

## **APPENDIX M: PROPOSED PORIRUA WASTEWATER DISCHARGE CONDITIONS**

### Purpose for which the permit is granted:

To discharge treated and partially treated wastewater from the Porirua Wastewater Treatment Plant.

### Definitions:

For the purposes of this permit the following definition applies:

- Discharges of partially treated wastewater means discharges that include wastewater which has by-passed one or more parts of the treatment process.

### General

1. This permit is granted for a 20-year period expiring on XXXXXX.
2. The discharge point shall be from the existing outfall at or about map reference NZTM 1,753,097 X; 5,447,922 Y.
3. The average daily inflow volume into the wastewater treatment plant, measured over a 12-month period from the 1 of July to 30 June each year, shall not exceed 38,016 cubic metres, and the maximum daily inflow volume shall not exceed 129,600 cubic metres.
4. The permit holder shall continuously monitor and record the daily volume of the inflow to the wastewater treatment plant.
5. The discharges of partially treated wastewater, which result from inflow to the WWTP exceeding the plant's capacity, shall cease on or before 30 June 2023.

### Wastewater Quality

6. The permit holder shall, to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, identify a suitable place to sample the wastewater after it leaves the treatment plant but prior to it entering the Rukutane Point outfall. That sampling point shall be used for the sampling required by Conditions 7 to 10.
7. The permit holder shall obtain a daily representative 24-hour flow-proportioned composite sample of the wastewater. This sample shall be analysed for total suspended solids.
8. The permit holder shall, between the hours of 9:00 am and 5:00 pm, obtain a daily representative grab sample of the wastewater. This sample shall be analysed for faecal coliforms.
9. The permit holder shall at on at least one occasion each month, on a normal Monday to Friday working day, obtain a representative 24-hour flow-proportioned composite sample of the wastewater. This sample shall be analysed for:
  - a. Total Ammonia Nitrogen
  - b. Nitrate Nitrogen
  - c. Nitrite Nitrogen
  - d. Dissolved Reactive Phosphorus

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- e. Total Arsenic
  - f. Total Cadmium
  - g. Total Chromium
  - h. Total Copper
  - i. Total Nickel
  - j. Total Lead
  - k. Total Zinc
  - l. Total Mercury
  - m. Phenol.
10. The permit holder shall, at least once a week between the hours of 9:00 am and 5:00 pm, obtain a representative grab sample of the wastewater. This sample shall be analysed for enterococci.
11. All sampling techniques employed in respect of the conditions of this permit shall be acceptable to the Wellington Regional Council. All analyses undertaken in connection with this permit shall be performed by an International Accreditation New Zealand (IANZ) registered laboratory, or otherwise as specifically approved by the Wellington Regional Council.
12. The quality of the wastewater sampled in accordance with Conditions 7 to 9 of this permit shall not exceed the following limits:
- a. Suspended solids  
The geometric mean of 90 consecutive daily suspended solid values shall not exceed 30 g/m<sup>3</sup> and no more than 10% of 90 consecutive daily values shall exceed 75 g/m<sup>3</sup>.
  - b. Faecal Coliforms  
The geometric mean of 90 consecutive daily faecal coliform values shall not exceed 1000 colony forming units per 100 ml and no more than 10% of 90 consecutive daily values shall exceed 2,000 colony forming units per 100ml.
  - c. Metals/metalloids and phenols  
Concentrations of metals and other compounds in the sample required under Condition 9 shall not exceed:

Total Arsenic	0.5 g/m <sup>3</sup>
Total Cadmium	0.055 g/m <sup>3</sup>
Total Chromium	0.044 g/m <sup>3</sup>
Total Copper	0.013 g/m <sup>3</sup>
Total Nickel	0.05 g/m <sup>3</sup>
Total Lead	0.5 g/m <sup>3</sup>

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Total Zinc	0.15 g/m <sup>3</sup>
Total Mercury	0.001 g/m <sup>3</sup>
Phenol	2.7 g/m <sup>3</sup>

### Receiving water

13. The discharge shall not cause any of the following effects in the receiving waters beyond a 200-metre radius of the discharge point:
- The production of any conspicuous oil or grease films, scums or foams suspended material;
  - Any conspicuous change in colour or visual clarity;
  - Any emission of objectionable odour; or
  - Any significant adverse effect on aquatic life.
14. The permit holder shall collect representative receiving water samples from 150 mm below the surface of water that has a depth of a minimum depth of 500mm, once each month at the following locations:
- At or about 200 metres generally eastwards of the outfall
  - At or about 200 metres generally southwestwards of the outfall
  - Titahi Bay Beach generally at Toms Road
  - A control site, at a location to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council
- For each water sample collected under this condition, the permit holder shall make record of the date, time, weather, wind and tidal conditions at each sampling location.
15. The samples collected from sites (a) to (d) in Condition 14 shall be analysed for enterococci. In addition, the samples collected from sites (a), (b) and (d) shall be analysed for total ammonia nitrogen, nitrate nitrogen, nitrite nitrogen and dissolved reactive phosphorus.
16. In the event of a discharge of partially treated wastewater, samples shall be taken at the locations specified in Condition 14 at or about 24 hours, 48 hours and 72 hours after the discharge commenced. The samples shall be analysed in accordance with Condition 15.
17. If 3 consecutive monitoring results from either site (a) or site (b) listed in Condition 14 contain a concentration of total ammonia nitrogen exceeding 0.91 mg/L, then the permit holder shall:
- collect representative receiving water samples from 150 mm below the surface of water with a minimum depth of 500mm once each week for the following two months
  - for comparison purposes, collect a representative 24-hour flow-proportioned composite sample of the wastewater once each week for the following two months.

These samples shall be analysed for total ammonia nitrogen.

### Monitoring Report

18. The permit holder shall produce a quarterly monitoring report and shall forward the report to the Manager, Environmental Regulation, Wellington Regional Council within one month of the completion of the quarter. The format of the report shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and shall include details of the monitoring required in Conditions 4, 7 to 10 and 14 to 16.
19. The permit holder shall produce an annual monitoring report and shall forward the report to the Manager, Environmental Regulation, Wellington Regional Council within three months of the anniversary of the commencement of the permit. The format of the report shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and shall include:
  - a. details of the monitoring required in Conditions 4, 7 to 10 and 14 to 16
  - b. analysis of the trends in the monitoring data
  - c. comparison of the annual monitoring data with the conditions of this permit
  - d. comparison of the annual monitoring data with relevant national, or regional water quality policies, standards or guidelines in effect at the time.

A copy of the report shall also be forwarded to the members of the Community Liaison Group.

### Operations and Management

20. Within 3 months of the commencement of this permit, the permit holder shall submit an Operational Management Plan (OMP) to the Manager, Environmental Regulation, Wellington Regional Council for certification that it complies with the requirements of Condition 21. The OMP shall be reviewed every 5 years. All updated versions of the OMP shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council for certification that they comply with the requirements of Condition 21.
21. The objective of the OMP is to provide a framework for the operation and management of the wastewater treatment plant to ensure compliance with the conditions of this permit. As a minimum, the OMP shall include:
  - a. A brief description of the wastewater treatment plant and its treatment and discharge system.
  - b. A description of typical inspection and maintenance procedures.
  - c. Procedures for recording:
    - i. any non-routine issues, incidents or malfunctions identified during inspections
    - ii. the measures undertaken to rectify such non-routine issues, incidents or malfunctions.
  - d. A description of contingency plans in the event of plant malfunction. Contingency plans shall be specified for each stage of wastewater treatment and shall include detail of the procedures to be followed to mitigate, as far as possible, the reduction in treated wastewater quality that may otherwise result from the plant malfunction.

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- e. A description of the complaints procedures, including contact details for a nominated person(s) who will manage enquires and complaints about the Wastewater Treatment Plant. The contact details shall be identified on the permit holder's website.
  - f. Procedure for notifying the Wellington Regional Council and Regional Public Health regarding any incidents or plant malfunction that may result in reduction in the treated wastewater quality.
22. The permit holder shall implement the OMP once it has been certified by the Wellington Regional Council.
23. The permit holder shall maintain a register of any complaints it receives about the operation of the Wastewater Treatment Plant and discharge. The register shall record:
- a. The date, time and duration of the alleged event/incident that has resulted in the complaint;
  - b. The location of the complainant when the complaint was detected by the complainant;
  - c. The possible cause of the complaint including any relevant event/incident and its duration;
  - d. Any remedial action undertaken by the permit holder in response to the complaint.

The complaints register shall be made available to the Wellington Regional Council upon request

24. The permit holder shall maintain a sign on the shore in the vicinity of the outfall to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. The permit holder shall consult with Regional Public Health (RPH) regarding the wording of the sign prior to being submitted for approval to Wellington Regional Council. The sign shall:
- a. Provide clear identification of the location and nature of the discharge
  - b. Provide information on the potential risk to public health from bathing and the collection and consumption of shellfish in the vicinity of the discharge
  - c. Provide a 24-hour contact phone number
  - d. Be visible to the public visiting the area.

Note: At the time of granting this permit, there is an existing sign in place at the outfall which has been approved by Regional Public Health. However, if signage changes in the future the permit holder will need to obtain approval from the Greater Wellington Regional Council and consult with Regional Public Health.

### Community Liaison Group

25. The permit holder shall establish and maintain a Community Liaison Group (CLG). The CLG shall act as a forum for consultation and liaison with the community and be used as a vehicle to provide information regarding the Porirua WWTP. More specifically the CLG shall be used to inform its members on:
- a. the performance of the Porirua WWTP relative to the conditions of this permit

- b. the results of wastewater and receiving water monitoring and the ecological survey required under the conditions of this permit
- c. complaints received about the operation of the WWTP
- d. progress with respect to a monitoring and technology review undertaken in accordance with Conditions 31 to 34
- e. improvements proposed to be made to the WWTP, that will influence the quality of the treated wastewater.

26. The permit holder shall invite persons to join the CLG from the following groups:

- a. Representatives of Ngāti Toa Rangatira
- b. Representatives of Wellington Regional Council
- c. Representatives of Regional Public Health
- d. A representative of the Titahi Bay Residents Association
- e. A representative of the Titahi Bay Community Group
- f. A representative of the neighbouring landowners and residents

The permit holder may invite any other parties to attend the CLG.

27. The permit holder shall provide reasonable organization and administrative support to the CLG and a meeting of the CLG shall be held at least once every calendar year. Minutes of any CLG meetings held shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council.

#### Ecological survey

28. The permit holder shall commission an ecological survey of the receiving waters for the discharge. The survey shall involve the collection of information on the biota of the intertidal and shallow-subtidal habitats adjacent to the existing outfall at Rukutane Point, at Round Point to the west of the existing outfall, and at a reference location 300m east of the existing outfall. The survey methods should be comparable with those used for the ecological survey included as Appendix F in the application AEE. The results of the survey shall be incorporated into a report prepared by a suitably qualified and experienced coastal ecologist.

29. The survey and report required under Condition 28 shall be completed and submitted to the Manager, Environmental Regulation, Wellington Regional Council:

- a. before the 9th anniversary of the commencement of this permit; and
- b. within 12 months of completing monitoring under Condition 20 in which the median concentration of total ammonia nitrogen exceeds 0.91 mg/L, or an alternative value recommended in accordance with Condition 33 (b) and agreed to by the Manager, Environmental Regulation, Wellington Regional Council.

30. If the ecological survey is initiated under Condition 29 (b), the resulting report:

- a. shall recommend whether or not a monitoring and technology review should be undertaken in accordance with Conditions 31 to 34 and whether that review should address a specific contaminant(s) or all contaminants discharged from the WWTP; and

- b. may recommend changes to the trigger value for total ammonia nitrogen stated in Conditions 17 and 29 (b).

Monitoring & technology review

31. The permit holder shall undertake a review of the treatment processes and discharge infrastructure at the Porirua Wastewater Treatment Plant and of the monitoring required under this permit. This review shall address:

- a. Ongoing compliance with the requirements of this permit particularly in relation to any reported non-compliance with permit conditions;
- b. Compliance of the discharge of wastewater with any relevant national, or regional water quality policies, standards or guidelines in effect at the time;
- c. The results of the monitoring undertaken in accordance with this permit including the adequacy and scope of such monitoring;
- d. A summary of any improvements made to the Porirua WWTP and, as relevant to the implementation of this permit, to the wastewater network since the granting of this permit;
- e. A summary of the actual or potential effects of the discharge from the WWTP to the coastal marine area, and a comparison with the level of effect anticipated in the resource consent application;
- f. An outline of technological options or other methods which may be available to reduce adverse effects identified in accordance with clause (e); and
- g. An assessment of whether any option or method identified in accordance with clause (f), or combination of options and methods identified in accordance with clause (f), represent the Best Practicable Option (BPO) (as defined under the Resource Management Act) for preventing and minimising the effects of the discharges.

31A. To inform the review undertaken under Condition 31 the permit holder shall undertake:

- a. an assessment of the Emerging Organic Contaminants in inflow to, and discharge from, the WWTP
- b. a Direct Toxicity Assessment to measure the aggregate effect to organisms from all contaminants contained in the treated wastewater, including the Emerging Organic Contaminants assessed in (a) above.

The assessments in (a) and (b) shall be undertaken by suitably qualified experts and completed so that the results are comparable with results of similar testing included in the application documents.

32. The results of the review undertaken in accordance with Condition 31 shall be incorporated into a report prepared by a suitably qualified and experienced specialist in wastewater treatment and disposal. The report shall confirm if the permit holder intends to adopt the BPO and include a plan which sets out the actions, if any, that the permit holder proposes to undertake to implement the BPO and when those actions will be completed.

33. Notwithstanding the scope of the review set out in Condition 31, if the monitoring and technology review is undertaken in response to the recommendations of an ecological

survey report made in accordance with Condition 30 (a), then it shall either address specific contaminants or all contaminants discharged from the WWTP, as recommended in the ecological survey report.

34. The monitoring and technology and report required under Conditions 31 to 33 shall be completed and submitted to the Manager, Environmental Regulation, Wellington Regional Council:
- a. before the 10<sup>th</sup> anniversary of the commencement of this permit; and
  - b. within 9 months of the completion of an ecological survey report under Conditions 28 to 30 which requires a monitoring and technology review to be undertaken.

#### Review

35. Wellington Regional Council may review any or all conditions of this permit by giving notice of its intention to do so pursuant to section 128 of the Resource Management Act 1991, within six months of the fifth, tenth, and fifteenth anniversary of the commencement of this permit, or within six months of the receipt of a monitoring and technology review report completed under Conditions 31 to 34, for any of the following reasons:

- a. To review the adequacy of, and if necessary, amend the monitoring requirements outlined in this permit;
- b. To address any adverse effects on the environment arising from the exercise of this permit;
- c. After a monitoring and technology review report has been submitted to the Wellington Regional Council in accordance with Condition 34, to review the BPO assessment contained in that report and respond to the permit holder's decision to adopt or not adopt the BPO and the permit holder's implementation plan

The review of conditions shall allow for the deletion or amendment of conditions of this permit; and the addition of such new conditions as necessary to avoid, remedy or mitigate any significant adverse effects on the environment.