



23 July 2010

File: WGN100226 [30407], [30408], [30409], 30410] and [30411]

## Decision of Hearing Committee

IN THE MATTER OF      The Resource Management Act 1991 (the Act)

AND                      Application for resource consents made pursuant to  
Section 88 of the Act

TO                        Wellington Regional Council

                              WGN100226 [30407], [30408], [30409], 30410] and  
[30411]

BY                        Hutt City Council  
Private Bag 31912  
Lower Hutt 5041

IN RELATION TO      Resource consent application to continue to discharge  
contaminants to land, air and water from the Wainuiomata  
Landfill as part of scheduled operations for the next five  
years; and to continue to discharge contaminants as a  
result of future rehabilitation activities.

AT                        Wainuiomata Landfill, at approximately 220 Coast Road,  
Wainuiomata, Lower Hutt

HEARING COMMITTEE   Cr Sally Baber

HEARING DATE        Thursday 8 July 2010

HEARING CLOSED     Thursday 8 July 2010 at 12.25pm

DATE OF DECISION    23 July 2010



# Contents

<b>1.</b>	<b>Introduction</b>	<b>1</b>
<b>2.</b>	<b>Background</b>	<b>1</b>
<b>3.</b>	<b>Location</b>	<b>1</b>
<b>4.</b>	<b>The proposal</b>	<b>1</b>
4.1	Acceptance of assessment of environmental effects	2
<b>5.</b>	<b>Consents required</b>	<b>3</b>
<b>6.</b>	<b>Notification and submissions</b>	<b>3</b>
6.1	Notification	3
6.2	Summary of submissions	4
6.2.1	Late submissions	4
6.2.2	Issues raised by submissions	5
6.2.3	Issues raised by submissions in support	5
6.2.4	Issues raised by submissions of conditional support or neutral submissions	5
6.2.5	Issues raised by submissions in opposition	5
6.3	Pre-Hearing meeting	6
<b>7.</b>	<b>Officer's report</b>	<b>6</b>
<b>8.</b>	<b>The Hearing</b>	<b>6</b>
8.1	Evidence	6
8.2	Applicant's Case	7
8.3	Submitters	7
8.4	Officer's further response	7
8.5	Applicant's right of reply	8
8.6	Site visit	9
<b>9.</b>	<b>Principal issues and findings</b>	<b>9</b>
9.1	Odour	9
9.2	Dust	10
9.3	Nuisance litter	11
9.3.1	Community rubbish drop off area	11
9.4	Landfill gas control	11
9.5	Exide waste	12
9.6	Health effects	12
9.7	Community liaison	13
9.8	Leachate monitoring	13
9.9	Kiwi	14
9.10	Complaints procedure	14
9.11	Other aspects of the proposal	14
9.12	Summary	14
<b>10.</b>	<b>Statutory framework</b>	<b>15</b>
10.1	The Resource Management Act 1991	15

10.2	Planning instruments and other matters	16
10.2.1	National planning instruments	16
10.2.2	Regional planning instruments	16
<b>11.</b>	<b>Part 2 considerations</b>	<b>16</b>
11.1	Section 5 matters	16
11.2	Sections 6, 7 and 8	17
<b>12.</b>	<b>Grant of consents</b>	<b>18</b>
12.1	Duration of consents	18
	<b>Schedule 1 - consent conditions</b>	<b>20</b>

## 1. Introduction

Pursuant to Section 88 of the Resource Management Act 1991 (the Act) Hutt City Council (HCC; the applicant) applied for resource consents to continue to discharge contaminants arising from the ongoing operation of Wainuiomata Landfill for five years, and the on-going discharges to land, water and air as part of its remediation.

The applicant requires consent from the Greater Wellington Regional Council (GW) for four discretionary activities under the Regional Discharges to Land Plan (RDLP), Regional Freshwater Plan for the Wellington Region (RFP) and Regional Air Quality Management Plan (RAQMP); and one restricted discretionary activity under the Regional Soil Plan for the Wellington Region (RSP).

The application was fully notified and was heard by the Hearing Committee comprised of Cr Sally Baber, appointed by GW to determine a decision on the consents.

The hearing was held on Thursday 8 July 2010 and was closed following the applicant's right of reply the same day at 12.25pm.

In addition to evidence provided at the hearing and oral submissions, the Commissioner took into account all of the documentation provided with the application, further information received, the GW officer's Section 42A report, and full copies of all submissions lodged in regard to this application.

All consents applied for are **GRANTED** as detailed in Section 12 of this decision.

## 2. Background

A summary of the background of the Wainuiomata Landfill and previous consents held by the applicant was provided in the Section 42A officer's report prepared by Mr Raymond Chang, Resource Advisor from GW.

## 3. Location

Wainuiomata Landfill is located in a small, naturally formed side valley off the main Wainuiomata River valley. While it does not have a physical address, following the conventional numbering system on Coast Road, the landfill would be found at approximately 220 Coast Road, approximately 1.3km south of Wainuiomata township.

The site comprises of approximately 142 hectares, forming a buffer around the 6 hectares of landfilling activity.

## 4. The proposal

A detailed description of the proposal is outlined in Sections 3, 4 and 5 of the application documents and a summary is provided in Mr Chang's report.

The applicant wishes to continue to operate the Wainuiomata landfill for another five years. After this time, discharges to land, water and to air will continue for some time as a result of the decomposition of fill material. The applicant has estimated that approximately 600,000 tonnes of waste is currently at the landfill. The landfill is the only municipal landfill in the Wainuiomata Valley.

The landfill receives 30-40,000 tonnes of waste for disposal per year (i.e. a total of 150,000 – 200,000 tonnes for the five year duration). As a result, the total maximum projected volume will be just over 800,000 tonnes of waste. The applicant has stated that this waste is limited to residential, commercial and industrial refuse, and that no liquid or hazardous wastes will be accepted for disposal at the site. A full description and table listing the types of waste accepted can be found in Appendix C of the Landfill Management Plan submitted with the application (Appendix J).

Leachate and landfill gas is generated from waste disposal activities. As waste decomposes and water infiltrates through the fill, various contaminants are entrained into the water, and various contaminants are emitted to the air through biological activity.

The applicant applied for resource consent to authorise the on-going discharges to the environment for approximately 23 years (to align them with the expiry date of existing consents). These are discussed in detail in Sections 3 and 4 of the application.

Essentially, the following processes occur:

- Stormwater from the catchment above the landfill is diverted around the fill area prior to discharge into a silt pond, then to an unnamed tributary of the Wainuiomata River
- Leachate contaminated stormwater which discharges to groundwater is captured (a 'water take') at the toe of the landfill and discharged to the tradewaste system. Not all of the leachate is captured (the volume of this is unknown), which means that the downstream watercourse (Wainuiomata River) requires regular monitoring to ensure that the leachate collection system is operating efficiently
- Soil is disturbed and taken from the 'borrow' areas around the site for mixing with waste, daily cover, and will be used for final cover
- Landfill gas is discharged to air as various biological activities break down the waste

#### **4.1 Acceptance of assessment of environmental effects**

Mr Chang adopted Sections 3 and 4 of the applicant's document 'Assessment of Environmental Effects Wainuiomata Landfill' (Job no. 82948.021) pursuant to Section 42A(1B)(b) of the Act. These sections give a general background to the site and the Commissioner concurs with Mr Chang's assessment that the information is generally accurate and factual in nature.

## 5. Consents required

The Commissioner concurs with Section 5 of Mr Chang's report that the following resource consents are required pursuant to Sections 9, 14 and 15 of the Act:

- WGN100226 [30407]: Water permit to take groundwater contaminated with leachate for removal and treatment at a wastewater treatment plant, required under Rule 16 of the RFP, as a **discretionary activity**
- WGN100226 [30408]: Discharge permit to discharge contaminants to land from the operation, construction and maintenance of Wainuiomata landfill, required under Rule 1 of the RPDL, as a **discretionary activity**
- WGN100226 [30409]: Discharge permit to discharge fugitive leachate arising from Wainuiomata Landfill to groundwater and to discharge stormwater and contaminated stormwater to an unnamed tributary of Wainuiomata River, required under Rule 5 of the RFP, as a **discretionary activity**
- WGN100226 [30410]: Discharge permit to discharge landfill gas, dust and odour and other contaminants to air arising from the Wainuiomata Landfill, required under Rule 23 of the RAQMP, as a **discretionary activity**
- WGN100226 [30411]: Land use consent to disturb on erosion prone land for landfilling activities such as daily cover, final cover, drainage works and roading, required under Rule 2 of the RSP, as a **restricted discretionary activity**

The Commissioner concurs with Mr Chang's assessment that the application can be considered overall as a **discretionary activity**.

## 6. Notification and submissions

### 6.1 Notification

The application was publicly notified in the Dominion Post on Saturday 24 April 2010 and in the Hutt News on Tuesday 27 April 2010. In addition, a sign was installed at the site and notice of the application was served on 12 affected or interested parties, including:

- Immediately adjoining land owners and occupiers
- Te Runanga O Taranaki Whanui Ki Te Upoko O Te Ika Maui
- Ngati Toa Rangatira
- Wellington Tenths Trust
- The Department of Conservation
- The Wainuiomata Golf Course

## 6.2 Summary of submissions

At the close of submissions on 25 May 2010 at 4.30pm four submissions had been received. A further three submissions were received after the close of submissions.

A total of seven submissions were received. No submissions were received in support or conditional support of the proposal and four submissions were received in opposition. Two neutral submissions were received, while one submission was unclear.

A summary of the submissions was provided in Appendix 3 of Mr Chang's report and full copies of all submissions received were provided to the Commissioner.

### 6.2.1 Late submissions

As identified in Section 6.2 of this report three late submissions were received.

Under Section 37(1)(b) of the Act, a consent authority may waive a requirement to comply with a time limit for the service of documents (e.g. submissions). In making such a waiver, the consent authority is required to abide by Section 37A(1):

- a) *The interests of any person who, in its opinion, may be directly affected by the waiver;*
- b) *The interests of the community in achieving adequate assessment of the effects of any proposal, policy statement or plan;*
- c) *Its duty under section 21 to avoid unreasonable delay.*

And Section 37(4):

- a) *The time period as extended does not exceed twice the maximum time period specified in this Act; and*
- b) *Either –*
  - i) *Special circumstances apply (including special circumstances existing by reason of the scale or complexity of the matter); or*
  - ii) *The applicant agrees to the extension; and*
- c) *The authority has taken into account the matters specified in subsection (1).*

The applicant agreed to waive the requirement to comply with the timeframe to make a submission. As such, the 20 working day time period was extended to allow the late submissions to be accepted. In extending the submission period it

was considered that the submissions raised issues relevant to the assessment of the proposal and would not create unreasonable delay to the consent process.

#### 6.2.2 Issues raised by submissions

The key issues raised in submissions were related to odour from the site, and around concerns with the management and enforcement of the landfill's consent conditions. These are detailed in the following sections.

#### 6.2.3 Issues raised by submissions in support

There were no submissions that supported the application.

#### 6.2.4 Issues raised by submissions of conditional support or neutral submissions

Two submissions were neutral, while a third was unclear. The main points of these submissions were:

- That the local community had been affected by the odours. Many submitters (including those in opposition) have chosen to identify the alleged disposal of slag from Exide Technologies Limited as the likely source of these odours
- That vigilance from GW and the applicant was needed to ensure that the conditions of consent are abided by
- That previously, GW has not been effective in ensuring that the conditions of consent have been adhered to
- That the conditions of the consents, should the applications be granted, need to be more stringent to allow effective mitigation and enforcement of odour effects.
- That it is incongruous to take poisons from one waterway and put them into another – and that it would be best to find another site that will not pollute waterways.

#### 6.2.5 Issues raised by submissions in opposition

The remaining four submissions received were in opposition. The main points of these submissions were:

- That there were odour issues which the submitters had to put up with, and there were no improvements to the status quo suggested in the application
- Submitters have no faith in the management of the landfill or the enforcement of consent conditions and wish to have the landfill closed now, and for the landfilling to not continue for another five years
- One submitter suggested that only household municipal waste should be disposed of over the next five years, and no other waste should be accepted

- If granted, conditions should reflect a much better method of recording of the types of waste, and that the surrounding area needs to be maintained in a better state (i.e. regular maintenance/removal of wind-blown plastic bags)
- That there was a nuisance dust and wind-blown plastic bag issue when northerlies blew, so there should be improved and stricter control of wind-blown refuse
- Wainuiomata should be promoted as a tourism attraction, and the presence of the landfill at the beginning of the valley detracts from the clean, green image of the Wainuiomata valley and of New Zealand
- Kiwi are being killed in this location while there are attempts to re-introduce kiwi to other areas of Wellington

### **6.3 Pre-Hearing meeting**

There was no pre-hearing meeting held for this application.

## **7. Officer's report**

In accordance with Section 42A of the Act, a report on the application was compiled by the reporting officer, Mr Raymond Chang. The officer's report was distributed to the Commissioner, the applicant, their representatives, and the submitters on 30 June 2010.

The officer's recommendation was that the application be granted, subject to the recommended conditions.

## **8. The Hearing**

### **8.1 Evidence**

The hearing took place on Thursday 6 July 2010 at the GW offices. Following introductions and opening comments from the Commissioner, the reporting officer, Mr Chang, presented two new pieces of information.

Mr Chang presented a change to the recommended conditions for the consent authorising the discharge of fugitive leachate arising from Wainuiomata Landfill to groundwater and stormwater, WGN100226 [30409]. On further review of the water quality monitoring conditions, Mr Chang, considered there could be a situation where if the monthly 'indicator' contaminants are not exceeded (condition 12), it could be possible that the broader suite of contaminants (condition 13) are never tested for. Mr Chang considered it is still important to test for the larger suite of contaminants at regular intervals and therefore, recommended that the entire suite be tested on at least an annual basis. Additionally, in order to ensure that the adverse effects of the discharge are no greater than they are currently, Mr Chang recommended that the limit (mean plus three time standard deviation) be calculated for the latest 36 monitoring results at the time of the decision, and that these limits continue for the duration of the consent.

Mr Chang also presented the most up to date (as of March 2010) record of odour/dust complaints for the site. Mr Chang noted that one odour notification had been received by GW since March 2010 that had not yet been entered into the notifications database.

## **8.2 Applicant's Case**

The applicant presented its case which involved presentations from the following witnesses:

- Bruce Sherlock – General Manager of City Infrastructure at Hutt City Council
- Robert McWhirter – Managing Director of Wainuiomata Landfill Limited
- Penelope Kneebone – Environmental Scientist with Tonkin & Taylor Limited

## **8.3 Submitters**

The Commissioner heard from the following three submitters:

- Debbie Feeley
- Jennifer Roulston
- Norman Cobb

## **8.4 Officer's further response**

Following the presentations from the applicant and their representatives, and the three submitters, the Commissioner heard from the council officer.

In response to an earlier question from the Commissioner, Mr Chang presented the details of the odour incident reported to GW on 2 July 2010. Mr Chang explained that the duty officer was on another site visit at the time of the complaint and that accounts for the time delay in GW's response.

Mr Chang also commented that Dr Kneebone, on behalf of the applicant, stated in her evidence that the spray system will be operational for the next five years. Mr Chang stated that there will be odour discharges after the applicant stops landfilling activities, and the applicant's idea to investigate a biofilter cover over the final capping layer, would be a viable option.

In response to a question from the Commissioner, Mr Chang then stated that the appropriate place to condition a biofilter layer would be in the condition requiring a plan for the closure of the landfill, that being consent number WGN100226 [30408]. Mr Sherlock then commented that they would be happy to undertake a trial for a biofilter layer to assess its feasibility.

Mr Chang then responded to the submitters concerns regarding GW's protocol for responding to complaints and the concerns as to how GW ensures compliance. Mr Chang commented that he would support the idea presented by Mr Sherlock that the appropriate avenue for community liaison would be through the Wainuiomata Community Board (WCB), as opposed to setting up

a Community Liaison Group. Mr Chang also commented that there may be some updating required to protocols and who the public can complain to.

Mr Chang then stated that he did not find any information regarding the kiwi and vermin issues.

In regards to wind blown litter, Mr Chang commented that he has had experience with other landfills and the amount of litter at Wainuiomata Landfill is consistent with other landfills in this region. Mr Chang also stated that the litter controls in place are consistent with other landfills in the region.

In response to one submitter's concerns regarding dust and its associated health effects, Mr Chang commented that it is possible there may be some contaminants that could be causing an adverse health effect; however, these would be the particles you can't see. Dust particles that you can see are unlikely to have any adverse health effect by themselves, being too large to respire, and would be causing more of a nuisance effect.

## **8.5 Applicant's right of reply**

In response to questions raised, Mr Sherlock confirmed that they would supply details of traffic movements and the HCC complaints log by the following day. Mr Sherlock also commented that they were not advised of the number of complaints on the GW log, and that may be due to many of the complaints being recorded as 'log only'.

Mr Sherlock acknowledged that there was an issue to resolve with notification of complaints between HCC and GW.

In regards to submitters concerns regarding the rubbish on Coast Road, Mr Sherlock stated that he was happy to pledge more action on that and commented that contractors do attend to this matter on a daily basis. He also stated HCC will investigate the illegal dumping of rubbish on Coast Road. Mr Sherlock commented that this was an issue of how HCC provides the service of rubbish collection, which is separate of the landfill operation.

Mr Sherlock confirmed that the draft odour management plan can be modified to include any conditions that the Commissioner deems necessary.

In regards to concerns about dust from the site, Mr Sherlock stated that the borrow areas had now been hydroseeded.

Mr Sherlock was pleased that Mr Chang supports their idea that the Wainuiomata Community Board is an avenue for submitters to raise any concerns and it could be an item on the agenda for that board, with meetings held every six weeks.

While he accepts the communities concerns, Mr Sherlock commented that the Exide slag did meet the landfill acceptance criteria, and all Regional Plan rules and consents and that the landfill continues to comply with its conditions of consent. Mr Sherlock stated that the material is now buried under 5-10 metres of other refuse and has a capping layer which had decreased the odour.

Mr Sherlock confirmed that HCC will continue to manage odour to the best of their ability.

## **8.6 Site visit**

Following the hearing the Commissioner visited the Wainuiomata Landfill, and the surrounding area including driving past the submitters properties.

# **9. Principal issues and findings**

## **9.1 Odour**

The main issue raised by the submissions was odour effects. The decomposition of waste deposited at a landfill (historically and new waste) produces landfill gas. This is predominately methane, but can include a number of other contaminants many of which can be odorous at low concentrations. An extensive assessment of the odour effects associated with the landfill gas, compliance monitoring and mitigation of odour was provided in Section 9.2 of Mr Chang's report.

Most components of landfill gas are heavier than air, and can drift or 'flow' downhill. In the case of Wainuiomata Landfill, a very obvious downhill gradient has been achieved through the history of the landfill. The applicant acknowledges that odour is a natural by-product of the decay process and is ongoing. Odour nuisance however is periodic and is influenced strongly by climatic conditions and the location of the landfill face.

A submitter stated that they experience the odour in prevailing northerlies. The Commissioner notes the evidence presented by the applicant and reporting officer that the most likely time for odour to be objectionable is during cool, calm conditions, particularly winter mornings with little or no wind, but odour incident reports show that the odours have usually dispersed in a short period of time.

Dr Kneebone stated that of the three years she has been working with the landfill, Tonkin & Taylor has received 15 odour complaints. The Commissioner accepts the evidence of Dr Kneebone that the number of odour complaints received for Wainuiomata Landfill is reasonably typical of landfills in her experience.

The Commissioner notes that there have been no confirmed offensive and objectionable odours at or beyond the boundary of the site.

Several submitters acknowledged that they expect there may be some odour from the landfill at times, but they find the odour objectionable at times. All three submitters at the hearing stated that the odour emissions from the site had been worse since the Exide waste had been disposed of at the landfill.

The Commissioner notes the evidence presented by Mr Sherlock for the applicant. In response to communities concerns about odour and its effects on health and the environment HCC engaged Dr Simon Ryder-Lewis, an Occupational Physician in 2006, to determine if there was any health effects

associated with the disposal of the Exide waste. Dr Ryder-Lewis found no health risks to the public using the landfill, or to landfill staff. HCC also arranged for testing of the gases which gave rise to odour, and again the subsequent report, while confirming the odour, identified no related health concerns.

The submitters acknowledged that since an odour sprayer was installed in 2006, which has now been modified and made a permanent fixture, there appears to be a drop off in the number of odour complaints. The Commissioner notes that the general trend has been for improvements and that the applicant will continue funding operations and management of the odour sprayer until the landfill closes. The Commissioner considers that overall the management of odour appears to be as controlled as it can be for this type of facility.

The Commissioner believes that continued good maintenance and operations at the landfill is the key to ensuring the ongoing improvements to odour management. The Commissioner considers that the mitigation and monitoring measures proposed and the conditions placed on the discharge to air consent will ensure that any discharges of odour will not result in adverse effects on the surrounding community.

In particular, the condition requiring a landfill management plan requires the applicant to have specific regard to how odorous waste is disposed of at the site. This will include measures to adequately cover odorous loads that are accepted at the landfill as soon as practicable.

The applicant agreed at the hearing to undertake a biofilter final capping layer trial in a lead up to the closure of the landfill to assess its feasibility in controlling odour once the landfill is closed. The Commissioner considers that this option is worth investigating and has included it as a condition of consent.

## **9.2 Dust**

One submitter raised particular concerns about dust and its health effects on her. The applicant stated that they hydroseed exposed 'borrow' areas as and when required.

Mr Chang commented that dust particles you can see are unlikely to be causing any adverse health effects and that it is the particles you cannot see that are of more concern. The Commissioner concurs with Mr Chang that dust particles have more of a nuisance effect.

The Commissioner noted during the site visit that the area of exposed soil at the landfill was small, and that all roads are paved. She considers the issue of dust is minor for this site, comparative to other landfills in the region.

The Commissioner considers that the dust effects can be appropriately addressed through the landfill management plan. Provided the applicant is vigilant with the management and operations of the landfill the dust effects can be managed to a level which is acceptable for this type of activity.

### **9.3 Nuisance litter**

Submitters also raised the concern of wind-blown litter and general cleanliness of the periphery of the landfill. The Commissioner acknowledges that rogue paper and plastic bags are always an issue at landfills. She heard from Mr McWirther, Managing Director of the Landfill, that landfill staff manage the onsite wind-blown litter and Transpacific Industries (Waste Management) manage the litter along Coast Road 100 meters either side of the landfill gates on an as and when required basis or in response to a complaint. The expectation is that this is done on a daily basis. The submitters acknowledged that responses to complaints were usually dealt with promptly.

Mr McWirther also stated that litter fences are placed in locations to ensure that in prevailing wind conditions, litter is retained to the working area of the landfill. Litter is removed from the fences as and when required, at a minimum on a weekly basis.

The Commissioner notes the evidence presented by Mr Chang that it is important to recognise the landfill is buffered by a 146ha land area which is also owned by the applicant. Mr Chang stated that the overall amenity and presence of wind-blown litter is of a standard which is similar to other landfills in the region. Mr Chang also stated that amenity impacts are outside the scope of GW's jurisdiction in this proposal. The Commissioner concurs with Mr Chang.

It would appear the applicant has adequate management in place for litter control but the Commissioner acknowledges that it is important to the community that the contractor is properly managed to ensure HCC keeps on top of the matter.

The Commissioner is satisfied that the applicant currently does all that can reasonably be expected to control wind-blown litter from the site. She considers the litter controls currently in place are adequate and the conditions of consent, in particular the landfill management plan, will ensure that the effects of litter on the community are minimised.

#### **9.3.1 Community rubbish drop off area**

The community rubbish drop off area is located on Coast Road approximately 40 metres north of the landfill gates and is specifically for rural properties on Coast Road to drop off household rubbish on Fridays. Several submitters requested that this drop off site be relocated to within the landfill boundaries. The Commissioner felt that this request was beyond the scope of this consent application and while of concern to submitters, needs to be discussed by them with HCC management if they continue to have ongoing concerns. She notes that Mr Sherlock stated that HCC will investigate the illegal dumping of rubbish at the drop off site and along Coast Road.

### **9.4 Landfill gas control**

Given the relatively small size of the landfill and the expected remaining life being five years, the Commissioner concurs with both Mr Chang and Mr Sherlock, that the cost of installing a landfill gas collection system and flare

would place a heavy economic burden on HCC ratepayers. She notes that Mr Sherlock stated the cost would be in the order of \$3 million, which equates to an approximate 6% rate increase.

The Commissioner accepts that this cost is not warranted as part of the closure process for the landfill. The Commissioner considers that the control of landfill gas post closure of the landfill will be addressed through the condition of consent requiring a landfill closure plan, which is required to be approved by GW.

## **9.5 Exide waste**

The disposal of Exide waste at Wainuiomata Landfill is an historical issue. In response to the communities concerns about the odour issues from the disposal of the Exide slag, in November 2005 Exide voluntarily ceased deliveries to the landfill.

As previously mentioned, the applicant undertook a study into the likelihood of landfill gas odour being from the Exide waste, was undertaken in 2006. The methodology and results of the study are discussed in detail in Appendix G of the application. Several odour management strategies were identified from the study and the applicant states all have been implemented at the landfill. These include regular walkover surveys carried out by Tonkin & Taylor to monitor surface emissions and as appropriate, cover improvements are made, and an odour sprayer was installed.

Mr Sherlock gave an undertaking at the hearing that the landfill would not receive any Exide waste material in the future. To provide surety to submitters the Commissioner has included a condition of consent prohibiting the disposal of Exide Technologies Limited (Hutt Park Road, Seaview).

When Exide waste was received by the landfill a study was undertaken at the landfill to assess the health effects of the landfill staff and public using the landfill. This is discussed in the following section.

## **9.6 Health effects**

One submitter raised concern about the health effects of the landfill on local residents. Mr Chang's report discusses the distinction between odour and health effects, noting that while gas concentrations at the boundary could lead to nuisance odour, they are not at levels that could cause adverse health effects. The applicant concurred with this assessment.

Mr Sherlock stated the applicant sees landfill workers as the most vulnerable to health effects. As previously mentioned when Exide waste was received at the landfill, landfill worker health was monitored. There was no evidence of adverse health effects on landfill workers.

The Commissioner concurs with Mr Chang's assessment that it is unlikely gas concentrations at or beyond the boundary would be at levels that could cause adverse health effects. She also notes the findings of Dr Ryder-Lewis' study that found no health risks to the public using the landfill, or to landfill staff.

The Commissioner considers that the conditions of consent, in particular the landfill management plan, will ensure that the landfill is managed appropriately to ensure that the odours experienced in the catchment are minimised.

### **9.7 Community liaison**

Mr Chang suggested in his report that a community liaison group could be set up as a forum for residents of Coast Road to liaise with the applicant and other parties involved regarding any ongoing concerns. The group could assist in the development of a monitoring protocol for responding to odour events, to provide the submitters with greater comfort and an easier route for providing feedback on whether the protocol is working.

Mr Sherlock responded to the officer's suggestion, and stated that he considered the community liaison would be most effectively provided via the Wainuiomata Community Board (WCB). Mr Chang supported Mr Sherlock's suggestion. The Commissioner notes that using the WCB has the endorsement of a local councillor.

The Commissioner pursued this matter at the hearing and came to the conclusion that a condition of consent should be included on the consent for reports on litter and odour to be made to the WCB at each of its meeting (held six weekly). The Commissioner agrees that the development of any protocols is best done through the WCB because of the wider community interest.

Upon closure of the landfill this condition of consent will enable the community to keep track of what is happening and for HCC to be publically accountable for the management of the landfill. The Commissioner considers that public scrutiny is healthy.

### **9.8 Leachate monitoring**

The applicant has undertaken leachate monitoring in the unnamed tributary of Wainuiomata River and Wainuiomata River upstream and downstream of the discharge point for the past 15 years at monthly intervals. It was proposed by both Mr Chang and the applicant that this be continued as a requirement on any new consents.

The Commissioner notes that the majority of the leachate from the landfill is intercepted at the landfill toe by a cut-off wall and drainage system, and then pumped to the trade waste system. The remaining surface water is collected and discharges to a silt pond before discharging to an unnamed tributary of Wainuiomata River.

As discussed in Section 8.1 of this decision, at the commencement of the hearing Mr Chang presented revised wording relating to groundwater quality monitoring conditions. The applicant accepted this and the Commissioner has included this revision as a condition of consent. Additionally, Mr Chang outlined that the recommended conditions require the calculation of contaminant limits based on the previous 36 monitoring results. While there is a large sample to 'buffer' changes to the limits Mr Chang noted it was entirely possible that this could permit a very gradual increase in the limiting value

over time. Therefore, he recommended that the condition be amended, in order to ensure that the adverse effects of the discharges will be no greater than they currently are that the limit be calculated for the latest 36 monitoring results at the time of the decision.

While the ground water quality monitoring conditions are largely the same as the previous consent, on the recommendation of the officer, and with the agreement of the applicant at the hearing, the changes outlined by Mr Chang were made to the conditions by the Commissioner.

The Commissioner also concurs with Mr Chang that when the landfill is closed, and the final cap is installed at the landfill, the infiltration of water into the fill will decline. Less leachate will be generated, and as such, it is important to ensure that a good quality cap is available and installed once the filling activities cease. The Commissioner considers that the condition requiring a landfill closure plan appropriately addresses this matter.

### **9.9 Kiwi**

The Commissioner notes the comments of the reporting officer, Mr Chang, and the evidence presented by Mr Sherlock, in response to a submitters concerns regarding kiwi being killed by the operation of the landfill. The Commissioner does not believe that this is an issue for concern.

### **9.10 Complaints procedure**

The Commissioner feels that it is important that members of the community know which phone number to call when they wish to make a complaint.

To clear up any confusion and simplify the complaints procedure, the Commissioner has included a condition of consent requiring the applicant to produce a small information card, which shows the complaints phone numbers to call for all complaints regarding the Wainuiomata Landfill, and supply this to residents on Coast Road, within the specified vicinity. Complaints regarding odour and dust are to be reported to GW and all other complaints (e.g. litter) are to be reported to HCC.

### **9.11 Other aspects of the proposal**

The Commissioner concurs with Mr Chang's assessment, Section 9.5 of his report, that the take of leachate-contaminated groundwater will not have adverse effects on the Wainuiomata Groundwater Zone. Additionally the Commissioner concurs with Mr Chang and the applicant's assessment that the adverse effects of soil disturbance will be adequately avoided, remedied or mitigated by the management plan and consent conditions.

### **9.12 Summary**

The Commissioner considers that overall management improvements have been made by the applicant but with a sensitive activity such as this, which inevitably has impacts on the local community, strict management control of daily operations is essential. The Commissioner notes that at the hearing

submitters acknowledged the need for landfills and also acknowledged there had been improved management of Wainuiomata Landfill in recent years.

The Commissioner believes that the applicant, with the knowledge they have of climatic conditions in the area and its effects on particularly odour and dust, needs to anticipate adverse odour and dust effects. This has been achieved in part with the odour sprayer being set on a timer to run in the early mornings and evenings, as a response to the timing of odour complaints. In addition the odour sprayer is automatically activated when the met station at the site records low wind speeds.

During the site visit the Commissioner noted the current height levels of the landfill and accepts that a maximum of five years is probably appropriate for the continued landfilling activities. At the hearing, in response to questions from the Commissioner, the applicant said that they had already started investigations for a replacement facility after closure of the landfill in five years time.

The information requested at the hearing regarding the vehicle movements to the landfill was provided to the Commissioner after the hearing and circulated to all parties. The Commissioner considers this information illustrates that this facility is providing an important service for the Wainuiomata Community. The Commissioner considers the continued use of the landfill for another five years is an efficient use of an existing physical resource and provides a necessary service to the social, economic and cultural wellbeing of the Wainuiomata community.

The Commissioner considers that with effective monitoring and enforcement of conditions, any actual or potential adverse effects resulting from the activities at the landfill can be appropriately avoided, remedied or mitigated provided the applicant adheres to the conditions of the consent and maintains good management practices.

The Commissioner is satisfied the ongoing discharges, water take and soil disturbance activities are not contrary to the relevant objectives and policies of the RPS, Proposed RPS, RDLP, RAQMP and the RSP.

## **10. Statutory framework**

### **10.1 The Resource Management Act 1991**

In giving consideration to the proposal, the Commissioner particularly referred to Section 104(1) of the Act.

The provisions of Section 104 are all 'subject' to Part 2 of the Act, which is to promote the sustainable management of natural and physical resources. Sections 6, 7 and 8 of the Act set out matters that consent authorities should consider when exercising their functions under the Act.

The Commissioner also had regard to Sections 105 and 107 of the Act, which raise matters relevant to the grant of certain discharge permits.

The Commissioner must not grant a resource consent contrary to any regulations, in this case the National Environmental Standard must be applied to the application as per Section 104(3)(c)(iii).

The consent conditions imposed are within the scope of conditions allowed by Section 108 of the Act.

## **10.2 Planning instruments and other matters**

### **10.2.1 National planning instruments**

An assessment of the application against the Resource Management (National Environmental Standards Relating to certain Air Pollutants, Dioxins and Other Toxins) Regulations 2004 was provided in Mr Chang's report. The Commissioner has given consideration to the regulations when making her decision and she concurs with Mr Chang's assessment that the discharge to air is highly unlikely to cause the airshed to breach the regulations.

### **10.2.2 Regional planning instruments**

In making the decision on the application the Commissioner had regard to the following instruments and documents:

- Regional Policy Statement
- Proposed Regional Policy Statement
- The Regional Freshwater Plan
- The Regional Air Quality Management Plan
- The Regional Discharges to Land Plan
- The Regional Soil Plan

The Commissioner agrees with Mr Chang's assessment of the application against the relevant objectives and policies of the RPS, Proposed RPS, and the relevant rules and policies of the RFP, RDLP, RAQMP and the RSP. The Commissioner notes that Mr Chang's assessment of the statutory provisions was not disputed by the applicant.

## **11. Part 2 considerations**

### **11.1 Section 5 matters**

In considering the application the Commissioner had regard to the matters identified in Part 2 of the Act. In particular she had to consider whether the proposal achieves the purpose of the Act, which is to promote the sustainable management of natural and physical resources. In making her assessment the Commissioner had regard to Section 5(2) of the Act, which defines the meaning of 'sustainable management' as follows:

*... managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—*

- (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The Commissioner considered this and agrees with Mr Chang's assessment, that the applicant's activity provides a necessary service to the social, economic and cultural wellbeing of Wainuiomata and Lower Hutt. The Commissioner notes that the applicant stated that the extension of the filling activities for another five years will ensure that the remediation and rehabilitation of the landfill into the future will not need to be funded solely from general ratepayers.

It is important to note the landfill is an existing infrastructure service, and while the life of the landfill is almost over, there is still some capacity within the existing resource that can be used to divert some waste away from other landfill resources in the region. The Commissioner agrees with Mr Chang that use of the existing landfill is preferable to the capital expenditure of developing new landfill resources, which would need to occur earlier should the consents not be granted.

The Commissioner has assessed the application and imposed conditions of consent that will ensure that, along with good management practices required by the landfill management plan, the adverse effects of the proposal will be appropriately remedied or mitigated.

## **11.2 Sections 6, 7 and 8**

The Commissioner considered Section 6, Matters of National Importance, Section 7, Other Matters, and Section 8, Treaty of Waitangi in making the decision.

The commissioner agrees with Mr Chang's assessment that the proposal is consistent with Section 6(e) which provides for the relationship of Maori with ancestral lands, water, sites, waahi tapu and toanga. The commissioner notes that local iwi were directly notified of the proposal and no authority chose to make a submission. The Commissioner is satisfied that there are no other matters in Section 6 of relevance to this application.

Section 7 of the Act outlines other matters that all persons exercising functions and powers of the Act shall have particular regard to. The commissioner is of the opinion that Sub-sections (a), (b), (c) and (f) are relevant matters for consideration.

The Commissioner had regard to these matters whilst making the assessment of the actual and potential environmental effects resulting from the proposal and concluded that all these matters are addressed in some way in other sections of

this decision. She also notes that no submissions specifically addressed the relevance and consistency with the provisions of Section 7.

Section 8 identifies that all persons exercising the functions and powers of the Act shall take into account the principles of the Treaty of Waitangi. The Commissioner took into account these principles in making her assessment of the actual and potential environmental effects in as far as she had no evidence presented to her to show that the activity was contrary to these.

In conclusion the Commissioner determined that the proposal was consistent with Part 2 of the Act.

## **12. Grant of consents**

The Commissioner acting pursuant to the powers delegated to her by the Wellington Regional Council under Section 34 of the Act, and subject to Sections 104, 104B, 105, 107 and 108 of the Act, hereby **grants** the following resource consents for the reasons already discussed in this decision and subject to the conditions listed in Schedule 1 to this decision and for the durations stated in Section 12.1:

### **WGN100226 [30407]: Discretionary Activity**

Water permit to take groundwater contaminated with leachate for removal and treatment at a wastewater treatment plant.

### **WGN100226 [30408]: Discretionary Activity**

Discharge permit to discharge contaminants to land from the operation, construction and maintenance of Wainuiomata landfill.

### **WGN100226 [30409]: Discretionary Activity**

Discharge permit to discharge fugitive leachate arising from Wainuiomata Landfill to groundwater and to discharge stormwater and contaminated stormwater to an unnamed tributary of Wainuiomata River.

### **WGN100226 [30410]: Discretionary Activity**

Discharge permit to discharge landfill gas, dust and odour and other contaminants to air arising from the Wainuiomata Landfill.

### **WGN100226 [30411]: Restricted Discretionary Activity**

Land use consent to disturb on erosion prone land for landfilling activities such as daily cover, final cover, drainage works and roading.

## **12.1 Duration of consents**

The applicant specifically requested a term of five years for the discharge to land (landfill waste), which is an estimate based on how long it will take to fill the landfill and to ensure there is enough money made from landfill charges to off-set the cost of rehabilitation.

Additionally, the applicant has applied for a duration which aligns the on-going discharges of contaminants to air and water with existing landfill consents. These expire on 6 July 2033 (approximately 23 years).

Mr Chang stated in his report, that, given that the discharges will continue regardless of whether consents are granted or not, he considered that it is prudent to align the new consents with those that expire in 2033. Mr Chang stated this will ensure that the full suite of consents can be re-assessed at the same time and a determination on whether new discharge permits will be required at that stage.

The commissioner concurs with Mr Chang's recommendation and grants the consent **WGN100226 [30408]** for a duration of **five** years, until **23 July 2015**, pursuant to Section 123(d) of the Act.

The Commissioner grants the consents **WGN100226 [30407]**, **[30409]**, **[30410]** and **[30411]** until **6 July 2033** pursuant to Section 123(d) of the Act.

DECISION DATED at Wellington this 23rd day of July 2010

For the Wellington Regional Council:



---

Cr. Sally Baber (Chairman)

## **Schedule 1 – consent conditions**

### **WGN100226 [30407]: Water permit to take groundwater contaminated with leachate for removal and treatment at a wastewater treatment plant.**

#### **General Conditions**

1. The location and nature of the discharge shall be in general accordance with the consent application and its associated plans and documents lodged with the Wellington Regional Council on 8 March 2010.

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

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

2. The consent holder shall provide a copy of this consent and any documents referred to in this consent to each operator or contractor undertaking works authorised by this consent before that operator or contractor starts any works.

Note: It is recommended that the contractor(s) undertaking the works be verbally briefed on the conditions of this and all other associated consents prior to the works being undertaken.

#### **Administrative Conditions**

3. The consent holder shall ensure that a copy of this consent and all other consents granted under the Wellington Regional Council resource consent suites WGN950052 and WGN100226 are kept within the site office, and presented to any Wellington Regional Council officer on request.

4. The consent holder shall prepare and submit an updated Landfill Management Plan (LMP) within three months of the commencement of this consent that meets the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. The plan shall include, but not be limited to:

- A description of the maintenance and development of the landfill
- A description of the monitoring programme and record keeping relating to the consents
- The procedures to be followed in the event of emergencies
- The methods of controlling dust and odour, with particular regard to dust and odour emissions during deposition of materials to the landfill face
- Methods to ensure that wind blown litter will be controlled and kept on site as much as practicable

- Methods of identifying odorous material and a separate protocol for defining what material and thickness is used to cover it appropriately as soon as practicable

The consent shall be exercised in accordance with the LMP. Any changes to the LMP shall first be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: It is envisaged that the LMP cover all aspects of the consent suite WGN100226 which authorises various discharges arising from Wainuiomata Landfill. A separate LMP for each consent is not required.

### Monitoring conditions

5. The consent holder shall maintain a meter to measure on the leachate collection sump and record the volume of leachate discharged into the public sewer at the outlet from the collector sump.

The consent holder shall provide a summary of the records to the Manager, Environmental Regulation, Wellington Regional Council with the quarterly monitoring report required by condition 15 of the consent WGN100226 [30409].

6. The consent holder shall take an annual sample of the leachate from the leachate collection sump, prior to discharge to the public sewer and test (acid-recoverable for metals where applicable) for the following parameters:

- |                                  |                  |
|----------------------------------|------------------|
| • pH                             | pH unit          |
| • Alkalinity                     | g/m <sup>3</sup> |
| • Temperature                    | °C               |
| • Conductivity                   | µS/cm            |
| • Nitrate-Nitrogen               | g/m <sup>3</sup> |
| • Ammoniacal Nitrogen            | g/m <sup>3</sup> |
| • Chloride                       | g/m <sup>3</sup> |
| • Sulphate                       | g/m <sup>3</sup> |
| • Sodium                         | g/m <sup>3</sup> |
| • Aluminium                      | g/m <sup>3</sup> |
| • Arsenic                        | g/m <sup>3</sup> |
| • Boron                          | g/m <sup>3</sup> |
| • Copper                         | g/m <sup>3</sup> |
| • Chromium                       | g/m <sup>3</sup> |
| • Iron                           | g/m <sup>3</sup> |
| • Manganese                      | g/m <sup>3</sup> |
| • Nickel                         | g/m <sup>3</sup> |
| • Mercury                        | g/m <sup>3</sup> |
| • Lead                           | g/m <sup>3</sup> |
| • Biological Oxygen Demand (BOD) | g/m <sup>3</sup> |
| • Chemical Oxygen Demand (COD)   | g/m <sup>3</sup> |
| • Zinc                           | g/m <sup>3</sup> |

- Calcium g/m<sup>3</sup>
- Magnesium g/m<sup>3</sup>
- Potassium g/m<sup>3</sup>
- Faecal coliforms cfu/100ml
- Total coliforms cfu/100ml
- Total Petroleum Hydrocarbons g/m<sup>3</sup>
- Volatile Organic Compounds (including BTEX<sup>1s</sup>) g/m<sup>3</sup>
- Semi Volatile Organic Compounds g/m<sup>3</sup>

The results of this testing and an analysis of the results with historical trends shall be included in the quarterly report required by condition 15 of the consent WGN100226 [30409] following the date of the sample.

7. All groundwater contaminated with leachate shall not be discharged to any watercourse or returned to the ground, but disposed of at an appropriate disposal facility.
8. The permit holder shall operate and maintain an efficient leachate collection system to minimise the contamination of groundwater and surface water by leachate.

**Review conditions**

9. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so, pursuant to Section 128 of the Resource Management Act 1991 within six months of the second, fourth, sixth, eighth, tenth, fifteenth and twentieth anniversaries of the commencement of this consent for any of the following purposes:
  - To deal with any adverse effects on the environment which may arise from the exercise of this permit and which it is appropriate to deal with at a later stage
  - To review the adequacy of any plan prepared for this consent and/or the monitoring requirements so as to incorporate into the consent any modification to any plan or monitoring which may be necessary to deal with any adverse effects on the environment arising from the management or operation of the landfill
  - To impose limits on the discharge of contaminants in light of the results obtained from the monitoring, or
  - To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations

Note: Following review, conditions or restrictions on the use of the site may be set by the Wellington Regional Council if deemed necessary.

10. Wellington Regional Council shall be entitled to recover from the consent holder the costs of the conduct of any review, calculated in accordance with

---

<sup>1</sup> Benzene, Toluene, Ethylbenzene, Xylene

and limited to the council's scale of charges in force and application at the time, pursuant to Section 36 of the Resource Management Act 1991.

**WGN100226 [30408]: Discharge permit to discharge contaminants to land from the operation, construction and maintenance of Wainuiomata landfill.**

**General Conditions**

1. The location and nature of the discharge shall be in general accordance with the consent application and its associated plans and documents lodged with the Wellington Regional Council on 8 March 2010.

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

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

2. The consent holder shall provide a copy of this consent and any documents referred to in this consent to each operator or contractor undertaking works authorised by this consent before that operator or contractor starts any works.

Note: It is recommended that the contractor(s) undertaking the works be verbally briefed on the conditions of this and all other associated consents prior to the works being undertaken.

**Administrative Conditions**

3. The consent holder shall ensure that a copy of this consent and all other consents granted under the Wellington Regional Council resource consent suites WGN950052 and WGN100226 are kept within the site office, and presented to any Wellington Regional Council officer on request.
4. The consent holder shall prepare and submit an updated Landfill Management Plan (LMP) within three months of the commencement of this consent that meets the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. The plan shall include, but not be limited to:
  - A description of the maintenance and development of the landfill
  - A description of the monitoring programme and record keeping relating to the consents
  - The procedures to be followed in the event of emergencies
  - The methods of controlling dust and odour, with particular regard to dust and odour emissions during deposition of materials to the landfill face
  - Methods to ensure that wind blown litter will be controlled and kept on site as much as practicable
  - Methods of identifying odorous material and a separate protocol for defining what material and thickness is used to cover it appropriately as soon as practicable

The consent shall be exercised in accordance with the LMP. Any changes to the LMP shall first be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: It is envisaged that the LMP cover all aspects of the consent suite WGN100226 which authorises various discharges arising from Wainuiomata Landfill. A separate LMP for each consent is not required.

### **Waste disposal limitations**

5. No hazardous wastes shall be accepted for disposal at the landfill. These are defined as:

i) Any waste that:

a) Contains hazardous substances at sufficient concentration to exceed the minimum degrees of hazard specified by Hazardous Substances (Minimum Degrees of Hazard) Regulations 2000 under the Hazardous Substances and New Organisms Act 1996, or

b) Meets the definition for radioactive material included in the Radiation Protection Act 1965 and Regulations 1982.

ii) Wastes which exhibit the characteristics of toxicity and eco-toxicity which, following testing using the USEPA Toxicity Characteristic Leaching Procedure (TCLP) result in leachable concentrations of contaminants in excess of the leachable concentration values in NSW EPA "TCLP Values for Solid Waste Landfills (1998)".

Where the NSW EPA TCLP values do not exist for a substance for which a disposal request is made, the TCLP limit shall be set at the lesser of:

a) NZS 9201 Trade Waste Bylaw limits; or

b) 100 times the New Zealand Drinking Water Standard (2005);  
or

c) 1000 times the 95 percent level of protection trigger values for freshwater as listed in Table 3.4.1 of the "Australian and New Zealand Guidelines for Fresh and Marine Water Quality" (ANZECC 2000).

6. None of the following waste shall be accepted for disposal at the landfill:

- Wastewater treatment plant sludge, and
- Waste from Exide Technologies Limited (Hutt Park Road, Seaview)

7. No liquid waste, other than site-generated liquid waste, shall be accepted for disposal at the landfill.

Liquid waste is defined as being any waste that has a solids content of less than 20%, except such waste that passes the Paint Filter Liquids Test (EPA Method 9095A).

### **Record keeping**

8. The consent holder shall maintain a log of the following information:
  - The daily volume and nature (in tons or other standard measure) of material deposited at the landfill
  - The name of the company/operator or contractor who brings each load to the landfill (excluding private persons).
  - The disposal location and nature of odorous waste that is disposed of to the landfill, and
  - The date on which the weekly litter monitoring required by condition 4 of this consent is undertaken

The consent holder shall provide a summary of the records to the Manager, Environmental Regulation, Wellington Regional Council with the quarterly monitoring report required by condition 14 of the consent WGN100226 [30409].

### **Operational Conditions**

9. The consent holder shall monitor the landfill site for the build-up of litter, paper and other deposits outside of the active landfilling area, and remove any such material on a weekly basis for the duration of this consent.
10. The consent holder shall take all practicable steps, including measures such as signage, fencing or regular policing, to exclude the public from any area of the landfill other than the active tip face and access ways.
11. The consent holder shall, by the end of each working day, fully cover the refuse and waste at the landfill with a suitable, inert cover material to a depth of at least 150mm.

A minimum of one weeks' worth of cover material shall be stockpiled on the site at all times.

### **Final Cover Conditions**

12. The consent holder shall prepare and submit a Landfill Closure Plan (LCP), a minimum of six months prior to the projected date of when waste material will no longer be disposed of to the landfill, to the Manager, Environmental Regulation, Wellington Regional Council.  
The plan shall include, but not be limited to:
  - A description of the materials that will be used in the final capping layer
  - The depth of capping layer(s)

- The minimum hydraulic conductivity of the capping layer (minimum of  $k < 10^{-7} \text{ ms}^{-1}$ )
- Methods to ensure that surface erosion of the capping layer is minimised
- Plans showing the final drainage design for the site
- How on-going leachate and landfill gas will be monitored; and
- How the capping layer will be stabilised, and the timeframe for the stabilisation
- The results of a biofilter top layer trial and recommendations for use

The LCP shall meet the approval of the Manager, Environmental Regulation, Wellington Regional Council.

### **Review conditions**

13. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so, pursuant to Section 128 of the Resource Management Act 1991 within six months of the second, fourth, sixth, eighth, tenth, fifteenth and twentieth anniversaries of the commencement of this consent for any of the following purposes:

- To deal with any adverse effects on the environment which may arise from the exercise of this permit and which it is appropriate to deal with at a later stage
- To review the adequacy of any plan prepared for this consent and/or the monitoring requirements so as to incorporate into the consent any modification to any plan or monitoring which may be necessary to deal with any adverse effects on the environment arising from the management or operation of the landfill
- To impose limits on the discharge of contaminants in light of the results obtained from the monitoring, or
- To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations

Note: Following review, conditions or restrictions on the use of the site may be set by the Wellington Regional Council if deemed necessary.

14. Wellington Regional Council shall be entitled to recover from the consent holder the costs of the conduct of any review, calculated in accordance with and limited to the council's scale of charges in force and application at the time, pursuant to Section 36 of the Resource Management Act 1991.

**WGN100226 [30409]: Discharge permit to discharge fugitive leachate arising from Wainuiomata Landfill to groundwater and to discharge stormwater and contaminated stormwater to an unnamed tributary of Wainuiomata River.**

**General Conditions**

1. The location and nature of the discharge shall be in general accordance with the consent application and its associated plans and documents lodged with the Wellington Regional Council on 8 March 2010.

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

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

2. The consent holder shall provide a copy of this consent and any documents referred to in this consent to each operator or contractor undertaking works authorised by this consent before that operator or contractor starts any works.  
Note: It is recommended that the contractor(s) undertaking the works be verbally briefed on the conditions of this and all other associated consents prior to the works being undertaken.

**Administrative Conditions**

3. The consent holder shall ensure that a copy of this consent and all other consents granted under the Wellington Regional Council resource consent suites WGN950052 and WGN100226 are kept within the site office, and presented to any Wellington Regional Council officer on request.
4. The consent holder shall prepare and submit an updated Landfill Management Plan (LMP) within three months of the commencement of this consent that meets the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. The plan shall include, but not be limited to:
  - A description of the maintenance and development of the landfill
  - A description of the monitoring programme and record keeping relating to the consents
  - The procedures to be followed in the event of emergencies
  - The methods of controlling dust and odour, with particular regard to dust and odour emissions during deposition of materials to the landfill face
  - Methods to ensure that wind blown litter will be controlled and kept on site as much as practicable
  - Methods of identifying odorous material and a separate protocol for defining what material and thickness is used to cover it appropriately as soon as practicable

The consent shall be exercised in accordance with the LMP. Any changes to the LMP shall first be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: It is envisaged that the LMP cover all aspects of the consent suite WGN100226 which authorises various discharges arising from Wainuiomata Landfill. A separate LMP for each consent is not required.

### **Water quality**

5. The discharge of contaminated stormwater and groundwater from the landfill site (including silt pond) shall not result in any of the following effects on the unnamed tributary of Wainuiomata River:
  - a) The production of any conspicuous oil or grease films, scums or foams or floatable or suspended material
  - b) Any conspicuous change in colour or visual clarity
  - c) Any emissions of objectionable odour
  - d) The rendering of fresh water unsuitable for consumption by farm animals; and/or
  - e) Any significant adverse effect on aquatic life.
6. All groundwater contaminated with leachate shall not be discharged to any watercourse or returned to the ground, but disposed of at an appropriate disposal facility.
7. The consent holder shall, if requested by the Manager, Environmental Regulation, Wellington Regional Council, make the bores available for monitoring of water levels and water quality.
8. All sampling techniques employed in respect of the conditions of this consent shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. All analyses shall be performed by an International Accreditation New Zealand (IANZ) registered laboratory or otherwise as specifically approved by the Manager, Environmental Regulation, Wellington Regional Council.

Note: pH and conductivity measurements have been specifically approved by the Manager, Environmental Regulation, Wellington Regional Council to be undertaken at the site.

### **Surface water quality monitoring**

9. The consent holder shall sample surface water **daily** at the sampling site SW1A (as identified in Figure 1 of the application) for Conductivity. Should conductivity exceed 1,500µS/cm, the consent holder shall, as soon as

practicable sample (with a limit of detection which does not exceed the corresponding limiting value) at sampling sites SW1A, SW8, and SW9 for:

- pH pH unit
- Temperature °C
- Ammoniacal Nitrogen g/m<sup>3</sup>
- Chloride g/m<sup>3</sup>
- Zinc (acid soluble) g/m<sup>3</sup>
- Dissolved Oxygen % saturation

10. The consent holder shall sample surface water at the sample sites SW1A, SW8, SW9 (as identified in Figure 1 of the application documents), on a **monthly** basis for the following parameters (with a limit of detection which does not exceed the corresponding limiting value):

- pH pH unit
- Conductivity µS/cm
- Temperature °C
- Dissolved oxygen % saturation
- Nitrate-N g/m<sup>3</sup>
- Ammoniacal Nitrogen g/m<sup>3</sup>
- Chloride g/m<sup>3</sup>
- Antimony (acid soluble) g/m<sup>3</sup>
- Lead (acid soluble) g/m<sup>3</sup>
- Aluminium (acid soluble) g/m<sup>3</sup>
- Zinc (acid soluble) g/m<sup>3</sup>

Additionally, the consent holder shall sample for the following parameters (with a limit of detection which does not exceed the corresponding limiting value) during summer groundwater level minimum (April) at the sampling sites SW1A, SW8 and SW9 on an **annual** basis:

- Alkalinity g/m<sup>3</sup>
- Sulphate g/m<sup>3</sup>
- Sodium g/m<sup>3</sup>
- Arsenic (acid soluble) g/m<sup>3</sup>
- Boron (acid soluble) g/m<sup>3</sup>
- Copper (acid soluble) g/m<sup>3</sup>
- Nickel (acid soluble) g/m<sup>3</sup>
- Mercury (acid soluble) g/m<sup>3</sup>
- Magnesium (acid soluble) g/m<sup>3</sup>
- Potassium (acid soluble) g/m<sup>3</sup>
- Total petroleum hydrocarbons g/m<sup>3</sup>
- Calcium g/m<sup>3</sup>

11. Should the measured value of any two water quality parameters at the sampling site SW9 (in testing conducted for conditions 9 and 10 of this consent) be greater than at SW8 by more than 10% (or decrease in the case of pH or

dissolved oxygen), the consent holder shall immediately advise the Manager, Environmental Regulation, Wellington Regional Council and:

- Immediately investigate whether the increases are due to the presence of leachate or any other reason associated with the operation of the landfill
- Determine the environmental effects of the increases and in doing so compare the results against relevant guidelines (e.g. ANZECC 2000)
- Immediately identify and undertake as soon as practicable whatever appropriate remedial action is required to mitigate the effects, and
- Prepare a report providing reasons for the exceedence and details of monitoring and remedial measures that shall be undertaken to mitigate any adverse environmental effects

This report shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council within one month of the receipt of the monitoring results confirming the exceedances of the water quality limit.

### Groundwater quality monitoring

12. The consent holder shall sample groundwater at the sample sites BH1 and BH2, as identified in Figure 1 of the application documents, on a **monthly** basis for the following parameters (with a limit of detection which does not exceed the corresponding limiting value):

- pH pH unit
- Conductivity  $\mu\text{S/cm}$
- Chloride  $\text{g/m}^3$
- Ammoniacal Nitrogen  $\text{g/m}^3$

The consent holder shall derive the standard deviation of these parameters for the previous monitoring results at BH1 **between the years of 2005 and 2010**.

13. Should any of the parameters exceed the mean plus (or minus in the case of pH) **three times** the standard deviation of the historical groundwater monitoring data for the sampling site BH1 as required in the monitoring undertaken in condition 12, the consent holder shall take and analyse, **within 14 days** for the following parameters:

- Water level
- pH pH units
- Temperature  $^{\circ}\text{C}$
- Conductivity  $\mu\text{S/cm}$
- Ammoniacal Nitrogen  $\text{g/m}^3$
- Chloride  $\text{g/m}^3$
- Alumium  $\text{g/m}^3$
- Zinc  $\text{g/m}^3$
- Mercury  $\text{g/m}^3$
- Calcium  $\text{g/m}^3$
- Magnesium  $\text{g/m}^3$

- Potassium g/m<sup>3</sup>
- Bicarbonate g/m<sup>3</sup>
- Volatile Organic Compounds (including BTEX<sup>2</sup>s) g/m<sup>3</sup>
- Semi-Volatile Organic Compounds g/m<sup>3</sup>
- Phenols (total) g/m<sup>3</sup>
- Organochlorine pesticides g/m<sup>3</sup>
- Organophosphorus pesticides g/m<sup>3</sup>
- Total coliforms cfu/100mL

Irrespective of whether the parameters have been required to be tested, the consent holder shall sample for the **above parameters and the additional parameters below** (with a limit of detection which does not exceed the corresponding limiting value) during summer groundwater level minimum (April) at the sampling sites BH1 and BH2 on an **annual** basis:

- Volatile Organic Compounds (including BTEX<sup>3</sup>s) g/m<sup>3</sup>
- Semi-Volatile Organic Compounds g/m<sup>3</sup>
- Phenols (total) g/m<sup>3</sup>
- Organochlorine pesticides g/m<sup>3</sup>
- Organophosphorus pesticides g/m<sup>3</sup>

The consent holder shall derive the standard deviation of these parameters for the previous monitoring results at BH1 **between the years of 2005 and 2010**.

14. Should any of the parameters exceed the mean plus (or minus in the case of pH) **three times** the standard deviation of the historical groundwater monitoring data for BH1 as required in the monitoring undertaken in condition 13, the consent holder shall immediately advise the Manager, Environmental Regulation, Wellington Regional Council and:

- Immediately investigate the reason why the limits were exceeded
- Confirm the presence of leachate in groundwater
- Immediately identify and undertake as soon as practicable whatever appropriate remedial action is required to mitigate the effects, and
- Prepare a report providing reasons for the exceedence and details of monitoring and remedial measures that shall be undertaken to mitigate any adverse environmental effects

This report shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council within one month of the receipt of the monitoring results confirming the exceedances of the groundwater quality limit.

---

<sup>2</sup> Benzene, Toluene, Ethylbenzene, Xylene

<sup>3</sup> Benzene, Toluene, Ethylbenzene, Xylene

## Reporting

15. The consent holder shall prepare and submit a quarterly report providing information and comparisons to show compliance with conditions 4 – 14 of this consent and conditions 5 and 6 of consent WGN100226 [30407].

The report shall also provide:

- Line graphs for each monitored groundwater parameter, showing current and historical data from each groundwater well and the relevant limit from this consent, and
- Line graphs for each surface water parameter, showing current and historical data from each surface water sampling point

The report shall be submitted within **four weeks** of the receipt of the analyses, and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

16. The consent holder shall place and maintain an appropriate sign near the Coast Road culvert outlet of the tributary below the landfill, to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. The sign shall:

- Provide clear identification of the location and nature of the discharge and advise that the stream is not suitable for contact recreation; and
- Be visible to the public visiting the area without unnecessary detracting from the visual amenity of the area.

## Review conditions

17. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so, pursuant to Section 128 of the Resource Management Act 1991 within six months of the second, fourth, sixth, eighth, tenth, fifteenth and twentieth anniversaries of the commencement of this consent for any of the following purposes:

- To deal with any adverse effects on the environment which may arise from the exercise of this permit and which it is appropriate to deal with at a later stage
- To review the adequacy of any plan prepared for this consent and/or the monitoring requirements so as to incorporate into the consent any modification to any plan or monitoring which may be necessary to deal with any adverse effects on the environment arising from the management or operation of the landfill
- To impose limits on the discharge of contaminants in light of the results obtained from the monitoring, or
- To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations

Note: Following review, conditions or restrictions on the use of the site may be set by the Wellington Regional Council if deemed necessary.

18. Wellington Regional Council shall be entitled to recover from the consent holder the costs of the conduct of any review, calculated in accordance with and limited to the council's scale of charges in force and application at the time, pursuant to Section 36 of the Resource Management Act 1991.

**WGN100226 [30410]: Discharge permit to discharge landfill gas, dust and odour and other contaminants to air arising from the Wainuiomata Landfill.**

**General Conditions**

1. The location and nature of the discharge shall be in general accordance with the consent application and its associated plans and documents lodged with the Wellington Regional Council on 8 March 2010.

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

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

2. The consent holder shall provide a copy of this consent and any documents referred to in this consent to each operator or contractor undertaking works authorised by this consent before that operator or contractor starts any works.

Note: It is recommended that the contractor(s) undertaking the works be verbally briefed on the conditions of this and all other associated consents prior to the works being undertaken.

**Administrative Conditions**

3. The consent holder shall ensure that a copy of this consent and all other consents granted under the Wellington Regional Council resource consent suites WGN950052 and WGN100226 are kept within the site office, and presented to any Wellington Regional Council officer on request.
4. The consent holder shall prepare and submit an updated Landfill Management Plan (LMP) within three months of the commencement of this consent that meets the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. The plan shall include, but not be limited to:
  - A description of the maintenance and development of the landfill
  - A description of the monitoring programme and record keeping relating to the consents
  - The procedures to be followed in the event of emergencies
  - The methods of controlling dust and odour, with particular regard to dust and odour emissions during deposition of materials to the landfill face
  - Methods to ensure that wind blown litter will be controlled and kept on site as much as practicable
  - Methods of identifying odorous material and a separate protocol for defining what material and thickness is used to cover it appropriately as soon as practicable

The consent shall be exercised in accordance with the LMP. Any changes to the LMP shall first be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: It is envisaged that the LMP cover all aspects of the consent suite WGN100226 which authorises various discharges arising from Wainuiomata Landfill. A separate LMP for each consent is not required.

5. There shall be no discharges to air that are, in the opinion of an enforcement officer of the Wellington Regional Council, noxious, dangerous, offensive or objectionable at or beyond the legal boundaries defined by the Hutt City Council District Plan 'HCC 6 Sanitary Landfill (Wainuiomata)'.

Note: This designation is appended as Schedule 2 to this resource consent.

6. The consent holder shall keep a record of complaints received alleging adverse effects from the consent holder's operations. The complaints record shall contain the following where practicable:

- The name and address of the complainant, if supplied
- Identification of the nature of the complaint
- Date and time of the complaint
- Weather conditions relating to the time of the complaint
- Results of the consent holder's investigations, and
- Any mitigation measures adopted

The complaints record shall be made available to the Wellington Regional Council on request. The consent holder shall ensure that each complaint it receives is responded to.

7. The consent holder shall ensure that any identified odorous material is covered or buried with a layer of inert material (such as daily cover) as soon as practicable after the tipping of that odorous material.

8. The consent holder shall measure and record on-site weather conditions with an anemometer at least once every 30 minutes. The parameters to be measured shall include:

- Wind velocity and direction
- Barometric pressure
- Rainfall
- Temperature

The anemometer shall be capable of detecting minimum wind speeds of  $> 0.2\text{ms}^{-1}$ , with a start-up minimum wind speed of  $0.2\text{ms}^{-1}$  or less.

### **Community Liaison**

9. The consent holder shall provide a report to the Wainuiomata Community Board at each of their meetings (held six weekly). The report shall include:

- Details of all odour, dust and wind-blown litter complaints and how these complaints were addressed, and
- Details of any other public concerns/complaints.

### **Complaints phone number**

10. The consent holder shall produce a small information card and provide it to all residents located on Coast Road within 1.2 kilometres north and 5 kilometres south of the entry to the landfill. The card shall clearly show:
- The phone number at Greater Wellington Regional Council for members of the public to call for all **odour and dust** complaints, and
  - The phone number at Hutt City Council for members of the public to call for any **other** complaints related to the Wainuiomata Landfill.

The card shall be of a convenient size so that it can be placed in a prominent place such as on a fridge or notice board.

### **Review conditions**

11. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so, pursuant to Section 128 of the Resource Management Act 1991 within six months of the second, fourth, sixth, eighth, tenth, fifteenth and twentieth anniversaries of the commencement of this consent for any of the following purposes:
- To deal with any adverse effects on the environment which may arise from the exercise of this permit and which it is appropriate to deal with at a later stage
  - To review the adequacy of any plan prepared for this consent and/or the monitoring requirements so as to incorporate into the consent any modification to any plan or monitoring which may be necessary to deal with any adverse effects on the environment arising from the management or operation of the landfill
  - To impose limits on the discharge of contaminants in light of the results obtained from the monitoring, or
  - To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations

Note: Following review, conditions or restrictions on the use of the site may be set by the Wellington Regional Council if deemed necessary.

12. Wellington Regional Council shall be entitled to recover from the consent holder the costs of the conduct of any review, calculated in accordance with and limited to the council's scale of charges in force and application at the time, pursuant to Section 36 of the Resource Management Act 1991.

**WGN100226 [30411]: Land use consent to disturb earth on erosion prone land for landfilling activities such as daily cover, final cover, drainage works and roading.**

**General Conditions**

1. The location and nature of the discharge shall be in general accordance with the consent application and its associated plans and documents lodged with the Wellington Regional Council on 8 March 2010.

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

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

2. The consent holder shall provide a copy of this consent and any documents referred to in this consent to each operator or contractor undertaking works authorised by this consent before that operator or contractor starts any works.

Note: It is recommended that the contractor(s) undertaking the works be verbally briefed on the conditions of this and all other associated consents prior to the works being undertaken.

**Administrative Conditions**

3. The consent holder shall ensure that a copy of this consent and all other consents granted under the Wellington Regional Council resource consent suites WGN950052 and WGN100226 are kept within the site office, and presented to any Wellington Regional Council officer on request.
4. The consent holder shall prepare and submit an updated Landfill Management Plan (LMP) within three months of the commencement of this consent that meets the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. The plan shall include, but not be limited to:
  - A description of the maintenance and development of the landfill
  - A description of the monitoring programme and record keeping relating to the consents
  - The procedures to be followed in the event of emergencies
  - The methods of controlling dust and odour, with particular regard to dust and odour emissions during deposition of materials to the landfill face
  - Methods to ensure that wind blown litter will be controlled and kept on site as much as practicable
  - Methods of identifying odorous material and a separate protocol for defining what material and thickness is used to cover it appropriately as soon as practicable

The consent shall be exercised in accordance with the LMP. Any changes to the LMP shall first be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: It is envisaged that the LMP cover all aspects of the consent suite WGN100226 which authorises various discharges arising from Wainuiomata Landfill. A separate LMP for each consent is not required.

### **Operations Conditions**

5. The earthworks shall be constructed and undertaken in accordance with the principles contained in Wellington Regional Council's "Erosion and Sediment Control Guidelines for the Wellington Region" September 2002.
6. If koiwi, taonga or other artefact material is discovered in any area during the works, the consent holder shall ensure that the following parties be notified:
  - Te Runanganui o Taranaki Whanui ki te Upoko o te Ika a Maui
  - Wellington Tenth Trust
  - Historic Places Trust

Activities in that area shall be stopped immediately to allow a site inspection by these groups and their advisors. The consent holder shall then consult with the above parties on appropriate steps to recover the artefacts in order that work can resume.

7. The consent holder shall take all practicable steps to ensure that the works do not result in vegetation, soil, slash or other debris entering any surface water body.
8. The works shall remain the responsibility of the consent holder and shall be maintained to minimise effects on slope stability, erosion and sedimentation to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
9. The consent holder shall take all practicable steps to ensure the stability of cut and fill batters, and shall implement sound engineering solutions where poor ground conditions are exposed in cut batters.

### **Review conditions**

10. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so, pursuant to Section 128 of the Resource Management Act 1991 within six months of the second, fourth, sixth, eighth, tenth, fifteenth and twentieth anniversaries of the commencement of this consent for any of the following purposes:
  - To deal with any adverse effects on the environment which may arise from the exercise of this permit and which it is appropriate to deal with at a later stage

- To review the adequacy of any plan prepared for this consent and/or the monitoring requirements so as to incorporate into the consent any modification to any plan or monitoring which may be necessary to deal with any adverse effects on the environment arising from the management or operation of the landfill
- To impose limits on the discharge of contaminants in light of the results obtained from the monitoring, or
- To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations

Note: Following review, conditions or restrictions on the use of the site may be set by the Wellington Regional Council if deemed necessary.

11. Wellington Regional Council shall be entitled to recover from the consent holder the costs of the conduct of any review, calculated in accordance with and limited to the council's scale of charges in force and application at the time, pursuant to Section 36 of the Resource Management Act 1991.