

31 October 2014

Horowhenua District Council
Private Bag 4002
LEVIN 5540

File ref: 1/4/HDC
6010
SGS:YKS

Attention Arron Cox

Dear Arron

**ROUTINE ASSESSMENT OF ADJOINING LAND OF THE LEVIN
LANDFILL NON-COMPLIANCE REPORT**

A routine site visit was carried out on a property adjacent ("property") to the Levin Landfill on 14 October 2014. The site visit was in response to concerns raised by a member of the general public about landfill leachate from the unlined landfill entering the roadside drain from earthworks located on the property. Four water quality samples were collected with analytical results received at Horizons Regional Council (HRC) on 29 October 2014.

As a result of assessing the analytical results Levin Landfill has been given an overall **Significant Non-Compliance** grading for Condition 2 of resource consent 6010. Please note that since the Levin Landfill is at the time of this invoice not complying with the conditions of its resource consents, the compliance monitoring charges are 100 per cent of the full charge as detailed in the attached cost sheet.

Please find attached a copy of Compliance Assessment Guidelines for your reference.

If you have any queries about the attached report, please contact me via email stuart.standen@horizons.govt.nz, on direct dial 06 952 2952, or Freephone 0508 800 800.

Kind regards



Stuart Standen
CONSENTS MONITORING OFFICER

COMPLIANCE REPORT LEVIN LANDFILL

Consent
6010

Reporting Period
14 October 2014 – 30 October 2014



October 2014

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EXECUTIVE SUMMARY

A routine site visit was carried out on a property adjacent to the Levin Landfill on 14 October 2014. The site visit was in response to concerns raised by a member of the general public about landfill leachate from the shallow aquifer down gradient of the unlined landfill entering the roadside drain from earthworks located on the property.

Leachate from the unlined landfill is known to influence the shallow groundwater aquifer. This is because groundwater monitoring bores down gradient of unlined landfill show elevated leachate indicator test results (i.e. ammonia, conductivity and chloride) when compared to bores up gradient of the unlined landfill.

On 14 October 2014 water quality samples were collected from four sites to determine if leachate from the unlined landfill had contaminated the property. Water quality samples were sent to Central Environmental Laboratories (CEL) for analysis. The four sample site names and CEL sample identification number are as follows:

1. Farm Drain Tatana – 1007910;
2. Farm Drain Tatana – 1007911;
3. Earthworks Site Tatana – 1007912; and
4. Road Side Drain Hokio Beach Road.

Appendix A shows the four sample locations and corresponding CEL laboratory sample identification number.

On 29 October 2014 HRC received a copy of the CEL analytical report. The CEL report shows the sample locations located on the property has been contaminated with leachate from the unlined landfill. This is because leachate indicator parameters (i.e. ammonia, conductivity and chloride) from the property sample sites are elevated when compared to the control site results. For example, Table 1 below compares key leachate parameters collected from the property to the control site and mean shallow groundwater results down gradient of the unlined landfill.

Parameter	Sample Site Identification Name				
	1007910	1007911	1007912	1007913	Bore B3
Ammonia (g/m ³)	88.4	7.46	6.55	0.197	142
Conductivity (mS/m)	208	59.5	150	32.7	243
Chloride (g/m ³)	174	62.9	154	40.9	172

CONDITION 2 RESOURCE CONSENT 6010, WHICH AUTHORISES THE DISCHARGE OF LANDFILL LEACHATE ONTO AND INTO LAND

2. *Landfill leachate shall not contaminate adjoining land.*

Monitoring results collected on 14 October 2014 indicate leachate from the unlined landfill has contaminated adjoining land of the Levin Landfill. **Significant Non-Comply**

RECOMMENDATIONS

HRC is concerned for the potential for landfill leachate in the property drains entering the Hokio Stream via the road culvert. HRC recommends Horowhenua District Council develop a Sampling Management Plan (SMP) to determine the scale, nature and volume of landfill leachate entering the drains and potential and actual effects on the Hokio Stream. The SMP should also contain mitigation options to cease the discharge of landfill leachate to adjoining properties. The SMP is to be provided to HRC no later than **7 November 2014**. HRC also recommends the property owner be contacted about this non-compliance issue.

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

Kind regards,



Stuart Standen
CONSENTS MONITORING OFFICER