

RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTHXX

File Number: 61 76 85A

Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:

Gleeson Managed Fill Limited
17 Aerovista Place
Wiri
Auckland 2104

(hereinafter referred to as the Consent Holder)

Consent Type: Land Use Consent

Consent Subtype: Land - disturbance

Activity authorised: To undertake earthworks in association with Fill Areas 2, 3 and 4 and ancillary activities

Location: Gleeson Quarries, Riverview Rd, Huntly

Map reference: NZTM 1790250.1500 E 5837271.0300 N

Consent duration: This consent will commence in accordance with section 116 of the Resource Management Act 1991 (RMA) and will expire on XX 2057.

Subject to the conditions overleaf:

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.

Winter Works

2. The earthworks authorised by this resource consent shall not be carried out during the winter period, being 1st May to 30th September inclusive, in any year that this consent is current unless authorised by the Waikato Regional Council.
3. The Consent Holder shall ensure that earthworks and soil disturbance areas (not including Managed Fill disposal areas) are appropriately stabilised by 30 April of each year unless otherwise approved in writing by the Waikato Regional Council. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydroseeding, revegetating and mulching) that will minimise erosion of exposed soil to the extent practicable.

Advice Note: For the avoidance of doubt earthworks authorised by this consent include establishment and preparation for the discharge of managed fill and overburden disposal and any other works necessary to maintain and the rehabilitate the site. It does not include managed fill disposal, overburden disposal and handling and recontouring of the managed fill site which is authorised under AUTHXX and AUTHXX

4. Requests to undertake works during the period 1st May to 30th September inclusive shall be submitted in writing to the Waikato Regional Council at least 20 working days prior to the commencement of activities under this resource consent (if works are programmed to start before 1 October) and by 1st April each year thereafter, and shall be in the form of a letter of request and shall include any necessary amendments to the approved E&SCP – Schedule One, General Conditions.
5. At least 10 working days prior to the commencement of activities under this resource consent, the Consent Holder shall submit to Waikato Regional Council an updated Contaminated Site Management Plan (CSMP). Prior to submitting the CSMP to the Waikato Regional Council, the CSMP shall be submitted to the Waikato District Council for comment. Any comments received shall be provided to the Waikato Regional Council with the updated CSMP. The CSMP shall be certified in writing by the Waikato Regional Council prior to the commencement of activities under this resource consent. Any future changes to the CSMP shall be reviewed and certified in writing by the Waikato Regional Council acting in a technical certification capacity prior to the changes being implemented.

Advice Note: A draft CSMP was provided during the application process to both support the regional earthworks application and to the Waikato District Council to support the application for land disturbance works under the NES-CS. The draft CSMP is titled 'Contaminated Site Management Plan, Proposed Huntly Managed Fill – Fill Area 3', prepared by EHS Support, dated 1 September 2021 (WRC doc # 21810518).

6. All establishment works shall be carried out in accordance with the Contaminated Site Management Plan.

In terms of s116 of the Resource Management Act 1991, this consent commences on the date of decision notification.

Advice Notes - General

- In accordance with s.125 RMA, this consent shall lapse 5 years after the date on which it was granted unless it has been given effect to before the end of that period.
- This consent does not give any right of access over private or public property. Arrangements for access must be made between the Consent Holder and the property owner.
- This consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The Consent Holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the Consent Holder. This may include, but not be limited to, routine inspection of the site by Waikato Regional Council officers or agents, liaison with the Consent Holder, responding to complaints or enquiries relating to the site, and a review and assessment of compliance with the conditions of the consents.
- Note that pursuant to s.332 of the RMA, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If the Consent Holder intends to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives the Consent Holder the right to continue exercising this consent after it expires in the event that the Consent Holder's application is not processed prior to this consent's expiry.

RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTHXX

File Number: 61 76 85A

Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:

Gleeson Managed Fill Limited
17 Aerovista Place
Wiri
Auckland 2104

(hereinafter referred to as the Consent Holder)

Consent Type: Discharge Permit

Consent Subtype: Land - solid waste

Activity authorised: To discharge overburden to land at Fill Area 3

Location: Gleeson Quarries, Riverview Rd, Huntly

Map reference: NZTM 1790250.1500 E 5837271.0300 N

Consent duration: This consent will commence in accordance with section 116 of the Resource Management Act 1991 (RMA) and will expire on XX2057.

Subject to the conditions overleaf:

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions and AUTHXX.

In terms of s116 of the Resource Management Act 1991, this consent commences on date of decision notification.

Advice Notes - General

- In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the Consent Holder and the property owner.
- This consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The Consent Holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the Consent Holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the Consent Holder, responding to complaints or enquiries relating to the site, and a review and assessment of compliance with the conditions of the consents.
- Note that pursuant to s.332 of the RMA, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If the Consent Holder intends to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives the Consent Holder the right to continue exercising this consent after it expires in the event that the Consent Holder's application is not processed prior to this consent's expiry.

RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTHXX

File Number: 61 76 85A

Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:

Gleeson Managed Fill Limited
17 Aerovista Place
Wiri
Auckland 2104

(hereinafter referred to as the Consent Holder)

Consent Type: Discharge Permit

Consent Subtype: Land - solid waste

Activity authorised: To discharge Cleanfill and Managed Fill to Land at Area 3

Location: Gleeson Quarries, Riverview Rd, Huntly

Map reference: NZTM 1790250.1500 E 5837271.0300 N

Consent duration: This consent will commence in accordance with section 116 of the Resource Management Act 1991 (RMA) and will expire on 31 March 2036.

Subject to the conditions overleaf:

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.
2. The maximum volume of fill (all types) to be received shall not exceed 576,600m³ and shall be placed over an area of no more than 4.2 hectares as demarcated in the application document.

Fill Acceptance

3. Managed fill and cleanfill material accepted for disposal pursuant to this consent shall comply with the Fill Acceptance requirements listed in Schedule 3 and Condition 12 (below), being the Maximum Acceptance Criteria for Contaminant Concentrations.
4. This consent only authorises the disposal of construction and demolition fill that result from site construction and/or demolition activities, providing those wastes are listed as “Acceptable Wastes” in Schedule 3 of this consent.
5. Fill listed as “Prohibited” in Schedule 3 shall not be accepted for disposal under this consent.

The Consent Holder may apply to amend the list of Acceptable Wastes, at any time following the commencement of this consent, pursuant to s127 of the Resource Management Act 1991.

6. Any soil removed from Fill Area 3 during the construction of the fill area will be tested at no less than 1 in 500m³ of material disturbed or at the frequency specified in the Contaminated Site Management Plan (required by AUTHXX), whichever is more frequent. All excavated fill material shall be disposed of at an appropriate facility.

Advice Note: Construction activities at Fill Area 3 occur on land which is subject to a historic coal tailing waste dump listed on the Hazardous Activities and Industries List (HAIL) E7. It is likely that the disturbance of this land will trigger the requirement for resource consent under the NESCS which is currently being assessed by the Waikato District Council. Activities at this site must comply with the NESCS and any associated resource consent/s.

7. All fill acceptance procedures will be undertaken in accordance with the certified Site and Fill Management Plan (SFMP) as required by Schedule One – Condition 18 . The purpose of the SFMP is to set out the procedures for meeting the limits and requirements of the consent conditions. In the event that there is conflict between the conditions of consent and the SFMP the conditions of consent shall prevail.

Fill Quality

8. The Consent Holder shall maintain a site logbook (which may be digital or hard copy) to identify all loads entering the site, recording the number of trucks and estimated volume, the source and type of material deposited and the location of deposition. This site log shall be provided to Council annually, by 31 March (for the period 1 April to 31 March), for each year that this consent is exercised, or within 5 working days of any written request to do so.

9. Fill originating from any sites where there is evidence to suggest that an activity outlined on the Ministry for the Environment's Hazardous Activities and Industries List has been, or is currently being, carried out, shall only be accepted by the Consent Holder:
- (a) Where those sites have been sampled and tested in accordance with Contaminated Land Management Guideline Number 5 – Site Investigation and Analysis of Soils, Ministry for the Environment, Revised 2021 (or any subsequent updates), by a suitably qualified and experienced practitioner;
 - (b) Where the results of those investigations have been provided to the Consent Holder and reviewed by the Site Manager for compliance with the Fill Acceptance Criteria specified in this resource consent; and
 - (c) Soil Sampling Verification reports shall be retained to be provided upon request to Waikato Regional Council.
10. On the days that the managed fill is receiving waste, at least two loads per day shall be randomly selected by the Fill Manager and analysed by a trained and qualified staff member in accordance with the XRF protocols outlined in BS EN 16424: Characterisation of waste. Screening methods for the elemental composition by portable X-ray fluorescence.
- (a) In the event that only one load of fill has been received for the day, then that load will be subject to analysis by portable X-ray fluorescence (XRF).
 - (b) In the event that material scanned by portable XRF indicates any exceedance of the Fill Acceptance Criteria, the load will be rejected or quarantined (pending the results of laboratory testing). Further material from the source site will be prohibited pending subsequent evidence of acceptability being established in accordance with the Fill Acceptance Criteria.
11. Random analytical testing of all imported fill material (excluding overburden) shall be undertaken for the chemical parameters listed in condition 12 at a rate of no less than one sample per 500 m³ of imported fill material.
- Analytical Soil Testing Verification records shall be retained to be provided upon request to Waikato Regional Council.
- Advice Note:** *On arrival at site, random analytical testing at a rate of no less than one sample per 500 m³ is required for all fill (excluding overburden) imported to the site including fill that has been pre-tested. This is to ensure that the lab results are specific to the fill accepted at the site and that testing has been undertaken to the approved protocol and for the full suite of parameters.*
12. The analytical testing shall demonstrate that chemical parameter concentrations in the imported fill are at or below the Fill Acceptance Criteria (Table 1) for the Maximum Waste Acceptance Criteria (> 2 m) (mg/kg); the SPLP Leachability Limits (mg/L)⁸; and the Maximum Truckload Fill Concentrations Shallow (<2 m) Cleanfill (mg/kg). All imported fill that exceeds the Shallow Fill Acceptance Criteria shall be placed at a depth greater than 2.0 metres from the identified finished landform levels.

Table 1. Fill acceptance criteria.

Contaminant Type	Parameter ¹	Maximum Waste Acceptance Criteria (> 2 m) (mg/kg)	SPLP Leachability Limits (mg/L) ⁸	Maximum Truckload Fill Concentrations Shallow (<2 m) Cleanfill (mg/kg)
Elements	Arsenic	100 ²	-	12
	Boron	45 (260) ²	2 ²	45
	Cadmium	7.5	-	0.65
	Chromium	400	-	55
	Copper	325	-	45
	Mercury	1.5	-	0.45
	Nickel	65 (320) ²	1 ²	35
	Lead	250(1,000) ²	1 ²	65
	Thallium	23	-	1
	Zinc	400 (2,000) ²	1 ²	180
BTEX Compounds	Benzene	0.2	-	0.0054
	Toluene	1.0	-	1.1
	Ethylbenzene	1.1	-	1.0
	Total xylenes	0.61	-	0.61
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo-a-pyrene (eq)	20	-	0.0054
	Naphthalene	7.2	-	0.013
Total Petroleum Hydrocarbons (TPH)	C ₇ -C ₉	120	-	120
	C ₁₀ -C ₁₄	300 (1,400) ³	-	58
	C ₁₅ -C ₃₆	20,000 ⁴	-	-
Others	DDT and isomers	8.4	-	0.7
	Aldrin	0.7	-	-
	Dieldrin	0.7	-	-
	Tributyltin	6 ⁵	0.3 ⁵	-
Asbestos				

Advice Note: Any changes to the Fill Acceptance Criteria will require an application pursuant to s127 RMA.

- The Consent Holder shall engage an independent, suitably qualified and experienced person to undertake a technical review and written report assessing the Consent Holder's level of compliance with the conditions of this resource consent. The report shall be provided to the Waikato Regional Council by 30 April on an annual basis and shall be provided to the Waikato Regional Council at the same time as it is provided to the Consent Holder. The report shall include;

- (a) An assessment of the Consent Holder's compliance with the conditions of this resource consent.
 - (b) An assessment of the accuracy of the fill testing frequency and compliance with the maximum Fill Acceptance Criteria.
 - (c) The results of testing of the fill material.
 - (d) A compilation of all water sampling results for the previous 12-month period and assessment of compliance with the water quality conditions of resource consent AUTHXX.
 - i. Any recommendations to address any identified issues of non-compliance with this consent.
14. All material deposited at the site shall, subject to also meeting the Fill Acceptance Criteria, shall be restricted to:
- (a) materials such as clay, soil and rock and other inert materials such as concrete, brick or demolition materials which are free of combustible materials and are not subject to biological or chemical break down;
 - (b) inert construction and demolition (C&D) materials including glass and rock fibres and less than 5% timber. Soil and C&D materials can contain minor amounts of electrical wiring, plastics and plasterboard as an acceptable material (less than 0.5% of the waste matrix);
 - (c) asbestos containing materials in accordance with the Asbestos Management Plan;
 - (d) fill that has not been outlined as "prohibited material" within the Site and Fill Management Plan; and
 - (e) fill that does not exceed pH 10.
15. All fill loads shall be inspected before being deposited on site. The load shall be exposed, and spotters or plant operators fully trained in inspection and rejection procedures shall be used to verify the deposited material meets the acceptance criteria as set out in the most recently approved SFMP.
16. In the event that a spotter or plant operator identifies a load that is clearly non-compliant in terms of vegetative composition, foreign material composition, coloured liquids, or strong odour, the material shall be removed from the site within 2 working days.
17. If any imported fill does not meet the acceptance criteria specified, it shall be removed to a suitably consented off-site disposal facility within two weeks of receiving laboratory test results confirming unacceptability.

18. The Consent Holder shall engage a SQEP to undertake 'end of life' composite sampling of the fill site, both the top 2 metre cleanfill layer and rehab of the respective site to confirm the fill site complies with the Maximum Fill Acceptance Criteria as relevant to its intended end use. The samples shall be analysed by an accredited laboratory for the full suite of contaminants listed in Condition 21 and the test results shall be provided to the Waikato Regional Council within five working days of the results becoming available.

Asbestos Management

19. At least 20 working days prior to initially accepting asbestos containing materials, the Consent Holder shall submit to Waikato Regional Council, for approval in a technical certification capacity, an updated Asbestos Management Plan (AMP) which includes an Asbestos Air Monitoring programme. The AMP shall be certified in writing by the Waikato Regional Council prior to asbestos containing materials being accepted at the fill sites. Any changes to the AMP shall be reviewed and certified in writing by the Waikato Regional Council prior to the changes being made.

20. The acceptance and management of asbestos at the site shall be in general accordance with the certified Asbestos Management Plan.

All asbestos importation shall be supervised by a suitability qualified staff member who has a "Class A Certification" in the handling of asbestos in accordance with Worksafe New Zealand's "Management and Removal of Asbestos Approved Code of Practice".

21. All asbestos waste and/or asbestos contaminated fill material disposed of at the site shall be disposed of in accordance with the conditions below.

22. No asbestos waste or asbestos contaminated fill material shall be disposed of within the top 2 metres of the final contours of the site.

23. All asbestos waste shall be contained in accordance with the AMP.

24. All asbestos contaminated fill material shall be received in a covered truck or skip.

25. A water cart shall be utilised to ensure that prior to disposal, loads containing asbestos contaminated fill material are dampened to avoid the discharge to air of asbestos fibres during handling.

26. The dampened asbestos water and/or asbestos contaminated fill material shall be deposited in an excavated hole suitably large enough to contain the material and shall be capped immediately to a minimum depth of 1 metre using locally sourced fill material and covered as per the AMP.

27. Care shall be taken to ensure that the wrapping or containerisation of any received asbestos waste is not damaged during handling and disposal.

28. A hand-held GPS system shall be utilised to log the location and level of the disposal area within the filling operation.

29. A record shall be kept of the volume, location and level of all asbestos waste and/or asbestos contaminated fill material disposed of at the site and made available to Waikato Regional Council on request and reported on annually (before 31 May).

Monitoring, sampling and testing

30. All sampling and testing of cleanfill, managed fill, sediment and water quality shall be overseen by a suitably qualified and experienced practitioner.

Records of sampling and testing, analytical results, and any consequential actions must be kept by the Site Manager and made available to Waikato Regional Council upon request.

Advice Note: Guidance on the interpretation of a suitably qualified and experienced practitioner is provided in the Ministry for the Environment's Users' Guide – National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, April 2012.

31. Subject to compliance with the conditions of this consent, all monitoring of surface water, subsoil drainage and sediment discharges from the site is to be undertaken in accordance with the Site and Fill Management Plan and surface water Sampling and Analysis Plan, as specified in Schedule One – General Conditions and the conditions of resource consent AUTHXX, until such time as the fill activities on site have ceased and the site has been rehabilitated.

Sediment Pond Sampling

32. Representative sampling of the accumulated sediment within the sediment ponds and the artificial wetland shall be undertaken prior to disposal during regular maintenance and prior to the decommissioning of a pond.
33. Samples collected from the sediment in the sediment ponds and the artificial wetland shall be tested at an IANZ accredited laboratory. Only sediment that meets the Fill Acceptance Criteria may be disposed of within the site.
34. Any sediment removed offsite must be disposed of at a facility authorised to receive material of that kind.

Site Security

35. The Consent Holder shall ensure that appropriate site security is maintained at all times to ensure that no dumping of unauthorised material occurs.

Rehabilitation of Fill Site

36. The final land shape and capping of the managed fill will be determined by the proposed end use of the site. The fill sites shall be rehabilitated in accordance with the most up to date technical publication endorsed by Ministry of Environment for Cleanfill and Managed Fill sites. The cover and revegetation should promote sound land management and conservation, prevent hazards and protect amenity. The final cover/capping details will be determined as part of the engineered fill requirements and included in the Rehabilitation Management Plan (Schedule One – General Conditions) for certification by the Waikato Regional Council. The determination of the rehabilitation and cover requirements will demonstrate consistency with permitted land-use activities in the Waikato District Plan and consider the following technical publications:

- *Guide to the Management of Cleanfills, Ministry of Environment, January 2002; and*
- *Technical Guidelines for Disposal to Land, Waste Management Institute New Zealand (WasteMINZ), August 2018*

In terms of s116 of the Resource Management Act 1991, this consent commences on the date of decision notification.

Advice Notes - General

- In accordance with section 125 RMA, this consent shall lapse 5 years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the Consent Holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The Consent Holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the Consent Holder. This may include, but not be limited to, routine inspections of the site by Waikato Regional Council officers or agents, liaison with the Consent Holder, responding to complaints or enquiries relating to the site, and a review and assessment of compliance with the conditions of the consents.
- Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If the Consent Holder intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives the Consent Holder the right to continue exercising this consent after it expires in the event that the Consent Holder's application is not processed prior to this consent's expiry.

RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTHXX

File Number: 61 76 85A

Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:

Gleeson Managed Fill Limited
17 Aerovista Place
Wiri
Auckland 2104

(hereinafter referred to as the Consent Holder)

Consent Type: Land Use Consent

Consent Subtype: Land - stormwater

Activity authorised: To discharge stormwater and treated water in association with Fill Area's 2, 3 and 4

Location: Gleeson Quarries, Riverview Rd, Huntly

Map reference: NZTM 1790250.1500 E 5837271.0300 N

Consent duration: This consent will commence in accordance with section 116 of the Resource Management Act 1991 (RMA) and will expire on XX2057.

Subject to the conditions overleaf:

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.
2. Prior to the commencement of any stormwater discharge to the receiving environment, the discharge criteria for dissolved zinc at sampling location DS1 shall be determined using Whole Effluent Toxicity Testing (WETT) and by using the methodology provided in Appendix E to the Sampling and Analysis Plan (SAP) version received 27 October 2021, WRC doc # 22010801. WETT analysis shall involve collection of stream water from DS2 by an independent and suitably qualified water quality expert with WETT analysis to be undertaken by NIWA. The no observable effects concentration (NOEC) value from the WETT analysis results will be used to determine the zinc discharge criteria for sampling location DS1. If the NOEC value is greater than the 80% freshwater ecosystem protection outlined in ANZG (2018) then the default guideline value for 80% freshwater ecosystem protection (ANZG, 2018) for zinc will be used instead of the NOEC value determined by the WETT analysis.
3. The WETT analysis shall be undertaken on a date being five years post commencement of discharges from the SRP via the wetland using the methodology provided in Appendix E to the SAP. WETT analysis shall involve collection of discharge water from DS1 by an independent and suitably qualified water quality expert with WETT analysis to be undertaken by NIWA. The no observable effects concentration (NOEC) value from the WETT analysis results will be used to determine the zinc discharge criteria for sampling location DS1. If the NOEC value is less than the zinc discharge criteria currently set out in the certified SAP, then the zinc discharge criteria will need to be revised to this new lower NOEC value through a certified revision of the Sampling and Analysis Plan.
4. The discharge water quality criteria for dissolved zinc at DS1 shall be set out within a revised Sampling and Analysis Plan (SAP) and provided to the Waikato Regional Council within 10 working days from the completion of testing. Upon receiving the revised SAP, the Waikato Regional Council shall review and certify the SAP.
5. The revised Sampling and Analysis Plan (SAP) shall be certified by Waikato Regional Council before any discharges of treated stormwater can occur from the site.

Advice Note: The applicant proposes to irrigate stormwater and subsoil drainage water to farmland prior to the establishment of the discharge criteria for dissolved zinc. As identified in the application, AEE addendum, this is likely to require additional resource consents for water take and for the discharge of sediment retention pond water to land.

6. The suspended solids concentration of any sediment retention pond discharge shall not exceed 100g/m³ or the sediment retention pond shall treat water to no less than 90% efficiency. In the event that the discharge water exceeds suspended solids concentrations 100g/m³ and laboratory analysis confirms that the 90% treatment efficiency is met, the Erosion and Sediment Control Specialist shall inspect the site's erosion and sediment controls and confirm in writing to the Waikato Regional Council that the controls are in accordance with the Waikato Regional Council Erosion and Sediment Control Guidelines.
7. To demonstrate compliance with condition 6 of this resource consent, the consent holder shall take samples of the discharges from the inlet and outlets of all sediment retention ponds on the site a minimum of once per month and after rainfall trigger events (rainfall greater than ≥15mm in one hour; or ≥25mm in 24 hours in the preceding 24 hours), excepting times when there are no discharges.

Surface water discharge samples shall be submitted to an accredited laboratory for analysis of the following parameters:

- (a) pH (to demonstrate it does not fall outside the range of 5.5 to 9);
 - (b) Total suspended solids, to demonstrate it is not greater than 100 g/m³ or the sediment retention pond/s stormwater treatment is 90% treatment efficiency; and
 - (c) Turbidity.
8. In addition to the sampling required in condition 7, surface water samples shall be collected from the discharge points at the end of the treatment system on a 6 monthly basis, and at the outlet of the artificial wetland and from the downstream sampling points identified in the Sampling and Analysis Plan on a quarterly basis, excepting times when there are no discharges, until time as the fill activities on site have ceased and the site has been rehabilitated.

Surface water samples shall be submitted to an accredited laboratory for analysis of the following contaminants;

- (a) Dissolved Aluminium;
- (b) Dissolved Arsenic;
- (c) Dissolved Boron;
- (d) Dissolved Cadmium;
- (e) Dissolved Chromium;
- (f) Dissolved Copper;
- (g) Dissolved Lead;
- (h) Dissolved Nickel; and
- (i) Dissolved Zinc.

Total petroleum hydrocarbons Flowrates will also be measured and recorded at the time that samples are collected.

9. Within 5 working days of the receipt of water sampling results, the Consent Holder shall ensure that all results of the analysis along with Flowrates are forwarded to Waikato Regional Council.
10. In the event that any result for a contaminant (dissolved fraction in condition 8) exceeds the water quality criteria as specified in Schedule Four or the zinc water quality criteria specified in the SAP (following Whole Effluent Toxicity Testing (WETT) to establish the zinc criteria):
- (a) Unless agreed in writing with the Waikato Regional Council, the Consent Holder shall engage a suitably qualified and experienced person to undertake verification sampling of deposited fill at the fill site; and the following contingency measures shall be undertaken:

- (i) Repeat monitoring within a 10-working day period or the next stormwater run-off event. If water quality is within the trigger levels continue routine compliance monitoring frequency; and
- (ii) If repeat monitoring confirms trigger level exceedance(s), then a review of the Erosion and Sediment Control Plan and Site and Fill Management Plan (SFMP) shall be undertaken by a suitably qualified and experienced professional to determine what corrective actions need to be applied to avoid further trigger level exceedance(s). The outcomes of this review shall be provided to Waikato Regional Council within 20 working days of the confirmed trigger level exceedance(s).

On approval by Waikato Regional Council, the proposed corrective actions identified through the review will be implemented by the Consent Holder within 2 months.

Chemical Treatment Management Plan

11. At least 20 working days prior to the commencement of activities under this resource consent the Consent Holder shall provide the Waikato Regional Council with a draft Chemical Treatment Management Plan (CTMP). The CTMP shall be submitted to the Waikato Regional Council, acting in a technical certification capacity, for approval in writing. The CTMP shall include, as a minimum:
 - (a) An analysis identifying which devices require flocculation, this analysis taking into account;
 - (i) The soil's reactivity to flocculants based on soil tests;
 - (ii) The size of the contributing catchment that the pond is treating;
 - (iii) The likely duration of the ponds use;
 - (b) Specific design details of the flocculation system;
 - (c) Monitoring (including pH and any other testing procedures) and maintenance (including post storm) procedures; and
 - (d) A record system, containing;
 - (i) Details of optimum dosage (including assumptions);
 - (ii) Results of any initial flocculation trial;
 - (iii) A spill contingency plan;
 - (iv) Contact details of the person responsible for the operation and maintenance of the flocculation;
 - (v) Treatment systems; and
 - (vi) The organisational structure to which this person shall report.

12. Any changes proposed to the CTMP shall be confirmed in writing by the Consent Holder and approved in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of the proposed changes.

13. Unless site specific analysis provides evidence to the contrary, all sediment retention ponds shall be chemically treated in accordance with the CTMP.
14. The pH of any sediment retention pond discharge shall not be less than 5.5 or greater than 9 pH units.

Surface Water Quality - Huntly Managed Fill Sampling and Analysis Plan (SAP)

15. At least 20 working days prior to the importation of cleanfill and managed fill to the site, the Consent Holder shall submit to Waikato Regional Council, for approval in a technical certification capacity, an updated Huntly Managed Fill Sampling and Analysis Plan (SAP). The SAP shall include:
 - (a) A plan that identifies the locations of water sampling points;
 - (b) Details of how the sub-soil drainage water will be stored, tested, treated and lawfully disposed of;
 - (c) A table of the contaminants the water samples will be tested for and the respective maximum concentration limits for each contaminant. The table will as a minimum include the contaminants listed in condition 8;
 - (d) The results of WETT testing and an explanation for determining the concentration limit for zinc;
 - (e) the water testing regime and sampling frequency which will be no less than as prescribed in the conditions of this consent;
 - (f) The identified process and timeline from collecting the samples through to laboratory analysis; and
 - (g) Contingency measures in the event of water quality criteria exceedances.
16. Any changes to the SAP shall be reviewed and certified in writing by the Waikato Regional Council prior to the changes being made.
17. The SAP shall be updated on an annual basis by a SQEP to ensure the plan is up to date and consistent with any changes in legislation and guidelines.

Advice Note: An additional resource consent for water take could be required prior to the storage and disposal of the subsoil drainage water.

Adaptive Management Plan

18. At least 20 working days prior to the commencement of filling, an updated Adaptive Management Plan shall be submitted to the Waikato Regional Council for written approval in a technical certification capacity. The updated Adaptive Management Plan shall be an update of the draft *Erosion and Sediment Control Adaptive Management Plan – Huntly Managed Fills 2 – 4 – for Gleeson Quarries Huntly Limited; 10 May 2020, Rev B*, prepared by SouthernSkies Environmental Limited. The objective of the Adaptive Management Plan is to provide a process to ensure that the downstream effects of the filling activities remain within the range assessed as acceptable under this consent. It will provide procedures for monitoring of the site and the downstream receiving

environment that is additional to the day-to-day monitoring of erosion and sediment control measures necessary to ensure compliance with this consent and Schedule One.

The updated Adaptive Management Plan shall include, but no be limited to, the following:

- (a) The Methodology used for monitoring of water quality and stream health at locations downstream of each sediment retention pond including a plan showing the monitoring locations.
 - (b) Trigger rainfall events of 15mm/hr and 25mm/24 hours for site monitoring (in addition to day-to-day erosion and sediment control device monitoring and maintenance).
 - (c) A monitoring and contingency response programme to be implemented in response to rainfall trigger events, including response thresholds for turbidity (90% sediment retention pond efficiency), clarity (100mm) and pH (5.5 to 9.0);
 - (d) Realtime, continuous automated turbidity monitoring of the inflow and outflow of sediment retention ponds, and continuous automated monitoring of outflow discharge water volumes of sediment retention ponds;
 - (e) A method to calculate annual sediment yield discharged from the site;
 - (f) Trigger event-based recording of turbidity and pH;
 - (g) Trigger event-based sampling of inflows and outflows and analysis for turbidity, total suspended solids and pH;
 - (h) Event based inspection and sampling of the immediate receiving environment.
 - (i) Details of the person or bodies that will hold responsibility for the on-site implementation of the Adaptive Management Plan;
 - (j) Procedures and timeframes for reporting the monitoring results to the Waikato Regional Council;
 - (k) The monitoring programme that will include details of how a correlation will be developed between measured turbidity and total suspended solids. This monitoring programme will also detail how this correlation will be monitored and verified;
 - (l) Criteria for the discharge from the site which is consistent with the conditions of this resource consent, including trigger levels, as well as a management programme and mitigation/compensation actions which outline the response if discharge criteria is exceeded.
19. Any proposed revisions of the Adaptive Management Plan must be submitted the Waikato Regional Council, acting in a technical certification capacity, for certification prior to formalising and implementing the revised Adaptive Management Plan.
20. If, in the Waikato Regional Council's opinion, there are changes required to be made to the AMP as identified within the site reporting, the Waikato Regional Council may request that the AMP be updated to address these matters. If a request is made, the revised plan shall be submitted to the Waikato Regional Council for certification, who

will be acting in a technical certification capacity, within **five working days** of the request for written approval prior to implementation.

Advice Note: *The AMP is a live document and updates are expected to address any unforeseen circumstances or changes in the earthworks and filling methodology as the site responds through its adaptive monitoring regime to ensure the potential for sediment discharges are minimised.*

21. The Consent Holder shall make available all monitoring results and data required by the AMP upon the request of the Waikato Regional Council.

In terms of s116 of the Resource Management Act 1991, this consent commences on the date of decision notification.

Advice Notes - General

- In accordance with s.125 RMA, this consent shall lapse 5 years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the Consent Holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The Consent Holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the Consent Holder. This may include but not be limited to routine inspections of the site by Waikato Regional Council officers or agents, liaison with the Consent Holder, responding to complaints or enquiries relating to the site, and a review and assessment of compliance with the conditions of the consents.
- Note that pursuant to s.332 of the RMA, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If the Consent Holder intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives the Consent Holder the right to continue exercising this consent after it expires in the event that the Consent Holder's application is not processed prior to this consent's expiry.

RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTHXX

File Number: 61 76 85A

Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:

Gleeson Managed Fill Limited
17 Aerovista Place
Wiri
Auckland 2104

(hereinafter referred to as the Consent Holder)

Consent Type: Water Permit

Consent Subtype: Diversion

Activity authorised: To divert stormwater and groundwater in association with Fill Area 3

Location: Gleeson Quarries, Riverview Rd, Huntly

Map reference: NZTM 1790250.1500 E 5837271.0300 N

Consent duration: This consent will commence in accordance with section 116 of the Resource Management Act 1991 (RMA) and will expire on XX2057.

Subject to the conditions overleaf:

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.
2. The activities authorised by this consent shall at all times comply with the standards of resource consent AUTHXX which authorises discharges from the site.
3. The Consent Holder shall ensure diversion of clean water shall be in accordance with the E&SCP as required by Schedule One – General Conditions.
4. The Consent Holder shall design all structures and any diversion channels for a design flow capacity of 1 in 100-year flow events (1% AEP Annual Exceedance Probability).
5. The Consent Holder shall control and divert stormwater which is not affected by filling activities away from areas disturbed by filling activities.
6. The Consent Holder shall ensure that any water diversions authorised by this consent are carried out in a manner that minimises erosion of the diversion.
7. The Consent Holder shall ensure that scour protection is constructed in any outlet structures.
8. The Consent Holder shall ensure that any water diversion channels are maintained in good working order and are kept clear of obstructions at all times.
9. The Consent Holder shall ensure that any diversion channels at the site are inspected on a weekly basis or within 24 hours of each rainstorm event exceeding 20 millimetres within the preceding 24 hour period. A record shall be maintained of the date, time and any maintenance undertaken in association with this condition and this record shall be forwarded to the Waikato Regional Council upon request.

In terms of s116 of the Resource Management Act 1991, this consent commences on the date of decision notification.

Advice Notes - General

- In accordance with s.125 RMA, this consent shall lapse 5 years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the Consent Holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.

- The Consent Holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the Consent Holder. This may include, but not be limited, to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the Consent Holder, responding to complaints or enquiries relating to the site, and a review and assessment of compliance with the conditions of the consents.
- Note that pursuant to s.332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If the Consent Holder intends to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives the Consent Holder the right to continue exercising this consent after it expires in the event that the Consent Holder's application is not processed prior to this consent's expiry.

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RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTHXX

File Number: 61 76 85A

Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:

Gleeson Managed Fill Limited
17 Aerovista Place
Wiri
Auckland 2104

(hereinafter referred to as the Consent Holder)

Consent Type: Water Permit

Consent Subtype: Diversion

Activity authorised: To undertake stream diversions, reclamation of streams and associated bed disturbance in association with filling Area 3.

Location: Gleeson Quarries, Riverview Rd, Huntly

Map reference: NZTM 1790250.1500 E 5837271.0300 N

Consent duration: This consent will commence in accordance with section 116 of the Resource Management Act 1991 (RMA) and will expire on 31 March 2036.

Subject to the conditions overleaf:

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.
2. All works authorised by this resource consent shall be undertaken in accordance with the approved Ecological Management Plan and Fish Management Plan (Schedule One, General Conditions).

In terms of s116 of the Resource Management Act 1991, this consent commences on the date of decision notification.

Advice Notes - General

- In accordance with s.125 RMA, this consent shall lapse 5 years after the date on which it was granted unless it has been given effect to before the end of that period.
- This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the Consent Holder and the property owner.
- This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
- The Consent Holder may apply to change the conditions of the resource consent under s.127 RMA.
- The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the Consent Holder. This may include, but not be limited to, routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and a review and assessment of compliance with the conditions of the consents.
- Note that pursuant to s.332 of the RMA, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
- If the Consent Holder intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives the Consent Holder the right to continue exercising this consent after it expires in the event that the Consent Holder's application is not processed prior to this consent's expiry.

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SCHEDULE ONE – GENERAL CONDITIONS

The granting of resource consent numbers AUTHXX are subject to the following general conditions that shall apply to each individual consent. Where there may be differences or apparent conflict between the general conditions and conditions contained in either the individual consents contained within this suite, or any other consent referred to below, the conditions contained in the respective individual consents shall prevail.

1. Except as specifically provided for by other conditions of this consent, all activities to which this consent relates shall be undertaken in general accordance with the resource consent conditions below and the information contained in the application for this consent document titled:
 - Application for this resource consent and the document titled 'Regional Resource Consent Applications under s9, s13, s14 and s15 of the Resource Management Act 1991, Gleeson Managed Fill Limited, Riverview Road Huntly', prepared by Paua Planning, dated 15 November 2019 (WRC doc # 15445747);
 - Updated AEE, dated 19 March 2021, prepared by Paua Planning (WRC doc # 18348906); and
 - Gleeson Quarries Huntly Ltd, Proposed Overbuden & managed Fill Disposal Area – Fill Area 3 Addendum to AEE; dated 19/10/21, prepared by Paua Planning (WRC doc # 21954937).

Advice Note: The further information provided during the resource consent process forms part of the application. Including the further information listed and referenced in the s42A evaluation report WRC doc # 15483694.

Pre-Start

2. The Consent Holder shall appoint a representative(s) prior to the exercise of this resource consent who shall be the Waikato Regional Council's and the Waahi Whanui Trust's principal contact person(s) in regard to matters relating to this resource consent. The Consent Holder shall inform the Waikato Regional Council, Waikato-Tainui and Waahi Whanui Trust of the representative's name and how they can be contacted, prior to this resource consent being exercised. Should that person(s) change during the term of this resource consent, the Consent Holder shall immediately inform the Waikato Regional Council and shall also give written notice to the Waikato Regional Council, Waikato-Tainui and the Waahi Whanui Trust of the new representatives name and how they can be contacted.
3. Prior to exercising this consent, the Consent Holder shall establish a monitoring team which is to be managed by a nominated and specified person, as agreed between the Consent Holder and Waikato Regional Council. The monitoring team shall consist of personnel who have clearly defined roles and responsibilities to monitor compliance with the consent conditions and will be available to meet with the Waikato Regional Council monitoring personnel on a basis as agreed in writing, to review monitoring and compliance issues. The functions of the monitoring team shall include:
 - (a) installing, monitoring and maintaining erosion and sediment controls;
 - (b) fill and sediment sampling;
 - (c) water quality sampling;

- (d) ecological monitoring;
- (e) cultural monitoring; and
- (f) recording and reporting on other information required by this consent.

Note: clause a) to c) above shall be specifically monitored by the appropriately qualified and experienced erosion and sediment control specialist as agreed with Waikato Regional Council. The erosion and sediment control specialist shall;

- (g) be experienced in erosion and sediment control implementation and monitoring;
 - (h) be recognised by his/her peers as having a high level of knowledge and skill as appropriate for the role; and
 - (i) have completed recognised training in erosion and sediment control.
4. The Consent Holder shall engage with the Waahi Whanui Trust and ensure that the Waahi Whanui Trust is notified in writing at least 10 working days prior to any soil disturbance occurring and that the Waahi Whanui Trust is invited to act as cultural monitors to observe all topsoil removal at the site on an ongoing basis as each stage of works progresses.
5. The Consent Holder shall arrange and conduct a pre-construction site meeting and invite, with a minimum of 20 working days' notice, the Waikato Regional Council, the Waahi Whanui Trust, the site representative(s) nominated under conditions 2 and 3, the contractor, and any other party representing the Consent Holder prior to any work authorised by this consent commencing on site.

Fill Stability

6. The separation distance between the edge/toe of Fill Area 3 and the northern most property boundary shall be no less than 28 metres. The purpose of the minimum setback is to minimise stability risk to neighbouring property and provide a suitable buffer to allow access for the maintenance of fill batter slopes and any installed drainage.
7. The Consent Holder shall engage a chartered professional engineer to inspect the active fill site no less than annually and to confirm the fill site design and stability is in general accordance with engineering best practice and the resource consent. Annual fill stability reporting on the active fill site shall be undertaken by the nominated chartered engineer until completion with final completion reports provided for rehabilitated sites. Annual reporting shall include recommendations to identify and address any issues found.

The written certification or report shall be provided to the Waikato Regional Council annually by 31 May for each year that this resource consent is active.

8. Any fill material must be placed so that it does not result in land instability.
9. The fill site design, construction and fill placement is to follow geotechnical best practice and be in general accordance with the Gaia Engineers Ltd. design report reference: 2325-74-GQ-01 dated 23/07/2021 and the applicable Waikato Regional Council code of practise for land development and subdivision – earthworks and geotechnical requirements.

Geotechnical site inspections shall be as per the construction specification shown on drawings 2325-74-01 to 04 included in Appendix A which includes the noted hold points and inspection requirements. Inspection frequency shall be determined by the stage of construction and corresponding nature of earthworks, but in any event shall be no less than annually, and the supervising geotechnical engineer shall provide a written report to Waikato Regional Council on adherence with recommendations in the Gaia Engineers design report reference: 2325-74-GQ-01 dated 23/07/2021 and with any subsequent Geotechnical recommendations.

10. The supervising geotechnical engineer shall review the results of the testing and technical monitoring carried out in accordance with the recommendations and construction specification outlined in the Gaia Engineers Ltd. design report reference: 2325-74-GQ-01 dated 23/07/2021. Monitoring and testing include displacement monitoring (Location, monitoring frequency and alert criteria shown on drawing no.: 2298-74-103 included in Appendix A) and fill compaction and construction monitoring (refer to construction specification drawings no.: 2298-74-01 to 04 included in Appendix A). Monitoring results to be made available to Waikato Regional Council upon written request.

Community Liaison Group

11. Within 6 months of the commencement of this consent, the Consent Holder shall establish a Community Liaison Group (CLG) comprising of a maximum of **2** representative for each of the following:

- (a) The Huntly community;
- (b) Waikato Regional Council;
- (c) Waikato District Council;
- (d) tangata whenua; and

any other key stakeholders as determined appropriate by the Consent Holder or the Waikato Regional Council.

The function of the CLG is to provide a line of communication between the Consent Holder, the wider community and key stakeholders for the duration of the consent.

The Consent Holder shall facilitate CLG meetings at a frequency no less than 6 months for the first 2 years and then at a lesser frequency if agreed with the CLG.

Advice Note: *The CLG is not a decision-making group, but a forum for the dissemination of information from the Consent Holder and provides the opportunity to comment on consent compliance and provide recommendations for changes to operations, monitoring and adaptive management.*

Representatives of tangata whenua shall be from the Waahi Whanui Trust or Waikato Tainui or both.

Rehabilitation Management Plan

Within 6 months of the commencement of this consent, the Consent Holder shall submit to Waikato Regional Council, for approval in a technical certification capacity, a Rehabilitation Management Plan (RMP).

12. The RMP shall include, but not be limited to, the following matters:

- (a) Identification of the final (future) landform following filling operations;
 - (b) An implementation strategy that clearly identifies the timing of all rehabilitation and restoration works within the filling stage areas including:
 - (i) identification and timing of progressive and closure rehabilitation works;
 - (ii) on-going management strategy for weed and pest control;
 - (iii) procedures to be adopted in the handling and storage of topsoil, subsoil and overburden materials to ensure their continued viability for establishing pasture (or other identified vegetation cover);
 - (c) The design, construction procedures and stability of the final landform;
 - (d) Measures to avoid the over compaction of soils;
 - (e) Stormwater drainage/soakage of the final landform;
 - (f) Ecological enhancements;
 - (g) Reporting and review outcomes; and
 - (h) the achievement of the minimum fill site cover and capping requirements as set out in the conditions of resource consent AUTHXX
13. The Consent Holder shall undertake the mitigation and rehabilitation of the filling area in accordance with approved RMP and under the supervision of persons with appropriate restoration and rehabilitation experience.
14. The Consent Holder shall review and update the RMP every 5 years and within 6 months of any decision to cease filling operations at the site. Any changes (excluding changes to contact person & contact details etc.) to the RMP must only be made with the written approval of the Waikato Regional Council.

Site and Fill Management Plan (SFMP)

15. At least 20 working days prior to accepting clean or managed fill to the site (excluding overburden from the quarry), the Consent Holder shall submit a draft Site and Fill Management Plan (SFMP) to Waikato Regional Council for written approval acting in a technical certification capacity.

The objective of the SFMP is to set out practices and procedures to be undertaken to manage the receipt and disposal of fill at the site and to comply with the conditions of this consent.

16. The SFMP shall include, but not be limited to the following matters:

- (a) Procedures to record the name and address of contractors dumping fill at the site;
- (b) The specific location of the fill placement areas (including asbestos disposal);
- (c) Acceptance criteria for fill to be disposed on site (including sampling requirements);

- (d) A description of operational procedures and monitoring that will be implemented to prevent unauthorised material from entering the site;
 - (e) A description of operational procedures and monitoring that will be implemented for the acceptance, handling and disposal of asbestos;
 - (f) Contingency measures for containing and managing unacceptable waste;
 - (g) Specific design details, construction and certification procedures to ensure long term stability of fill areas;
 - (h) The testing regime to confirm that all material received on site complies with the acceptance criteria;
 - (i) Description of stormwater management system (including design specification, location and management of all structures);
 - (j) Procedures for improving and/or reviewing the SFMP;
 - (k) Procedures for undertaking verification sampling of fill deposited across the active landfill areas if required by AUTH141283.04.01 (in the event stormwater discharge quality exceeds consented criteria) and by AUTH141283.03.01 (prior to closure of each fill site);
 - (l) Procedures for fill screening methods for the elemental composition by portable X-ray fluorescence as required by AUTHXX; and
17. The Consent Colder shall operate the site in accordance with all the approved Management Plans including the SFMP. Any changes to the SFMP must only be made with the written certification of an authorised officer the Waikato Regional Council.
18. The Site and Fill Management Plan shall be updated on an annual basis by a SQEP to ensure the plan is up to date and consistent with any changes in legislation and guidelines.

Ecology

19. Prior to the exercise of this resource consent (excluding 'g' and 'h' below which are subject to extended timeframes) the Consent Holder shall submit an Ecological Management Plan (EMP) for the Compensation Area to the Waikato Regional Council for certification, to confirm that the activities undertaken in accordance with the EMP will achieve the EMP's objectives and compliance with the relevant consent conditions. Any subsequent review of the EMP shall also be submitted to the Waikato Regional Council for written approval acting in a technical certification capacity. The Consent Holder shall meet the costs of the production, certification, monitoring and peer review of the EMP.

The overall objective of the EMP shall be to set out the practices and procedures to be adopted to ensure compliance with consent conditions and shall include:

- (a) Timeframes for implementation of fencing and each area of planting, review and reporting requirements and the nature of proposed review and reporting requirements;
- (b) Identification of appropriate methodologies and monitoring procedures to ensure all mitigation measures undertaken are effective;
- (c) The planting and fencing proposed including the number of plants required;

- (d) Provision for weed and/or pest control;
 - (e) A maintenance programme to ensure all the rehabilitated areas are maintained, including fencing from stock, weed and pest control, planting protection and replacement to ensure the revegetation and mitigation works are successful;
 - (f) **A Fish Management Plan, including a translocation plan;**
 - (g) Within 6 months of commencement of activities under this consent, a mechanism for covenanting of the mitigation area, including gully restoration of no less than 3.75 hectares;
 - (h) Within 6 months of commencement of activities under this consent, an enhancement and planting plan to progressively convert each sediment retention pond to permanent wetland on completion of each corresponding fill site;
 - (i) Advice on the value of the bond for remediation; and
 - (j) Monitoring requirements.
20. In addition to condition 20 above, the Consent Holder shall undertake all ecological mitigations in accordance with the Ecological Enhancement Programme as appended to these conditions of consent (Schedule Two).

Ecological Mitigation Monitoring Report

21. On an annual basis, the Consent Holder shall prepare an Ecological Mitigation Monitoring Report which outlines the details of any ecological mitigation and associated monitoring works required under the Ecological Mitigation Plan and the Fish Management Plan which have been undertaken within the preceding 12-month period. The plan shall include, but will not be limited to, the following items:
- (a) Details of any planting or plant maintenance works including the outcomes of any maintenance inspections of established plantings;
 - (b) Details and outcomes of any aquatic and terrestrial ecological monitoring; and
 - (c) Details and outcomes of any plant or animal pest control works including any follow up monitoring of pests.

The monitoring report shall be prepared by a suitably qualified and experienced ecologist and shall be forwarded to the Waikato Regional Council by 31 May each year.

Covenant

22. Within 12 months of commencement of this resource consent, the Consent Holder shall establish and register on the land title, a legal mechanism (herein referred to as a "covenant") containing appropriate requirements in order to legally protect in perpetuity the ecological mitigation/compensation areas to be restored as per the approved EMP and Schedule Two of this resource consent. The covenant shall also set out that clearance of vegetation, grazing of stock and earthworks within the covenant area is prohibited.

23. The Consent Holder shall provide a draft covenant document to satisfy the requirements of condition 23 for the consideration and written approval of the Waikato Regional Council, acting in a technical certification capacity, and prior to the registration of the covenant on the property title.

Maatauranga Maaori

24. Within 3 months of the consent being granted, the Consent Holder shall develop a Maatauranga Maaori Environmental Monitoring Plan (MMEMP). The MMEMP shall include, but will not be limited, to:
- (a) Undertaking cultural monitoring during topsoil removal;
 - (b) Waahi Whanui Trust Input into the Closure and Rehabilitation plan;
 - (c) Involvement of the Waahi Whanui Trust in water quality monitoring;
 - (d) Restoration of Compensation Area 4;
 - (e) Waahi Whanui Trust input into the Dust Management Plan and air discharge monitoring; and
 - (f) Waahi Whanui Trust input into the Ecological Management Plan.

The MMEMP shall be developed in consultation with the Waahi Whanui Trust and the final MMEMP provided to the Waahi Whanui Trust for comment at least 20 working days prior to submitting the MMEMP to the Waikato Regional Council.

25. The MMEMP shall be certified in writing by the Waikato Regional Council acting in a technical certification capacity and the Consent Holder shall undertake all activities authorised by this consent in accordance with the certified MMEMP.
26. Any changes proposed to the MMEMP shall be confirmed in writing by the Consent Holder following consultation with the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.

Advice Note: *Waikato Regional Council certification of the MMEMP is to ensure that the intent of Condition 25 has been met and that the content of the MMEMP is consistent with the condition requirements.*

Erosion and Sediment Control Plan

27. The Consent Holder shall provide the Waikato Regional Council with a revised "Erosion and Sediment Control Plan" (E&SCP) for Fill Area 3 and any associated ancillary soil disturbance activities at least 10 working days prior to the proposed commencement of activities authorised by this consent. The objective of the E&SCP shall be to minimise sediment discharges from the site to the extent practicable.
28. The E&SCP shall, as a minimum, be based upon and incorporate those specific principles and practices which are appropriate for the activity authorised by this consent and contained within the Waikato Regional Council document titled "*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*" (Technical Report No. 2009/02 – dated January 2009), and shall include at least the following:

- (a) Details of all principles, procedures and practices that will 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 location of waterways;
 - (ii) Any 'no go' and/or buffers areas to remain undisturbed adjacent to watercourses;
 - (iii) Areas of cut and fill;
 - (iv) All key erosion and sediment control structures;
 - (v) The boundaries and area of catchment contributing to all stormwater impoundment structures;
 - (vi) The locations of all specific discharge points to the environment; and
 - (vii) Any other relevant site information;
 - (d) Construction timetable for the erosion and sediment control works;
 - (e) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
 - (f) Maintenance, monitoring and reporting procedures;
 - (g) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or failure of any key erosion and sediment control structures;
 - (h) Procedures and timing for review and/or amendments of the E&SCP; and
 - (i) Identification and contract details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.
29. The E&SCP shall be certified in writing by the Waikato Regional Council, acting in a technical certification capacity, prior to any works authorised by this consent commencing and the Consent Holder shall undertake all activities authorised by this consent in accordance with the certified E&SCP.
30. Any changes proposed to the E&SCP shall be confirmed in writing by the Consent Holder following consultation with the Waikato Regional Council, acting in a technical certification capacity, prior to the implementation of any changes proposed.
31. All disturbed or cut vegetation, soil or debris shall be deposited or placed in a position where it will not enter any water body or cause diversion, damming or erosion of any waterway.
32. The Consent Holder shall ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site shall be diverted away from

the exposed areas via a stabilised system to prevent erosion. The Consent Holder shall also ensure the outfall(s) of these systems are protected against erosion.

33. The Consent Holder shall ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls. A record shall be maintained of the date and time of inspections undertaken, any maintenance requirements identified, and of maintenance undertaken to all erosion and sediment control structures. Records associated with the maintenance of all erosion and sediment control structures shall be made available to the Waikato Regional Council at all reasonable times.
34. The Consent Holder shall, prior to filling commencing in an area, submit to the Waikato Regional Council "As Built Certification Statements" signed by an appropriately qualified and experienced professional certifying that erosion and sediment control structures have been constructed in accordance with the certified E&SCP. Certified controls shall include clean water diversion channels/bunds, sediment retention ponds and decanting earth bunds. The As Built Certification Statements shall be supplied to the Waikato Regional Council within 5 working days of the completion of the construction of those controls. Information contained in the As Built Certification Statements shall include, at a minimum, the following:
 - (a) Confirmation of contributing catchment areas;
 - (b) The location, capacity and design of each structure;
 - (c) Position of inlets and outlets;
 - (d) Stability of structures;
 - (e) Measures to control erosion; and
 - (f) Any other relevant matters.

Advice Note: An example template and the information required for the As Built Certification Statement can be found on the Waikato Regional Council website www.waikatoregion.govt.nz/earthworks.

Dust Management Plan

35. At least 10 working days prior to the commencement of activities under this resource consent, the Consent Holder shall submit to Waikato Regional Council for approval, in a technical certification capacity, an updated Dust Management Plan (DMP). The DMP shall be approved in writing by the Waikato Regional Council prior to the commencement of activities under this resource consent. Any changes to the DMP shall be reviewed and certified by the Waikato Regional Council, acting in a technical certification capacity, prior to the changes being made.
36. The maximum area of unstabilised exposed ground and fill across Fill Area 3 shall be no greater than 3 hectares at any one time. Minimising exposed areas will reduce dust discharges and erosion and sediment discharges.
37. All activities authorised by this consent shall ensure that dust emissions are kept to a practicable minimum, so that there shall be no particulate matter as a result of the activities authorised by this resource consent that causes an objectionable or offensive effect beyond the boundary of the site. At a minimum, the following measures shall be implemented:

- (a) The use of water sprays to suppress dust from fill areas from access roads and from other disturbed land, on an as required basis;
 - (b) The use of dust stabilisation systems (water, water plus additives or mulch);
 - (c) The stabilisation of disturbed land which is currently not being worked;
 - (d) The re-grassing of completed surfaces;
 - (e) The maintenance of all access routes;
 - (f) The use of a truck wheel wash; and
 - (g) Keeping the total area of exposed soil to a practicable minimum at all times.
38. Should an emission of particulate matter occur that has an objectionable or offensive effect beyond the boundary of the site, the Consent Holder shall inform the Waikato Regional Council within 24 hours of the incident and provide a written report to the Waikato Regional Council within 5 days of being notified of the incident. Should the Consent Holder be informed by the Waikato Regional Council of such an emission, the Consent Holder shall provide a written report within 5 days. In both cases the report shall specify:
- (a) The cause(s) or likely cause(s) of the event and any factors that influenced its severity;
 - (b) The nature and timing of any measures implemented by the Consent Holder to avoid, remedy or mitigate any adverse effects; and the steps to be taken in future to prevent recurrence of similar events; and
 - (c) The steps planned to be taken to prevent reoccurrence of similar events.
39. PM₁₀ monitoring shall be undertaken, if required in writing by the Waikato Regional Council, after determining the objectionable or offensive effects of particulate matter beyond the boundary.
- Advice Note:** For the purpose of this resource consent, the Waikato Regional Council will consider an effect that is objectionable or offensive to have occurred if any appropriately experienced officer of the Waikato Regional Council deems it so after having regard to:
- (a) The frequency, intensity, duration, amount, effect and location of the suspended or particulate matter; and/or
 - (b) receipt of complaints from neighbours or the public: or
 - (c) relevant written advice or a report from an Environmental Health Officer of a territorial authority or health authority.
40. In the event that monitoring of PM₁₀ is required, the Consent Holder shall ensure that the concentrations of suspended particulate in ambient air arising from authorised activities at or beyond the boundary of the site does not exceed 80 µg/m³ as a 24 hour average.
41. The Consent Holder shall record the following in a daily log:
- (a) Records of any PM₁₀ monitoring;

- (b) Details on any dust control equipment malfunctions and any remedial actions taken;
- (c) Details on any visible emission of dust and the source;
- (d) Wind direction;
- (e) The frequency of water cart usage and the volume of water applied;
- (f) The volume of water used for dust suppression other than water cart usage;
- (g) The date and signature of the person entering the information;
- (h) Details of dust complaints received; and
- (i) Actions taken in response to dust complaints received.

Records shall also be made available to the Waikato Regional Council within 5 working days upon request.

Annual Compliance Report

42. The Consent Holder shall provide to the Waikato Regional Council and to the Community Liaison Group an Annual Compliance Report, by 31 March, for each year that this consent is exercised. The Annual Compliance Report is to provide an assessment of the Consent Holder's compliance with the conditions of resource consents AUTHXX and make any recommendations to address any identified instances of non-compliance. The Annual Compliance report shall also address the following:
- (a) Laboratory results from compliance monitoring of soils received to site;
 - (b) Laboratory results from monitoring of subsurface and surface water discharges from the site;
 - (c) Details of any loads turned away;
 - (d) Daily/Weekly Log Books of fill placement and volumes;
 - (e) An assessment of the monitoring results against relevant criteria to ensure that the operation of the facility is not having a more than minor effect on the receiving environment;
 - (f) Details of any actions undertaken to address any issues identified during monitoring or operation of the fill facility;
 - (g) Details of any complaints received and any management of mitigation actions undertaken to address those complaints;
 - (h) Details of any revisions to the *Site and Fill Management Plan*, or any other documentation associated with the management of the site;
 - (i) Any air quality monitoring records;
 - (j) A copy of the most up to date and certified table of Fill Acceptance Criteria under AUTHXX/SFMP; and
 - (k) A copy of the current table of discharge water quality limits for each of the contaminants tested under AUTHXX/SAP.

Management Plan Review

43. The Consent Holder shall review all Management Plans associated with the site every 5 years that this consent is current. The review shall assess whether management practices are resulting in compliance with the conditions of these consents, and whether the objectives of the Management Plans are being met through the actions and methods undertaken. The review shall result in any amendments that are necessary to better achieve the objectives of the Management Plans
44. A copy of the review and any changes to the Management Plans as a result of that review shall be provided to Waikato Regional Council with the Annual Compliance Report for every fifth year.

Archaeological Accidental Discovery

45. In the event of any archaeological site or waahi tapu being discovered or disturbed while undertaking earthworks or ancillary activities, the activity shall cease immediately in the area of the discovery and the Waahi Whanui Trust, Heritage New Zealand Pohere Taonga and the Waikato Regional Council shall be notified within 24 hours. Works may recommence with the written approval of the Waikato Regional Council. Such approval shall be given after the Waikato Regional Council has considered:
 - (a) tangata whenua interests and values;
 - (b) The Consent Holder's interests;
 - (c) Any Heritage New Zealand Pohere Taonga authorisations; and
 - (d) Any archaeological or scientific evidence.

Bond

46. Within 12 months of the commencement of resource consents AUTHXX, and prior to the commencement of AUTHXX (managed fill and cleanfill placement) the Consent Holder shall provide and maintain in favour of the Waikato Regional Council a bond to enable:
 - (a) Restoration (including contouring, drainage and revegetation) of filling areas and disturbed areas to a standard such that the activities and works authorised by this consent no longer require resource consent;
 - (b) Operation and maintenance of treatment systems on the site to ensure that discharges meet the resource consent requirements while restoration on the site is being completed; and
 - (c) Compliance with all the conditions of this consent and to enable any adverse effects on the environment resulting from the Consent Holder's activities and not authorised by resource consent to be avoided, remedied or mitigated.
 - (d) The fill sites to be rehabilitated in accordance with the Rehabilitation Management Plan.
47. The quantum of the bond shall be sufficient to cover:

- (a) the estimated costs (including any contingency necessary) of the activities outlined in condition 37; and
 - (b) any further sum which the Waikato Regional Council consider necessary for monitoring any adverse effect on the environment that may arise from the quarry including monitoring anything which is done to avoid, remedy, or mitigate an adverse effect.
48. The bond shall be in a form approved by the Waikato Regional Council and shall, subject to these conditions, be on the terms and conditions required by the Waikato Regional Council.
49. Unless the bond is a cash bond, the performance of all the conditions of the bond shall be guaranteed by a guarantor acceptable to the Waikato Regional Council. The guarantor shall bind itself to pay for the carrying out and completion of any condition of the bond in the event of any default of the Consent Holder, or any occurrence of any adverse environmental effect requiring remedy.
50. The bond amount shall be fixed within 12 months of commencement of this consent and every fifth anniversary thereafter by the Waikato Regional Council or more frequently if otherwise agreed between the Consent Holder and the Waikato Regional Council. The amount of the rehabilitation bond shall be advised in writing to the Consent Holder at least one month prior to the review date.
51. Should the Consent Holder not agree with the amount of the bond fixed by the Waikato Regional Council then the matter shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996. Arbitration shall be commenced by written notice by the Consent Holder to the Waikato Regional Council advising that the amount of the rehabilitation bond is disputed, such notice to be given by the Consent Holder within two weeks of notification of the amount of the rehabilitation bond. If the parties cannot agree upon an arbitrator within a week of receiving the notice from the Consent Holder, then an arbitrator shall be appointed by the Chief Executive Officer of the Institution of Professional Engineers of New Zealand. Such arbitrator shall give an award in writing within 30 days after his or her appointment, unless the Consent Holder and the Waikato Regional Council agree that time shall be extended. The parties shall bear their own costs in connection with the arbitration. In all other respects, the provisions of the Arbitration Act 1996 shall apply. Pending the outcome of that arbitration, the existing bond shall continue in force. That sum shall be adjusted in accordance with the arbitration determination.
52. If the decision of the arbitrator is not made available by the 30th day referred to above, then the amount of the bond shall be the sum fixed by the Waikato Regional Council, until such time as the arbitrator does make his/her decision. At that stage the new amount shall apply. The Consent Holder shall not exercise this consent if the variation of the existing bond or new bond is not provided in accordance with this condition.
53. If the amount of the bond to be provided by the Consent Holder is greater than the sum secured by the current bond, then within one month of the Consent Holder being given written notice of the new amount to be secured by the bond, the Consent Holder and the guarantor shall execute and lodge with the Waikato Regional Council a variation of the existing bond or a new bond for the amount fixed on review by the Waikato Regional Council. Activities authorised by the consent shall not be undertaken if the variation of the existing bond or new bond is not provided in accordance with this condition.

Review

54. The Waikato Regional Council may, between 1 April and 30 June 2023, and between 1 April to 30 June every two years thereafter, serve notice on the Consent Holder under s.128(1) of the RMA, of its intention to review the conditions of this resource consent for the following purposes:
- (a) To review the effectiveness of the conditions of this resource consent in avoiding or mitigation any adverse effects on the environment from the exercise of this resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions;
 - (b) If necessary and appropriate, to require the Consent Holder to adopt the best practicable option to remove or reduce adverse effects on the surrounding environment due to the placement of placement of managed fill and any subsequent contaminated stormwater discharges;
 - (c) To review the adequacy of and the necessity for monitoring undertaken by the Consent Holder; or
 - (d) To take account of any changes to the Waikato Regional Plans or Policies.

Administration

55. The Consent Holder shall pay the Waikato Regional Council any administrative charge fixed in s.36 of the RMA, or any charge prescribed in accordance with regulations made under s.360 of the RMA.

Schedule Two – Ecological Mitigation Schedules & Locality of Ecological Compensation Areas & Ecological Management Plan

Mitigation action	Compensation for	Timeframe	Notes
TBD			

Note: CA4 refers to 'Compensation Area 4'
 Note: Refer Programme of Works in Section 10 of EMP

Locality of Ecological Compensation Area



SCHEDULE THREE – ACCEPTABLE AND PROHIBITED WASTES

ACCEPTABLE WASTES	
1. Cleanfill Material Definition	
Material that when buried will have no adverse effect on people or the environment. Cleanfill material includes virgin natural materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of:	
<ul style="list-style-type: none"> • combustible, putrescible, degradable or leachable components • hazardous substances • products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices. • materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances liquid waste. 	
2. Construction & Demolition Fill	
Construction & Demolition fill as defined and listed as acceptable materials in Section 4.2 of the Clean fill Guidelines. The material will include soil, rock, concrete, bricks, and inert C&D material. Inert C&D will mostly include glass and rock fibres and less than 5% timber. Soil and C&D can contain minor amounts of electrical wiring, plastics, and plasterboard as an acceptable material (less than 0.5% of the waste matrix).	
Material	Discussion
Bricks & Masonry Blocks	Inert – will undergo no degradation.
Ceramics	Inert.
Concrete – un-reinforced	Inert material.
Concrete –reinforced	Including exposed reinforcing rods of less than 1 meter in length
Fibre cement building products	Inert material comprising cellulose fibre, Portland cement and sand. Care will be taken to ensure that the product does not contain asbestos, which is unacceptable.
Glass	Inert, and poses little threat to the environment. May pose a safety risk if placed near the surface in public areas, or if later excavated. The safety risk on excavation should become immediately apparent, so glass is considered acceptable provided it is not placed immediately adjacent to the finished surface.
Road sub-base	Inert.
Soils, rock, gravel, sand, clay, etc.	Acceptable if free of contamination. Vetting procedures will be implemented through the Site and Fill Management Plan
Tiles (clay, concrete or ceramic)	Inert.
3. Asbestos in soil and asbestos contaminated material (ACM).	
The demolition material will include ACM such as:	
<ul style="list-style-type: none"> • asbestos-cement sheet cladding, roofing, and drainage pipes • backing material for floor tiles and vinyl sheets • insulation board for thermal protection (e.g., around fireplaces) • textured ceilings and sprayed-on wall surfaces. 	

- lagging for insulation around pipes, heaters, and hot water cylinders
- asbestos-cement sheet cladding, roofing, and drainage pipes
- backing material for floor tiles and vinyl sheets
- insulation board for thermal protection

All asbestos soils and ACM shall be accepted, tested, treated, and disposed as outlined in the approved Asbestos Fill Management Plan.

4. Peat

Naturally occurring material. Peat forms from the build-up of partially rotted plant material in wet environments

5. Acid sulphate soils and marine sediments.

7. Managed Fill

Material that meets the Waste Acceptance Criteria outlined in Table 1 of AUTHXX

All materials shall be accepted, tested, treated, and disposed as outlined in the approved Site and Fill Management Plan.

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PROHIBITED WASTES

- Any material that exceeds the accepted criteria listed in approved Waste Acceptance Criteria.
- No chipboard, will be accepted as part of the Construction & Demolition fill
- No green waste – (Vegetation, bark and wood chips) any material that is compostable / biodegradable that could cause leachate.
- No material from gas works will be accepted.
- Containers, sealed drums, and gas cylinders
- Bulk liquids
- Tyres
- Medical and Veterinary Waste
- Coal Ash Waste
- Lead acid batteries (lead acid batteries can be recycled in New Zealand).
- Used oil.
- Explosive, flammable, oxidising or corrosive substances - as defined under the HSNO Act.
- PCB wastes.
- Persistent Organic Pollutants wastes (as defined by the Stockholm Agreement).
- Viscous materials-liquids/tars/paints and painted material.
- Drums or containers containing hazardous chemicals (including agrichemicals, solvents, petroleum compounds or toxic chemicals (as defined under the HSNO Act)).
- Household Hazardous Waste.
- Municipal solid waste and domestic refuse.
- Paper, cardboard, and fabrics
- Electrical components, cabling, and insulation
- Biosolids from municipal or industrial wastewater treatment plants

SCHEDULE FOUR – WATER QUALITY PARAMETERS

Water quality parameters and proposed trigger values for stormwater discharge at Sampling location DS1 and Fill Area 2 and Fill Area 4.

Parameter	Proposed Trigger values (mg/L)	Source and Rationale
Dissolved Aluminium (0.22 µm filter)	0.980 ¹	US EPA CMC. Intermittent discharge and Colloidal aluminosilicates may give high values
Dissolved Arsenic	0.01 ²	MoH (2018) Drinking Water Standards
Dissolved Boron	0.940 ³	ANZG (2018) 95% Guidelines. High Background values
Dissolved Cadmium	0.0008 ¹	ANZG (2018) 80% Guidelines. Allows for dilution
Dissolved Chromium (based on Cr(III))	0.57 ¹	US EPA CMC. Intermittent discharge
Dissolved Copper	0.0251 ⁵	ANZG (2018) 80% Guidelines. Allows for dilution
Dissolved Lead	0.0056 ⁴	ANZG (2018) 90% Guidelines. Allows for dilution and protection of drinking water.
Dissolved Nickel	0.013 ⁴	ANZG (2018) 90% Guidelines and Protection of Drinking water
Dissolved Thallium	0.00003 ⁴	ANZG (2018) 95% Guidelines. High Background values
Dissolved Zinc	0.031	Confirmed as being non-toxic by Whole Effluent Toxicity testing of the stream water collected from sampling location.
Total petroleum hydrocarbons (TPH)	15 ⁶	MfE (1989) Petroleum Guidelines. To avoid visible sheens
pH	>5.5 (6.0 for storage tank Fill 3 underdrain) pH units	
<p>Note: Dissolved aluminium shall be measured using 0.22 µm ultra-filtration method to remove colloidal aluminium from clay particles.</p> <ol style="list-style-type: none"> 1. US EPA CMC (for aluminium the lowest CMC has been used with a water hardness of 100 mg/L, DOC equal 1 mg/L and pH 7) 2. MoH (2018) Drinking water standards 3. ANZG (2018) 95% ecosystem protection guideline value 4. ANZG (2018) 90% ecosystem protection guideline value 5. ANZG (2018) 80% ecosystem protection 6. Based upon MfE (1989) Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand recommendation of 15 mg/L. 		

Water quality parameters and proposed trigger values for downstream receiving water quality at DS2

Parameter	Proposed Trigger values (mg/L)	Source and Rationale
Dissolved Aluminium	0.080 ¹	ANZG (2018) 90% Guidelines. Background may be elevated during storm conditions.
Dissolved Arsenic	0.024 ²	ANZG (2018) 95% Guidelines.
Dissolved Boron	0.940 ²	ANZG (2018) 95% Guidelines.
Dissolved Cadmium	0.0002 ²	ANZG (2018) 95% Guidelines.
Dissolved Chromium (as Chromium VI)	0.006 ¹	ANZG (2018) 90% Guidelines. Background may be elevated.
Dissolved Copper	0.0014 ²	ANZG (2018) 95% Guidelines.
Dissolved Lead	0.0034 ²	ANZG (2018) 95% Guidelines.
Dissolved Nickel	0.011 ²	ANZG (2018) 95% Guidelines.
Dissolved Thallium	0.00003 ²	ANZG (2018) 95% Guidelines.
Total petroleum hydrocarbons (TPH)	5 ⁴	33% of the MfE (1989) Petroleum Guidelines. To avoid visible sheens on the surface of the water.

Note: Dissolved aluminium shall be measured using 0.22 µm ultra-filtration method to remove colloidal aluminium from clay particles.

1 = Based upon ANZG (2018) 90% ecosystem protection

2 = Based upon ANZG (2018) 95% ecosystem protection

3= Based upon ANZG (2018) 80% ecosystem protection

4 = Based upon MfE (1999) Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand recommendation of 15 mg/m³

L = litre

m³ = cubic metre

MfE = Ministry for the Environment

mg = milligram

mg/L = milligram per litre

mg/m³ = milligram per cubic metre

TPH = total petroleum hydrocarbons

Proposed trigger values for discharging Underdrain Storage Tank

Parameter	Proposed Trigger values (mg/L)	
	Level 1 Criteria	Level 2
Total Boron	1.0	5.0
Total Copper	0.5	1.5
Total Lead	0.1	0.3
Total Zinc	0.6	1.8

Note:

mg/L = milligram per litre

Water quality parameters and proposed UCL for stormwater discharge.

Parameter	Proposed Trigger values (mg/L)
Dissolved Aluminium	0.49

Parameter	Proposed Trigger values (mg/L)
Dissolved Arsenic	0.005
Dissolved Boron	0.47
Dissolved Cadmium	0.0004
Dissolved Chromium (based on Cr(III))	0.033 ¹
Dissolved Copper	0.013
Dissolved Lead	0.0028
Dissolved Nickel	0.003
Dissolved Zinc	0.015
Total petroleum hydrocarbons (TPH)	5 ²

¹ Based upon ANZG (2018) low reliability multiplied by 10 (to allow for dilution).

² The TPH number here is based upon 1/3 of the Ministry for the environment, to match the downstream DS2 criteria.