



## RESOURCE CONSENT

### Discharge Permit

In accordance with the provisions of the Resource Management Act 1991, and subject to the attached conditions, the Hawke's Bay Regional Council (Council) grants a resource consent for a discretionary activity to:

**Central Hawke's Bay District Council**  
PO Box 127  
Waipawa 4240

to discharge treated municipal (domestic) wastewater from the Takapau oxidation pond into or onto land (wetland) in circumstances which will result in that contaminant entering water.

#### LOCATION

**Address of Site:** Burnside Road, Takapau  
**Legal Description:** Lot 1 DP17032  
**Map Reference:** U23: 2796600- 6127200

#### DETAILS OF RESOURCE CONSENT

**Effluent to be discharged:** Treated municipal sewage  
**Rate of Discharge:** 2.5 litres per second based on dry weather flow  
**Consent duration:** Granted for a period expiring on 31 October 2021.

A handwritten signature in blue ink, appearing to read "Malcolm Miller".

**Malcolm Miller**  
**Manager Consents**

REGULATION GROUP  
Under authority delegated by Hawke's Bay Regional Council  
10<sup>th</sup> December 2018

## CONDITIONS

### General

1. The Consent Holder shall undertake all works generally in accordance with the drawings, specifications, statements of works techniques and other information supplied with the application. Where a conflict exists between the application and the conditions of this consent the conditions shall prevail. Specifically, this includes the following attached documents:
  - a) Document titled Central Hawke's Bay District Council Proposed Improvements to the Takapau Oxidation Pond Wetland,
  - b) Plan titled Central Hawke's Bay District Council Takapau Oxidation Pond Effluent Discharge Improvements dated 4/98, prepared by Duffill Watts and King Ltd (Appendix 1 of Opus, June 1998, report no. 2TO312.00 001NP)
  - c) Mitchell Daysh, 28 February 2017: 'Central Hawke's Bay District Council Takapau Wastewater Treatment Plant – re-consenting'.
2. The Consent holder shall prevent unauthorised access into the site by constructing a suitable fence, and displaying warning signs advising of the discharge of sewage effluent in the area.
3. The consent holder shall appoint a person to act as a contact for Council staff. This contact shall be advised within 10 days of the commencement of the consent.

### Performance

4. The Consent holder shall maintain the modified wetland in a state consistent with that indicated in the documents listed in Condition 1.
5. The dry weather flow rate of the discharge shall not exceed 2.5 litres per second (216 cubic metres per day).
6. The effluent discharged from the oxidation pond to the wetland shall meet the following standards:
  - Total Suspended Solids 100 mg/l
  - Carbonaceous Biochemical Oxygen Demand –5 day (cBOD<sub>5</sub>) 60 mg/l

**Monitoring**

7. The Consent holder shall install and maintain flow meters on inflow and outflow lines. The outflow meter shall be installed prior to the exercise of this consent and the inflow meter installed within 3 months of the exercise of this consent. Both meters shall be operated and maintained to measure the volume of water passing through the inflow and outflow lines to an accuracy of +/- 5%. The flow meters shall be positioned so that the entire volume of wastewater inflow and full volume of treated wastewater discharged from the Takapau wastewater plant is measured.
8. The device(s) required by condition 7 shall be installed and maintained in accordance with the Council’s *“Technical Specifications and Installation Requirements for Flow Meters”* (February 2010) (see Advice Note I).

**Discharge Quality Sampling**

9. The consent holder shall take monthly grab samples of treated wastewater prior to the wetland, and samples shall be analysed for the constituents and at the frequencies listed in Table 1.
10. A grab sample of the final effluent from the treatment plant shall be taken on the first occasion that sampling is undertaken in accordance with condition 9, and then once every two years thereafter, and analysed for the heavy metals and metalloids specified below, and at the detection limits shown.

Heavy Metals & Metalloids	Detection limit (Trace Level) ppb
Arsenic	1.1
Cadmium	0.053
Chromium	0.53
Copper	0.53
Lead	0.11
Mercury	0.08
Nickel	0.53
Zinc	1.1
Total Aluminium	3
Dissolved Aluminium	3

**Receiving Water Quality Monitoring**

11. The consent holder shall take samples from the Makaretu River at 3 sites (approximately 50 m upstream, 50 m and 400 m downstream of the discharge point). The samples shall be analysed for the constituents and at the frequency listed in Table 1.
12. The location of the sampling points (NZTM coordinates) shall be provided to the Council (Manager Compliance) with the results of the first sampling event occurring under this consent, and subsequent water quality sampling as required by condition 11 shall occur at the same points.
13. All sampling undertaken in accordance with this consent shall be carried out by a person suitably qualified and experienced in this field and approved by the Council (Manager Compliance).
14. Except for the field measurement of pH, temperature and dissolved oxygen, all analyses undertaken in accordance with conditions of this consent shall be carried out by an independently accredited laboratory in accordance with the Standard Methods for the Examination of Water and Wastewater (20<sup>th</sup> Edition 1998), published jointly by the American Public Health Association, American Wastewater Association, and Water Environment Federation, or a more recent update as approved by the Council (Manager Compliance). Field measurements shall be undertaken using suitably accurate and calibrated equipment, in accordance with the equipment manufacturer’s guidelines for maintenance and use, and in accordance with the Australian / New Zealand Standard: Water Quality - Sampling AS/NZS 5667.1:1998 Parts 1,6. L.

**Table 1. Monthly monitoring**

Constituent	Wastewater – monthly	River – monthly
<i>cBOD<sub>5</sub></i>	X	X
<i>COD</i>	X	X
<i>total ammoniacal nitrogen</i>	X	X
<i>nitrate + nitrite nitrogen</i>	X	X
<i>dissolved inorganic nitrogen</i>	X	X
<i>Total nitrogen</i>	X	X
<i>Total phosphorus</i>	X	X
<i>Soluble reactive phosphorus</i>	X	X
<i>Total suspended solids</i>	X	X
<i>faecal coliforms</i>	X	X
<i>E. Coli</i>	X	X
<i>Horizontal visibility (black disc)</i>		X
<i>Particulate organic matter (POM)</i>	X	X
<i>pH</i>		X
<i>temperature</i>		X
<i>Dissolved Oxygen</i>		X
<i>Conductivity</i>		X

**Aquatic Ecology Monitoring**

15. The consent holder shall have an appropriately experienced and qualified freshwater ecologist undertake macroinvertebrate sampling in the Makaretu River. The macroinvertebrate assessment shall be undertaken following a period of at least three weeks without a significant flood event (defined as an instantaneous flow exceeding three

times median flow). Macroinvertebrate sampling is to be undertaken annually between January and March inclusive. The macroinvertebrate sampling shall follow Protocols C3 (Hard-bottomed quantitative), P3 (full count with subsampling option) and QC3 (quality control for full count subsampling option) from the Ministry of the Environment's 'Protocols for sampling macroinvertebrates in wadeable streams' (Stark et al, 2001). This shall involve:

- a) Collection of at least 5 replicate 0.1 m<sup>2</sup> surber samples from at least three upstream and three downstream sampling sites, pooled to give multiple composite upstream and downstream samples.
- b) Full count of the macroinvertebrates taxa within each replicate sample to the taxonomic resolution level specified for use of the Macroinvertebrate Community Index (MCI)
- c) Enumeration of the results as taxa richness, MCI, QMCI, %EPT taxa and %EPT individuals.
- d) Analysis of the QMCI results using the equivalence testing at the 20% interval Periphyton monitoring.
- e) The sampling sites used shall be fully described, photographed and their accurately location recorded by the person undertaking the sampling.

16. The consent holder shall have an appropriately experienced and qualified freshwater ecologist undertake assessments monthly in January, February and March each year of the percentage cover, biomass, chlorophyll a, AFDW and community composition of periphyton, filamentous algae and cyanobacterial mats in run habitat, as close as possible to the sites selected for macroinvertebrate sampling above. The periphyton and algae assessment is to include:

- a) A visual assessment of the percentage cover of both filamentous algae and algal mats (to the nearest 5%) at 5 points across four transects encompassing run habitat, and extending across the width of the river at each sampling site. The visual monitoring methods shall follow the protocols outlined in Appendix 2 of 'A periphyton monitoring plan for the Manawatu-Wanganui Region' (Kilroy et al 2008). Reported estimates shall include:
  - i. Percentage cover of visible stream or river bed by bacterial and/or fungal growths (sewage fungus) visible to the naked eye;
  - ii. Percentage cover of visible stream or river bed by filamentous algae more than 2cm long;
  - iii. Percentage cover of visible stream or river bed by diatoms or cyanobacteria mats more than 0.3 cm thick;
  - iv. Percentage cover of visible stream or river bed by diatoms less than 0.3 cm thick;
  - v. Percentage cover of visible stream or river bed that is clean.
- b) The collection of a periphyton sample at the same established monitoring sites and transects, using method QM-1b from the Stream Periphyton Monitoring Manual (Biggs & Kilroy 2000). Analysis of periphyton samples shall follow the Biggs and Kilroy (2000) guidelines for chlorophyll a analysis.

## Groundwater monitoring

17. Prior to **1 July 2019**, the consent holder shall submit to Council (Manager Compliance) for certification, a groundwater monitoring plan (GMP), completed by a suitably qualified and experienced groundwater scientist. The GMP shall be designed to monitor any effects of the storage of wastewater in the oxidation pond (e.g. through leakage) and of the discharge on groundwater quality, and shall include, but not be limited to:
- a) Details of any recommended monitoring well locations, and the depths and construction of these wells/piezometers
  - b) Groundwater sample parameters and frequency.
  - c) Methods for determining groundwater flow direction.

The GMP shall be considered certified unless the Council (Manager Compliance), within 20 working days of receiving the GMP, refuses to certify it, and outlines its reasons in writing for not certifying the GMP. If the GMP is not certified, an amended GMP must be submitted. Once certified by the Council, the GMP shall be implemented prior to **31 October 2019**.

## Non-Compliance

18. The following steps shall be undertaken in the event of the Consent holder receiving information indicating an exceedance of effluent standards in Condition 6:
- a) Notification shall be given to the Council (Manager Compliance) within 24 hours of the Consent holder receiving information of the exceedance.
  - b) A variation greater than 10 % of the standards set shall require immediate re-sampling (taken as being within 24 hours from the determination of the exceedance).
  - c) Sampling and analysis of the non-complying determinand (including recording the instantaneous rate of discharge at the time of sampling) shall continue every two days until the standard as set in Condition 6 is met.
  - d) The Consent holder shall forward the results of any re-sampling to the Regional Council (Manager Compliance) within six hours of receipt.
  - e) A report detailing the cause, mitigation and remediation measures shall be forwarded to the Regional Council (Manager Compliance) within two weeks of reinstating compliance with Condition 6.
19. The Consent holder shall maintain a contacts list of persons who take water from the river from the discharge zone to the confluence with the Tukipo River and shall immediately notify them where a public health risk is likely as a result of non-compliance
20. If an event occurs on-site that may lead to contamination of groundwater or surface water the Consent Holder shall notify the Central Hawke's Bay District Council (Water Supply Manager) and the Hawke's Bay Regional Council (Manager Compliance) of the event as soon as reasonably practicable after the event occurs.

**Advice Note:** Such an event might include for example a major spillage or loss of wastewater from the oxidation pond. The CHBDC can be contacted on 857 8060. The Regional Council 24 hour Pollution Hotline should also be contacted on 0800 108 838.

21. The consent holder shall nominate a person who is responsible for the maintenance of the wastewater treatment system and the return of information (as required by conditions of this consent). The consent holder shall advise the Council (Manager Compliance) who this person is within one month of the commencement date of this consent and within ten working days of any change occurring.
22. The consent holder shall undertake an investigation and comprehensive assessment of alternative treatment and disposal options, including an assessment of the feasibility of land based disposal (in full or in part) of the treated wastewater. This assessment shall generally follow the programme of investigations outlined in the document referenced in condition 1(c), but shall also include an assessment and consideration of the current state of the existing infrastructure, including any evidence that the existing oxidation pond is leaking to ground or undersized for projected wastewater inflows. This report shall be provided to the Council (Manager Compliance) prior to **30 April 2021**.
23. The treatment system and any discharge shall not result in any offensive or objectionable odour beyond the boundary of the property on which the wastewater treatment plant is located.

### Reporting

24. A summary of daily (midnight to midnight) inflow and outflow volume measurements, as required under Condition 7, shall be provided to the Council (Manager Compliance) no later than 31 January, 30 April, 31 July and 31 October each year in digital format compatible with the Council's computer system.
25. The results of all other analyses undertaken in accordance with the conditions of this consent shall be forwarded to the Council (Manager Compliance) within 14 days of being received.
26. Before 1 August of each year the consent holder shall provide an Annual Report to the Council covering the previous 12-month period ending 30 June. As a minimum this report shall include the items listed below and a comparison with previous years:
  - a) a summary of all monitoring undertaken as required by this consent;
  - b) confirmation of sampling methods and locations
  - c) a review of compliance with the conditions of this consent, including the effluent standards;
  - d) identification and comment on any trends in data collected;
  - e) comment on any non-compliances and operational problems;
  - f) details of any works undertaken or proposed to improve the performance of the treatment system.

### REVIEW OF CONSENT CONDITIONS BY THE COUNCIL

The Council may review conditions of this consent by serving notice of its intention to do so pursuant to section 128 and section 129 of the Resource Management Act 1991.

Times of service of notice of any review: During the month of May, July and September each year.

Purposes of review: To deal with any adverse effect on the environment that may arise from the exercise of this consent, which it is

appropriate to deal with at that time or which became evident after the date of issue.

To require the adoption of the best practicable option to remove or reduce any effects on the environment.

To modify any monitoring programme, or to require additional monitoring if there is evidence that current monitoring requirements are inappropriate or inadequate. This may include requiring amendments to the groundwater monitoring plan.

To require the adoption of best practice measures to reduce any effects on the environment.

To review the conditions to ensure that they are consistent with the requirements of any land use consent for the farming enterprise and any future farm environment management plans for the property.

To modify or add any condition to ensure that the conditions are consistent with the provisions of any operative plan.

## Reasons for Decision

The effects of the activity on the environment will not be more than minor. Granting the consent is consistent with the purpose and principles of the RMA, the National Policy Statement for Freshwater, the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 and with all relevant plans and policies.

## MONITORING NOTE

### Routine monitoring

Routine monitoring inspections will be undertaken by Council officers at a frequency of no more than once every year to check compliance with the conditions of the consent. The costs of **any** routine monitoring will be charged to the consent holder in accordance with the Council's Annual Plan of the time.

### Non-routine monitoring

"Non routine" monitoring will be undertaken if there is cause to consider (e.g. following a complaint from the public, or routine monitoring) that the consent holder is in breach of the conditions of this consent. The cost of non-routine monitoring will be charged to the consent holder in the event that non-compliance with conditions is determined, or if the consent holder is deemed not to be fulfilling the obligations specified in section 17(1) of the RMA shown below.

Section 17(1) of the RMA states:

*Every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of the person, whether or not the activity is carried on in accordance with*

- a) *any of sections 10, 10A, 10B, and 20A; or*
- b) *a national environmental standard, a rule, a resource consent, or a designation.*



### Consent Impact Monitoring

In accordance with section 36 of the RMA (which includes the requirement to consult with the consent holder) the Council may levy additional charges for the cost of monitoring the environmental effects of this consent, either in isolation or in combination with other nearby consents. Any such charge would generally be set through the Council's Annual Plan process.

### Debt Recovery

It is agreed by the consent holder that it is a term of the granting of this resource consent that all costs incurred by the Council for, and incidental to, the collection of any debt relating to this resource consent, whether as an individual or as a member of a group, and charged under section 36 of the RMA, shall be borne by the consent holder as a debt due to the Council, and for that purpose the Council reserves the right to produce this document in support of any claim for recovery.

### CONSENT HISTORY

Consent No. (Version)	Date	Event	Relevant Rule	
			Number	Plan
DP180115W	10/12/2018	Consent initially granted	52, 28	RRMP