

# Featherston Wastewater Treatment Plant

Renewal of existing consents for discharge (and upgrade) of treated sewage to surface water and land, and discharge to air.

Conditions issued 8 October 2025

---

## INTERPRETATION

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

**Certification:** In relation to a management plan, means assessed by Council staff acting in a technical certification capacity and, in particular, whether the document or matter is technically consistent with the requirements contained within the conditions of this consent.

**Commissioning** means that a system, equipment or facility is completed, operational and available for use. This includes the installation, construction, testing, and completion of that system, equipment or facility.

**DO** means Dissolved Oxygen

**Earthworks** means the disturbance of a land surface from the time soil is first disturbed on a site until the time the site is stabilised. Earthworks includes blading, contouring, ripping, moving, removing, placing or replacing soil or earth, by excavation, or by cutting or filling operations, or by root raking.

Earthworks do not include

- a) cultivation of the soil for the establishment of crops or pasture, and
- b) the harvesting of crops, and
- c) thrusting, boring, trenching or mole ploughing associated with cable or pipe laying and maintenance, and
- d) the construction, repair, upgrade or maintenance of:
  - pipelines, and
  - electricity lines and their support structures, including the National grid, and
  - telecommunication structures or lines, and
  - radio communication structures, and
  - firebreaks or fence lines, and
  - a bore or geotechnical investigation bore, and
- e) repair or maintenance of existing roads and tracks, and airfield runways, taxiways, and parking aprons for aircraft, and
- f) maintenance of orchards and shelterbelts, and
- g) domestic gardening, and
- h) repair, sealing or resealing of a road, footpath, driveway, and
- i) discharge of cleanfill material to a cleanfill area.

**ESC Guide for Land Disturbing Activities in the Wellington Region** means Revision 1 (February 2021) of the *Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region*.

**FWWTP** means Featherston Wastewater Treatment Plant, and applies to the entire site and its purposes, unless the context of the condition demands otherwise.

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

**Natural Inland Wetland** has the meaning given by the National Policy Statement for Freshwater Management including any subsequent amendments.

**Notification or notice** means email of notification to notifications@gw.govt.nz. Please include the consent reference number (WAR230290) and the name and phone number of a contact person responsible for the proposed works. For incidents, please contact the 24 hour pollution hotline on 0800 496734.

**Stabilised** means inherently resistant to erosion, or rendered resistant to erosion through the application of the proven methods of stabilisation specified in Section E3 of the ESC Guide for the Wellington Region, unless alternative methods are approved by the Manager. Where seeding, grassing or hydroseeding is used the surface is considered stabilised once a minimum of 80% vegetative cover has been established over the entire surface.

**SQEP** means a suitably qualified and experienced person (or persons) who can provide sufficient evidence to the Manager to demonstrate their suitability and competence in the relevant field of expertise for a particular task or action directed by a condition.

**Warranted Officer** means any person authorised under section 38 of the Resource Management Act 1991.

**Working day** means a day of the week other than

- (a) a Saturday, a Sunday, Waitangi Day, Good Friday, Easter Monday, Anzac Day, the Sovereign's birthday, Te Rā Aro ki a Matariki/Matariki Observance Day, and Labour Day; and
- (b) if Waitangi Day or Anzac Day falls on a Saturday or a Sunday, the following Monday; and
- (c) a day in the period commencing on 20 December in any year and ending with 10 January in the following year.

**Zone of Reasonable Mixing (ZRM)** means that section of Donalds Creek between the point of discharge and monitoring location SW3

**General conditions that apply to all consents - [38964], [38965], [38966], [38967], [38968], and [40481]**

- G1. 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 2 May 2023 including:
- Revised application dated 31 May 2024;
  - Further information received on 16 August 2024; 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.*

- G2. 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 Warranted Officer upon request. The consent holder shall verbally brief all operators or contractors on the requirements of the conditions of this consent within one month of granting this consent, and then on induction for any new operators or contractors.

- G3. The access gate to the FWWTP shall be locked at all times in order to prevent public access.

*Note: Access must be provided to a warranted officer when requested.*

- G4. The consent holder shall maintain a Community Liaison Group (CLG). The CLG shall act as a forum for consultation and liaison with mana whenua and the community and be used as a vehicle to provide information regarding the Featherston Wastewater Treatment Plant (FWWTP). More specifically the CLG shall be used to inform its members on:

- a) The performance of the FWWTP relative to the conditions of this consent, including details from the Annual Monitoring Report
- b) The results of wastewater monitoring, receiving water quality monitoring and the ecological survey as reported under the conditions of this consent as required by conditions DW6 to DW15
- c) Complaints received about the operation of the FWWTP, and of any incidents, malfunctions or non-compliances as outlined in condition G19
- d) Progress with upgrades in regard to condition G15
- e) Improvements proposed to be made to the FWWTP, that will influence the quality of the treated wastewater
- f) Progress on the Future Direction Report as required by condition G23

- G5. The consent holder shall invite the following parties to join the CLG, and notify those parties of meetings of the CLG at least 20 working days prior to any meeting:
- a) Representatives of Rangitāne o Wairarapa
  - b) Representatives of Ngāti Kahungunu ki Wairarapa
  - c) Representatives of Rangitāne Tū Mai Rā Trust
  - d) Representatives of Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua Settlement Trust
  - e) Representatives of Wairarapa Moana Statutory Board
  - f) Representatives of Wellington Regional Council
  - g) Representatives of Health NZ (Te Whatu Ora, National Public Health Service)
  - h) Representatives of Department of Conservation
  - i) Representatives of Wellington Fish and Game
  - j) Representatives of Featherston Community Board
  - k) Any neighbouring landowner or resident who has expressed an interest to join the CLG

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

- G6. The CLG shall hold a meeting at least once every calendar year. Minutes of any CLG meetings and a copy of the Annual Report shall be forwarded on to all CLG attendees and the Manager within one month of the meeting being held.

*Note: In order to achieve compliance with this condition, the Consent Holder shall be required to establish the CLG and organise meetings (including venues). Where invitees choose not to attend CLG meetings or otherwise be involved, this shall not be regarded as a matter of non-compliance.*

### **Management Plan Process**

- G7. The Consent Holder shall prepare the management plans listed in Table 1 and submit them to the Manager for certification, within the specified timeframes. The plans:
- a) May be prepared as separate plans; or
  - b) May be combined with other plans, where approved in writing by the Manager; and
  - c) May be prepared in parts or in stages to address specific activities or to reflect the staged implementation of the project; and
  - d) Shall be prepared by a SQEP; and
  - e) Shall specify its purpose and detail which consent conditions the relevant plan is giving effect to; and
  - f) Shall include any commentary received from Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa, Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua Settlement Trust, Rangitāne Tū Mai Rā Trust and Wairarapa Moana Statutory Board on the draft management plans provided in accordance with condition G9 and a response to those comments including where feedback has been incorporated

Table 1: Management Plans

| Plan                                                          | To be submitted by                                                                                                             | Related consents                                        |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>EMMP</b><br>Environmental Monitoring Management Plan       | 3 months after commencement of consent and updated at least 3 months prior to Stage 2 commencement                             | 38964 (Discharge to water)<br>38965 (Discharge to land) |
| <b>OMP</b><br>Operations Management Plan                      | 3 months prior to Stage 2 commissioning                                                                                        | All consents                                            |
| <b>LDMP</b><br>Land Discharge Management Plan                 | 3 months prior to construction commencing for Stage 5, and an update submitted at least 3 months prior to Stage 6 commencement | 38965 (Discharge to land)                               |
| <b>CEMP</b><br>Construction and Environmental Management Plan | 1 month prior to construction commencing for each Stage                                                                        | 38967 (Earthworks)<br>38967 (Diversion)                 |
| <b>ESCP</b><br>Erosion and Sediment Control Plan              | 1 month prior to commencing earthworks                                                                                         | 38967 (Earthworks)                                      |
| <b>RPMP</b><br>Riparian Planting and Management Plan          | 1 month prior to riparian planting commencing                                                                                  | 38964 (Discharge to water)<br>38965 (Discharge to land) |
| <b>AMP</b><br>Air Management Plan                             | 3 months prior to Stage 2 commissioning                                                                                        | 38966 (Air)                                             |

- G8. Prior to preparation of each of the management plans listed in Table 1 the consent holder shall invite Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa, Ngāti Kahungunu ki Wairarapa Tamaki Nui Settlement Trust, Rangitāne Tū Mai Rā Trust, and Wairarapa Moana Statutory Board to meet and discuss their objectives in relation to the management plans. A period of 20 working days will be allowed for Rangitāne o Wairarapa and Kahungunu ki Wairarapa to acknowledge the invitation. Should no response be received within 20 working days, then the consent holder will be considered to have satisfied this condition.
- G9. Prior to submission of any management plan to the Wellington Regional Council for certification, the consent holder shall provide a draft version of the relevant plan to Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa, Ngāti Kahungunu ki Wairarapa Tamaki nui-a-Rua Settlement Trust, Rangitāne Tū Mai Rā Trust, and Wairarapa Moana Statutory Board and provide 30 working days for the respective entities to provide comment. Should no response be received within 30 working days, then the consent holder will be considered to have satisfied this condition.
- G10. The consent holder must not commence works or implementation of any proposed upgrades to which a management plan applies until the required management plan(s) has been certified by the Wellington Regional Council. The consent holder shall undertake the works in accordance with the relevant certified management plan.
- G11. The consent holder may request amendments to a management plan by submitting the amended management plan to the Manager for the certification. Any amendments must be in accordance with the conditions of the related consent, as set out in Table 1. The amendments sought shall not be implemented until the consent holder has received notice in writing that the amendments have

been certified by the Manager. All works shall be carried out in accordance with the certified amendments.

- G12. All sampling techniques employed in respect of the conditions of this consent shall be acceptable to the Wellington Regional Council. All analyses undertaken in connection with this consent shall be performed by an International Accreditation New Zealand (IANZ) registered laboratory, or otherwise as specifically approved by the Wellington Regional Council.

### **Operations Management Plan (OMP)**

- G13. The Consent Holder shall prepare an Operations Management Plan (OMP) for the FWWTP. All future scheme operations and maintenance activities shall be included in the OMP and adhere to the OMP. The purpose of the OMP is to outline the operation and maintenance of the FWWTP and wastewater discharge systems.

The OMP shall include but not be limited to:

- a) A description of the system's operating procedures (including manufacturer's specifications)
- b) Roles and responsibilities for on-site activities and on-site staff training procedures
- c) condition inspection and maintenance frequency/schedules (including manufacturer's specifications) for all plant infrastructure, including but not limited to; pumps, flow meters, valves, constructed wetland and land application areas
- d) Operational and compliance monitoring procedures
- e) A description of 'normal operating conditions'
- f) Procedures for dealing with emergency discharge events, treatment failures or health and safety incidents
- g) Procedures for dealing with exceedances of compliance limits and trigger values including notification, reporting and actions to bring exceedances back into complying levels
- h) Procedure for dealing with circumstances where equipment, or parts of the plant are offline or being fixed when one part of the plant is offline for maintenance or repair, how compliance will continue to be achieved
- i) Details of a complaints register, including:
  - i. A process for receiving, investigating, remediating (where necessary), and reporting back to a complainant on complaints
  - ii. Method and scope of information required for reporting of data, effects, complaints, incidents and consent compliance including to WRC, iwi, Health NZ and the public; and
  - iii. The location where information is made available online so the public can access including the consent, management plans, incident reports and annual reports
- j) Procedures for controlling bird (waterfowl) numbers at the FWWTP
- k) An avian botulism management plan prepared by a Suitably Qualified and Experienced Person and in consultation with Wellington Fish and Game.
- l) A protocol to recover, handle and record tuna (eels) found in the FWWTP system, and procedures or measures to prevent or otherwise minimise potential for tuna to enter the

FWWTP system. Information recorded shall include: place found, species, condition and estimated length of tuna (eels) found

- m) Contingency measures to deal with plant malfunctions including redundancy and spares held on site for critical parts.
- n) Measures to record and report on septage volumes discharged into the FWWTP
- o) Procedures for controlling pest plants along the northern edge of the Otawira Open Space Covenant area
- p) Procedures for controlling and managing ecological weeds within the Project site
- q) Procedures for using the online turbidity sensor at the DAF outlet to optimise the plant performance and discharge quality, including establishing a Total Suspended Solids to turbidity relationship within the discharge

### Upgrade staging

- G14. The proposed upgrades at the FWWTP shall be implemented in stages in accordance with the Detailed Design Information required by condition G15 and as specified in Table 2 below as follows:

*Table 2: Stages of the Proposed Upgrades at the FWWTP*

| Stage Name | Stage Description                                                                                                                  | Stage to be operational by no later than                                                                                                   |
|------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Stage 1    | Commencement of Riparian planting adjacent to Donalds Creek.                                                                       | Within 15 months following commencement of consent.                                                                                        |
| Stage 2    | Commissioning of the clarification system, including an online turbidity sensor at the DAF outlet.                                 | Within 24 months following commencement of consent.                                                                                        |
| Stage 3    | General plant upgrades (e.g. inlet screening, inlet flow meter, provision of backup generator, pond baffle curtains and aerators). | Within 30 months following commencement of consent.                                                                                        |
| Stage 4    | Commissioning of the constructed wetland and revegetated discharge area.                                                           | Within 36 months following commencement of consent.                                                                                        |
| Stage 5    | Commissioning of the land application area (3.5 ha in total - includes buffer areas).                                              | Within 36 months following commencement of consent.                                                                                        |
| Stage 6    | Commissioning of the expansion of land application area (7 ha in total - includes buffer areas).                                   | Within 36 months following the commencement of the operation of Stage 5, no later than 6 years following the commencement of this consent. |

*Note: Stages may be combined or brought forward as funding allows.*

### **Provision of information following staged upgrades**

- G15. Prior to commencement of the works for each of Stages 2 to 6 described in Table 2, the Consent Holder shall submit to the Wellington Regional Council for information, the detailed design plans for the relevant treatment system for that stage. The treatment systems for each stage are to be designed by a SQEP. As a minimum, the detailed design shall include the following (where relevant):
- a) Pumping or conveyance infrastructure
  - b) Wastewater flow rate
  - c) Wastewater application rates
  - d) Vegetation and crop management for the land application area
  - e) Expected date of commencement and, if known, the commissioning of each stage (in accordance with Table 2)
- G16. Within 5 working days, the Consent Holder shall notify the Manager of the date of commissioning for each of Stages 2 to 6.
- G17. Within 3 months of the commissioning of the wastewater treatment systems of each of Stages 2 to 6, the Consent Holder shall submit 'As Built' plans to the Manager for information. The As Built plans shall be prepared by a SQEP.
- G18. Following the commissioning of each of Stages 2 to 6 and submission of 'As Built' plans, the consent holder shall review, and amend if needed, the EMMP, OMP and AMP. The amended management plan(s) shall be submitted to the Manager for certification within three months of commissioning each stage.

### **Complaints**

- G19. The Consent Holder shall keep a record of any complaints that are received with respect to the operation of the FWWTP including any associated land application area. The record shall contain the following details:
- a) Name and address of the complainant (unless withheld by the complainant)
  - b) The nature of the complaint;
  - c) Location, date and time of the complaint and of the alleged event;
  - d) Weather conditions at the time of the complaint (as far as practicable), and including wind direction and approximate wind speed if the complaint relates to air quality;
  - e) The outcome of the consent holder's investigation into the complaint;
  - f) Measures taken to respond to the complaint; and
  - g) Any other activities occurring in the area at the time of the complaint.

The Consent Holder shall notify the Manager as soon as practicable and within 24 hours of a complaint being received. The complaints record shall be retained on site and provided to the Manager on request.



## Signage

- G20. For the duration of these consents, the Consent Holder shall maintain signage in the vicinity of the treated wastewater outfall at Donalds Creek, at upstream and downstream publicly accessible locations to Donalds Creek and at the boundaries of the FWWTP site including any sites used for land application. The signage shall be legible to a person during daylight hours and notify that treated wastewater is discharging to land and water and may be present at the site. The signage shall at all times:
- a) Provide clear identification of the location and nature of the discharge;
  - b) Provide a 24-hour contact phone number; and
  - c) Be visible to the public visiting publicly accessible parts of the area and legible from a distance of 20 metres; and
  - d) Include information about the risk of watercress collection in Donalds Creek.

## Reporting

- G21. The Consent Holder shall provide a Quarterly Data and Exception Report for each three-month period ending 31 March, 30 June, 30 September and 31 December each year to the Wellington Regional Council, within 30 working days of the end of each three-month period. The quarterly report shall be provided in electronic format. The quarterly report shall include, but not be limited to, the following:
- a) The results of all monitoring undertaken in accordance with the conditions of these consents, with all monitoring data provided in a suitable electronic format
  - b) A summary table showing which conditions are compliant and non-compliant
  - c) A brief commentary on any exceptions identified from the data and reasons for difficulties in achieving compliance with the conditions of this consent
  - d) A schedule summarising any complaints received or incidents reported during the quarter
  - e) The results of the wetland monitoring, and any remedial actions undertaken if drying of any natural inland wetland habitat is observed
  - f) Explanatory notes on plant optimisation efforts undertaken to maintain DAF performance during the period.

*Note: The Quarterly Data and Exception Report required under this condition on 30 September of any year may be incorporated into the Annual Report, in which case it shall be clearly identified for compliance monitoring purposes.*

- G22. The Consent Holder shall provide an Annual Report to the Wellington Regional Council by 30 September each year, summarising all monitoring undertaken for this consent, including a critical analysis of that information. The Annual Report shall include as a minimum:
- a) A summary of all monitoring undertaken in accordance with the conditions of these consents
  - b) A discussion of the results of the wastewater quality monitoring throughout the year. This shall include a discussion of the expected wastewater concentrations compared with the compliance limits and trigger values

- c) Statistical analysis of the trends in the monitoring data for the year (1 July to 30 June inclusive) and in comparison to monitoring data from previous years
- d) Where compliance has not been achieved, commentary on the potential significance of any trends or changes in environmental effects evident from the monitoring data, both within the annual period and compared to previous years
- e) Commentary on whether any data trends may be indicative of significant adverse effects on ecosystem health including aquatic life, cultural values or public health after reasonable mixing, or any other significant adverse effect on the environment
- f) Analysis of any spikes or step changes apparent in the annual monitoring data, including commentary on how such spikes or step changes relate to operational matters, including incidents, malfunctions or operational improvements
- g) Comparison of the annual monitoring data with the conditions of this consent and with operational matters, including complaints, incidents, malfunctions and operational improvements
- h) Any reasons for exceedance of the monitoring parameters or criteria prescribed in any management plan prepared under the conditions of this consent
- i) Any measures that have been undertaken, or are proposed to be undertaken in the upcoming 12 months, to improve the environmental performance of the wastewater treatment and disposal system
- j) Any recommendations on alterations/additions to the monitoring programmes and/or any proposed changes to any management plan
- k) A schedule of any complaints, incidents or malfunctions recorded during the year that relate to the discharges from the FWWTP
- l) For all matters in (k) detail any follow up actions undertaken, whether the issue has been remediated to prevent further occurrences of such incidents and set out any improvements to the plant operation and procedures and/or equipment necessary, and any other measures that are required to prevent future occurrences including short and long term measures
- m) An overall monthly land application nitrogen budget once discharge to land commences. This will outline the nitrogen inputs and outputs for each month, as well as the deficit/surplus each month
- n) Any other issues considered important by the Consent Holder
- o) All photos taken in accordance with monitoring requirements of this consent

### **Future Directions Report**

- G23. On or before 12 months from the expiry of discharge permits [38964], [38965] and [38967], the Consent Holder shall submit to the Manager a Future Directions Report, setting out the options assessed, confirming the best practicable option for future management and treatment of wastewater discharged from the FWWTP, and the proposed pathway for implementing that option. The Future Directions Report shall:
- a) Be informed by the monitoring and assessment of the efficacy of the upgrades, undertaken as part of these consents at the time the Future Directions Report is prepared

- b) Include a concept of the future wastewater management, including network improvements, pond sludge and septage management
- c) Be prepared in consultation with Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa, Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua Settlement Trust, Rangitāne Tū Mai Rā Trust and Wairarapa Moana Statutory Board
- d) A discussion of any proposed changes to the management of these discharges or new solutions which will minimise any adverse effects, including public health impacts and potential future public health risks

*Note: The intent of the Future Directions Report is to provide a pathway for implementing a long-term solution for the treatment and management of wastewater discharged from the FWWTP.*

## Review

G24. Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so pursuant to sections 128 and 129 of the Resource Management Act 1991, in the six calendar months following:

- a) The fourth anniversary of the commencement of this consent; or
- b) The receipt of quarterly or annual reporting required by conditions G21 and G22.

A review may be undertaken for any of the following reasons:

- i. To review the adequacy of, and if necessary, amend the monitoring requirements outlined in this consent
- ii. 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
- iii. To align the conditions and enable consistency with any relevant operative regional plans, National Environmental Standards, regulations or Acts of Parliament
- iv. To review the approach and effectiveness of CLG and community information reporting conditions
- v. 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

G25. Pursuant to section 123 of the Act, the duration of consents WGN230290 [38964] to [38938] and [40481] shall be 10 years.

## [38964]: Discharge permit to discharge treated and UV disinfected wastewater to Donalds Creek from the operation of the Featherston Wastewater Treatment Plant (FWWTP)

### Wastewater discharge quantity

- DW1. The rate of total treated wastewater discharge to land and water from the FWWTP shall not exceed:
- a) 6,500 m<sup>3</sup>/day as a rolling annual average daily discharge volume; and
  - b) 11,000 m<sup>3</sup>/day as the maximum daily discharge volume.

*Note: The wastewater treatment plant discharge volume is to be calculated from the flowmeter readings following UV disinfection.*

### Flow monitoring

- DW2. The consent holder shall continuously monitor and record the following:
- a) the daily volume of the inflow to the FWWTP; and
  - b) the daily volume of effluent discharged from the FWWTP; and
  - c) UV transmissivity of effluent; and
  - d) UV dosage.
- DW3. The flow measuring devices for monitoring in condition DW2 must be capable of continuously measuring wastewater flows of magnitudes up to and beyond the peak instantaneous flow rate, and shall be maintained to ensure that the measurement error is no more than +/-5% (as required by condition DW5A).
- DW4. The Consent Holder shall install, maintain and replace, measuring equipment to monitor the wastewater flows at the following points and within the timeframes as specified in Table 3 unless otherwise agreed in writing by the Wellington Regional Council.

*Table 3: Wastewater Flow Monitoring Points and Timeframes*

| Location                                                                  | Timeframe                                                  |
|---------------------------------------------------------------------------|------------------------------------------------------------|
| Plant inlet flowmeter                                                     | Upgrade within 30 months following commencement of consent |
| UV Discharge flowmeter<br>(existing – measured at or beyond the UV plant) | Replace as required                                        |
| Land application flowmeter                                                | Install prior to land application commissioning            |

- DW5. Flow measuring equipment (required for monitoring under condition DW2 and also land application volumes under condition DL8) shall be maintained at all times in accordance with the FWWTP Operations Management Plan required by condition G13 (which shall include reference to manufacturer's specifications).

DW5A. The consent holder shall verify the accuracy of the flow measuring equipment listed in condition DW4.

- a) within three months of the consent being granted for all devices installed at the time of granting; and
- b) within three months of the installation of any upgraded or new device; and then
- c) at least every five years for the duration of this consent.

Any verification of the water measuring device/system under this condition must be performed by a suitably qualified person.

Within one month of any verification being undertaken on the water measuring device/system, the consent holder shall submit to the Manager, a copy of the verification certificate/and or evidence documenting the calibration as completed by the person who undertook the verification.

### **Wastewater Monitoring**

DW6. The consent holder shall on at least one occasion each month, on a normal working day, obtain a representative sample of the wastewater as follows;

- a) A grab sample shall be taken from a location following UV disinfection; and
- b) Following Stage 4 upgrades, a grab sample shall also be taken from a point after the sub-surface wetland.

The locations shall be agreed by both the consent holder and Wellington Regional Council.

DW7. The samples monitored under condition DW6 shall be analysed for:

- a) pH (pH units)
- b) Temperature (°C)
- c) Total Carbonaceous Biochemical Oxygen Demand (g/m<sup>3</sup>)
- d) Soluble Carbonaceous Biochemical Oxygen Demand (g/m<sup>3</sup>)
- e) Total suspended solids (g/m<sup>3</sup>)
- f) Nitrate-nitrogen (g/m<sup>3</sup>)
- g) Nitrite-nitrogen (g/m<sup>3</sup>)
- h) Total ammoniacal-nitrogen (g/m<sup>3</sup>)
- i) Total nitrogen (g/m<sup>3</sup>)
- j) Dissolved reactive phosphorus (g/m<sup>3</sup>)
- k) Total phosphorus (g/m<sup>3</sup>)
- l) *Escherichia coli* (cfu/100mL)

Samples shall be collected on the same day as the representative receiving water samples are collected under condition DW10.

*Note: Escherichia coli samples can only be obtained using a grab sample and not part of a 24-hour flow-proportioned composite sampling regime.*

DW7A. The following parameters shall be analysed in samples taken at the locations specified in condition DW6 once annually:

- a) Total Arsenic
- b) Total Cadmium
- c) Total Chromium
- d) Total Copper
- e) Total Nickel
- f) Total Lead
- g) Total Zinc
- h) Total Mercury

**Wastewater discharge quality limits - prior to Stage 2 upgrade**

DW8. Any wastewater discharged from the FWWTP, prior to Stage 2 upgrades, shall meet the following standards:

- a) The **pH** shall not fall outside the range of 6 to 9.5 in any given monthly sample;
- b) The concentration of Total Carbonaceous Biochemical Oxygen Demand (**cBOD<sub>5</sub>**) shall not exceed 40 g/m<sup>3</sup>;
- c) The concentration of **Total Suspended Solids (TSS)** shall not exceed 175 g/m<sup>3</sup>;
- d) The concentration of **Total Ammoniacal N** shall not exceed 18 g/m<sup>3</sup>;
- e) The concentration of **Total Nitrogen (TN)** shall not exceed 25 g/m<sup>3</sup>;
- f) The concentration of **Dissolved Reactive Phosphorus (DRP)** shall not exceed 8 g/m<sup>3</sup>;
- g) The concentration of ***Escherichia coli (E.coli)*** shall not exceed 2,000 cfu/100mL in more than 3 out of 12 consecutive monthly samples.

**Wastewater discharge quality limits - following Stage 2 upgrade**

DW9. Any wastewater discharged from the FWWTP, following the commissioning of the upgrades of Stage 2, at a location after UV disinfection but prior to the constructed wetlands, shall meet the following standards:

- a) The **pH** shall not fall outside the range of 6 to 8.5 in any given monthly sample;
- b) The concentration of **Total Carbonaceous Biochemical Oxygen Demand (cBOD<sub>5</sub>)** shall not exceed 10 g/m<sup>3</sup> in more than 8 samples out of the previous 12 consecutive monthly samples and shall not exceed 15 g/m<sup>3</sup> in more than 3 out of the previous 12 consecutive monthly samples;
- c) The concentration of **Total Suspended Solids (TSS)** shall not exceed 11 g/m<sup>3</sup> in more than 8 samples out of 12 consecutive monthly samples and shall not exceed 17 g/m<sup>3</sup> in more than 3 out of 12 consecutive monthly samples;
- d) The concentration of **Total Ammoniacal N** shall not exceed 6 g/m<sup>3</sup> in more than 8 samples out of 12 consecutive monthly samples and shall not exceed 9 g/m<sup>3</sup> in more than 3 out of 12 consecutive monthly samples;

- e) The concentration of **Total Nitrogen (TN)** shall not exceed 12 g/m<sup>3</sup> in more than 8 samples out of 12 consecutive monthly samples and shall not exceed 15 g/m<sup>3</sup> in more than 3 out of 12 consecutive monthly samples;
- f) The concentration of **Dissolved Reactive Phosphorus (DRP)** shall not exceed 0.9 g/m<sup>3</sup> in more than 8 samples out of 12 consecutive monthly samples and shall not exceed 1.5 g/m<sup>3</sup> in more than 3 out of 12 consecutive monthly samples;
- g) The concentration of **Total Phosphorus** shall not exceed 1 g/m<sup>3</sup> in more than 8 samples out of 12 consecutive monthly samples and shall not exceed 2 g/m<sup>3</sup> in more than 3 out of 12 consecutive monthly samples;
- h) The concentration of ***Escherichia coli* (E.coli)** shall not exceed 200 cfu/100mL in more than 8 samples out of 12 consecutive monthly samples and shall not exceed 500 cfu/100mL in more than 3 out of 12 consecutive monthly samples.

*Note: The concentrations will be assessed on a rolling monthly basis.  
Sizing of the DAF unit should be appropriate to achievement of the TSS standard  
(indicatively 7,000 m<sup>3</sup>/day)*

### Surface Water Quality Monitoring

DW10. The Consent Holder shall collect monthly representative grab samples from the monitoring locations SW1, SW2, SW3 and SW7 as shown on Figure 1 of Schedule 2.

DW11. The samples monitored under condition DW10 shall be analysed for:

- a) pH (in field) (pH units)
- b) Electrical conductivity (in field) (µS/cm)
- c) Total suspended solids (g/m<sup>3</sup>)
- d) Temperature (in field) (°C)
- e) Dissolved oxygen (in field) (g/m<sup>3</sup>)
- f) Total Carbonaceous Biochemical Oxygen Demand (g/m<sup>3</sup>)
- g) Soluble Carbonaceous Biochemical Oxygen Demand (g/m<sup>3</sup>)
- h) Particulate organic matter (POM) (g/m<sup>3</sup>)
- i) Nitrate nitrogen (g/m<sup>3</sup>)
- j) Nitrite nitrogen (g/m<sup>3</sup>)
- k) Total Ammoniacal nitrogen(g/m<sup>3</sup>)
- l) Total Nitrogen (g/m<sup>3</sup>)
- m) Total Phosphorous (g/m<sup>3</sup>)
- n) Dissolved Reactive Phosphorous (g/m<sup>3</sup>)
- o) *E. coli* (cfu/100mL)

For each water sample collected under this condition, the consent holder shall record the:

- site name
- date
- time

- weather
- approximate stream flow at each sampling location
- photo of stream at sampling location

Samples should be taken from all surface water monitoring locations on the same day and samples shall be collected on the same day as the representative wastewater samples are collected under condition DW6.

- DW12. Measurements of dissolved oxygen ( $\text{g/m}^3$ ) shall be monitored continuously at monitoring locations U1 to U2, D1 and D3 for a minimum period of 10 days during summer, once after each of Stages 2, 5 and 6 are commissioned, when Donalds Creek flows are below 100 L/s (half median flow) based on flows at the Otukura Stream gauging site.

*Note: Flows in Donalds Creek (L/s) are based on 0.58 times the Otukura Stream flow plus 35.6 L/s.*

### Surface Water Visual Clarity Monitoring

- DW13. Within 3 months following commissioning of the clarification system including an online turbidity sensor at the DAF outlet (Stage 2 described in Table 2) the Consent Holder shall monitor on a monthly basis the change in visual clarity between monitoring locations SW2 and SW3 in relation to the clarity trigger in Table 4.

*Table 4 Donalds Creek change in visual clarity trigger between SW2 and SW3*

| Parameter                    | Standard |
|------------------------------|----------|
| Change in visual clarity (%) | 30%      |

- DW14. Should a reduction in visual clarity exceed 30%, the visual clarity monitoring shall be repeated within 24 hours to confirm the measurement. If confirmed the following shall occur:
- a) Samples of the discharge should be taken on the same day and tested for Total Suspended Solids ( $\text{g/m}^3$ )
  - b) The extent of any visible effect shall be photographed alongside upstream photographs
  - c) Sample results and visual observations of the discharge shall be submitted to Wellington Regional Council within 20 working days alongside an assessment on if the discharge is the likely cause, or contributor to, the reduction in visual clarity, and any steps taken to remedy or mitigate any visual clarity effects as a result of the wastewater discharge.

### Donalds Creek Ecosystem Health Monitoring

- DW15. The Consent Holder shall undertake ecological health monitoring in Donalds Creek as outlined in Table 5 below. The monitoring shall be undertaken upstream at the reach between U2-U1 and also at D1. Habitat condition, periphyton growth, macrophyte cover and macroinvertebrates shall also be assessed at D3 (Figure 2; Schedule 2).



Table 5: Ecological Monitoring Points and Frequencies for Donalds Creek

| Stream component and Description                                                                | Frequency                                                                                                                                                                                                                                                                                                          | Assessment methods (reference)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Assessed metric(s)                                                                                                                                      |
|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Habitat condition</b><br>Assess habitat condition, diversity, and abundance.                 | Annually in spring or summer for 3 years following commencement of the consent, then again at 5-years and 9 years following commencement of the consent.                                                                                                                                                           | Rapid physical habitat assessment (RPHA) (Clapcott, 2015) over a 100 m reach upstream and downstream                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RPHA score                                                                                                                                              |
| <b>Periphyton growth</b><br>Quantify periphyton visual cover, growth type, and density/biomass. | Monthly for 3 years following commencement of the consent, then again monthly for 3 years following commissioning of Stage 5.                                                                                                                                                                                      | Periphyton protocols (Ministry for the Environment, 2022a. Visual periphyton 5 views per 4 transects upstream and downstream refer Section 4, periphyton cover minimum 10 rock scrapes per single sample, refer Section 5).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Visual periphyton percentage cover.<br>PeriWCC (i.e. no algae, film, sludge, mats, filaments).<br>Chlorophyll a, Ash Free Dry Mass, Autotrophic Index.  |
| <b>Macroinvertebrates</b><br>Assess macroinvertebrate community composition and health.         | Annually in summer following a period of at least three weeks without a significant fresh event defined as flow exceeding 600 L/s (3x the median flow) based on flows at the Otukura Stream gauging site.<br><br>Note: Flows in Donalds Creek (L/s) are based on 0.58 times the Otukura Stream flow plus 35.6 L/s. | The macroinvertebrate sampling shall follow Protocols C3 (Hard-bottomed quantitative), P3 (full count with subsampling option) and QC3 (Quality control for full count with subsampling option) from the Ministry for the Environment's "protocols for sampling macroinvertebrates in wadeable streams" (Stark et al. 2001). This shall involve:<br>a) collection of five replicate 0.1m <sup>2</sup> Surber samples at random within a 20m section of riffle habitat at each sampling site;<br>b) full count of the macroinvertebrate taxa within each replicate sample to the taxonomic resolution level specified for use of the Macroinvertebrate Community Index (MCI); and<br>c) enumeration of the results as taxa richness, MCI, QMCI, %EPT taxa and %EPT individuals. | Community composition, Macroinvertebrate Community Index, Quantitative Macroinvertebrate Community Index, percentage sensitive EPT taxa and individuals |

| Stream component and Description                                                                                                                                                                          | Frequency                                                                                                                                                                                                                                                                                                                                                                                   | Assessment methods (reference)                                                                                                                                                                                                                                                                           | Assessed metric(s)                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Stream morphology</b><br>Collect physical measures of the stream morphology and flow rates to understand aquatic habitat availability and potential connectivity under normal and low flow conditions. | Once during summer low-flow conditions over the term of the consent.<br>Once during 'typical' flow conditions over the term of the consent.<br>Low flow is equivalent to a flow below 100L/s (half median flow) in Donalds Creek. Flow in Donalds Creek (in L/s) will be estimated based on flows at Otukura Stream gauging site based on 0.58 times the Otukura Stream flow plus 35.6 L/s. | Using an appropriate tool/model that assesses habitat availability for aquatic fauna under different flow scenarios (e.g., RHYHABSIM)                                                                                                                                                                    |                                                                       |
| <b>Macrophytes</b><br>Describe and assess macrophyte cover.                                                                                                                                               | Monthly between Dec-May inclusive for 3 years following commencement of the consent, then again monthly between Dec-May inclusive for 3 years following commissioning of Stage 5. Visual assessment to be completed at the same time as the periphyton assessment.                                                                                                                          | Follow the methods described in Appendix B of Matheson et al 2012 (Review of the New Zealand instream plant and nutrient guidelines and development of an extended decision-making framework: Phases 1 and 2 final report Prepared for the Ministry of Science & Innovation Envirolink Fund August 2012) | Macrophyte cover/density as a percentage of stream channel and banks. |
| <b>Fish</b><br>Assess fish species diversity, community distribution and structure.                                                                                                                       | Twice between year 5 and year 9 of the consent term.                                                                                                                                                                                                                                                                                                                                        | Presence/absence and size distribution using methods in the New Zealand Freshwater Fish Sampling Protocols (Joy et al., 2013).                                                                                                                                                                           |                                                                       |
| <b>Kākahi</b><br>Search for kākahi (freshwater mussels) presence/absence and distribution.                                                                                                                | Twice between year 5 and year 9 of the consent term. Within 24 months of commissioning of Stage 6.                                                                                                                                                                                                                                                                                          | Presence/absence using methods in the Regional guidelines for ecological assessments of freshwater environments – standardised protocol for adult freshwater mussel monitoring in wadeable streams (Catlin et al., 2016).                                                                                |                                                                       |

*Note: Assessment methods may change as industry knowledge, guidelines and protocols develop. The assessment methodology specified may be replaced with industry guideline and protocols that apply at the time of each respective monitoring occasion provided the methodology does not impact the ability to determine trends in the monitoring results. These assessment methods and the assessed metric used for ecological monitoring will be outlined in the EMMP and must be consistent with national protocols.*

## Receiving environment limits

DW16. The consent holder shall ensure that the wastewater discharge to Donalds Creek at all stages, does not give rise to any of the following surface water quality effects beyond the zone of reasonable mixing, measured at site SW3 (Figure 1, Schedule 2);

- a) Production of any conspicuous oil or grease films, scums, foams, or floatable or suspended materials
- b) Soluble carbonaceous biochemical oxygen demand (scBOD<sub>5</sub>) exceeding 2 g/m<sup>3</sup> at flows less than flood flows
- c) Particulate organic matter (POM) exceeding 5 g/m<sup>3</sup> at flows less than median
- d) The annual median concentration of Ammoniacal-N exceeding 0.24 g/m<sup>3</sup> as measured in monthly samples collected across any consecutive 12 month period.
- e) The annual 95<sup>th</sup> percentile concentration of Ammoniacal-N exceeding 0.4 g/m<sup>3</sup> as measured in monthly samples collected across any consecutive 12 month period.

*Note: The Ammoniacal-N limits in DW16 d) and e) are based on pH 8 and temperature of 20°C. Compliance with the limits shall be assessed after pH and temperature adjustment, based on temperature and pH measured at the time each sample is collected.*

DW17. The consent holder shall ensure that the wastewater discharge to Donalds Creek does not give rise to any of the following ecosystem health effects beyond the zone of reasonable mixing, measured at site D1 (Figure 2, Schedule 2):

- a) Bacterial and / or fungal slime growths visible to the naked eye as plumose growths or mats;
- b) A QMCI score:
  - i. Declining by more than 1.5 between upstream and downstream of the discharge during summer monitoring; and
  - ii. Falling below 4 during any other monitoring occasion, unless there is a corresponding decline in Donalds Creek upstream of the wastewater discharge.

## Receiving environment management response - following Stage 2 upgrade

DW18. Following commissioning of the clarification process (Stage 2 described in Table 2), when Donalds Creek, monitored through conditions DW12 and DW15, exceeds any or all of the triggers outlined in a) to f) below, a staged management response, as set out in the EMMP, shall be implemented.

- a) A daily minimum dissolved oxygen concentration of less than 4 g/m<sup>3</sup> unless this concentration is less than 4 g/m<sup>3</sup> within Donalds Creek at the monitoring location between U2 and U1, upstream of the wastewater discharge to Donalds Creek
- b) The autotrophic index exceeding a score of 450, unless this score is exceeded within Donalds Creek upstream of the wastewater discharge to Donalds Creek, between U2-U1
- c) A decrease in the QMCI of more than 20% between U2-U1 and D1 or D3
- d) QMCI score of 5 or lower at site D1 or D3, unless this score is lower than 5 within Donalds Creek at the monitoring location upstream of the wastewater discharge to Donalds Creek, between U2 and U1

- e) Periphyton cover (PeriWCC) shall not exceed 20% weighted composite cover at site D1 or D3, unless this percentage is exceeded within Donalds Creek at the monitoring location upstream of the wastewater discharge to Donalds Creek, between U2 and U1
- f) Periphyton biomass shall not exceed 50mg chlorophyll a/m<sup>2</sup> at site D1 or D3 in more than 8% of samples based on a minimum of three years of monthly monitoring unless this percentage is exceeded within Donalds Creek at the monitoring location upstream of the wastewater discharge to Donalds Creek

DL18A The Consent Holder shall respond to trigger value exceedances following, as a minimum, the staged management response set out in condition DW21A. The outcomes of any management response and recommended actions implemented shall be reported in the Annual Report required by condition G22, and as required in the Future Directions Report in condition G23.

### **Notification and investigation requirements**

DW19. In the event that monitoring undertaken shows exceedances of wastewater limits (conditions DW8 and DW9), surface water limits (conditions DW16 and DW17) or a treatment failure being detected, the consent holder shall:

- a) Take immediate steps to remedy and mitigate any adverse effects on the environment caused by an identified treatment failure
- b) Notify the Manager, Wellington Regional Council within 24 hours (from the date of the receipt of sample results) of the exceedance or treatment failure being detected. The notification shall include:
  - i. The parameter that has been exceeded or treatment process failure
  - ii. The location the exceedance was recorded
  - iii. Investigations that are being and/or will be undertaken on site to identify the cause of the exceedance, including the methodology for these investigations, and if other conditions of this consent are triggered
- c) Notify Health New Zealand (Te Whatu Ora, National Public Health Service), mana whenua and the Community Liaison Group, within 24 hours (from the date of the receipt of sample results) of the exceedance or treatment failure being detected
- d) Forward an incident report to the Wellington Regional Council, Health New Zealand (Te Whatu Ora, National Public Health Service), mana whenua and the Community Liaison Group, within seven (7) working days of the exceedance or treatment failure occurring, unless otherwise agreed with Wellington Regional Council
- e) The report required by condition DW19(d) shall describe:
  - iv. the manner and cause of the exceedance or failure/incident
  - v. measures taken to mitigate/control adverse effects
  - vi. measures to prevent recurrence including when these measures will be put in place

*Note: Mana whenua includes Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa, Ngāti Kahungunu ki Wairarapa Tamaki Nui Settlement Trust, Rangitāne Tū Mai Rā Trust and Wairarapa Moana Statutory Board.*

- DW20. Exceedance of the wastewater quality and freshwater quality triggers specified in conditions DW13 and DW18 will result in the implementation of a staged management response, as set out in the Environmental Monitoring Management Plan. The Consent Holder shall respond to trigger value exceedances following, as a minimum, the staged management response set out in condition DW21A. The outcomes of the management response and recommended actions implemented shall be reported in the Annual Report required by condition G22, and as required in the Future Directions Report in condition G23.

### **Environmental Monitoring Management Plan - Water**

- DW21. The Consent Holder shall prepare an Environmental Monitoring Management Plan (EMMP) providing details on all monitoring to be undertaken in accordance with conditions prescribed as part of this consent. The EMMP shall be submitted to the Wellington Regional Council for certification within 3 months following the commencement of this consent. The purpose of the EMMP is to set out:

- the environmental monitoring and methodologies to be used to monitor the effects of the FWWTP on the environment from the activities authorised by this consent
- the processes, and responsibilities for responding to compliance limits and trigger value exceedances
- reporting requirements for environmental data

The EMMP shall include, but not be limited to:

- a) The monitoring methods to be used, the monitoring frequency, and monitoring locations for wastewater and surface water. Methods and assessed metrics used for ecological monitoring must be consistent with national protocols
- b) Methods for ensuring comparison with compliance limits
- c) A process for responding to non-compliances
- d) A process for responding to trigger value exceedances as staged management responses.
- e) A protocol for reviewing the effectiveness of the EMMP.

The Consent Holder shall operate in accordance with the certified Environmental Monitoring Management Plan (EMMP).

- DW21A The Consent Holder shall respond to trigger value exceedances using the following staged management response as a minimum.

- a) When any trigger level is exceeded, notify and provide to the Manager within 30 days (from the date of the receipt of sample results) of the exceedance being detected:
  - i. A description of the parameter that was not met
  - ii. The findings of any additional sampling or testing undertaken to confirm the exceedance provided to the Manager
  - iii. An outline the investigations that are being and/or will be undertaken on site to identify the cause of the exceedance, including the methodology for these investigations, and if there is non-compliance with any other conditions of this consent as a result
  - iv. Findings of the investigations, including any treatment process failure, and outline any refinement of operations, where appropriate, to reduce the risk of exceedance

- b) In the Future Directions Report required by condition G23 include, for exceedances that could not be addressed by operational changes:
  - i. Documentation of the occurrence and cause of the exceedance
  - ii. Details of how these exceedances can be addressed through future wastewater management changes
- c) The outcomes of any management response and recommended actions implemented shall be reported in the Annual Report required by condition G22, and as required in the Future Directions Report in condition G23.

### **Riparian Planting and Management Plan**

DW22. The consent holder shall undertake planting as proposed in the application for a minimum width of 10 metres. The consent holder shall prepare a Riparian Planting and Management Plan (RPMP). The RPMP shall be submitted to the Wellington Regional Council for certification at least 20 working days prior to the riparian planting works commencing.

The RPMP shall include, but not be limited to:

- a) Plan(s) to scale showing the location, lengths and widths of all proposed areas to be planted.
- b) The species that are proposed to be planted, the size of the plants and the density of planting
- c) The provisioning and use of eco-sourced plants and that are appropriate to the locality
- d) A detailed timeline for proposed planting
- e) Details of pre-planting site preparation (clearing, mulching, fertilising)
- f) Details of the on-going maintenance of the planting including, but not limited to, the replacement of plants, future management, and eradication of pest plants
- g) Details of how plants will be protected from pest animals; and
- h) Details of the proposed monitoring and maintenance regime for the planting.

*Note: Where appropriate, the riparian planting should include plant species that will eventually provide beneficial shade to the stream.*

DW23. Subject to agreement by Wellington Regional Council, Flood Operations Team, the consent holder shall commence the riparian planting in the earliest planting season following commencement of consent and shall complete the planting as required in the RPP as soon as practicable.

## **[38965]: Discharge permit to discharge treated and UV disinfected wastewater onto or into land where a contaminant may enter water (groundwater)**

### **Stage 5 upgrade**

- DL1. The land application system (Stage 5 and Stage 6 completed) shall be commissioned and fully operational no later than six years from the commencement date of this consent.
- DL2. The design parameters of the land application system shall as a minimum meet the following requirements:
- a) The land application area will operate as a nutrient uptake operation nutrient with a nutrient removal rate of 40kg N/ha/yr
  - b) The land application comprises a surface or sub-surface deficit irrigation system
  - c) That any adverse hydrological effects on Wetland 1 are avoided
- DL2A. The wastewater land application system shall not result in:
- a) Any ponding of wastewater greater than 10m<sup>2</sup> more than 12 hours after irrigation has ceased at a location
  - b) The visible overland flow of wastewater
- DL3. The consent holder shall not:
- a) Discharge wastewater to land within 10 m of a property boundary and 10 m of surface water or natural inland wetland
  - b) Use the land application area for livestock grazing

### **Land Discharge Management Plan**

- DL4. The consent holder shall submit a Land Discharge Management Plan to the Manager for certification. The purpose of the LDMP shall be to detail the layout, operation and management of the land application system. Construction of Stage 5 shall not commence until the LDMP has been certified.

The Land Discharge Management Plan shall, as a minimum, include:

- a) Plans showing the layout of the land application systems
- b) Detailed specifications for the irrigation system including irrigation method, application rate (mm/hr) based on soil information provided in the consent application, flow monitoring instruments
- c) Details of any imported material including permeability requirements
- d) A detailed planting specification
- e) A detailed assessment of the system demonstrating it has been designed to avoid damage from flooding and avoid exacerbation of flood effects

- f) A description of how the system has been designed to avoid adverse environmental effects including maximising nutrient uptake and avoiding leaching events
- g) A description of how the system will be operated including:
  - i. Timing and duration of application of wastewater
  - ii. Rotation and resting of irrigation areas
  - iii. Methods and instruments used to measure soil moisture content and climatic data, such as rainfall, solar radiance, temperature, humidity, wind speed and wind direction
  - iv. Procedures to determine when and how much irrigation will occur on a daily basis
- h) Procedures for appropriate disposal of any byproduct of the land disposal system, including methods to avoid leachate discharge to land from geobag dewatering,
- i) A description of how the system will be maintained and inspected
- j) A description or plans showing the following:
  - i. that all stream crossings will be located outside of the Otawira Open Space Covenant
  - ii. riparian planting that will occur upstream of the Otawira Open Space Covenant consistent with the Riparian Planting and Management Plan
  - iii. that disturbance of the Otawira Open Space Covenant will be avoided
  - iv. that mature riparian vegetation will be avoided when installing piping infrastructure
- k) If mounds are to be used, their design shall include consideration of reducing the risk of any flooding effects

*Note: Condition G7 (Table 1) requires that the LDMP be updated 3 months prior to implementation of Stage 6.*

### **Bore monitoring**

- DL5. The consent holder must sample (subject to access) those bores identified as potentially at risk in the *Featherston Wastewater Disposal Groundwater modelling assessment* dated 12 February 2025 for *E. coli* monthly for a minimum of 12 months, prior to commissioning Stage 5.
- DL6. At least 3 months prior to commissioning Stage 5, the consent holder shall undertake a quantitative microbial risk assessment for the bores identified as potentially at risk in the *Featherston Wastewater Disposal Groundwater modelling assessment dated 12 February 2025*. The assessment should be provided in a report that includes results and analysis of all groundwater sampling undertaken at the site and in downgradient bores. If the risk assessment indicates an actual or potential increased pathogen risk to human health at any of the bores, the applicant shall:
  - a) Provide recommendations on further monitoring of bores
  - b) Provide mitigation measures for the bores (such as improving the treated effluent quality or providing an alternate source of water to the affected bore owners)
  - c) Prepare a groundwater response plan

The purpose of the assessment report and plan shall be to determine that any adverse effects on affected bore owners as a result of the discharge of wastewater to land will be adequately avoided or mitigated by the measures set out in the report and the groundwater response plan.



The consent holder shall submit the report to the Manager for certification that the report and plan meets the conditions of this consent.

- DL7. The consent holder shall implement the recommendations of the report prior to any discharge to the land application area. The consent holder shall comply with the certified groundwater response plan. Any amendments to the certified groundwater response plan shall be submitted to the Manager for certification, prior to implementation.

### **Flow monitoring**

- DL8. Prior to any discharge to a land application site, the consent holder shall install and then maintain at all times while discharging to the site, measuring equipment to monitor the wastewater flows to the land application site unless otherwise agreed in writing by the Wellington Regional Council. The device shall be maintained to ensure that the measurement error is no more than +/-5% (as required by condition DW5A).
- DL9. Flow measuring equipment (required for monitoring under condition DL8) shall be maintained at all times in accordance with the FWWTP Operations Management Plan required by condition G13 (which shall include reference to manufacturer's specifications).
- DL10. The Consent Holder shall record and maintain records of:
- a) instantaneous flow rates to the land application area(s)
  - b) the daily volume of wastewater discharge to the land application area(s)
  - c) locations of treated wastewater discharged to the land application area(s)
- DL11. The discharge of treated wastewater to land shall only be undertaken when there is a soil moisture deficit (3% soil moisture below average soil field capacity) that is greater than the depth of discharged wastewater.
- DL12. Wastewater discharge to land shall be prioritised over discharge to water whenever possible subject to the soil moisture restrictions set out in the LDMP as required by condition DL4.

### **Groundwater quality**

- DL13. Following commissioning of Stage 5, the following groundwater trigger level for nitrate-N will apply, being the greater of:
- a) Pre-land application benchmark nitrate-N concentration, as determined as the 95% Upper Confidence Limit (UCL) of 12 monthly samples collected from a downgradient monitoring well
  - b) 5.65 mg/l nitrate-N (equivalent to half of the Drinking Water Standards for New Zealand (2022)) maximum acceptable value for nitrate-N))
  - c) The maximum annual background nitrate-N concentration, measured as the rolling maximum of monthly groundwater samples from an upgradient monitoring well.

Exceedance of the groundwater quality trigger level will result in the implementation of a staged management response, as set out in the EMMP.

*Note: The pre-land application benchmarking can take place prior to Stage 5 commissioning.*

DL13A The Consent Holder shall respond to trigger value exceedances following, as a minimum, the staged management response set out in condition DW21A. The outcomes of the management response and recommended actions implemented shall be reported in the Annual Report required by condition G22, and as required in the Future Directions Report in condition G23.

### **Groundwater Monitoring**

DL14. For a period of 12 months prior, and then following commissioning of Stage 5, the Consent Holder shall carry out monitoring of groundwater for the parameters set out in Schedule 1 at the locations specified in Schedule 2 and shown in Figure 1 of Schedule 2, at the following frequencies:

- a) Continuous monitoring of groundwater levels
- b) Monthly monitoring for the basic suite of parameters outlined in Schedule 1
- c) Quarterly monitoring for the full suite of parameters outlined in Schedule 1

### **Soil Monitoring**

DL15. Following commissioning of Stage 5, the Consent Holder shall:

- a) Continuously measure and maintain records of soil moisture in the land application areas as specified in Schedule 2 and shown in Figure 1 of Schedule 2
- b) Undertake annual sampling of soils to which treated wastewater is applied at a distribution of one shallow sample per hectare of land application area. Samples shall be analysed for the parameters set out in Schedule 1.

### **Environmental Monitoring Management Plan – Land**

DL16. The Consent Holder shall prepare an Environmental Monitoring Management Plan (EMMP) providing details on all monitoring to be undertaken in accordance with conditions prescribed as part of this consent. The EMMP shall be submitted to the Wellington Regional Council for certification at least 3 months prior to commencing groundwater monitoring. The purpose of the EMMP is to set out:

- the environmental monitoring and methodologies to be used to monitor the effects of the FWWTP on the environment from the activities authorised by this consent
- the processes, and responsibilities for responding to limits and trigger level exceedances
- reporting requirements for environmental data

The EMMP shall include, but not be limited to:

- a) The monitoring methods to be used, the monitoring frequency, and monitoring locations
- b) Methods for ensuring comparison with compliance limits
- c) A process for responding to non-compliances
- d) A process for responding to trigger level exceedances as staged management responses
- e) reporting requirements for environmental data
- f) A protocol for reviewing the effectiveness of the EMMP

The Consent Holder shall operate in accordance with the certified Environmental Monitoring Management Plan (EMMP).

DL16A The Consent Holder shall respond to trigger value exceedances following, as a minimum, the staged management response set out in condition DW21A. The outcomes of any management response and recommended actions implemented shall be reported in the Annual Report required by condition G22, and as required in the Future Directions Report in condition G23.

**Stage 6 upgrade**

- DL17. Prior to implementation of Stage 6 (the expansion of the land application area from 3.5 ha to 7 ha including buffer areas) the Consent Holder shall provide to the Manager, a report assessing the efficacy of the land application system. The report shall include:
- a) An assessment of the overall effectiveness of the land application regime and its effects on the environment since its commissioning, supported by adequate monitoring information (including but not limited to soil investigations and surface and groundwater monitoring data).
  - b) A description of any changes made to the land application system since its commissioning, including but not limited to:
    - i. reasons why any such changes were required;
    - ii. description of effects (or operational constraints) that lead to those changes; and
    - iii. effectiveness of how those changes mitigated the effects and/or addressed operational constraints.
  - c) Any future changes to optimise land application performance and/or works required to mitigate identified adverse effects, including the reason for each of those changes and/or works.

## **[38966]: Discharge permit to discharge contaminants to air (odour) from the operation of the Featherston Wastewater Treatment Plant**

- AQ1. As assessed by a SQEP, there shall be no noxious, dangerous, offensive or objectionable odour to the extent that it causes an adverse effect at or beyond the boundary of the site. For any non-compliance with this condition, the outcomes of any management response and recommended actions implemented shall be reported in the Annual Report required by condition G22, and as required in the Future Directions Report in condition G23.

*Note: The site includes all parcels of land currently designated for the FWWTP and its operations, including the land application sites associated with discharging treated wastewater to land that are specified in this consent.*

- AQ2. The Consent Holder shall prepare an Air Management Plan (AMP) for the FWWTP. The AMP shall be submitted to the Wellington Regional Council for certification at least 3 months prior to Stage 2 commissioning. Operations under Stage 2 shall not commence until the AMP has been certified. The purpose of the AMP is to outline the operation and maintenance of the FWWTP and wastewater discharge systems, in order to avoid, remedy or mitigate any adverse odour effects arising from activities authorised under these consents, and shall address:
- the environmental monitoring and methodologies to be used to monitor the effects of odour from the FWWTP on the environment from the activities authorised by this consent
  - the processes, and responsibilities for responding to non-compliance under condition AQ1
  - reporting requirements for environmental data

The Air Management Plan shall include but not be limited to:

- a) A description of the treatment and disposal system components and their operation relevant to the management of odours including the inlet screen, wastewater ponds, land contact and land application (irrigation) systems, DAF and DAF sludge storage and handling (including offsite transport if relevant)
- b) Identification of the potential sources of odour from the normal and abnormal operations of the FWWTP
- c) A protocol for odour management including:
  - i. Routine operator odour monitoring on a minimum of a weekly basis, and reporting of all potential odour sources and processes, to identify trends and assess effectiveness of the odour management
  - ii. Making adjustments to equipment and processes as necessary in response to issues identified under condition AQ2 c) i above, and recording the outcomes
  - iii. Procedures for dealing with odour risk in relation to emergency discharge events, treatment failures or health and safety incidents
  - iv. Procedure for dealing with circumstances where equipment, or parts of the plant are offline or being fixed when one part of the plant is offline for maintenance or repair, and how odour compliance will continue to be achieved
  - v. Contingency measures to manage adverse odours, including keeping critical spare parts on site

- vi. Procedures for receipt of odour complaints, investigation and reporting, including establishment of a complaints register that requires recording of relevant information, including but not limited to meteorological data, actions taken, follow up with the complainant, and recommendations for minimising the risk of similar future incidents
  - vii. The methodology and minimum frequency of undertaking odour inspections and monitoring at the FWWTP site, including the land application and wetland/land discharge areas (once constructed and operational)
  - viii. A protocol for reviewing the effectiveness of the AMP
- d) Procedures and measures to avoid or manage odour related to DAF and pond sludge handling, covering either onsite or offsite disposal, depending on the method adopted. Measures to be considered should include but not be limited to:
- i. Ensuring maximum practicable distance between onsite disposal locations and sensitive receptors, having regard to higher risk meteorological conditions
  - ii. The use of chemical additives and / or smaller geobags to promoting faster dewatering / drying of sludge
  - iii. Ensuring that water draining from geobags is effectively captured and pumped back to the wastewater treatment process
  - iv. The use of odour neutralising sprays
  - v. The use of sealed onsite sludge storage, and limiting residence time, before offsite disposal
  - vi. Returning DAF sludge to the oxidation ponds for further maturation
  - vii. Measures to reduce the potential for odour nuisance from sludge handling, storage and disposal, including during any off site transport
  - viii. Ensuring that all design for sludge capture, processing, storage and dewatering enables retrofitting of air extraction for odour control, if that is practicable and proves necessary
- e) Procedures and measures to avoid or manage odour related to other aspects of the treatment facility, including but not limited to:
- i. Having regard to the matters covered by conditions DL2A to DL4, measures to reduce the potential for odour nuisance from wastewater irrigation, such as not irrigating if the soil is saturated
  - ii. Procedures for irrigation line flushing in the discharge to land area, to prevent odour issues
  - iii. A procedure for how DO will be continually monitored at representative locations in the oxidation ponds away from inlets and aerators and recorded, managed and reported. The procedure shall outline set points and trigger points for managing DO in the FWWTP ponds, designed to maintain DO at or above 1 mg/L

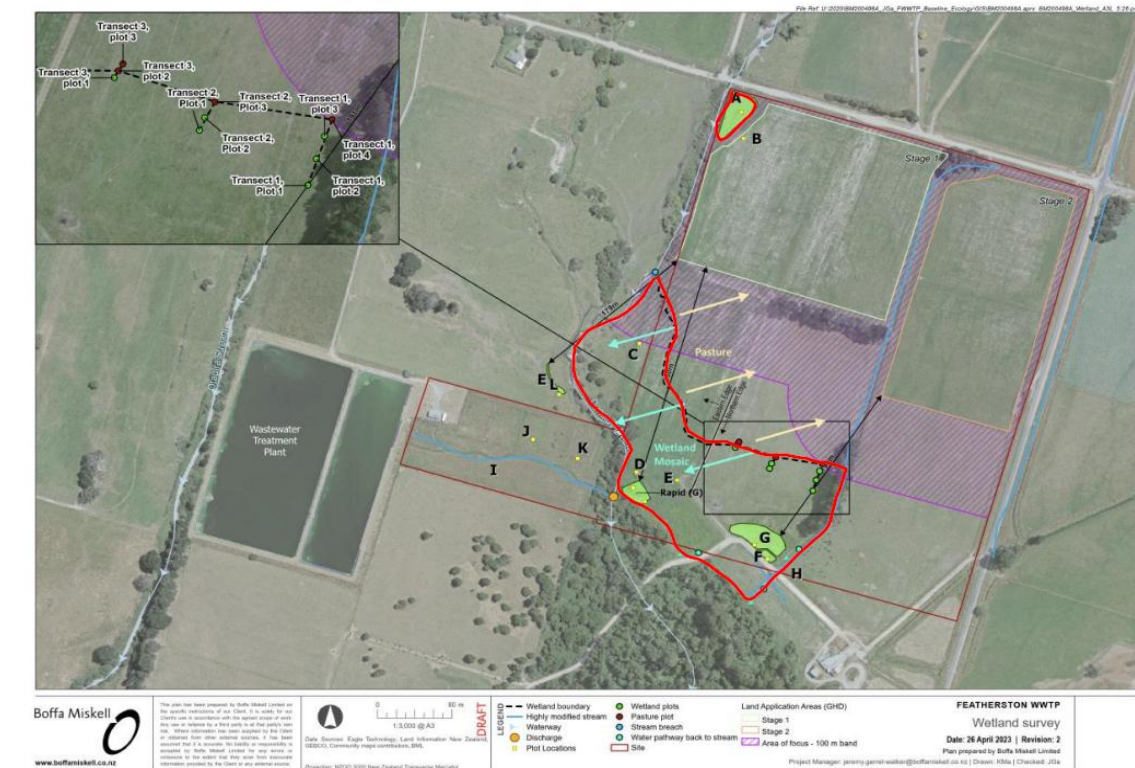
*Note: Monitoring continuous DO will identify any aeration issues in the oxidation ponds for odour management.*

*Pond sludge handling may require a further resource consent.*

- AQ3. The management of odour from the FWWTP and land application sites shall be undertaken in accordance with the odour management protocols and procedures prescribed in the certified AMP, and having regard to the matters covered by conditions DL2A to DL4.

## [38967]: Water permit for the diversion of water outside, but within 100m of a natural inland wetland

- WE1. Prior to commencement of any earthworks, the consent holder shall have a suitably qualified and experienced ecologist confirm the boundaries of all natural inland wetlands within the red boundary shown in the map below, and delineate the boundaries of the natural inland wetland(s) with flagging tape, construction fencing or bunting.



- WE2. The consent holder shall not undertake any earthworks within 10 m of any delineated natural inland wetland identified in condition WE1.
- WE3. The consent holder shall ensure that any earthworks and/or structures within 100 m of any natural inland wetland do not adversely affect the ecology or existing hydrological regime of the wetland.
- WE4. The CEMP shall outline details of the monitoring methodology and reporting process for earthworks occurring within 100m of a natural inland wetland. It shall include an adaptive management process in the case of drying of natural inland wetland habitat is observed, or if the wetland no longer meets the definition of a natural inland wetland. This monitoring methodology is to be followed for all earthworks undertaken in accordance with consent [38968] [40481] within 100 m of a natural inland wetland. As a minimum, monitoring should include:
- Two fixed photo point locations to be established as a visual monitoring tool as part of baseline and during and post construction monitoring;
  - Establish two permanent vegetation plots within Wetland 1; and

- c) Using rapid survey method, the consent holder must map the wetland extent and compare this to previous measurements.

The timeline for the above monitoring shall be: one baseline pre-construction measure, then quarterly during construction, and then bi-annually (twice yearly in spring and autumn) post construction.

- WE5. The monitoring undertaken in accordance with condition WE4, shall be undertaken by a SQEP and provided to the Manager after each monitoring session, as part of the quarterly in condition G21 and the annual report in G22. This reporting shall detail the monitoring method, results, and analysis of the wetland monitoring.
- WE6. Any direct or indirect effects to a natural inland wetland, due to construction of the land application area, or discharges from the treatment plant, need to be detailed in the quarterly report. If required, further measures to avoid or remedy these effects will be set out in the report. Remediation may include planting indigenous wetland species.
- WE7. If the natural inland wetland ceases to be defined as a natural inland wetland due to natural drying, then monitoring of the area may decrease to annually. If the area is defined as natural inland wetland on a repeat measure, then monitoring must increase back to biannual.

## **[38968]: Land use consent for earthworks associated with the construction of wetlands and a land application area**

## **[40481]: Discharge permit for the discharge of associated sediment-laden water from earthworks**

### **Discharge Quality**

- EW1. The consent holder shall ensure that any discharges to Donalds Creek (including any tributaries) do not give rise to any of the following, beyond the zone of reasonable mixing:
- a) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
  - b) Any conspicuous change in the colour; or
  - c) A decrease in water clarity of more than
    - i. 20% in a River class 1 and in any river identified as having high macroinvertebrate community health in Schedule F1 (rivers/lakes) identified the Wellington Regional Council Natural Resources Plan for the Wellington Region; or
    - ii. 30% in any other river; or
  - d) Any emission of objectionable odour; or
  - e) the freshwater is unsuitable for consumption by farm animals; or
  - f) any significant adverse effects on aquatic life.

### **Pre-construction site meeting**

- EW2. The consent holder shall arrange and conduct a pre-construction site meeting prior to any earthworks authorised by this consent commencing and invite, with a minimum of 5 working days' notice, the Manager.

The pre-construction meeting must not occur before the following management plans have been certified by the Manager:

- Construction Environmental Management Plan
- Erosion and Sediment Control Plan

*Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.*

- EW3. The Consent Holder shall prepare a **Construction and Environmental Management Plan (CEMP)**. The purpose of the CEMP is to confirm the management procedures and construction methods to be used, in order to avoid, remedy or mitigate any adverse effects arising from earthworks activities authorised under these consents.

The CEMP shall include, but not be limited to, the following details:

- a) Roles and responsibilities and contact details of key site personnel



- b) Identification of experienced person(s) to manage the environmental issues on site
- c) Procedures for ensuring that residents, network utility operators, road users in the immediate vicinity of construction areas are given prior notice of the commencement of construction, the location of the work, and are informed about the expected duration and effects of the work
- d) Erosion and sediment control plan (requirements outlined in condition EW4), including where relevant a description of how the requirements of the Erosion and Sediment Control Guidelines for the Wellington Region (2021) will be met
- e) Details of the construction programme and the staging approach for construction works.
- f) Procedures for the refuelling and maintenance of plant and equipment
- g) Appropriate management triggers that initiate on-site investigation of erosion and sediment controls and supporting monitoring and reporting measures
- h) A site layout plan showing the location of the proposed earthworks, erosion and sediment controls and any stockpile locations
- i) Fish rescue and relocation protocols for works in aquatic habitat
- j) Final construction methodology
- k) Monitoring, inspection and remediation methods in the event of an unforeseen discharge event which results in unacceptable levels of sediment being deposited in wetland or aquatic habitat, or a change in wetland water levels as a result of the earthworks
- l) Emergency and incident response procedures
- m) Protocols for cleaning plant and machinery prior to entering the Project site
- n) Procedures for avoiding stream bed and bank disturbance during construction, such as a physical demarcation of a 10 m buffer from Donalds Creek.

### Erosion and Sediment Control Plan

EW4. The consent holder must submit an Erosion and Sediment Control Plan (ESCP) to the Manager for certification at least **20 working days** prior to the proposed date of commencement of the earthworks authorised by this consent. The purpose of the ESCP is to show what measures, procedures and methodologies will be put in place to manage the actual and potential erosion and sediment discharge related risks and effects.

The ESCP must be prepared by a SQEP and must be in accordance with the ESC Guide for Land Disturbing Activities in the Wellington Region.

The ESCP must include the following information, plans and details as a minimum:

- a) Responsibilities and contact details of all parties responsible for the construction, inspection or maintenance of erosion and sediment controls;
- b) The locations of any rivers, streams, wetlands, waterbodies and stormwater drainage;
- c) Areas and cross-sections of cut and fill;
- d) The extent of soil disturbance and vegetation removal;
- e) Any areas that will remain undisturbed, including wetlands and riparian vegetation to be retained;

- f) Locations of all temporary stockpiles, permanent spoil deposition areas, access roads and stabilised construction entrances;
- g) Nature of progressive site rehabilitation proposed;
- h) All erosion and sediment control measures, including diversion channels, and staging details for those measures;
- i) The catchment boundaries and areas of all sediment control devices;
- j) The specific locations of all points of discharge to the receiving environment, including to the stormwater network;
- k) Details of the methodology for undertaking any monitoring required by conditions of this consent, including location for upstream and downstream (at zone of reasonable mixing) water quality monitoring; and
- l) Any other relevant site or information required to demonstrate compliance with the ESC Guide for the Wellington Region or consent conditions.

*Note: It is recommended that the ESCP is prepared with input from the contractor undertaking the works.*

- EW5. Works authorised by this consent shall not commence until the consent holder has received notice in writing that the ESCP has been certified by the Manager.
- EW6. The consent holder shall undertake all works and install, operate, monitor and maintain all erosion and sediment controls in accordance with the certified ESCP, unless otherwise approved in writing by the Manager.

### **As-builts**

- EW7. At least 2 working days prior to the commencement of works authorised by this consent, the consent holder shall provide the Manager with 'as-built' plans and details, which have been prepared and signed by a SQEP, confirming that the erosion and sediment controls have been constructed in accordance with the ESCP.

*Note: For sediment retention ponds, as-built check sheets are available on the Wellington Regional Council's website at the following link: [gw.govt.nz/earthworks](http://gw.govt.nz/earthworks).*

*For other ESC measures, as-built information for the purpose of this condition may include:*

- *A signed copy of the certified ESCP with a statement that the ESC measure has been constructed in accordance with the certified ESCP. This statement may include the relevant construction quality check sheet for the ESC measure from Appendix C1.0 of the ESC Guidelines for the Wellington Region; and*
- *Photographs of each control measure as constructed.*

### **Stabilisation**

- EW8. The consent holder must progressively stabilise all disturbed or un-stabilised areas in accordance with the staging plan and progressive site rehabilitation details set out in the ESCP and ESC Guide

for Land Disturbing Activities in the Wellington Region. Upon completion of works authorised by this consent, the entire site shall be stabilised.

### Site audits

EW9. During works authorised by this consent, and until the site has been permanently stabilised, the consent holder shall have the site and erosion and sediment control measures audited by a SQEP.

The audits must identify whether all erosion and sediment controls have been installed, operated and maintained in accordance with the ESCP and ESC Guide for Land Disturbing Activities the Wellington Region, and identify any steps or measures required to ensure compliance is achieved.

The audits required by this condition must be undertaken:

- a) on a minimum of a weekly basis (unless a reduced frequency is approved in writing by the Manager); and
- b) as soon as practicable and within 24 hours after a rainfall event greater than 7mm in 1 hour, or 20mm in 24 hours.

Each audit must be recorded in writing and submitted to the Manager within 2 working days of completing the audit, unless an alternative timeframe is approved by the Manager.

*Note: Any site audits carried out by Wellington Regional Council or its contractors do not constitute the audits required by this condition.*

### Monitoring Response

EW10. In the event that there is a failure or malfunction of any erosion and sediment control measure, or any other unauthorised discharge of contaminants, that results in a discharge either directly or via land to a waterbody or local authority stormwater infrastructure;

The consent holder shall:

- a) As soon as practicable and within 24 hours of identifying the incident, notify the Manager of the incident;
- b) As soon as practicable investigate the cause of the incident and implement changes required to prevent a reoccurrence;
- c) Take photographs of the discharge point, and upstream and downstream of the discharge point;
- d) Re-establish erosion and sediment control measures as soon as practicable in accordance with the ESCP;
- e) Within **5 working days** of the incident occurring, provide a written report to the Manager including the following information:
  - Date and time of the incident
  - Weather conditions prior to and during the incident
  - Photographs required by c)
  - Investigations undertaken
  - Cause of the incident
  - Response actions taken
  - Lessons learnt and actions taken to prevent a recurrence

### **Works During Winter (1 June to 30 September)**

- EW11. The Consent Holder may undertake earthworks across the site during the period between 1 June and 30 September inclusive (winter works period) each year, provided those works are undertaken in accordance with a certified Winter Works Erosion and Sediment Control Plan (WWESCP).
- EW12. Unless otherwise authorised by the WWESCP, all areas where earthworks have been undertaken shall be stabilised during the winter works period each year.
- EW13. At least 20 working days prior to undertaking earthworks provided for by condition EW11 during the winter works period, the Consent Holder shall submit a Winter Works Erosion and Sediment Control Plan (WWESCP) to the Manager for certification.

The purpose of the WWESCP is to:

- Ensure that specific and effective erosion and sediment control measures are in place for any earthworks undertaken during the winter works period
- Demonstrate how effective measures will be implemented to minimise the potential for sediment discharge or other environmental harm, beyond the boundary of the site or to sensitive receiving environments, having regard to the increased frequency, severity, and duration of rainfall, increased groundwater levels, and reduced soil infiltration during the winter works period.
- Minimise the potential for sediment discharge and safeguard receiving environments.

The WWESCP shall be prepared in consultation with the contractor undertaking the works and a SQEP. The WWESCP shall be prepared in accordance with the ESC Guide for the Wellington Region.

The WWESCP shall include all the erosion and sediment control information and requirements specified in condition EW4 (Erosion and Sediment Control Plan) and address the following:

- a) Drawings and written description of:
- i. The scope and location of earthworks intended to be undertaken during the winter works period;
  - ii. The areas of land that will be stabilised (and maintained as stabilised) prior to and throughout the winter works period;
  - iv. How earthworks will be staged to minimise the area of land that is unstabilised during the winter works period;
  - v. Effective methods of progressive stabilisation that will be used for each stage, that account for the time of year that the stabilisation will be applied;
  - v. In addition to maintaining existing erosion and sediment control measures provided for by the certified ESCP, any further measures that the consent holder considers may be necessary to achieve effective erosion and sediment control for each stage;
- b) A summary of the site's compliance and monitoring history (if any), including any recorded incidents, the results of any monitoring, efficiency of existing controls, and the outcomes of

any site inspections that relate to earthworks or erosion and sediment control measures, and how this has been taken into account when preparing the WWESCP.

No earthworks shall occur during the winter works period until the consent holder has received notice in writing that the Winter Works Erosion and Sediment Control Plan has been certified by the Manager.

### Decommissioning

- EW14. The consent holder must not remove or decommission any erosion or sediment control measure until the contributing catchment for the erosion or sediment control measure is completely stabilised. Written notice must be provided to the Manager prior to the removal or decommissioning of each erosion or sediment control measure. Written notice must include evidence of stabilisation and be signed off by SQEP confirming that the contributing catchment for the erosion or sediment control measure is completely stabilised.

### Cuts and Fill

- EW15. All fill material used on site shall be restricted to natural material such as clay, soil and rock, and inert material such as concrete and brick, which, when buried, will have no adverse effect on people or the environment.

*Note: Rule R82 (Discharges from contaminated land) of the Natural Resources Plan will apply to any imported or insitu material worked on the site. If the activity does not meet the permitted standards under Rule R82, consent will be required under Rule R83 (Investigation of, or discharges from contaminated land – discretionary activity).*

- EW16. All permanent or final cut and fill surfaces must be completed and stabilised so as to prevent erosion or instability. Any erosion of soil, including failure of cut and fill batters, that is attributable to the works shall be contained, remedied and/or mitigated by the consent holder.

### Discovery of artefacts

- EW17. If koiwi, taonga, waahi tapu or other archaeological material is discovered in any area during the works, the consent holder must immediately cease all work and within 12 hours notify the Manager, Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa and Heritage New Zealand in writing. If human remains are found, the New Zealand Police must also be notified immediately. The consent holder shall allow the above parties to inspect the site and, in consultation with them, identify what needs to occur before work can resume.

Notification must be emailed to

- Greater Wellington Regional Council, [notifications@gw.govt.nz](mailto:notifications@gw.govt.nz)
- Heritage New Zealand, [information@heritage.org.nz](mailto:information@heritage.org.nz)
- Rangitāne o Wairarapa, [horipo@rangitane.iwi.nz](mailto:horipo@rangitane.iwi.nz) or [taiao@rangitane.iwi.nz](mailto:taiao@rangitane.iwi.nz)
- Ngāti Kahungunu ki Wairarapa, [mariana@kahungunuwairarapa.iwi.nz](mailto:mariana@kahungunuwairarapa.iwi.nz)
- Wairarapa Moana Statutory Board – [christine@wmsb.org.nz](mailto:christine@wmsb.org.nz)
- Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua Settlement Trust, [resource.consent@kkwtmr.org.nz](mailto:resource.consent@kkwtmr.org.nz)

- Rangitāne Tū Mai Rā Trust - [info@tumaira.nz](mailto:info@tumaira.nz)

Heritage New Zealand must also be contacted by phone on 04 472 4341 (National Office).

No works may resume on site until the consent holder has provided to the Manager written notification that consultation with the parties identified above has been undertaken.

*Note: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.*

### Earthworks near wetlands

- EW18. The Consent Holder shall not undertake any earthworks within 10 m of any natural inland wetland delineated in accordance with WE1.
- EW19. The Consent Holder shall ensure that any earthworks and/or structures within 100 m of any natural inland wetland do not adversely affect the ecology or existing hydrological regime of the wetland.

### GENERAL NOTES

- a) Where conditions require the submission of information to the Manager, information can be emailed to [notifications@gw.govt.nz](mailto:notifications@gw.govt.nz). Please include the consent reference WAR230290 and the name and phone number of a contact person responsible for the information submitted.
- b) A resource management charge, set in accordance with section 36(2) of the Resource Management Act 1991, is payable to the Wellington Regional Council for the carrying out of its functions in relation to the administration, monitoring, and supervision of resource consents and for the carrying out of its functions under section 35 (duty to gather information, monitor, and keep records) of the Act.
- c) The Wellington Regional Council is entitled to recover from the consent holder the costs of any s128 RMA review, calculated in accordance with and limited to the Council's scale of charges in force and applicable at that time pursuant to section 36 of the Resource Management Act 1991.
- d) The granting of this resource consent does not provide the consent holder with the right to access private properties. Landowner entry requirements need to be gained and be in place before you may exercise this consent can be exercised.
- e) Additional resource consents from your local city or district council may be required. You are advised to contact your local city or district council prior to commencing works.
- f) Section 322 of the Resource Management Act allows any Enforcement Officer to enter the property at all reasonable times for the purpose of carrying out inspections to determine whether or not this consent is being complied with, or to take samples.

**SCHEDULE 1: Sample analyte suite for Soil and Groundwater**

| <b>Activity:</b>   | <b>Soil</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Groundwater</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Frequency:</b>  | <b>Annually</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Monthly</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Quarterly</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Parameters:</b> | <ul style="list-style-type: none"> <li>▪ pH (pH units)</li> <li>▪ Electrical conductivity (µS/cm)</li> <li>▪ Total carbon (%)</li> <li>▪ Total nitrogen (%)</li> <li>▪ Total phosphorous (%)</li> <li>▪ Phosphorous retention (%)</li> <li>▪ Potassium (me/100g)</li> <li>▪ Calcium (me/100g)</li> <li>▪ Magnesium (me/100g)</li> <li>▪ Sodium (me/100g)</li> <li>▪ Cation Exchange Capacity (me/100g)</li> <li>▪ Base Saturation (%)</li> <li>▪ Anaerobically Mineralisable N (µg/g)</li> <li>▪ Exchangeable Sodium Percentage (ESP)</li> <li>▪ Hydraulic Conductivity Core Testing (K<sub>sat</sub> &amp; K<sub>-40</sub>)</li> </ul> | <ul style="list-style-type: none"> <li>▪ pH (pH units)</li> <li>▪ Electrical conductivity (µS/cm)</li> <li>▪ Temperature (°C)</li> <li>▪ Dissolved Oxygen (g/m<sup>3</sup>)</li> <li>▪ Nitrate nitrogen (g/m<sup>3</sup>)</li> <li>▪ Nitrite nitrogen (g/m<sup>3</sup>)</li> <li>▪ Ammoniacal nitrogen(g/m<sup>3</sup>)</li> <li>▪ Total Kjeldahl nitrogen (g/m<sup>3</sup>)</li> <li>▪ Total Nitrogen (g/m<sup>3</sup>) (by calculation)</li> <li>▪ Dissolved Reactive Phosphorous (g/m<sup>3</sup>)</li> <li>▪ E.Coli (MPN/100mL)</li> </ul> | <ul style="list-style-type: none"> <li>▪ pH (pH units)</li> <li>▪ Electrical conductivity (µS/cm)</li> <li>▪ Temperature (°C)</li> <li>▪ Dissolved Oxygen (g/m<sup>3</sup>)</li> <li>▪ Nitrate nitrogen (g/m<sup>3</sup>)</li> <li>▪ Nitrite nitrogen (g/m<sup>3</sup>)</li> <li>▪ Ammoniacal nitrogen(g/m<sup>3</sup>)</li> <li>▪ Total Kjeldahl nitrogen (g/m<sup>3</sup>)</li> <li>▪ Total Nitrogen (g/m<sup>3</sup>) (by calculation)</li> <li>▪ Dissolved Reactive Phosphorous (g/m<sup>3</sup>)</li> <li>▪ E.Coli (MPN/100mL)</li> <li>▪ Calcium (g/m<sup>3</sup>)</li> <li>▪ Magnesium (g/m<sup>3</sup>)</li> <li>▪ Sodium (g/m<sup>3</sup>)</li> <li>▪ Potassium (g/m<sup>3</sup>)</li> <li>▪ Alkalinity (g CaCO<sub>3</sub>/m<sup>3</sup>)</li> <li>▪ Sulphate (g/m<sup>3</sup>)</li> <li>▪ Chloride (g/m<sup>3</sup>)</li> <li>▪ Dissolved iron (g/m<sup>3</sup>)</li> <li>▪ Dissolved Manganese (g/m<sup>3</sup>)</li> </ul> |

**SCHEDULE 2: Monitoring locations**

| Groundwater                                          | Surface Water                                                                                                                  | Soil                                                                      | Wastewater                             |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------|
| GW06<br>GW07<br>GW08<br>GW09<br>GW11<br>GW12<br>GW13 | SW1<br>SW2<br>SW3<br>SW7                                                                                                       | SL1<br>SL2<br>SL3<br>SL4<br>SL5                                           | Post UV<br>Post sub surface<br>wetland |
|                                                      | Monitoring will also be undertaken in the central drainage channel in the land application area, new location to be confirmed. | Monitoring locations for Stage 2 to be confirmed prior to implementation. |                                        |

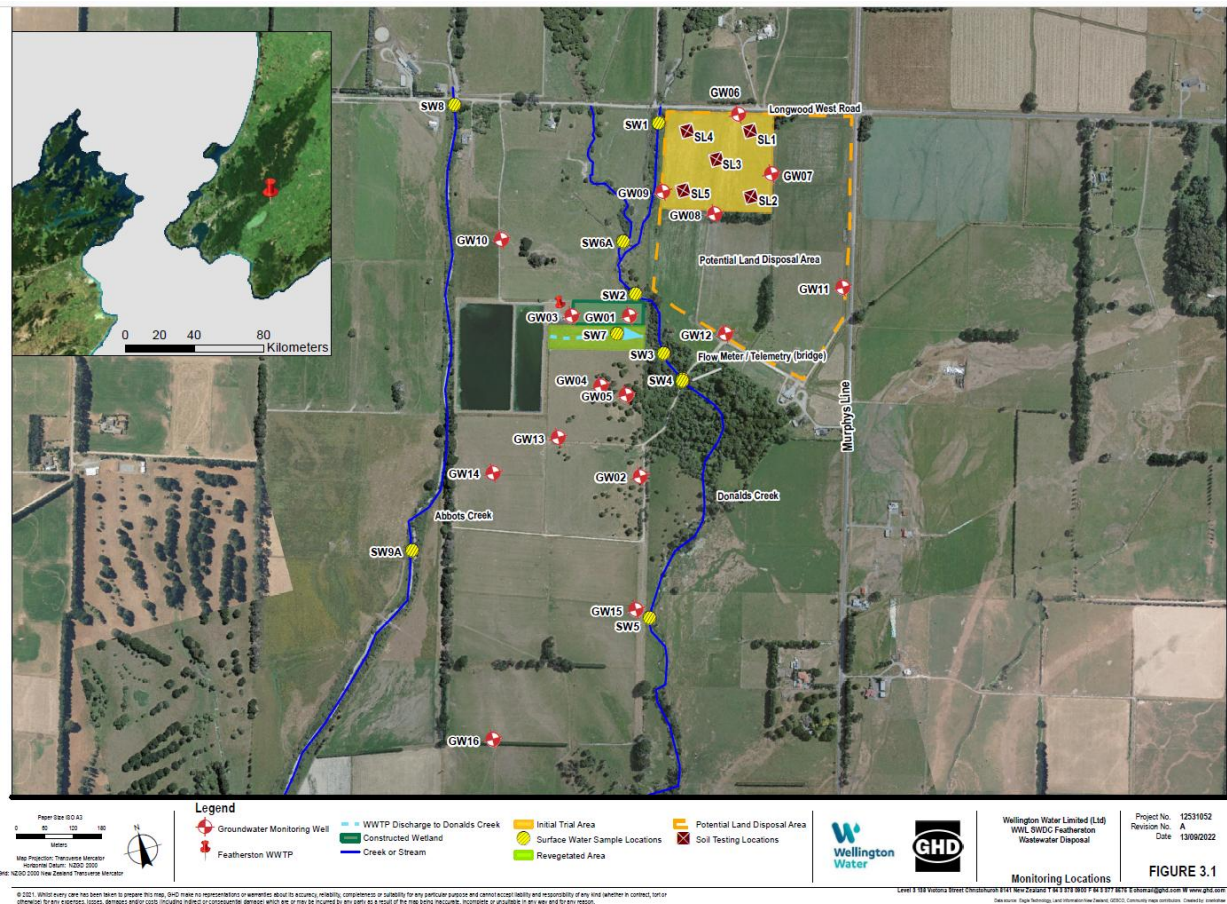
**Figure 1: Monitoring Locations**



Figure 2: Donalds Creek Ecosystem Health Monitoring Locations

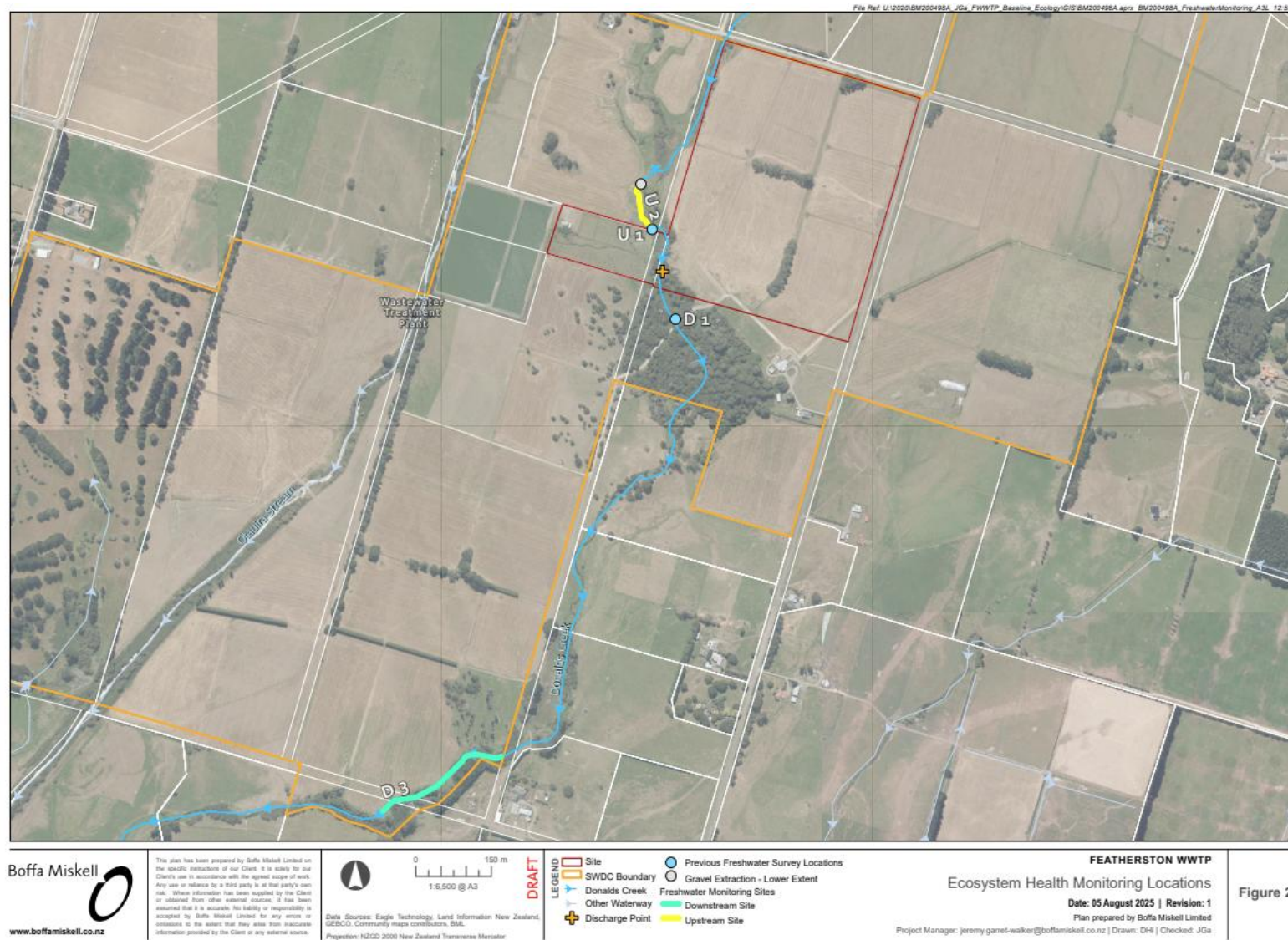


Figure 2