



Annual Compliance Audit Report

Horowhenua District Council – Levin Landfill

June 2024

Consents:

- ATH-2002003982.03 (6009);
- ATH-2002003983.02 (6010);
- ATH-2002003984.02 (6011);
- ATH-2002003985.01 (6012);
- ATH-2002003680.02 (7289);
- ATH-2002009801.02 (102259) and;
- ATH-2014015044.01 (106798)

Reporting Period

July 2022 – June 2023

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EXECUTIVE SUMMARY

This report assesses compliance against resource consents held by Horowhenua District Council (HDC) in relation to the operation of the Levin landfill for July 2022 to June 2023 assessment period;

- ATH-2002003982.03 (6009) – discharge of solid waste to land; (**Low Risk Non-Compliance**)
- ATH-2002003983.02 (6010) – discharge of landfill leachate onto and into land; (**Moderate Non-Compliance**)
- ATH-2002003984.02 (6011) – discharge of landfill gas, odour, and dust to air; (**Moderate Non-Compliance**)
- ATH-2002003985.01 (6012) – diversion of stormwater; (**Comply Full**)
- ATH-200200368.02 (7289) – discharge of liquid waste onto and into land; (**Comply Full**)
- ATH-2002009801.02 (102259) – discharge of stormwater to land; (**Low Risk Non-Compliance**) and
- ATH-2014015044.00 (106798) – discharge to air (gas flare) (**Moderate Non-Compliance**).

As a result of this assessment the Levin Landfill has been rated as **Moderate Non-Compliance**.

Non-compliances have been raised across all consents largely due to a failure to undertake monitoring and provide monitoring results and reports. Additionally HDC has not undertaken work to progress its Resource Consent variation for changes to the Biofilter. While Horizons acknowledges the landfill is closed, HDC must undertake all recommended actions in order to comply with all of the conditions of the active Resource Consents.

The previous Horizons compliance monitoring report identified **Condition 2A** of ATH-2002003983.02 (6010) required the selected leachate remediation option to be fully implemented by **June 2023**. While the timeframe has been exceeded, it is acknowledged HDC has adopted the BPO via council resolution on 31 May 2024.

The non-compliances are summarised as follows:

ATH-2002003982.03(6009) – Discharge of solid waste to land:

Condition 4 Moderate Non-Compliance – Weekly monitoring not undertaken on a consistent basis.

Condition 35 d (i) Low Risk Non-Compliance – Agreed members list needs to be supplied to Horizons by **2 August 2024**.

ATH-2002003983.02(6010) – Discharge of landfill leachate to land:

Condition 2(a) Moderate Non-Compliance - Due to the BPO process having not met the June 2023 timeframe. Please provide confirmation of council resolution for the adopted option and timeline for implementation to Horizons by **2 August 2024**.

Condition 3 Moderate Non-Compliance – Failure to undertake all required Monitoring.

Condition 11(aa) Moderate Non-Compliance - Failure to resolve ongoing nature of monitoring analysis for scBOD₅ and not having the Leachate BPO implemented. Please confirm appropriate analytical testing is being carried out and a timeline for the implementation of Leachate BPO by 2 August 2024.

Condition 12 Low Risk Non-Compliance – Incorrect laboratory analysis for Faecal Coliforms.

Condition 14 (b) Please confirm the final slope layer ratios to Horizons by 2 August 2024.

Condition 28 Low Risk Non-Compliance – Monthly inspections not undertaken on a consistent basis.

Condition 29 Low Risk Non-Compliance - Failure to provide a summary of remedial actions and dates of when work has been undertaken.

ATH-2002003984.02 (6011) – Discharge of landfill gas, odour, and dust to air:

Condition 5(f) Low Risk Non-Compliance - Methane monitoring exceeded 200ppm on all occasions. Retesting after remediation was undertaken; however further retesting was not undertaken at two sites that continued to exceed.

Condition 5(i) Moderate Non-Compliance – Failure to appoint biofilter assessor and undertake annual biofilter assessment.

Condition 5(j) Moderate Non-Compliance – Required maintenance of biofilter not undertaken.

Condition 5(k) Moderate Non-Compliance – Required monitoring of biofilter not undertaken.

Condition 5(n) Moderate Non-Compliance - Required consultation with the Neighbourhood Liaison Group (NLG) over the draft Odour Management Plan (OMP) not undertaken.

Condition 5(o) Moderate Non-Compliance - Failure to undertake all monitoring in accordance with Condition 5 not in general accordance with the OMP.

Condition 5(p) Low Risk Non-Compliance – Required weather monitoring not undertaken consistently.

Condition 5(q) Low Risk Non-Compliance - Monthly reporting of weather data not consistent throughout assessment period.

Condition 8 Moderate Non-Compliance – Failure to supply summary of Complaints Register – Please supply a copy of the register by 2 August 2024.

Condition 8E Low Risk Non Compliance – Inconsistent weekly walkover inspections.

ATH-2014015044.00 (106798) – DISCHARGE TO AIR (GAS FLARE)

Condition 11 Moderate Non-Compliance – Failure to review and submit updated Operations Management Plan. Please ensure a review of the Operations Management Plan is completed and provided to Horizons by **2 August 2024**.

Condition 14 Moderate Non-Compliance – Failure to supply flare records annually. To avoid possible enforcement action please provide a record of flare outages to Horizons by **2 August 2024**.

Condition 15 Moderate Non-Compliance – Failure to supply monitoring report. Please supply report for the 2022-2023 monitoring period by **2 August 2024**.

Condition 16 Moderate Non-Compliance – Failure to supply monthly monitoring results. Please provide results for the 2022-2023 monitoring period by **2 August 2024**.

ATH-2002009801.02 (102259) – Diversion of Stormwater

Condition 6 Low Risk Non-Compliance – No information detailed in the Annual Report regarding the stormwater soakage ponds being inspected.

In relation to the above non-compliances it is expected that all required monitoring is undertaken, documented and reported on within the requirements of the various Resource Consent conditions. Evidence of monitoring is expected to be provided in future Annual Reports along with evidence of consultation with the Neighbourhood Liaison Group around the Odour Management Plan. The above was also noted in the previous Compliance Report (2021-2022) and as such a failure to undertake action to address these on-going non-compliances may result in escalation of the compliance grades and/or consideration of enforcement action being taken.

Now that HDC has confirmed closure of the Levin Landfill, it is recommended that the Horizons Consents Team is contacted to discuss any consenting implications in relation to the closure of Levin Landfill.

1. BACKGROUND

The Levin Landfill is owned by Horowhenua District Council (HDC) and is currently no longer receiving waste. The landfill consists of an old unlined cell that is under permanent capping and a “new” lined cell. This lined area consists of multiple lined cells under varying levels of capping.

HDC hold a suite of resource consents in relation to the operation, maintenance and closure of the landfill as follows:

- ATH-2002003982.03 (6009) – discharge of solid waste to land;
- ATH-2002003983.02 (6010) – discharge of landfill leachate onto and into land;
- ATH-2002003984.02 (6011) – discharge of landfill gas, odour, and dust to air;
- ATH-2002003985.01 (6012) – diversion of stormwater;
- ATH-200200368.02 (7289) – discharge of liquid waste onto and into land;
- ATH-2002009801.02 (102259) – discharge of stormwater to land; and
- ATH-2014015044.00 (106798) – discharge to air (gas flare). Subject to variation

During the monitoring period HDC has considered the future of the landfill. During a council meeting on 31 May 2023, HDC Councillors voted to keep the Landfill closed and assess options for future use. HDC has undertaken recent works towards permanently closing the landfill with applying the final capping to the most recently used cell during February 2024. Further to this on 8 May 2024, HDC Councillors voted to adopt the BPO for leachate remediation of the old landfill.

1.1. Site

The Levin Landfill is located on Hōkio Beach Road in the Horowhenua District, approximately 4 kilometres west of Levin (Figure 1). The landfill site is located in undulating sand country surrounded by pastoral farming land, approximately 3 kilometres from the coast and 6 kilometres from State Highway 1. The site is approximately 72 hectares in area.

The Hōkio Stream (the single outlet for Lake Horowhenua) runs in close proximity to the northern boundary of the landfill site as it flows west to the sea over a distance of approximately 2.5 kilometres. There are a number of rural residences located to the north-east of the landfill site and the small coastal settlement of Hōkio Beach is located approximately 1.5 kilometres to the north-west. The Ngatokowaru marae (Ngāti Pareraukawa, Ngāti Raukawa) is located approximately 500 metres north-east of the landfill property, while the Kawiu marae (Muaūpoko) is on the northern shore of Lake Horowhenua.



Figure 1: Aerial Photo of Levin Landfill Site

1.2. Complaints Received

During this assessment period, 1 July 2022 – 30 June 2023, there has been no complaints received by Horizons.

2. SCOPE OF THE REPORT

This assessment is based off information provided by the consent holder entitled:

- *Levin Landfill Annual Compliance Report July 2022 – June 2023*, prepared for HDC by Stantec (Annual Report), dated October 2023;
- Other relevant information held on file by Horizons.
- Site Inspection November 2023.

3. GENERAL ASSESSMENT OF CONDITIONS APPLICABLE TO ATH-2002003982.03 (6009) – DISCAHRGE OF SOLID WASTE TO LAND

Consent is granted to the Horowhenua District Council to *discharge solid waste to land* at the Levin landfill, Hōkio Road, Levin, legally described as Lot 3 DP 40743 Blk II Waitohu Survey District, for a term expiring 35 years from the commencement of the consent subject to the following conditions:

1. *This permit does not authorise the disposal of liquid waste to land at the Levin Landfill.*

Liquid waste is defined as:

Septic tank waste, grease trap waste, sewage and any material that contains free liquids.

The presence of free liquids may be determined by either of the following methods, whichever is most practicable at the time:

- i. *The "Paint Filter Test"; or*
- ii. *Material which may be loaded, transported and deposited at the landfill without the risk of free liquid seeping from the material, and without the risk of having the deposited material flow under gravity down any slope on the landfill shall be deemed to not contain free liquids.*

Information in the Annual Report states the following: "*Since disposal operations ceased at the end of October 2021, no special waste (e.g., biosolids and sludges, and liquid wastes) have been disposed of in the landfill in the reporting period.*"

Compliance Rating: Comply – Full

General Conditions – Discharge Solid Waste to Land

2. *The Permit Holder shall take all practicable measures to avoid the discharge of waste from within the landfill to surrounding land. To this end, the Permit Holder shall ensure:*
 - a. *The amount of refuse exposed at any one time is confined in dimension to 800 square metres of tipping face; and*
 - b. *Exposed refuse is covered at the end of each day that refuse is received at the landfill.*

HDC advised previously that the landfill has not received refuse since November 2021, therefore there is no current tip face active.

Compliance Rating: Not Assessed

3. *If refuse is discharged from within the active landfill areas to land outside the legal boundary of the landfill property, the Permit Holder shall ensure that such waste is cleared and removed to the landfill as soon as practicable.*

HDC has undertaken regular "Site Walkovers". No complaints have been made regarding litter escaping the property boundary during the reporting period. Inspections were undertaken regularly between July 2022 and January 2023 and then monthly between February 2023 and June 2023. Records have been documented.

Compliance Rating: Comply – Full

4. *The Permit Holder will monitor the landfill at least once every two weeks for the build-up of litter, paper and other deposits outside the active landfilling areas, and remove such material as required.*

As noted above in Condition 3, regular Site Walkovers have been occurring, however these have not been occurring within the specified period. Please ensure regular inspections are undertaken as required to ensure compliance.

Compliance Rating: Comply – Moderate Non-Compliance

5. *The Permit Holder shall regularly inspect for the presence of vermin, birds and other pests take appropriate measures to control them.*

Information in the Annual Report States the following: "Condition 5 of Discharge Permit ATH-2002003982.03 requires that the landfill be regularly inspected for the presence of vermin, birds and other pests and that appropriate measures be taken to control them.

Bait stations have been used, and, whilst the landfill was operating, the landfill contractor was aware of the need to replace baits if there was more increased vermin activity. HDC staff have indicated in inspection sheets that bait stations need checking. It is recommended that this be done periodically throughout the year.

Capping of the landfill has limited the opportunities for feral cats and seagulls to scavenge in the waste for food scraps".

This has significantly reduced the seagull population and is likely to reduce the presence of feral cats too. "Whilst the landfill was operational, shooting of feral cats and seagulls had been carried out regularly. Bait stations have been used, and the operator was aware of the need to replace baits if there was more increased vermin activity.

An opportunity for feral cats and seagulls to scavenge in the waste for food scraps has been removed with the capping of the landfill. This has significantly reduced the seagull population and is likely to reduce the presence of feral cats too. The weekly site inspections have occasionally identified pests which Council has dealt with as required."

Presence of vermin, birds and other pests is also noted in the site walkover reports.

Compliance Rating: Comply – Full

6. *The Permit Holder shall regularly inspect the landfill for noxious weeds, and take appropriate measures to control those noxious weeds.*

Information in the Annual Report notes: *"Spaying of gorse took place at the Levin Landfill in July 2022 and reportedly, in March / April 2023. Site walkover records indicate that gorse is still propagating, and so more frequent spraying may be needed to get on top of the gorse, and it is recommended that this be undertaken"* Please ensure maintenance is undertaken

Compliance Rating: Comply – Full

Hazardous Material

7. *The Permit Holder shall not allow the disposal of waste of an explosive, flammable, reactive, toxic, corrosive or infectious nature, to an extent that the waste poses a present or future threat to the environment or the health and the safety of people.*

The following has been stated in the Annual Report 2022-2023: *"Since disposal operations ceased at the end of October 2021, no special waste (e.g., biosolids and sludges, and liquid wastes) have been disposed of in the landfill in the reporting period"*. It is acknowledged that there has been no waste received during the reporting period.

Compliance Rating: Comply – Full

8. *The Permit Holder shall develop and implement a procedure for the landfill operator, such that potentially hazardous material, as listed in Annex 1 attached to and forming part of this permit, will not be accepted for disposal at the Levin landfill without specific authorization. The Operations Manager of the Horowhenua District Council, or some other designated person, is able at their discretion to accept quantities of such wastes. The waste shall be accompanied by a Hazardous Waste Manifest, as listed in Annex 1, which will form part of the permanent record and shall be reported by the Regional Council by 30 September each year for the term of this Permit.*

As identified in Condition 7, there has been no wastes disposed in the Landfill during the reporting period, therefore no records are required.

Compliance Rating: Not – Assessed

9. *The Permit Holder shall maintain a secure facility for any small quantities of hazardous waste, pending a decision on treatment, disposal or transfer to another facility.*

No information on this facility was provided in the Annual Report; however, Section 5.5.8 of the Landfill management Plan (LMP) states this facility makes use of a shipping container that has been specifically designed for this purpose which is located near the site office.

Compliance Rating: Comply Full

10. *Hazardous waste stored at the facility described in Condition 9 shall be stored in a sealed and banded area to avoid adverse effects from spills.*

It is detailed in the LMP that a shipping container containing hazardous waste is appropriately banded and sealed to avoid adverse effects from spills.

Compliance Rating: Not Assessed

11. *Any hazardous waste accepted for disposal shall be disposed within an adequate volume of mature refuse, in accordance with Centre for Advanced Engineering's Landfill Guidelines (2000).*

The Annual Report states that no hazardous waste was disposed of at the landfill during the reporting period, due to the landfill no longer receiving waste.

Compliance Rating: Not Applicable

Monitoring and Reporting

Specific Conditions – Discharge Solid Waste to Land at Existing Landfill

12. *No solid waste shall be disposed to the existing landfill, after two years from the commencement of this consent.*

The existing landfill as described in this consent is known as the old closed (unlined) landfill or Stage 1 by HDC. This stage of the landfill is capped.

Compliance Rating: Comply – Full

13. *All new fill should be placed on top of at least 2 metres of existing material in the existing landfill.*

As detailed in Condition 12, final capping is in place and this condition was previously verified as being compliant in Horizons Compliance Report 42517 dated 19 May 2011.

Compliance Rating: Comply – Full

14. *The Permit Holder shall update the Landfill Management Plan in respect of the operations on the lined landfill to the satisfaction of the Regulatory Manager at the Regional Council before November 2019. The Landfill Management Plan shall include, but not be limited to:*
 - a. *The specific conditions contained herein, related to the operation, management and monitoring of the landfill.*
 - b. *A description of the development and maintenance of the landfill.*
 - c. *A description of how the consent will be exercised in a manner to ensure compliance with the consent and the conditions thereof and the Resource Management Act 1991.*

- d. A description of how the consent will be exercised to minimise adverse effects on the environment.
- e. A description of the hazardous waste acceptance criteria, including the criteria set out.
- f. The emergency procedures to be followed in the event of natural emergencies and hazardous waste spills.
- g. The methods of controlling dust and odour emissions including the criteria for assessing when, and how regularly, roadways and the landfill are dampened by water or otherwise.
- h. Details of measures to avoid nuisance effects on adjacent properties i.e. birds and vermin, as a result of landfill activities.
- i. Operational, intermediate and final capping requirements.
- j. Closure and aftercare.
- k. Procedure to update the management plan, in light of changing circumstances, to continue compliance with Conditions of this Permit.
- l. A screen planting implementation description.
- m. **[deleted]**

The Permit Holder shall prepare a Closed Landfill Aftercare Management Plan in respect of the closed unlined landfill (Area "A") to the satisfaction of the Environmental Protection Manager at the Regional Council within six months of the completion of the review of the consent conditions. The Closed Landfill Aftercare Management Plan shall include, but not be limited to those aspects that are detailed in Appendix E of the MfE publication entitled 'A guide for the Management of Closing and Closed Landfills in New Zealand (May 2001)'. The Closed Landfill Aftercare Management Plan shall require at the least:

- n. Grading to a final slope on the landfill faces and caps of between 1V:3H (1 in 3) and 1V:40H (1 in 40);
- o. Ensuring the final landfill surface is sloped to promote run-off toward the outside of the landfill footprint and prevent surface water ponding on the landfill cap;
- p. Ensuring the landfill cap incorporates a layer at least 700 mm thick. All material added to the existing cap to bring the thickness up to 700 mm, or for future cap maintenance purposes, is to have a permeability of not greater than 1×10^{-7} m/s.
- q. Establishing and maintaining a grass or tussock vegetation cover on the capped landfill consistent with an ongoing ability to monitor and maintain the integrity of the landfill cap as per Condition 15 (d) of Consent 6010.
- r. Monitoring the landfill cover on an annual basis to identify areas of differential settlement slope stability issues, erosion and changing vegetation patterns, including a topographic survey to ensure Conditions 14(n) to (q) continue to be met;

The Permit Holder shall submit an annual report to the Regional Council by 30 September each year for the duration of this Permit documenting the condition of

the unlined landfill and any maintenance carried out during the previous year. The annual report shall address but not be limited to those aspects listed in Conditions 14(n) to 14(r) above. The annual report shall include a plan of the unlined landfill specifically documenting the shape of the closed landfill and any changes during the previous year related to Condition 14(q) [The annual report can be written in conjunction with the annual report required as part of Condition 15 (f) for Consent Number 6010]

It has been reported in the Annual Report 2022-2023, that reshaping and remediation on top of the old landfill has been undertaken, to promote water shedding and reduce stormwater infiltration. Upon completion of the works permeability testing was undertaken producing good results, well under the maximum 1×10^{-7} m/s. It is also understood from the previous compliance report, that no changes have been made to the certified (2022) Levin Landfill Management Plan (Ver.3 dated January 2021).

Compliance Rating: Comply – Full

Specific Conditions – Discharge of Offal and Dead Animals to Land

15. *Offal waste shall be immediately buried in depth of 0.6 metres upon delivery.*

The procedure for disposing of offal outlined in Section 5.5.5 of the LMP, includes a special waste permit issued to the waste generator after the requirement for immediate burial to a depth of 0.6m. No Waste has been received for disposal since the end of October 2021.

Compliance Rating: Not Assessed

16. *All animals disposed of as diseased animals under the Animal Act 1967 shall be immediately buried to a depth of at least 1 metre.*

Procedures for disposal of diseased animals are detailed in Section 5.5.5 of the LMP which specifies that they must be immediately buried to a depth of at least 1.0m. There has been no waste acceptance since the end of October 2021.

Compliance Rating: Not Assessed

17. *Pits for the burial of offal and animals shall be excavated in mature refuse and shall be away from the public tipping area.*

It has been reported in the Annual Report 2022-2023, that there has been no waste disposal since October 2021.

Compliance Rating: Not Assessed

18. *Pits for the burial of offal and animals shall be at least 10 metres from any landfill batter slope.*

It has been reported in the Annual Report 2022-2023, that there has been no waste disposal since October 2021.

Compliance Rating: Not Assessed

19. *Pits for the burial of offal and animals shall not exceed a maximum size of two metres by 15 metres.*

No information on the burial of these wastes was provided in the Annual Report due to no wastes being received; however, section 5.5.5 of the LMP states: "If used, the offal holes shall be excavated to a depth of at least 2.5 metres and to a maximum size of 2m by 15m."

Compliance Rating: Not Assessed

20. *The immediate cover material of all offal and animals shall be a minimum depth of at least 100 millimetres unless these conditions specify otherwise. Pits shall be filled to within one metre of the prior refuse surface level and reinstated with appropriate compaction with previously removed refuse or other suitable material.*

No information on the burial of these wastes was provided in the Annual Report due to no wastes being received; however, section 5.5.5 of the LMP states: "All materials placed in the offal hole shall be covered within one hour of being deposited. The intermediate cover material shall be to a minimum depth of at least 100mm, with a final cover of greater than 300mm provided when closing that hole. The contractor shall maintain the surface over a closed offal hole as a level surface."

Compliance Rating: Not Assessed

21. *Pits for the burial of offal and animals shall be demarcated as such and shall be fenced off.*

No information on the burial of these wastes was provided in the Annual Report due to no wastes being received; however, section 5.5.5 of the LMP states: "Offal holes shall be fenced off and the location recorded and sign-posted accordingly."

Compliance Rating: Not Assessed

22. *Any other malodorous wastes not already covered specifically by these conditions shall be covered immediately upon disposal.*

No information on 'other malodorous wastes' disposed of onsite was provided as part of the Annual Report due to no wastes being received; however, Section 5.5.5 of the LMP states: "All other materials requiring specific burial shall be immediately buried to the specified depth in the presence of the relevant observers."

Compliance Rating: Not Assessed

Specific Conditions – Discharge of Biosolids and Sludges to Land

23. *Biosolids, sludges and similar materials which do not contain free liquids may be accepted at the landfill as solid waste. This shall include dewatered municipal wastewater treatment plant solids, dewatered processing plant solids and dewatered agricultural wastes.*

The presence of free liquids may be determined by either of the following methods, whichever is most practicable at the time:

- i. The "Paint Filter Test"; or*
- ii. Material which may be loaded, transported and deposited at the landfill without the risk of free liquids seeping from the material, and without the risk of having the deposited material flow under gravity down any slope on the landfill shall be deemed to not contain free liquids.*

No liquid waste was accepted at the Levin Landfill during the assessment period, so therefore has not been assessed.

Compliance Rating: Not Assessed

24. *If not co-disposed of within the landfill, the biosolids, sludges and similar materials shall be applied to the landfill surface in accordance with the 1992 Ministry of Health Guidelines for the "safe use of sewage effluent and sewage sludge on land."*

Section 5.5.6 of the LMP details the procedure for disposal if bio-solids or sludge's are not co-disposed. Due to no waste being received at the landfill, this condition has not been assessed.

Compliance Rating: Not Assessed

25. *The Permit Holder shall maintain records of:*
- a. The type of waste received;*
 - b. The volume of waste received;*
 - c. Source of waste; and*
 - d. The location in which the material was placed.*

Due to no waste being received during the reporting period, this condition has not been assessed.

Compliance Rating: Not Assessed

26. *Disposal of site-generated sludge from cess-pits, leachate ponds or other site activities that contain free liquids is acceptable to facilitate site operation, provided this does not adversely affect landfill stability or face operations.*

All leachate generated from the newer lined landfill is piped directly to the Levin Wastewater Treatment Plant (WWTP). HDC is currently assessing the option to intercept a leachate plume from the old landfill and discharge it into the Levin WWTP.

Compliance Rating: Not Applicable

Specific Conditions – Discharge Solid Waste to Land at Lined Landfill

27. *Design specifications and a set of construction drawings for the lined landfill shall be forwarded to the Regional Council (Environmental Protection Manager) for certification, to ensure compliance with the conditions of this consent and all related consents, at least three months prior to the intended construction of the lined landfill begins.*

The last cell to be developed on site was for Stage 3. The clay liner design was assessed by external review, then certified by Horizons by way of letter dated 1 July 2013.

Compliance Rating: Comply – Not Applicable

28. *The Permit Holder shall construct the liner system for all new cells to include the following elements:*
- a. *A smooth base constructed from insitu materials the level of which is above the winter groundwater level.*
 - b. *A geosynthetic clay liner (GCL) a minimum of 5mm thick, with a coefficient of permeability not exceeding 3×10^{-11} m/s. The Permit Holder shall supply documentation from the manufacturer demonstrating quality control procedures ensuring that 95 % of the GCL meets the coefficient of permeability standard required.*
 - c. *A synthetic flexible membrane (high density polyethylene, HDPE with a minimum thickness of 1.5 mm, or polypropylene, PP with a minimum thickness of 1.0 mm).*
 - d. *A protective layer of sand 100 mm thick on the base overlain by a 300 mm thick gravel drainage layer, and on the side slopes a confining layer of gravel 300 mm thick, lain on top of a protective geo fabric and geo-grid, appropriately designed for the site conditions.*
 - e. *Provision for the collection of leachate from the liner and reticulating to a treatment system outside the landfill area.*
 - f. *An alternative to any of the above as agreed from time to time, in writing, between the Permit Holder and the consent authority.*

The design specifications for liner system as certified under Condition 27 above, included the requirements listed above.

Compliance Rating: Not Applicable

29. *[deleted]*

30. *If any ancient human remains or artefacts are discovered during any earthworks activity associated with the construction and maintenance of the landfill, then works shall cease, and the Consent Holder shall immediately inform the Environmental Protection Manager of the Regional Council and relevant tangata whenua. Further work in the vicinity of the find shall be suspended while relevant tangata whenua carry out their procedures for the removal of taonga. The Environmental Protection Manager of the Regional Council will inform the Consent Holder when work can recommence in the vicinity of the find.*

There have been no reported discoveries of human remains or artefacts made during the course of earthworks in this reporting period.

Compliance Rating: Not Applicable

31. *The Regional Council may initiate a review of Conditions 2, 8, 14(a) to (m), 28, 32, 33, and 34 of this permit during the month of October in 2024, 2029 and 2034. The reviews shall be for the purpose of:*

- a. Assessing the adequacy of the management plan outlined in Conditions 14 and 29 of this consent; and/or*
- b. Assessing the effectiveness of Conditions 2, 8 and 28 of this consent.*
- c. Assessing the effectiveness of the NLG outlined in Conditions 32, 33 and 34.*

In avoiding, remedying or mitigating adverse effects on the environment surrounding the Levin Landfill, the review of conditions shall allow for:

- d. Modification of the management plan outlined in Conditions 14 and 29 of this consent;*
- e. Deletion or changes to Conditions 2, 8 and 28 of this consent;*
- f. Deletion or changes to Conditions 32, 33, and 34; and*
- g. Addition of new conditions as necessary.*
- h. An alternative to any of the above as agreed from time to time, in writing, between the Permit Holder and the consent authority.*

To avoid, remedy or mitigate adverse effects on the environment surrounding the Levin Landfill.

Horizons has not initiated a review of conditions of consent during this assessment period with the next review date being October 2024.

Compliance Rating: Not Applicable

Specific Conditions – Neighbourhood Liaison Group (hereinafter “NLG”)

32. *The Permit Holder shall establish an NLG. Members of the NLG will suggest available and suitably qualified nominees for an independent facilitator in advance of or at the first meeting. The list of nominees must be limited to six nominees. The Permit Holder will confirm that the list of nominees contains suitably qualified people for the facilitator role. The NLG will appoint an independent facilitator from the list of nominees confirmed by the Permit Holder at that same meeting. In the event consensus cannot be reached an independent facilitator will be appointed from the list of nominees by a majority vote of community NLG representatives as identified in (a) to (d) and (g).*

The following parties shall be eligible to be members of the NLG with one representative each at NLG meetings:

- a. the Lake Horowhenua Trustees;*
- b. Mr Charles Rudd;*
- c. Ngati Pareraukawa;*
- d. Each of the owners and occupiers of those properties adjoining the Levin Landfill property described as A through to N on Drawing 2181 attached;*
- e. Horowhenua District Council*
- f. the Manawatu-Wanganui Regional Council; and*
- g. Two representatives of the owners and occupiers of the properties affected by the landfill.*

Advice Note:

Technical advisors as appointed by any member(s) of the NLG may be invited to NLG meetings if the NLG member(s) consider it reasonable to assist the discussions with the NLG (at the members own cost).

The Permit Holder's staff and contractor shall be able to attend and participate in the NLG meetings and assist on the invitation of the Permit Holder's representative.

At the invitation of the Permit Holder and/or NLG, other parties may attend NLG meetings as jointly agreed by both the Permit Holder and NLG.

The representatives on the NLG are responsible for reporting back to their members and interested parties. The Permit Holder will make (unless confidential) the reports and information provided to the NLG and the minutes of the NLG available on its website.

The Permit Holder is responsible solely for the reasonable costs of administering the NLG, such as providing a venue, the facilitator's costs and drafting up of minutes.

The facilitator will be paid in accordance with level 2 of the fees range for members under Cabinet Office circular (12) 6: "Fees framework for members appointed to bodies in which the Crown has an interest."

HDC has established an NLG which is open to the members as outlined above. An independent facilitator was appointed in accordance with the process outlined above at the first meeting held following the Environment Court Order (dated 19 December 2019)

which took place on 30 July 2020. During the reporting period there have been three NLG meetings held on the following dates: 16 August 2022, 18 April 2023 and 15 June 2023.

Compliance Rating: Comply – Full

33. *The Permit Holder shall:*

- a. *Convene one meeting by the end of June 2019 to appoint an independent facilitator in accordance with clause 32:*

Ms Jenny Rowan was appointed as the first independent facilitator. This condition was previously assessed in Horizons Compliance Report dated 8 June 2021. During the 15 June 2023 meeting Parekura Macgregor was elected as the new Chairperson to replace Ms Rowan.

Compliance Rating: Not Applicable

- b. *Convene a further meeting within two months of the appointment of the independent facilitator;*

This condition was previously assessed in Horizons Compliance Report dated 8 June 2021.

Compliance Rating: Not Applicable

- c. *Thereafter convene a meeting at intervals of six months for the following 18 months; and*

Following the meeting held on meeting 21 September 2021 the required 18 month period is expired. Meetings have reverted to being held at least annually.

Compliance Rating: Not Applicable

- d. *Thereafter convene a meeting at intervals of no more than twelve months unless all NLG representatives agree that changes are acceptable.*

NLG meetings have been held on the following dates during the reporting period.

Date	Location
16 August 2022	Ante Room HDC
18 April 2023	Ante Room HDC
15 June 2023	Ante Room HDC

Table 1: Meeting Dates

Compliance Rating: Comply Full

34. *The purpose of the NLG is to create a forum in which the Permit Holder, Horizons Regional Council and community can engage for the purpose of reviewing and*

sharing perspectives on monitoring results, and where appropriate, discuss strategies for maintaining or improving the landfill operation, consistent with the consent conditions.

The NLG meetings have provided a forum for discussion of monitoring results and discussing strategies for maintaining and improving the landfill. Meetings have been minuted. Of note during this reporting period has been the investigation of Leachate remediation for the old Landfill site and how this will be addressed. This work has been undertaken by Earthtech. The landfill has also stopped receiving waste.

Compliance Rating: Comply – Full

35. *The Permit Holder Shall:*

a. Supply notes of each meeting to the Group Members;

Minutes of the meetings and any other relevant reports are made available via the HDC website. There are also hard copies made available to those who request it.

Compliance Rating: Comply – Full

b. Forward an annual report to members and to the Regional Council and the District Council;

HDC has provided copies of the Annual Report to Horizons and NLG members via email and hard copy, however there is no copy available on the website for the 2022-2023 Annual Report. Please ensure all reports are made available.

Compliance Rating: Comply – At Risk

c. Forward any other information to the Group Members, in accordance with the conditions of the consents; and

The information assessed as part of this report indicates relevant reports and other information required by these consents is forwarded to the NLG group members via email, and the HDC website on the website page titled "*The Future of Levin Landfill*".

Compliance Rating: Comply – Full

d. The Permit Holder shall ensure the NLG members are:

i. Able to advise the Permit Holder of potential members of the NLG, such new members to be at the agreement of the Permit Holder.

HDC provide NLG members this opportunity during the meetings, however there still appears to be confusion in the meetings amongst attendees of who is allowed to attend and who is not. The following was documented in the August 2022 meeting minutes. "*THAT the Council confirm that addition of Graeme Lindsay and Vivienne Bold to the NLG and a new list circulated*". Can HDC please provide an updated list of NLG to Horizons by 2 August 2024.

Compliance Rating: Low Risk Non-Compliance

- ii. *Given the opportunity to inspect the operations on site on the occasion of NLG meetings, and/or on such other occasions as are agreed by the Permit Holder and Landfill Operator. The Permit Holder and the Landfill Operator shall not unreasonably withhold such agreement. The Permit Holder shall grant the NLG members access to the landfill property, during working hours, subject to relevant regulations, including health and safety regulations and the Management Plan.*

NLG members were invited by HDC to attend a landfill open day on 22 April 2023.

Compliance Rating: Comply – Full

- iii. *Consulted by the Permit Holder as a group prior to any change of conditions pursuant to section 127 of the Resource Management Act 1991 (and/or any consequential amendments).*

As reported in the previous Compliance Assessment "The Consent Holder has lodged a variation to conditions of consent ATH-2002003948.02, Discharge of Landfill Gas, odour and Dust at the Levin Landfill, to allow for the decommissioning of the biofilter. The Consent Holder undertook consultation with the NLG around this variation at the meeting held on 17 November 2020". The application is currently on hold, until further consultation has been completed as requested by Horizons.

Compliance Rating: Not – Assessed

- iv. *Provided by the Permit Holder with a copy of all monitoring reports and other documentation relating to the non-commercially sensitive, environmental operation of the landfill, at the same time as such reports are provided to the Regional Council in accordance with the resource consents.*

Both the Annual and Quarterly Monitoring Reports relevant to the reporting period have been provided to Horizons and the NLG members via the HDC website and Hard copies are provided to those who request them.

Compliance Rating: Comply – Full

- v. *Able to raise with the Permit Holder, as necessary, any matter which the NLG member believes the Permit Holder should address in order to meet the conditions of the consent(s).*

Meetings of the NLG have been minuted and provide a record of the correspondence held.

It would be in the interest of HDC to ensure that any previous meeting minute actions are discussed and addressed at the beginning of each meeting. There has been an on-going points raised regarding the verified members of the NLG which have not been addressed. Please confirm the members of the NLG and provide a copy of the updated record to Horizons by 2 August 2024.

Compliance Rating: Comply – Full

- vi. Able to provide written suggestions to the Permit Holder on possible improvements to, or concerns about, the landfilling operations that are formally acknowledged and considered by the Permit Holder at or before the next NLG meeting.*

Meeting minutes have been documented as above with actions assigned. HDC should ensure that previous meeting minute actions are addressed at the commencement of each meeting.

Compliance Rating: Comply – At – Risk

- vii. Given reasons from the Permit Holder for any comments from the NLG representatives at the annual meeting on environmental and monitoring results in relation to environmental mitigations at the Levin landfill being rejected.*

The NLG continues to provide a forum for raising and responding to concerns and these are responded to as required.

Compliance Rating: Comply – Full

- viii. Formally invited to participate in the Permit Holder's Waste Management and Minimisation Plan review process.*

The latest Long Term Plan 2021-2041 Amendment and Annual Plan 2023/24 invites submissions on the future of the Levin Landfill.

Compliance Rating: Comply – Full

- ix. Provided with a copy of any complaints within 10 workings days of a request by the NLG.*

The NLG meetings minutes do not refer to any such requests. Horizons has not been made aware of any other requests being made during the reporting period.

Compliance Rating: Not Assessed

Charges

36. *Charges, set in accordance with section 36(1)c of the Resource Management Act 1991, and section 690 A of the Local Government Act 1974, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under section 35 (duty to gather information, monitor, and keep records) of the Act.*

[Note: Section 36(1)c of the Act provides that Council may from time to time fix charges payable by holders of resource consents. The procedure for setting administrative charges is governed by section 36(2) of the Act and is currently carried out as part of the formulation of the Council's Annual Plan.]

HDC has paid all fees to-date in accordance with this condition.

Compliance Rating: Not Assessed

Overall Compliance Rating for Resource Consent ATH-2002003982.03 (6009): Moderate Non-Compliance

4. GENERAL CONDITIONS APPLICABLE TO ATH-2002003983.02 (6010) – DISCHARGE OF LANDFILL LEACHATE ONTO AND INTO LAND

Consent is granted to the Horowhenua District Council to *discharge landfill leachate onto and into land* at the Levin landfill, Hōkio Beach Road, Levin, legally described as Lot 3 DP 40743 Blk II Waitohu Survey District, for a term expiring 35 years from the commencement of the consent subject to the following conditions:

1. *Charges, set in accordance with section 36(1)c of the Resource Management Act 1991, and section 690 A of the Local Government Act 1974, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under section 35 (duty to gather information, monitor, and keep records) of the Act.*

[Note: Section 36(1)c of the Act provides that Council may from time to time fix charges payable by holders of resource consents. The procedure for setting administrative charges is governed by section 36(2) of the Act and is currently carried out as part of the formulation of the Council's Annual Plan.]

HDC has paid all fees to-date in accordance with this condition.

Compliance Rating: Not Applicable

General Conditions – Discharge leachate to ground

2. *There shall be no overland flow discharge of leachate beyond the site boundary.*

The previous Compliance Report 2021-2022 identified the following: *"Information in the Annual Report identifies a leachate breakout on the western face during this assessment period and saturated conditions have prevented access by heavy machinery to remedy the breakout; however, this breakout has not resulted in the discharge of leachate beyond the site boundary".* It has been identified in the Annual Report 2022-2023 that the above mentioned leachate breakout was rectified by Goodman Contractors Ltd, while completing capping works during the 2022-2023 reporting period.

Compliance Rating: Comply Full

- 2A *By the end of April 2021 the Permit Holder must complete an assessment of leachate remediation options (and a BPO) to:*
 - a. *cease, or if cessation is not feasible, materially reduce the discharge of leachate to the Tatana Drain and Hōkio Stream; or*
 - b. *if neither of the options in (a) are feasible then options to offset effects within the Hōkio catchment and if that is not feasible or possible options to*

compensate effects within the Hōkio catchment or outside of it (either option through an ecological package).

The Permit Holder must provide a draft of the assessment to the NLG representatives and Horizons Regional Council for comments. The Permit Holder shall decide on an option that is feasible to implement, applying the hierarchy above from the assessment. The Permit Holder must notify the Regulatory Manager of Horizons Regional Council which option it selects, and provide a copy of the final assessment. The selected leachate remediation option must be fully implemented by June 2023.

The previous Compliance Report stated the following: *“The required summary of ‘Leachate Remediation Options Assessment’ undertaken on behalf of the HDC by Tonkin and Taylor was received by Horizons via email on 29 April 2021 in line with the timeframes set out in the condition above. No decision on an option selection has been provided to date. Please ensure the selected leachate remediation option is **fully implemented by June 2023** to ensure compliance with this condition”.* Since the previous Compliance Report, HDC commissioned Earthtech consulting to undertake further work on leachate remediation options. Earthtech have performed a detailed analysis of options available and reports have been discussed with both the NLG and Horizons Regional Council. It is understood that the recommended option has been put forward to HDC councillors for adoption along with a timeline for implementation. Due to this process having not met the June 2023 timeframe, this has been rated as a Moderate Non-Compliance. Please provide confirmation of Council resolution for the adopted option and timeline for implementation to Horizons by 2 August 2024.

Compliance Rating: **Moderate Non – Compliance**

3. *The Permit Holder shall commence the following monitoring programme:*

Table A: Landfill Groundwater Monitoring Locations, Parameters, and Frequency – Deep Aquifer Wells

<i>Location</i>	<i>Parameters and frequency</i>
<i>C2dd, E1d, E2d and any other future deep monitoring well unless installed for background monitoring purposes.</i>	<i>Quarterly comprehensive for 2 years. Subsequently, conditional Annual comprehensive Quarterly indicator.</i>
<i>G1d, Xd1 and any other future deep monitoring well installed for background monitoring purposes.</i>	<i>Quarterly comprehensive for 1 year Subsequently Annual comprehensive Quarterly indicator</i>
<i>All monitoring wells.</i>	<i>Annual pesticide / semi VOC</i>

Table B: Summary of Landfill Groundwater Monitoring Locations, Parameters, and Frequency – Shallow Aquifer Wells

Location	Parameters and frequency
<i>C1, C2, C2ds, D4 B1, B2, B3s, E1s, E2s and any other shallow Compliance monitoring well installed in the future.</i>	<i>Six monthly comprehensive for 2 years Quarterly indicator Subsequently, conditional Annual comprehensive Quarterly indicator</i>
<i>D5, F1, F2, F3 and any other shallow monitoring well installed to monitor leachate irrigation areas in the future.</i>	<i>Six monthly comprehensive for 2 years Quarterly indicator Conditional Annual comprehensive Quarterly indicator</i>
<i>G1s and any other shallow Background monitoring well installed in the future.</i>	<i>Quarterly comprehensive for 1 year Subsequently, conditional Quarterly indicator</i>
<i>D1, D2, D3r, D6, Xs1, Xs2 and any other Early Detection wells installed in the future.</i>	<i>Quarterly comprehensive for 2 years Subsequently, conditional Annual comprehensive Quarterly indicator</i>
<i>All monitoring wells.</i>	<i>Annual pesticide/ semi VOC</i>

Groundwater monitoring information has been reported and discussed in both the Quarterly and Annual Reports covering the assessment period. The Annual Report states the following: *Bores Xs1 and Xs2 should have been tested for the comprehensive suite of parameters each quarter, but this was not done. This is considered to be a non-compliance.*

Additionally, bore C1 was not sampled in October 2022 and January 2023 because of access issues. This is also a noncompliance." Appendix D provides a summary of the number of samples taken at each monitoring location. Comprehensive sampling should have been undertaken at bores D3rd, D3rs, Xd1, Xs1 and Xs2 each quarter, but this did not occur. Additionally, the leachate pond should have been sampled for the comprehensive suite of parameters each quarter, but this did not occur.

Bores C1 (2 occasions) and D5 (1 occasion) were not sampled because of access issues.

The above issues are considered to be non-compliances.

In April 2023, all bores should have been tested for the comprehensive suite of parameters. Due to a scheduling error, this was not done. However, re-testing was conducted in June 2023 which provided full sets of comprehensive test results".

Due to several rounds of monitoring not being undertaken, these have been assessed as a Moderate Non – Compliance. Please ensure that access to all bore monitoring is maintained and sampling is conducted at the specified frequency and analysed for the specified parameters.

Compliance Rating: Moderate Non – Compliance

Groundwater levels are to be measured and recorded during each sampling procedure.

Ground water level data taken during sampling has been included in both the Quarterly and Annual Reports.

Compliance Rating: Comply – Full

Conditions: A reduction in sampling frequency at any groundwater monitoring point is conditional on:

- A. Completion of the initial monitoring program;*
- B. Good consistency of groundwater sample analysis results, or a clearly identified reason for inconsistent results that excludes the contaminant source being landfill operations, stored waste or leachate;*
- C. No decline in groundwater quality as determined from indicator parameter trends over a period of four consecutive sampling rounds;*
- D. If a well being monitored on a conditional frequency becomes non-compliant with condition C, the monitoring frequency for that well should return to the initial monitoring frequency until conditions B and C are again being fulfilled.*

Sampling frequency for the shallow monitoring wells installed to monitor proposed leachate irrigation areas as defined in Table B may begin on the conditional basis, however the frequency is to revert to the unconditional frequency if leachate irrigation begins and continues from that date as if the monitoring well had been newly installed.

Previous compliance reports have confirmed the completion of the initial monitoring program. HDC has not requested a reduction in the monitoring frequency during the reporting period.

Compliance Rating: Not Applicable

If site management planning indicates any early detection monitoring well is likely to become buried or otherwise destroyed within the following year as a result of normal operations:

- E. This must be communicated to the regional council as soon as practicable;*

- F. A replacement well is to be constructed in a position agreed upon with the Environmental Protection Manager at Horizons Regional Council;
- G. The replacement well should be installed in a position suitable to act as an early detection well and be classed as an early detection well; and
- H. The replacement well should be constructed as a nested well (or two separate wells) with screens positioned in both shallow and deep aquifers.

Information provided in the Annual Report states that: "Bores Xs1 and Xs2 were installed in late 2020 within the Hokio Beach Road reserve. Bore Xs1 is adjacent to Tatana's property and represents groundwater quality close to Hokio Stream. Bore Xs2 is hydraulically up gradient from the old landfill site" and, "Bore D3r was replaced in July 2021 by two bores (D3rs and D3rd) located approximately 140 metres northwards of the old D3r bore.

The replacement occurred since the old D3r bore was located within the footprint of the future Stage 1B of the landfill."

The location of the replacement bore was approved by Horizons via email on 17 July 2021 and bores have been constructed in accordance with this condition.

Compliance Rating: Comply Full

Table C: Other Water Monitoring Locations, Frequencies and Parameters

Location	Parameters and frequency
HS1,	Monthly comprehensive for comparison purposes with HS1A. Monitoring to be discontinued after 2 years
HS1A, HS2, HS3	Monthly comprehensive for 2 years Subsequently, conditional Six monthly comprehensive Quarterly Indicator
TD1	Six monthly comprehensive Quarterly Indicator
Leachate Pond Outlet	Monthly comprehensive for 2 years Six monthly pesticide / semi VOC Subsequently, conditional Six monthly comprehensive Quarterly indicator Annual pesticide / semi VOC

Information detailed in the Annual Report identifies samples were collected from the required monitoring locations HS1, HS1A, HS2, HS3, TD1 and the Leachate Pond on a monthly basis throughout the 2022-2023 assessment period. All parameters were analysed with the exception of Semi VOCs and Pesticides. Please ensure all testing is undertaken and completed as per the requirements of this condition to ensure compliance going forward.

Compliance Rating: Moderate Non-Compliance

Conditions: A reduction in sampling frequency for the Hōkio Stream monitoring locations (HS1A, HS2 and HS3) after April 2021 is conditional on:

- I. No significant increases in the concentrations between monitoring sites HS1A and HS3, for parameters exceeding the Trigger values contained in Table C1 at Site HS3;
- J. To determine whether there is a significant increase in contaminant levels the consent holder shall engage a suitably qualified freshwater scientist to assess the 24 month water quality monitoring results obtained for the Hōkio Stream against the trigger values specified in Table C1, after 24 months of monthly data collection. Should any of the trigger values be exceeded at the downstream monitoring site (HS3 as per Fig. X) the consent holder shall propose a statistical analysis approach to the Regional Council for certification. The analysis shall be run, for the parameter(s) exceeding the relevant trigger value, on the last 24 consecutive samples to determine if there are any significant increases in concentrations between upstream and downstream. This analysis shall be provided to the Regional Council within 3 months following the completion of the 24 month monitoring period;

Table C1: Trigger Values	Parameter	Measure	Value
Total	ammoniacal nitrogen	Maximum (g/m ³)	2.1
Total	ammoniacal nitrogen	Average (g/m ³)	0.400
ScBOD ₅		Monthly average (g/m ³)	2
Aluminium		Dissolved, median concentration (g/m ³)	0.055
Arsenic		Dissolved, median concentration (g/m ³)	0.024
Cadmium		Dissolved, median concentration (g/m ³)	0.0002
Chromium (Total)		Dissolved, median concentration (g/m ³)	
Copper		Dissolved, median concentration (g/m ³)	0.0014
Lead		Dissolved, median concentration (g/m ³)	0.0034
Nickel		Dissolved, median concentration (g/m ³)	0.011
Zinc		Dissolved, median concentration (g/m ³)	0.008
Mercury		Dissolved, median concentration (g/m ³)	0.0006

Information detailed in the Annual Report states the following: "Water quality at all Hōkio Stream locations complied with the consent trigger values (see Table 5-1 below) for all determinants except for the following:

- HS2 – the maximum and average results for total ammoniacal-N exceeded the consent trigger value.
- Results for ScBOD₅ across all sites appear to be non-compliant, but due to errors in laboratory reporting, it is not possible to assess the results against the trigger values directly (see explanatory note below Table 5-1).
- The trigger value for copper was met at HS1A, HS1 and HS3, but not exceeded."

"All results for ScBOD5 across all sites appear to be non-compliant, due to errors in laboratory report it is not possible to assess the results against the trigger values directly.

- *Nitrate-N levels at all sites exceeded the ANZECC (95%) DGV of 0.16 mg/L.*

It is noted that the median values for copper at sites HS1A, HS1 and HS3 were all equal to the ANZECC (95%) DGV of 0.0014 mg/L but did not exceed it". Please ensure that all analysis is undertaken and reported with the correct dilutions in order to provide a full assessment of parameters. Due to the Total Ammonical Nitrogen and Nitrate-N exceedance at HS2, this condition has been rated as a Low Risk Non – Compliance.

Compliance Rating: Low Risk Non – Compliance

- K. Following the initial 24 month monitoring period, there shall be no significant increases in concentrations between monitoring sites HS1A and HS3 for parameters exceeding the Trigger values contained in Table C1 at Site HS3. The consent holder shall use a statistical approach certified by the Regional Council to determine whether there has been a significant increase in concentrations, based on samples collected over the previous 36 month period.*

Statistical analysis due following 36 months of continuous sampling.

Compliance Rating: Not Applicable

- L. If the Hōkio Stream monitoring locations are being sampled on a conditional frequency and do not meet condition K, the monitoring frequency for all three monitoring locations (HS1a, HS2 and HS3) shall return to the base case intensive monitoring until conditions J and K are again being fulfilled.*

HDC has not requested a reduction in the monitoring frequency during the reporting period.

Compliance Rating: Not Applicable

Conditions: A reduction in sampling frequency at the leachate pond outlet is conditional on:

- M. Completion of the initial 2 year monitoring program;*
- N. Good consistency of water sample analysis results, or a clearly identified reason for inconsistent results;*
- O. No decline in water quality over a period of four consecutive sampling rounds.*
- P. If the leachate pond outlet is being sampled on a conditional frequency and becomes non-compliant with condition O, the monitoring frequency should return to the base case intensive monitoring until conditions N and O are again being fulfilled.*

If existing analysis records indicate that the water quality at a monitoring location complies with the requirements permitting a shift to a conditional

sampling schedule, this may be done immediately. If the site complies, sampling for these parameters can be instigated following the base schedule while sampling for the other parameters can be continued based on the conditional schedule.

HDC has not requested a reduction in the monitoring frequency during the reporting period.

Compliance Rating: Not Applicable

Locations: (Unless otherwise stated, locations are described on Figure 4, attached to and forming part of this consent, with some of the additional monitoring sites added in the 2015 review shown in Figure X attached to this consent).

Table D: Monitoring Point Locations

Monitoring group	Monitoring point	Location
<i>Shallow groundwater</i>	<i>B1</i>	
	<i>B2</i>	
	<i>B3s</i>	
	<i>C1</i>	
	<i>C2</i>	
	<i>C2ds</i>	
	<i>D1</i>	
	<i>D2</i>	
	<i>D3r</i>	
	<i>D4</i>	
	<i>D5</i>	<i>Lined landfill area groundwater bore</i>
	<i>D6</i>	<i>Lined landfill area groundwater bore</i>
	<i>E1s</i>	
	<i>E2s</i>	
	<i>F1</i>	<i>Groundwater bore downflow from irrigation area</i>
<i>F2</i>	<i>Groundwater bore downflow from irrigation area</i>	
<i>F3</i>	<i>Groundwater bore downflow from irrigation area</i>	
<i>G1s</i>	<i>South Eastern boundary of the site (proposed location)</i>	
<i>Xs1</i>	<i>Adjacent to Hōkio Stream, opposite the landfill access road</i>	
<i>Xs2</i>	<i>Adjacent to Hōkio Stream, near the HS2 monitoring site</i>	
<i>Deep groundwater</i>	<i>C2dd</i>	

	E1d	
	E2d	
	G1d	South Eastern boundary of the site (proposed location)
	Xd1	
Stream	HS1A	Hōkio Stream – upstream site up- gradient of landfill groundwater plume (Refer Fig X)
	HS1	Hōkio Stream – opposite landfill access road (refer Fig. X)
	HS2	Hōkio Stream – alongside landfill (Refer Fig. X)
	HS3	Hōkio Stream at or about 50 metres downstream of landfill property boundary(Refer Fig. X)
Tatana Drain	TD1	South-western corner of Tatana Drain
Soils	Refer Condition 5	In land disposal area
Leachate		Pond outlet

Appendix C of the Annual Report notes locations of all sampling points and shows the locations of all of the above points.

Compliance Rating: Comply – Full

Alternative Sampling Sites: Some of the sampling sites are located on land that is not owned by the consent holder. Sampling at these sites is subject to the land owner approval. If that approval is not given, then samples must be collected from the nearest suitable and accessible site, as agreed to with the Regulatory Manager at the Regional Council.

Parameters: The comprehensive and indicator parameter lists referenced in Tables A, B and C are presented in Tables E and F.

Table E: Comprehensive Analysis List

Type	Parameters
Characterising	pH, electrical conductivity (EC), alkalinity, total hardness, suspended solids
Oxygen demand	COD, scBOD ₅
Nutrients*	NO ₃ -N, NH ₄ -N, DRP, SO ₄
Metals*	Al, As, Cd, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Zn, Hg
Other elements	B, Ca, Cl, K, Na
Organics	Total organic carbon, total phenols, volatile acids
Biological	E.coli

* Analyses performed for nutrients and metals are for dissolved rather than total concentrations.

Table F: Indicator Analysis List

Type	Parameters
Characterising	pH, EC
Oxygen demand	COD, scBOD ₅
*Nutrients	NO ₃ -N, NH ₄ -N
*Metals	Al, Mn, Ni, Pb, Hg
Other elements	B, Cl

* Analyses performed for nutrients and metals are for dissolved rather than total concentrations.

Schedule: The sampling regime defined in Tables A to C shall be undertaken based on the following schedule:

Q. The first samples for all parameters shall be taken in July 2010.

This condition has already been complied with and as such further assessment is not required.

Compliance Rating: Not Applicable

R. Quarterly monitoring referred to in Tables A and B shall be carried out in January, April, July and October.

The quarterly monitoring referred to in Tables A and B has been undertaken in the months as prescribed.

Compliance Rating: Comply – Full

S. Six monthly monitoring referred to in Tables A and B shall be carried out in April and October.

Six monthly sampling was only required for the first two years of consent and as such is no longer applicable.

Compliance Rating: Not Applicable

T. Annual monitoring referred to in Table A shall be carried out in April.

Annual monitoring in accordance with the comprehensive analysis list was undertaken in April as required.

Compliance Rating: Comply – Full

U. The Permit Holder shall invite NLG to nominate a representative who shall, at the person's own cost, be permitted to observe the quarterly and six monthly monitoring referred to in Table C.

The previous Compliance Assessment Report notes that Viv Bold (NLG) had offered to witness sampling and is documented in the NLG meeting minutes from 28 September 2021.

Compliance Rating: Comply – Full

Overall Compliance Rating – Moderate – Non – Compliance

4. The Permit Holder shall monitor soils in the irrigated areas. The first soil samples from an irrigation area shall be taken in the first year that leachate is irrigated to land in that area and shall be taken prior to irrigation. Thereafter, samples shall be taken on the schedule provided in Table H.

Table H: Soil Monitoring Locations, Parameters, and Frequencies

Location	Parameters and frequency
All soil sampling locations.	Background prior to irrigation Six monthly metals and other elements for 2 years Annual pesticide / semi VOC Subsequently, conditional Annual metals and other elements

Parameters: The analysis parameters applied for soil monitoring are presented in Table I:

Table I: Irrigated Soil Analysis List

Type	Parameters
Metals	Al, As, Cd, Cr, Co, Hg, Ni, Pb, Zn
Other elements	Cl, B
Organics	Pesticides to screen concentrations Semi-volatile organic compounds

Schedule: The sampling regime defined in Table H shall be undertaken based on the following schedule:

- A. Six monthly monitoring referred to in Table H shall be carried out in April and October.
- B. Annual monitoring referred to in Table I shall be carried out in April.

The first samples required by the schedule in Table H shall be taken during April or October immediately following the start of irrigation, whichever comes first.

Soil sample sites shall be chosen in consultation with the Regional Council. Soil samples shall be obtained from two locations within each leachate irrigation area, with the sampling locations separated by at least 50 m. In addition, a soil sample shall be obtained from one location down gradient from each leachate irrigation area, with the sampling point selected at a low point between dunes. Each soil sample shall consist of a continuous soil core obtained from the surface to a depth of 0.2 m.

Leachate from the newer lined landfill was irrigated during the period 2004 to October 2008. From June 2009 leachate from the newer lined landfill was pumped off site to the Levin Wastewater Treatment Plant (WWTP) with some recirculation through Stage 1a.

Since January 2012 all leachate from the newer lined landfill stages has been pumped off site to the Levin WWTP. This condition came into effect on 31 May 2010 following a review pursuant to Section 128 of the Resource Management Act 1991; this is subsequent to the last occasion leachate was irrigated to the irrigation area. On this basis soil sampling is not required.

Compliance Rating: Not Applicable

Conditions: A reduction in soil sampling frequency for the sites located within a leachate irrigation area, based on the mean of the analysis results for the two sites, is conditional on:

- C. Completion of the initial two year monitoring program.*
- D. Good consistency of soil sample analysis results.*
- E. No continuous increase in contaminant concentrations in soils as determined from parameter trends for the majority of the metals tested over four consecutive sampling rounds.*
- F. If a leachate area being monitored on a conditional frequency becomes non-compliant with condition E, the monitoring frequency for that area should return to the base case intensive monitoring until conditions D and E are again being fulfilled.*
- G. Pesticides or semi-volatile organic compounds being below the screen detection limits in the leachate collected from the lined landfill during the previous two sampling rounds.*

Leachate from the newer lined landfill areas has been piped off-site to the Levin WWTP since 2012, as such soil sampling in the irrigation area is not considered to be applicable.

Compliance Rating: Not Applicable

- 5. The results of monitoring under Conditions 3 and 4 of this Permit shall be reported to the Regional Council by 30 September each year for the duration of this Permit.*

Monitoring results are reported on a quarterly basis. Leachate irrigation has not occurred since 2012 as it began to be piped to Levin WWTP and as such, monitoring in accordance with Condition 4 is not applicable.

Compliance Rating: Comply – Full

6. *The Permit Holder shall ensure the above monitoring programme is undertaken by either the Regional Council, or, an independent organisation approved by the Environmental Protection Manager of the Regional Council.*

The above monitoring programme is undertaken by Stantec, being an environmental engineering consultancy on behalf of HDC. MWH Global previously undertook this work and were approved by Horizons. In 2016 MWH Global was acquired by Stantec; accordingly Horizons approval still stands for Stantec to undertake the monitoring programme.

Compliance Rating: Comply – Full

7. *The Permit Holder shall inform the Neighbourhood Liaison Group of the identity of the organisation carrying out the monitoring.*

As demonstrated under Condition 35(d)(iv) of Resource Consent 6009 quarterly monitoring reports are sent out to members of the NLG. Section 1 of each report clearly states that HDC has commissioned Stantec to carry out the monitoring programme. HDC has kept the NLG informed with the additional work that has been undertaken by Earthtech.

Compliance Rating: Comply – Full

8. *The Permit Holder shall meet the costs of the monitoring.*

All costs for monitoring are paid by HDC.

Compliance Rating: Comply – Full

9. *The Permit Holder shall report the results of the monitoring to the Neighbourhood Liaison Group by 30 September each year for the duration of the Permit.*

As discussed under Condition 7 of this consent, quarterly monitoring reports and the Annual Report are forwarded to members of the NLG and are made available via the HDC website under the category "The Future of Levin Landfill – Reporting Documents".

Compliance Rating: Comply – Full

10. *All analyses on water quality samples shall be carried out by an IANZ accredited laboratory.*

As reported in the Annual Report, laboratory analyses is undertaken by Eurofins ELS in Lower Hutt. ELS is an IANZ (International Accreditation New Zealand) approved laboratory for the tests conducted.

Compliance Rating: Comply – Full

11. (a) *Should any shallow aquifer groundwater parameters tested for under Condition 3 of this consent exceed the Australian and New Zealand Environment and Conservation Council Water Quality Guidelines (2000) for Livestock Watering, the Permit Holder shall report to the Regional Council as soon as practicable on the significance of the result and, where the change can be attributed to landfill leachate then Condition 11(c) applies.*

Groundwater bore monitoring results have been discussed in the Annual Report Section 4 "Ground Water Monitoring". The Annual Report states the following: "Results for key indicators in Table 4-3 have been coloured to highlight more elevated values (with colour intensity increasing with concentration), to assist in identifying areas with elevated contaminant concentrations indicating the presence of the leachate plume from the old landfill spatially across the site (i.e., west to east). Elevated concentrations were observed as follows:

- *Leachate indicator concentrations (ammoniacal-N, boron, chloride, and conductivity) were more elevated in the western-most down-gradient bores (B1, B2, B3, and C2) – akin to the 2020-2021 and 2021-2022 reporting periods.*
- *Concentrations often varied significantly between the bores, although, bores E2S, G1S and Xs2 yielded consistently lower results than the other sites. This indicates the leachate plume is **not** moving directly towards the nearest houses downstream of the site.*

Whilst results for all parameters were below the ANZECC LDW trigger values in the reporting period, it is instructive to look at how the results vary over time. The graphs presented in Appendix F show trends of leachate indicators for all groundwater bores.

Considering those graphs that represent the sand aquifer downstream of the old landfill, it is evident that concentrations of the leachate indicator parameters are generally declining in concentration at all downgrade monitoring bores, except for bore C1, where there is a discernible increase in boron concentrations and conductivity levels, and especially at bore C2, where there are marked increases in boron, ammonia-N, and conductivity levels, whilst sodium levels appear to be declining.

These trends have been identified by Earthtech Consultants Ltd who have been engaged to conduct additional investigations of the shallow groundwater within the northern vicinity of the old landfill. Based on their work done to date a plan has been prepared showing the extent of the leachate plume down-gradient from the old landfill. This is provided in Appendix C for information purposes only, since the investigation is still ongoing and has been done outside of the reporting period". Stantec has provided commentary that the concentrations for leachate indicator parameters are generally declining and that HDC has engaged Earthtech Consultants to undertake further investigation into the shallow groundwater quality.

Compliance Rating: Comply Full

- (aa) *Should any surface water parameters tested for under Condition 3 of this consent, including the Tatana Drain location, exceed the Australian and New Zealand Environment and Conservation Council Water Quality Guidelines (2000) for 95 per cent protection levels for Aquatic Ecosystems the Permit Holder shall report to the Regional Council as soon as practicable on the significance of the result. Where the change can be attributed to landfill leachate the Consent Holder shall consult with the Regional Council to determine if further investigation or remedial measures are required.*

The Annual Report states the following: "Water quality at all Hoki Stream locations complied with the consent trigger values (see Table 5-1 below) for all determinants except for the following:

- HS2 – the maximum and average results for total ammoniacal-N exceeded the consent trigger value.
- Results for ScBOD₅ across all sites appear to be non-compliant, but due to errors in laboratory reporting, it is not possible to assess the results against the trigger values directly (see explanatory note below Table 5-1).

• The trigger value for copper was met at HS1A, HS1 and HS3, but not exceeded." A review of the data also indicates incorrect laboratory reporting for soluble cBOD₅, where results have been assessed incorrectly with results <6 g/m³ reported as non-detected." This makes assessing scBOD₅ data difficult". HDC needs to ensure with the laboratory that the correct analysis is being performed and the appropriate detection levels are being reported. Due to the ongoing nature in not resolving the monitoring analysis as was reported in the previous compliance report this has been rated as a Moderate Non-Compliance. Horizons is aware that HDC have been working towards a BPO for leachate remediation, and it has been noted that an option has now been adopted by Council for implementation. Due to the BPO not having been implemented this has also been rated a Moderate Non-Compliance.

Please confirm appropriate analytical testing is being carried out and a timeline for the implementation of Leachate BPO by 2 August 2024.

Compliance Rating: Moderate Non - Compliance

- (b) *In the event that the statistical analysis completed under Condition 3J shows a significant increase between upstream and downstream results in the Hōkio Stream for any parameter exceeding the trigger exceeding the Trigger values contained in Table C1 at Site HS3 (except for scBOD₅), an investigation into the risk of significant effects due to the parameter(s) exceeding the water quality targets or trigger values at the HS3 monitoring site shall be undertaken, This investigation shall be consistent with the ANZECC guidelines framework and should consider, but not be limited to, water chemistry aspects (such as pH, water hardness, dissolved versus total concentrations etc.), and biological aspects. The Permit Holder shall report to the Regional Council, within 3 months of the date the report under condition 3J was submitted to the Regional Council, on the significance of the result and, where the change can be attributed to landfill leachate then Condition 11(c) applies.*

Compliance Rating: Not Assessed

- (c) *In the event that a significant effect associated with the landfill leachate is reported pursuant to Conditions 11(a), 11(b) or 11(e) then:*
- (i) *The Permit Holder must appoint an independent expert to promptly review the works implemented under condition 2A in light of the findings of the monitoring and identify whether they are working as designed. If they are not working as designed the report shall specify corrective works required and a timeframe to implement them.*

- (ii) *The Permit Holder shall promptly complete all recommended corrective works in accordance with the timeframes set out in the review.*
- (iii) *The Permit Holder shall provide a copy of the review to the Regional Council and NLG within 5 working days of receipt.*

This condition is intended to enable a review of the leachate remediation option as implemented under Condition 2A. The previous Compliance Report stated that the preferred leachate remediation option was to be implemented by 30 June 2023. During the monitoring period HDC has engaged Earthtech to further assess the contamination and provide BPO options for remediation. Due to the remediation BPO not being implemented by 30 June 2023, this has been rated as Moderate Non-Compliance. Please confirm a timeline for the implementation of Leachate BPO to **Horizons by 2 August 2024.**

Compliance Rating: Moderate Non-Compliance

- (d) *The Permit Holder shall annually review the data derived from the groundwater monitoring program and evaluate contaminant mass load projections for discharges from the landfill to the Hōkio Stream. The contaminant mass load projections shall be based primarily, but not exclusively, on the monitoring data obtained for the "B", "C" and "X" series bores indicated in Table D of this discharge permit. The annual report required under Condition 5 shall include the following information:*
 - (i) *A summary of the methodology used to calculate the mass load projections.*
 - (ii) *The calculated mass loads transported in the groundwater and comparable mass loads in the Hōkio Stream.*
 - (iii) *An analysis of the implications of the mass load calculations with respect to ensuring discharges from the landfill would not result in a decline in the water quality in the Hōkio Stream under Condition 3.*

The Annual Report has provided commentary on Mass Loading and the methodology used to calculate mass load projections, calculated mass loads and analysis as required.

The Annual Report stated the following: *"The predicted range of concentrations from the 2022-2023 mass contaminant load assessment shows close agreement with actual monitoring results obtained from HS3 for all parameters.*

The concentrations obtained by sampling at both the upstream sites (combined HS1A and HS1), and downstream site (HS3) and the predicted concentrations for the downstream site (HS3, including and excluding background levels) meet the ANZECC Freshwater DGV for 95th percentile species protection and the LDW trigger values for all parameters.

Actual concentrations at both the upstream and downstream sites (combined HS1A and HS1, and HS3) exceeded the ANZECC Lowland River DGVs for ammoniacal-N and DRP. Predicted concentrations for the downstream site (HS3, both including and excluding background levels), also exceeded the ANZECC Lowland River DGVs for ammoniacal-N and DRP, but also for maximum nitrate-N.

Similarly, actual concentrations at both the upstream and downstream sites (combined HS1A and HS1, and HS3) exceeded the Horizons One Plan Schedule E values for nitrate-N

and DRP. Predicted concentrations for the downstream site (HS3, both including and excluding background levels), also exceeded the Horizons One Plan Schedule E values for nitrate-N and DRP, but also for maximum ammoniacal-N.

The inference from these results is that the leachate contamination within the groundwater plume from the old landfill area is affecting the quality of water in the Hokio Stream to a minor extent only. By far the greatest contributions to the concentrations of measured parameters in the Hokio Stream are arising from sources unrelated to the old landfill and are in fact originating from upstream of the landfill site

The water quality of the Hokio Stream is influenced strongly by its urban and rural catchments. The actual and predicted results indicate that the impact from the Levin Landfill on the Hokio Stream is likely to be minimal within the wider catchment context."

Due to the reported findings Horizons assess this as Comply – At Risk as this will be addressed under the leachate remediation BPO implementation required under condition 2A.

Compliance Rating: Comply – At Risk

- (e) *Should the groundwater parameters tested for under Condition 3 of this consent, and subsequent evaluation and indicative assessment of contaminant mass loads under Condition 11(d) of this consent indicate that contaminants sourced from either the closed or active areas of the Levin Landfill are likely to result in a significant effect associated with the landfill leachate as identified through an investigation under Condition 3, then Condition 11(c) applies.*

The Annual Report notes the following: *"The inference from these results is that the leachate contamination within the groundwater plume from the old landfill area is affecting the quality of water in the Hokio Stream to a minor extent only. By far the greatest contributions to the concentrations of measured parameters in the Hokio Stream are arising from sources unrelated to the old landfill and are in fact originating from upstream of the landfill site."* During the reporting period, HDC engaged with Earthtech to complete a detailed evaluation of loadings and identify remediation options. A BPO has been provided to HDC and adopted by Council. Please provide a detailed timeline for implementation of the BPO to Horizons by **2 August 2024**.

Compliance Rating: Comply At Risk

12. *Should any parameters tested for under Condition 3 of this consent from the deeper gravel aquifer (bores identified as C2dd, E1, E2, the proposed G1d and any other monitoring bore intersecting the deep gravel aquifer), exceed the requirements of the Ministry of Health's Drinking Water Standards for New Zealand 2000, the Permit Holder shall report to the Regional Council as soon as practicable on the significance of the results and, where the change can be attributed to landfill leachate, consult with the Regional Council to determine if further investigation or remedial measures are required.*

The Annual Report states the following: "Exceedances were recorded for five parameters in samples from bores monitoring the gravel aquifer during the reporting period, based on annual median values:

- Faecal coliforms (as measured by *E. coli*) at all bores.
- Iron in G1D
- Hardness in D3rd
- Arsenic concentration in D3rd
- Manganese in Xd1, D3rd and C2DD

Historically, both iron and manganese concentrations have exceeded the DWSNZ MAVs and so those exceedances are not considered to be significant.

D3rd is a relatively new bore thus additional monitoring to determine whether these exceedances are significant is advised.

Faecal coliforms have rarely been elevated in the deep aquifer, however due to the high laboratory detection limit used during the reporting year, the results cannot be compared to the DWSNZ MAV and as such are regarded as being noncompliant."

Please ensure the laboratory analysis for Faecal Coliforms is performed correctly so adequate assessment can be undertaken.

Compliance Rating: **Low Risk Non-Compliance**

13. *Sampling of the groundwater wells within a 1.5 km radius down-flow or across-flow from the landfill property boundary is to be carried out by the Permit Holders representative upon receiving a written invitation from the bore owners. The frequency of sampling is to be decided through discussion between the bore owner and the Permit Holder. Initial analyses from individual bores are to be tested for the parameters in the Comprehensive Analysis List in Condition 3. Subsequent testing may be performed based on the Indicator Analysis List in Condition 3. Should analysis of water obtained from any groundwater wells used for human drinking water show concentrations of parameters which exceed the requirements of the Ministry of Health's Drinking Water Standards for New Zealand 2000, or repeated sampling from a specific bore indicates a decrease in water quality, the Permit Holder shall report to the Regional Council and the bore owner as soon as practicable on the significance of the results. Where the exceedance or decreasing water quality can be attributed to landfill leachate, the Permit Holder shall consult with the Regional Council and the bore owner to determine if further investigation or remedial measures are required.*

There has been no notification of requests for bore monitoring during the monitoring period.

Please ensure Horizons are notified if any future requests from bore owners accordingly.

Compliance Rating: **Not Applicable**

14. *Any currently active and future lined landfill area shall be closed and remediated by:*

The consent holder is currently undertaking a review of the future of the landfill with a view to close the landfill. At the time of writing this report, no refuse is being brought into the landfill and the entire landfill is under either temporary or final cap. HDC has stated that no refuse will be brought on until such time as a decision on future use has been made.

- a) *Compacting refuse to such an extent and consistent with CAE guidelines of 600-800 kg/m³, to ensure post closure settlement is minimised as far as practicable; and*

The Annual Report 2022-2023 has stated the following: "Condition 14 of Discharge Permit ATH-2002003983.02 requires that the in-situ density of the waste be checked each year through an annual survey of the landfill. The compaction density is required to be between 600 and 800 kg/m³ (0.6 – 0.8 tonnes/m³).

Since no waste disposal operations have occurred during the reporting period, no assessment of in-situ density can be done or is needed." Due to no waste being received, no assessment is required.

Compliance Rating: Not Applicable

- b) *Grading to a final slope of less or equal to 1V:3H (1 in 3) on any face; and*

Although final slopes are not yet in place, the LMP requires all temporary fill batters to be a ratio 1V:3H. During the reporting period, works has been undertaken. Please confirm the final slope layer ratios to Horizons by **2 August 2024**.

Compliance Rating: Comply – At Risk

- c) *Ensuring the landfill cap incorporates a layer at least 700 mm thick with a permeability of no greater than 1×10^{-7} m/s, or has a material and layer structure that reduces rainwater infiltration to the waste to an equivalent extent; and*

Although final capping is yet to be applied on all new landfill cells, the LMP requires capping material to meet the standard set by this condition.

Compliance Rating: Not Applicable

- d) *Establishing and maintaining a grass or tussock vegetation cover on the capped landfill, unless it can be demonstrated to the Regional Council's satisfaction that a different vegetation cover can produce clear benefits through reducing infiltration to the covered waste. Any vegetation cover should be consistent with an ongoing capacity to monitor and maintain the ongoing integrity of the landfill cap.*

In-situ refuse density shall be determined through annual calculation based on information derived from topographic surveys of the landfill and borrow areas, and

from weighbridge records. The survey shall be carried out within one month of the anniversary of the previous survey.

As discussed final capping of the existing lined landfill is yet to occur. A final determination of compliance with this condition cannot be assessed until final capping is in place.

Compliance Rating: Not Applicable

Specific Conditions – discharge leachate to ground from existing landfill

15. *The Permit Holder shall close and remediate the existing unlined landfill by April 2011 by:*

Final capping of the old existing landfill was detailed in the 2010-11 Annual Report and has been previously assessed and complied under Compliance Reports. There are annual reporting requirements as per the sub-conditions below. Where appropriate, information provided in the Annual Report has been used to provide a compliance rating.

a) *Grading to a final slope on the landfill faces and caps of between 1V:3H (1 in 3) and 1V:40H (1 in 40);*

This has previously been complied and as this condition relates specifically to the old "existing" unlined landfill and the final capping in April 2011, therefore it has not been reassessed at this time.

Compliance Rating: Not Assessed

b) *Ensuring the final landfill surface is sloped to promote run-off toward the outside of the landfill footprint and prevent surface water ponding on the landfill cap;*

This has previously been complied and as this condition relates specifically to the old "existing" unlined landfill and the final capping in April 2011, therefore it has not been reassessed at this time. During the 2022-2023 reporting period it has been noted that some reshaping of the contour has been undertaken due to previous periods of minor ponding occurring. During March / April 2023 an area was stripped of topsoil and approximately 3,800m³ of clay applied and compacted. The slope was improved with grades falling at approximately 5% greater than previous to promote stormwater run-off.



Figure 11-1 Photograph taken on 05 April 2023 showing the capping layer under construction.



Figure 11-2 Photograph taken on 05 April 2023 showing the capping layer under construction.



Figure 11-3 Photograph taken on 12 May 2023 showing the completed capping layer.

Figure 2: Capping Photos extract Annual Report

Compliance Rating: Comply – Full

- c) *Ensuring the landfill cap incorporates a layer at least 700 mm thick. All material added to the existing cap to bring the thickness up to 700 mm, or for future cap maintenance purposes, is to have a permeability of no greater than 1×10^{-7} m/s;*

This has previously been complied and as this condition relates specifically to the old “existing” unlined landfill and the final capping in April 2011. The above remediation work

that was completed during the reporting period stated the following permeability level had been met. *"On completion of the capping push-tube samples were taken from it and tested in a laboratory to determine its in-situ permeability. The results are provided in Appendix J which show that the permeabilities varied from 1.24×10^{-9} m/s to 2.74×10^{-9} m/s. These permeability values are between 36 and 80 times less permeable than the required 1×10^{-7} m/s, which is an excellent result."*

Compliance Rating: Comply – Full

- d) *Establishing and maintaining a grass or tussock vegetation cover on the capped landfill consistent with an ongoing ability to monitor and maintain the integrity of the landfill cap. The vegetation is to be managed to exclude tree species that can potentially develop root systems capable of disrupting the landfill cap and thereby enhancing rainwater infiltration;*

This has previously been complied and as this condition relates specifically to the old "existing" unlined landfill and the final capping in April 2011. A Site Inspection carried out on 21 November 2023 confirmed that vegetation cover was adequate.

Compliance Rating: Comply Full

- e) *Monitoring the landfill cover on an annual basis to identify areas of differential settlement slope stability issues, erosion and changing vegetation patterns, including a topographic survey to ensure Conditions 15(a) to (d) continue to be met; and*

Ten monitoring points to monitor settlement were established on top of the old landfill as part of the survey which was carried out in June 2014. The locations of the monitoring points and extent of settlement over the past year has been provided in the Annual Report, which states: *"Monitoring point IT6, which was located on a mound of clayey soil, had been previously destroyed with the clayey material being used elsewhere on site. It was reinstated in April 2022. Additionally, monitoring point IT8 could not be located last year but was found this year and subsequently surveyed. Monitoring point IT7 has settled the most (301mm) since monitoring began, with monitoring point IT10 settling 224mm over the same period. Over this past year monitoring point IT7 settled the most (42mm) with monitoring point IT74 settling 35mm over the same period. The greatest settlement has occurred at the southern end of the closed landfill, which is not surprising since this is the area where there have been truck movements bringing in clay and topsoil materials. Settlement of the old landfill is to be expected as the underlying waste degrades."*

Information provided in the Annual Report states that Site Walkovers have been undertaken during the reporting period and classified under two distinct periods. Site Inspections were conducted almost weekly during July 2022 and January 2023 and stated the following: *"Between July 2022 and January 2023, inspections were carried out almost weekly. A range of issues were identified which were commented on repeatedly through this period, which implies limited action was taken to address the issues. However, some of the matters (e.g., settlement at the top of the western face, leachate breakout remediation on front of western face, small slip located on the north side, erosion of the culvert outlet) were*

identified and responsibility passed over to Goodman Contractors to remedy, when they were able to establish on site again to complete capping works. "The weekly site inspection sheets report from May 2022 that there is minor ponding occurring on the old, closed landfill." Between February – June 2023, inspections were completed monthly by a contractor and noted a number of observations identified in the previous inspections had not been addressed. Topographical map contained in appendices.

Compliance Rating: Comply Full

- f) *The Permit Holder shall submit an annual report to the Regional Council by 30 September each year for the duration of this Permit documenting the condition of the unlined landfill and any maintenance carried out during the previous year. The annual report shall address but not be limited to those aspects listed in Conditions 15(a) to (e) above. The annual report shall include a plan of the unlined landfill specifically documenting the shape of the closed landfill and any changes during the previous year. [The annual report can be written in conjunction with the annual report required as part of Condition 14 for Consent Number 6009].*

The area of the existing landfill to be remediated is defined as Area A on Figure 1 attached.

The Annual Report was received by Horizons on 10 October 2023. The Annual Report includes all information as required by this condition.

Compliance Rating: Comply – Full

16. *Within one month following the remediation of the Levin landfill, the Permit Holder shall report in writing to the Regional Council of the Permit Holder's compliance with Conditions 14 and 15 of this permit.*

Final remediation has not yet occurred therefore this condition cannot currently be assessed.

Compliance Rating: Not Applicable

Specific Conditions – Discharge leachate to ground from lined landfill

Environmental Effects

17. *There shall be no disposal of leachate sludge from the pond onto irrigation areas. Leachate sludge shall be disposed of in accordance with Condition 26 of consent number 6009 and Condition 18 of consent number 7289.*
18. *The rate of application of leachate irrigated to land shall not exceed 200 kg Nitrogen/hectare per year.*
19. *There shall be no ponding or runoff of leachate on or beyond the irrigation areas.*

20. *Subject to Condition 19 of this permit, application of leachate on to soil shall not exceed 50 millimetres per day. Notwithstanding, the maximum rate of application shall not exceed 5 millimetres per hour.*
21. *There shall be no discharge of offensive or objectionable odour at or beyond the legal boundary of the Levin Landfill property as shown on Figure 1 resulting from leachate irrigation.*
22. *Should the quality of leachate being irrigated exceed the STV parameters set out in the Australian and New Zealand Environment and Conservation Council Water Quality Guidelines (2000) for metals in Irrigation Water the Permit Holder shall report to the Regional Council as soon as practicable on the significance of the result and in consultation with the Regional Council determine if further investigation or remedial measures are required.*

Process Management

23. *The daily volume of leachate irrigated to land shall be metered and recorded.*
24. *The Permit Holder shall make regular and at least weekly, inspections of the irrigation system, including pumps, pipes, irrigators and vegetation to ensure that the system is operating efficiently and that vegetation is in good health.*

Conditions 17 to 24 (inclusive): Since January 2012 all leachate generated from the lined area of the Levin Landfill has been sent via pipeline to the Levin WWTP. There is no irrigation of leachate or leachate sludge to land at the Levin Landfill.

Compliance Rating: Not Applicable

25. *The Permit Holder shall have carried out the works described in Condition 14(a) to (d) of this permit to rehabilitate:*
- a. *Any lined landfill area within four months following the closure of that lined landfill area, if the landfill area is closed before 35 years from the granting of this consent.*
 - b. *Any lined landfill area before 35 years from the granting of this consent.*

[Note: "lined landfill area" is defined as a distinct "cell" or stage of the landfill.]

Currently no refuse is being received at the landfill and the long term future of the landfill is currently out for consultation in the HDC's LTP. It is understood that all areas of the landfill are permanently capped with the exception of the western side which is under temporary capping. The consent holder has previously confirmed that capping has been placed per the requirements in condition 14 a)-d). Permeability tests were performed on the permanent capping according to requirements of condition 14 (a) to (d). The result of tests exceeded the permeability test requirement of 1×10^{-7} m/s.

Compliance Rating: Comply – Full

Monitoring and Reporting

26. *A plan of the leachate irrigation system shall be prepared to the satisfaction of the Regional Council's Environmental Protection Manager nine months prior to placement of refuse on the lined landfill. The plan shall include:*
- a. A map showing areas to be irrigated;*
 - b. Design of the recirculation, treatment and irrigation systems;*
 - c. Contingency measures in case of failures in the irrigation system;*
 - d. Criteria for installing aerators in the leachate pond;*
 - e. Assessment of options for recirculating leachate over the lined landfill;*
 - f. Assessment of groundwater profile beneath the irrigation area and effects leachate irrigation will have on groundwater;*
 - g. Groundwater and soil monitoring programme, including a map showing sampling locations; and*
 - h. Any other relevant matter.*

This plan was previously completed by MWH in 2010 titled *Levin Landfill Leachate Management Plan*. As leachate is no longer irrigated over the landfill, it is considered that this condition is not applicable to this assessment.

Compliance Rating: Not Applicable

27. *The Permit Holder shall keep a log of:*
- a. The dates and times of leachate irrigation;*
 - b. The total volume of leachate irrigated daily;*
 - c. The volumes of leachate irrigated to specific areas;*
 - d. Weather and ground conditions during irrigation;*
 - e. Observations made during the weekly inspections of the pump, irrigation system and irrigation areas; and*
 - f. Repairs and maintenance carried out on the irrigation system.*

Copies of this log shall be forwarded to the Regional Council's Environmental Protection Manager on 28 February and 31 August of each year that the irrigation system is operated.

There is no irrigation on the Levin Landfill site as all Leachate is piped to the Levin WWTP.

Compliance Rating: Not Applicable

28. *The Permit Holder shall inspect the landfill for leachate break out, settlement and other adverse environmental effects at least once per month until such time as discharge of refuse to the landfill ceases. Thereafter, the frequency of inspection shall be determined in consultation with the Regional Council.*

As discussed in Condition 15 (e) "Site Walkovers" have been completed monthly as required by this condition.

Compliance Rating: Comply – Full

29. *The Permit Holder shall record the date, time, observations and any remedial action as a result of Condition 28. The record shall be made available to the Regional Council on request.*

The previous Compliance Assessment reported the following: “Copies of the Site Walkover Sheets were not provided as part of the Annual Report; however, the report notes: “the reports have frequently identified the same problems (e.g., cats, seagulls, litter outside landfill area, gorse, leachate breakouts etc) without indicating how the problems are to be dealt with. Please ensure that these reports are provided as part of future Annual Reporting and that details of any remedial works undertaken in response to issues identified in the reports are also included”. The Annual Report for 2022-2023, details a number of repeated observations, whereby action has not been addressed. In future reporting HDC needs to provide a summary of remedial actions and dates of when work has been undertaken. Please confirm to Horizons the following by 2 August 2024.

- Contractor engaged for completing any remedial works.
- Confirm “Site Walk Over” frequencies with Horizons.

Compliance Rating: Low Risk Non-Compliance

Review

30. *The Regional Council may initiate a publicly notified review of Conditions 3, 4, 11 (a) (e), 12, 13, 14, 24, 27, 28 and 29 of this Permit during the month of October in 2024, 2029 and 2034. The reviews shall be for the purpose of:*
- Assessing the adequacy of monitoring outlined in Conditions 3 and 4 of this consent; and/or*
 - Assessing the effectiveness of Conditions 11(a) – (e), 12, 13, 14, 24, 27, 28 and 29 of this consent,*
in avoiding, remedying or mitigating adverse effects on the environment surrounding the Levin Landfill.

The review of conditions shall allow for the:

- Modification of monitoring outlined in Conditions 3 and 4 of this consent;*
- Deletion or changes to Conditions 11(a) – (e), 12, 13, 14, 24, 27, 28 and 29 of this consent;*
- Addition of new conditions as necessary ,*
to avoid, remedy or mitigate adverse effects on the environment surrounding the Levin Landfill.

A review of the above condition has not been initiated by Horizons during this assessment period.

Compliance Rating: Not Applicable

31. *The Regional Council may initiate a publicly notified review of Conditions 11 (a) – (e) of this Permit at any time outside those reviews required by Condition 30. The review shall be carried out pursuant to section 128 (1)(a)(i) of the Resource Management Act 1991 and shall be for the specific purpose of:*

- a. *Assessing the need and appropriateness of implementing a mitigation or remediation plan as the best practicable option to remove or reduce any adverse effect on the water quality of the Hōkio Stream.*

The review of conditions shall allow for the:

- b. *Deletion or changes to Conditions 11(a) – (e) of this consent;*
- c. *Addition of new conditions as necessary, to avoid, remedy or mitigate adverse effects on the environment surrounding the Levin Landfill.*

The review of conditions shall have regard to:

- d. *The nature of the discharge and the receiving environment; and*
- e. *The financial implications for the applicant of including that condition; and*
- f. *Other alternatives, including a new condition requiring the observance of minimum standards of quality of the receiving environment, having regard to the need to be satisfied that including that condition is the most efficient and effective means of removing or reducing that adverse effect.*

A review of the above conditions has not been initiated by Horizons during this assessment period.

Compliance Rating: Not Applicable

Overall Compliance Rating for Resource Consent ATH-2002003983.02 (6010): Moderate Non-Compliance

5 GENERAL CONDITIONS APPLICABLE TO ATH-2002003984.02 (6011) – DISCHARGE OF LANDFILL GAS, ODOUR, AND DUST TO AIR

Consent is granted to the Horowhenua District Council to *discharge landfill gas, odour and dust to air* at the Levin landfill, Hōkio Road, Levin, legally described as Lot 3 DP 40743 Blk II Waitohu Survey District, for a term expiring 35 years from the commencement of the consent subject to the following conditions:

1. *Charges, set in accordance with section 36(1)c of the Resource Management Act 1991, and section 690 A of the Local Government Act 1974, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under section 35 (duty to gather information, monitor, and keep records) of the Act.*

[Note: Section 36(1)c of the Act provides that Council may from time to time fix charges payable by holders of resource consents. The procedures for setting administrative charges are governed by section 36(2) of the Act and is currently carried out as part of the formulation of the Council's Annual Plan.]

HDC has paid all fees to-date in accordance with this condition.

Compliance Rating: Not Applicable

Environmental Effects

2. *The Permit Holder will ensure dust is controlled on access roads and on the landfill, if necessary, by watering or other methods.*

There have been no complaints received by Horizons in relation to dust from the site during the assessment period. Due to the landfill not currently receiving any waste vehicle and machinery movements which may result in the production of dust have been minimal.

Compliance Rating: Comply – Full

3. *There shall be no objectionable or offensive odour or dust beyond the boundary of the site.*

Advice Note: Odour investigations for the purpose of determining compliance with this condition shall be carried out in accordance with good practice measures outlined in the Ministry for the Environment Good Practice Guideline for Assessment and Management of Odour (MfE, 2016)

During this reporting period Horizons has not received any complaints in relation to odour from the Levin Landfill.

Compliance Rating: Not Assessed

4. *If an appropriately experienced officer of the Manawatu-Wanganui Regional Council or a suitably qualified independent expert considers that an objectionable odour beyond the boundary has occurred, having regard to:*
- (i) a consideration of the FIDOL factors; and/or*
 - (ii) receipt of complaints from neighbours or the public having considered (i); and/or*
 - (iii) relevant written advice or a report from an Environmental Health Officer of a territorial authority, then*

And the permit holder receives a request from the Manawatu-Wanganui Regional Council to provide them with a written report, then the report shall specify:

- (a) the activities that were occurring on the site at the time;*
- (b) the cause or likely cause of the event and any factors that influenced its severity;*
- (c) the nature and timing of any measures implemented by the permit holder to avoid, remedy or mitigate any adverse effects; and*
- (d) the steps to be taken in future to prevent re-occurrences of similar events should this be necessary.*

The permit holder shall provide its report for items (a), (b) and (c) within five days and for item (d) within 20 days of request. When notification of an alleged objectionable odour is delayed such that investigation by the permit holder is compromised, the report should as far as practicable include the information required by (a) – (d).

Due to no complaints being received, this condition cannot be assessed

Compliance Rating: Not Assessed

5. *The Permit Holder will also ensure that:*
- a. Groundwater monitoring wells shall be sampled for landfill gas when groundwater samples are taken from the wells. As a minimum, sampling shall be undertaken for methane, carbon dioxide and oxygen.*

A review of the Annual Report 2022-2023 confirms that the required gas monitoring on the Groundwater wells has been conducted during sampling events. The results are now being made available to Stantec who are now providing commentary in both Quarterly and Annual Reports. Low concentrations of Methane (CH₄) and Hydrogen Sulphide (H₂S) as well as high levels of CO₂ were detected in B2 across the monitoring period. The summary of results has been provided along with full sample results provided in Appendix H of the Annual Report. The Annual Report also notes that reporting errors for H₂S identified in the previous report have now been rectified however care must be taken when undertaking sampling and recording of results.

Compliance Rating: Comply – Full

- b. Any building constructed on the landfill site is adequately ventilated.*

The only buildings on the Levin Landfill site are the Weighbridge Kiosk, Main office and storage shed. These building have doors and or windows which can be opened for ventilation.

Compliance Rating: Comply – Full

- c. *The Permit Holder must place daily cover over the entire operational fill area to a depth of at least 150mm by the end of each operating day. Daily cover material may comprise a mixture of sand, soil or mulched woody material or alternative cover options specified in the WasteMINZ Technical guidelines for the Disposal to Land (WasteMINZ, August 2018).*

There has been no waste received at the Landfill during the porting period, therefore no cover has been required.

Compliance Rating: Not Assessed

- d. *The Permit Holder must ensure that intermediate cover is placed as soon as practicable over daily cover for any area that will not receive additional waste or final cover for more than three months. The Permit Holder must apply intermediate cover no later than two weeks after the last application of daily cover. The Permit Holder will strive, at all times, to minimise the active areas of the landfill for the purpose of reducing odour generation.*

The depth of intermediate cover, including daily cover, over the waste shall be a minimum of 300mm and must comprise of uncontaminated soil, and/or a mixture of sand and mulched woody material.

The Permit Holder shall apply a temporary cap on top of the intermediate cover within three months of an area last receiving fill. The temporary cap shall comprise of a layer of compacted cohesive soil with a thickness of at least 200 mm for a combined thickness of 500 mm including the daily and intermediate cover. Alternatively, the temporary cap could comprise of a compacted layer of clay with a thickness of at least 50 mm that achieves the methane surface concentration requirements of condition 4f.

Advice Note: *This condition is additional to Condition 14c of Permit 6010, which addresses the final landfill cap (only). Some remediation of the temporary cap may be required to meet the requirements of Condition 14c.*

There has been no waste received at the Landfill during the porting period, therefore no cover has been required, it is considered that this condition is not applicable for this assessment period.

Compliance Rating: Not Assessed

- e. *The Permit Holder must carry out monthly methane surface monitoring for all areas of the landfill with a temporary or permanent cap and the bio-filter bed. The monitoring of surface emissions for methane shall be undertaken utilizing emission testing methods that have been given prior written certification as to their appropriateness by the Manawatu-Whanganui Regional Council's*

Regulatory Manager. The monitoring of surface emissions shall not be undertaken during or immediately after heavy rainfall or during strong wind speed conditions, and the meteorological conditions at the time of the monitoring shall be provided in the monitoring report.

Advice Note: *Favourable meteorological conditions for methane surface monitoring include those where weather and ground conditions are dry with less than 0.5 mm of rain having fallen for at least two days, and instantaneous wind speed should be less than 25 km per hour (ideally 5 to 10 km per hour)*

Information provided in the Annual Report notes that methane surface monitoring was undertaken by Pattle Delamore Partners (PDP) and Whanganui Environmental Monitoring Services, however during this monitoring period only eight assessments were completed during November 2022 – June 2023. “Table 8-1: Summary of Surface Emission Testing Carried Out at Levin Landfill” of the Annual Report identifies three monitoring periods where levels were exceeded. Remediation was unable to be completed until 18 April 2023 due to ground conditions being too wet. Due to monitoring not being completed this has been assessed as a Moderate Non – Compliance. Please ensure the required monitoring is undertaken and any associated actions are undertaken monthly as per the requirement of this condition.

Compliance Rating: Moderate Non – Compliance

- f. *Surface concentrations of methane, as determined by monitoring carried out by condition 4(e) shall not exceed the following levels:*
- i. *100 parts per million (ppm) for permanently capped areas:*
 - ii. *200 ppm for temporary capped areas: and*
 - iii. *5,000 ppm for onsite buildings and structures.*

An exceedance of the above levels requires remedial action to be undertaken within 24 hours and retesting within 24 hours of remediation being completed. If the second round of testing results in a continued exceedance at the same location then an action plan shall be developed and implemented to reduce methane concentrations below the specified levels. The Permit Holder shall provide details of the action plan to the Manawatu-Wanganui Regional Council within 48 hours of the retest.

As reported in the Annual Report HDC had engaged the services of PDP for monitoring during November 2022 – April 2023, then transferring to Whanganui Environmental Ltd. During November 2022 – April 2023, there were a number of locations where Methane (CH₄) levels were exceeded. Information in the Annual Report states the following:

In May and June 2023, HDC has authorised areas of non-compliance to be remediated using bentonite granules and water. This has successfully treated the identified areas and compliance was achieved for the temporary capping in May and June 2023.

On all eight occasions methane results exceeded the threshold limit for the permanently capped areas and remediation was undertaken on localised areas using bentonite granules and water. On five of the eight occasions, re-testing showed compliance with the threshold levels of methane.

No further remediation work was done on those areas that did not comply and so overall, compliance with this consent condition has not been achieved.

It is noted, however, that HDC's approach taken for the last two months of the reporting period has complied with the resource consent requirements regarding remediation, re-testing and achieving results under the threshold limits for both temporary and permanently capped areas. The previous Compliance Assessment noted a failure to undertake retesting and was rated as a Low Risk Non – Compliance. Follow up action was not addressed until the April – June 2023 period, please ensure re-testing is completed at all times to ensure compliance with this condition.

Compliance Rating: Low Risk Non-Compliance

- g. The Permit Holder shall include records of surface emission monitoring for methane must be included in the Annual Report required by Condition 39 of Discharge Permit 6009 and must also be provided to Manawatu-Whanganui Regional Council on request.*

Surface emission monitoring reports are contained in the Annual Report Appendix I.

Compliance Rating: Comply Full

- h. Within six months of the commencement date of the decision of the 2015 review of conditions, the leachate collection chamber must be vented to a bio-filter. The bio-filter must be designed by a suitably qualified and experienced person.*

The design of the biofilter has not been reviewed as part of this assessment.

Compliance Rating: Not Assessed

- i. The Permit Holder must appoint an appropriately qualified person to undertake a comprehensive assessment of the bio-filter performance on an annual basis. The assessment shall include, but not be limited to, an evaluation of the media size distribution and composition and effectiveness in removing contaminants, and a review of any measurements or records relating to the parameters at (j) below.*

As reported in the 2021-2022 Compliance Assessment Report: Previous assessment for this condition has noted: *"Horizons have no records of this assessment having been completed for the reporting period nor knowledge that somebody has been appointed", and this condition was rated as a Moderate Non-Compliance. It is understood that the use of the biofilter is the subject of an application to change conditions of consent currently lodged with Horizons; however, it is expected that all conditions of consent are fully complied with until such time as a variation is granted. As such this condition continues to be rated as a Moderate Non-Compliance."* HDC has currently not fulfilled its obligations on its consultation with Iwi as requested by the Horizons Consents Team in order to progress this application for variation nor has it undertaken an annual comprehensive assessment of the bio-filter performance as required as per this condition and as such has been rated as a Moderate Non – Compliance. To avoid possible enforcement action please undertake the

necessary action to further the application or complete the necessary performance testing by **2 Aug 2024**.

Compliance Rating: Moderate Non-Compliance

- j. The Permit Holder shall maintain the bio-filter, in good working order, and shall measure and record the following parameters:*
- *Daily visual inspection of the state of the bio-filter bed, particularly for signs of any short-circuiting, clogging of the bed, compaction and weed growth.*
 - *Daily inspection of the inlet gas fan and ductwork and any maintenance;*
 - *Continuous display of differential pressure for the bio-filter fan discharge;*
 - *Weekly recording of pressure across the bio-filter bed;*
 - *Weekly monitoring and recording of the bio-filter media moisture content*
 - *Monthly monitoring and recording of the pH of the bio-filter media;*
 - *Quarterly raking and loosening of the bio-filter media, or as otherwise required, to reduce the potential for short-circuiting, clogging of the bed, compaction and weed growth.*

It has been stated in the Executive Summary of the Annual Report that the Bio-Filter was decommissioned during the previous reporting period and as such no inspections or maintenance was undertaken. As the required monitoring and maintenance of the biofilter has not been undertaken this has not been assessed.

Compliance Rating: Not Applicable

- k. The Permit Holder must ensure that the bio-filter and bed complies with the following limits at all times*
- *Pressure drop across the bio-filter air distribution system shall be less than 150mm water gauge;*
 - *Bio-filter media moisture content shall be between 40-60% moisture content;*
 - *The air flow rate shall not exceed 35 m³/hr @25°C, 1 per cubic metres of bio-filter media;*
 - *The pH of the filter material shall be maintained at or above pH 4 in the lower 1/3rd layer of the bed and at or above pH 5 in the upper 2/3rds layer of the bed.*
 - *An even distribution of gas flow through the filter bed; and*
 - *There shall be no short circuits of untreated air through and filter bed.*

As the required monitoring and maintenance of the biofilter has not been undertaken as required for this assessment period, due to it currently being decommissioned.

Compliance Rating: Not Applicable

- l. As soon as practicable and no later than 12 months of the commencement date of the 2015 review of conditions, the Permit Holder shall install a landfill*

gas collection system and flare on the site. The gas collection and flare shall be maintained and used at all times.

Advice Note: *HDC holds Discharge Permit 106798 for discharges from the flare.*

A candlestick flare was installed and trialled in 2014. This was upgraded to a new GF500 landfill gas flare (manufactured and installed by Windsor Engineering) in 2017. The flare is maintained and used at all times with the exception of outages occur. No records of Flare maintenance have been recorded or discussed in the Annual Report and such has been rated as a Moderate Non – Compliance. Please ensure a summary of flare maintenance is provided in the next Annual Report. Please also supply records for the 2022-2023 monitoring period by **2 Aug 2024**.

Compliance Rating: Moderate Non – Compliance

- m. Within 2 months of the commencement date of the 2015 review of conditions, the Permit Holder shall prepare an Odour Management Plan (OMP) and provide it to the Regional Council's Regulatory Manager for technical certification. The OMP must include;*
- i. Material specifications and procedures for the application of daily and intermediate cover and temporary and final capping;*
 - ii. Procedures for the documentation and handling of special and/or malodorous wastes (eg sewage sludge, animal carcasses);*
 - iii. Methodology for monthly field odour monitoring;*
 - iv. Methodology for monthly surface monitoring for methane;*
 - v. Methodology for biofilter monitoring;*
 - vi. Odour control practices relating to the leachate pond;*
 - vii. Odour control practices for the working face of the landfill;*
 - viii. Locations of odour control/treatment equipment (e.g. biofilter and flare);*
 - ix. The odour complaints investigation and recording procedure;*
 - x. The phasing of the Landfill construction and operation (filling), including the design and collection efficiency of the existing and proposed gas collection system (GCS). This shall also include a description of the thickness and type of cover and capping material used at different phases of the landfill development;*
 - xi. The operational procedures regarding the use of the bio-filter and the flare and GCS, including maintenance and breakdown procedures and methods to be followed to prevent a significant discharge of odour;*
 - xii. The resource consent conditions relevant to discharges to air at the landfill;*
 - xiii. Staff training requirements to ensure compliance with the resource consent conditions;*
 - xiv. Timing of audits and inspections and reporting to Council.*

The previous Compliance Assessment stated the following: *"The commencement date of the 2015 review is the date of the Environment Court Order, that being 19 December 2019. The OMP was prepared by Stantec (on behalf of HDC) and submitted to Horizons on 3 February 2020; therefore, within the 2 month timeframe. This plan has been reviewed by independent experts, on behalf of Horizons, and the recommendations have been provided to HDC and Stantec, which have been incorporated into the final version of the OMP".*

Compliance Rating: Comply – Full

- n. *The Permit Holder must consult the NLG during the development of the Odour Management Plan and at any time the OMP is reviewed. The views of the NLG must be incorporated where appropriate and practicable. Where the NLG comments and views are not incorporated, the outstanding issues, and reasons why they have not been incorporated, must be provided to Manawatu-Wanganui Regional Council's Regulatory Manager at the same time the Odour Management Plan is provided.*

The previous Compliance Assessment reported the following: *"An overview of the OMP was presented to the NLG during the April 2021 meeting and the draft OMP was sent to the members of the NLG seeking feedback and two follow up attempts had been made, there had been no response from the NLG.*

Horizons have advised HDC that the OMP will not be certified until the NLG have been consulted, formal evidence consultation of with the NLG has not been provided to date. Therefore this condition is rated Moderate Non Compliance". To date no further correspondence has been received regarding the consultation and therefore has been rated as a Moderate Non-Compliance. Please ensure discussions with NLG are advanced by 30 September 2024.

Compliance Rating: Moderate Non-Compliance

- o. *Subject to the conditions of consent, the Permit Holder shall carry out its operations in general accordance with the OMP;*

Due to the on-going failure to undertake all monitoring in accordance with Condition 5, HDC has not complied with this condition.

Compliance Rating: Moderate Non-Compliance

- p. *The Permit Consent Holder shall collect meteorological data from an on-site weather station. The data recorded shall consist of wind direction, wind speed, air temperature, barometric pressure, relative humidity and rainfall. The meteorological monitoring shall be:*
 - i. *Collected in general accordance with the Good Practice Guide for Air Quality Monitoring and Data Management, Ministry for the Environment, 2009, or subsequent updates;*
 - ii. *Continuous for the duration of the consent comprising, 1 min data, collected and averaged to 10-min and 1-hour time periods;*

- iii. *At a point that is representative of local wind conditions across the site;*
- iv. *The wind speed and direction instrumentation shall be able to operate reliably down to a maximum wind speed threshold of 0.5 m/s.*

Information detailed in the Annual Report states the following: "HDC is required to collect meteorological data from an on-site weather station, and this has been done throughout the reporting period. The weather station records data at 1-minute intervals, as required by the consent conditions. However, the data derived from the weather station has some gaps, with the rainfall, barometric pressure and relative humidity data records being incomplete for lengthy periods of the reporting year. It is understood that the pressure and humidity sensors were replaced in May 2023 and appear to be working satisfactorily."

As the monitoring did not meet the requirements of this condition for the entire assessment period a Moderate Non-Compliance rating has been given on this occasion.

Compliance Rating: Moderate Non-Compliance

- q. *The Permit Holder shall provide the Manawatu-Wanganui Regional Council with information collected from the weather station referred to in condition 5p. The data shall be in a suitable data file format that allows the Manawatu-Wanganui Regional Council to upload it on a data management system. The data shall be provided on a monthly basis, and as soon as possible upon request.*

Supply of the weather station data has been rather sporadic during the reporting period and has not been received on a monthly basis. It is important data is supplied to Horizons at the end of each month. As the monitoring did not meet the requirements of this condition for the entire assessment period a Moderate non-compliance rating has been given on this occasion.

To avoid possible enforcement action please ensure weather station monitoring data is submitted each month by 2 Aug 2024.

Compliance Rating: Moderate Non-Compliance

Overall Compliance Rating for Condition 5 – Moderate Non Compliance

- 6. *There shall be no deliberate burning of waste or other material at the landfill. If fires occur at the landfill they shall be extinguished as quickly as possible.*

Section 4.8 of the LMP states the lighting of fires is not permitted on site. During the reporting period Horizons has not received any reports or complaints made relating to fires at the Levin Landfill.

Compliance Rating: Comply – Full

- 7. *The Permit Holder shall take all practicable steps to avoid, remedy or mitigate significant adverse effects of the discharge of landfill gases to air.*

As there has been no verified significant adverse effect resulting from any discharge to air. This condition has been assessed as Comply Full.

Compliance Rating: Comply Full

Monitoring and Reporting

8. *The Permit Holder shall keep a record of any complaints received. The complaints record shall include the following, where possible:*
- a. Names and addresses of complainant;*
 - b. Nature of complaint;*
 - c. Date and time of the complaint and alleged event;*
 - d. Weather conditions at the time of the event; and*
 - e. The activities that were occurring on the site at the time.*

In response to a complaint and upon a request by the Regional Council, the Permit Holder shall keep a record of the following information in its complaint record:

- f. The cause or likely cause of the event and any factors that influenced its severity;*
- g. Any action taken in response to the complaint including the nature and timing of any measures implemented by the Permit Holder to avoid, remedy or mitigate any adverse effects; and*
- h. The steps to be taken in future to prevent re-occurrences of similar events should this be necessary.*

Complaint records shall be made available within 5 days of a request by the Regional Council.

The Annual Report has not provided a summary of The Complaint Register and additionally it has not been provided following a subsequent request from Horizons (during the preparation of this report). To ensure compliance with this condition please provide a copy of the complaints register by **2 August 2024**.

Compliance Rating: Moderate Non-Compliance

- 8A *The Permit Holder shall nominate a liaison person to manage any air quality complaint received. The name and contact details, which will include a landline telephone number, a cell phone number, and email address of the liaison person, shall be provided to the Manawatu-Wanganui Regional Councils Regulatory Manager. The Permit Holder shall ensure a liaison person is available to respond to odour or dust complaints in a reasonable manner as per condition 8B below.*

The contact details of the liaison person has previously been provided in accordance with the above. Please ensure this contact is kept up to date and confirm contact details as part of the next Annual Report.

Compliance Rating: Comply – Full

- 8B *The Permit Holder shall ensure any complaint received from a member of the general public regarding odour or dust originating from the landfill site is investigated as soon as practicable and within 24 hours of the complaint being received, or at a time mutually agreeable with the party making the complaint.*

No public complaints were received directly to the consent holder during this assessment period. Please ensure any future complaints are responded to within 24 hours of receipt as required.

Compliance Rating: Not Applicable

- 8C *The Permit Holder shall notify a Manawatu-Wanganui Regional Council Consents Monitoring Officer and the Mid-Central District Health Board's Medical Officer of Health as soon as practicable after becoming aware of any offensive or objectionable odour emanating beyond the boundaries of the landfill site. An explanation as to the cause of the incident, details of any remedial and follow-up actions taken and the wind speed and wind direction measured at the landfill at the time of the incident shall also be provided to the Regional Council Consents Monitoring Officer.*

No complaints of objectionable or offensive odour were received by the consent holder during the assessment.

Compliance Rating: Not Applicable

- 8D *The Permit Holder must undertake monthly field investigations of ambient odour at locations beyond the site boundary that are downwind of the landfill and located between the landfill and residential houses, until such time as discharges of refuse to the landfill ceases. Thereafter the frequency of investigations shall be determined in consultation with the Manawatu-Wanganui Regional Council. The monitoring shall be undertaken in accordance with good practice as specified in the Ministry for the Environment Good Practice Guide for Assessing and Managing Odour (MfE, 2016).*

Information detailed in the Annual Report states the following: "HDC has not carried out any odour assessments at the landfill boundary during this reporting period, but it is not known if this has been agreed with the Regional Council. As stated in the consent conditions, it is recommended that this matter be discussed with the Regional Council to determine what frequency of inspections, if any, should be undertaken now that refuse disposal operations have ceased." HDC has not undertaken any monthly field investigations of ambient odour at locations beyond the site boundary that are downwind of the landfill nor has it taken any action to discuss the frequency with Horizons. Please contact the Horizons Consents Monitoring Team to discuss and agree on a frequency by 2 Aug 2024.

Compliance Rating: Comply At Risk

- 8E *The Permit Holder must carry out a weekly walkover site inspection of all the landfill surfaces, including the area around the bio-filter and leachate pond.*

The purpose of the walkover site inspection is to check for odour, cracks in the landfill surface and integrity of gas collection or leachate pipework.

Information provided in the Annual Report notes that weekly walkovers of the site were undertaken between July 2022 and January 2023, almost weekly. During the period February to June 2023, inspections were undertaken monthly. Because these weekly walkovers were not undertaken consistently throughout the assessment period a Low Risk Non Compliance has been given on this occasion.

Compliance Rating: Low Risk Non-Compliance

8F The Permit Holder shall maintain a log of all other inspections, investigations and actions taken in accordance with all monitoring and odour inspection conditions of this consent. The inspection and investigation log shall be made available to the Manawatu-Wanganui Regional Council on request and submitted in a summary form in the Annual Report.

Horizons has not requested a copy of the inspection log during the reporting period, however a summary is provided in the Annual Report.

Compliance Rating: Comply Full

9. *The Regional Council may initiate a publicly notified review of Conditions 4 and 7 of this permit during the month of October in 2024, 2029 and 2034. The reviews shall be for the purpose of:*
- a. Assessing the effectiveness of Conditions 4 and 7 of this consent in avoiding, remedying or mitigating adverse effects of discharges to air from the Levin Landfill.*
 - b. The review of conditions shall allow for changes and amendments to Conditions 4 and 7 of this consent to avoid, remedy or mitigate adverse effects of discharges to air from the Levin Landfill.*

A review of the conditions of consent has not been initiated during this assessment period and cannot be initiated until October 2024.

Compliance Rating: Not Applicable

Overall Compliance Rating for Resource Consent ATH-2002003984.02 (6011): Moderate Non-Compliance

6. GENERAL CONDITIONS APPLICABLE TO ATH-2002003985.01 (6012) – DIVERSION OF STORMWATER

Consent is granted to the Horowhenua District Council to divert stormwater from around the Levin Landfill, Hōkio Road, Levin, Legally described as Lot 3 DP 40743 Blk II Waitohu Survey District, for a term expiring 35 years from the commencement of the consent subject to the following conditions:

1. Charges, set in accordance with Section 36(1)c of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act.

[Note: Section 36(1)c of the Act provides that Council may from time to time fix charges payable by holders of resource consents. The procedure for setting administrative charges is governed by Section 36(2) of the Act and is currently carried out as part of the formulation of the Council's Annual Plan.]

HDC has paid all fees to date in accordance with this condition.

Compliance Rating: Not Applicable

2. Stormwater run-off contaminated by leachate to an extent that it may cause adverse environmental effects shall be regarded as leachate.

Currently there is no operational areas of the Landfill. The LMP states all stormwater runoff from the operational cells is retained within the lined landfill footprint and treated as leachate. The entire landfill is currently under temporary or final cap and it is not expected that any leachate contaminated stormwater runoff is present. During a Site Inspection on 21 November 2023, there was no evidence of leachate contaminated stormwater observed.

Compliance Rating: Not Assessed

3. Stormwater falling on the operational cells of any lined landfill area shall be regarded as leachate.

Currently there are no cells in operation and therefore has not been assessed.

Compliance Rating: Not Assessed

4. The Permit Holder shall carry out such stormwater or sediment control measures as are necessary to ensure that sediment is not carried and deposited beyond the boundaries of the site.

Information in the Annual Report states the following: *“stormwater is discharged to a central inter-dune depression located to the west of the access road leading to the lined landfill area. From here it soaks to groundwater. When groundwater levels are high in winter, water tends to pond in the inter-dune depression.”* There is no further information on stormwater sediment control in the Annual Report. The stormwater pond is inspected site walkovers. HDC should provide a summary control measures are in place to ensure there is no discharge of sediments beyond the boundary.

Compliance Rating: Comply – At Risk

5. *The Permit Holder shall ensure that:*
- a) *stormwater drains within the site are maintained to ensure that the flow of stormwater around the landfill is unrestricted and the potential for stormwater contamination is reduced; and*
 - b) *stormwater diversion systems, including all drains and ponds, are kept clear of refuse; and*
 - c) *any sediment ponds are regularly cleaned to ensure effective settling out of suspended solids.*

The LMP states stormwater drains shall be inspected monthly to ensure there is no refuse collecting in the drains. If so, they must be cleaned out immediately. Records of weekly walkovers show stormwater drains are inspected during the weekly site walkovers.

Compliance Rating: Comply Full

Overall Compliance Rating for Resource Consent ATH-2002003985.01 (6012): Comply – At Risk

7. GENERAL CONDITIONS APPLICABLE TO ATH-200200368.02 (7289) – DISCHARGE OF LIQUID WASTE ONTO AND INTO LAND

Consent is granted to the Horowhenua District Council to *discharge liquid waste onto and into land* at the Levin landfill, Hōkio Road, Levin, legally described as Lot 3 DP 40743 Blk II Waitohu Survey District, for a term expiring 35 years from the commencement of the consent subject to the following conditions:

1. *Charges, set in accordance with section 36(1)c of the Resource Management Act 1991, and section 690 A of the Local Government Act 1974, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under section 35 (duty to gather information, monitor, and keep records) of the Act.*

[Note: Section 36(1)c of the Act provides that Council may from time to time fix charges payable by holders of resource consents. The procedure for setting administrative charges is governed by section 36(2) of the Act and is currently carried out as part of the formulation of the Council's Annual Plan.]

HDC has paid all fees to date in accordance with this condition.

Compliance Rating: Not Applicable

2. *Liquid wastes shall only be placed at the Levin Landfill as a contingency to normal disposal.*

No liquid wastes have been received at the landfill since October 2021.

Compliance Rating: Comply – Full

3. *For the purposes of this Permit, contingency conditions are circumstances where liquid waste is unable to be treated and disposed of at its regular location, for reasons of either, unforeseen events, breakdown or temporary closure for maintenance purposes.*

There has been no disposal of liquid waste during this assessment period therefore this condition is not applicable.

Compliance Rating: Not Applicable

4. *Liquid wastes are defined as the following:*
 - a. *Septic tank waste ("septage");*
 - b. *Grease trap waste;*
 - c. *Sewage; and*

- d. Any material that contains free liquids.

The presence of free liquids may be determined by either of the following methods, whichever is most practicable at the time:

- i. *The "Paint Filter Test"; or*
- ii. *Material which may be located, transported and deposited at the landfill without the risk of free liquid seeping from the material, and without the risk of having the deposited material flow under gravity down any slope on the landfill shall be deemed to not contain free liquids.*

The LMP defines liquid waste as per this condition.

Compliance Rating: Not Applicable

5. *The Permit Holder shall notify the Regional Council's Regulatory Manager and the Neighbourhood Liaison Group as soon as practicably possible after receiving notification of the intention to dispose of waste at the landfill under the terms of this consent, or as soon as practicable following urgent disposal in accordance with Condition 3.*

The Permit Holder shall detail the reason for the discharge, volume of discharge and timing of the discharge.

Each nominated member of the Neighbourhood Liaison Group shall be notified in writing by post.

6. *The maximum annual volume of liquid waste discharged shall not exceed 150 cubic metres (150 m³) in any calendar year. (Calendar year is defined as being over any 12 month or 365 day period.)*
7. *Subject to Condition 6, the volume of liquid waste discharge shall not exceed 75 cubic metres (75 m³) during any seven day period.*
8. *Subject to Condition 6 and 7 the maximum daily volume of liquid waste discharged shall not exceed 20 cubic metres (20 m³).*
9. *The liquid material shall be placed in trenches which are no more than 2m wide, 1.5m deep and 5m long which are excavated in compacted refuse which is at least six months old and located within a lined landfill area.*
10. *Only one trench shall be open at any one time.*
11. *Trenches shall be at least 10 metres from any landfill batter slope.*
12. *The open trench shall be open for no longer than two weeks.*

13. *Trenches shall be filled with liquid wastes to a depth of not less than 1m below the prior refuse surface level and reinstated with appropriate compaction with previously removed refuse and cover.*
14. *The location of placement and cumulative volume will be identified on a site plan which shall be made available to the Regional Council upon request.*
15. *The location and placement shall be appropriately signed and fenced.*
16. *The Permit Holder will ensure odours, vermin and flies are not generated from or do not accumulate in open trenches.*

Conditions 5 to 16: - There has been no disposal of liquid waste to the Levin Landfill during this assessment period.

Compliance Rating: Not Applicable

17. *The Permit Holder shall maintain records of:*
 - a. *The type of liquid waste received;*
 - b. *The volume of liquid waste received;*
 - c. *The source of liquid waste; and*
 - d. *The location in the landfill in which the material was placed.*

HDC have advised there has been no disposal of liquid waste to the Levin Landfill during this assessment period.

Compliance Rating: Not Assessed

18. *In addition to the material that is accepted on the basis set out above, the consent holder may dispose of site-generated sludges that contain free liquids from cess-pits, leachate ponds or other site activities to facilitate site operation, provided this does not adversely affect landfill stability or face operations. The disposal of such materials is not to be included within the quantity restrictions as set out in Conditions 6, 7 and 8 of this permit.*

This condition permits the disposal of site-generated sludges that contain free liquids from cess-pits, leachate ponds or other site activities. While the Landfill is closed and has not received any wastes since October 2021, there is no mention of any site generated sludge's during the porting period. Please ensure commentary is provided in the next annual report on any site generated sludge's.

Compliance Rating: Comply At Risk.

19. *The Regional Council may initiate a publicly notified review of Conditions 5, 9, 12 and 17 of this permit during the month of October in 2024, 2029 and 2034. The reviews shall be for the purpose of:*
 - a. *Assessing the adequacy of the monitoring conditions outlined in Conditions 5 and 17; and*
 - b. *Assessing the effectiveness of Conditions 9 and 12 of this consent,*

in avoiding, remedying or mitigating adverse effects on the environment surrounding the Levin Landfill.

The review of conditions shall allow for the:

- c. Modification of monitoring outlined in Conditions 5 and 17;*
- d. Changes to Conditions 9 and 12 of this consent; and*
- e. Addition of new conditions if necessary,*
to avoid, remedy or mitigate adverse effects on the environment surrounding the Levin Landfill.

Horizons has not initiated a review during this assessment period. The next opportunity for review of conditions of consent is October 2024.

Compliance Rating: Not Applicable

Overall Compliance Rating for Resource Consent ATH-2002003680.02 (7289): Comply – At Risk

8. GENERAL CONDITIONS APPLICABLE TO ATH-2002009801.02 (102259) – DISCHARGE OF STORMWATER TO LAND

The Team Leader Consents of the Manawatu-Wanganui Regional Council (trading as horizons.mw) has considered this non-notified application. On 15 May 2002 the Team Leader pursuant to delegated authority under section 34 of the Resource Management Act, grants Discharge Permit 102259 pursuant to section 105 of the Act, to Horowhenua District Council to discharge stormwater to land and potentially to groundwater via ground soakage from the Levin landfill, Hōkio Beach Road, Levin, subject to the following conditions.

1. *This Permit shall be for a term of 35 years from the date of commencement of Levin Landfill Consents 6009 – 6011 and 7289.*

This consent is currently active.

Compliance Rating: Comply – Full

2. *Pursuant to section 125(1) of the Resource Management Act 1991, this Permit shall not lapse within its duration of 35 years.*

Compliance Rating: Not Applicable

3. *The activities authorised by this Permit shall be restricted to the discharge of stormwater to land via ground soakage originating from the existing fill site or any part of the new lined landfill that has had, or is intended to have, refuse placed beneath or upon it, as shown on Plan C102259 attached to and forming part of this Discharge Permit.*

The Annual Report states the following: “stormwater is discharged to a central inter-dune depression located to the west of the access road leading to the lined landfill area. From here it soaks to groundwater. When groundwater levels are high in winter, water tends to pond in the inter-dune depression”.

Compliance Rating: Comply – Full

4. *All works and structures relating to this Discharge Permit shall be designed and constructed to conform to best engineering practices and shall at all times be maintained to a safe and serviceable standard.*

Design and construction of structures relating to this discharge permit have not been assessed as part of this report.

Compliance Rating: Not Assessed

5. *The Permit Holder shall inspect the stormwater system once a day when the site is in use to ensure the speedy recovery of any litter or refuse and shall remove any litter as soon as practicable.*

Due to the Landfill being closed and not receiving any waste, this condition has not been assessed.

Compliance Rating: Not Assessed

6. *The Permit Holder shall ensure the stormwater soakage ponds are inspected regularly and maintained to optimise their performance at all times. This shall include de-sludging or remediating the ponds as required.*

There has been no information detailed in the Annual Report regarding the stormwater soakage ponds being inspected. Please ensure a summary is detailed in the next Annual Report.

Compliance Rating: Low Risk Non - Compliance

7. *[Deleted]*

8. *There shall be no runoff or existing discharge of stormwater beyond the property boundary that has originated on any landfill area or new lined landfill area that has had, or is intended to have, refuse placed on it.*

No information on stormwater runoff has been provided to Horizons. Please ensure there is no stormwater runoff from the landfill area that results in discharge beyond the property boundary.

Compliance Rating: Not Assessed

Management – Existing Landfill

9. As far as practically possible, the Permit Holder shall ensure that all stormwater from the existing landfill area is directed to the centralised soakage area as shown on the latest version of the Stormwater Plan.

The Annual Report states: *"stormwater is discharged to a central inter-dune depression located to the west of the access road leading to the lined landfill area. From here it soaks to groundwater. When groundwater levels are high in winter, water tends to pond in the inter-dune depression."*

Compliance Rating: Comply Full

Management – New Landfill

10. *Where it is practical and economical to do so, the Permit Holder shall ensure that within the operational landfill cell the minimum amount of stormwater shall be allowed to come into contact with refuse. This shall be effected by constructing impermeable barriers, diversion drains or bunds on the side slopes and within the base of the landfill.*

The Landfill is closed and not waste is being accepted. The cell is covered.

Compliance Rating: Not Assessed

11. *There shall be no contamination of stormwater with leachate. Leachate includes any stormwater within an operational cell that is not separated from refuse by a barrier as defined in Condition 10.*

The LMP states stormwater falling on the operational area of the landfill will be regarded as being leachate. Currently there is no operational landfill.

Compliance Rating: Not - Assessed

12. *The Permit Holder shall ensure that a suitable stormwater soakage area is available for a given design storm and the area of the operational cell from which the stormwater is collected.*

There is currently no cells in operation.

Compliance Rating: Not – Assessed

13. *Areas designated for stormwater discharge to land and their catchment and reticulation system shall be identified and located on site plans and their dimensions submitted for approval by horizons.mw's Team Leader Compliance prior to their use.*

This condition has previously been complied with and is considered to be no longer applicable.

Compliance Rating: Not Applicable

Monitoring

14. *The Permit Holder shall monitor groundwater quality in at least one upgradient and one downgradient bore of the existing landfill stormwater soakage area, and at least one upgradient and two downgradient bores of the new landfill area. The location and number of bores is to be determined in consultation with horizons.mw's Team Leader Compliance. Groundwater samples shall be taken quarterly in January, April, July and October for the term of this Discharge Permit, beginning in October 2002, and analysed for the following parameters:*

- *pH*
- *Conductivity*
- *Ammonia-N*
- *Nitrate-N*
- *Sodium*
- *Boron*
- *Chloride*
- *Iron*

Information provided in the Annual Report notes that: "Groundwater bores E1D, E1S, D4 and D2 are currently understood to be located hydraulically down-gradient of the stormwater soakage area on the site, and groundwater quality in these bores was compared with the ANZECC 2000 LDW trigger values, and against two upstream bores, D3rs and F3.

In all bores the annual median concentrations for all determinants were below the ANZECC 2000 LDW trigger values." Water sampling is undertaken on a quarterly basis. The results are provided in the quarterly reports.

Compliance Rating: Comply – Full

15. *Monitoring bores required in Condition 14 of this Discharge Permit can be incorporated into the monitoring programme of other Levin Landfill Consents (6009-6011 and 7289), providing the information sought is obtained at the frequency specified and reported as required for this Permit.*

Sampling of the bores, mentioned under Condition 14 above, is undertaken quarterly concurrent with the monitoring program of the other landfill consents. The results are reported with the quarterly reports prepared by Stantec.

Compliance Rating: Comply – Full

16. *The results of monitoring under Condition 14 of this permit shall be reported to Horizon Manawatu's Team Leader Compliance by 31 August each year for the duration of this Permit beginning 31 August 2003. The annual report shall be supplemented by the raw water quality analysis data being forwarded to the Regional Council as soon as practically possible following the receipt of laboratory analysis certificates.*

Results have forwarded on a quarterly basis to Horizons. with the quarterly reports.

Compliance Rating: Comply – Full

17. *If a laboratory is used for water quality analyses which does not have independent accreditation for the parameters measured, then on each sampling occasion duplicate samples from at least one sampling location shall be analysed by a laboratory with independent accreditation for the parameters measured. Continued analysis by the unaccredited laboratory shall be at the discretion of horizons.mw.*

All parameters monitored under Condition 14 are analysed by Eurofins ELS Ltd laboratory which holds an IANZ accreditation for the analysis of the parameters required.

Compliance Rating: Comply – Full

18. *Should any groundwater and surface water parameters tested for under Condition 14 of this consent exceed the Australian and New Zealand Environment and Conservation Council Water Quality Guidelines (2000) for Livestock Watering, the Permit Holder shall report to horizons.mw's Team Leader Compliance as soon as practicable on the significance of the result, and where the change can be attributed to the landfill operation, consult with horizons.mw's Team Leader Compliance to determine if further investigation or remedial measures are required.*

Information in the Annual Report notes that: "Groundwater bores E1D, E1S, D4 and D2 are currently understood to be located hydraulically down-gradient of the stormwater soakage area on the site, and groundwater quality in these bores was compared with the ANZECC 2000 LDW trigger values, and against two upstream bores, D3rs and F3.

In all bores the annual median concentrations for all determinants were below the ANZECC 2000 LDW trigger values.

Compliance Rating: Comply – Full

19. *The Regional Council may initiate a publicly notified review of all conditions of this Permit during the month of October in 2024, 2029 and 2034. The reviews shall be for the purpose of:*
- i. reviewing the effectiveness of these conditions in avoiding or mitigating any adverse effects on the environment; and/or*
 - ii. reviewing the adequacy of the monitoring programme required by this discharge permit.*

The review of conditions shall allow for:

- i. the deletion or amendment to any conditions of this permit; and*
- ii. the amendment or addition of new conditions as necessary to avoid, remedy or mitigate any adverse effects on the environment*

If necessary and appropriate, the review provided for under this condition shall require the Permit Holder to adopt the best practicable options to avoid, remedy or mitigate any significant adverse effects on the environment.

No review has been initiated by Horizons during this assessment period. The next opportunity for review is October 2024.

Compliance Rating: Not Applicable

20. *Charges, set in accordance with section 36(1)c of the Resource Management Act 1991, and section 690 A of the Local Government Act 1974, shall be paid to horizons.mw for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under section 35 (duty to gather information, monitor, and keep records) of the Act.*

[Note: Section 36(1)c of the Act provides that horizons.mw may from time to time fix charges payable by holders of resource consents. The procedure for setting administrative charges is governed by section 36(2) of the Act and is currently carried out as part of the formulation of horizons.mw's Annual Plan.]

HDC has paid all fees to date in accordance with this condition.

Compliance Rating: Comply – Full

Overall Compliance Rating for Resource Consent ATH-2002009801.02 (102259): Low Risk Non-Compliance

9. GENERAL CONDITIONS APPLICABLE TO ATH-2014015044.00 (106798) – DISCHARGE TO AIR (GAS FLARE)

Discharge Contaminants from Landfill Gas Collection System and Semi Enclosed Gas Flare Burner to Air at Hokio Beach Road, Levin.

Descriptive Specification

1. *The consent holder shall undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with Manawatu-Whanganui Regional Council on 19 December 2014, and the original application lodged 30 August 2013 and further information received:*
2. *Emails received on 17 April 2015, 24 April 2015, 23 June 2015 and 30 June, confirming timeframes, changes requested to monitoring conditions and status of existing flare.*

Where there may be inconsistencies between information provided by the applicant and conditions of the resource consent, the conditions of the resource consent apply.

Advice Note: *Any change from the location, design concepts and parameters, implementation and / or operation may require anew resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.*

[Condition 1 amended as per variation APP-2013016220.01 dated 29 July 2015]

The previous Compliance Report (2021-2022) identified the following. "As noted in previous compliance assessments, HDC failed to meet the timeframe specified to install the replacement flare. The Operation and Maintenance Manual prepared by Windsor Engineering Group Ltd indicates that the gas flare was commissioned 15-17 May 2017. The flare was operational as of 27 June 2017 as per an email sent that day by HDC to Horizons and various members of the NLG. As this condition has previously been non-complied and the flare is now in operation it is considered that the activity is now being undertaken in general accordance with the documents detailed above". The Gas Flare was inspected during a Site Inspection on 21 November 2023. The flare was in full operation at the time.

Compliance Rating: Comply Full

3. *The discharges authorised by this consent shall be restricted to the discharge of contaminants including Methane, CO₂, PM₁₀, NO₂, SO₂ and odour from the operation of a gas flare at the Levin Landfill on land legally described as Lot 3 DP 40743 at approximate map reference NZTopo50 BN33:871-025.*

Landfill gas from the Levin landfill is discharged via a flare in accordance with the above condition.

Compliance Rating: Comply – Full

Pre-Development Assurance

4. *The landfill gas flare shall be designed, operated and monitored in accordance with the requirements of the United States EPA Code of Federal Regulations 40 CFR Part 60, Subpart A – General Provisions, Section 60.18 (1997) and shall have the following minimum specifications:*
- (i) flame arrestor and back flow prevention devices, or similar equivalent system, approved in writing by the Manawatu-Whanganui Regional Council's Regulatory Manager acting in a technical certification capacity, to prevent flashback;*
 - (ii) a continuous automatic ignition system; and*
 - (iii) a temperature detection system to detect circumstances when temperature drops below 750°C.*

The Levin Landfill Flare Operations and Management Plan (Flare OMP) notes: *"The Levin Landfill Flare (The Flare) is a model GF500, designed manufactured and installed by Windsor Engineering Group Ltd (Windsor) in May 2017",* which features an Elmac DFB-100AD flash back arrestor (which prevents any flame passing back through to the safety valves and the pipework), with a pilot light system in place and is setup up with a temperature control point of 750 °C.

Compliance Rating: Comply – Full

Environmental Standards

5. *There shall be no objectionable or offensive odour, dust or particulate matter (PM₁₀), including smoke, as a result of the operation of the flare to an extent where it causes an adverse effect at or beyond the property boundary.*

Advice Note: *Dust and odour will only be considered offensive or objectionable, after a Manawatu-Whanganui Regional Council officer has considered the Frequency, Intensity, Duration, Offensiveness and Location of the odour (i.e. the FIDOL Factors).*

No complaints have been received by Horizons during the reporting period. During the Site Inspection on 21 November 2023, there were no offensive or objectionable odours or adverse effects observed.

Compliance Rating: Comply – Full

6. *The consent holder shall ensure that the replacement flare is installed by **1 July 2016** and shall notify the Manawatu-Whanganui Regional Council's Regulatory Manager in writing within **two working days** of the flare being installed. The replacement flare maybe installed prior to this date.*

Advice Note: *The Manawatu-Wanganui Regional Council's Regulatory Manager or team representative can be contacted on 0508 800 800 or by emailing compliance.shared@horizons.govt.nz.*

[Condition 6 amended as per variation APP-2013016220.01 dated 29 July 2015]

This condition has been assessed previously and the timeframes have since passed, therefore this condition is no longer applicable.

Compliance Rating: Not Applicable

Operational Restrictions

7. *The consent holder shall ensure that any combustion of landfill gases are only undertaken via the flare, except under the following circumstances:*
- (i) in the event of combustion equipment failure; or*
 - (ii) for combustion equipment maintenance purposes.*

Advice Note: *Condition 7 only applies when the flare is being used. This consent is solely for the discharge of contaminants associated with flaring of landfill gas. When the flare is not in use, the restrictions imposed by this consent do not apply.*

[Condition 7 amended as per variation APP-2013016220.01 dated 29 July 2015]

The following was noted in the previous Compliance Report: *"The Levin Landfill Gas Flare Annual Report 2021/2022 (Flare Annual Report) for the gas flare states: "there are various horizontal collector pipes and vertical gas wells located at the landfill site that collect the landfill gas. Gas collected through this infrastructure is transmitted to the landfill gas flare where it is combusted before discharging to air".*

Compliance Rating: Comply – Full

8. *The consent holder shall operate the gas collection system in a manner that ensures the rate of extraction of landfill gas is maximised, while the risk of landfill fires due to over extraction is minimised.*

[Condition 8 added as per variation APP-2013016220.01 dated 29 July 2015]

The Flare OMP states that well field adjustments are carried out as required when monitoring is carried out. Well field adjustments help to achieve a steady state of operation of the gas collection system by stabilising the flow and quality of the extracted landfill gas. This helps to maximise extraction of landfill gas across the landfill footprint and helps to prevent subsurface fires.

Compliance Rating: Comply – Full

9. *To achieve compliance with condition 8 the consent holder shall ensure the landfill gas extraction system is operated to minimise oxygen ingress, and the extraction system shall be shut down if oxygen concentrations exceed 4 per cent.*

[Condition 9 added as per variation APP-2013016220.01 dated 29 July 2015]

The Flare OMP notes: *"Levin Flare high oxygen alarm is required to be set at 4%."* No further evidence has been provided to show this has been done.

Compliance Rating: Not Assessed

Post-Development Assurance

10. *2 months prior to the installation of the new flare, the consent holder shall provide an Operation and Management Plan to Manawatu-Whanganui Regional Council's Regulatory Manager. The operation and management plan shall include but not be limited to the following:*
- a. *Detail on the type, design specifications and timing of installation of the new flare;*
 - b. *Procedures for regular inspections (both visual and maintenance inspections) of the flare, landfill gas collection field and any associated equipment;*
 - c. *Scheduled maintenance events for the flare, landfill gas collection field and associated equipment for the upcoming 12 month period;*
 - d. *Details of procedures for the design and installation of the landfill gas collection field;*
 - e. *Procedures for the connections of landfill gases to the flaring unit, monitoring and reporting of the flow rates and composition of the gases;*
 - f. *Detail on the flaring regime/s;*
 - g. *Detail on the planned contingency measures for dealing with malfunctions, repair and incidents; and*
 - h. *Records of the details of all maintenance events or any system malfunction (i.e. date, time, what was done, what went wrong, who repaired it and how*

[Condition 10 amended as per variation APP-2013016220.01 dated 29 July 2015]

The current Operations and Management Plan held on file by Horizons is dated 2021-2022, this plan has not been fully reviewed as part of this assessment.

Compliance Rating: Not Assessed

11. *The consent holder shall review the Operation and Management Plan annually in the month of June (commencing June 2017) and provide the Regulatory Manager with an updated version of any subsequent revisions or amendments to the Operation and Management Plan within one month of the amendment(s) being made.*

Advice Note: *Updated versions of the Operation and Management Plan can be made available to the Regulatory Manager by emailing to compliance.shared@horizons.govt.nz.*

[Condition 11 amended as per variation APP-2013016220.01 dated 29 July 2015]

HDC has not undertaken a review of the Operations and Management Plan during the reporting period. Due to no review being undertaken and supplied to Horizons, this has been rated as a Moderate Non-Compliance. Please ensure a review of the Operations and Management Plan is completed and provided to Horizons by 31 July 2024.

Compliance Rating: **Moderate Non – Compliance**

12. *The consent holder shall ensure that the activity is undertaken in accordance with the Operation and Management Plan provided in accordance with Condition 10 and any subsequent amendments provided under Condition 11 at all times for the duration of this consent.*

[Condition 12 amended as per variation APP-2013016220.01 dated 29 July 2015]

The discharge of landfill gas via a gas flare is undertaken in accordance with the current Operation and Management Plan and the Odour Management Plan.

Compliance Rating: Comply – Full

Monitoring Provision

13. *The consent holder shall notify the Manawatu-Whanganui Regional Council's Regulatory Manager two working days prior to:*
- (i) The commencement of flaring from the existing flare; and*
 - (ii) The commencement of flaring from the replacement flare required under condition 6.*

[Condition 13 added as per variation APP-2013016220.01 dated 29 July 2015]

Timeframes have since passed.

Compliance Rating: Not Applicable

14. *The consent holder shall maintain a record dates and duration of all flare outages (due to equipment failure or maintenance) in excess of 48 hours and for any occasion for which landfill gas was discharged un-combusted. A copy of this record shall be forwarded to the Manawatu-Whanganui Regional Council's Regulatory Manager annually in the month of June, commencing June 2016 or on request.*

[Condition 14 amended as per variation APP-2013016220.01 dated 29 July 2015]

There has been no information provided covering the reporting period. To ensure ongoing compliance please provide a record of flare outages to Horizons by 28 June 2024.

Compliance Rating: Moderate Non-Compliance

15. *The consent holder shall, once every month sample each extraction wellhead and at the flare for each of the following parameters:*
- (i) gas flow rate;*
 - (ii) methane (percentage);*
 - (iii) carbon dioxide (percentage);*
 - (iv) oxygen (percentage);*
 - (v) nitrogen (percentage);*
 - (vi) carbon monoxide (parts per million);*

- (vii) hydrogen sulphide (parts per million);
- (viii) gas pressure;
- (ix) barometric pressure; and
- (x) Temperature.

The sampling required under this condition 15 is only required if flaring is occurring from the existing flare. Sampling is to occur at the frequency outlined in the condition.

Advice Note: *The sampling required by condition 15 only requires the consent holder collect one sample of gas and analyse it for the listed parameters once month.*

[Condition 15 amended as per variation APP-2013016220.01 dated 29 July 2015]

No Annual Flare Report has been received for the monitoring period. Please provide a monitoring report covering the 2022-2023 monitoring period by **2 August 2024**.

Compliance Rating: Moderate Non-Compliance

16. *The results of the sampling required by Condition 15 shall be provided to the Manawatu-Whanganui Regional Council's Regulatory Manager within one month of monitoring being undertaken.*

[Condition 16 amended as per variation APP-2013016220.01 dated 29 July 2015]

No monitoring results have been provided monthly for the monitoring period. To ensure ongoing compliance please provide results for the 2022-2023 monitoring period by **2 August 2024**.

Compliance Rating: Moderate Non-Compliance

17. *The consent holder shall maintain a log of all complaints (including those received via third parties including the Manawatu-Whanganui Regional Council) regarding dust, odour or other contaminants as follows:*
- (i) *Time and type of complaint including details of the incident, e.g. duration, location and any effects noted;*
 - (ii) *Name, address and contact phone number of the complainant (if provided);*
 - (iii) *Where practicable, the weather conditions including wind direction at the time of the incident;*
 - (iv) *The likely cause of the complaint and the response made by the consent holder including any corrective action undertaken;*
 - (v) *Future actions proposed as a result of the complaint; and*
 - (vi) *The response from the consent holder to the complainant.*

A Complaints Log is provided with the Flare Annual Report. The log includes the information as listed above.

Compliance Rating: Comply – Full

18. *A copy of the complaint log required by Condition 17 shall be forwarded to the Manawatu-Whanganui Regional Council's Regulatory Manager **annually** in the month of June, commencing **June 2014** and be made available on request.*

[Condition 18 amended as per variation APP-2013016220.01 dated 29 July 2015]

The Complaints Log was included in the Flare Annual Report.

Compliance Rating: Comply – Full

Review

19. *The Manawatu-Wanganui Regional Council, under section 128 of the Act, may initiate a review of all conditions of this resource consent during July in the year(s) 2015, 2024 and 2034 for the purpose of reviewing the effectiveness of these conditions in avoiding or mitigating any adverse effects on the environment. The review of conditions shall allow for:*

- a. *deletion or amendments to any conditions of this resource consent to ensure adverse effects are appropriately mitigated; or*
- b. *addition of new conditions as necessary, to avoid, remedy or mitigate any unforeseen adverse effects on the environment; or*
- c. *if necessary and appropriate, the adoption of the best practicable options to avoid, remedy or mitigate any adverse effects on the environment.*

No review has been initiated by Horizons during this assessment period. The next opportunity for review is October 2024.

Compliance Rating: Not Applicable

Overall Compliance Rating for Resource Consent ATH-2014015044.00 (106798): Comply -Full

10. CONCLUSION

As a result of the above assessment the Levin Landfill has been rated as **Moderate Non-Compliance** for the 2022-2023 assessment period.

Non-compliances have been raised across all consents largely due to a failure to undertake monitoring and provide monitoring results and reports. Additionally HDC has not undertaken work to progress its Resource Consent variation for changes to the Biofilter. While Horizons acknowledges the landfill is closed, HDC must undertake all action to comply with all of the conditions of the active Resource Consents.

Specific non compliances in relation to all of the consents for the site are as follows:

ATH-2002003982.03(6009) – Discharge of solid waste to land:

Condition 4 Moderate Non-Compliance – Weekly monitoring not undertaken on a consistent basis.

Condition 35 d (i) Low Risk Non-Compliance – Agreed members list needs to be supplied to Horizons by 2 August 2024.

ATH-2002003983.02(6010) – Discharge of landfill leachate to land:

Condition 2(a) Moderate Non-Compliance - Due to the BPO process having not met the June 2023 timeframe. Please provide confirmation of council resolution for the adopted option and timeline for implementation to Horizons by 2 August 2024.

Condition 3 Moderate Non-Compliance – failure to undertake all required Monitoring.

Condition 11(aa) Moderate Non-Compliance Failure to resolve ongoing nature of monitoring analysis for scBOD₅ and not having the Leachate BPO implemented. Please confirm appropriate analytical testing is being carried out and a timeline for the implementation of Leachate BPO by 2 August 2024.

Condition 12 Low Risk Non – Compliance – Incorrect laboratory analysis for Faecal Coliforms.

Condition 14 (b) Please confirm the final slope layer ratios to Horizons by 2 August 2024.

Condition 28 Low Risk Non-Compliance – Monthly inspections not undertaken on a consistent basis.

Condition 29 Low Risk Non-Compliance - Failure to provide a summary of remedial actions and dates of when work has been undertaken.

ATH-2002003984.02 (6011) – Discharge of landfill gas, odour, and dust to air:

Condition 5(f) Low Risk Non-Compliance - Methane monitoring exceeded 200ppm on all occasions. Retesting after remediation was undertaken; however further retesting was not undertaken at two sites that continued to exceed.

Condition 5(i) Moderate-Non-Compliance – Failure to appoint biofilter assessor and undertake annual biofilter assessment.

Condition 5(j) Moderate-Non-Compliance – Required maintenance of biofilter not undertaken.

Condition 5(k) Moderate-Non-Compliance – Required monitoring of biofilter not undertaken.

Condition 5(n) Moderate-Non-Compliance - Required consultation with the Neighbourhood Liaison Group (NLG) over the draft Odour Management Plan (OMP) not undertaken.

Condition 5(o) Moderate Non-Compliance - Failure to undertake all monitoring in accordance with Condition 5 not in general accordance with the OMP.

Condition 5(p) Low Risk Non-Compliance – Required weather monitoring not undertaken consistently.

Condition 5(q) Low Risk Non-Compliance - Monthly reporting of weather data not consistent throughout assessment period.

Condition 8 Moderate Non-Compliance – Failure to supply summary of Complaints Register – Please supply a copy of the register by 2 August 2024.

Condition 8E Low Risk Non Compliance – Inconsistent weekly walkover inspections.

ATH-2014015044.00 (106798) – DISCHARGE TO AIR (GAS FLARE)

Condition 11 Moderate Non-Compliance – Failure to review and submit updated Operations Management Plan. Please ensure a review of the Operations Management Plan is completed and provided to Horizons by 2 August 2024.

Condition 14 Moderate Non-Compliance – Failure to supply flare records annually. To avoid possible enforcement action please provide a record of flare outages to Horizons by 2 August 2024.

Condition 15 Moderate Non-Compliance – Failure to supply monitoring report. Please supply report for the 2022-2023 monitoring period by 2 August 2024.

Condition 16 Moderate Non-Compliance – Failure to supply monthly monitoring results. Please provide results for the 2022-2023 monitoring period by 2 August 2024.

ATH-2002009801.02 (102259) – Diversion of Stormwater

Condition 6 Low Risk Non-Compliance – No information detailed in the Annual Report regarding the stormwater soakage ponds being inspected.

In relation to the above non-compliances it is expected that all required monitoring is undertaken, documented and reported on within the requirements of the various Resource Consent conditions. Evidence of monitoring is expected to be provided in future Annual Reports along with evidence of consultation with the Neighbourhood Liaison Group around the Odour Management Plan. The above was also noted in the previous

Compliance Report (2021-2022) and as such a failure to undertake action to address these on-going non-conformances will result in enforcement action being taken.

11. RECOMMENDATION

As noted previously in the Compliance Assessment Report covering 2021-2022 HDC currently has an application lodged to vary conditions of consent in relation to the use of the biofilter. At the time of writing this report HDC has still not progressed this application as discussed with the Consents Team. It is recommend that HDC complete the necessary action required in order for the Resource Consent variation to be processed. In addition to this, HDC needs to take action in addressing the other increasing number of non-compliances raised. Please ensure that all required monitoring is undertaken in accordance with the active consent conditions until such time as the variation is granted or an application for closed landfill consent is granted.

Condition 2A of ATH-2002003983.02 (6010) required the selected leachate remediation option is fully implemented by June 2023. Horizons acknowledges that additional monitoring work has been undertaken and the appropriate BPO now has Council sign-off. Please ensure a Resource Consent Application is applied for the implementation of the BPO to avoid future non-compliance in relation to this. Due to the landfill now being closed it is recommended that HDC contact the Horizons Consents Monitoring Team to discuss ongoing consenting requirements.

If you have any queries about the attached report, please contact me via email campbell.dodds@horizons.govt.nz or on 0508 800 800.

Yours sincerely



Campbell Dodds

SENIOR CONSENTS MONITORING OFFICER

Site Compliance Grade	Explanation
Comply – Full	Complying with all conditions of consent.
Comply – At Risk	At Risk grading identified against key condition(s) of one or more of consents for the site.
Low Risk Non-Compliance	Compliance with most of the relevant consent conditions. Non-compliance carries a low risk of adverse environmental effects or is technical in nature (e.g. failure to submit a monitoring report).
Moderate Non-Compliance	Non-compliance with one or more of the relevant consent conditions, where there are some environmental consequences and/or there is a moderate risk of adverse environmental effects.
Significant Non-Compliance	Non-compliance with one or more of the relevant consent conditions, where there are significant environmental consequences and/or a high risk of adverse environmental effects.
Not Assessed	Monitoring has not been undertaken of this consent during the reporting period.

Figure 3: Compliance Assessment Guidelines for Individual Consents

Condition Compliance Grade	Explanation/Examples (not exhaustive)
Comply – Full	Conditions of consent are fully complied with.
Comply – At Risk	Compliant at time of inspection but management / system deficiencies indicate there is a real risk of a non-compliance occurring (e.g. insufficient effluent storage, poor irrigator performance).
Low Risk Non-Compliance	One-off failure to comply with a condition of consent (e.g. one off minor exceedance in key parameter in sampling.)
Moderate Non-Compliance	Four minor exceedances of key parameters for one year's worth of sampling/data.
Significant Non-Compliance	Water quality results indicate there is a potential for or an actual effect which is more than minor that is not authorised by the resource consent.
Not Applicable	Applies to conditions that are no longer applicable. Generally relates to historic conditions that may require provision of a management plan, which has been provided and consent requires no further action.
Not Assessed	Monitoring not undertaken of consent condition.

Figure 4: Compliance Assessment Guidelines for Individual Conditions



horizons
REGIONAL COUNCIL



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