between achieving the greatest amount of standardisation within the timeframes available, by prioritising the standards and changes that most effectively manage the risk to public health and the environment - discharges to land, water, biosolids, as well as risk management plans for overflows. It is considered that this option will lead to more confidence in investment decisions and promotes standardisation of design, procurement, material selection and construction of treatment plants.

174. It is also worth noting that while this option would not set standards for air, energy, or waste that is introduced by a third party into a wastewater network, it does leave the

door open for learnings from the first set of standards to inform future decisions on the setting of standards for other matters listed in section 138 of the Water Service Act.

What are the marginal costs and benefits of the option?

175. The impact analysis below provides a qualitative assessment of the impacts of the proposed new wastewater standard. As noted in the limitations, we have used a case study approach for quantification which is set out below the cost and benefit table.

Table: Assessment of costs and benefits

Affected groups *(identify)*	**Comment** *nature of cost or benefit (eg, ongoing, one-off), evidence and assumption (eg, compliance rates), risks.*	**Impact** *$m present value where appropriate, for monetised impacts; high, medium or low for non-monetised impacts.*	**Evidence Certainty** *High, medium, or low, and explain reasoning in comment column.*
Additional costs of the preferred option compared to taking no action			
Water service providers (public supplies only)	• Administrative costs incurred to transition to new standards process. • Training costs for operators. • Additional costs to meet quality standards (if they increase). • Additional costs to meet to compliance and reporting regime.	Low	Low – full extent of costs not fully known at this stage
Water users / consumers / communities	• The complexity of new consenting process(es) may heighten the risk of non-compliance. • No further additional costs anticipated – subject to analysis of possible health and environmental outcomes under conditions imposed under the standard, particularly for consumers of small wastewater treatment plants.	Low	Low – needs to be determined based on the new standard
Regional Councils	• One-off costs incurred to transition to new standards process. • Costs of monitoring and enforcement	Low	Low – full extent of costs not fully known at this stage
Water services authority	• Costs of developing and setting standards. • Costs of more comprehensive system oversight	Low	Medium

Supporting services (engineers, lawyers, surveyors)	• Loss of business in short term. • Costs of transitioning to new standards process. • Potential to standardise materials and supplies generating future business. • Loses in short term as less consents required.	Medium	Medium – based on case studies in **Appendix D** and existing knowledge of consent costs
Iwi / Māori	• Existing Treaty obligations not intended to be impacted. • Existing partnership and co-management arrangements may need to be reviewed. • Ability to influence treatment levels “at place” will reduce	Low	Low – further work required to review existing obligations and commitments
Total monetised costs		Nil	Nil
Non-monetised costs		**Low to medium**	**Low to medium**
Additional benefits of the preferred option compared to taking no action			
Water service providers (public supplies only)	• Reduction in certain consenting costs. • Reduction in staff time spent on reconsenting. • Certainty for investment planning. • Greater consistency from standards likely to enable more efficient compliance monitoring. • Potential for scale benefits in delivery resulting from greater standardisation.	Medium to high	Medium
Water users / consumers / communities	• Opportunity for cost savings to be passed on to consumers. • Greater transparency and consistency enabling more effective and sustained investment in improved waste treatment and freshwater quality. • Improved public health outcomes (as discussed in the options analysis).	Low to medium	Medium
Regional Councils	• Reduction in staff time spent processing consents.	Low to medium	Medium

	• Greater consistency from standards likely to enable more efficient compliance monitoring.		
Water services authority	• National consistency in wastewater performance. • Ease of performance measurement and reporting.	Low	Medium
Supporting industries (engineers, lawyers, surveyors)	• Greater consistency in the medium to long-term. • There will be greater scope for innovation and investment associated as there will be longer-term certainty.	Low to medium	Low
Iwi / Māori	• Iwi retain ability to work Regional Councils on approaches that are acceptable to the context e.g. not discharging to water. • More certainty in consenting process may make it easier for iwi and hapū to engage with consenting process. • Greater transparency and consistency enabling more effective and sustained investment in improved waste treatment and freshwater quality • Improved public health outcomes from reduced contamination of water bodies	Low	Low to medium
Total monetised benefits		Nil	Nil
Non-monetised benefits		**Medium to high**	**Medium**

Design choices underneath the preferred option

176. Alongside the general proposals, there are several design choices under the preferred option that will be consulted on through the discussion document. These are:

- the content of the new standards including discharge values
- tailoring requirements for small wastewater treatment plants, and
- the exceptions regime.

177. It is expected that through the discussion document, feedback will support the development of these design choices.

Content of the new standards

178. The new standards will set requirements relating to matters such as the quality and volume of the discharge and will include treatment requirements relating to contaminants that are potentially harmful to the environment or create risks to public health. The Authority is still developing the exact limits and requirements that will form the wastewater standards.

179. The discussion document seeks feedback on the approach to setting the specific requirements, including discharge limits.

Tailored requirements for small wastewater treatment plants

180. A key design choice under the preferred option relates to how the wastewater standards would apply to small wastewater treatment plants. Approximately half of New Zealand's treatment plants service populations of less than 1,000 people. These plants have characteristics that are different to those that service larger towns and cities, and generally have a lower impact on the receiving environment they discharge to.

181. The technology used in small-scale wastewater treatment plants tends to be relatively simple (with oxidation pond-based systems being most common). Oxidation pond-based systems technology often cannot perform to the same standard as more technologically sophisticated plants.

182. During consultation with councils on their priorities and concerns to be incorporated into the standards framework, many smaller councils raised concerned about affordability and wanted to ensure that wastewater standards were tailored to the specific characteristics of their plants.

183. The discussion document is seeking feedback on imposing a tailored approach for small wastewater treatment plants. This will allow for recognition of the more simplified and low risk arrangements that are often in place at smaller plants.

Exceptions regime

184. While wastewater standards are intended to create certainty and national consistency, there will be cases where a national standard may be inappropriate. For example, where flexibility is needed to adapt to local environmental sensitivities or new technology.

185. One of the key benefits of the preferred option is the level of standardisation it would achieve across the consenting process. Recognising that an exceptions regime may reduce the benefits gained from standardisation, the proposed exceptions are narrow. This means that the impact on the benefits relating to standardisation will be minimal.

186. Exceptions would be developed and enacted through the same process as wastewater standards. In situations where an exception applies, the treatment requirements for the plant would be determined through the processes in the RMA.

187. The discussion document is seeking feedback on the following exceptions:

- **High quality / pristine water bodies:** the standard would not apply to discharges from a wastewater treatment plant to a water body that is high quality / pristine. The characteristics of these water bodies would be defined in the standard, and it is anticipated that only a very small proportion of New Zealand's water bodies would be captured by this exception.

- **Aquifers / deep well injection**: the standard would not apply to discharges from a wastewater treatment plant to an aquifer (commonly known as deep well injection). This is relatively new technology and there are currently no treatment arrangements of this nature in New Zealand.

- **Wetlands:** the standard would not apply to discharges to natural wetlands (i.e. those which are neither lined nor sealed).
- **Proximity to drinking water abstraction point:** the standard would not apply to discharges that are in close proximity to a drinking water abstraction point, including:
    - 1,000m upstream or 100m downstream in rivers
    - 500m radius from intakes in lakes
        - 1,000m upstream of any tributaries that discharge to lakes within the 500m radius from intakes
- **Natural levels exceed the standard**: where a water body already has natural levels of a particular parameter, which exceed the standard (for example, nitrogen), any treatment limit relating to that parameter in the standard would not apply to the consenting of the wastewater treatment plant. The appropriate limit would be set by the regional council through the consenting process.

188. Feedback is being sought on whether the areas for exceptions are appropriate to manage the impacts of discharges, whether there are any challenges in implementing them, and how exceptions can be further defined to ensure there are no unintended consequences.

Section 3: Delivering an option

How will the new arrangements be implemented?

Implementing the new wastewater environmental performance standards

189. The wastewater standards will be implemented through future resource consents for wastewater treatment plants, as they come up for renewal.

190. Regional councils will remain the primary regulator for wastewater and are responsible for environmental planning, resource consents, and related monitoring and enforcement under the RMA. They will continue to be the consenting authority and will implement the standards through consent conditions and continue to be responsible for monitoring and enforcing consent compliance in line with their functions under section 30 of the RMA.

191. The Authority will have a critical role to play in providing oversight of the environmental performance of publicly owned wastewater networks. The Authority will support regional councils with the implementation of the national wastewater environmental performance standards by providing direction and comprehensive guidance as well as setting clear expectations across the different domains.

192. Consents granted before the standards are in place would be processed under the existing RMA arrangements whereas any consent that is granted after the wastewater standards are in place would need to give effect to the new standards. We understand that regional councils are currently issuing short-term consents in anticipation of the new standards.

193. There are a relatively significant number of wastewater treatment plants operating on expired consents and where applications for new consents have already been lodged. These 'inflight' consents are at different stages in the consenting process and many of which have been under consideration for many years. We expect that applicants will be working closely with the relevant regional council to determine the timeframe for progressing these applications.

194. Where applications relate to upgrades to existing plants (as opposed to entirely new facilities), there may need to be time to allow for upgrades in infrastructure and operating procedures to be undertaken. A wastewater or stormwater environmental performance standard can specify that a discharge consent may include a specified period (e.g. five years) to upgrade infrastructure to meet the standard. This is necessary to ensure there is flexibility to allow councils time to upgrade infrastructure.

195. Given the complexity of the RMA regime and the need for integration with the new standards, officials will continue to work through the detailed transitional arrangements including any feedback received through consultation.

Implementing changes to how overflows are managed

196. Following the enactment of the Bill, the Authority will have the ability to set the consent activity status for wastewater overflows under the RMA. This means the Authority will have the ability to make all overflows from existing wastewater networks a "controlled activity", creating a standard consenting pathway for network overflows. The majority of councils do not operate with network consents.

197. Wastewater risk management plans and the monitoring and reporting requirements for overflows would be included as conditions of the consent required for all network overflows. This is a change from the current approach to consenting wastewater network overflows which varies across the country with some regional councils electing to prohibit overflows from both existing and new networks, while others acknowledge that overflows occur and choose to manage them through resource consents.

How will the new arrangements be monitored, evaluated, and reviewed?

Overarching approach to monitoring, evaluation and review

198. As noted above, regional councils will continue to be responsible for monitoring and enforcing consent compliance in line with their functions under section 30 of the RMA. Part of this role included auditing compliance with resource consents.

199. The Authority would be responsible for overseeing the national performance of wastewater networks and treatment plants, as well as the implementation of the wastewater standards.

200. As noted earlier in this document, the counterfactual makes it difficult to be assured that wastewater treatment plants are meeting the necessary environmental and public health outcomes. A lack of national consistency in consent conditions also makes it very difficult to compare the relative performance of environment and public health impacts across providers.

201. Implementing the wastewater standards and achieving some standardisation across the country will enable the Authority to better fulfil some of its key functions set out in section 11 of the Taumata Arowai –the Water Services Regulator Act 2020, in particular:

- identifying and monitoring matters that affect the environmental performance of wastewater networks, including current and emerging contaminants,
- providing oversight of and information to central and local government about compliance with, monitoring of, and enforcement of standards and other statutory requirements effecting wastewater networks and wastewater network operators.

202. To ensure standards remain fit-for-purpose, the Authority will establish an ongoing work programme to evaluate how standards have been implemented and to consider where additional standards may be appropriate or what amendments are necessary.

203. The wastewater standards will also require periodic review to enable risks to receiving environments or public health to be managed, and to take advantage of new technology. This is consistent with current RMA approaches for wastewater plants that often include technology review clauses.

204. The Authority will work closely with regional councils, network operators and others to evaluate the impact and effectiveness of the standards in delivering against the policy objectives over time and determine whether changes are required.

New monitoring and reporting requirements under the wastewater standards

205. Wastewater standards can include monitoring requirements to provide assurance that there is ongoing compliance with the standard. Each of the standards discussed in this RIS will include monitoring and reporting requirements.

206. These requirements are summarised below and are being consulted on through the discussion document.

- **Discharges to water**: All operators would be required to monitor compliance with each of the parameters outlined in the standard. The frequency of monitoring would vary according to size and complexity of the treatment plant with continuous monitoring required for plants serving populations greater than 10,000, fortnightly monitoring required for plants serving populations between 1,000 and 10,000, and monthly reporting required for small-scale plants serving 1,000 people or less. Reporting requirements would apply to all parameters and include a requirement to report any breach immediately to the relevant regional council.

- **Discharges to land**: Similar to discharges to water, all operators would be required to monitor compliance with each of the parameters outlined in the standard and frequency of monitoring would vary according to size and complexity of the treatment plant. Groundwater monitoring would also be required to assess potential impact of the discharge and soil sampling would also be required where effluent has been discharged to land for more than 5 years. The reporting requirements would be the same as for discharges to water.
- **Processing of biosolids**: Farmers and horticulturalists who apply biosolids to land in significant quantities will need to provide records of their nitrogen application rate to a regional council. Similar to discharges to land, soil sampling would be required where biosolids have been applied to land continuously for more than 5 years. Manufacturers who process biosolids will need to certify that biosolids meet the grading requirements of the standard to demonstrate they are safe for consumers.
- **Overflows**: Monitoring arrangements for overflows would depend on the type of overflow point. As a minimum, operators would be required to have telemetric monitoring for overflow or discharge points that are classified as high-risk in wastewater risk management plans, all new constructed overflow points and pump stations, and all uncontrolled discharge points where there are high frequency overflows. Operators would also be required to implement reporting arrangements influenced by the risk assessment carried out in their plan.

207. Standardising monitoring and reporting arrangements seek to increase accountability of providers and improve the Authority's ability to determine whether or not providers are meeting the necessary public health and environmental outcomes.

Appendix A: Glossary

- **Beneficial reuse**: The practice of reusing treated wastewater or biosolids for beneficial purposes, such as irrigation or as fertilizer.
- **Biosolids**: Treated sludge from wastewater treatment plants that can be reused, often as fertilizer.
- **Consent**: Official permission granted by a regional council under the RMA to discharge wastewater into the environment.
- **Consent conditions:** Section 108 of the RMA allows councils to include conditions on resource consents. Conditions include standards, terms, restrictions or prohibitions specified in a consent following the written decision to grant the consent.
- **Discharge**: The release of treated or untreated wastewater into the environment, typically into bodies of water or onto land.
- **Infrastructure design solutions**: a proposed statutory instrument in the Local Government (Water Services) Bill that will enable implementation of standardised designs and operating requirements for wastewater treatment plants, particularly for small-scale systems.
- **National environmental standards**: Standards can be set under the RMA to provide consistent environmental protection across New Zealand.
- **Overflows**: Instances where untreated or partially treated wastewater spills out of the system, often due to blockages or excessive stormwater entering the network.
- **Oxidation pond**: A type of wastewater treatment system that uses natural processes involving algae and bacteria to treat wastewater.
- **Public notification**: The process of informing the public about a proposed activity, such as a new wastewater discharge, and inviting submissions or objections.
- **Receiving environment**: The natural environment (land, water, or air) that receives discharges from wastewater treatment plants.
- **Resource Management Act 1991 (RMA)**: New Zealand's primary legislation for environmental management, including the regulation of wastewater discharges
- **Wastewater risk management plan**: A plan required by the Water Services Act for wastewater network operators to identify, assess, and manage risks associated with their networks.
- **Wastewater environmental performance standards**: the Water Services Authority are empowered to make wastewater environmental performance standards under the Water Services Act 2021. These standards may include (but are not limited to) requirements, limits, conditions, or prohibitions related to activities associated with wastewater networks, including plant infrastructure.
- **Te Mana o te Wai**: A concept in New Zealand's freshwater management regime that emphasizes the health and well-being of freshwater bodies and ecosystems.

- **Wastewater treatment plant**: A facility designed to treat wastewater to process sewerage and remove contaminants before it is discharged into the environment.
- **Water Services Act 2021**: Legislation that sets out the functions and powers of the Water Services Authority, including the oversight of environmental performance of wastewater and stormwater networks.
- **Water Services Authority - Taumata Arowai**: The regulatory body responsible for overseeing the environmental performance of New Zealand's drinking water, wastewater, and stormwater networks.

Appendix B: Detailed consenting process

1. Existing RMA resource consent process (Option 1)

Notes:

- Resource consent applications for discharges and coastal permits are made to the regional council. Any land use consents will require application to the district council.
- A district council may appoint an external consultant team to prepare the consent application on behalf of the council.

1. Gather consent information

Consider current performance of any existing plant and discharge options

Visit site

Identify potential environmental effects

Review planning policy and rules framework - national & local, and council files

Identify all consents required (discharge, land use, coastal, contaminated site etc)

Appoint external consultants if needed

Pre-application meeting with council

Determine if any written approvals are desirable

2. Discuss with the community

Develop discharge options and test with the community and with iwi

Consider best practicable option - undertake multi-criteria analysis of long-list of options

Show communit/iwi preferences have been considered

Obtain written approvals if required

Pre-application meeting

3. Develop preferred option and prepare consent application

Design new plant or upgrade

Obtain technical advice from exernal consultants (engineering, environmental, cultural assessment etc) if needed

Prepare application in accordance with RMA requirements including:

Description of treatment quality, receiving environment, and treatment process

Prepare Assessment of Environmental Effects

4. Lodge application for council to process

Council considers if application is complete

Application may be returned for incompleteness within 10 working days of lodgement

If application is incomplete, treated as a new application when further information is provided

Council processes application

Council stops clock if further information is required - applicant has 15 working days to provide further information

5. Regional council decides whether to notify application

Council has 20 working days from lodgement of application to decide whether it will be notified (or 10 working days if a fast-track approval)

Public notification of discharge consents is likely

Application is publicly notified

Submissions are received (20 working days from notification)

Hearing considers submissions (completed within 75 days from submissions closing)

6. Regional council determines application

Council makes a decision - having regard to specific matters set out in the RMA

Council decision issued with conditions of consent (within 15 working days of the end of the hearing)

Decision may be appealed to the Environment Court within 15 working days of the decision

Parties to any appeal will take part in mediation, and if unsuccessful, an Environment Court hearing with be scheduled

Final decision on application issued

7. Detailed engineering design of plant and monitoring requirements

Detailed engineering design of new plant or upgrade is developed in accordance with conditions of resource consent

Design also covers operation and monitoring requirements

8. Construction of new plant or upgrade

New plant or upgrade is constructed in accordance with resource consent and associated conditions

9. Regional council undertakes compliance & enforcement

The new plant or upgrade is monitored by regional council to see if it is complying with the resource consent and associated conditions

Refinement of treatment plant design options and engagement with community

Prelimary design options for discharges are identified

Options are tested with the community

Selected option developed and used to apply for resource consent

Detailed engineering design option finalised after consent is granted

Local Govt Act 2002
Council Longterm Plan Funding Certainty

The wastewater treatment plant asset is identified in the 10-year LTP infrastructure strategy

The future cost for new plant or upgrade is estimated in the LTP
- fulfil decision and engagment requirements in LGA02

As you progress through the resource consenting process below greater certainty can be achieved for LTP costs

2. Wastewater standards in place – resource consent process (Option 2)

1. Gather consent information

Consider current performance of plant and discharge options

Identify all consents required (discharge, land use, coastal, contaminated site etc)

If the site/receiving environment falls within an 'exception' identified in the standards, then the normal RMA consent process appllies

WSA standards prevail over a national or local planning instruments and rules, in the event of any inconsistency - simplified regulatory framework for wastewater standards compliance

The standards can specify the activty status (e.g. permitted or controlled activity if the standard is met), including for land use

Other consent matters not covered by the standards must comply with normal RMA consent requirements

For new designations - conditions imposed must not be more or less restrictive than the standard

Appoint external consultants if needed

Pre-application meeting with council

2. Discuss with the community

Develop discharge options and test with the community and with iwi

Consider best practicable option - fewer options are considered as they are based on the applicable standards

Standard and simplied engineering designs can be developed to meet the different standards

Pre-application meeting

3. Develop preferred option and prepare consent application

Design new plant or upgrade

Obtain technical advice from consultants - simplified process as standards specifies treatment, design, and monitoring

Prepare application (which will be simpler) as plant and operations are designed to the standards. Under the standards, some or all of the activities may be a permitted activity

Description of treatment quality, receiving environment, and treatment process

Prepare Assessment of Environmental Effects

4. If required, lodge application for council to process

Council considers if application is complete

Application may be returned for incompleteness within 10 working days of lodgement

Council stops consenting clock if further information is required - applicant has 15 working days to provide further information

Council processes application

5. Regional council decides whether to notify application

The standards can identify whether public or limited notification of the application is precluded

Application notified, if required

Submissions received

Application and submissions considered at a hearing

6. Regional council determines application

Regional councils must give effect to the standards in determining consents

Council makes a decision on the application - where standard is met certain RMA matters do not apply (ss105 & 107)

Council decision issued with conditions of consent

Standards provides national set of conditions of consent

Regional councils cannot impose conditions that are more or less restrictive than the standards unless an exception applies

Longer duration consent issued - for 35 years

Decision may be appealed to the Environment Court

Less likelihood of appeals because there is more certainty regarding what is an acceptable magnitude of environmental effects

Final decision on application issued

7. Detailed engineering design of plant and monitoring requirements

Detailed engineering design of new plant or upgrade is developed

Design also covers operation and monitoring requirements

8. Construction of new plant or upgrade

New plant or upgrade is constructed in accordance with resource consent and associated conditions

Process from design to construction should be quicker with use of the standards, allowing cost savings

9. Regional council undertakes compliance & enforcement

Compliance and enforcement will be standardised, simplified and transparent

Regional councils continue to monitor and enforce consent conditions for the plant

The Water Services Authority will provide system monitoring and oversight of the wastewater standards

When the standards come into effect applicants who are in the process of a new application or are relying on s124 provisions can withdraw their applications and lodge a new application that complies with the standards

If the plant is still operating on an expired consent (under s124) the standards may prescribe a time limit to continue operation of the facility, after which time a new application that meets the new standards would be required

3. Option 3 – Wastewater standards in place for all relevant discharge consents - resource consent process

1. Gather consent information

Wastewater standards will set treatment requirements for all relevant discharge consents for a wastewater treatment plant

Consider current performance of plant and discharge options - determine which wastewater standards are appropriate for the plant

If the site/receiving environment falls within an 'exception' identified in the wastewater standards then normal RMA consent process applies

Simplified regulatory framework - wastewater standards will specify treatment requirements for most or all activities relating to a plant

The wastewater standard may specify that an activity is a permitted or controlled activity (consent must be granted) if it meets the standard.

Pre-application meeting with the consent authority

2. Discuss with the community

Develop discharge options and test with the community and with iwi - much smaller number of options (to determine best practicable option that meets the wastewater standards)

Consider best practicable option - only small number of options considered for analysis

3. Develop preferred option and prepare consent application

Design new plant or upgrade to meet the wastewater stnadards

Technical advice needed and application, including AEE, are all simplified because treatment requirements are determined for all significant discharges

4. If required, lodge application for consent authority to process [if a permitted activity, no application required]

Applicant wil need to demonstrate how application meets discharge standards

Application may be returned for incompleteness within 10 working days of lodgement

If application is incomplete, treated as a new application when further information provided - potentially less need for further information if all relecvant discharge treatment requirements are determined

Consent authority stops clock if further information is required

Consent authority processes application

5. Consent authority decides whether to notify application

The standards can identify whether public or limited notification of the application is precluded

Application notified, if required

Submissions received (20 working days from notification)

Application and submissions considered at a hearing (completed within 75 working days from submissions closing)

6. Consent authority determines application

Consent authority decision issued with conditions of consent

Consent authority cannot impose conditions that are more or less restrictive than the standard (unless an exception applies

Standard consent duration - 35 years

Decision may be appealed to the Environment Court

Risk of appeals mitigated by more-certainty regarding what is an acceptable magnitude of environmental effects

Final decision on application issued

(subject to appeals on points of law to higher courts)

7. Detailed engineering design of plant and monitoring requirements

Detailed engineering design of new plant or upgrade is based on the wastewater standard (standardised design incentivised through treatment limits set for all relevant discharges)

Wastewater standard will specify all monitoring and reporting requirements

8. Construction of new plant or upgrade

New plant or upgrade is constructed in accordance with the infrastructure design solution

Cost of new plant or upgrade likely to be same as initial estimate in LTP - as standardised design and operation will be incentivised through standard treatment limits for all discharges.

9. Consent authority undertakes compliance and enforcement

The wastewater stanrds will set monitoring and reporting requirements for all relevant discharges which will simplify compliance monitoring

The Water Services Authority will provide system monitoring and oversight of compliance with standards.

Appendix C: Further detail on the consenting process

Consent Type	Discharge to Air	Discharge to Land	Discharge to Water	Coastal Discharge	Notice of Requirement	Other consents/permits Outfall structures – Stormwater etc
Preparatory Stage	Development of the Basis of Design for the Consent Horizon – e.g Area of Benefit, Growth effects, Industry					
	Feasibility assessment which includes assessment of options, selection of preferred option, initial community consultation & land investigations					
	Stakeholder and communications engagement plan and Mana Whenua, stakeholder & community engagement report					
	Site master planning & concept design					
	Prepare consent strategy					
	Baseline environmental monitoring and assessment of existing environment (natural & built)					
	Tangata Whenua effects assessment					
	Land acquisition (if required)					
Resource Consent Stage	Resource consent application and AEE				NOR & AEE	Structural assessments
	Air quality effects assessment	Soil investigation (hydraulics/chemistry)	Hydrodynamic modelling		Air quality effects assessment	Geotechnical & Hydrogeological assessment
		Nutrient modelling	Water quality effects assessment		Terrestrial ecology assessment	
			Aquatic ecology assessment		Noise effects assessment	
			Public health risk assessment QMRA		Transport assessment	
	Evaluating and adjustment for Iwi Management Plans					
	Evaluating and adjusting for compliance with National Policy Statements					
	Evaluating and adjustment for Regional Plan and Policy requirements					
		Wildlife Permits		Coastal Permit	Natural Hazards assessment	
		Geotechnical & Hydrogeological assessment	Giving effect to the Statutory Te Ture Whaimana/Whanganui River settlement		Archaeological assessment	
					Contaminated land assessment	
	Development and circulation of draft Conditions of Consent					
	Collaboration & engagement with Mana Whenua, key stakeholders, potentially affected parties, and the wider community					
Application	Regional council decision to notify the application (or not)					
	Submission process					
	Evaluation & Section 92 Process					
	Ongoing collaboration & engagement with Mana Whenua, key stakeholders, potentially affected parties, and the wider community					
	Hearing - if any					
	Granting of Consent					
Appeals	Environment Court (if required)					

Appendix D: Case studies on costs to service providers

Overview

208. Instead of seeking to extrapolate costs to service providers generically across the various types of activities and circumstances associated with wastewater consenting, we have provided some case studies to illustrate the types of costs associated with the typical consenting process and how the new wastewater standards could impact on these under option two.

209. Under each of these case studies, there would be a reasonable cost associated with engagement for multiple parties, including:

- Applicants – the costs of undertaking engagement to support their consent applications, including meetings, development of engagement materials, transport, venue hire, catering and other related expenses.
- Regional council staff – staff time spent participating in engagement processes.
- Affected and interested parties including iwi/Māori – time spent participating in engagement processes, opportunity costs of that time for business or personal use, costs incurred from hiring advisors, travel costs.

210. These costs are difficult to ascertain given typical consenting costs related to expert fees, hearings, and staff time would have a component that is engagement related.

211. **We have** provided further information on the cost reduction assumptions at the end of this Appendix.

Case study one: Costs of consenting a large wastewater treatment plant

212. An existing wastewater treatment plant requiring significant upgrades to meet compliance, and growth demands in a growing provincial town was recently consented for 35 years after a 5-year planning process. The plant will replace an existing plant that has been operating since 1970. It will serve the needs of a population of 20,000 forecast to grow to 50,000 in the next 35 years. Costs below are for the period 2009/10 to 2020/21

213. The upgraded plant will meet wastewater standards and will operate a smaller footprint comprising tanks, buildings and large structures as opposed to the current pond-based system. Discharge will be to a river body.

214. The total cost of the plant is $100m of which around $12.9 million is related to consent costs (over a 10-year period). A large proportion of these costs ($11.6m) related to one-off costs associated with obtaining a short-term consent to continue operating the plant following expiry of the previous consent, which also included the construction of ponds/filters to enhance existing treatment processes.

215. The typical consent costs comprised around $1.45 million worth of costs. These are broken down below along with the assumed cost saving that could be realised with the introduction of national wastewater standards.

Table 4: Summary of costs for case study one

Item	Cost	Impact of wastewater standard	Approx cost saving
Council fees, hearings, engagements	$140,000	Possible to reduce by 20 to 35% due to greater certainty associated with standard	$30,000 to $50,000
Surveys	$270,000	Some survey work likely to reduce – up to 50% assumed	$135,000
Technical expert fees (engineering, legal, project management, planning), including support for engagement	$930,000	Possible to reduce by between 25 to 40% given reduced need for technical and science assessments, feasibility assessments, legal fees etc	$230,000 to $380,000
Council staff time, including contribution to engagement process	$110,000	Possible to reduce staff time costs to manage the consent process by 20 to 30%	$20,000 to $30,000
Total	**$1,450,000**	**30% to 40%**	**$415,000 to $595,000**

Case study two: Costs of reconsenting rural wastewater treatment plants

216. Two rural wastewater treatment plants went through a consenting process recently for expired consents.

217. For one of these, a proposed change within the consent was that Council would cease discharge into river and shift to irrigating treated wastewater onto land over time. While the existing plant continues to discharge to river, additional treatment upgrades in the form of a UV system will partially mitigate environmental effects until a new treatment plant is built at the discharge site.

218. The total cost of the project over 3 phases is $28.56m.

Table 5: Summary of costs for case study two (a)

Item	Cost	Impact of wastewater standard	Approx. cost saving
Council fees, hearings and compensation	$98,000	Potential to reduce by 20 to 35% due to greater certainty associated with standards	$20,000 to $34,000
Expert fees	$1,531,000	Potential to reduce by between 14 to 21% given reduced need for technical and science assessments, feasibility assessments, legal fees etc. Significant proportion of costs remain in this instance due to context specific	$211,000 to $317,000

Item	Cost	Impact of wastewater standard	Approx. cost saving
		archaeological, geotechnical and engineering costs.	
Legal fees	$16,000	Potential to reduce by between 30 to 50%	$5,000 to $8,000
Internal staff time	$120,000	Possible to reduce internal costs related to undergoing the consent process by 20 to 30%	$24,000 to $36,000
Land acquisition	$26,000	Not applicable	Not applicable
Other	$13,000	Not applicable	Not applicable
Total	**$1,804,000**	**14% to 22%**	**$260,000 to $395,000**

219. Similarly, another rural wastewater treatment plant is undergoing upgrades including UV filtration, an irrigation system and storge pond. This will enable a transition to land-based discharge, to meet community preferences.

220. Total cost of the upgrade is $6.37m

Table 6: Summary of costs for case study two (b)

Item	Cost	Impact of wastewater standard	Approx. cost saving
Council fees, hearings and compensation	$145,000	Potential to reduce by 20 to 35% due to greater certainty associated with standards	$29,000 to $51,000
Expert fees	$1,284,000	Potential to reduce by between 8 to 13% given reduced need for technical and science assessments, feasibility assessments, legal fees etc. Significant proportion of costs remain in this instance due to geotechnical and engineering work and early construction required for the upgrades.	$113,000 to $170,000
Legal fees	$11,000	Potential to reduce by between 30 to 50%	$3,000 to $6,000
Internal staff time	$73,000	Possible to reduce internal costs related to undergoing the consent process by 20 to 30%	$15,000 to $22,000
Land acquisition	$35,000	Not applicable	Not applicable
Other	$41,000	Not applicable	Not applicable
Total	**$1,589,000**	**10% to 16%**	**$160,000 to $249,000**

Case study three: Costs of consenting a new small to medium wastewater treatment plant

221. A recent report by Sapere for the Infrastructure Commission on the costs of consenting infrastructure projects in New Zealand made use of an example of a consenting process for a new wastewater treatment plant.[13]

222. The consent was to extract water from a river to use for sterilising wastewater and cleaning, as well as consents to discharge water back into the river.

223. There was a public hearing, with three submissions. Through the consent process, there was disagreement between the applicant and council about the investment schedule, with the council wanting upgrades within 5 years while the original schedule spread these over 15 years. In the end a compromise was reached that brought forward some of the planned investments.

224. About 10% of the project budget was spent on consenting which the applicant firm advised was consistent with other similar projects and expected under the circumstances.

Table 7: Summary of costs for case study 3

Item	Cost	Impact of wastewater standard	Approx. cost saving
Council fees	$260,000	Potential to reduce by 20 to 30% due to greater certainty associated with standards	$50,000 to $80,000
Expert fees	$970,000	Potential to reduce by between 25 to 40% given reduced need for technical and science assessments, feasibility assessments, legal fees etc	$240,000 to $390,000
Legal fees and hearing costs	$110,000	Potential to reduce by between 30 to 50%	$30,000 to $55,000
Internal staff time	$200,000	Possible to reduce internal costs related to undergoing the consent process by 30 to 40%	$60,000 to $80,000
Total	**$1,540,000**	**25% to 40%**	**$380,000 to $605,000**

Other costs incurred under the current effects-based approach to consenting

225. These costs do not capture the costs associated with obtaining non-notified status[14] through the resource consent process. As an example, two rural treatment plants in a large provincial town treating between 55 and 320 properties underwent a consent process. The cost of investigations and consenting were about $250,000 each.

226. There are also costs with investigations and consenting process for non-notified applications. These were non-notified applications that were granted with iwi support after extensive engagement. No capital investment was proposed with one wastewater treatment plant implementing a relatively new recirculating Sand Filter and ultraviolet

13 https://srgexpert.com/wp-content/uploads/2023/07/The-cost-of-consenting-infrastructure-projects-in-New-Zealand-July-2021.pdf

14 Non-notified resource consent applications are those applications that are not publicly or limited notified.

treatment and the other a basic pond. Both were assessed as effects no more than minor under the current RMA consenting regime.

227. The introduction of wastewater standards would remove the need for these costs to be incurred.

Detailed information on assumptions

228. The following assumptions have been made in the case studies.

229. For aspects of the process that are directly linked to consenting processes or obtaining short-term consents/permissions we have applied some conservative reductions in costs to on the basis standards will remove the need for some of the bespoke work under a consents regime, this includes but is not limited to:

- reductions in staff costs assumed as a result of less time spent on consenting processes, and
- reduction in council fees, hearings and compensation due to less hearings.

230. For aspects of the process that have a link to the actual works or understanding / responding to local conditions (such as land acquisitions, science, feasibility, business case, concept design) we have assumed that these largely remain as you need these irrespective of whether there's a consent process or a national standard.

231. There are also some costs unique to the case studies themselves, such as archaeological costs or the significant one-off construction cost that have not been factored in.

232. Detailed cost assumptions are detailed in the table below.

Table 8: Case study assumptions

Cost category	Description	Assumed reductions	Rationale
Council fees	Fees paid to regional councils as part of consent processes	reduce by 20 to 35%	Assuming a material reduction in fees associated with processing consent applications where there is a national standard to assess against. Given Regional Councils will continue to issue and monitor consents they would still charge for the time associated with this.
Hearings, communications and engagement	Costs associated with hearings, including to engage communities (e.g. pamphlets, catering, travel)	reduce by 20 to 35%	Assuming material reductions in the time and expense associated with hearings and engagement undertaken to support consents. Significant proportion of costs are assumed to remain given engagement will continue to be important to inform design and implementation.
Compensation	Costs of compensating affected communities and landowners	reduce by 20 to 35%	Assuming some reduction in compensation required as a result of national standards that account for societal costs and benefits
Internal staff costs	Costs associated with internal staff time dedicated to consent process	reduce by 20 to 30%	Material reductions in staff time expected as a result of simplified approvals processes.
Land acquisitions	Costs of buying land	No reduction assumed	Land purchases will still be required in most instances to complete the required works.
Other	One-off or contextual costs associated with specific case studies (e.g. archaeological experts, short-term construction)	No reduction assumed	Assuming no change on a conservative basis given these are unique or one-off costs specific to each circumstance.
Technical experts			

Cultural specialists	Commissioning of cultural experts to provide advice and/or facilitate engagement with iwi	reduce by 30 to 50%	Iwi engagement and assessment of cultural impacts will continue but this will be less compliance oriented and likely to be undertaken through broader engagement programmes councils have underway.
Engineering	Commissioning of engineering experts to support design and delivery	No reduction assumed	Expected to remain as before given engineering advice will be needed irrespective of the regulatory approach. While one could argue standardisation would simplify engineering considerations, we have not assumed any reduction in costs on a conservative basis recognising there may be instances where additional advice could be required to understand implications of the standard or to recommend alternative designs / exemptions.
Geotechnical	Technical geotechnical advice to inform design and delivery	No reduction assumed	No change assumed on basis these technical assessments would still be required.
Legal fees	Legal advice around legislative requirements and support for lodging applications.	reduce by 30 to 50%	Some reduction in costs assumed on basis that the consent process would be streamlined.
Project management	Project management capability, either commissioned separately or as part of other contracts (e.g. engineering)	reduce by 20 to 30%	Some reduction in costs assumed on basis that the consent process would be streamlined.
Resource management / planning specialists	Support from planning experts for the consent process	reduce by 20 to 30%	Some reduction in costs assumed on basis that the consent process would be streamlined and the need for planning/resource management related advice would be reduced.
Scientific experts	Scientific advice to support measurement and monitoring of outcomes (e.g. freshwater testing)	No reduction assumed	No change assumed on basis scientific assessments will still be required.