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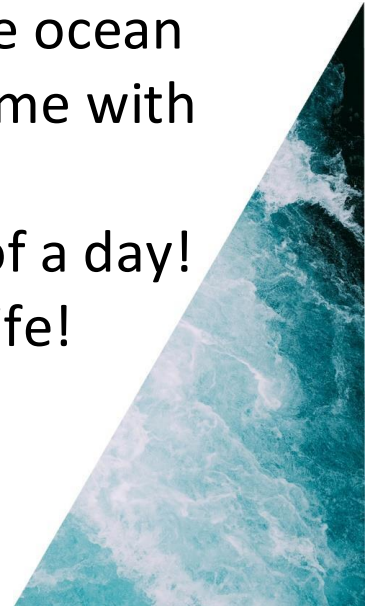
Wastewater Standards Technical Review Group



Karakia tīmatanga

Whakataka te hau ki te uru
Whakataka te hau ki te tonga
Kia mākinakina ki uta
Kia mātaratara ki tai
E hī ake ana te atākura
he tio, he huka, he hau hū
Tihei Mauri Ora!

Cease the winds from the West
Cease the winds from the south
Let the breezes blow over the land
Let the breeze flow over the ocean
Let the red tipped dawn come with
a sharpened air
A touch of frost, a promise of a day!
Sneeze, the breath of life!



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Introductions

Taumata Arowai staff

Taumata Arowai Staff

Chair	Sara McFall (Helen Robertson Acting)	Head of Systems, Strategy and Performance
	Maria Nepia	Hautū, Te Rōpū Wai
	Isobel Oldfield	Manager - Policy Wastewater and Stormwater
	John Kingi	Chief Advisor to Hautū
	Michael Petherick	Project lead – second point of contact
	Simone Blackburn	Principal Advisor Policy
Secretariat Support	Rosie Broad	First point of contact
	Sally Grandy	EA to Head of Systems, Strategy and Performance

TRG members

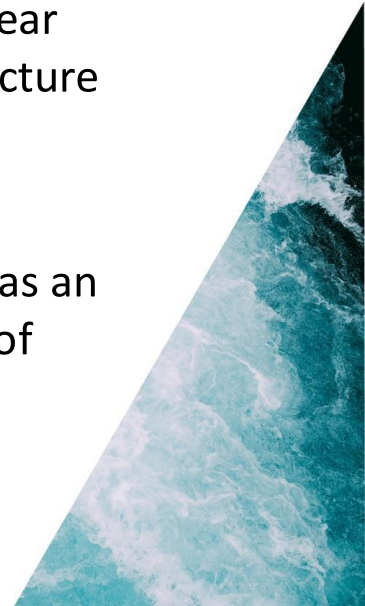
Technical advisory group		
Regional council members	Katrina Brunton Greg Bevin Leif Pigott	Hawkes Bay Regional Council Horizons Regional Council Tasman District Council
Territorial authority members	Steve Hutchison Tanvir Bhamji Holly Foreman (Overflows workstream only) Rob Tinholt (Biosolids workstream only) Mike Monaghan	Wellington Water Watercare Auckland Council - SafeSwim Watercare Palmerston North City Council
Taumata Arowai Board and Māori Advisory Group members	Riki Ellison Loretta Lovell Anthony Wilson	Māori Advisory Group Chair Māori Advisory Group member Board member
Professional services and industry members	Garry McDonald Justine Bennett Kirsten Norquay Jess Grinter (Overflows workstream only) Nicci Wood Lesley Smith (Biosolids workstream only) Bruce Holland	Beca GHD Stantec Stantec Water NZ Water NZ Parkinson and Holland construction

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Opportunities and context

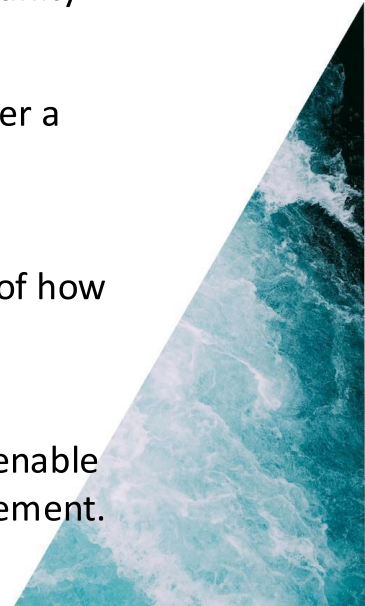
The opportunity and context

- Taumata Arowai is undertaking work to develop and implement wastewater performance standards like those in place in other jurisdictions for many decades, including the European Union, United Kingdom, parts of Australia, and Canada.
- This is a priority for this Government and is seen as one of the core components of its programme to deliver the benefits of Local Water Done Well.
- Councils will be required to provide water services delivery plans over the next year setting out how they will deliver services to their populations, including infrastructure planning and meeting regulatory requirements in a financially sustainable way.
- Upgrade of treatment plants represent one of the most significant infrastructure challenges facing councils – setting clear standards for this infrastructure is seen as an opportunity to provide a framework to enable this to occur, and take advantage of significant cost efficiencies in the system as a whole.



The infrastructure and regulatory challenge

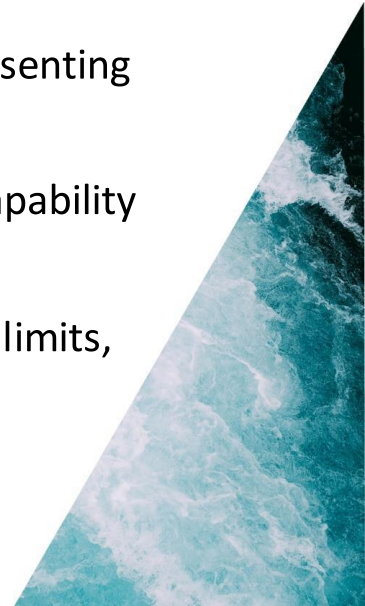
- Approximately 340 wastewater treatment plants are owned by councils - 50% of these service small populations of 1000 or less. Much of the infrastructure was built around 30 -40 years ago, and requires significant upgrade.
- This is reflected in the consenting profile - almost 70 percent of WWTPs will require new resource consents in the next 10 years. Around 15 percent of plants are operating on consents for an average of four years (some for up to 20 years).
- Higher treatment requirements are being driven by better science / technology, changes in community expectations, and regulatory settings around water quality.
- Consenting processes are lengthy and expensive, with some plants taking multiple applications over a decade or more to be reconsented.
- Consent conditions are not consistent, even where similar plants discharge to similar receiving environments. Compliance (and subsequent enforcement action) is often compromised because of how consents limits are described. Monitoring and reporting on compliance is not transparent.
- There is a real opportunity to get standards in place ahead of this bow wave of consents to drive standardised infrastructure and more efficient upgrades / design, reduce consenting timeframes, enable benchmarking of performance, and incentivise transparent and consistent compliance and enforcement.



Potential benefits of wastewater standards

Wastewater performance standards provide an opportunity to:

- give clear expectations to communities about wastewater treatment
- streamline consent processes (design, engagement, cost of consultants)
- provide certainty to territorial authorities as owners of networks so they can plan for the cost of infrastructure
- reduce the burden on iwi and hapū to consult and feed into lengthy and costly consenting processes which can be a point of frustration
- opportunities for economies of scale in plant design, procurement and operator capability / training (significant benefits to infrastructure pipeline)
- make compliance and enforcement easier, by standardising the main contaminant limits, and monitoring and reporting requirements in consents for wastewater discharges
- enable benchmarking of performance, to further improve efficiencies over time.



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Wastewater Standards

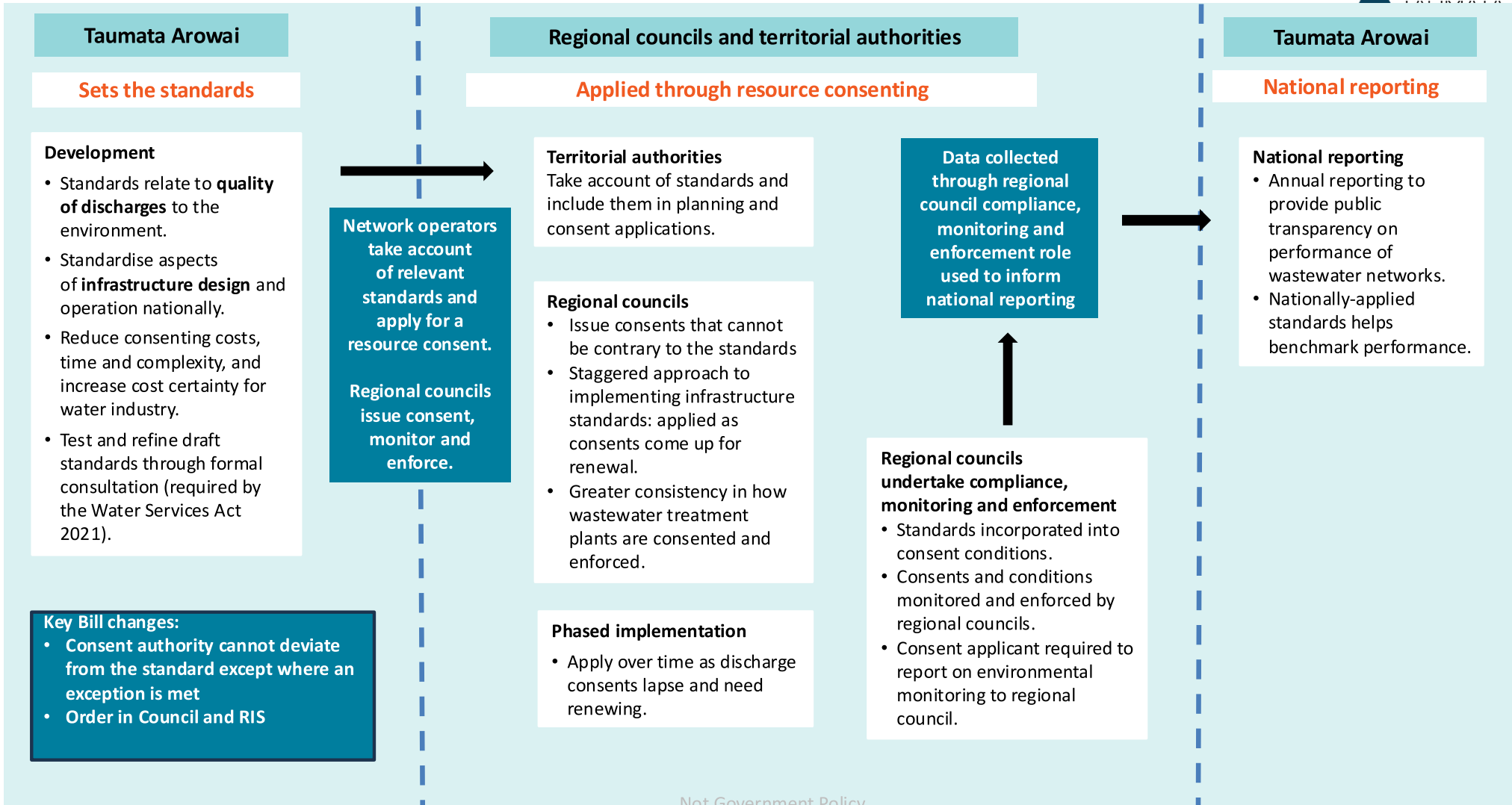
Overview of the project

Overview of the project

- Taumata Arowai has commissioned EY, EY Tahī, and Tonkin + Taylor to produce five reports that will support recommendations for wastewater standards. The reports are:
 - **discharge to water** – both freshwater and coastal water;
 - **discharge of effluent to land;**
 - **beneficial reuse of biosolids;**
 - **risk-based reporting framework for overflows;**
 - **case studies** to understand how iwi and hapū have been involved in wastewater treatment arrangements, including consenting processes and decisions, and how the arrangements incorporate Māori values.
- Separate regulatory impact analysis will be carried out to understand the cost, benefits and feasibility of the proposed wastewater standards.



How will wastewater performance standards fit into the existing system?



Legislative framework

- Wastewater environmental performance standards are currently made under section 138 of the Water Services Act.
- Standards can relate to a broad range of areas, including:
 - discharges to air, water, or land;
 - biosolids or other byproducts;
 - energy use; and
 - trade waste.
- Wastewater standards may only apply to **public wastewater networks** – these are networks that are operated by a local authority or its council-controlled organisation, a government department, or the New Zealand Defence Force.
- **Wastewater standards have direct effect in resource consents** – a regional council cannot grant a consent that has conditions that are contrary to, or less restrictive than, a standard (section 104(2D) of the Resource Management Act).



Legislative framework (cont.)



Taumata Arowai has specific **Treaty settlement obligations** when exercising statutory functions under the Water Services Act, and this includes wastewater standards. For example:

- Treaty settlements in the Waikato – Waipa catchment require statutory decision-makers to have particular regard to Te Ture Whaimana (the vision and strategy for the Waikato river);
- In the Whanganui catchment, Te Awa Tupua Act requires statutory decision-makers to have particular regard to Te Awa Tupua status (the legal personhood of the Whanganui river) and Tupua Te Kawa (the intrinsic values that represent the essence of Te Awa Tupua).

Taumata Arowai has other functions that may be used alongside wastewater standards, including:

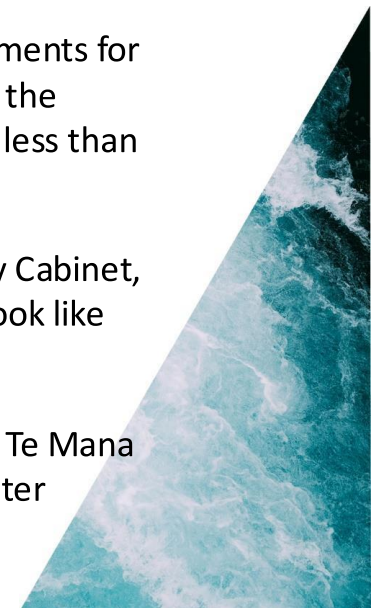
- Network environmental **performance measures**, which all public network owners must report against annually;
- Requiring **records** to be kept and published relating to networks;
- Requiring operators to have **wastewater risk management planning**.
- Requiring operators to meet environmental performance **targets**.



Proposed changes to legislative framework

Cabinet has agreed to some changes to the legislative framework for wastewater standards. We have accommodated these changes in the advice we have sought in the technical reports we have commissioned in advance of them being enacted through a Bill in Parliament. The main areas for change are:

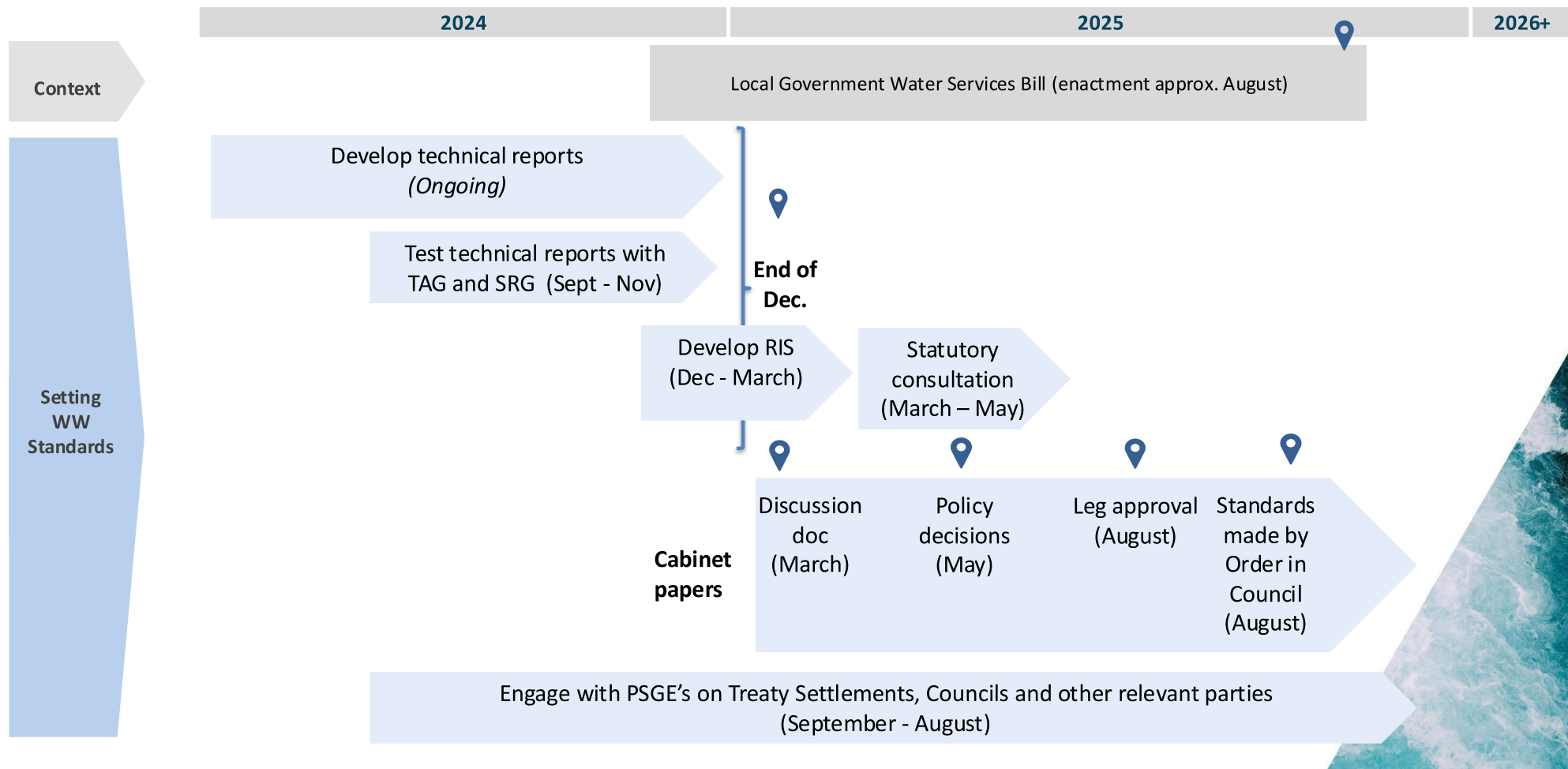
- **“Single standard” approach** – changes will be made to the Resource Management Act to reduce the discretion that regional councils have to depart from the treatment requirements in a standard. A consent will have to “give effect” to a standard by including these treatment requirements as conditions in a consent. A standard can include exceptions (for example, a very sensitive or pristine water body) which means the normal consenting arrangements will apply.
- **Infrastructure design solutions** – Taumata Arowai will be able to set infrastructure and operating requirements for types of wastewater treatment plants that, if met, will result in faster consenting processes (for example, the plant operating as a controlled activity). This is likely to apply to small plants in the first instance (serving less than 1000).
- **Standards made by Order in Council:** Standards will be made through Order in Council and considered by Cabinet, alongside a corresponding regulatory impact analysis. This means final decisions on what the standards look like sit with the Minister of Local Government rather than Taumata Arowai.
- **Change in approach to Te Mana o te Wai:** The requirements in water services legislation to give effect to Te Mana o te Wai will be replaced with requirements to take account of the National Policy Statement for Freshwater Management and regional plans.



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Proposed work programme and what each report will cover

Timeline for setting wastewater standards



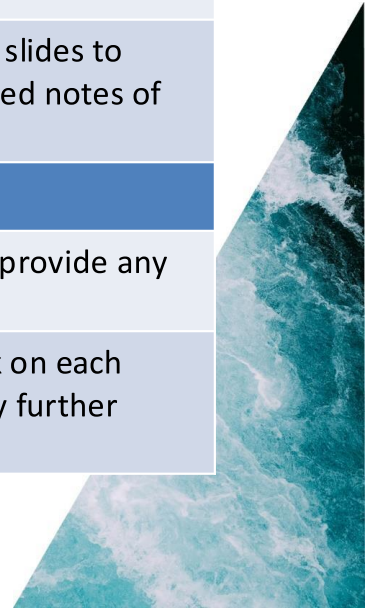
Proposed forward agenda

MEETING DATES	FOCUS OF MEETING
13 September	Introduction to work programme
20 September	Overflows Report
27 September	Second meeting to discuss Overflows Report
4 October	Discharge to Water Report
11 October	Second meeting to discuss Discharge to Water Report
18 October	Case studies Report
25 October	Beneficial use of Biosolids Report
1 November	Second meeting to discuss Beneficial use of Biosolids Report
8 November	Discharge to Land Report
15 November	Second meeting to discuss Discharge to Land Report
22 November	Final meeting



Proposed cadence for consideration of reports

Week before discussion of report	
Friday before report is discussed	Taumata Arowai will send you the report one week in advance with a slide pack summarising the report with some proposed areas for focus to provide structure for the discussion.
Week that report is discussed	
Wednesday	Taumata Arowai will confirm the agenda for each Friday meeting.
Friday – discussion of report	The TAG will work through the report and provide initial feedback, using the slides to structure the discussion. Taumata Arowai will provide support (taking detailed notes of feedback and any questions or requests for further information).
Week after the report is discussed	
Wednesday	We will send a record of feedback we heard from the previous meeting, and provide any information / supporting material you requested at the previous meeting.
Friday – second opportunity for feedback on report	This meeting will be second opportunity for the TAG to provide any feedback on each report. Taumata Arowai will present the feedback we have received, and any further feedback will be recorded.



Overflows report

- The overflows report will set out a national risk-based monitoring and reporting system for wastewater overflows.
- The framework will include an approach for identifying high-risk areas, and prioritising them for monitoring, intervention, and public reporting.
- It will be based on the SafeSwim model which is being used in Auckland and Northland.
- There is no nationally consistent approach to how overflows are classified, monitored or reported. This means it is difficult to build a clear picture of where overflows happen, how frequently they occur and what they are caused by. It is also not possible for most councils to set clear targets to reduce their frequency.
- We are considering the best way to implement this framework through our statutory functions and powers. They may involve a mix of “standards” based powers together with requirements for public monitoring and reporting.



Discharge to water report

- The discharge to water report will propose “end of pipe” discharge standards for wastewater treatment plants.
- Standards of this type have been in place in many other jurisdictions for decades. The report will review the international precedents, and review relevant settings in national directions (eg the National Policy Statement for Freshwater Management) regional water plans, and recent resource consents.
- The report proposes options for an approach that is fit for purpose for New Zealand’s characteristics, together with the Government’s priorities.
- Population and receiving environment are commonly used factors when setting standards in other jurisdictions. Based on these factors, standard limits are set for a number of the following contaminants: forms of nitrogen, phosphorus, biological oxygen demand or chemical oxygen demand, pathogens, and suspended solids.
- The report will also propose monitoring and reporting requirements for these contaminants.



Discharge of effluent to land report

- The discharge to land report will propose treatment standards for discharge of effluent to particular types of land.
- Early indications from the report authors are that there are fewer approaches of this nature in other jurisdictions. This makes it unlike other areas we have requested expert advice. The report will review relevant approaches in other jurisdictions, together with settings in national directions, regional plans, and recent resource consents.
- The report will propose an approach that is fit for purpose for New Zealand's characteristics, together with the Government's priorities. Early indications are there is likely to be a similar approach to treatment limits as for the discharge to water report, as consistency in treatment will be important given the connection of land to catchments.
- Generally, for disposal to land, the annual loading of nutrients (such as nitrogen and phosphorous) is also considered critical compared to the concentration. The annual loading rate will depend on the land use and soil conditions.



Beneficial reuse of biosolids

- The biosolids report will propose treatment standards for beneficial use of biosolids produced by wastewater treatment plants.
- Water NZ has had guidelines in this area for a number of years (the current version was made in 2003). Water NZ is currently reviewing these guidelines. This is a detailed technical guide specific to the New Zealand context.
- The review of the Water NZ guidelines will form the basis for the technical report.
- Biosolids standards of this type have been in place in many other jurisdictions for decades – for example, the EU has had a biosolids standard since 1986. The report will review the international precedents, and review relevant settings in national directions, regional plans, and recent resource consents.



Case studies report

- The case studies report details six wastewater treatment plants from across the country to understand how iwi and hapū are involved in wastewater treatment arrangements, including consenting processes and decisions, and how these arrangements incorporate Māori values.
- The plants are from a range of regions and with differing characteristics, including small and large plants, differing discharge types, and catchments in urban and rural centres.
- The selected case studies are **Gisborne, Taipā, Porirua, Cambridge, Pukekohe, and Rotoiti-Rotomā**. Engagements have been undertaken with iwi and hapū in the crafting of these case studies. A South Island plant was sought but iwi capacity to undertake engagement was limited.
- For each case study, we have also met with the relevant territorial authority and regional council staff.
- Each of the technical reports will include integration of relevant insights from the case studies report, and the recommendations in each report will draw on these insights.
- Taumata Arowai will continue to engage and maintain relationships with case study participants.



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Any questions / pātai?

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**Next meeting scheduled
for Friday 20 September**

Karakia whakakapi

Unuhia, unuhia
Unuhia ki te uru, tapu nui
Kia wātea, kia māmā
Te ngākau, te tinana
Te wairua I te ara tangata
Tīhei Mauri Ora

Draw on, draw on
Draw on the supreme sacredness
To clear, to free the heart
The body, and the spirit of people
Sneeze, the breath of life!

