Porirua Wastewater Treatment Plant Resource Consent Application

Wellington Water

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Our water, our future.

What we'll cover tonight

- Background and process
- Our plans, as set out in the resource consent application including proposed conditions
- How to have your say

About the wastewater treatment plant

- Services the Porirua catchment from Johnsonville to Pukerua Bay
- Built in 1989
- Upgraded progressively since 2003
- Treats 99 % of wastewater delivered to it
- 12 bypasses in 2020
- Managed by Wellington Water
- Operated by Veolia
- Monitored by Greater Wellington Regional Council

What is a resource consent?

- Under New Zealand law (the Resource Management Act) we need special permission to discharge treated wastewater
- This permission takes the form of a resource consent, issued by a Regional Council
- A consent often has conditions about how to carry out an activity, to help avoid, mitigate or remedy any adverse effects on the environment
- The Regional Council can ask for public views before deciding whether to grant a consent, and what conditions should apply, known as *notifying a consent and seeking submissions*

Process for treatment plant consent

Consider options	• Process involving Wellington Water, GWRC, PCC, Ngati Toa and Regional Public Health, 2017-2019
Apply	• Wellington Water on behalf of Porirua City Council applies for consent in April 2020
Consider	• GWRC considers application and asks questions, Wellington Water responds
Notify	• GWRC publishes the application and asks for submissions 25 May 2021
Submit	• People make submissions in writing by 30 June 2021
Pre-hearing	• GWRC staff prepare reports on the application & submissions, may be a 'pre-hearing' meeting to discuss
Hearing and decision	• Formal meeting; panel considers submissions and makes decision

Options assessment

- Wellington Water, GWRC, PCC, Ngati Toa and Regional Public Health involved in assessing options
- Multi-criteria analysis – considered cost, environmental, public health and cultural impacts, practicality
- Concluded that the best practicable option is upgrading plant and improving wider network including adding storage

Options assessed, not progressed
A second WWTP to treat all (or some) wastewater from the northern and eastern suburbs
Satellite / decentralised WWTPs at key points on the network
Conveyance of wastewater from Tawa and Johnsonville into the Wellington City network
Shift the WWTP to another location
Discharge to land
New outfall, on the shore or offshore (ocean outfall)

Application overview

Intent is to protect public and environmental health by treating wastewater to high standards before returning fully-treated water to sea.

To this end we propose to:

- Upgrade the plant by 2023 to eliminate overflows and have the capacity to treat wastewater for current and future population
- Monitor the environmental impact and respond if needed
- Review treatment plant technology after 10 years
- Collaborate with Ngāti Toa to mitigate the impact on cultural values
- Develop and implement odour management plan

Capacity – planning for growth

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Propose to increase capacity to 1,500 litres per second by 2023

What	Measure	2018	2043
Population	Residents	84,000 [1]	121,000 [2]
Average daily flow (wastewater delivered to the plant)	Cubic metres (m^3) per day	26,438 (measured at the plant)	38,016 (based on multiplying inflow by projected 44 % population increase)
Average daily flow (over entire year)	Litres per second	306 [3]	440
Peak flow (during heavy rain)	Litres per second	1,275 (above current capacity of 1,000, hence overflows)	1,500 (peak flow above this level held back in network storage)

1 Estimated for planning, Statistics NZ 2018 census data assessed as 81,282
2 Based on Porirua City Council and Wellington City Council projections
3 Measured flow varies year to year, e.g. 2019/20 year was 286 L/s

Discharges

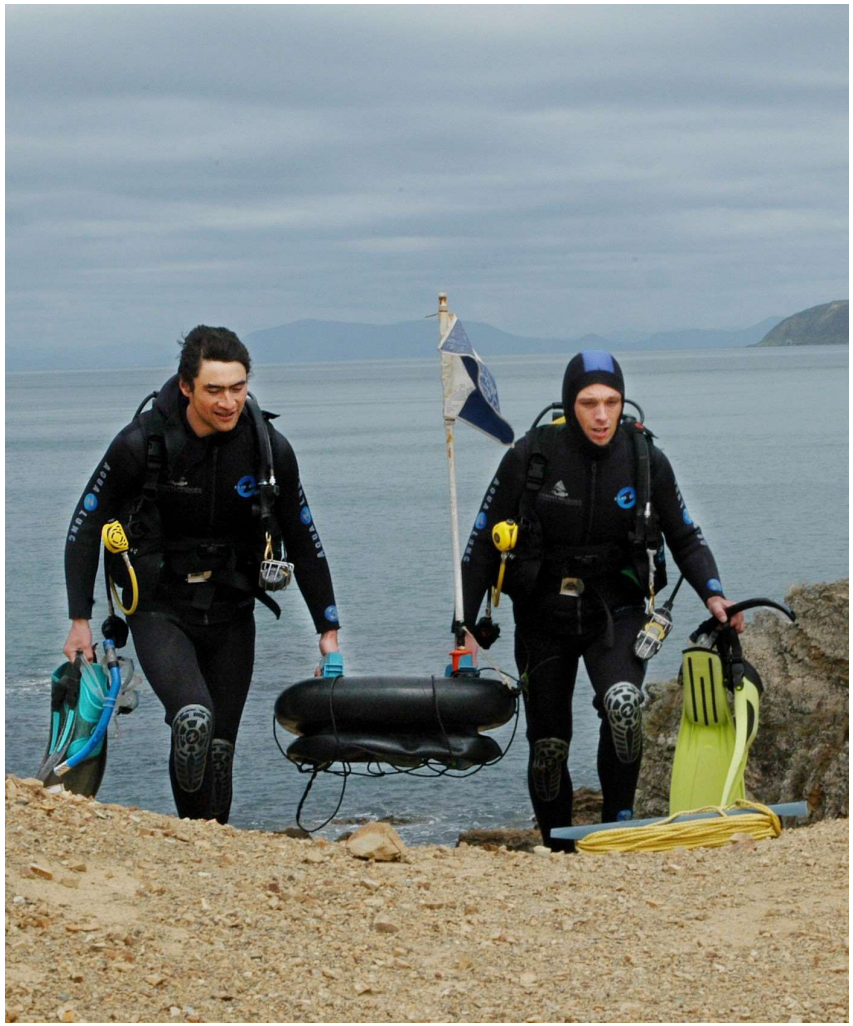
- Average discharge flow of **fully-treated** wastewater by 2043:
  - up to 38,016 m^3/day (from 24,000 under the current consent)
- Peak discharge flow of **fully-treated** wastewater by 2043:
  - Up to 129,600 m^3/day (from 92,800 under the current consent)
- Air discharges from treatment plant site

- **Fully-treated** means:
  - Large solids removed by screening
  - Aeration basin treatment of organic waste using natural bacteria
  - Sludge (bacteria clusters) removed in clarifier tanks
  - Sludge disposed of in landfill
  - UV treatment to further reduce remaining bacteria and viruses

Impact on public health and recreation

Once upgrades are complete, independent assessments of 2043 discharges show:

- No observable adverse effects from viruses
- Bacteria (enterococci) levels safe for swimming during average flow
- Some risk after heavy rain
- Proposed monitoring programme
- Proposed continuation of community liaison group to provide transparency



Impact on the environment

- Cawthron report says the existing discharge has not had a marked ecological effect
- The potential impact on the reef will be less than minor
- Some potential for ‘more than minor’ effects due to nutrient enrichment and ammonia toxicity as population grows
- Proposed monitoring programme will tell us if this is happening so we can respond

Photo: Roberta D’Archino, NIWA

Impact on cultural values

- Values of significance to Ngāti Toa include the mauri of the receiving water, access to mahinga kai and kaimoana and Ngāti Toa's ability to exercise rangatiratanga and fulfil kaitiakitanga responsibilities
- These values are adversely affected
- Porirua City Council, Wellington Water and Ngāti Toa are working together to mitigate impact and ensure mana whenua are at the table in future decision making on the plant

Monitoring, reporting and compliance

- Proposed conditions include setting requirements for quality and volume of discharge
- WWL will continue monitoring and reporting to GWRC
- GWRC can take action against PCC and WWL if consent requirements are not met
- GWRC has the right to call in the conditions for review at any time

Summary: proposed conditions

1. Upgrading and improving the treatment plant
    - UV upgrade to increase capacity to 1,500L/s and to provide redundancy
    - Hydraulic upgrade to provide full biological treatment to 1,500L/s
2. Regular monitoring and measurement of the environmental impact, including a new ecological survey
3. A review of the treatment plant technology and monitoring within 10 years

Application for consent to discharge to air

- Application for consent to discharge contaminants to air, aka odour or bad smells
- Impact assessed to be ‘less than minor’
- Propose to develop odour management plan
- Propose to continue to monitor odour

Photo shows the milliscreening hall, with fibreglass covers over the screens to minimise odour release

How to have your say

Visit **haveyoursay.gw.govt.nz/poriruawwtp**

As a submitter you can:

- Support or oppose resource consent
- Be neutral (with supporting information)
- Request to be heard in support of your submission

Ministry for the Environment advice:

To write a clear and effective submission:

- stick to the facts – don't get distracted by personal issues or past disputes
- focus on the environmental effects
- be specific about your concerns, and give examples
- tell the council what you want them to do – don't leave them to guess
- write in clear, everyday language.

Questions or clarification