

ORIGINAL

Our Reference: A766704

Consent No. RM13.215.03.V2

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Queenstown Lakes District Council

Address: 10 Gorge Road, Queenstown

To discharge treated wastewater to land

For a term expiring: 31 December 2031

Location of consent activity:

Queenstown, approximately 1.25 kilometres south south-east of the intersection of State Highway 6 and Tuckers Beach Road, ~~1.2 kilometres south southeast of the intersection of Shotover Delta Road and Frankton Ladies Mile Highway (State Highway 6)~~

Legal description of consent location: ~~Lot 4 DP 421841 and Lot 2 DP 422388 Pt See 141 and Secs 142-145 & 152 Blk I Shotover SD, Lot 1 DP 306621, Lot 1 DP 15636, Crown Land Blk I Shotover SD~~ Lot 4 DP 421841 and Lot 2 DP 422388 Pt See

Map Reference: NZTM 2000 1266045E 5006801N ~~E1265922 N5006626~~

Conditions Specific

1. Under Section 125 of the Resource Management Act 1991, this consent shall not lapse until 1 January 2023.
2. Discharge Permit RM13.215.04 shall be surrendered within 6 months of the full exercise of this consent (all treated wastewater being discharged to land). The consent holder shall notify the Consent Authority in writing of the date of the first exercise of this consent.
3. The volume of wastewater discharged to the disposal field shall not exceed:
 - (a) An annual average of 11,238 cubic metres per day; and
 - (b) A maximum discharge loading rate ~~for~~ averaged over the ~~each~~ disposal field area ~~bed~~ of 1,000 ~~1,200~~ millimetres per calendar day based on the total area of the disposal field.

4. The recorded daily flow and total nitrogen concentration of the effluent as monitored in accordance with Conditions 7 and 8 of this consent shall be averaged over the previous 12 month rolling period and when the mass of nitrogen reaches:
- 73.2 tonnes per year, the consent holder shall implement the wastewater treatment plant upgrade process to meet the conditions of Consent 2008.238.V2 within two years; and
 - 75.5 tonnes per year, the consent shall have commissioned the upgraded wastewater treatment plant to meet the conditions of Consent 2008.238.V2. This consent shall be surrendered within 6-months of this upgrade being commissioned.
- ~~5. The wastewater disposal field platform shall be raised above existing ground level such that there is a minimum unsaturated zone between the disposal manifold and permanent groundwater of no less than 600 millimetres.~~
- 6.5. No less than one month prior to construction of the wastewater disposal field, all detailed design drawings and calculations shall be provided to the Consent Authority.
- 7.6. Prior to the exercise of this consent, the consent holder shall install a flow meter on the outlet pipe from the treatment plant and continually measure and record the daily volume of effluent being discharged to the disposal field. The consent holder shall report the daily discharge volume for the previous calendar year in writing, and in electronic form, to the Consent Authority, by 1 February each year.

Performance Monitoring

- 8.7. Within the first week of each calendar month, the consent holder shall collect a representative sample of the treated wastewater, immediately prior to discharge to the disposal field. Each sample collected shall be analysed for:
- Five day total biochemical oxygen demand;
 - Total suspended solids;
 - Total nitrogen;
 - Ammoniacal nitrogen;
 - Total phosphorous; and
 - Escherichia coli.
- 9.8. Within the first week of each month for the first five years of the exercise of this consent, and within the first week of January and July each year thereafter, the consent holder shall, collect representative samples of groundwater from bores up gradient and down gradient of the wastewater disposal field, which are to be located in consultation with the Consent Authority. Each sample shall be analysed for:
- Total nitrogen;
 - Ammoniacal nitrogen;
 - Nitrate nitrogen;
 - Total phosphorous; and
 - Escherichia coli.

Groundwater sampling procedures shall be generally in accordance with “The New Zealand Guidelines for the Collection of Groundwater Samples for Chemical and Isotopic Analysis” science report 99/9, dated April 1999 and published by the Institute of Geological and Nuclear Sciences

9. (a) *Prior to commencement of this consent the Consent Holder shall install at least 7 piezometers which are to be located, in consultation with the consent authority, within and outside the disposal area for the purpose of providing representative sampling of groundwater levels around and within the disposal area.*
- (b) *Groundwater levels in the piezometers shall be recorded to a datalogger with at least 24 months data storage, to record the date, time and groundwater level.*
- (c) *The piezometer shall be installed according to the manufacturer's specifications and instructions.*
- (d) *The consent holder shall ensure the full operation of the piezometer and datalogger at all times during the exercise of this consent. All malfunctions of the piezometer and/or datalogger during the exercise of this consent shall be reported to the Consent Authority within 5 working days of observation and appropriate repairs shall be performed within 5 working days. Once the malfunction has been remedied, the consent holder shall provide a report from an appropriately qualified professional certifying the operation of the piezometer and/ or datalogger has been verified as accurate complete with photographic evidence to the Consent Authority within 5 working days of the completion of repairs.*
- (e) *The installation of the piezometer and datalogger shall be completed to full and accurate operation prior to the exercise of the consent. The consent holder shall forward a copy of the installation certificate to the Consent Authority within one month of installing the piezometer and datalogger.*
10. *The consent holder shall monitor and maintain records of any groundwater mounding above the ground surface within the operational disposal area that remains for over 48 hours.*
- (i) *Records should include but not be limited to:*
- (a) *Photographic record;*
- (b) *Sampling of mounded water to determine presence of treated effluent as outlined in Condition 8;*
- (ii) *The Consent Authority shall be immediately notified of occurrences of mounding breakthrough that exceed 48 hours in writing.*
- ~~(d) Records to be supplied to consent holder annually.~~
- ~~10.11.~~ 11. *The results from the monitoring undertaken in accordance with Conditions 8 and 9 7, 8, 9 and 10 of this consent shall be reported in writing to the Consent Authority within one monthly, together with a reading of the 24-hour wastewater discharge volume for the day of sampling.*
- ~~11.12.~~ 12. *The quality of the treated wastewater shall not exceed the following limits prior to discharge:*

| Parameter | 95%ile | Annual Mean |
|--------------------------------------|---------------|-------------|
| BOD ₅ (g/m ³) | 50 | 30 |
| TSS (g/m ³) | 50 | 30 |
| TN (g/m ³) | 35 | 23 |
| E.Coli (cfu/100ml) | 260 (90% ile) | 260 geomean |

* Means and percentiles apply to a rolling 12 calendar month period.

12.13. All sampling techniques employed in respect of the conditions of this consent shall be acceptable to the Consent Authority. All analysis carried out in connection with this consent shall be performed by a laboratory that meets ISO 17025 or IANZ standards, or otherwise as specifically approved by the Consent Authority.

13.14. No less than three months before the commencement of the exercise of this consent, the consent holder shall prepare and forward to the Consent Authority an Operations and Management Manual for the treatment and disposal system to ensure its effective and efficient operation at all times. The system shall be operated in accordance with this manual, which may be updated as appropriate. The manual shall include, but not be limited to:

- (a) A description of the entire treatment and disposal system, including a site map indicating the location of the various components of the treatment and disposal system, discharge locations and monitoring sites;
- (b) Specific management procedures for key components of the system;
- (c) Procedures to be utilised to monitor the operation and performance of the system;
- (d) Monitoring and reporting procedures, including, but not limited to:
 - (i) Contingency plans for system malfunction and breakdowns for each part of the treatment and disposal system; and
 - (ii) Contingency plans for maintaining effluent quality during periods of peak flows.
 - (iii) *Monitoring plans for monitoring groundwater mounding and quality.*
- (e) Population numbers that the system is designed to accommodate,
- (f) A complaints and system malfunctions recording system;
- (g) Details of the measures to be taken to meet the quality of discharge set out in Condition 12 of this consent; and
- (h) Procedures for continuous reviewing and improving of the manual.

The consent holder shall ensure that the Consent Authority has a copy of the current Operations and Management Manual at all times.

14.15. The consent holder shall submit a record of complaints and malfunctions to the Consent Authority within two weeks after any complaint or malfunction occurring, together with the details of the remedial measures taken or proposed to be undertaken.

- 15.16. The consent holder shall, at three monthly intervals, undertake a visual inspection of the disposal field, to determine there is no vegetation die-off, or slumping, as a result of the discharge of treated wastewater to land.
- 16.17. By ~~1 February 30 September~~ each year, the consent holder shall forward an annual report in writing to the Consent Authority. The annual report shall cover the period ~~1 January to 30 December 1 July to 30 June~~ in the previous 12-month period and shall report on compliance with this discharge permit, including, but not limited to:
- (a) Copies of the laboratory analytical results of all monitoring undertaken;
 - (b) Summary of the year's monitoring results, in context of previous years' results;
 - (c) Summary of volumes of treated wastewater discharged to land;
 - (d) Summary of quality of treated wastewater discharged to land;
 - (e) Summary of all analytical results from the monitoring bores to date, and an interpretation of the groundwater quality results, particularly with regard to the discharge of treated wastewater to land;
 - (f) *Summary of trends in groundwater mounding, any areas of mounding concern and outlining any changes to the system or operation to mitigate concerns.*
 - (g) ~~(f)~~ (g) Comments on compliance with the conditions of this discharge permit;
 - (h) ~~(g)~~ (h) Summary of any complaints received, the validity of each complaint and the corrective action taken; and
 - (i) ~~(h)~~ (i) Any other issues considered relevant by the consent holder.
- 17.18.(a) Within three months of the first exercise of this consent, the consent holder shall invite iwi representatives (Kāi Tahu ki Otago and Ngāi Tahu ki Murihiku) and stakeholder representatives, including Public Health South and Remarkables Park Limited, to form a Reference Group. The purpose of the Reference Group shall be to facilitate consultation between the consent holder, stakeholder representatives and iwi representatives (Kāi Tahu ki Otago and Ngāi Tahu ki Murihiku) during the upgrading of the wastewater treatment plant.
- (b) The Reference Group shall have the following functions:
- To receive and review the monitoring data and reports from the physical and biological monitoring. If necessary, a reasonable level of technical expertise shall be made available by the consent holder to interpret the monitoring data.
 - To receive and review the annual monitoring report.
 - To receive and review the implementation plan for the upgrade of the treatment and disposal system.
 - To make recommendations to the consent holder on management actions to avoid, remedy or mitigate any adverse effects of the treatment and disposal system.
- (c) The consent holder shall, at least once every six months, invite the Reference Group to a meeting to discuss any matter relating to the exercise and monitoring of this consent. The consent holder shall meet reasonable costs of attending meetings of the Reference Group. The consent holder shall keep minutes of any meeting of the Reference Group and provide Consent authority with copies of the minutes.

- 18.19. (a) Within three months of the first exercise of this consent, the consent holder shall provide the Consent Authority and the Reference Group with an Implementation Plan for the staged upgrade of the wastewater treatment plant.
- (b) The Implementation Plan shall describe the program of work required to ensure that:
- By no later than 31 December 2017, flows of up to 9,000 cubic metres per day of treated wastewater are discharged to land.
 - By no later than 31 December 2022, the discharge of treated wastewater to the Shotover River shall cease.
 - By no later than 31 December 2031, Stage 3 (a full upgrade of the treatment and disposal system to achieve mean 10:10:10:10 (BOD:TSS:TN:E.Coli) effluent quality as required by Discharge Permit 2008.238.V1) is operational.
- (c) By no later than 31 January each year, the consent holder shall provide an annual report to the Consent Authority and the Reference Group detailing progress made with the program of work outlined in the Implementation Plan.

General

19.20. No ponding or surface run-off of treated wastewater shall occur as a result of the exercise of this consent.

21. *Mounding of groundwater:*

- (i) *above the ground surface shall not occur in cumulative area greater than 100 m² over the entire disposal area for more than 48-hours in any one event.*
- (ii) *as a result of the exercise of this consent shall not result in surface breakthrough after the initial 5 year mounding trial period following the commencement of this consent.*

22. *In accordance with Sections 128 and 129 of the Resource Management Act 1991 Condition 20 and 21 shall be reviewed after a 5-year trial period for the purposes of dealing with any mounding issues, such as reassessing the area of acceptable mounding, testing the quality of mounded water to determine risk, or assessing the need for fencing and/or signage.*

23. *The Consent Holder shall advise the consent authority of any changes to the extent of the operational disposal area within 3-months.*

20.24. There shall be no vehicle access over or through the land disposal area apart from designated access areas, such that it adversely affects the performance of the disposal area.

21.25. This permit does not authorise the discharge of sludge to land or water, other than to an approved landfill facility or alternative consented location.

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~~22~~.26. If the consent holder:

- (a) Discovers koiwi tangata (human skeletal remains), or Maori artefact material, the Permit Holder shall without delay:
- (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police.
 - (ii) Stop work within the immediate vicinity of the discovery to allow a site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive; if a thorough site investigation is required and whether an Archaeological Authority is required.
 - (iii) Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation. Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the NZ Police, provided that any relevant statutory permissions have been obtained. material, or disturbs a previously unidentified archaeological or heritage site, the Permit Holder shall without delay:
 - (i) Stop work within the immediate vicinity of the discovery or disturbance; and
 - (ii) Advise the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993; and
 - (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.


Site work shall recommence following consultation with the Consent Authority.

~~23~~.27. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:

- (a) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;
- (b) ensuring the conditions of this consent are consistent with any National Policy Statements, National Environmental Standards Regulations, relevant plans and/or the Otago Regional Policy Statement.

Issued at Dunedin this 5th day of June 2015

Reissued at Dunedin this 9th day of March 2017 for the purpose of amending the legal description and map reference and varying Conditions 3, 4, 5, 10, 13, 16 and the addition of new conditions 9, 10, 21, 22, 23."


Marian Weaver

Resource Manager Procedures & Protocols