# **Wastewater Treatment Plant Discharges**

**Purpose:** To undertake the following activities associated with the operation of the Kaitāia Wastewater Treatment Plant (Kaitāia-WWTP):

**AUT.000932.01.04**: To discharge treated wastewater to the Awanui River on Pt Lot 4A DP 4093 Blk V Takahue SD, at or about location co-ordinates 1620752E 6114931N.

**AUT.000932.02.03**: To discharge contaminants (primarily odour) to air from the Kaitāia-WWTP presently located on Section 87 Blk V Takahue SD, at or about location coordinates 1620595E 6114496N.

**AUT.000932.03.03**: To discharge contaminants to ground via seepage from the Kaitāia-WWTP located on Section 87 Blk V Takahue SD, at or about location co-ordinates 1620595E 6114496N.

### General

- 1. All activities to which this resource consent relates shall be undertaken generally in accordance with the information contained in the resource consent application documents and subsequently provided further application information including the following, in order of precedence:
  - (a) any documentation that has received written certification under the conditions of this consent from the Northland Regional Council (NRC).
  - (b) response to section 92 (Resource Management Act 1991 (RMA)) request for information dated xxx [IF APPLICABLE].
  - (c) the application, assessment of effects and supporting documentation (NRC doc 20212986)

Where there is any inconsistency between the application documentation and these resource consent conditions, the resource consent conditions shall prevail, and more recent documents must take precedence.

#### Influent / Effluent Quantity Monitoring

- 2. The Consent Holder must measure and record the daily wastewater inflow volume to the Kaitāia-WWTP and outflow from the Kaitāia-WWTP, with an accuracy of  $\pm 5\%$ .
- 3. The Consent Holder must verify that the meters required by Condition 2 are accurate. This verification must be undertaken prior to 30 June:
  - (a) following the first exercise of these consents; and
  - (b) at least once in every five (5) years thereafter.

The verification must be undertaken by a suitably qualified and experienced practitioner (SQEP). Written verification of the accuracy must be provided to NRC by 31 July following the date of verification.

- 4. Within six (6) months of the commencement of this consent, the Consent Holder must install a rainfall gauge, and then record daily, the local rainfall over a 24-hour period on days that treated wastewater discharges are occurring.
- 5. The results of the records (data) referred to in Condition 2 and 4 must be kept by the Consent Holder for the duration of this resource consent. These records must be in a format agreed to by the NRC, and:
  - (a) provided to the NRC and/or Kaitiaki Forum (KF) upon request,
  - (b) presented in the Annual Monitoring Report (AMR) required by condition 53.

### **Effluent Discharge Volume Limits**

6. The volume of treated wastewater discharged to the Awanui River must not, based on a 30-day rolling average of dry weather discharges, exceed 3,200 cubic metres. Compliance with this condition must be based on the average of the 30 most recent "dry weather discharge days".

### Advice Notes:

- 1) A "dry weather discharge day" is any day on which there is less than 1 millimetre of rainfall, and that day occurs after three consecutive days either without rainfall or with rainfall of less than 1 millimetre on each day.
- 2) The rainfall measurements used to determine a dry weather discharge day must be based on the records obtained under condition 4.

### Kaitāia-WWTP Upgrades

- 7. The Consent Holder must by no later than five (5) years from commencement of this consent (or a later date agreed with NRC in the event of unexpected delays) upgrade the Kaitāia-WWTP. The objective of the upgrade is to meet the compliance limits required by condition 13, and to enhance the cultural health of the Awanui river, Tāngonge Wetlands, and their associated catchments. The Kaitāia-WWTP upgrades must:
  - (a) <u>include</u> in the design (but not be limited to):
    - i. upgrading of the septage receiving system with the installation of a new wet well and a mechanical screen;
    - ii. repair and upgrade outlet to Awanui River.
  - (b) <u>consider</u> in the design (but not be limited to):
    - i. de-sludging of the oxidation pond and maturation pond 1 and 2;
    - ii. decommissioning of maturation pond 2 and the wetland;
    - iii. installation of pond surface aerators in the oxidation pond and maturation pond 1 and baffle curtains in maturation pond 1; and
    - iv. installation of a new tertiary treatment system which will include considerations of the use of clarifiers, a chemical dosing system for phosphorus removal and UV units.

- v. other upgrades to meet condition 13.
- 8. The Consent holder must:
  - (a) develop and implement the design of the upgraded Kaitāia-WWTP in collaboration with the KF.
  - (b) appoint and provide the KF with technical support from an independent SQEP in wastewater engineering and other SQEPs as required that are certified by NRC as being independent, suitably qualified and having no conflict of interest;
  - (c) provide the final design of the upgrade works for certification that the upgrades will meet the water quality limits set out in condition 13; and
  - (d) advise NRC the anticipated timeframe for the upgrade to be implemented.

# Best Practicable Option (BPO) for Discharge of Treated Wastewater

- 9. The Consent holder must by no later than seven (7) years from commencement of this consent (or a later date agreed with NRC in the event of unexpected delays) provide a BPO Report (BPO Report) to the NRC which assesses the options for discharging treated wastewater from the Kaitāia-WWTP. The BPO Report must include a recommendation as to what the BPO is for long-term discharge of wastewater from the Kaitāia-WWTP. The assessment must include the option of discharging the treated wastewater to land and must identify the costs and benefits of all practicable discharge options. The assessment of options must be undertaken by a SQEP and be prepared in collaboration with the KF.
- 10. The Consent holder must:
  - (a) develop the BPO Report and undertake the assessment of options in collaboration with the KF;
  - (b) appoint and provide the KF with technical support from an independent SQEP in wastewater engineering and other SQEPs as required for the intended receiving environment (i.e. land disposal) with this SQEP being certified by NRC as being independent, suitably qualified and having no conflict of interest; and
  - (c) in the event the BPO is a change to the current authorised discharge, advise NRC whether or not it is committing to the BPO and, if so, the anticipated timeframe for this BPO to be implemented.

#### Wastewater Discharge Limits

11. Notwithstanding any other conditions, for the duration of the consent, the exercise of these consents must comply with the following limits and outcomes in Table 1, as measured at NRC Monitoring Site 100370:

# Table 1: Ongoing Instream Limits / Outcomes

Parameter	Unit	Outcome
Natural temperature	Degrees Celsius	To not cause a change of ≤3C degrees Celsius for the summer period measurement of the Cox- Rutherford Index averaged over the five (5) hottest days;
рН	Unitless	To not fall outside a range of 6.0 and 9.0;
Dissolved oxygen (DO)	mg/L	To not reduce by more than 20% when compared with the water quality at NRC Monitoring Site 100369;
DO	mg/L	To not reduce below a 7-day mean minimum of 5.0 mg/L and a 1-day minimum of 4.0 mg/L.
Water clarity	m	To not reduce by more than 30% when compared with the water quality at NRC Monitoring Site 100369.
Solids and visuals	Unitless	To not result in conspicuous oil or grease films, scums or foams, floatable or suspended materials

12. Until the Consent Holder gives effect to Condition 7, the exercise of these consents must comply with the following limits and outcomes in Table 2, as measured at NRC Monitoring Site 100370:

# **Table 2: Interim Instream Outcomes**

Parameter / Effect	Unit	Outcome				
Acute toxicity or significant adverse effects of chronic toxicity to natural aquatic life.	N/A	To not result in acute toxicity or significant adverse effects of chronic toxicity to natural aquatic life by reason of a concertation of toxic substances. Compliance with this requirement is determined from the results of whole effluent toxicity (WET) monitoring in accordance with the WET Testing Monitoring Programme in Schedule 1(2) (attached);				
Escherichia coli (E. coli).	#/100 mL	To not result in significant increase when compared with the water quality at NRC Monitoring Site 100369; and				
Total Ammoniacal	g/m <sup>3</sup>	To not exceed the following:				
Nitrogen (NH <sub>3</sub> + NH <sub>4</sub> -		pH of Water at the TAN time of sampling				
N) (TAN).		6.0 2.57				
		6.1 2.56				
		6.2 2.54				
		6.3 2.52				
		6.4 2.49				
		6.5 2.46				
		6.6 2.43				
		6.7 2.38				
		6.8 2.33				
		6.9 2.26				

7.0	2.18	
7.1	2.09	
7.2	1.99	
7.3	1.88	
7.4	1.75	
7.5	1.61	
7.6	1.47	
7.7	1.32	
7.8	1.18	
7.9	1.03	
8.0	0.90	
8.1	0.30	
8.2	0.76	
8.3	0.56	
8.4	0.48	
8.5	0.40	
8.6	0.34	
8.7	0.29	
8.8	0.24	
8.9	0.21	
9.0	0.18	

After the Consent Holder gives effect to Condition 7 and compliance with limits in Condition 13 takes effect, Condition 12 ceases to require compliance with.

13. After the Consent Holder gives effect to Condition 7, the following limits in Table 3 apply to the treated effluent:

# Table 3: Long-term Effluent Limits

Parameter	Unit	Metric	Limit
TAN	g m³	Mean	3
	-	95 <sup>th</sup> Percentile	5
Nitrate-Nitrogen	g m <sup>3</sup>	Mean	13
(NO <sub>3</sub> -N) (Nitrate-N)	-	95 <sup>th</sup> Percentile	14
Dissolved Reactive Phosphorus (DRP)	g m³	Mean	<1.5
E. coli	#/100mL	Median	<260
		95 <sup>th</sup> Percentile	<1,200

- 14. After 12 months of the Kaitāia-WWTP Upgrade being commissioned in accordance with Condition 7, the Consent Holder shall engage a SQEP(s) to review the effect of the upgrade on:
  - (a) whether the discharge limits in Condition 13 have been achieved;
  - (b) the water quality in the Awanui River; and
  - (c) the cultural health of the Awanui River consistent with Condition 32(c) and 36(e).

The review must be undertaken in collaboration with the KF, and shall include:

- (a) an evaluation of the monitoring results with regard to the discharge limits in Condition 13;
- (b) an assessment of the improvement in water quality in the Awanui River and cultural indicators of health following the upgrade; and
- (c) a review of whether the discharge meets or will meet the relevant water quality guidelines or standards included within the relevant Regional Plan including any future target attribute states and limits on resource use.
- 15. A copy of this review shall be provided to the NRC and KF within 15 months of the Kaitāia-WWTP Upgrade being commissioned in accordance with Condition 7.

Advice note: If this review recommends that amendments to the discharge limits, receiving environment standards or implementation timeframes are necessary, then NRC may initiate a formal review of the consent in accordance with Condition 54.

### Influent, Effluent and Instream Quality Monitoring

- 16. The Consent Holder must monitor and maintain a record of the activities authorised by these consents in accordance with Schedule 1 (attached). The laboratory analysis results must be held by the Consent Holder and the record must include both the raw data and calculations used to determine compliance, be in a format agreed to by NRC and must be made available to NRC upon request.
- 17. The Consent Holder must provide and maintain easy and safe access to all sampling points listed in Schedule 1.
- 18. During periods when blue cyanobacteria is prominent in the wastewater treatment ponds, one triplicate sample must be taken fortnightly from NRC sampling site 100370 and analysed for total bacterial cell counts, biovolume equivalents for combined total of all cyanobacteria, biovolume of potentially toxic cyanobacteria and total microcystin concentrations.

19. In reference to Table 4, should:

- (a) situation (A) occur, the Consent Holder must undertake actions required in cell (C);
- (b) situation (B) occur, the Consent Holder must undertake actions required in cell (D);

as follows:

## Table 4: Cyanobacteria Situations and Actions

Situ	ation (A)	Actions required (C)		
	Biovolume equivalent of 0.5 to <1.8 mm <sup>3</sup> of potentially toxic cyanobacteria (see Tables 1 and 2 of the New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters (2009); and/or 0.5 to <10 mm <sup>3</sup> /L total biovolume of	a) b) c)	Increase sampling to at least weekly; and Notify the public health unit; and Notify NRC	
	all cyanobacterial material			
Situation (B)		Actions required (D)		
b)	<ul> <li>≥12 µg/L total microcystins or biovolume equivalent of ≥1.8 mm<sup>3</sup>/L of potentially toxic cyanobacteria and/or</li> <li>≥10 mm<sup>3</sup>/L total biovolume of all cyanobacteria material and/or Cyanobacterial scums are consistently present</li> </ul>	a) b) c)	Continue to monitor at least weekly; and If potentially toxic taxa are present, then consider testing samples for cyanotoxins; and Notify the public health unit.	

<u>Advice note 1</u>: The greatest potential for cyanobacteria is between spring and autumn.

<u>Advice note 2</u>: The Consent Holder should take reasonable steps to avoiding Situation A and B occurring and should they occur, take reasonable steps to minimise the duration of Situation A or B occurring.

- 20. Every three (3) years (starting 3 years after commencement of consent), the Consent Holder must review the influent flows and contaminant loads to assess trends and any required upgrades to the Kaitāia-WWTP (in order to remain in compliance with these conditions) for the next three (3) years. This must include:
  - (a) review of the influent and effluent data collected under condition 2 and 16 for the preceding three (3) years, and analysis of any trends;
  - (b) a review of best available information on possible future increases in population within the serviced area and predicted future wastewater flows and contaminant loads to the Kaitāia-WWTP; and
  - (c) any recommendation on whether the Kaitāia-WWTP needs to be upgraded to maintain compliance with or comply with the conditions of this consent, and associated timeframes and budget requirements.

# **Odour Discharges**

- 21. The Consent Holder's operations must not give rise to any discharge of contaminants to the air beyond the boundary of property owned by the Consent Holder, that is deemed by a NRC monitoring officer to be noxious, dangerous, offensive or objectionable.
- 22. A record must be kept of any significant odours beyond the Kaitāia-WWTP boundary. The record must identify the source and cause of any significant odour, duration of the odour, wind strength and direction, remedial action undertaken and the degree of

success of the remedial action. A copy of this record must be forwarded to the NRC and/or KF upon request.

### **Operating Regime**

23. The Consent Holder must prepare an Operations and Management Plan (OMP) for the Kaitāia-WWTP and submit this to NRC for certification within six (6) months of the commencement of this consent. The certification process in conditions 49 to 52 must apply.

<u>Advice note</u>: The Consent Holder must comply with condition 32(b) when preparing the OMP.

- 24. This OMP must provide details on at least the following:
  - (a) how the discharge of treated wastewater to the Awanui River will be operated and managed; and
  - (b) the maintenance schedule for the Kaitāia-WWTP, including the pump station, alarms and telemetry system.

Advice Note: The purpose of the OMP is to ensure good plant performance and compliance with conditions of these consents.

- 25. The OMP must also be reviewed and updated every five (5) years after the commencement of the consent and as required as a result of any substantial changes in plant operation or management. The certification process in conditions 49 to 52 must apply to the updated OMP.
- 26. The Consent Holder must operate and manage the Kaitāia-WWTP in accordance with the most recently certified OMP.
- 27. Notwithstanding Condition 26, the Consent Holder must maintain the Kaitāia-WWTP to ensure it operates effectively, and must provide a written record of all maintenance undertaken must be kept. A copy of this record must be forwarded to the NRC and/or KF upon request.
- 28. The Consent Holder must, on becoming aware of any unauthorised discharges associated with the Kaitāia-WWTP,
  - (a) immediately take such action, or execute such work as may be necessary, to stop and/or contain such escape; and
  - (b) immediately notify the NRC by telephone of an escape of contaminant; and
  - (c) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and
  - (d) notify the NRC in writing within one (1) week on the cause of the escape of the contaminant and the steps taken or being taken to effectively control or prevent such escape.

For telephone notification during the NRC's opening hours, the NRC's assigned monitoring officer for these consents must be contacted. If that person cannot be

spoken to directly, or it is outside of the NRC's opening hours, then the Environmental Hotline must be contacted.

<u>Advice Note</u>: The Environmental Hotline is a 24 hour, seven day a week, service that is free to call on 0800 504 639.

- 29. The Consent Holder must, for the purposes of adequately monitoring these consents as required under Section 35 of the RMA, maintain records of any complaints relating to the operation of these consents received by the Consent Holder, as detailed below:
  - (a) the name and address of the complainant (where provided);
  - (b) the date and time the complaint is received;
  - (c) the duration of the event that gave rise to the complaint;
  - (d) the location from which the complaint arose;
  - (e) the weather conditions prevailing at that time;
  - (f) any events in the management and operation of any processes that may have given rise to the complaint; and
  - (g) any actions taken by the Consent Holder, where possible, to minimise contaminant emissions.
- 30. The Consent Holder must:
  - (a) notify the NRC as soon as is practicable of any complaint received.
  - (b) send the records to the NRC immediately upon request.
  - (c) report any complaints in the AMR required by condition 53.

# **Cultural Wellbeing & Effects**

#### Kaitiaki Forum (KF)

- 31. Within one (1) month of the commencement of this consent, the Consent Holder must invite the following Tangata Whenua and representatives to join a KF:
  - (a) Te Rūnanga o Te Rarawa
  - (b) Ngāti Te Ao, Te Uri o Hina, Te Tahawai
  - (c) Ngāi Tohianga, Te Paatu, Patu Koraha
  - (d) Te Runanga o Ngāi Takoto
  - (e) Te Rūnanga Nui o Te Aupōuri

Advice Note: The purpose of the KF is to:

(a) recognise the importance of Awanui river, Tāngonge Wetlands, and their associated catchments as a taonga, and to recognise the authority and

obligations of Tangata Whenua as kaitiaki to make decisions that maintain, protect, and sustain the health and wellbeing of, and their relationship with these taonga; and

- (b) facilitate ongoing engagement with Tangata Whenua by providing a forum for discussion in respect of the implementation of this Consent, and of the activities authorised by this Consent; and
- (c) provide for the kaitiaki responsibilities and values of Tangata Whenua to be reflected in the plans and activities set out in the conditions of this consent; and
- (d) provide a forum for the Consent Holder to report and discuss the results of monitoring activities authorised under this consent with Tangata Whenua.

32. The KF must provide the opportunity for Tangata Whenua to:

- (a) input into the development of a Terms of Reference (ToR) for the KF. The ToR is to be reviewed at least annually or as set out in the ToR;
- (b) input into the drafting, preparation, and development of the plans (including but not limited to the Cultural Health and Wellbeing Monitoring Plan (CHWMP) and Riparian Planting Plan (RPP)) set out in the conditions of this consent;
- (c) input into the investigation, assessment, design and development of the Kaitāia-WWTP upgrade works required by condition 7;
- (d) review the effectiveness of the Kaitāia-WWTP upgrade required by condition 7 in mitigating cultural effects;
- (e) input into the investigation, assessment, design, and development of the BPO for the discharge of treated wastewater from Kaitāia-WWTP required by condition 7.
- (f) request and receive any records required to by kept under this consent;
- (g) review and make recommendations to the Consent Holder on any proposed changes to the plans set out in the conditions of this consent;
- (h) advise and make recommendations to the Consent Holder on monitoring outcomes which indicate a change in risk or threat to cultural values;
- advise and make recommendations to the Consent Holder on the appropriateness of any mitigation, response and contingency measures in the case of unexpected changes to effects on cultural values identified in (h) above;
- (j) input into the development of an eligibility and assessment criteria for an Environmental Enhancement Fund (EEF);
- (k) measure key performance indicators as set out in the CHWMP;
- (I) undertake any other activities and functions as set out in the ToR; and
- (m) record observations and receive responses in relation to the consent conditions and activities authorised under the consent.

33. The KF is to meet at least biannually or as determined in the ToR. The consent holder must prepare and circulate an agenda for each meeting and a record of these meetings presented to the KF members within one (1) month of the meeting and in the AMR required by condition 53.

### Funding Costs

- 34. The Consent Holder must fund the fair and reasonable costs associated with the:
  - (a) operation of the KF (as provided for in the ToR for the KF).
  - (b) development and delivery of the CHWMP.
  - (c) development and delivery of the RPP.
  - (d) operation of the EEF including development of the eligibility and assessment.

#### Cultural Health and Wellbeing Monitoring Plan

35. The Consent Holder must engage a SQEP in cultural practices to prepare the CHWMP.

<u>Advice Note 1:</u> The purpose of the CHWMP is to ensure the cultural values of Awanui and Tāngonge are protected, monitored, and reported upon, as set out in the conditions of this Consent, for the duration of Consent.

<u>Advice Note 2</u>: The Consent Holder must comply with condition 32(b) when preparing the CHWMP.

- 36. The CHWMP must meet the following requirements.
  - (a) has been prepared in collaboration with the KF;
  - (b) includes contact details, roles and responsibilities of key personnel who are responsible for implementing the CHWMP;
  - (c) provides for cultural health indicators;
  - (d) includes recommendations of key performance indicators (KPI's) to measure cultural wellbeing;
  - requires monitoring to be undertaken at least on an annual basis, and specifically following the upgrade of the Kaitāia-WWTP required by condition 7; or as determined otherwise by the KF;
  - (f) includes actual and potential effects that the CHWMP is designed to address;
  - (g) includes measures to be implemented to avoid, remedy or mitigate adverse effects of these issues;
  - (h) incudes details of contingency measures for events producing significant adverse effects;
  - (i) includes cultural monitoring details, including instruments to be used, parameters to be measured, alert levels and response actions for alerts;

- (j) includes procedures to be used to inform the KF and Tangata Whenua of abnormal or isolated actual or potential events; and
- (k) is consistent and integrated (where appropriate) with all other existing plans at the Site.
- 37. Unless a longer timeframe is agreed to by the KF, within twelve (12) months of the commencement of this Consent, the Consent Holder must submit the CHWMP to NRC for certification that it meets the purpose set out in condition 35. The certification process in conditions 49 to 52 must apply.
- 38. The Consent holder must engage a SQEP as identified by the KF to undertake cultural health and wellbeing monitoring in accordance with the certified CHWMP as per condition 35 of this consent.
- 39. Monitoring results are to be provided to the KF at least one (1) month prior to one of the meetings for that year, as per condition 33.

#### **Environmental Enhancement**

#### **Environmental Enhancement Fund**

40. The Consent Holder must establish an EEF. The purpose of the EEF is to support opportunities for environmental enhancement within the Awanui River catchment and the Lake Tangonge catchment.

The fund may support environmental initiatives in the following areas (or other items that provide a demonstrable positive environmental outcome) in accordance with this consent:

- (a) mātauranga;
- (b) monitoring and research;
- (c) active restoration and enhancement projects;
- (d) protection, enhancement, and maintenance of māhinga kai areas and resources;
- (e) educational or promotional activities that raise awareness of environmental issues;
- (f) pest management; and,
- (g) maintenance.
- 41. The Consent Holder must invite the KF to govern the EEF. The Consent Holder must ensure that the party responsible for governing the EEF:
  - (a) determines a forward workplan;
  - (b) determines which initiatives will receive funding; and
  - (c) determines how the funds are to be allocated.

- (d) provides evidence that the funds are contributing towards a positive environmental outcome or cultural outcome as it relates to the effects of the wastewater discharge.
- (e) reviews the effectiveness of the monetary contribution towards achieving a positive environmental outcome.
- 42. The initial EEF must be for a value (excl. GST) of \$150,000.00 and an annual investment of \$20,000.00 (adjusted for inflation) must be made by the Consent Holder to the EEF on an annual basis. These funds are to be placed in a nominated bank account within six (6) months of the commencement of this consent and the monies must be allocated in accordance with Conditions 41.

### Riparian and Planting Plan

43. The Consent Holder must engage a SQEP to prepare a RPP within the budget provided for in condition 42 that provides for riparian planting on land within 700 m of the point of discharge to the Awanui (subject to landowner approval).

<u>Advice Note</u>: The Consent Holder must comply with condition 32(b) when preparing the RPP.

44. If the Consent Holder cannot reach agreement with any downstream landowner and/or obtained any other necessary approvals in relation to implementation of the RPP, the Consent Holder must provide for riparian planting at a reach of the Awanui downstream of the discharge (beyond 700 m), to mitigate the adverse effects of the activities authorised by this consent.

# Advice Note:

- a) The purpose of the RPP is to detail improvements to existing planting onsite and along neighbouring waterways, including Awanui and Tāngonge.
- b) The objectives of the RPP are to support:
  - (a) improvement of the health and wellbeing of Awanui and Tāngonge;
  - (b) improvement of water quality;
  - (c) stabilisation of stream banks and shading of the waterway; and
  - (d) enhancement of landscape and indigenous biodiversity;

45. The RPP must meet the following requirements.

- (a) has been prepared in collaboration with the KF;
- (b) includes the contact details, roles and responsibilities of key personnel who are responsible for implementing the RPP;
- (c) includes a staged implementation programme showing how riparian and other planting, including species and planting density, and planting time of year will be completed over the stages identified;
- (d) identifies the areas that require both new riparian planting and improvements to existing riparian planting;

- (e) includes a risk assessment approach to prioritising the planting and fencing required, with the highest priority to be completed first in the implementation programme;
- (f) identifies appropriate plant species and density of planting to achieve the requirements to both stabilise stream banks and provide shading of the adjacent waterways;
- (g) identifies the need for any necessary fencing to be installed to prevent stock entering waterways and to protect riparian planting;
- (h) includes a plan for ongoing maintenance, release, weed management and replacement of deceased plants;
- (i) includes a plan for pest management; and
- (j) requires preference for locally sourced plant stocks.
- 46. Unless a longer timeframe is agreed to by the KF, within twelve (12) months following the commencement of this consent, the Consent Holder must provide NRC with the RPP, for certification that it meets the above purpose. The certification process in conditions 49 to 52 must apply.
- 47. The Consent holder must engage a SQEP as identified by the KF to undertake planting works in accordance with the certified RPP as per condition 45 of this consent.
- 48. The riparian and planting programme is to be commenced within twenty-four (24) months of the RPP being certified.

#### Certification

- 49. All plans required by conditions of this consent must be submitted to NRC for certification prior to implementation. The process for certification set out in conditions 50 to 52 must be followed by the Consent Holder.
- 50. The Consent Holder must supply the plan(s) required by this consent to the NRC for certification in accordance with the timeframes assigned under this consent.

<u>Advisory Notes:</u> NRC will assess the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent, this will include that the plan meets the purpose(s) and consent requirements set out in the condition(s) of this consents;

Should the plan(s) supplied, in the opinion of NRC, achieve the requirements of the relevant condition(s), NRC must issue a written confirmation (which will must constitute 'the certificate') to the Consent Holder that the requirements of the relevant condition(s) have been satisfied;

If the NRC is not satisfied that the plan(s) supplied achieves the requirements of the relevant condition(s), the NRC will must advise the consent holder in writing of the changes, including additional information or measures, it considers necessary to meet the requirements of the relevant condition(s) and ask that the plan(s) be modified to address the concerns, and then be resubmitted for certification.

- 51. The Consent Holder must address the NRC's written comments and resubmit an amended plan(s) to the NRC for certification prior to implementation of the plan(s), this process must be repeated until the NRC is able to certify that the requirements of the applicable condition(s) have been satisfied.
- 52. Where no written confirmation of certification, notification of required changes or an alternative certification timeframe, is provided by the NRC within twenty (20) working days of a plan first being submitted to the NRC or within ten (10) working days of a plan being resubmitted to the NRC (provided the plan(s) have been provided in accordance with the Advisory Note the plan(s) must be deemed to be certified for the purpose of the respective condition(s) to which the plan pertains.

# **Annual Monitoring Report**

- 53. The Consent Holder must submit an AMR to NRC and the KG by 30 September each year, or other such date agreed to in writing by NRC. The reporting period must be 1 July 30 June. As a minimum the AMR must include:
  - (a) all monitoring data required under the conditions of this resource consent submitted in an electronic extractable database format;
  - (b) an assessment of compliance with each condition of this resource consent, including any reasons for non-compliance or difficulties in achieving compliance;
  - (c) an assessment of ongoing annual trends and the potential implication for ongoing compliance;
  - (d) a summary of CHWMP implementation;
  - (e) a summary of RPP implementation or maintenance conducted within the annual monitoring period, and scheduled for the following annual monitoring period;
  - (f) a summary of feedback received from KF participants under Condition 32;
  - (g) a summary of complaints received; and
  - (h) a summary of any incidents that resulted in non-compliance, or were otherwise of a substantial scale, and the actions taken or planned to avoid reoccurrence.

#### Review

- 54. The NRC may, in accordance with Section 128 of the RMA, serve notice on the Consent Holder of its intention to review the conditions of these consents. Such notice may be served annually during the month of May. The review may be initiated for any one or more of the following purposes:
  - (a) to deal with any adverse effects on the environment that may arise from the exercise of these consents; or
  - (b) to require the adoption of the BPO to remove or reduce any adverse effect on the environment.

(c) to reduce the term of the consent to discharge to the Awanui River in the event the Consent Holder has commissioned an alternative discharge scheme during the term of the consent and has not surrendered the consent.

The Consent Holder must meet all reasonable costs of each review.

# **EXPIRATION DATES:**

AUT.000932.01.04 this consent will expire 15 years after the commencement of the consent.

AUT.000932.02.03 this consent will expire 15 years after the commencement of the consent.

AUT.000932.03.03 this consent will expire 15 years after the commencement of the consent.

Advice Note: Should the Consent Holder authorise, construct and commission infrastructure to discharge treated wastewater that, as a result of the BPO Report is different to what is authorised under this consent and within this 15 year consent term, then Resource Consent AUT.000932.01.04 will be surrendered. The terms of the surrender are expected to be set out in any consent that authorises that alternative discharge.

# Schedule 1 – Monitoring Program

The Consent Holder must undertake the monitoring specified in this schedule.

All samples must be collected using National Environmental Monitoring Standards (NEMS) procedures and stored in appropriate laboratory supplied containers.

All samples collected must be transported in accordance with NEMS procedures to the laboratory.

All samples must be analyses at an accredited laboratory with registered quality assurance procedures, and all analyses are to be undertaken using standard methods, where applicable. Registered Quality Assurance Procedures are procedures which ensure that the laboratory meets recognized management practices and would include registrations such as ISO 9000, ISO Guide 25, Ministry of Health Accreditation.

# 1. WASTEWATER QUALITY

Sampling and analysis of wastewater must be undertaken as per Table 5 below.

Sample Location	Frequency	Method	Parameters	Units
Influent	Monthly	A composite	cBOD <sub>5</sub>	mg/L
•	prior to sample		Total suspended solids (TSS)	mg/L
entry into		up of equal	Total Kjeldahl Nitrogen (TKN)	mg/L
Kaitāia-		volumes from three samples taken at least one minute apart during the same event.	TAN	mg/L
WWTP			Nitrate-N	mg/L
			TP	mg/L
Effluent	Monthly	A composite	EC (	mS/m
from		sample made	cBOD <sub>5</sub>	mg/L
discharge		up of equal	TSS	mg/L
pipe		volumes from	Total Nitrogen (TN)	mg/L
		three samples	TKN	mg/L
		taken at least	TAN	mg/L
		one minute apart during the same event.	Nitrate-N	mg/L
			ТР	mg/L
			DRP	mg/L
			Faecal coliforms	cfu/100 mL
			E.coli	#/100 mL
		In field	рН	Unitless
		measurement	Temperature	°C

# Table 5: Wastewater Sampling Requirements

# 2. RECEIVING WATER QUALITY

Sampling and analysis of the receiving waters must be undertaken as per Table 6 below.

The downstream water quality samples are to be taken at a time that is or as close to the predicted time of half outgoing tide (i.e., one or two hours after high tide). The time of sampling during the day must vary with each sampling round to ensure samples have been taken at points during the day to ensure that data is representative of the conditions. Monthly sampling dates are to be set in advance at the beginning of each month.

Sample	Frequency	Method	Parameters	Units
Location				
<ul> <li>(a) 100373: Discharge from the outlet of the Kaitāia- WWTP</li> <li>(b) 100369: Awanui River 50 m upstream of the Kaitāia- WWTP discharge</li> <li>(c) 100370: Awanui River upstream of its confluence with the Waihoe Channel</li> <li>(d) TBC: Awanui River 120 m downstream of 100373</li> </ul>	Monthly	One grab sample at each site must be collected on the same day. Temperature and DO concentration must be measured in the field using a meter in accordance with standard procedures and grab sample measurements are not required for these parameters. <i>E.coli</i> must, unless otherwise agreed to with the NRC, be measured using the ColilertTM method.	<ul> <li>(a) Temperature</li> <li>(b) pH</li> <li>(c) DO concentration</li> <li>(d) EC</li> <li>(e) TSS</li> <li>(f) Visual clarity</li> <li>(g) TN</li> <li>(h) TAN</li> <li>(i) Nitrate-N</li> <li>(j) TP</li> <li>(k) DRP</li> <li>(l) <i>E.coli</i></li> <li>(m) Periphyton biomass (chlorophyll a)</li> </ul>	<ul> <li>(a) Degrees Celsius</li> <li>(b) no units</li> <li>(c) %</li> <li>(d) mS/m</li> <li>(e) mg/L</li> <li>(f) m</li> <li>(g) mg/L</li> <li>(h) mg/L</li> <li>(i) mg/L</li> <li>(j) mg/L</li> <li>(k) mg/L</li> <li>(l) #/100 mL</li> <li>(m) mg chl-a/ m<sup>3</sup></li> </ul>

Table 6: River Water Quality Sampling Requirements

# Whole Effluent Toxicity Testing

Monitoring of WET must be undertaken on samples of discharged wastewater. The monitoring programme shall consist of an initial screening study of four samples taken at two monthly intervals. The results must be reviewed by the NRC, and provided no significant toxicity is detected, WET monitoring must be undertaken annually on two samples taken at least two months apart during the December to March period.

The Consent Holder must, within six (6) months of the grant of consent, provide a proposed programme for WET monitoring to the NRC for certification. The proposed programme shall include protocols for effluent sampling, handling and transport, test species and methods to be used, sample dilutions to be used in the tests, methods of interpretation of results, and a criterion for unacceptable toxicity.

# **Sludge Storage Facility**

**Purpose:** To undertake the following activities associated with the operation of a sludge storage facility on Section 1 on SO 447437, being Part Pukepoto No.6 Blk II Ahipara SD Blk V Takahue SD, at or about location co-ordinates 1620128 E 6114229 N.

**AUT.030602.01.02**: Discharge contaminants to land by way of seepage from the base of the sludge storage facility.

**AUT.030602.02.01**: Discharge contaminants to air (primarily odour) from the sludge storage facility.

- 1. The sludge storage facility must be maintained generally in accordance with the attached Opus plans entitled:
  - (a) "Storage Area Layout Plan", Drawing Number: 9/1063/159/7114, Dated 17/4/2014; and
  - (b) "Site Plan and Notes", Drawing Number: 9/1063/159/7114, Dated 17/4/2014, Dated 17/4/2014.

However, if there are any differences or apparent conflict between these documents and any conditions of this consent, then the conditions of consent must prevail.

- 2. All sludge must be dewatered to a dry matter content of at least 20 percent prior to it being placed into the sludge storage facility, as shown on the plans attached to Condition 1.
- 3. The Consent Holder must prepare and maintain an Operations Management Plan (OMP) that covers all aspects of the operation and maintenance of the sludge storage facility. The OMPP must include, but not be limited to, the following:
  - (a) a schedule of inspection, servicing, and maintenance actions to be carried out on the sludge storage facility.
  - (b) methods to be used to mitigate any nuisances that might arise from the activity including odour or midges and other insects.
- 4. The Consent Holder may amend the OMP at any time. A copy of the amended OMP must be forwarded to the NRC within one (1) week of the amended OMP becoming operative.
- 5. The sludge storage facility must be correctly operated and maintained in an effective manner. This operation and maintenance must, as a minimum, be undertaken in accordance with the OMP required by Condition 3. For compliance purposes, the most recent copy of the OMP held by the NRC must be used.
- 6. The Consent Holder's operations must not give rise to any discharge of contaminants to the air beyond the boundary of property owned by the Consent Holder, that is deemed by a NRC monitoring officer to be noxious, dangerous, offensive or objectionable.
- 7. The Consent Holder must, for the purposes of adequately monitoring the consent as required under Section 35 of the RMA, on becoming aware of any contaminant associated with the Consent Holder's operations escaping otherwise than in conformity with this consent:

- (a) immediately take such action, or execute such work as may be necessary, to stop and/or contain such escape; and
- (b) immediately notify the NRC by telephone of an escape of contaminant; and
- (c) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and
- (d) report to the NRC in writing within one (1) week on the cause of the escape of the contaminant and the steps taken or being taken to effectively control or prevent such escape.

For telephone notification during the NRC's opening hours, the NRC's assigned monitoring officer for these consents must be contacted. If that person cannot be spoken to directly, or it is outside of the NRC's opening hours, then the Environmental Hotline must be contacted.

Advice Note: The Environmental Hotline is a 24 hour, seven day a week, service that is free to call on 0800 504 639.

- 8. The NRC may, in accordance with Section 128 of the RMA, serve notice on the Consent Holder of its intention to review the conditions of these consents. Such notice may be served annually during the month of May. The review may be initiated for any one or more of the following purposes:
  - (a)To deal with any adverse effects on the environment that may arise from the exercise of these consents; or
  - (b)To require the adoption of the BPO to remove or reduce any adverse effect on the environment.

The Consent Holder must meet all reasonable costs of each review.

**Expiry Date:** this consent will expire 15 years after the commencement of the consent.