

Under section 104B of the Resource Management Act 1991 ("the Act"), the Nelson City Council ("the Consent Authority") grants resource consents to:

***Nelson City Council***

("the Consent Holder")

**Activities authorised by these consents are classified below under Part 3 of the Act and also incorporate all direct and ancillary activities described in the Application required to operate the Nelson Wastewater Treatment Plant ('the NWWTP') not covered by Designation DN7 in the Nelson Resource Management Plan. These are described in the Application as:**

<b>RMAAAAAA:</b>	Coastal Permit – To discharge treated wastewater to Tasman Bay
<b>RMBBBBBB:</b>	Coastal Permit – To place, use, and maintain a pipeline and outfall diffuser structure, including a replacement outfall diffuser structure, on and under the bed of Tasman Bay
<b>RMCCCCC:</b>	Coastal Permit – To disturb the foreshore and seabed to replace an existing outfall diffuser structure located on and under the bed of Tasman Bay
<b>RMDDDDDD:</b>	Discharge Permit – To discharge treated wastewater to land via seepage from the base of the ponds and wetlands, including wastewater leachate from dewatering of sludge within the buffer pond following desludging activities
<b>RMEEEEE:</b>	Land use consent – To remove vegetation and undertake earthworks to prepare the buffer pond for storage of sludge and to gain access
<b>RMFFFFFF:</b>	Discharge permit – To discharge contaminants to air from the operation of a wastewater treatment plant, including during desludging activities
<b>RMGGGGGG:</b>	Discharge permit – To discharge contaminants to air from the operation of a diesel-powered electricity generator

**Location details:**

Address of property: 162 Boulder Bank Drive, Nelson  
Legal description: Lot 1 DP 13614, Lot 3 DP 7530, and the  
foreshore and seabed of Tasman Bay  
Certificate of title: CT 3B/953, 8B/1146

**Co-ordinates:**

- Wastewater Treatment Plant: Easting: 1627604E Northing 5438527N (NZTM)
- Outfall diffuser structure and discharge to Tasman Bay: Easting: 1626859E Northing 5438971N (NZTM)

Under section 108 of the Act, these consents are issued subject to the following conditions:

**General conditions that apply to all consents**

1. The Consent Holder must ensure that the activities authorised by these consents are undertaken in general accordance with the information provided with the application entitled 'Nelson Wastewater Treatment Plant – Application for Resource Consent and Assessment of Environmental Effects' (the application) prepared by Stantec New Zealand dated 14 December 2023, the Consent Holder's evidence presented at the hearing, further information received on [DATE], and the management plans for the NWWTP required by Condition 5. Where there is a contradiction or inconsistencies between the application and further information provided by the Consent Holder, the most recent information prevails. The conditions must prevail if there is any conflict between these documents and any condition(s) of these consents.
2. These consents expire on 31 December 2059 and will not lapse until their expiry.
3. The Consent Holder must maintain a Complaints Register for the activities authorised by these consents. All complaints received by the Consent Holder concerning the activities authorised by these consents must be logged in the Complaints Register. The Complaints Register must record:
  - (a) The date, time, location, duration, and nature of the alleged event/ incident.
  - (b) Name, phone number and address of the complainant unless the complainant wishes to remain anonymous.
  - (c) Any remedial action the Consent Holder took in response to the complaint and when it was undertaken.
  - (d) The possible cause of the relevant event/ incident that led to the complaint.
  - (e) The weather conditions at the time of the relevant event/ incident, including wind direction, wind strength, temperature and cloud cover estimates.
  - (f) The date and name of the person making the entry.
  - (g) Details of any complaints received that may indicate non-compliance with the consent conditions. The details must be provided to the Consent Authority's Manager Consents and Compliance within 24 hours of receipt of the complaint or on the next working day. All other complaints must be

included in the Annual Report required by Condition 4.

4. The Consent Holder must prepare an Annual Report and provide it to the Consent Authority's Manager Consents and Compliance and Te Tauihu iwi by 30 September each year. The Report must cover the period from 1 July to 30 June (the previous year) and include, but not necessarily be limited to, the following:
  - (a) Collate, analyse, and interpret the monitoring results required by the conditions of these consents.
  - (b) A summary of complaints, if any, received by the Consent Holder.
  - (c) An outline of the works/studies completed during the previous year to progress the upgrade of the NWWTP required by Condition 17 and the predicted timeframe by which the upgrade to the NWWTP is expected to be completed and commissioned. This requirement applies until the NWWTP has been upgraded.

[CONDITION 4(c) WILL ONLY BE PROFFERED IF THE HUMAN NOROVIRUS TESTING CURRENTLY BEING UNDERTAKEN BY THE COUNCIL CONCLUDES THAT ADDITIONAL TREATMENT FOR HUMAN NOROVIRUS IS NEEDED AT THE NWWTP TO REDUCE THE MEAN IIR FOR UNCOOKED BIVALVE SHELLFISH CONSUMPTION AT SEAFARERS MEMORIAL AND MAGAZINE POINT TO <1% AS A RESULT OF THE DISCHARGE FROM THE NWWTP]

5.
  - (a) The Consent Holder must, at all times, have an Operations and Maintenance Manual, a Pond Management Plan, and an Odour Management Plan in place and make these plans available to the Consent Authority's Manager Consents and Compliance upon request. The objective of these plans is to provide a framework for the operation and management of the NWWTP and discharge facilities to ensure compliance with the conditions of these consents. The following matters must be covered in the plan(s):
    - (i) An overview description of the NWWTP and discharge facilities (being the pipe/diffuser outlet structure).
    - (ii) A description and schedule of the routine inspection, monitoring, and maintenance procedures to ensure the operation of the NWWTP and discharge facilities complies with the conditions of these consents.
    - (iii) A description of the sampling location(s) and methodology for sampling the treated wastewater discharge, groundwater, and receiving environment.
    - (iv) A schedule of the critical aspects of the wastewater treatment plant and the detailed response and contingency plans to remedy any possible variations from normal plant operation that could potentially affect discharge quality.
    - (v) Details of contingency plans and procedures to address a critical power or equipment failure at the NWWTP.
    - (vi) Procedures for recording routine maintenance and all major repairs.
    - (vii) The Consent Holder's chain of command, responsibility and notification protocols.
    - (viii) Management and operational procedures, and contingency plans, to prevent or minimise odours, including during and following desludging operations, to ensure compliance with Condition 32.
    - (ix) Details of the complaints procedure, record keeping and response procedure.
  - (b) The Consent Holder must undertake the activities authorised by these consents in accordance with the documents referred to in clause (a).
  - (c) The documents referred to in clause (a) must be reviewed and updated at least every three years by the Consent Holder but may also be amended 'as required' because of any changes in the operation or management of the wastewater treatment plant and discharge facilities that could affect the quality and quantity of the discharges authorised by these consents.
6. All sample collection and field measurements required by the conditions of these consents must be undertaken by a person experienced in sampling and field measurements. All samples must be collected in laboratory-supplied containers and using appropriate procedures as directed by the laboratory and must be transported to the laboratory under chain of custody. All field measurements must be undertaken using equipment that has been calibrated.
7. All collected samples required to be analysed by the conditions of this consent must be analysed by a laboratory that is accredited for that analysis.

8. The Consent Authority may, under section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the condition of any or all of these consents annually during October or November for any one or more of the following purposes:
- (a) To deal with any adverse effect on the environment arising from the exercise of these consents that was not foreseen at the time the application was considered and which is appropriate to deal with at the time of review; or
  - (b) To require the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment resulting from the exercise of these consents.

**Advice Note:** The Consent Authority may, under section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of these consents:

- (a) To enable standards set by a new rule(s) in any regional plan that has been made operative since the granting of these consents to be met.
- (b) When relevant national environmental standards have been made. or
- (c) If the information made available to the consent authority by the Consent Holder for the purposes of the application contained inaccuracies which materially influenced the decision on the application and the effects of the exercise of the consent(s) are such that it is necessary to apply more appropriate conditions.

**Conditions for:**

**Resource Consent RMAAAAAA – To discharge treated wastewater to Tasman Bay**

- 9. The Consent Holder must maintain a telemetered measuring device with an accuracy of  $\pm 5\%$  to record the rates of discharge of treated wastewater to Tasman Bay. These records must be supplied electronically to the Consent Authority's Manager Consents and Compliance at least every two months, upon written request, and be included in the Annual Report required by Condition 4.
- 10. The accuracy of the measuring device referred to in Condition 9 must be tested by a suitably qualified and experienced person at least once every five years, and confirmation of the accuracy must be included in the Annual Report required by Condition 4 for the year the testing is undertaken.
- 11. The average daily rate of discharge of treated wastewater to Tasman Bay, based on a rolling 365-day averaging period, must not exceed 15,000 cubic metres per day ( $\text{m}^3/\text{day}$ ).
- 12. The maximum volume of treated wastewater discharged to Tasman Bay on any day must not exceed 65,000 cubic metres ( $\text{m}^3$ ). For the purposes of this condition 'day' means the 24-hour period commencing at 12:30 am each calendar day.
- 13. (a) The quality of treated wastewater discharged to Tasman Bay must meet the following standards:

Determinand	Unit	Median Limit	90 <sup>th</sup> Percentile Limit	Compliance Period
Faecal coliforms	cfu/100 mL	10,000	80,000	12 most recent monthly samples
Carbonaceous five-day biochemical oxygen demand (cBOD <sub>5</sub> )	mg/L	40	50	12 most recent monthly samples
Total suspended solids (TSS)	mg/L	100	150	12 most recent monthly samples

- (b) Compliance with these limits must be based on a representative sample, as defined in Condition 15, of treated wastewater collected monthly from the sampling site labelled 'Site 10' (near the outlet of the discharge channel), shown in Figure 1 included in Appendix 1 (attached to these consents), and analysed for faecal coliforms, cBOD<sub>5</sub>, and TSS concentrations.
- (c) To determine compliance with median limits for faecal coliforms, cBOD<sub>5</sub>, and TSS, no more than seven out of any 12 consecutive monthly samples can exceed the median limit. To determine compliance with the 90<sup>th</sup> percentile limit, no more than one sample out of any 12 consecutive monthly samples is allowed to exceed the specified 90<sup>th</sup> percentile limit.

14. In addition to the limits specified in Condition 13(a), the maximum concentrations of the following substances in the treated wastewater discharged to Tasman Bay must not exceed the following:

Total cadmium	0.196 g/m <sup>3</sup>
Total chromium	1.232 g/m <sup>3</sup>
Total copper	0.364 g/m <sup>3</sup>
Total lead	1.232 g/m <sup>3</sup>
Inorganic mercury	0.028 g/m <sup>3</sup>
Total nickel	1.96 g/m <sup>3</sup>
Total zinc	2.24 g/m <sup>3</sup>
Cyanide	1.12 g/m <sup>3</sup>
Phenol (see Advice Note)	112 g/m <sup>3</sup>

Compliance with these limits must be based on a representative sample of treated wastewater collected annually from the sampling site labelled 'Site 10' (near the outlet of the discharge channel), shown in Figure 1 included in Appendix 1 (attached to these consents) and analysed for the listed determinands.

*Advice Note: The limit for phenol is for the compound with the Chemical Abstracts Service (CAS) number 108-95-2, also known as monohydroxybenzene. It does not relate to 'total phenols', which is a class of chemical compounds.*

15. For Conditions 13 and 14, a 'representative sample' must consist of a composite sample made up of at least three subsamples collected at least five minutes apart.
16. The monitoring results specified in Conditions 13 and 14 must be included in the Annual Report required by Condition 4. Notwithstanding the above, the Consent Holder must report any exceedance of any limit to the Consent Authority's Manager Consents and Compliance within five working days of detected exceedance.

[CONDITIONS 17 - 19 WILL BE PROFFERED IF THE HUMAN NOROVIRUS TESTING CURRENTLY BEING UNDERTAKEN BY THE COUNCIL CONCLUDES THAT ADDITIONAL TREATMENT FOR HUMAN NOROVIRUS IS NEEDED AT THE NWWTP TO REDUCE THE MEAN IIR FOR UNCOOKED SHELLFISH CONSUMPTION AT SEAFARERS MEMORIAL AND MAGAZINE POINT TO <1% AS A RESULT OF THE DISCHARGE FROM THE NWWTP. IF AN UPGRADE IS NEEDED THEN CONDITION 17 WILL SPECIFY THE REQUIRED LOG REMOVAL VALUE AND 'X' WILL BE REPLACED BY THE REQUIRED VALUE. IF NO UPGRADE TO THE NWWTP IS SHOWN TO BE NEEDED THEN THESE THREE CONDITIONS WILL BE REMOVED AND SUBSEQUENT CONDITIONS WILL BE RENUMBERED]

17. The Consent Holder must, no later than 31 December 2034, upgrade the NWWTP to incorporate additional treatment to ensure the human norovirus log removal value (LRV) for the NWWTP under current and future flows is X. For the avoidance of doubt, the date specified in this condition is the date by which the upgrades must be implemented and commissioned.

*Advice Note: The Consent Holder may complete and commission any required upgrade of the NWWTP under this condition ahead of the date specified in this condition. However, the specified date provides for some contingency should unforeseen circumstances result in delays.*

18. The Consent Holder must, at least six months before the completion of the upgrade, submit a report prepared by a suitably qualified and experienced person which sets out a proposed compliance monitoring methodology to ensure the upgraded NWWTP achieves the human norovirus LRV specified in Condition 17. This report must be provided to the Consent Authority's Manager Consents and Compliance for certification that the methodology will enable compliance with Condition 17 to be monitored. The Consent Holder must implement the certified compliance monitoring following the commissioning of the upgrade to the NWWTP.
19. The Consent Holder must include a section in the Annual Report required by Condition 4, which outlines the work/studies that has been undertaken during the previous year to progress the upgrade of the NWWTP required by Condition 17. This section of the Annual Report must include the predicted timeframe by which the upgrade to the NWWTP is expected to be completed and commissioned. The Consent Holder must only comply with this condition until the NWWTP has been upgraded.

20. The discharge must not cause any of the following effects in the receiving water outside the mixing zone shown in Figure 2 included in Appendix 1 (attached to these consents), being a rectangle centred on the middle of existing outfall diffuser measuring 500 metres by 200 metres:
- (a) The production of any conspicuous oil or grease film, scums or foams, or floatable or suspended material.
  - (b) Any conspicuous change of colour or visual clarity.
  - (c) Any emission of objectionable odour.
  - (d) Any significant adverse effect on marine aquatic life.

If any replacement diffuser constructed, as provided for in Condition 24, results in the centre point of the new diffuser being in a different location to that of the existing outfall diffuser, then the mixing zone rectangle must move so that it is centred on the middle of the new outfall diffuser. The Consent Holder must provide the coordinates of the vertices (corners) of the shifted/new mixing zone rectangle should it be different for the new outfall diffuser within one month of its installation.

21. The Consent Holder must, at all times, maintain a sign at a visible publicly accessible location advising the public not to take shellfish or to swim within the mixing zone shown in Figure 2, included in Appendix 1 (attached to these consents). If the location of the mixing zone rectangle shifts due to any replacement outlet diffuser being installed (refer to Condition 20), then the Consent Holder must amend the sign referred to in this condition to reflect the new position of the mixing zone.
22. The Consent Holder must undertake the monitoring outlined in Part 1 of the Monitoring Programme presented in Appendix 2 (attached to these consents). The monitoring results must be included in the Annual Report, required by Condition 4, for the year the field survey is undertaken.

**Conditions for:**

**Resource Consent RMBBBBBB – To place, use, and maintain a pipeline and outfall diffuser structure, including a replacement outfall diffuser structure, on and under the Bed of Tasman Bay; and**

**Resource Consent RMCCCCC – To disturb the foreshore and seabed to replace an existing outfall diffuser structure located on and under the bed of Tasman Bay**

23. The use of the coastal marine area (Tasman Bay) must be limited to the pipeline and outfall diffuser structure and any replacement outfall diffuser structure constructed in accordance with Condition 24, used to convey and discharge the treated wastewater, and any temporary structures associated with the repair, maintenance, or replacement of the pipeline and outfall diffuser structure. The location of the pipeline and outfall diffuser structure at the time these consents are granted are shown in Figure 3, included in Appendix 1 (attached to these consents).
24. The following conditions apply if the Consent Holder chooses to replace the outfall diffuser structure:
- (a) The new outfall diffuser structure may occupy a larger footprint than the diffuser structure that exists at the time these consents are granted if this results in better dispersion of the treated wastewater within the receiving environment, provided the area of seabed disturbance associated with the construction of the new outfall diffuser structure does not exceed 500 square metres.
  - (b) The existing outfall diffuser structure may remain on the seabed after the construction of the replacement diffuser.
  - (c) A Diffuser Design and Installation Management Plan, which includes the design details of the new outfall diffuser structure, its installation methodology/sequencing, and the area of seabed disturbance that will occur during its construction, must be provided to the Council's Manager Consents and Compliance at least one month before its intended construction.
  - (d) The installation of the new outfall diffuser structure must be undertaken in general accordance with the Diffuser Design and Installation Management Plan provided to the Council's Manager Consents and Compliance.
  - (e) The installation of the new outfall diffuser structure must be supervised by a suitably qualified and experienced coastal engineer.
  - (f) A copy of the 'as-built' plans of the new outfall diffuser structure must be provided to the Council's Manager Consents and Compliance within one month of its installation.

**Advice Note:** *The outfall diffuser structure may need to be replaced during the term of these consents. This condition allows the Consent Holder to replace the diffuser, and the replacement may be a different design to what currently exists, provided its seabed disturbance is within the limits specified by this condition.*

25. At least every five years, the Consent Holder must provide a report to the Consent Authority's Manager Consents and Compliance, demonstrating that the pipeline and outfall diffuser structure are in sound repair and the diffuser ports are clear of any significant marine growths. This report must be based on a physical inspection of the pipeline and outfall diffuser structure or video footage or photographs taken as part of the five-yearly qualitative field survey required by Part 1 of the Monitoring Programme presented in Appendix 2 (attached to these consents).
26. The pipeline and outfall diffuser structure authorised by this consent must be maintained in a state consistent with their purposes: the conveyance of treated wastewater and maximisation of dilution at the outlet. Any repairs that are necessary to achieve this purpose must be made as soon as reasonably practicable after they become evident.

**Conditions for:**

**Resource Consent RMDDDDDD – To discharge treated wastewater to land via seepage from the base of the ponds and wetlands, including wastewater leachate from dewatering of sludge within the buffer pond following desludging activities; and**

**Resource Consent RMEEEEEEE – To remove vegetation and undertake earthworks to prepare the buffer pond for storage of sludge and to gain access**

27. The Consent Holder must maintain six groundwater bores around the NWWTP site, labelled GW01-GW06, as shown in Figure 4 in Appendix 1 (attached to these consents).
28. The Consent Holder must undertake the groundwater monitoring outlined in Part 2 of the Monitoring Programme presented in Appendix 2 (attached to these consents). The monitoring results must be included in the Annual Report, as required by Condition 4. The groundwater level monitoring outlined in Sub-Part A of Part 2 of the Monitoring Programme must be undertaken for two years from the commencement date of these consents. It may be discontinued after this time with the written agreement of the Consent Authority's Manager Consents and Compliance.
29. The Consent Holder must undertake the surface water monitoring outlined in Part 3 of the Monitoring Programme presented in Appendix 2 (attached to these consents). The monitoring results must be included in the Annual Report, required by Condition 4. This monitoring must be undertaken for two years from the commencement date of these consents. It may be discontinued after this time with the written agreement of the Consent Authority's Manager Consents and Compliance.
30. The Consent Holder must comply with the following before, during, and following desludging operations where the sludge is stored in the buffer pond:
  - (a) All vegetation must be removed from the base of the buffer pond.
  - (b) The bottom of the buffer pond must have an even grade sloping down from south to north.
  - (c) At the northern end, the base of the buffer pond must be contoured and shaped so that leachate can readily enter the sump for pumping back into the facultative pond.
  - (d) The integrity of the buffer pond must be maintained so as to minimise the volume of seepage from leachate to ground as far as practicable.
  - (e) Leachate must not be allowed to pond at any point within the buffer pond, including between or behind the geotextile bags, for a period of more than 24 hours.
  - (f) Daily inspections of the drainage system within the buffer pond must be undertaken during the filling of geotextile bags, and weekly following filling for the period the bags are present within the pond to ensure there is no significant ponding of leachate between the bags. If ponding is discovered, measures must immediately be implemented to remedy the situation.

31. The Consent Holder must comply with the following where works are to be undertaken associated with desludging operations where the sludge is to be stored in the buffer pond:
- (a) No earthworks are allowed to occur in the vicinity of Boulder Bank Drive in the northern corner nearest Nelson Haven between September and March (inclusive) to prevent disturbance of godwits whilst feeding.
  - (b) Vegetation disturbance and removal must be minimised as far as is practicable and limited to what is necessary to provide heavy vehicle access to the buffer pond.
  - (c) Any vegetation required to be removed from the western embankment of the buffer pond must be replanted in the next planting season after the works are completed.
  - (d) All works must be within the site boundaries of Designation DN7, shown as the orange line in Figure 5, included in Appendix 1 (attached to these consents).
  - (e) As far as is practicable, public access must be maintained to the public car parking areas at the northern end of Boulder Bank Drive.
  - (f) If, at any stage during the exercise of this consent, the activity results in sediment effect, erosion, or dust effects beyond the site boundary, then all practicable steps must be taken to prevent adverse effects.
  - (g) All machinery must be refuelled, and any maintenance works undertaken at least five metres from the boundary of the coastal marine area, the NWWTP wetlands, or the discharge channel that connects the wetlands and the discharge outlet pipe, or in any other location where the spill of hydrocarbons may enter any of these features.
  - (h) Spillage of contaminants into any watercourse or onto land must be adequately cleaned up so that no residual potential for contamination of land or surface water run-off from the site occurs. If a spill of more than 20 litres of fuel or other hazardous substance occurs, the Consent Holder must immediately notify the Consent Authority's Manager Consents and Compliance.

**Conditions for:**

**Resource Consent RMFFFFFF– To discharge contaminants to air from the operation of a wastewater treatment plant, including during desludging activities; and**

**Resource Consent GGGGGG – To discharge contaminants to air from the operation of a diesel-powered electricity generator**

32. There must be no discharges to air from the NWWTP which, in the opinion of a suitably trained and experienced Compliance Officer engaged by the Consent Authority, result in an adverse effect that is offensive or objectionable beyond the Odour Management Boundary shown in Figure 5, included in Appendix 1 (attached to these consents).

**Advice Note:** *Whether any discharge(s) to air results in an offensive or objectionable effect will be based on an overall judgement taking into account the frequency, intensity, duration, offensiveness/character, and location (FIDOL) of the discharge event.*

33. The Consent Holder must monitor and log meteorological data at the NWWTP from an on-site weather station. The data recorded must consist of wind direction, wind speed, and rainfall. The meteorological monitoring must be:
- (a) In general accordance with the Good Practice Guide for Air Quality Monitoring and Data Management, Ministry for the Environment, 2009, or subsequent updates.
  - (b) Generally continuous for the duration of the consent comprising one-minute data, collected and averaged to 10-minute and 1-hour periods. It is acknowledged that equipment can malfunction periodically or be damaged by extreme weather events, meaning that some measurements may not be recorded continuously. The Consent Holder must fix or replace any faulty equipment as soon as practicable after becoming aware of any issues.
  - (c) The on-site weather station must be located at a point representative of local weather conditions across the site.
  - (d) The data must be available to the Consent Authority's Manager Consents and Compliance on request with minimal delay.

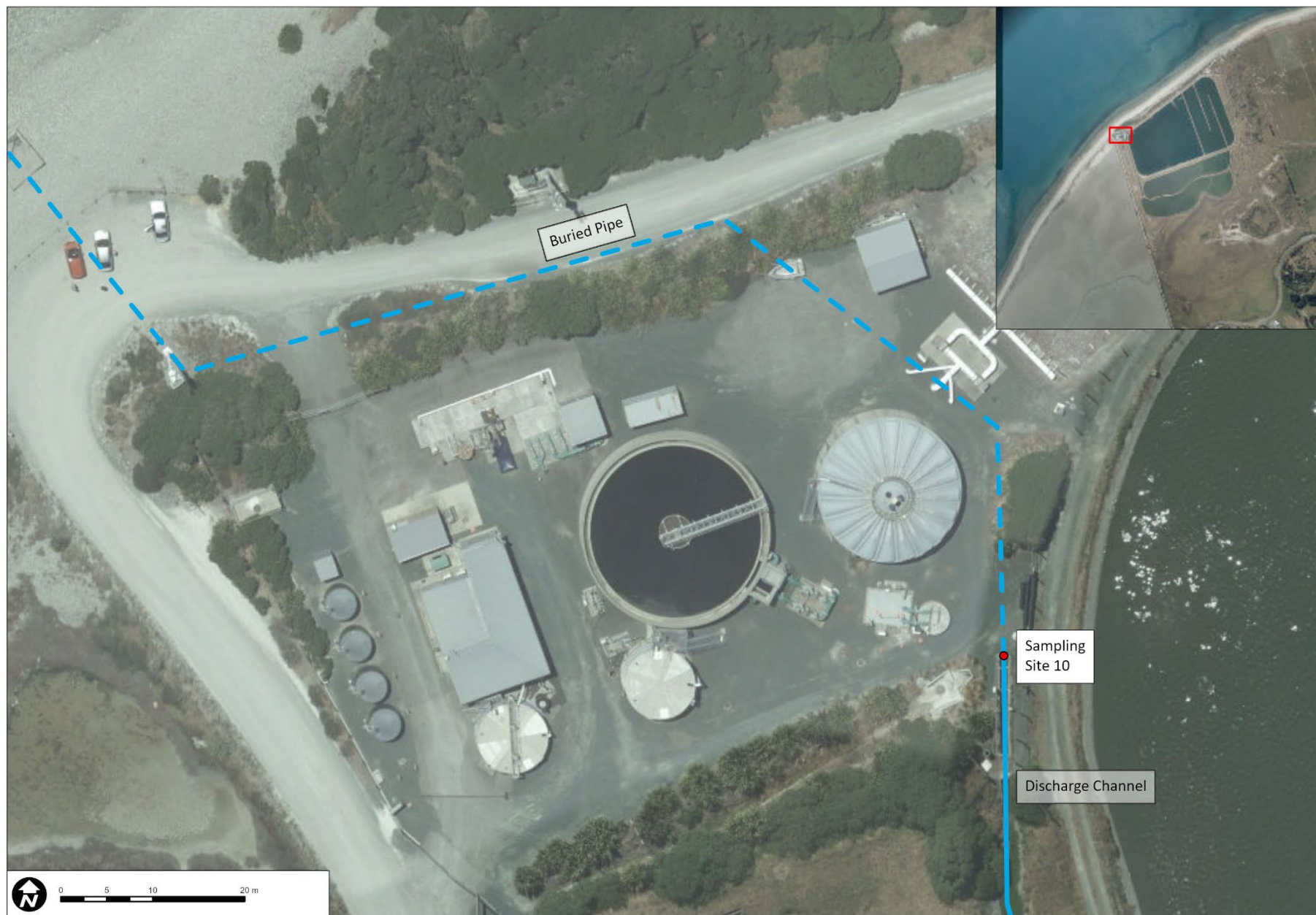
34. The Consent Holder must comply with the following during and following desludging operations:
- (a) The desludging operations, including transportation of the sludge off-site, must be undertaken to employ the best practicable options to prevent or minimise the discharge of offensive or objectionable odours and with the Odour Management Plan required by Condition 5.
  - (b) Odour walkover surveys around the on-land part of the Odour Management Boundary shown in Figure 5 (attached to these consents) must be undertaken by a person who does not work at the NWWTP in a day-to-day capacity and who has not been on the site on the day the survey is undertaken before the survey. To avoid doubt, the person may be employed by the Consent Holder or the NWWTP operator. The survey must be conducted between 12 noon and 6 pm, and the frequency of the odour surveys must be:
    - (i) At least once per day during pumping of sludge into the geotextile bags;
    - (ii) At least once per day for 30 days following completion of the transfer of sludge into the geotextile bags;
    - (iii) At least once per day for two days following any complaints received and confirmed as coming from the site as a result of the desludging operations; and
    - (iv) At least once per day for two days following any odours identified as coming from the site during any odour walkover survey.
  - (c) Written or electronic records of the odour walkover surveys must be kept and made available to the Consent Authority's Manager Consents and Compliance upon request. The records must include:
    - (i) The date, start and finish times of the survey.
    - (ii) The wind direction and strength, and weather conditions throughout the survey period.
    - (iii) The location and strength/intensity, character, and duration of any observed odours.
    - (iv) Investigations into the source of any odours observed, whether from the NWWTP site or elsewhere.
    - (v) NWWTP operating conditions at the time of the survey.
  - (d) Any opened geotextile bags with sludge that has not yet been transported off-site must be covered by a well-anchored cover system.

*Advice Note: The reason the odour walkover surveys are to be undertaken by a person who does not work at the NWWTP or has been present at the NWWTP before undertaking the survey is to ensure they are not desensitised by odours that may be present.*

35. When operating for non-emergency purposes, the diesel-powered electricity generator must not be operated for longer than one hour every month.
36. Notwithstanding Condition 35, the Consent Holder may operate the diesel-powered electricity generator for up to four hours during its annual load testing.



## **APPENDIX 1 – FIGURES REFERRED TO IN CONDITIONS**



**Figure 1.** Location of compliance monitoring 'Site 10' – Final treated wastewater quality.



**Figure 2.** The extent of the mixing zone is defined as the area delineated by a rectangle measuring 500 metres by 200 metres centred on the outfall diffuser structure. The coordinates presented in Figure 2 relate to the mixing zone for the existing outfall diffuser structure. Condition 20 states that if any replacement outfall diffuser constructed, as provided for in Condition 24, results in the centre point of the new diffuser being in a different location to that of the existing outfall diffuser, then the mixing zone rectangle must move so that it centred on the middle of the new outfall diffuser, and this will change the coordinates presented in Figure 2.





**Figure 3.** Location of pipeline and existing outfall diffuser structure.



**Figure 4.** Location of groundwater monitoring bores (blue dots) and surface water monitoring sites (red dots).





**Figure 5.** Odour Management Boundary.

## **APPENDIX 2 – NELSON WASTEWATER TREATMENT PLANT RESOURCE CONSENTS MONITORING PROGRAMME**

### **PART 1 – Coastal Marine Area Five-yearly Field Survey**

The Consent Holder must, every five years, engage a suitably qualified and experienced marine scientist to undertake a qualitative field survey of the outfall diffuser and surrounding area recording:

- (a) Sediment type.
- (b) Visible macrofauna.
- (c) Macrophyte species and coverage.
- (d) Any obvious signs of enrichment or pollution (e.g. microalgal mats, H<sub>2</sub>S, odours, fats, oils, unnatural debris, etc.).

### **PART 2 – Groundwater Monitoring Programme**

#### ***Sub-Part A – Groundwater Levels***

The Consent Holder must install and maintain automated water level recorders within each of the six bores labelled GW01-GW06, shown in Figure 4 included in Appendix 1. The water level recorders must be programmed to record the water levels at least hourly. It is acknowledged that automated water level recorders can malfunction periodically, meaning that some water levels may not be recorded during the period between visits to upload the recorded data. The Consent Holder must fix or replace any faulty water level recorder(s) as soon as practicable after becoming aware of any issues. The groundwater level monitoring must be undertaken for two years from the date of commencement of these consents. It may be discontinued after this time with the agreement of the Consent Authority's Manager Consents and Compliance.

#### ***Sub-Part B – Groundwater Quality***

The Consent Holder must collect water samples annually within each of the six bores labelled GW01-GW06, shown in Figure 4 included in Appendix 1. An accredited laboratory must analyse the water samples collected for the following determinands:

- pH
- Total suspended solids
- Chloride
- Total nitrogen
- Total ammoniacal nitrogen
- Nitrite nitrogen
- Nitrate nitrogen
- Total Kjeldahl nitrogen
- Dissolved reactive phosphorus
- Total phosphorus
- Chemical oxygen demand
- Total faecal coliforms
- Escherichia coli
- Chlorophyll a

### **PART 3 – Surface Water Monitoring Programme**

The Consent Holder must assess the water quality at the three surface water monitoring sites labelled SW 01 WW, SW02 Res, and SW 03 Hav as shown in Figure 4 in Appendix 1 of these consents. The assessment must involve both field (in-situ) testing and collection of water samples for laboratory analysis. The assessments must be undertaken monthly for two years from the date of commencement of these consents. They may be discontinued after this time with the agreement of the Consent Authority's Manager Consents and Compliance.

#### ***Sub-Part A – Timing***

Each surface water quality assessment must be undertaken at the same time and be within one hour either side of low tide to minimise the potential of tidal influence in the results.

#### ***Sub-Part B – Field Assessments***

Field (in-situ) measurements of the following determinands must be made and recorded:

- Dissolved oxygen (concentration and %saturation)
- Electrical conductivity
- Ambient water temperature
- pH
- Turbidity (NTU) OR visual clarity by black disc

The following must also be recorded:

- Colour of water
- Presence of any conspicuous oil or grease films, scums or foams, growths, or floatable or suspended materials on the water surface (and a description of what is observed, if any)
- Presence of solid debris within the water body, such as construction waste, large woody debris, litter, etc.
- Any discernible and objectionable odour
- Weather conditions at the time of sampling
- Time of low tide at the time of sampling

### ***Sub-Part C – Sample Collection and Laboratory Analyses***

Water samples must be collected and analysed by an accredited laboratory for the following determinands:

- Total suspended solids
- Nitrate nitrogen
- Total ammoniacal nitrogen
- Total nitrogen
- Total phosphorus
- Dissolved reactive phosphorus
- Chemical oxygen demand
- 5-day biochemical oxygen demand
- Chloride
- Total faecal coliforms