

**BEFORE THE ENVIRONMENT COURT
I MUA I TE KOOTI TAIAO O AOTEAROA**

IN THE MATTER of the Resource Management Act 1991
AND of an appeal under s 120 of the Act
BETWEEN HOKIO ENVIRONMENTAL KAITIAKI
ALLIANCE
(ENV-2016-WLG-000071)
Appellant
AND MANAWATU-WANGANUI REGIONAL
COUNCIL
Respondent
AND HOROWHENUA DISTRICT COUNCIL
Applicant

Environment Judge B P Dwyer sitting alone pursuant to s 279 of the Act

In Chambers at Wellington

CONSENT ORDER

- [A] Under s 279(1)(b) of the Act, the Environment Court, by consent, orders that:
- (1) the Levin Landfill consent conditions be amended in accordance with the changes shown in Annexure A.
 - (2) the appeal is otherwise dismissed.
- [B] Under s 285 of the Act, there is no order as to costs.

REASONS



Introduction

[1] The Court has read the notice of appeal and the memoranda of the parties received 24 July 2019, 3 October 2019 and 29 November 2019.

Other relevant matters

[2] Everton Farm & Lakeview Farm Ltd and Ngāti Pareraukawa gave notice of an intention to become parties under s 274 to the appeal and have signed the memorandum setting out the relief sought.

Orders

[3] The Court is making this order under s 279(1) of the Act, such order being by consent, rather than representing a decision or determination on the merits pursuant to s 297. The Court understands for present purposes that:

- (a) all parties to the proceedings have executed the memorandum requesting this order;
- (b) all parties are satisfied that all matters proposed for the Court's endorsement fall within the Court's jurisdiction, and conform to the relevant requirements and objectives of the Act including, in particular, Part 2.

DATED at Wellington this 19th day of December 2019



B P Dwyer
Environment Judge



“Annexure A”

Agreed Amendments to the Levin Landfill Consent Conditions

Additions in bold and underline and deletions in bold and ~~strikethrough~~

AMENDMENTS TO DISCHARGE PERMIT 6009

Amend Condition 14

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** ~~within six months of the commencement date of the decision of the 2015 review of conditions of consent.~~ The Landfill Management Plan shall include, but not be limited to:

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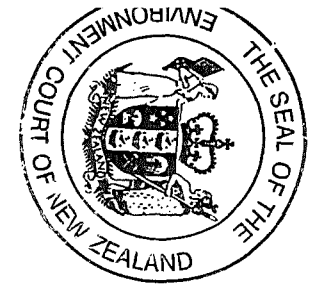
The Permit holder shall prepare a Closed Landfill Aftercare Management Plan in respect of the closed **unlined** landfill (Area “A”) to the satisfaction of the Environmental Protection Manager at the Regional Council within six months of the completion of the review of the consent conditions. The Closed 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:

.....

Amend Condition 30

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 iwi**. Further work in the vicinity of the find shall be





suspended while relevant tangata whenua iwi 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.

Amend Condition 31

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 following the expiration of 10 years from the commencement date of the 2015 review decision. The reviews shall be for the purpose of:

...

Amend Condition 32

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) shall administer and manage a NLG and appoint an experienced and independent facilitator for the purpose of chairing the NLG. The facilitator shall be jointly agreed to by the Permit Holder and the Regional Council's Regulatory Manager.

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

a. the Lake Horowhenua Trustees;

b. Mr Charles Rudd;

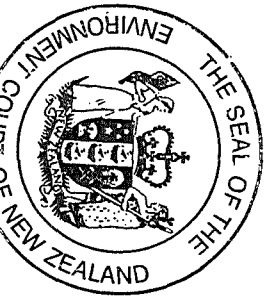
~~bc.~~ Ngati Pareraukawa;

ed. Each of the owners and occupiers of those properties adjoining the Levin Landfill property described as A through to N on Drawing 2181 attached;

~~de.~~ Horowhenua District Council;

~~ef.~~ the Manawatu-Wanganui Regional Council; and

g Two representatives of the owners and occupiers of the properties affected by the landfill. the permit holder (if a different entity from HDC).



Advice Note:

Technical advisors as appointed by any member(s) of the NLG the permit holder and/or the Regional Council may be invited to NLG meetings if the NLG member(s) permit holder and the Regional Council's Regulatory manager consider it reasonable to assist the discussions with the NLG (at the members own cost).

The Permit Holder's ~~permit holders~~ staff and contractor shall be able to attend and participate in watch 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".

Amend Condition 33

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 six months after the 2015 review decision is final.
- b. Convene a further meeting within two months of the appointment of the independent facilitator.
- c. Thereafter convene a meeting at intervals of six months for the following 18 months; and
- d. Thereafter convene a meeting at intervals of no more than twelve months unless all NLG representatives agree that changes to the intervals are acceptable at least twelve months.



Amend Condition 34

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 ~~solely to review and provide comment to the permit holder on environmental and monitoring results in relation to environmental mitigations at the Levin landfill in accordance with the conditions of consent. The permit holder may accept or reject any comments with reasons to be provided to the NLG representatives.~~

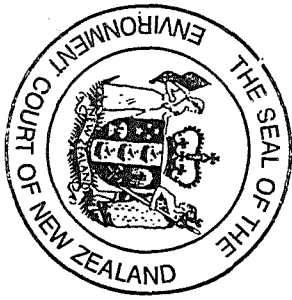
Amend Condition 35

35. The Permit Holder shall:

...

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.
- 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.
- 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).
- 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.



- 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).
- 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.
- 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.
- viii. Formally invited to participate in the Permit Holder's Waste Management and Minimisation Plan review process.
- ix. Provided with a copy of any complaints within 10 workings days of a request by the NLG.



AMENDMENTS TO DISCHARGE PERMIT 6010

Insert condition 2A

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 Hokio Stream; or
- (b) if neither of the options in (a) are feasible then options to offset effects within the Hokio catchment and if that is not feasible or possible options to compensate effects within the Hokio 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.

~~In order to reduce the flow of leachate influenced groundwater to the Tatana Drain and through neighbouring land to the north of the landfill and to minimise adverse effects on downgradient surface and groundwater, the consent holder shall undertake the following actions:~~

- ~~a) Carry out an options assessment regarding the location, dimensions, operation and management of a leachate interception, treatment and disposal system and the effectiveness of each option in minimising the movement of leachate beyond the site boundary and minimising adverse effects on downgradient water bodies. A report on the options assessment with a recommendation for a preferred option will be prepared.~~
- ~~b) The recommendations from the assessment carried out under condition 2Aa) shall be presented to Manawatu-Wanganui Regional Council and the Neighbourhood Liaison Group (required by consent 6009). The consent holder shall consult with Manawatu-Wanganui Regional Council and the Neighbourhood Liaison Group to determine the most appropriate leachate interception, treatment and disposal option to proceed with.~~



- ~~c) The consent holder shall design, construct, operate and maintain a cut off drain (or another suitable method such as a series of shallow bores) on the northern boundary of the landfill site between the closed landfill and the boundary with Lot 1, DP 40743 that is designed by a suitably qualified engineer and implements the preferred option determined by condition 2Ab).~~
- ~~d) Conditions 2A a), b) and c) shall be completed with a fully operating interception, treatment and disposal system within 18 months of the commencement of the condition changes in the 2015 review decision.~~

Amend Condition 3, Table C

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 Quarterly comprehensive for 2 years <i>Subsequently, conditional</i> 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

Conditions: A reduction in sampling frequency for the Hokio Stream monitoring locations (HS1A, HS2 and HS3) after April 2021 an ~~initial two year period of monthly sampling following the commencement of the condition changes in the 2015 review decision~~ is conditional on:

...

Amend Condition 3, Schedule to Table F

Table F: Indicator Analysis List

...

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

...

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.



Amend Condition 11

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**, ~~consult with the Regional Council to determine if further investigation or remedial measures are required.~~

...

(b) In the event that the statistical analysis completed under Condition 3J shows a significant increase between upstream and downstream results in the Hokio 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**, ~~determine what measures are required to remedy the significant increase.~~

(c) In the event that a **significant effect associated with the landfill leachate is reported a report is submitted to the Regional Council** pursuant to Conditions 11(a), 11(b) **or 11(e)** ~~that determines that remediation measures are required~~, 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** ~~develop a remediation plan to remediate any significant effects attributable to the Landfill, and avoid future significant effects. The remediation plan shall be submitted to the Regional Council for certification within 3 months of submission of the report under condition 11(b).~~



(ii) The Permit Holder shall promptly complete all recommended corrective works in accordance with the timeframes set out in the review. Any remediation plan prepared in accordance with Condition 11(e)(i) shall include an indicative timetable for its implementation.

(iii) The Permit Holder shall provide a copy of the review to the Regional Council and NLG within 5 working days of receipt. The consent holder must implement the actions specified in the remediation plan in accordance with the timetable agreed with the Regional Council.

...

(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** ~~future decline in the water quality of the Hokio Stream, as defined under Condition 3, then: Condition 11(c) applies.~~

- ~~(i) The Permit Holder shall include in the annual report required by Condition 5 an analysis of the significance of the result.~~
- ~~(ii) The Regional Council may at any time require the Permit Holder to undertake further investigations and/or conduct a detailed assessment of mass loads to evaluate the actual likelihood of a future decline in water quality of the Hokio Stream as a result of landfill activities as measured under Condition 3. The Permit Holder shall provide a report to the Environmental Protection Manager at the Regional Council documenting the further investigations undertaken or the methodology, procedure and outcomes of the detailed assessment.~~
- ~~(iii) If the work required under Condition 11(e)(ii) discloses an actual likelihood of a future water quality decline of the Hokio Stream as a result of landfill activities, and the Regional Council determines that this decline in water quality would constitute a more than minor effect on the water quality of the Hokio Stream, the Regional Council shall require the Permit Holder to develop a mitigation or remediation plan.~~
- ~~(iv) For the purposes of quantifying whether the adverse effects of the landfill activity itself on the water quality of the Hokio Stream will be more than minor, any determination made by the Regional Council may be independently peer reviewed, at the request of either the NLG or the Permit Holder, by an appropriately qualified and experienced person. The request for a peer review must be lodged with the Regional Council within a period of one month following the determination by the Regional Council.~~



The peer reviewer shall prepare a detailed report which analyses the determination of adverse effects made by the Regional Council, and provide clear recommendations as to whether implementation of a mitigation or remediation plan is required for the purposes of adopting the best practicable option to remove or reduce the more than minor adverse effect on the water quality of the Hokio Stream. This report shall be completed within a period of three months of the request for a peer review.

Should a peer review of the determination be undertaken, the Regional Council shall take into account the outcome of the review in again determining whether this decline in the water quality of the Hokio Stream would constitute a more than minor effect on the water quality of that stream.

(v) In the event that the Environmental Protection Manager at the Regional Council determines that a mitigation or remediation plan is required, the Regional Council shall advise the Permit Holder of this requirement in writing within two months of receiving the annual report.

(vi) Within six months of receipt of advice in writing from the Regional Council pursuant to Condition 14(e) (v) the Permit Holder shall submit a mitigation or remediation plan to the Regional Council for approval.

(vii) Any mitigation or remediation plan prepared in accordance with Condition 14(e) (v) shall include a timeframe or threshold for implementation.

(viii) Following the completion of the mitigation or remediation plan, if the Regional Council determined that the potential adverse effects of the landfill activity itself on the water quality of the Hokio Stream, as monitored under Condition 3, continue to be more than minor, the Regional Council shall require the Permit Holder to implement the plan within the timeframe specified in the timetable for implementation required by Condition 14(c) or alternatively when the threshold identified is triggered.

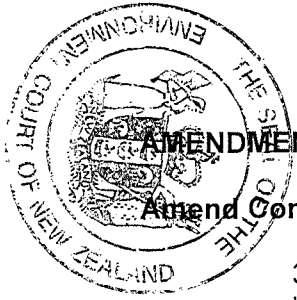
[Advice Note: Condition 14 may be subject to a review pursuant to s 128 (1)(a) of the Resource Management Act 1994 (see condition 31) and it is anticipated such a review will occur in the event of disagreement by either the Permit Holder or NLG with any determination of the Regional Council in relation to condition 14 (a) — (e)]



Amend Condition 30

30. The Regional Council may initiate a publicly notified review of Conditions 3, 4, 11(a) (e) ~~11 (a) — (e)~~, 12, 13, 14, 24, 27, 28 and 29 of this Permit during the month of October in 2024, 2029 and 2034 following the expiration of 10 years from the date that the 2015 review decision is final. The reviews shall be for the purpose of:

...



AMENDMENTS TO DISCHARGE PERMIT 6011

Amend Condition 3

3. There shall be no objectionable or offensive odour or dust to the extent that it causes an adverse effect at or beyond the boundary of the site.

- (i) ~~Manawatu-Wanganui Regional Council staff or a suitably qualified independent person engaged by the Regional Council shall, whenever reasonably practicable respond to complaints logged with Regional Council by visiting the complainants address to gather information on the odour event and if possible, independently verify the alleged odour event. Data collected shall to the maximum extent possible, address all FIDOL factors; being frequency, intensity, duration, offensiveness/character and location.~~

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).

Amend Condition 4

4. 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. On-site and off-site Health and Safety Effects of landfill gas being emitted by the old landfill should be quantified by sampling groundwater monitoring wells for evidence of landfill gas when groundwater samples are taken from the well. As a minimum, the gases tested for are to include methane, carbon dioxide and oxygen; and
- b. Any building constructed on the landfill site is adequately ventilated.
- c. ~~From the commencement date of the decision of the 2015 review of conditions, The Permit Holder the Consent Holder~~ must place daily cover over the entire operational fill area to a depth of at least 150 mm by the end of each operating day. Daily cover material may comprise a mixture of sand, soil or mulched woody material or alternative daily cover options specified



in the WasteMINZ Technical guidelines for the Disposal to Land (WasteMINZ, August 2018) and should be applied to ensure effective odour control.

- d. ~~From the commencement date of the decision of the 2015 review of conditions, The Permit Holder the Consent Holder~~ must ensure that intermediate cover is placed as soon as practicable over daily cover for any area to close off a fill area that will not receive additional ~~lifts of~~ 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 ~~combined~~ depth of intermediate cover, including daily cover, over the waste shall be a minimum of 300 mm and must may comprise of uncontaminated soil, and/or a mixture of sand and mulched woody material.

The Permit Holder shall apply a ~~A~~ temporary ~~or permanent~~ cap ~~shall be applied~~ 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 low permeability material (e.g. compacted cohesive soil with a thickness of at least 500 mm).

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. The purpose of the temporary or permanent cap is to: reduce water and air ingress; reduce fugitive odour emissions; improve the aesthetics of the landfill; improve the management of litter, vermin and birds; and improve the efficiency of the gas collection system. The final (or permanent) must comply with condition 14 C of Discharge Permit 6010 i.e. comprise a layout of low permeability material (e.g. compacted cohesive soil with a thickness of 700 mm and a hydraulic conductivity of less than or equal to 1×10^{-7} metres per second. It may also be appropriate to make a temporary cap final by applying a cap with a thickness of 200 mm over the top of the temporary cap.

- e. The ~~Permit Consent~~ Holder must carry out monthly methane surface ~~monitoring emission testing~~ for all areas of the landfill with, a temporary or permanent cap final or intermediate cover, 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-Wanganui 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).*

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

An exceedance of the above **levels limits** 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 limits and. The Permit Holder shall provide** details **of the action plan provided** to the Manawatu-Wanganui Regional Council within 48 hours of the retest.

- g. The Permit Holder shall include ~~records~~ **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-Wanganui Regional Council on request.
- 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.
- i. The ~~Permit Consent~~ Holder must **appoint employ** 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 (i) below.**



j. The **Permit Consent** Holder shall maintain the biofilter, 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 biofilter fan discharge;
- Weekly recording of pressure across the bio-filter bed;
- ~~Weekly inspection to check for odour at the biofilter (i.e. assessment of odour intensity in accordance with the most up to date good practice guidance for assessing and managing odour).~~
- 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.

k. The **Permit Consent**-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 150 ~~400~~-mm 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 ~~400~~ per cubic metres ~~per hour per square metre~~ 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 ~~between 6 and 8 pH units~~;



- An even distribution of gas flow through the filter bed; and
- There shall be no short circuits of untreated air through and filter bed.

~~l. If, after 12 months of the commencement date of the 2015 review of conditions, the Manawatu-Wanganui Regional Council determines that the discharge of odour from the Landfill site is noxious, dangerous, offensive, or objectionable beyond the property boundary, the Permit Holder shall investigate and where practicable identify the potential odour source discussed in the MWH report titled Continuous Ambient Air Quality Monitoring for Hydrogren Sulphide Levin Landfill and dated 10 July 2015.~~

~~m. The Consent Holder shall remediate the potential odour source identified in condition 5(l) should the source be located on the Levin Landfill property.~~

~~n. The Consent Holder shall provide a report to Manawatu-Wanganui Regional Council and the Neighbourhood Liaison Group that outlines the remediation actions taken and outcomes within 20 working days of condition 5(m) being completed.~~

- 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 utilised** at all times.

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

- 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 that** includes:

- Material Design specifications and procedures for the application of** daily **and** intermediate **cover and temporary** and final capping;
- 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 bio-filter 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. bio-filter and flare);
- ix. The odour complaints investigation and recording procedure;
- x. The phasing of the Landfill construction and operation (filling), including ~~within 12 months~~ 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 ~~within 12 months~~ 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 ~~implement the monitoring and controls stated in~~ the resource consent conditions;
- xiv. Timing of audits and inspections and reporting to Council.
 - 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.



- o. **Subject to the conditions of consent, the Permit Holder shall carry out its operations in general accordance with the OMP;**
- 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** ~~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; ~~and~~
 - 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.**
- q. The **Permit Consent** Holder shall provide the Manawatu-Wanganui Regional Council with information collected from the weather station referred to in condition **4(p)** ~~5(q)~~. 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** ~~daily~~ basis, **and** ~~or~~ as soon as possible upon request.

Amend Condition 7

- 7.** 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 ~~The records~~ shall be made available ~~to the~~ within 5 days of a request by the Regional Council ~~on request.~~

~~The Permit Holder shall also keep a record of landfill gas monitoring results including:~~

- ~~a. Date and time of sampling;~~
- ~~b. The concentrations of gasses detected.~~
- ~~c. Weather conditions at the time of sampling.~~

~~The monitoring results shall be made available to the Regional Council on a quarterly basis.~~

Amend Condition 8A

8A. The Permit Holder ~~consent 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 ~~consent holder~~ shall ensure a liaison person is available to respond to odour or dust complaints in a reasonable manner as per condition 8B below.



Amend Condition 8B

8B. The ~~Permit Holder consent 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.

Amend Condition 8C

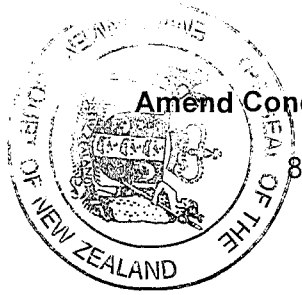
8C. The ~~Permit Holder consent holder~~ shall notify a Manawatu-Wanganui Regional Council Consents Monitoring Officer and the Mid-Central District Health Board's Medical Officer of Health as soon as practicable after becoming aware of any offensive or objectionable odour emanating beyond the boundaries 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.

Amend Condition 8D

8D. The ~~Permit Holder consent 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, at the working face, at the areas with intermediate cover, temporary capping and final capping and around the boundary of the landfill site, particularly those sections of the boundary that are 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) using a modified German VDI standard 3940 method as agreed by the Manawatu-Wanganui Regional Council Regulatory Manager, or subsequent method.

Amend Condition 8E

8E. The ~~Permit Holder consent holder~~ must carry out a weekly walkover site inspection of all the landfill surfaces, including the area around the biofilter 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.



Amend Condition 8F

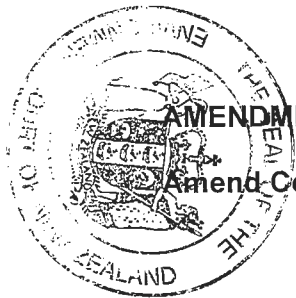
8F. The **Permit Holder consent holder** shall maintain a log of all other inspections, investigations and actions taken in accordance with all monitoring and odour inspection conditions of this consent. The **inspection and investigation** log shall be made available to the Manawatu-Wanganui Regional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

Amend Condition 8

8. The Regional Council may initiate a publicly notified review of Conditions **4, 5 and 8 7** of this permit **during the month of October in 2024, 2029 and 2034 in 10 years from the date of the commencement date of the 2015 review of consents decision.** The reviews shall be for the purpose of:

a. Assessing the effectiveness of Conditions **4, 5 and 8 7** of this consent in avoiding, remedying or mitigating adverse effects **of discharges to air from the Levin Landfill on the environment surrounding the Levin Landfill.**

b. The review of conditions shall allow for ~~the~~ changes **and amendments** to Conditions **4, 5 and 8 7** of this consent **and; Addition of new conditions as necessary; to avoid, remedy or mitigate adverse effects of discharges to air from the Levin Landfill on the environment surrounding the Levin Landfill.**



AMENDMENTS TO DISCHARGE PERMIT 7289

Amend Condition 19

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 following the expiration of 10 years from the date that the 2015 review decision is final. The reviews shall be for the purpose of:

...

AMENDMENTS TO DISCHARGE PERMIT 102259

Amend Condition 19

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 following the expiration of 10 years from the date that the 2015 review decision is final. The reviews shall be for the purpose of:

...