

DISCHARGE PERMIT

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

Name: Clutha District Council

Address: 1 Rosebank Terrace, Balclutha

To discharge waste, hazardous waste, and leachate to land, in a manner that may result in contaminants entering groundwater during the continued operation, expansion, and progressive rehabilitation of the Mt Cooee Landfill.

For a term expiring 16 May 2050

Location of consent activity: Mt Cooee Landfill, Kaitangata Highway, approximately 700 metres southeast of the intersection of Kaitangata Highway and Ipswich Street, Balclutha

Legal description of consent location: Lot 1 DP 12203, Lot 2 DP 12203, Part Lot 61 DP 2254

Map Reference (NZTM2000) approximate E1350177 N4873812
site midpoint:

Conditions**Specific Conditions**

1. Under section 125 of the Resource Management Act 1991, this consent lapses five years after the date of issue of the consent unless:
 - a) The consent is given effect to; or
 - b) The Consent Authority extends the period after which the consent lapses.
2. This consent is also subject to the General Conditions in Schedule 1 – General Conditions. In the event of differences or conflict between the general conditions and the conditions of this consent, the conditions of this consent prevail.
3. The total volume of waste received at the landfill must not exceed 225,000 tonnes over the life of the consent.
4. The maximum height of the landfill must not exceed 36.0 m RL, including capping, after settling.

Waste Acceptance Conditions

5. The active landfill area must not be open to the general public.

6. The waste acceptance criteria and waste acceptance procedures must be in accordance with those for a Class 1 landfill in the WasteMINZ Technical Guidelines for Disposal to Land 2022, unless those guidelines are superseded by more recent guidelines. The waste acceptance criteria and waste acceptance procedures must be included in the Landfill Management Plan.
7. The Consent Holder must:
 - a) Review the waste acceptance criteria in the Landfill Management Plan annually, and
 - b) Prepare a report identifying any changes and/or additions required to give effect to any changes in applicable Ministry for the Environment and Environmental Protection Authority guidance, standards, or notices, including as a result of emerging contaminants.

The report must be provided as part of the annual review of the Landfill Management Plan under General Condition 5.

8. The following wastes must not be accepted for disposal:
 - a) Liquid wastes.
 - b) Wastes or substances classified as explosive, flammable, oxidising, or corrosive under the Hazardous Substances and New Organisms Act 1996.
 - c) Waste marked with an asterisk on the NZ Waste List (L Code).
9. Waste deliveries must only be received at the landfill between the hours of:
 - a) Monday to Friday 8:00 am – 4:30 pm.
 - b) Saturday and Sunday 10:00 am – 4:30 pm.

Waste deliveries must not be received at the landfill on Christmas Day, Boxing Day, Good Friday, New Years' Day, 2nd January, and the morning of ANZAC Day (closed until 1:30 pm).

10. A notice must be placed at the landfill entrance which identifies the wastes that are unacceptable at the landfill.
11. Asbestos, both as Asbestos Containing Material and as asbestos-contaminated soils, may be accepted at the landfill as a special waste. The location of asbestos within the landfill must be recorded by GPS. Asbestos must only be accepted in accordance with the Health and Safety in Employment (Asbestos Regulations) 2016 or subsequent amendments.
12. No composting of any material may occur on site.
13. The Consent Holder must maintain a record of:
 - a) The quantities and types of waste accepted at the landfill;
 - b) All load inspections; and
 - c) Disposal locations of special wastes.

These records must be included in the Annual Report required by General Condition 25 and provided to the Consent Authority at any other time upon request.

14. The Consent Authority must be immediately notified if any waste delivery vehicle is turned away from the landfill that contains waste that does not comply with the waste acceptance criteria in the Landfill Management Plan. The details of the breach should also be recorded in the site diary.
15. The detailed design of the landfill must ensure that the temporary and permanent engineered cut and fill slopes, toe embankment, and the landfill with waste placement, achieve a factor of safety of at least 1.5 under static conditions.
16. The Consent Holder must inspect the landfill surface and surrounds within seven days of any significant earthquake event (>1:50 year return period) and must provide a report to the Consent Authority within one month of completion of such inspection, on any damage caused to the landfill by the earthquake, any necessary repairs, and timeframes for completion of repairs.

Landfill Cover

17. Daily cover must be placed over the entire working face (excluding areas of inert waste) by the end of each operating day so that no refuse remains exposed overnight. Daily cover must be a minimum of 150 millimetres of soil, or such other cover/materials as may be specified in the Landfill Management Plan, as approved by the Otago Regional Council. If membrane cover is to be used, it must provide equivalent odour control to 150 millimetres of soil cover.
18. Except as otherwise required by Condition 6 of Discharge Permit RM21.668.02, all special waste, highly odorous waste, and medical waste must be covered no more than 30 minutes following its placement with at least non-combustible compacted soil cover to a minimum depth of 150 millimetres.

Advice note:

Discharge Permit RM21.668.02 Condition 6 imposes additional requirements for the disposal of highly odorous wastes.

19. All areas where further waste will not be placed for three months must be covered with intermediate soil cover to a minimum depth of 300 millimetres and grassed.
20. Final capping on all stages of the landfill must comprise, from top to bottom, the following minimum layers:
 - a) Maintained grass cover/plantings
 - b) 150 mm topsoil
 - c) 300 mm subsoil layer
 - d) 200 mm drainage layer
 - e) 300 mm compacted soil (permeability less than 10^{-7} m/s)
 - f) Geosynthetic clay liner
 - g) 500 mm combination of intermediate soil cover and gas dispersion layers
 - h) Daily cover layer and waste layer.

The Consent Holder may use an alternative final cap demonstrated to provide equivalent or better performance compared with the cap specified above. Any alternative final cap must be submitted for certification by the Consent Authority in accordance with General Condition 3.

Leachate Management

21. All leachate withdrawn from the landfill cells, including during all stages of the construction of the new cells, must be conveyed via enclosed pipe to the leachate pump station and must be removed off-site to a wastewater treatment facility approved to accept the leachate.
22. All liquid generated in the organics or general waste receival areas of the transfer station must be treated as leachate and piped directly to the leachate pump station for removal off-site to a wastewater treatment facility approved to accept the leachate.
23. The Consent Holder must manage leachate such that the leachate head upon the liner does not exceed 300 millimetres at any time.
24. The Consent Holder must ensure that the back-up electrical supply is available to ensure that the operation of the leachate collection system is not interrupted through loss of mains power supply.

Monitoring

25. The Consent Holder must undertake monitoring in accordance with Conditions 26-36 to ensure that the Stage 1 (existing) and Stage 2 (new) landfill cells are providing leachate containment.
26. The Consent Holder must, within three months of the granting of these consents, install two new groundwater monitoring wells at the site for the purpose of monitoring the migration of leachate around the ends of the sheet pile wall, in the approximate locations shown in Appendix A of this consent. The location and screening depth of each well must be appropriate to detect the migration of any leachate around the end of the sheet pile wall. The construction of the monitoring wells must comply with the conditions of Land Use Consent RM25.122.01.
27. All leachate, groundwater, surface water, and sediment pond water sampling required under Conditions 30-36 must meet the following requirements:
 - a) Sampling must be undertaken at the specified locations indicated in Conditions 30-36.
 - b) All leachate, groundwater, stormwater, and surface water sampling required on a quarterly basis by Conditions 30-36 must be undertaken on the same day or series of days so as to enable a valid comparison of upstream and downstream (or up-gradient and down-gradient) data.
 - c) Sampling must be undertaken, or overseen by, a suitably qualified professional and collected in accordance with the relevant National Environmental Monitoring Standard (NEMS) below:
 - i. National Environmental Monitoring Standards Water Quality Part 1 of 4: Sampling, Measuring, Processing and Archiving of Discrete Groundwater Quality Data;
 - ii. National Environmental Monitoring Standards Water Quality Part 2 of 4: Sampling, Measuring, Processing and Archiving of Discrete River Quality Data; and
 - d) All sample analysis must be performed by a laboratory that meets International Accreditation New Zealand (“IANZ”) approved laboratory.
28. The volume of combined groundwater and leachate abstracted must be measured in accordance with Condition 4 of Water Permit RM21.668.04.

29. All groundwater monitoring wells must be maintained to prevent the ingress of surface water and to enable accurate monitoring.
30. The Consent Holder must undertake the leachate monitoring outlined in Table 1 below. The first monitoring round must occur no more than three months following the issue of these consent.

Table 1 Leachate Monitoring

Frequency	Location (as shown in Appendix A)	Parameter (units)
Automatically, at 15-minute intervals	Leachate pump station	Flow (L/s)
Quarterly	Leachate pump station	pH (pH units)
		Electrical conductivity (mS/cm)
		Dissolved oxygen (mg/L)
		Alkalinity
		Sulphate
		Chloride
		Sodium
		Potassium
		Calcium
		Magnesium
		Total kjeldahl nitrogen
		Ammoniacal nitrogen
		Nitrate nitrogen
		Dissolved reactive phosphorus
		Arsenic
		Copper
		Chromium
		Cadmium
		Lead
		Nickle
		Iron
		Manganese
		Zinc
		Boron
		Volatile organic compounds (VOC)
		Semi volatile organic compounds (SVOC)
		PFOS
		PFOA
		BOD5
		COD5

31. The Consent Holder must undertake the baseline groundwater monitoring outlined in Table 2 below. Groundwater monitoring must commence at least three months prior to landfill construction commencing to establish the baseline water chemistry and inform the development of monitoring trigger levels.

Table 2 Baseline Groundwater and Surface Water Monitoring

Frequency	Location (as shown in Appendix A)	Parameter
Monthly	Groundwater wells: GW7 BH7 BH6 BH6A BH5 BH4 BH3	Groundwater level
		pH (pH units)
		Electrical conductivity (mS/cm)
		Dissolved oxygen (mg/L)
		Alkalinity
		Sulphate
		Chloride
		Sodium
		Potassium
		Calcium
		Magnesium
		Total kjeldahl nitrogen
		Ammoniacal nitrogen
		Nitrate nitrogen
		Dissolved reactive phosphorus
		Aluminium (dissolved)
		Arsenic (dissolved)
		Copper (dissolved)
		Chromium (dissolved)
		Cadmium (dissolved)
	Surface water: WC4 (stream flowing from natural inland wetlands)	Lead (dissolved)
		Nickel (dissolved)
		Iron (dissolved)
		Manganese (dissolved)
		Zinc (dissolved)
		Boron (dissolved)
		Volatile organic compounds (VOC)
		Semi volatile organic compounds (SVOC)
		PFOS
		PFOA
		TSS (for WC3 only)

32. The Consent Holder must undertake the operational groundwater monitoring as outlined in Table 3 below. The first monitoring round must occur no more than three months following the commencement of these consents (for the Stage 1 locations) and no more than three months following the commencement of construction of the new landfill cells (for the Stage 2 location).

Table 3 Operational Groundwater Monitoring Stage 1 and Stage 2 Landfill

Frequency	Location (as shown in Appendix A)	Parameter	Trigger Level (for each location and parameter)
Monthly	<p>Control locations (upgradient wells) Stage 1: GW1A/BH2 GW6</p> <p>Stage 2: GW7</p> <p>Impact locations (downgradient wells) Stage 1: GW2A BH1 GW3 New wells located at the western and eastern extent of the sheet pile wall.</p> <p>Stage 2: BH3 BH4 BH5 BH6 BH6A BH7</p>	Groundwater level	N/A
Quarterly	<p>Control locations (upgradient wells) Stage 1: GW1A/BH2 GW6</p> <p>Stage 2: GW7</p> <p>Impact locations (downgradient wells)</p>	<p>pH (pH units)</p> <p>Electrical conductivity (mS/cm)</p> <p>Dissolved oxygen (mg/L)</p> <p>Alkalinity</p> <p>Sulphate</p> <p>Chloride</p> <p>Sodium</p> <p>Potassium</p> <p>Calcium</p> <p>Magnesium</p>	<p>For control locations: No trigger</p> <p>For impact locations: Trigger levels derived for each location in accordance with Condition 37 and/or 38.</p>

	Stage 1: GW2A BH1 GW3 New wells located at the western and eastern extent of the sheet pile wall. Stage 2: BH3 BH4 BH5 BH6 BH6A BH7	Total kjeldahl nitrogen	
		Ammoniacal nitrogen	
		Nitrate nitrogen	
		Dissolved reactive phosphorus	
		Aluminium (dissolved)	
		Arsenic (dissolved)	
		Copper (dissolved)	
		Chromium (dissolved)	
		Cadmium (dissolved)	
		Lead (dissolved)	
		Nickel (dissolved)	
		Iron (dissolved)	
		Manganese (dissolved)	
		Zinc (dissolved)	
		Boron (dissolved)	
		Volatile organic compounds (VOC)	
		Semi volatile organic compounds (SVOC)	
		PFOS	
		PFOA	

33. The Consent Holder must undertake the operational monitoring of the underdrain as outlined in Table 4 below. The first monitoring round must occur no more than three months following the commencement of construction of the new landfill cells.

Table 4 Underdrain Monitoring

Frequency	Location (as shown in Appendix A)	Parameter	Trigger Level (for each location and parameter)
Continuous monitoring	Underdrain	pH (pH units)	Trigger levels derived for GW7 in accordance with Condition 37 and/or 38.
		Electrical conductivity (mS/cm)	
Quarterly	Underdrain	pH (pH units)	Trigger levels derived for GW7 in accordance with Condition 37 and/or 38.
		Electrical conductivity (mS/cm)	
		Dissolved oxygen (mg/L)	
		Alkalinity	
		Sulphate	
		Chloride	
		Sodium	
		Potassium	

		Calcium	
		Magnesium	
		Total kjeldahl nitrogen	
		Ammoniacal nitrogen	
		Nitrate nitrogen	
		Dissolved reactive phosphorus	
		Aluminium (dissolved)	
		Arsenic (dissolved)	
		Copper (dissolved)	
		Chromium (dissolved)	
		Cadmium (dissolved)	
		Lead (dissolved)	
		Nickel (dissolved)	
		Iron (dissolved)	
		Manganese (dissolved)	
		Zinc (dissolved)	
		Boron (dissolved)	
		Volatile organic compounds (VOC)	
		Semi volatile organic compounds (SVOC)	
		PFOS	
		PFOA	

34. Water that collects in the underdrain sump may be discharged directly to the receiving environment in circumstances where there are no exceedances of any of the trigger levels specified in Table 4. Where any trigger level is exceeded, the underdrain water must be treated as leachate and discharged directly via enclosed pipe to the leachate pump station.

35. The Consent Holder must undertake the following stormwater monitoring outlined in Table 5.

Table 5 Stormwater Monitoring

Frequency	Location (as shown in Appendix A)	Parameter	Trigger Level (for each location and parameter)	Other appropriate guideline
Quarterly	Sediment retention ponds 1 and 2 and, if sufficient water is present for sampling, at WC2 and WC3.	pH (pH units)	The lower of: - Trigger levels derived for each location in accordance with Condition 37 and/or 38, or	ANZECC (2000)
		Electrical conductivity (mS/cm)		



		Dissolved oxygen (mg/L)	- the ANZG 95% DGV, or other appropriate guideline if there is no relevant ANZG level for that parameter.	NPS-FM attribute band A
		Alkalinity		
		Sulphate		
		Chloride		
		Sodium		
		Potassium		
		Calcium		
		Magnesium		
		Total kjeldahl nitrogen		
		Ammoniacal nitrogen		NPS-FM attribute band B
		Nitrate nitrogen		NPS-FM attribute band B
		Dissolved reactive phosphorus		Regional Plan: Water for Otago Table 15.2.2
		Aluminium (dissolved)		
		Arsenic (dissolved)		
		Copper (dissolved)		
		Chromium (dissolved)		
		Cadmium (dissolved)		
		Lead (dissolved)		
		Nickel (dissolved)		
		Iron (dissolved)		
		Manganese (dissolved)		
		Zinc (dissolved)		
		Boron (dissolved)		
		Volatile organic compounds (VOC)		
		Semi volatile organic compounds (SVOC)		
		PFOS		PFAS National Environmental Management Plan (version 2.0)
		PFOA		PFAS National Environmental

				Management Plan (version 2.0)
		Total suspended sediment (TSS)		

*Refer Condition 37 when there is insufficient historic data.

36. The Consent Holder must undertake the following surface water monitoring outlined in Table 6.

Table 6 Surface Water Monitoring

Frequency	Location (as shown in Appendix A)	Parameter	Trigger (for location and parameter)	Level each and	Other appropriate guideline
Quarterly	SW1 (must be in the Clutha River/Mata-au and upstream of the landfill by no more than 100 m) SW2 (must be downstream of the landfill by no more than 100 m) WC4	pH (pH units)	For SW1: No trigger.		ANZECC (2000)
		Electrical conductivity (mS/cm)			
		Dissolved oxygen (mg/L)	For SW2: ANZG 95% DGV, or other appropriate guideline if there is no relevant ANZG level for that parameter.		NPS-FM attribute band A
		Alkalinity			
		Sulphate			
		Chloride			
		Sodium			
		Potassium			
		Calcium			
		Magnesium			
		Total kjeldahl nitrogen	For WC4: the lower (more conservative) of trigger levels derived for SW4 in accordance with Condition 37 and/or 38 or ANZG 95% DGV or other appropriate guideline, if there is no relevant ANZG level for that parameter		
		Ammoniacal nitrogen			NPS-FM attribute band B
		Nitrate nitrogen			NPS-FM attribute band B
		Dissolved reactive phosphorus			Regional Plan: Water for Otago Table 15.2.2
		Aluminium (dissolved)			
		Arsenic (dissolved)			
		Copper (dissolved)			
		Chromium (dissolved)			
		Cadmium (dissolved)			
		Lead (dissolved)			
		Nickel (dissolved)			

		Iron (dissolved)		
		Manganese (dissolved)		
		Zinc (dissolved)		
		Boron (dissolved)		
		Volatile organic compounds (VOC)		
		Semi volatile organic compounds (SVOC)		
		PFOS		PFAS National Environmental Management Plan (version 2.0)
		PFOA		PFAS National Environmental Management Plan (version 2.0)
		Total suspended sediment (TSS)		

37. Where the trigger levels required by Conditions 30-36 are required to be set based on historic data, these must be set at the mean plus three standard deviations for parameter concentrations measured during the previous 5 years of monitoring except for pH which must be the mean plus or minus three standard deviations.

38. The trigger levels required by Conditions 30-36 relating to water quality monitoring:

- a) From the new wells at the ends of the sheet pile wall; and
- b) For any parameters in Tables 1-6 where 5 years of data is not available;

need not be developed until three years of data has been collected, after which time trigger levels must be calculated in accordance with Condition 37, except using only three years data. The trigger levels must thereafter be reviewed at the same time and through the same process as the other groundwater trigger levels established by Condition 38 below.

39. For all monitoring required by Conditions 30-36, the calculated trigger levels must be included in the updated Landfill Management Plan required by General Condition 5. The trigger levels must be reviewed by the Consent Holder every 5 years. The lesser of the then existing trigger levels or those calculated from the preceding 5 years monitoring data must thereafter be adopted and included in the Landfill Management Plan, unless in the opinion of a suitably qualified and experienced water quality scientist any increase in trigger levels is definitively caused by a long-term deterioration in upgradient water quality caused by activities occurring beyond the boundary of the Mt Cooee Landfill site and outside of the control of the Consent Holder, in which case the higher triggers may be used. The Landfill Management Plan must be provided to the Consent Authority for certification in accordance with General Condition 3.

40. For all monitoring required by Conditions 30-36, the trigger levels derived for each parameter and each location must be explicitly recorded in the Landfill Management Plan and must not be changed except as provided for by Condition 38.
41. The monitoring of groundwater, surface water, and stormwater quality required by 30-36 must be assessed against the trigger levels specified in those conditions.
42. The Consent Holder must compile the results of any monitoring required under Conditions 30-36 into tables in digital format (excel spreadsheet file or comma separated value file). One table shall be compiled for each location that monitoring is undertaken.
43. The Consent Holder must provide the collated results of all monitoring required by Condition 41 to the Consent Authority:
 - a) Within 1 week of receiving laboratory results where the trigger levels established under Conditions 30-36 are exceeded;
 - b) Within 1 week of receiving laboratory results where any historical maximum recorded for the site is exceeded;
 - c) Within the Annual Report required by General Condition 25; and
 - d) Otherwise on request.

Adaptive Monitoring and Responses to Monitoring

44. In the event that a trigger level is exceeded at any monitoring location, the Consent Holder must undertake two additional rounds of sampling for the relevant parameter and any other parameters that, in the opinion of a suitably qualified and experienced water quality scientist, are interlinked, at the relevant monitoring well(s), underdrain, stormwater, or surface water monitoring site, no later than 1 week, and again no later than 2 weeks after receiving the results of the initial exceedance and provide the combined results of the additional sampling to the Consent Authority within 1 week of receiving the laboratory results.

Advice note: This condition only applies to SW2 when any parameter exceeding its relevant trigger level at SW2 also exceeds the concentration of that parameter measured at SW1 on the same day.

45. If following completion of the two additional rounds of sampling required by Condition 43 contaminant concentrations continue to exceed the relevant trigger levels the Consent Holder must undertake an investigation into potential causes of the exceedances and prepare a report which must be provided to the Consent Authority no later than 1 month after receiving the laboratory results of the additional sampling under Condition 43. The report must outline likely causes of exceedances, statistical analysis of water quality, actions that will be taken to prevent further exceedances, and proposed follow up monitoring where necessary.

Landfill Fires

46. No burning may occur anywhere on the landfill site and combustible materials must not be stockpiled over the landfill extent.
47. Shredded green waste material must not be stockpiled on site due to the potential for combustion. Shredded green waste must either be used as cover material or removed from site.

48. The Consent Holder must prepare and maintain a Fire Management Plan which includes, but is not limited to:

- a) Fire risk mitigation and readiness procedures;
- b) Fire response procedures to be implemented for surface and sub-surface fires, including monitoring.

The Fire Management Plan may be a standalone plan or form part of the Landfill Management Plan. If provided as a standalone plan, the Fire Management Plan must be provided to the Consent Authority for certification in accordance with General Condition 3.

Litter and Pests

49. The Consent Holder must maintain infrastructure and procedures to ensure, as far as is practicable, that any waste is not blown from the lined area of the landfill, and that litter does not leave the site boundary, in accordance with the Landfill Management Plan.

50. The Consent Holder must manage the landfill to control vermin to minimum practicable levels. A Pest Management Plan must be prepared by a suitably qualified expert for the Mt Cooe site within three months of the granting of these consents. The plan must include site pest management objectives, specific site planning, methodology, traps used, and monitoring of results (kills). The Pest Management Plan must be provided to the Consent Authority for certification in accordance with General Condition 3. The Consent Holder must implement the Pest Management Plan.

51. A Bird Management Plan must be prepared by a suitably qualified and experienced person within three months of the granting of these consents. This plan must be in accordance with the *Mt Cooe Bird Management Plan*, Version 3.0 dated 7 September, prepared by 4Sight. The purpose of the plan is to manage the bird populations at the landfill. The Bird Management Plan must include:

- a) A description of the bird species of relevance;
- b) Bird monitoring procedures, including the qualifications of the persons who will be responsible for monitoring;
- c) The management practices that may be employed to deter or exclude birds from the landfill. Management practices must:
 - i. Set out in a step-wise fashion the order in which practices will be implemented;
 - ii. Prioritise less detrimental (non-lethal) measures over more detrimental (lethal) measures;
 - iii. Include processes for liaising with the South Otago Aero Club in terms of bird strike risks and records of bird strike.
- d) Timelines for review of the plan.

The Bird Management Plan, and any updated version prepared following a review of the plan, must be submitted to the Consent Authority for certification in accordance with General Condition 3.

Advice Note: Under the Wildlife Act 1953, red-billed gulls and black-bills gulls are protected throughout New Zealand, and any bird control methods must ensure that these species are not killed or injured.

52. The Consent Holder must implement the Bird Management Plan.

Landscape and Vegetation Management

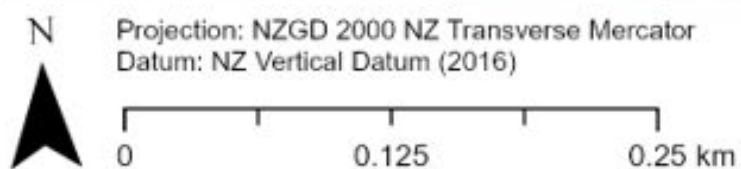
53. Following final capping of any area of the landfill, including the Stage 1 Landfill, landfill slopes must be topsoiled and planted with grass, or other ecologically appropriate shallow-rooting species.
54. The Consent Holder must establish and maintain screening vegetation in accordance with *Landscape Mitigation Concept and Effects Assessment Report*, dated 27 June 2023, including supporting Graphic Supplement, prepared by Mike Moore, and partly replicated in Appendix C of this consent.
55. In addition to Condition 53 above, the Consent Holder must undertake the screen planting along the eastern boundary of the site at least three months prior to commencing construction of the landfill development works, as shown on the Additional Screen Planting Plan dated March 2025, attached as Appendix D to this consent.
56. The Consent Holder must engage an appropriately qualified arborist or similar expert to undertake routine monitoring and maintenance of the existing and proposed screening vegetation to promote their health and long-term stability.

Issued at Dunedin this 19th day of May 2025



Peter Christophers
Team Leader Consents

Appendix A – Monitoring Locations

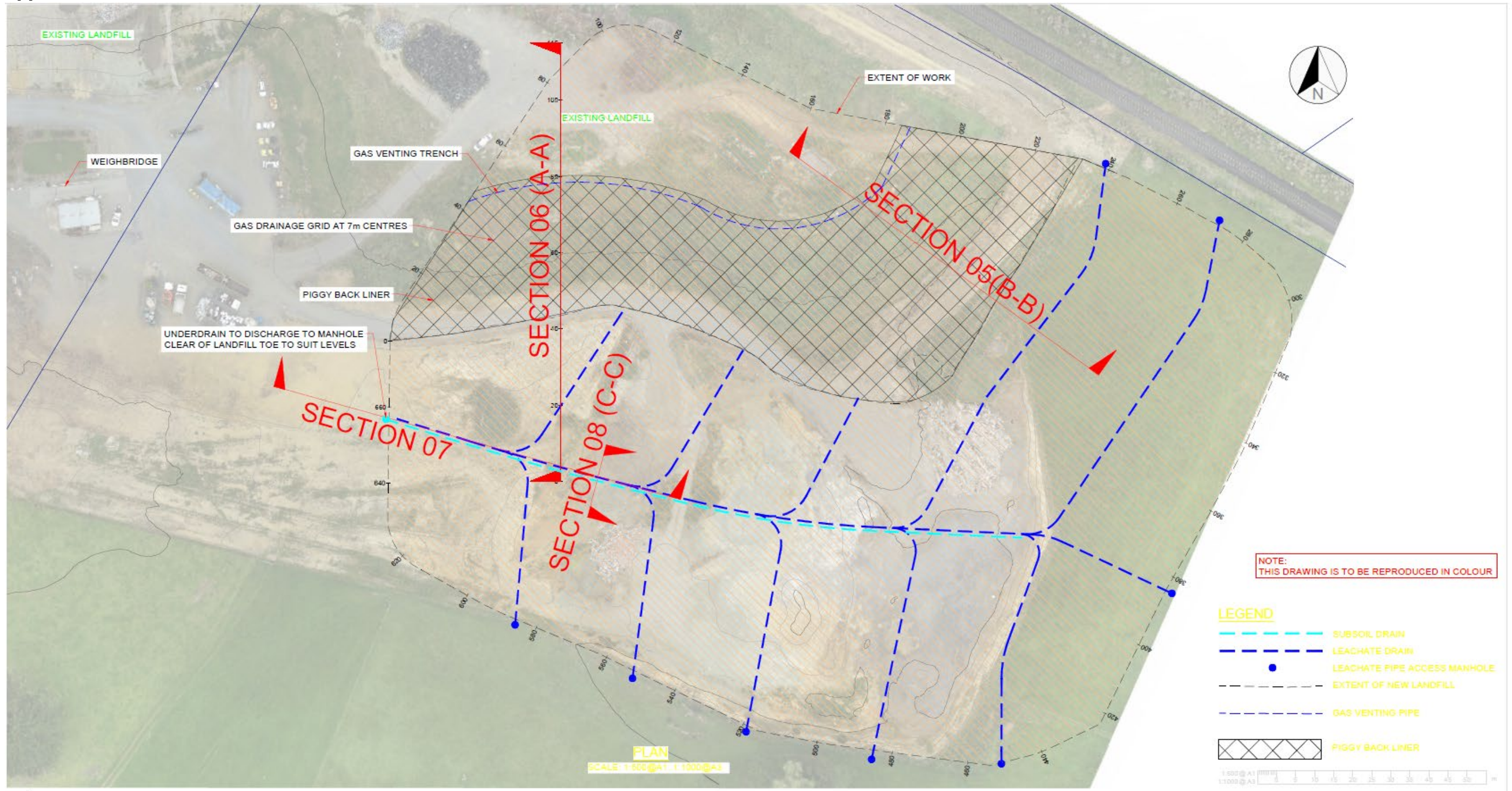


Mt Cooee Landfill Development Plan Mt Cooee Sampling Location Maps



The orange stars indicate the approximate locations of the new groundwater monitoring wells.

Appendix B – Underdrain



Appendix C – Vegetation Planting Plan



Approx Scale 1:2000 (A3)

Figure 14

MIKE MOORE

Bsc, Dip LA, MRRP, ANZILA

LANDSCAPE ARCHITECT

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Appendix D – Screen Vegetation along the Eastern Boundary



Clutha District Council, Proposed Mt Cooee Landfill
Proposed Additional Screen Planting

March 2025
Scale 1:1000 (A3)

Schedule 1 – General Conditions that apply to all Consents

1. The continued operation, expansion, and progressive rehabilitation of the Mt Cooe Landfill and the construction and operation of the Transfer Station and Resource Recovery and Education Centre must be carried out in general accordance with the plans and all information submitted with the application and throughout the consenting process, all referenced by the Consent Authority as consent number RM21.668 and specified below:
 - a) Application titled *Application for Resource Consent and Assessment of Effects on the Environment: Mt Cooe Landfill*, Balclutha, revision 3.0, prepared by WSP, dated 21 June 2023, including appendices A-V;
 - b) Response, dated 22 November 2023, to further information request;
 - c) Response, dated 27 February 2024, to further information request;
 - d) Response, dated 9 April 2024, to further information request;
 - e) Response, dated 20 May 2024, to further information request;
 - f) Response, dated 27 August 2024, to further information request;
 - g) Response, dated 13 September, to further information request;
 - h) Addendum report to landscape assessment, prepared by Mike Moore, dated 15 November 2024.

If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent prevail.

2. These resource consents and a copy of the Otago Regional Council's certified version of any management plan and design details required by these consents must be kept on site at all times, and the Consent Holder must ensure all relevant personnel are made aware of each document's contents.

Certification Process

3. The Consent Holder must follow the process set out below for any plans, documents, designs or specifications (hereafter referred to as 'documents') requiring the certification of an officer of the Consent Authority:
 - a) Documents requiring certification must be submitted to the relevant officer and to compliance@orc.govt.nz in electronic and hard copy form for certification. The certification process must be confined to confirming that the documents adequately give effect to the relevant condition(s).
 - b) Subject to (c) and (e) below, works to which the documents relate must not commence until the Consent Holder has received written certification from the relevant officer.
 - c) If the Consent Holder has not received a response from the relevant officer within 20 working days of the date of submission under (a) above, the documents must be deemed to be certified.

Advice Note: *If the Consent Authority's response is that they are not able to certify the documents the Consent Authority is expected to provide the Consent Holder with reasons and recommendations for changes to the documents in writing. they must provide the Consent Holder with reasons and recommendations for changes to the documents in writing.*

- d) The Consent Holder must consider any reasons and recommendations of the relevant officer and resubmit amended documents for certification.
- e) If the Consent Holder has not received a response from the relevant officer within 10 working days of the date of resubmission under (d) above, the documents must be deemed to be certified.
- f) If the relevant officer's response is that they are still not able to certify the resubmitted documents then the Consent Holder must nevertheless implement the resubmitted documents with a notation that certification of them has not occurred.
- g) Condition 3(f) does not apply to the detailed design of the landfill required by General Conditions 9-18. Written certification of the detailed design of the landfill must be obtained prior to its construction.
- h) Certified documents may be amended at the request of the Consent Holder at any time subject to recertification undertaken in accordance with parts (a) to (f) of this condition with references in those clauses to certification to be read as recertification.

Landfill Management Plan

- 4. The operation of the landfill and waste diversion and transfer facilities must be undertaken in accordance with a Landfill Management Plan, with the overall objective of setting out details of the practices and procedures to be adopted to achieve compliance with the conditions of resource consent.
- 5. The Landfill Management Plan must be prepared by a suitably qualified and experienced person and must address how the following matters will meet any requirements, limits, or restrictions set out by the conditions of these resource consents:
 - a) The Landfill Management Plan must, to the extent practicable, be in accordance with best industry practice.
 - b) The stages and order of landfill development, including matters to be completed prior to each stage.
 - c) Construction and testing of the lining system.
 - d) Landfill gas, leachate, groundwater and stormwater management.
 - e) Erosion and sediment controls during construction and operation.
 - f) Types of waste to be accepted and those that are prohibited.
 - g) Waste acceptance control and monitoring of the types of waste accepted, including any report as required by Condition 7 of Discharge Permit RM21.668.01.
 - h) Methods of placing and covering waste, including highly odorous and special waste, including provision for the rejection of highly odorous material that is likely to result in offensive or objectionable odours beyond the site boundary or breach Condition 3 of Discharge Permit RM21.668.02.
 - i) Management of the active landfill area and the transfer/resource recovery areas.
 - j) Fire preparedness and response management, including fire risk mitigation and readiness procedures, fire response procedures to be implemented for surface and sub-surface fires, and monitoring.
 - k) Odour and dust management.
 - l) Noise management.

- m) Litter management.
 - n) Plant and animal pest management, including bird control.
 - o) Monitoring procedures, including locations, parameters, frequency, detection limits and trigger levels.
 - p) Landfill inspections and maintenance.
 - q) Emergency management and contingency response procedures.
 - r) Complaints response procedures.
 - s) Record-keeping and reporting requirements.
 - t) Final landfill capping, post settlement height, shape and contours of the land.
 - u) Vegetation management.
 - v) Landfill closure and aftercare.
6. Within six months of the issue of these consents, the existing Landfill Management Plan must be updated to reflect the requirements, limits, or restrictions set out in the conditions of these resource consents and provided to the Consent Authority for certification in accordance with General Condition 3.
 7. By 1 July each year the Consent Holder must complete a review of the Landfill Management Plan to ensure that the management practices contained within them remain adequate to ensure compliance with the conditions of these consents and continue to reflect best operational practice. If amendments are made to the Landfill Management Plan, the amended plan must be submitted to the Consent Authority for recertification in accordance with General Condition 3.
 8. The Consent Holder may make amendments to the Landfill Management Plan at any time. Any amendments must be submitted to the Consent Authority for recertification in accordance with General Condition 3.

Construction and Detailed Design

9. All investigations, detailed design and supervision of construction of the landfill must be undertaken by suitably experienced Chartered Professional Engineer (CPEng).
10. At least three months prior to commencing construction of the landfill development works, including for each stage of the landfill, the Consent Holder must submit detailed design drawings which have been reviewed by an independent, suitably experienced Chartered Professional Engineer (CPEng), to the Consent Authority for certification in accordance with General Condition 3.
 - a. The new landfill cells must be designed and constructed with a groundwater collection system (underdrain) beneath or around the landfill liner which is sized and configured to ensure effective sub-liner drainage, with a separate sump from the leachate collection system. Groundwater collected from the underdrain (underdrainage) must be discharged to an appropriate receiving location as specified by Condition 34 of Discharge Permit RM21.668.01.
11. The Consent Holder must ensure that the leachate collector pipes are able to be flushed.
12. Leachate conveyance and storage facilities must be sealed to minimise odour.

13. The lining system for both the base and side slopes must, as a minimum, comprise of the following lining system:
 - a) Type 2 Lining system (from top to bottom)
 - i. 300 mm layer of leachate drainage material
 - ii. Protection geotextile
 - iii. 1.5 mm HDPE geomembrane
 - iv. Geosynthetic clay liner (GCL)
 - v. 600 mm compacted soil with a coefficient of permeability $k < 1 \times 10^{-8}$ m/s.
14. The lining system for the batters which interface with the existing unlined landfill cells must, as a minimum, comprise the following lining system:
 - a) 300 mm layer of leachate drainage material
 - b) Liner protection layer
 - c) 1.5 mm HDPE geomembrane textured both sides
 - d) Geosynthetic clay liner (GCL)
 - e) 600 mm compacted soil with a coefficient of permeability $k < 1 \times 10^{-8}$ m/s
15. The Consent Holder may use an alternative lining system demonstrated to provide equivalent or better performance compared with the specified system. Any alternative lining system must be submitted for certification by the Consent Authority in accordance with General Condition 3.
16. The leachate drainage system must be designed to achieve leachate head that does not exceed 300 mm at any point on the geomembrane liner.
17. Within three months of the completion of each stage of the landfill construction works the Consent Holder must submit to the Consent Authority a completed Construction Quality Assurance Report for certification in accordance with General Condition 3. The Construction Quality Assurance Report must include as-built drawings completed by a suitably experienced Chartered Professional Engineer for each completed stage of the landfill development works.
18. Within two years of the issue of these consents, the existing leachate overflow pond must be replaced with a fully contained holding tank to prevent the discharge of leachate into the Clutha River/Mata-au during flood events. The capacity of the holding tank must be calculated by a Suitably Experienced Chartered Engineer and the design provided to the Consent Authority for certification in accordance with General Condition 3.
19. Prior to commencing any landfill construction works, the Consent Holder must engage a Suitably Qualified and Experienced Practitioner to prepare a Construction Erosion and Sediment Control Plan and provide it to the Consent Authority for review and approval. The Construction Erosion and Sediment Control Plan shall include at least the following:
 - a) Details of all principles, procedures and practices that must be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation if required;
 - b) The design criteria and dimensions of all key erosion and sediment control structures;
 - c) A site plan of a suitable scale to identify:
 - i. The locations of waterways;
 - ii. The extent of soil disturbance and any vegetation removal;
 - iii. Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses;

- iv. Areas of cut and fill;
 - v. Locations of topsoil stockpiles;
 - vi. All key erosion and sediment control structures;
 - vii. The boundaries and area of catchments contributing to all stormwater impoundment structures;
 - viii. The locations of all specific points of discharge to the environment; and
 - ix. Any other relevant site information .
- d) Dust control measures;
 - e) Progressive stabilisation of vegetation or equivalent means as soon as practicable;
 - f) A construction timetable for the erosion and sediment control works and the bulk earthworks proposed;
 - g) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
 - h) Maintenance, monitoring and reporting procedures;
 - i) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures;
 - j) Procedures and timing for review and/or amendment to the CЕСP; and
 - k) Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.
20. The construction of the Stage 2 Landfill must not occur within 100 m of the areas of natural inland wetland located at the southeast of the site.

Landfill Operations

21. The Consent Holder must appoint and retain an appropriately qualified and experienced person to supervise the operation of the landfill.
22. The final cap must achieve a minimum grade of 5% in all areas and incorporate drainage so as to prevent ponding of stormwater and erosion and cracking of the cap surface.
23. A walkover visual inspection of the landfill operational area must be undertaken at least monthly and immediately following storm events greater than 50% Annual Exceedance Probability (AEP), to check for:
- a) Vegetation die off;
 - b) Cracking of the final cap surface;
 - c) Subsidence and erosion;
 - d) Landfill gas leaks and odour;
 - e) Leachate break out through the cap;
 - f) Waste protruding through the cap; and
 - g) Stormwater system overflows or damage.

Any defects must be remedied by the Consent Holder as soon as practicable. A report on the inspection and details of any remedial actions must be forwarded to the Consent Authority within one month of each inspection and must be recorded in the Annual Report required by General Condition 25.

Annual Report

24. The Consent Holder must compile an annual report on the operation of the landfill, which must include as a minimum:

- a) A summary of the development of the landfill, including the status of landfilling operations on the site and work completed during the report period;
- b) Any instances of non-compliance with the conditions of these consents or difficulties in achieving the practices and procedures in the Landfill Management Plan and measures taken to address those difficulties;
- c) Construction or development activities proposed for the next year of the landfill operation;
- d) Any emergency management procedures and contingency response procedures specified in the Landfill Management Plan that were implemented during the preceding year;
- e) Collated summaries and analyses of all monitoring results and other data required under these consents, including:
 - i. The results of all leachate, groundwater, stormwater, and surface water monitoring undertaken. Results must be supplied in table format within the report, with a copy of all laboratory analytical reports appended.
 - ii. A description of the dates of monitoring and the climatic conditions on those dates, and any other pertinent field observations.
 - iii. The results of all air quality monitoring, including all field monitoring record sheets.
 - iv. Interpretation of all data, particularly with regard to landfill performance. Trends must be identified and discussed.
- f) Reporting of rainfall data, including comment on the significance of the rainfall and how it affected the landfill management that year;
- g) Reporting of measured leachate discharge from the site for the year, including monthly totals and comparison with recorded rainfall including monthly totals;
- h) A record of the quantities and types of waste accepted at the landfill, the disposal locations of special wastes, and records of load inspections; and
- i) A summary of all complaints received over the past year, and any subsequent actions taken in response to those complaints.

The report period shall be 1 July to 30 June each year. The report must be forwarded to the Consent Authority by 1 September each year unless otherwise agreed in writing with the Consent Authority.

Landfill Closure Management Plan

- 25. The closure and aftercare of the landfill must be undertaken in accordance with a Landfill Closure Management Plan (LCMP).
- 26. The Landfill Closure Management Plan must be prepared by a suitably qualified and experienced person, with an overall objective of setting out details of the practices and procedures to be adopted to achieve compliance with the conditions of these resource consents.
- 27. The Landfill Closure Management Plan must address how the following matters will meet any requirements, limits, or restrictions set out in the conditions of these resource consents:
 - a) The LCMP must, to the extent practicable, be in accordance with best industry practice.
 - b) Long term use of the landfill site.
 - c) Post closure landfill gas, leachate, groundwater and stormwater management.
 - d) Post closure maintenance of the landfill cap.
 - e) Post closure monitoring procedures, including locations, parameters, and frequency.
 - f) Landfill inspections and maintenance.
 - g) Emergency management and contingency response procedures.

- h) Complaints response procedures.
 - i) Record-keeping and reporting requirements.
28. The Landfill Closure Management Plan must be submitted to the Otago Regional Council at least 12 months prior to the final acceptance of waste at the landfill for written certification in accordance with General Condition 3.
29. Every three years following the final acceptance of waste at the landfill, the Consent Holder must complete a review of the certified Landfill Closure Management Plan to ensure that the management practices contained within the plan remain adequate to ensure compliance with the conditions of these consents. If amendments are made to a management plan, the amended plan must be submitted to the Otago Regional Council for written recertification in accordance with General Condition 3.

Management Plan Amendment

30. The Consent Holder may make amendments to the certified Landfill Management Plan or Landfill Closure Management at any time. Any amendments must be submitted to the Otago Regional Council for written recertification in accordance with General Condition 3.

Complaints

31. A record of all complaints received must be kept by the Consent Holder. This record must include:
- a) The date, time, location and nature of the complaint;
 - b) The name, phone number, and address of the complainant, unless the complainant elects not to supply this information;
 - c) Where practicable, weather conditions at the time of the concern or complaint, including wind direction and cloud cover if the complaint relates to noise, dust or air quality;
 - d) Known activities occurring on site at the time and in the vicinity of the concern or complaint; and
 - e) Action taken by Consent Holder to remedy the situation and any policies or methods put in place to avoid or mitigate the problem occurring again.

Archaeological and Heritage

32. In the event that an unidentified archaeological site is located during works, the following will apply:
- a) Work must cease immediately at that place and within 20 metres around the site.
 - b) All machinery must be shut down, the area must be secured, and the Heritage New Zealand Pouhere Taonga Regional Archaeologist and the Consent Authority must be notified.
 - c) If the site is of Māori origin, the Consent Holder must also notify the appropriate iwi groups or kaitiaki representative of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken, as long as all statutory requirements under legislation are met (Heritage New Zealand Pouhere Taonga Act 2014, Protected Objects Act 1975).

- d) If human remains (kōiwi tangata) are uncovered the Consent Holder must advise the Heritage New Zealand Pouhere Taonga Regional Archaeologist, NZ Police, the Consent Authority and the appropriate iwi groups or kaitiaki representative and the above process under (c) will apply. Remains are not to be disturbed or moved until such time as iwi and Heritage New Zealand Pouhere Taonga have responded.
- e) Works affecting the archaeological site and any human remains (kōiwi tangata) must not resume until Heritage New Zealand Pouhere Taonga gives written approval for work to continue. Further assessment by an archaeologist may be required.
- f) Where iwi so request, any information recorded as the result of the find such as a description of location and content, must be provided for their records.

Advice Note: Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place in New Zealand that was associated with human activity that occurred before 1900 and provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand (see Section 6). For pre-contact Māori sites this evidence may be in the form of Taonga (artefacts) such as toki (adzes) or flake tools as well as bones, shells, charcoal, stones etc. In later sites of European/Chinese origin, artefacts such as bottle glass, crockery etc. may be found, or evidence of old foundations, wells, drains or similar structures. Pre-1900 buildings are also considered archaeological sites. Burials/kōiwi tangata may be found from any historic period. Archaeological sites are legally protected under Sections 42(1) & (2) of the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence under Section 87 of the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site without an Authority from Heritage New Zealand Pouhere Taonga irrespective of whether the works are permitted, or a consent has been issued under the Resource Management Act 1993 or Building Act 1991.

Review

33. 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 during the period of three months after receiving the Annual Report each year, as specified in condition 52 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 becomes evident after the date of commencement of the consent;
 - b) Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement;
 - c) Reviewing the frequency of monitoring or reporting required under this consent;
 - d) Amending the monitoring programme set out in conditions;
 - e) Requiring the Consent Holder to adopt the best practicable option, in order to prevent or minimise any adverse effect on the environment arising as a result of the exercise of this consent; or
 - f) Reviewing whether the landfill gas management is appropriate, including but not limited to whether landfill gas collection and destruction should be undertaken.