

RM25.206 – Discharge to Water Permit

Purpose: To discharge treated wastewater to water for the purpose of operating the Shotover Wastewater Treatment Plant

Duration: 31 December 2030

Location: Shotover Delta Road, 1.1km south east of State Highway 6, Queenstown

Legal description of treatment plant location: Lot 4 DP 421841, Area A SO 24812

Legal description of discharge location: Section 4 SO 409393

Map reference at point of discharge: 1266096E 5007045N

Limits

- 1) The discharge shall only be treated wastewater from the Shotover Wastewater Treatment Plant, located on Lot 4 DP 421841 and Area A SO 24812, at or about map reference 1265465E 2007842N, as shown on the map attached as Appendix A, which forms part of this consent.
- 2) Treated wastewater from the Shotover Wastewater Treatment Plant ~~shall~~ may only be discharged to the Shotover River on Section 4 SO 409393 at or about map reference 1266096E 5007045N, via the approximately 270m long discharge channel, as shown in the map attached as Appendix A.
- 3) The rate and volume of treated wastewater discharged shall not exceed the following:
 - a. 400 litres per second;
 - b. Annual average daily flow of 16,900 cubic metres per day;
 - c. Peak dry weather flow of 19,700 cubic metres per day; and
 - d. Peak wet weather flow of 29,100 cubic metres per day.
- 4) The treated wastewater quality shall comply with the following limits:

	Discharge quality up to 31st December 2025		Discharge quality from 1 st January 2026 onwards (or when MLE2 is fully operational & no oxidation pond discharge occurs)	
Parameter (in mg/L unless stated otherwise)	Annual Mean	Annual 95thile*	Annual Mean	Annual 90 th ile*

	Discharge quality up to 31st December 2025		Discharge quality from 1st January 2026 onwards (or when MLE2 is fully operational & no oxidation pond discharge occurs)	
cBOD ₅ (Biochemical oxygen demand)	30	50	10	20
TSS (Total suspended solids)	30	50	10	20
TN (Total nitrogen)	23	35	10	15
Ecoli in cfu/100mL	260	-	10 (geometric mean)	100 (95 th percentile)
TAN (Total Ammoniacal Nitrogen)	-	-	1.5	5
TP (Total Phosphorus)			3	-

* The 90th and 95th percentile applies to a rolling 12 calendar month period

- 5) For the purposes of compliance with **condition (4)**, the location at which the limits must be met is after UV treatment at the autosampler prior to discharge into the discharge channel.
- 6) ~~After 31 December 2025, t~~The exercise of this consent shall not result in visible discolouration of the Shotover River at a distance of 200 metres or more from the point of discharge.
- 7) The discharge, after reasonable mixing at a distance of 200 metres downstream of the point of discharge, shall not give rise to all or any of the following effects in the receiving water:
 - a. The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
 - b. Any emission of objectionable odour; or
 - c. Any significant adverse effects on aquatic life.

Performance Monitoring

8)

- a. The consent holder shall install a flow meter on the outlet pipe(s) from the treatment plant at both ~~the clarifier outlets and oxidation pond outlet~~ and continually measure and record the instantaneous rate and combined daily volume of treated wastewater being discharged to the Shotover River.
- ~~8)b.~~ The consent holder shall report the instantaneous rate and daily discharge volume for the previous calendar month in writing, or in electronic form, to the Consent Authority - Attention: Compliance Manager, within two weeks after the end of each calendar month. These daily volumes shall be used to determine compliance with **condition (3)**.

9) From the commencement of this consent, the consent holder shall collect a representative sample of the treated wastewater every week, at the location in **condition (5)**. Each sample collected shall be analysed for:

- a. Five day carbonaceous biochemical oxygen demand (cBOD₅)
- b. Total suspended solids
- c. Total nitrogen
- d. Total ammoniacal nitrogen
- e. Total phosphorous
- f. Dissolved reactive phosphorous
- g. *E. Coli*

NOTE: for the purposes of this condition, samples collected for the analysis of parameters in (a) to (f) are 24hr composite samples, while the sample for analysis of *E. Coli* (g) is collected as a grab sample at the same time and location.

10) All samples collected under Condition (9) must be analysed at a laboratory that meets ISO 17025 or IANZ standards. The consent holder must provide the Consent Authority - Attention: Compliance Manager, with weekly sampling results as soon as possible but within no later than two weeks ~~of after~~ receipt of the results from the laboratory.-

11) Within three months of the commencement of this consent, the consent holder shall prepare and forward to the Consent Authority - Attention: Compliance Manager, 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 shall be reviewed at least every two years and may be updated as appropriate within three months following any upgrades or modifications at the plant. The manual shall be to the satisfaction of the Consent Authority and 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. identification of potential equipment malfunctions and environmental situations that may lead to treatment system failure;
- e. monitoring and reporting procedures, including, but not limited to:
 - i. contingency plans including methods for monitoring and detecting out of specification influents/effluents, contingency procedures for managing the same, contingency procedures to manage system

- component malfunctions and breakdowns for both the treatment and disposal system;
- ii. contingency plans for ensuring consistent effluent quality during periods of peak flows including proactive maintenance prior to peak flow seasons to achieve the same.
- iii. Monitoring plans for monitoring receiving environment quality.
- f. design flow;
- g. reporting population growth and influent volumes and their consistency with the forecasts supplied at the time of granting;
- h. a complaints recording system and malfunction recording system including actions and responses undertaken to rectify any system malfunction;
- i. details of the measures to be taken to ensure the attainment of the treated wastewater quality requirements set out in **Condition (4)**;
- j. procedures for continuous reviewing and improving of the manual; and
- k. be drafted in consultation with Te Ao Mārama and Aukaha.

12) The consent holder shall submit the record of complaints and malfunctions to the Consent Authority - Attention: Compliance Manager, as soon as possible but within not later than two weeks after any complaint or malfunction occurring, together with the details of the remedial measures taken. At all times, the consent holder shall ensure that the Consent Authority has a copy of the up to date Operations and Management Manual.

13)

- a. The consent holder shall provide to the Consent Authority - Attention: Compliance Manager, within one month of this consent commencing, a Receiving Environment Monitoring Plan (REMP) for approval.
- b. The purpose of the REMP is to monitor the effects of the discharge on the water quality and instream ecology of the Shotover and Kawarau Rivers and nearby groundwater quality.
- c. The REMP must include monitoring of groundwater quality, surface water quality and instream ecology.
- d. The REMP must include the following:
 - i. Sample locations – as a minimum including one upstream location, and one downstream location 200 metres from the point of discharge.
 - ii. Sample methods

iii. Sample frequency – as a minimum monthly for surface quality samples and six monthly for instream ecological surveys, and consideration of what sampling may be needed following certain events (e.g. high rainfall, plant malfunctions, etc).

iv. Parameters to be measured

e. The REMP, and any updates, shall be prepared in consultation with be provided to Aukaha and Te Ao Mārama Inc for comment.

e.f. Aukaha and Te Ao Mārama shall be invited to attend when monitoring is undertaken.

f.g. Any updates to the REMP shall be provided to the Consent Authority - Attention: Compliance Manager for approval at least 1 month prior to implementation.

14) The analytical sampling results for each sample collected under **Condition (13)** shall be reported in writing to the Consent Authority - Attention: Compliance Manager, as soon as possible within-but no later than two weeks ~~of~~ after receipt of the results from the laboratory by the consent holder, together with a reading of the 24-hour wastewater discharge volume for the day of sampling.

15) The consent holder shall by 15 ~~February~~ August each year forward an annual report in writing to the Consent Authority - Attention: Compliance Manager, with a copy provided to Aukaha and Te Ao Mārama Inc. The annual report shall cover the period 1 ~~January~~ July to 30 ~~December~~ 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 year's results;
- c. Comments on the wastewater treatment plant's operation;
- d. Summary of volumes of treated wastewater discharged to water;
- e. Summary of quality of treated wastewater discharged to water;
- f. Summary Interpretation of all analytical results from the monitoring for the previous year, ~~and an interpretation of the results,~~ particularly with regard to the discharge of treated wastewater to water;
- g. Summary of trends in receiving environment, any areas of concern and outlining any changes to the system or operation to mitigate concerns;
- h. Comments on compliance with the conditions of this discharge permit;
- i. Summary of any complaints received, the validity of each complaint and the corrective action taken; and

j. Any other issues considered relevant by the consent holder.

16) The consent holder shall, at least monthly and after any other specific event identified in the Operations and Management Manual, undertake a visual inspection of the discharge channel and outfall and keep written and photographic records of each inspection, to determine there is no scour or erosion within the channel, as a result of the discharge of treated wastewater.

Long-term solution

17) The consent holder shall achieve the following milestones within the term of this consent:

- a. Lodge an application for the approvals required under the Resource Management Act 1991 to commission a new long-term solution for the disposal of treated wastewater by 31 May 2026.
- b. Complete the engineering design for a new disposal system by 31 December 2027, if the application in (a) is approved by 31 December 2026, or within 12 months of the application in (a) being approved, whichever is the later.

18) The Consent Holder must, every 6 months, submit a progress report to the Consent Authority - Attention: Compliance Manager, Aukaha and Te Ao Mārama Inc, by 15 February and 15 August each year detailing progress made towards meeting the deadlines in **Condition (17)**.

General

19) The consent holder shall surrender discharge permit RM13.215.03.V2 within 1 month of the first exercise of this consent.

20)

a. The consent holder shall construct a treated wastewater emergency storage pond by 31 December 2027. The treated wastewater emergency storage pond shall be for wastewater to be re-directed to if there are process failures at the wastewater treatment plant and the consent holder considers that its use is necessary to mitigate potential adverse effects on the receiving environment or to ensure compliance with the conditions of this consent.

a.b. Upon completion of the treated wastewater emergency storage pond, the Operations and Maintenance Manual shall be updated to identify

events or situations that would trigger the re-direction of wastewater to the pond in accordance with (a).

b.c. If the consent holder directs treated wastewater to the treated wastewater emergency storage pond, it shall notify the Consent Authority - Attention: Compliance Manager within 24 hours with reasons for the re-direction and expected duration.

21)

a. Warning notices which can be read from a distance of five metres in both English and Te Reo Māori, shall be installed and maintained at the following locations:

i. At the points where there is a public track crossing the discharge channel; ~~and~~

ii. ~~Beside the outfall on the Shotover Riverbanks; and-~~

~~iii.~~ At the downstream end of the mixing zone, approximately 200m downstream of the outfall.

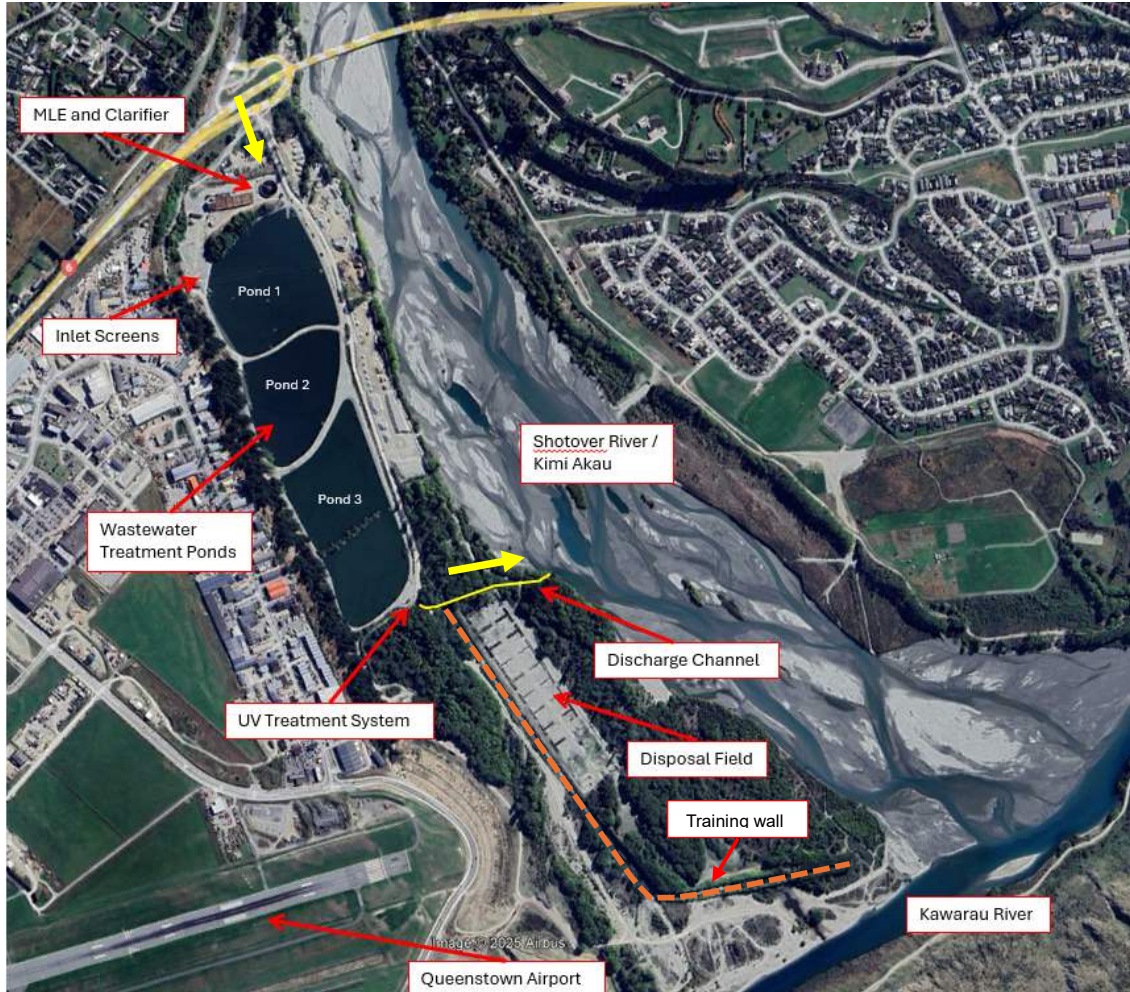
b. The warning notices shall be able to be read from at least 2 metres away ~~and~~ advise the public of the existence of a wastewater outfall and the potential risk of swimming in the immediate vicinity downstream.

22) 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, or which become evident after the date of commencement of the consent; or
- b. Ensuring the conditions of this consent are consistent with any National Environmental Standards or the relevant rule in an operative regional plan; or
- c. Requiring the consent holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.

ADVICE NOTE: *This permit does not authorise the discharge of sludge to land or water.*

Appendix A – Location Map



Site layout of Shotover WWTP (Imagery from Google Earth, April 2023). Yellow arrows show direction of flow into and out of treatment process.

Note 1: Pond 1 is now empty and being decommissioned in line with the planned upgrades of the WWTP site.

Note 2: The Wastewater Treatment Ponds 2 and 3 will be decommissioned ~~after 31 December 2025 when the soon as the~~ second MLE and Clarifier is operational.