

Porirua Wastewater Treatment Plant

Air Discharge Permit consent conditions WGN200229 [36727]

Discharge permit to discharge contaminants to air (odour) from the operation of the Porirua Wastewater Treatment Plant

INTERPRETATION

Wherever used in the conditions above, the following terms shall have the prescribed meaning:

Independent Suitably Qualified and Experienced Professional means a suitably qualified and experienced professional that is not employed by the consent holder or an organisation contracted to operate the Porirua Wastewater Treatment Plant (WWTP)

Manager means the Manager, Environmental Regulation, Wellington Regional Council.

Minimise means reduce to the smallest amount reasonably practicable.

1. The location, design, implementation and operation of the works shall be in general accordance with the consent application and its associated plans and documents lodged with the Wellington Regional Council on:
 - 6 April 2020 (Application);
 - Revised application dated April 2021;
 - Further information received on 30 April 2021; and
 - Consent holder's evidence presented at the hearing.

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design, implementation and/or operation of the works may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. The consent holder shall ensure that a copy of this consent, and all documents and plans referred to in this consent, is kept on site at all times and presented to any Wellington Regional Council Compliance Officer upon request. The consent holder shall verbally brief all operators or contractors on the requirements of the conditions of this consent within one calendar month of granting this consent, and then on induction for any new operators or contractors.
3. Up to and including 31 May 2025, or an alternative date agreed to the satisfaction of the Manager in accordance with condition 8L, the consent holder shall minimise the adverse effects of odour discharges by applying the interim odour control measures in accordance with conditions 8A to 8JA. After 31 May 2025, or an alternative date agreed to the satisfaction of the Manager in accordance with condition 8L, there shall be no noxious, dangerous, offensive or objectionable discharges of odour to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407.
5. The consent holder shall keep a record of any complaints received. The complaints will be forwarded to the Manager within twenty-four hours of the complaint being received by the consent holder. The consent holder shall record:
 - a. The complainant's name (if provided).
 - b. The location of the odour incident.
 - c. The time of the odour incident.

- d. The wind direction and speed.
 - e. The plant operating conditions at the time of the complaint.
6. Any incident that may cause or has caused adverse effects on the environment at or beyond the site boundary shall be notified to the Manager within twenty-four hours. This includes any incidents that result in complaints. A written report detailing the reasons for the incident, measures to mitigate the incident and measures to prevent recurrence shall be forwarded to the Manager within seven working days.

Note: The Wellington Regional Council will notify the consent holder as soon as practicable about any odour notifications received that are attributed to the consent holder.

7. The consent holder shall prepare an Odour Management Plan (OMP) and submit it for certification by the Manager that it meets the objective and content requirements set out in condition 7A within three calendar months of granting this consent.
- 7A. The objective of the OMP shall be to provide a framework for the operation and management of the wastewater treatment plant to ensure that odours are minimised and properly managed to ensure compliance with the conditions of this consent. The contents of the OMP shall include:
- a. A plant description, including discussion of each individual treatment plant element and its function, supported by a layout plan and identification of odour sources as a result of normal and abnormal operations.
 - b. Plant management procedures relevant to odour control, including equipment maintenance and operation to minimise odour; and procedures for transport of potentially odorous material to and from the WWTP.
 - c. Dissolved oxygen alarm levels for the aeration basin.
 - d. The average wind speed trigger associated with the operation of the inlet vent fan as set out in conditions 8A and 8D.
 - e. Contingency measures to deal with plant malfunctions including redundancy and spares held on site for critical parts.
 - f. On-site odour monitoring requirements and boundary odour surveys.
 - g. A complaints procedure, including actions on receipt of complaints and associated reporting requirements.
 - h. A framework for the management and/or selective harvesting of the forested slopes surrounding the WWTP to maintain a healthy and effective tree cover at all times.
 - i. Staff responsibilities and training.
 - j. The requirements of the consent conditions with respect to odour management, including requirements to review and update the OMP.

Note:

It is expected that the wind speed trigger referenced in clause (d) above will be between 3 to 5 metres per second. However, flexibility has been provided in setting this trigger as the appropriate trigger level will be influenced by factors such as the location of the weather station, the height of the anemometer, potential sheltering effects on the anemometer and wastewater treatment plant operational considerations, and further optimisation of the trigger may be required to the trigger under condition 8D.

Amendments to the Odour Management Plan

8. The consent holder may request amendments to the certified OMP by submitting the amendments in writing for certification by the Manager that the amendments meet the objective and content requirements set out in condition 7A. The amendments sought shall not be implemented until the consent holder has received notice in writing that the amended OMP has been certified by the Manager.

Interim Odour Control Measures

- 8A. Within 3 calendar months of the commencement of this consent, the consent holder shall:
- a. Install monitors that continuously measure Hydrogen Sulphide (H₂S) in the discharge from the inlet tunnel vent and milliscreen building stack.
 - b. Install a new weather station that shall, at a minimum, measure wind speed and direction at a height of 5 to 10 m and shall be connected to the WWTP control system.
The meteorological monitoring instruments shall:
 - i. Measure wind speed as 1-minute scalar averages with maximum resolution of 0.1 metres per second (m/s), have an accuracy of at least within +/-0.2 m/s, and a stall speed no greater than 0.5 m/s.
 - ii. Measure wind direction as 1-minute vector averages with maximum resolution of 1.0 degree and accuracy of at least within +/- 1.0 degree, and a stall speed no greater than 0.5 m/s.The monitor shall be sited in accordance with AS/NZS 3580:14-2014 (Methods for sampling and analysis of ambient air – Part 14 Meteorological monitoring for ambient air quality monitoring applications). If the station cannot be located in accordance with AS/NZS 3580:14-2014 an alternative location shall be agreed to the satisfaction of the Manager.
 - c. Reconfigure the operation of the inlet tunnel vent fan so that between 05:00 hours and 23:00 hours it automatically turns off when the weather station measures northerly winds, between 315° to 45°, that are less than the wind speed trigger included in the OMP.
- 8B. Within 3 calendar months of the installation of the improvements set out in condition 8A, the consent holder shall:
- a. Commission an independent suitably qualified and experienced professional to undertake an odour survey and prepare a report on their findings.
The survey shall:
 - i. be conducted in accordance with the Ministry for the Environment 'Good Practice Guide for Managing and Assessing the Effects of Odour (2016)' and 'German Standard VDI 3940-2:2006—Measurement of Odour Impact by Field Inspection: Measurement of the Impact Frequency of Recognisable Odours—Plume Measurement, February 2006'.
 - ii. cover a minimum period of 7 days, including at least 4 days when the surveying was undertaken during northerly winds, between 315° to 45°, of less than, or equal to the wind speed trigger included in the OMP.
 - iii. take into account any complaints that have been received about odour from the WWTP.
 - b. Provide the odour survey report to the Manager along with confirmation of the next steps, if any, that will be undertaken under the Interim Odour Control conditions.
- 8C. In the event that the odour survey required under condition 8B concludes that odour from the WWTP is not noxious, dangerous, offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407, then the consent holder shall repeat the survey within 12 calendar months following the initial survey and again between 12 and 24 calendar months following the initial survey. The surveys undertaken under this condition shall occur between 1 December to 31 March and meet the requirements of condition 8B.
- 8D. If an odour survey report completed under either condition 8B or 8C concludes that odour from the Porirua WWTP is noxious, dangerous, offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407, then the consent holder shall review the wind speed trigger in the OMP and submit a revision to the OMP in accordance with condition 8.

- 8E. Within 3 calendar months of the amendment to the OMP described in condition 8D, the consent holder shall repeat the requirements of condition 8B.
- 8F. In the event that the odour survey required under condition 8E concludes that odour from the WWTP is not noxious, dangerous, offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407, then the consent holder shall repeat the survey within 12 calendar months following the initial survey and again between 12 and 24 calendar months following the initial survey. The surveys undertaken under this condition shall occur between 1 December to 31 March and meet the requirements of condition 8B.
- 8G. If an odour survey report completed under either condition 8E or 8F concludes that odour from the Porirua WWTP is noxious, dangerous, offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407, then within 3 calendar months of the report being provided to the Manager, odour neutralising sprays shall be fitted to, or fitted adjacent to, both the inlet tunnel vent and milliscreen building stack. The odour neutralising sprays shall be used in conjunction with the automated turning off of the ventilation fan. The operating regime of the ventilation fan and odour neutralising spray system, including whether the two systems operate concurrently or at alternative times, shall be optimised to minimise off-site odour.
- 8H. Within 3 calendar months of the installation of the improvements set out in condition 8G, the consent holder shall repeat the requirements of condition 8B.
- 8I. In the event that the odour survey required under condition 8H concludes that odour from the WWTP is not noxious, dangerous, offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407, then the consent holder shall repeat the survey within 12 calendar months following the initial survey and again between 12 and 24 calendar months following the initial survey. The surveys undertaken under this condition shall occur between 1 December to 31 March and meet the requirements of condition 8B.
- 8J. The interim odour control measures shall be operated until the Best Practicable Option (as defined under the RMA) is operationalised in accordance with condition 8L. At the time that the Best Practicable Option is operationalised the interim odour control measures may cease unless they form part of the Best Practicable Option.
- 8JA. If during the operation of the interim odour control measures, monitoring of H₂S within buildings at the WWTP identify levels that exceed the standards in Table 4 of the Workplace Exposure Standards and Biological Exposure Indices, then the consent holder may adjust the wind speed trigger for the inlet tunnel vent fan control or discontinue this control measure altogether, as necessary to comply with the Exposure Standards. If at this point, odour neutralising sprays are not already in use, the consent holder shall commence use of such sprays as soon as is practicable. The consent holder shall also update the Odour Community Liaison Group about any such amendments to the interim control measures.

Best Practicable Option Review

- 8K. The consent holder shall commission an investigation of the best practicable option to mitigate the odour effects associated with the WWTP. The investigation shall:
- a. Be undertaken by an independent suitably qualified and experienced professional.
 - b. Involve consultation with the members of the Odour Community Liaison Group (OCLG).
 - c. Assess all potential odour sources at the WWTP including but not limited to, the tunnel vent stack, the milliscreen extraction stack, sludge centrifuges and the milliscreen building ventilation.
 - d. Identify options to minimise the odour from the WWTP, including via a stand-alone system on each single source, a combined odour control system for all sources, or options in between.
 - e. Identify the Best Practicable Option, which may include a combination of odour control measures, to minimise odour from the WWTP.
- 8L. The results of the investigation undertaken in accordance with condition 8K shall be incorporated into a report that shall be submitted to the Manager by 31 October 2023 or an agreed alternative date to the

satisfaction of the Manager. The report shall set out a programme for the installation and operationalisation of the Best Practicable Option by 31 July 2025, or an agreed alternative date to the satisfaction of the Manager.

Note: In considering whether to agree to an alternative date the Manager shall have particular regard to:

- *The installation date of the H₂S monitor and ability to secure sufficient data to inform the BPO assessment.*
- *The significance of any on-going adverse odour effects on the properties neighbouring the WWTP.*
- *The effectiveness of the interim odour control measures.*
- *The timeframe reasonably required to design and install the Best Practicable Option.*

- 8M Within 3 calendar months of the Best Practicable Option being operational, the consent holder shall repeat the requirements of condition 8B.
- 8N In the event that the odour survey required under condition 8M concludes that odour from the WWTP is not noxious, dangerous, offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407, then the consent holder shall repeat the survey within 12 calendar months following the initial survey and again between 12 and 24 calendar months following the initial survey. The surveys undertaken under this condition shall occur between 1 December to 31 March and meet the requirements of condition 8B.
- 8O In the event that the odour survey required under condition 8M concludes that odour from the WWTP is noxious, dangerous, offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Porirua WWTP site, being Lot 1 DP 62407, then the consent holder shall commission an independent suitably qualified and experienced professional to review the effectiveness of the Best Practicable Option and identify any further improvements that shall be undertaken to mitigate odour nuisance effects. A report setting out the recommended further improvements and the programme for their installation and operationalisation shall be submitted to the Manager within 2 calendar months of the completion of the odour survey required under condition 8L.

Odour Community Liaison Group

9. The consent holder shall establish and maintain an Odour Community Liaison Group (OCLG). The OCLG 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 OCLG shall be used to inform its members on:
- a. The performance of the Porirua WWTP relative to the conditions of this consent.
 - b. The results of any odour or boundary surveys undertaken.
 - c. Odour complaints received about the operation of the WWTP.
 - d. Improvements proposed to be made to the WWTP, that will influence the discharge of odour.
10. The consent holder shall invite persons to join the OCLG from the following groups:
- a. Residents of the Pikarere Farm subdivision
 - 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

The consent holder may invite any other parties to attend the OCLG.

11. The consent holder shall provide reasonable organisation and administrative support to the OCLG and a meeting of the OCLG shall be held at least once every calendar year. Minutes of any OCLG meetings held shall be forwarded to the Manager.

Note: For clarity, the OCLG and CLG (required under consent WGN200229 [36816]) can jointly meet, i.e. separate meetings are not required.

Communications Plan

12. The consent holder shall maintain a communications plan, which sets out how it will liaise with the residents of the Pikarere Farm subdivision area. This plan shall:
- a. Detail how the consent holder will engage with the residents on an on-going basis about matters associated with the discharge and the effectiveness of the OMP;
 - b. Include details of a dedicated telephone number (hotline) for neighbours to contact the consent holder during plant operating hours.

A copy of the communication plan and any updates shall be provided to the Manager.

- 12A The consent holder shall maintain a webpage that provides the community with access to information and reports relevant to this consent. As a minimum the following information and reports shall be uploaded to this webpage:
- a. The Odour Monitoring Plan required under condition 7A.
 - b. The Odour Survey Report required under condition 8B, 8C, 8E, 8F, 8H, or 8M.
 - c. The Best Practicable Option Review required under condition 8K.
 - d. Any incidents under condition 6.
 - e. An up to date Complaints Register prepared in accordance with condition 5.
 - f. The Communications Plan prepared in accordance with condition 12.
 - g. The most recent consent authority compliance monitoring report.

Note: For clarity, the webpage can be shared with the one required under WGN200229 [36816] i.e. two webpages are not required.

Review

13. Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so pursuant to section 128 of the Resource Management Act 1991, in the six months following the fifth, tenth, and fifteenth anniversary of the commencement of this consent, and/or in the six months following the receipt of a report completed under conditions 8L or 8O, for any of the following reasons:
- a. To review the adequacy of, and if necessary, amend the monitoring requirements outlined in this consent.
 - b. To review the effectiveness of the conditions in avoiding, remedying or mitigating any adverse effects of the consent holder's activities and, if considered appropriate by Wellington Regional Council, deal with such effects by way of further or amended conditions.
 - c. To align the conditions and enable consistency with any relevant operative regional plans, National Environmental Standards, regulations or Acts of Parliament.
 - d. After a report has been submitted to the Wellington Regional Council in accordance with Conditions 8L or 8O, to review the consent holder's decision with respect to what, if any, mitigation measures will be implemented to mitigate adverse odour effects.
 - e. To review the approach and effectiveness of Odour Liaison Group and community reporting conditions.

f. To review monitoring and reporting dates, to better achieve the purposes of the consent.

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

Nothing in this condition shall prevent the Council from, at any time, renumbering consent conditions to improve clarity and consistency.

Duration

14. The duration of this consent shall be 18 years from commencement.