IN THE MATTER of the Resource Management Act

1991

AND

IN THE MATTER of a review of resource consent

conditions under 128 of the Resource Management Act 1991 and an application for change of

and an application for change of consent conditions under section

127 of the Resource Management Act 1991

BY HOROWHENUA DISTRICT

COUNCIL

Consent Holder

CLOSING LEGAL SUBMISSIONS FOR THE CONSENT HOLDER

7 October 2016

BUDDLEFINDLAY

Barristers and Solicitors Wellington

INTRODUCTION

- Horowhenua District Council's ("HDC") position on the consent review and application for change of conditions relating to the Levin Landfill (the "Landfill") is set out in detail in its opening submissions, dated 19 September 2016. These closing submissions rely on rather than repeat those opening submissions.
- The Panel has now had the opportunity to hear and consider the submissions from the parties, expert and other evidence, and representations. HDC again acknowledges the contributions of those persons who have made submissions and representations to Panel.
- 3. As stated in opening submissions, most of the proposed conditions are agreed between Horizons and HDC. Those remaining in dispute are set in **Table 1** at the end of these submissions. While HDC recognises the community's strong desire for the Landfill to be closed, that is beyond the scope of this review.¹

Executive summary

- 4. The conditions proposed and accepted by HDC as attached to these closing submissions as **Appendix A**:
 - (a) are within the scope of the review, or have been accepted by HDC, such that the Panel has jurisdiction to impose them;
 - (b) go beyond the legal requirement that they only address more than minor unanticipated adverse effects of the Landfill by HDC accepting significant extra monitoring of the Hokio Stream (and response mechanisms) and a new leachate cut-off drain, in the absence of any measurable effect of Landfill leachate in the Hokio Stream;
 - in terms of odour, go beyond the scope of the review as HDC has accepted conditions to undertake mitigation measures that go beyond current Landfill best practice;

¹ As set out in paragraphs 3.6-3.8 of the opening submissions, many matters that have been raised by submitters during the course of this review are irrelevant, including those relating to the volumes of Kapiti waste being disposed of at the Landfill and the closure of the Landfill and shifting waste disposal to Bonny Glen. In relation to Bonny Glen the Panel heard evidence from Palmerston City Environmental Trust that it strongly opposes waste being sent to Bonny Glen as there have been significant non-compliances with regards to waste entering local waterbodies.

- in terms of section 104 of the RMA appropriately reflect the existing environment and the relevant provisions of the relevant planning documents;
- in terms of section 131 of the RMA, while the cost of the proposed conditions agreed to by HDC are significant (approximately \$950,000) they enable the ongoing viability of the consents; and
- (f) promote sustainable management under Part 2 of the RMA.²
- 5. In respect of the key points raised during the hearing HDC's position is:
 - (a) while HDC recognises the passion of submitters to have the Landfill closed, this is not an opportunity for the granted resource consents to be rejected, or for conditions to be imposed that would frustrate the exercise of the granted consents;
 - (b) the RMA is not a no effects statute and consents were granted in the full knowledge that the Landfill would have adverse environmental effects:
 - (c) it was always anticipated, and consents were granted, on the basis that Landfill leachate would affect groundwater, the Tatana Drain and the Hokio Stream;
 - (d) the Tatana Drain was deliberately extended to capture Landfill leachate ponding on the Jones' property;
 - (e) the Tatana Drain is an artificial watercourse (and as such the provisions of the One Plan, and to the extent they apply the NPSFM, do not apply to the drain);
 - (f) irrespective of there being no measurable water quality effect on Hokio Stream (the receiving environment) despite over 20 years of monitoring, the last 5 years of which applied the "stringent" conditions imposed through the 2010 Review Decision approved by Mr Carlyon, HDC has agreed to:
 - extensive new additional monitoring and a requirement to investigate any significant effects caused by Landfill leachate and undertake remedial action; and

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² As set out in section 11 of the opening submissions.

- (ii) install a cut-off drain to reduce the flow of Landfill leachate to groundwater beyond the Landfill site, the Tatana Drain and the Hokio Stream (at a cost of approximately \$280,000 plus \$26,000 to operate);
- (g) the cultural effects raised during the hearing:
 - (i) were raised, presumably with equal passion, especially as some of the submitters were the same, during the 1995 application, its hearing and the 1998 decision and consent was granted with specific reference to, and recognition of, those effects which cannot now be legally reassessed through a review process; and
 - (ii) irrespective of having the right to exercise its granted consents, HDC has developed and agreed to significant extra water quality monitoring (and response mechanisms), and the leachate cut-off drain, which respond to, and address, cultural issues; and
- (h) in relation to odour, despite no objectionable odour being identified by Mr Standen, Dr Boddy or Mr Carlyon on any of their visits to the site and the Granges' property, HDC has proactively investigated and commenced implementing recommended mitigation measures and has agreed to additional odour conditions that go beyond the scope of this review as they go "further than best practice" at a cost to date of \$120,000 for investigations and \$170,000 for installation (excluding the flare at an approximate cost of \$500,000).

Structure of these submissions

- 6. In addition to providing the overall concluding submissions on behalf of HDC, these submissions are confined to providing a summary of the scope and legal framework for assessing this review / application and addressing the issues that remain outstanding at the conclusion of the hearing. These issues are:
 - (a) Landfill leachate in respect of:
 - (i) groundwater;
 - (ii) Hokio Stream; and
 - (iii) the Tatana Drain;

- (b) cultural issues;
- (c) odour;
- (d) the Neighbourhood Liaison Group;
- (e) stormwater; and
- (f) review conditions.

Scope

- 7. This review under section 128(1)(a)(iii) of the RMA, and application under section 127(1) of the RMA, to change or cancel conditions of consent associated with the Landfill is limited in scope to the matters and conditions specified in the Notice of Review, HDC's response to that review and HDC's application for a change of conditions.³ Only the matters and conditions stipulated in those documents may be considered by the Panel.
- 8. The two key issues within the scope of this review / application are:
 - the effects of leachate (from the old closed landfill) on the environment, especially on the Tatana Drain and the Hokio Stream;
 and
 - (b) the current best practice to avoid noxious, dangerous, offensive and objectionable odours beyond the boundary of the Landfill.
- The review solely focuses on the <u>adequacy</u> of monitoring conditions, the <u>effectiveness</u> of the other stipulated conditions, and for new conditions the <u>necessity</u> to avoid, remedy or mitigate adverse effects on the environment surrounding the Landfill.
- 10. This is not an application for a new resource consent through which all the effects of the Landfill are to be considered. It is only more than minor unanticipated adverse effects of this lawfully established activity that are to be considered along with the positive effects of the Landfill (agreed by Mr Bashford in his oral evidence).

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³Unless conditions are accepted by HDC.

Legal Framework

11. The legal steps for the Panel when deciding whether to change a condition, or add a new condition under a section 128 review⁴ have been set out at paragraphs 5.2 and 5.3 of the HDC's opening legal submissions. In essence there are six key questions that must be answered in the affirmative for the Panel to make a change unless agreed by HDC.

12. Importantly:

- (a) it is only more than minor adverse effects that were not anticipated at the time the earlier decisions were made that the Panel can seek to avoid, remedy or mitigate through the imposition of conditions as part of this process; and
- (b) the Panel cannot impose a condition that would invalidate or frustrate the exercise of the consents.
- 13. The onus is on Horizons (and any other party) to establish the evidential basis, within the statutory framework above, to justify the changes (or new conditions) sought from the review.
- 14. The legal framework for the Panel to apply when considering HDC's section127 application to change the conditions of consent is set out in paragraph5.6 of HDC's opening legal submissions.

LEACHATE

- 15. The history of this matter, in particular the 1995 application and its AEE and the 1998 decision, are critical in determining whether there has been a more than minor unanticipated adverse effect of Landfill leachate on the receiving environment.
- 16. The potential for contamination of groundwater and the nearby Hokio Stream by Landfill leachate, and the impact of this contamination on the relationship of Māori and their culture and traditions, was the focus of the 1995 consent application, 1998 decision and the 2010 review decision.
- 17. Although the construction of the Tatana Drain was unclear at the beginning of the hearing, it has become clear during the course of the hearing that the use of the Tatana Drain to capture Landfill leachate was an anticipated effect.

 $^{^{4}}$ To this extent the s128 process applies to HDCs proposed new conditions under section 129(1)(d).

18. While the sections below address leachate effects on groundwater, the Tatana Drain and Hokio Stream individually, they are interrelated, so it is important to have regard to all three when considering potential Landfill leachate effects anticipated at the time of the 1998 decision. For example, the fact that it was predicted that Landfill leachate was entering the Hokio stream in 1995,⁵ albeit that it was having no discernible effect⁶, illustrates that it was known that leachate was in the groundwater beyond the Landfill site at that time.

Groundwater

1995 application

- 19. The 1995 application identified the shallow groundwater, deep groundwater and Hokio Stream as the receiving environment.⁷ The application stated that the potential effect of leachate from the Landfill must be carefully considered.⁸
- 20. Royds Consulting Ltd was commissioned by HDC to investigate the impact of leachate from the Landfill on the surrounding area's surface waters and groundwater resources. The investigation involved construction of monitoring bores and water table piezometers, and sampling of Hokio Stream in the vicinity of the Landfill site. This investigation considered the nature and origin of leachate, the groundwater system and any impact from the leachate, the sensitivity of surface waters and any impact from leachate and the implications of the study's findings for future landfilling. This investigation culminated in the issuing of a report⁹ appended and referred to in the 1995 application. This report found that there was "some minor impact from leachate" in the groundwater¹⁰ and concluded that "Leachate from the Landfill is entering shallow groundwater...."¹¹

21. The report concluded:¹²

"Modelling of leachate advection in groundwater gives a guide to the amount of dilution of a leachate plume likely to occur downstream of

⁵ Royds Consulting Limited "Assessment of Hydrogeology and Impact of Leachate at Levin Landfill, June 1994, sections 3.7, 4.2.3 and 6 and the Royd's Consulting section 92 response letter to Horizons dated 23 June 1995 and the attached "Results of Summer 1995 Sampling Levin Landfill".

³ At paragraph 111.

⁷ At section 5.3.

⁸ Page 20.

⁹ Royds Consulting Ltd report entitled 'Assessment of Hydrogeology and Impact of Leachate at Levin Landfill', dated June 1994.

¹⁰ Page 12.

¹¹ Page 24.

¹² Appendix 6 of Royds Consulting Ltd report entitled 'Assessment of Hydrogeology and Impact of Leachate at Levin Landfill', dated June 1994.

the site. The model used does not take account of multi-species reactions which occur in groundwater and reduce concentrations or retard migration rates. The model therefore provides a conservative worst case to make an initial assessment of potential for leachate pollution. According to this assessment the potential for impact on groundwater resources is low. Given the monitoring results for the first round of sampling it is very unlikely there will be any significant adverse effect from leachate." (our emphasis)

The 1995 application referenced the Royds Consulting Ltd study¹³ of the 22. impact of leachate from the Landfill on surface water and groundwater and stated:

> "The results from monitoring the shallow groundwater show that there is some minor contamination in the immediate vicinity of the landfill... This suggests that despite the naturally high levels the landfill is contributing to the elevated levels of these parameters observed in the bores. Nevertheless the water quality in the shallow groundwater near the landfill is still acceptable for stockwatering which is the appropriate use for water of this natural quality. (Our emphasis)

Ongoing monitoring will allow action to be taken if leachate contamination of the slow moving groundwater were to occur to any significant extent."14

1998 decision

- 23. In the 1998 decision the Committee considered that the most significant adverse effects of the Landfill included potential groundwater contamination from the old unlined landfill. 15
- 24. In making the 1998 decision the Committee not only had the 1995 application (discussed above) before it, but also the following evidence and submissions:
 - the environmental scientist for HDC provided evidence that the old (a) landfill was having some impact on shallow groundwater in close proximity to the Landfill. This was considered insignificant in the context of the poor natural water quality and limited potential for use

¹³ Royds Consulting Ltd report entitled 'Assessment of Hydrogeology and Impact of Leachate at Levin Landfill', dated June 1994.

Page 21.

¹⁵ 1998 decision paragraph 106.

of the groundwater. The witness concluded that the effects of the new landfill on groundwater would be no more significant than the old landfill and that the ANZECC stock watering standards were appropriate.¹⁶

- (b) the water quality expert for Horizons provided evidence that shallow groundwater was contaminated by the old landfill and was satisfied the monitoring plan proposed by HDC was adequate.¹⁷
- (c) the Wiriana Whanua Trust on behalf of Muaupoko Iwi were concerned that contaminated groundwater would discharge to the Hokio Stream.¹⁸
- (d) E and D Grange were concerned about groundwater contamination. 19
- (e) A Wilcox was concerned about the impact of leachate in the receiving environment and commented that the applications did not make provision to divert contaminated groundwater from the Hokio Stream.²⁰
- (f) Mr P Everton was specifically concerned with groundwater contamination.²¹
- 25. The 1998 decision recognised the presence of leachate in shallow groundwater close to the existing landfill and in granting consent reached the following conclusions:
 - (a) "The Committee heard expert evidence from the Applicant regarding actual and potential contamination of ground/surface water from landfill leachate." 22
 - (b) The groundwater contaminated by the existing landfill was naturally low in quality and had limited potential use.²³
 - (c) The Committee appreciated the concerns raised by submitters regarding potential for groundwater contamination, but from a

¹⁶ 1998 decision paragraphs 57, 58 and 59.

¹⁷ 1998 decision paragraph 94.

¹⁸ Paragraph 7.

¹⁹ Paragraph 8.

²⁰ Paragraph 11.

²¹ Paragraph 13.

²² 1998 decision paragraph 107.

²³ 1998 decision paragraph 107.

technical perspective, no evidence was submitted to contradict the expert's findings.²⁴

2010 review decision

- 26. The potential effects of Landfill leachate on groundwater quality was again a key issue during the 2010 consent review.
- 27. The 2010 review decision considered a number of technical reports that had been produced between 2005-2010, in particular the report by Golder Associates dated 5 May 2010 ("Golder Report").
- 28. In respect of Discharge Permit 6010 (discharge of leachate) the Golder Report recognised the potential for leachate contamination in the surrounding environment as follows:

"Without taking into account the available groundwater monitoring data, it would appear that the risk of affecting the receiving environment would be high. Given, however, the available monitoring records that cover a period of at least 8 years, the actual effects form the existing landfill to date appear to be negligible. There is no clear reason to expect that this situation would deteriorate substantially in the future." (our emphasis)

29. The 2010 review decision did not find any evidence of adverse effects on groundwater and (surface water) arising from the Landfill operation. The 2010 review decision provided as follows:²⁶

"The review of conditions has set out to specifically address the potential adverse effects associated with contaminants entering the land, underlying groundwater aquifers, and surface water. To date there is no evidence of adverse effects arising from the landfill operation, and as such the changes to conditions are centred on a monitoring programme with early detection imperatives to ensure that in the event of contamination levels reaching certain thresholds appropriate steps can be taken to prevent significant adverse effects on surface water and groundwater quality." (our emphasis)

²⁴ 1998 decision paragraph 108.

²⁵ Golder Associates 'Levin landfill - Review of Resource Consent Conditions' Dated 5 May 2010.

Submissions on groundwater

- 30. It is clear that offsite groundwater effects were anticipated in the 1995 application and 1998 decision.
- 31. Mr Carlyon argued that the discharge to groundwater was not a consented activity. Based on the 1995 application and 1998 decision, that is clearly incorrect. Mr Bashford agreed in his oral and supplementary evidence that Discharge Permit 6010 authorises the discharge of leachate to ground, and that it was known at the time the consent was granted that leachate was entering groundwater. Mr Bashford considers that "the discharge of leachate to land where it can enter groundwater is authorised by that permit".²⁷
- 32. The effects of leachate entering groundwater were not considered to be significant in the context of the low natural water quality and its limited use for stockwater only.
- 33. The effects on groundwater have not changed (and definitely not to a more than minor degree) since that time.

Hokio Stream

34. The potential for contamination of the nearby Hokio Stream by leachate from the Landfill, and the impact of that contamination on the relationship of Māori and their culture and traditions, was the focus of the 1995 consent application, 1998 decision and the 2010 review decision.

1995 application

35. The Royds Consulting Ltd study²⁸ appended and referred to in the 1995 application found that there was potential for leachate to reach the stream via groundwater stating:²⁹

"At a distance of 300, downstream of the landfill edge the leachate plume will discharge into the Hokio stream...Essentially the data indicates no significant impacts from groundwater carrying leachate to the stream."

³⁰ Page 13.

²⁷ Paragraph 9 of his supplementary evidence.

²⁸ Royds Consulting Ltd report entitled 'Assessment of Hydrogeology and Impact of Leachate at Levin Landfill', dated June 1994.

²⁹ Page 18.

36. The report concluded that:31

"Leachate from the landfill is entering shallow groundwater which is flowing towards the Hokio Stream...This water is rising towards the Hokio Stream...Monitoring has shown no adverse effects and computer modelling has shown that any concentration of contaminants would be reduced significantly as a leachate plume moves away from the site...It is therefore considered that the landfill is having no undue adverse environmental effect on ground and surface water." (our emphasis)

37. The report also stated that:

"There is no direct discharge of leachate to the Hokio Stream and it can reach the Stream only via the groundwater. <u>Leachate is predicted to be dilute when it reaches the Hokio Stream (less than 0.1% of the stream flow)</u>. Flow gauging of the Stream supports the concept of groundwater flow into the Stream. Risk assessment calculations show that water quality in Hokio Stream will not be adversely affected by addition of a small volume of groundwater with contaminants at the concentrations measured in the monitoring bores.³² (our emphasis)

38. Further the 1995 application stated:

"the results of the monitoring indicate no significant impact on the environment from leachate discharge. Accordingly no mitigation measures are proposed in respect of the existing landfills on the site. The rate of groundwater flow toward the stream is slow (about 7.5m per year). This would give plenty of time between detection of a potential problem and any impact on the stream, allowing time to put contingency options in place". 33

39. The 1995 application set out contingency measures to intercept groundwater near the Landfill and thereby mitigate or avoid any impact on downstream groundwater or Hokio Stream if the monitoring detected any significant adverse effect.³⁴

³¹ Page 24.

³² Application for Resource Consents section 5.5 page 21.

³³ Page 22.

³⁴ Page 23.

1998 decision

- 40. In the 1998 decision the Committee considered that another one of the most significant adverse effects of the Landfill related to potential surface water contamination from the old unlined landfill in the Hokio Stream.³⁵
- 41. In addition to the evidence regarding the effects of leachate on groundwater and the upflow to the Hokio Stream, the Committee had the following evidence and submissions before it:
 - (a) the environmental scientist for HDC provided evidence that leachate indicators were not detected in the Hokio Stream;³⁶
 - (b) the Horowhenua Lake Domain Board was concerned about the potential adverse effects of the Landfill on the water quality of the Hokio Steam, and in particular the potential for leachate to enter water;³⁷
 - (c) the Wiriana Whanau Trust on behalf of Muaupoko Iwi were concerned that contaminated groundwater will discharge to Hokio Stream;³⁸
 - (d) R Jacob, M Jacob, I Morgan, the Benton Family and Ngatokowaru Marae submitted that they were concerned that the water and food chain were being endangered;³⁹
 - (e) Mr Wilcox submitted that he was concerned about the potential for leachate to contaminate toheroa and surf clam beds in Hokio Stream and the potential for leachate contamination at Hokio Beach. He commented that the applications did not make provision to divert contaminated groundwater from the Hokio Stream;⁴⁰ and
 - (f) Runanga Ki Muaupoko and Te Wa Rena Kerehe Trust were concerned about the effect of leachate on the Hokio Stream.⁴¹

³⁵ 1998 decision paragraph 106.

³⁶ 1998 decision paragraphs 57-59.

³⁷ Paragraph 6.

³⁸ Paragraph 7.

³⁹ Paragraph 10.

⁴⁰ Paragraph 11.

⁴¹ Paragraphs 19 and 20.

- 42. In addition to the conclusions regarding the Hokio Stream mentioned in the above section, the Committee:
 - recognised the potential for the upflow of some of the leachate influenced shallow groundwater towards (and into) the Hokio Stream;⁴² and
 - (b) stated that the monitoring results indicated that although leachate was predicted to be entering the Hokio Stream via groundwater it was not detectable.⁴³

2010 review decision

43. The effects of leachate contaminated groundwater on the Hokio Stream was again considered in the 2010 review decision. In addition to the evidence and conclusions regarding Hokio Stream set out above at paragraphs 26-29, the 2010 review decision concluded as follows:⁴⁴

"the review and associated changes to conditions will ensure that the Hokio Stream is managed in a manner which sustains its life-supporting capacity and recognises and provides for the values set out in Schedule D.⁴⁵ (our emphasis)

Submissions on Hokio Stream.

- 44. It was always anticipated that Hokio Stream would receive leachate. It always has been (and still is) the case that over 20 years of monitoring, including the "stringent" extra monitoring conditions imposed through the 2010 review, has shown no measurable effect of Landfill leachate on Hokio Stream. 46
- 45. Despite the evidence of Landfill leachate entering groundwater in the immediate vicinity of the Landfill and of some upflow of this groundwater towards (and into) the Hokio Stream, the earlier decisions concluded that with the imposition of conditions requiring monitoring, the life supporting capacity of the Hokio Stream and groundwater would be protected. That is still the case. However, as set out below, in response to comments from

43 1998 decision paragraphs 107, 108.

⁴² Paragraph 107.

⁴⁴ Review of Resource Consent Decision dated May 2010 - section 2.2.3 page 16.

⁴⁵ The values are now listed in Schedule B to the One Plan and contain the values associated with the Hokio Stream. When considering values it is important to refer to Table 5-2 of the One Plan which sets out the management outcomes for each value.

⁴⁶ Evidence of Dr Ausseil paragraph 11 and Evidence of Mr Brown at paragraph 41.

the Panel, HDC proposes a condition (discussed below) requiring a cut-off drain on the Landfill site to "sufficiently" mitigate Landfill leachate issues.

Conditions 3 and 11 of Discharge Permit 6010

- 46. Applying the legal framework, for this review / application, conditions relating to the effects of Landfill leachate on surface water and groundwater are within the scope of the review.
- 47. However, in the absence of evidence of a more than minor effect of Landfill leachate on groundwater and / or the Hokio Stream that was not anticipated by the earlier decisions, the Panel cannot impose conditions to reduce the amount of leachate being discharged to groundwater and into the Hokio Stream, as they are consented activities.
- 48. Irrespective of this legal position, in response to this issue HDC has agreed to substantial amendments to conditions 3 and 11 of Discharge Permit 6010 as set out in the joint witnessing statement of the water quality experts produced following the hearing (attached as **Appendix C**). These amendments are discussed in the conditions table attached to these closing submissions as **Appendix A**.⁴⁷ In general these amendments will:
 - (a) require monitoring data to be gathered on a monthly basis for 24 months;
 - (b) require HDC to use a statistical approach certified by Horizons to determine whether there has been a significant increase in concentrations in the groundwater and Hokio Stream and submit a report to the Regional Council with the findings;
 - in the event that the statistical analysis shows a significant increase in concentrations between upstream and downstream results in the Hokio Stream, an investigation into the risk of effects shall be undertaken by HDC;
 - (d) HDC will report to Horizons on the significance of the results and, where the change can be attributed to Landfill leachate, determine what measures are required to remedy this significant increase;

⁴⁷ During the hearing the commissioners asked about HDC's rights to access land necessary to obtain the samples. HDC has obtained the agreement of the Tatana's to enter their land to undertake sampling of the Tatana Drain and the proposed sampling sites along the Hokio Stream are all on adjacent to land vested in the Council as a reserve.

- (e) HDC must develop (and submit to Horizons for certification) a mitigation or remediation plan to remediate any effects attributable to the Landfill, and avoid future significant effects; and
- (f) HDC must implement the actions specified in the remediation plan in accordance with the timetable agreed with Horizons.
- 49. HDC's evidence set out the need to establish a new monitoring site (HS1A) upstream of the existing HS1 site. Following expert water quality conferencing the experts through Mr Bashford provided counsel with the figure attached in **Appendix B** to these closing submissions which identifies the relevant surface and groundwater monitoring sites. New HS1A monitoring site is located at the eastern end of Lot 4 DP 40743. As this lot is held by HDC as a reserve HDC can access Hokio Stream at this location.
- 50. The new monitoring and response conditions (conditions 3 and 11 of Discharge Permit 6010) require remediation if a significant adverse effect of Landfill leachate is detected in the Hokio Stream. Installing the leachate cut-off drain as proposed in new condition 2A pre-empts the potential outcomes of the monitoring and response process as no measurable effect has been identified during the 20 years of monitoring. HDC considered waiting to see if a significant effect was identified through the monitoring process before installing the leachate cut-off drain. However, given the Panel's direction to consider a "sufficient" mitigation option, HDC decided to install this new drain within 12 months of the commencement of this review.
- 51. As made clear in the water quality expert joint witnessing statement produced after the hearing, if the Panel considers the Tatana Drain to be a river (which HDC disagrees with as set out in detail below), the Panel will need to redraft conditions 3 and 11 to appropriately reflect a monitoring regime for the Tatana Drain. Neither Horizons (despite its position on Tatana Drain) nor any submitter has provided an appropriately drafted condition for the Panel to adopt. In order to ensure natural justice, if the Panel was minded to apply such conditions it would have to provide the draft conditions to HDC (and other parties) to comment on.

Tatana Drain leachate

52. The history of the Tatana Drain was unclear at the beginning of the hearing on this matter. However, through the course of these proceedings,

evidence (particularly that produced by Mr Smith and Mr Everton) now makes clear that in response to Mr Ivan Jones' concerns about the ponding of Landfill leachate on his adjoining property during the 1997 hearing, the Tatana Drain was deliberately extended to capture leachate and prevent leachate from contaminating adjoining land.

Is the Tatana Drain an artificial waterbody?

- 53. Yes, the Tatana Drain is an artificial waterbody.
- 54. This was the evidence of Dr Ausseil. 48 The photo included in Dr Ausseil's evidence dated 1942 (set out in **Figure 1** below), clearly shows that at that time there was no waterway where the Tatana Drain is now located. 49 Rather, the existing drains shown, run north to connect to the Hokio Stream. This photo was taken prior to the dredging of the Hokio Stream in 1947.

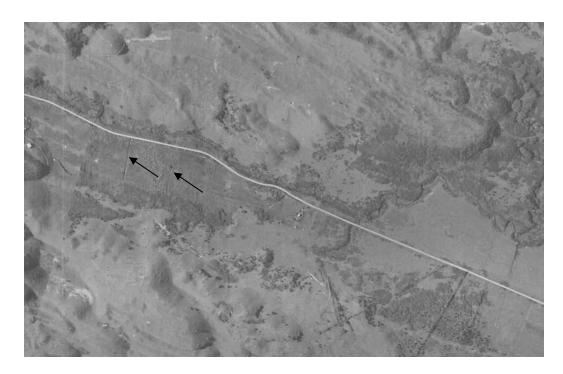


Figure 1: 1942 aerial photograph of the Landfill area. The black arrow point to the two drains described in Dr Ausseil's evidence.

55. The supplementary oral evidence of Mr Smith was that the western end of the Tatana Drain was constructed by the Catchment Board (with the eastern end extended to capture leachate). It therefore makes sense that it did not exist in the above 1942 photo.

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⁴⁸ Paragraph 47.

⁴⁹ Page 7.

56. The evidence⁵⁰ is that Mr Tatana has filled part of the drain and has also been maintaining the drain by digging and clearing it out. If, as Mr Logan Brown contends, the drain is a river, then pursuant to the One Plan provisions, the Tatana property landowner would require consent before disturbing the riverbed.⁵¹ Evidence has been provided that the Tatana property owner did not obtain resource consent before undertaking these activities.⁵²

Was the Tatana Drain designed to capture leachate?

- 57. The clear answer is yes.
- 58. During the 1997 hearing, Mr Ivan Jones (adjacent landowner) raised concerns about water from the Landfill ponding on his property, which he considered was due to the discharge of leachate from the Landfill.⁵³ In his supplementary ⁵⁴ and oral evidence, Mr Smith confirmed that Mr Jones had been concerned about ponding, including the ponding of Landfill leachate. This is consistent with the 1998 decision which makes clear that Mr Jones was specifically concerned with water ponding on his property "due to the discharge of leachate from the landfill."⁵⁵
- 59. In response to this concern HDC agreed to install a cut off drain on the Landfill site adjacent to the boundary with Mr Jones' property. Condition 3 was imposed to require the installation of the drain. Mr Smith in his supplementary evidence stated that Mr Jones wanted a guarantee that HDC would comply with condition 3 so condition 2 was imposed to ensure this. 57
- 60. However, despite the inclusion of condition 2, the oral evidence of Mr Smith was that the eastern end of the existing Tatana Drain was extended to capture this Landfill leachate. This is consistent with Mr Everton's evidence that the cut-off drain was never constructed in the area indicated on the map appended to the 1998 consent, but was rather constructed on the boundary of the Tatana property.

⁵⁰ Mr Smith's google photos and the oral evidence of Phillip Landmark provided at the hearing and the photos appended to his evidence, made clear that the drain is being maintained by the landowner. In February last year he looked at the drain. In the lower half of the drain a whole lot of material had been dredged out of the drain for the purposes of drainage. Deepening would improve the functioning of the drain.

⁵¹ Assuming the Tatana Drain is a river, any filling and/or excavation would require discretionary consent under Rule 17.23 of the One Plan (or alternatively restricted discretionary activity consent under Rule 17.22 as the general standards in Rule 17.3 cannot be achieved).

⁵² Oral evidence of Andrew Bashford 22 September 2016.

^{53 1998} decision paragraphs 12 and 76.

Supplementary evidence of Mike Smith paragraph 9.

⁵⁵ 1998 decision paragraph 76.

⁵⁶ 1998 decision paragraph 76.

⁵⁷ Paragraph 9.

- 61. Mr Everton's evidence was that Mr Jones (who was a contractor) negotiated with the HDC to install the drain. This would explain why HDC has no records of the construction of the Tatana Drain.
- 62. Condition 3 was not included in the 2002 consent order decision, presumably because, on the evidence of Mr Smith and Mr Everton, the Tatana Drain had already been extended to capture ponding leachate. The wording of condition 3 enabled the location of the cut-off drain to be determined in consultation with Horizons.
- 63. Finally, this factual position negates Mr Carlyon's argument that the discharge of leachate from the Tatana Drain into the Hokio Stream was not consented. Firstly, the discharge of any such leachate into the Tatana Drain is through groundwater only,⁵⁸ and more importantly it was always intended, and part of the consented activity, that leachate would day-light from groundwater into the Tatana Drain and from there enter the Hokio Stream. The question at that time, and still the correct question, is what effect, if any, does leachate (both from the drain (via groundwater) and groundwater direct) have on the Hokio Stream. No measurable water quality effect has ever been detected in over 20 years of monitoring at the Hokio Stream below the Tatana Drain discharge point.

Wetland - Tatana Property historically a wetland but not anymore

- 64. Based on **Figure 1** above, and as discussed in the evidence of Dr Ausseil, the Tatana property was historically a wetland.⁵⁹
- 65. However, as discussed in the supplementary evidence of Dr Ausseil dated 21 September, while the Tatana property is permanently or intermittently wet, it does not support any native vegetation of ecological value. Vegetation is heavily dominated by exotic grass species and does not constitute a natural ecosystem of wetland plants. 60 The land is a paddock that, like much land in the region, gets wet after rainfall, especially in winter.
- 66. The 1998 decision stated that "no significant wetlands exist immediately to the north and south of the proposed landfill".⁶¹

18

⁵⁸ The water quality expert conferencing Joint Statement, in response to Question 1(b) was that no surface water pathways between the Landfill and Tatana Drain were identified.

⁵⁹ Evidence of Dr Ausseil paragraphs, 43 46-47 and supplementary addendum produced at the Hearing dated 21 September 2016.

²¹ September 2016. Or Ausseil addendum produced at the Hearing dated 21 September 2016.

⁶¹ Paragraph 52.

- To be regarded as a wetland, the Tatana property would need to be both 67. wet and support vegetation of ecological value. Pursuant to the One Plan "paddocks subject to regular ponding, dominated by pasture or exotic species in association with wetland sedge and rush species" are specifically excluded from the wetland provisions.⁶²
- 68. Evidence provided during this review demonstrates that the Tatana property landowner has in the past, and is currently, filling the Tatana property. If the Tatana property was a wetland, then pursuant to the One Plan wetland provisions the Tatana property landowner would require consent (as a non-complying activity) before filling.⁶³ Evidence has been provided that the Tatana property landowner did not obtain resource consent before undertaking these activities.⁶⁴
- 69. This indicates that Horizons itself does not consider the property to be a wetland. Mr Bashford stated in his oral evidence that the property is zoned rural. He did not apply any One Plan wetland provisions in his assessment of whether consents were necessary to fill the Tatana property. As Mr Bashford stated in his oral evidence, no wetland is shown on Horizons system and the Tatana property is "not a rare or threatened habitat". HDC agrees with this position.

Wetland - Tatana Drain itself is not a wetland

70. Even if the Tatana property was considered to be a wetland under the One Plan, the artificial Tatana Drain cannot be a wetland. Under the One Plan provisions, drains located in wetland areas are specifically excluded from constituting a wetland. Pursuant to the One Plan "Ditches or drains supporting raupo, flax or other wetland species (eg., Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors" are specifically excluded from being regarded as a wetland.65

Tatana Drain of low value

71. The ecological value of the Tatana Drain is low. In his supplementary evidence Mr Logan Brown states that if the Tatana Drain existed as it currently does without the discharge of leachate into it, on a scale of

⁶² One Plan - Schedule F Table F.2(b)(iii)

⁶³ Assuming the Tatana property is still a wetland, then pursuant to Schedule F of the One Plan and rules 13.1, 13.2 and 13.9 land disturbance would be a non-complying activity.

64 Oral evidence of Mr Bashford.

⁶⁵ Paragraph 4 of Table F.2(b) of Schedule F of the One Plan.

- 1 (highly degraded) to 10 (pristine) the value of the drain would be a 3 (as opposed to a current 1).⁶⁶
- 72. As Dr Ausseil stated in his evidence⁶⁷ and reiterated in his oral evidence, the Tatana Drain has extremely limited habitat values. The Tatana Drain is "quite degraded due to the land use around it, stock access and damage to the banks." That is consistent with Mr Logan's 3/10 rating (and the Panel will have seen stock in the lower drain area by Hokio Beach Road during its site visit).
- 73. As per the oral evidence of Ms Kate McArthur, the Tatana Drain is not a habitat, nor a temporary refuge. The only aquatic life that would access the Tatana Drain would be those such as eels that get pushed up accidentally by moving over land. While this was disputed by Mr Brown, he did not provide any direct evidence to contradict Ms McArthur's evidence and had not undertaken any surveys. Dr Ausseil's evidence was that "aquatic life, potentially including fish, may inhabit the lower section of the drain". This lower section of the drain is particularly influenced by stock access (as the Panel will have seen).

Receiving environment

- 74. As it is an artificial waterbody the One Plan provisions relating to water quality (along with the NPSFM⁷⁰) do not apply to Tatana Drain. Dr Ausseil's evidence was that the ANZECC ecosystem guidelines should be applied to the Hokio Stream but their application to Tatana Drain was "questionable", especially as the trigger levels would be consistently breached. ⁷¹

 Ms McArthur agreed in her oral evidence that the ANZECC ecosystem guidelines should not be applied to the Tatana Drain. Despite his assessment that the value of the Tatana Drain would only be 3/10 without leachate entering it, and despite the evidence of Mr Smith that it was deliberately extended to capture leachate, Mr Brown considered the ANZECC ecosystem guidelines should be applied but gave no evidence as to the benefits that would achieve, presumably because there are none.
- 75. As an artificial waterbody deliberately extended to capture leachate, the Tatana Drain has never been regarded as the receiving environment. The

⁶⁶ Paragraph 21.

⁶⁷ Paragraph 48.

⁶⁸ Dr Ausseil oral evidence.

⁶⁹ Paragraph 61.

As Mr Basford stated in his oral evidence.

⁷¹ Paragraph 65.

point where the artificial Tatana Drain discharges to the Hokio Stream is the receiving environment. This explains why evidence and submitters in the early 1998 decision and 2010 review decision were concerned with the Hokio Stream only. It also explains why 20 years of monitoring has been undertaken on the Hokio Stream while no monitoring has been undertaken on the Tatana Drain. In her oral evidence Ms McArthur agreed that the Tatana Drain was not the receiving environment.

76. As the receiving environment, no more than minor unanticipated adverse effects on the Hokio Stream have been identified. Indeed, over 20 years of monitoring has not detected any measurable effects of Landfill leachate (from either groundwater or groundwater entering the Tatana Drain) on the Hokio Stream.

Conditions - 2, 2A and new condition for cut off drain

- 77. Applying the legal framework for this review / application, conditions relating to the effects of Landfill leachate on the Tatana Drain are within scope.
- 78. However, the evidence is clear that the Tatana Drain was intended to capture the leachate ponding on Mr Jones' property and condition 2 was inserted to provide a "guarantee" that a solution would be found. That solution was found and condition 3 was deleted. Condition 2 should have been deleted at the same time. On that basis condition 2 must now be removed as its presence was, and is, clearly unachievable, its current application unintended and it frustrates the exercise of the consents as granted.
- 79. Mr Bashford in his oral evidence provided that condition 2 should be retained to deal with things like "break outs". However, there is no evidence of such breakouts, or the risk of such breakouts occurring, to justify the imposition of a condition to address such an issue. Mr Bashford has not provided any proposed conditions for such a condition. Again, if the Panel was minded to draft its own condition then it must provide it to the HDC (and other parties) for comment.
- 80. In relation to proposed condition 2A, the use of the Tatana Drain to capture leachate was anticipated by the original consent and no measurable effect of Landfill leachate on the Hokio Stream (which is the receiving environment), has been detected despite over 20 years of monitoring. In

the absence of a more than minor unanticipated effect of Landfill leachate on the Hokio Stream, conditions cannot be imposed to reduce the amount of Landfill leachate being discharged to the Tatana Drain. In addition, there is currently no known method to cease all discharges of leachate, including to both groundwater and the Tatana Drain, as agreed by the water quality experts in their conferencing,⁷² and reiterated by Mr Bashford in his oral evidence.⁷³ For these reasons the Panel does not have the jurisdiction to impose Horizon's proposed condition 2A.

81. Irrespective of this legal position, HDC is mindful of the Panel's comment that it needs to "sufficiently" mitigate the Landfill leachate issue. In response to this issue HDC has worked with its experts to determine an appropriate solution. HDC proposes, as the consent holder, a new condition to replace condition 2A that will require HDC to construct a cut-off drain to reduce the flow of Landfill leachate to shallow groundwater beyond the site, and to the Tatana Drain (and Hokio Stream). The proposed condition is worded as follows:

"In order to reduce the flow of leachate influenced groundwater to the Tatana Drain and through neighbouring land to the north of the landfill, within 12 months of the commencement date of the decision of the 2015 review of conditions, the consent holder shall design, construct, operate and maintain a cut off drain (or another suitable method such as a series of shallow bores) on the northern boundary of the landfill site between the closed landfill and the boundary with Lot 1, DP 40743 that:

- a) is designed by a suitably qualified engineer;
- b) is to a maximum depth of 1.5m and a maximum length of 150m;
- c) contains a sump (or similar system) to collect the captured groundwater, including leachate; and
- d) connects the sump (or similar system) to an irrigation system enabling the captured groundwater, including leachate, to be irrigated onto the landfill site."

⁷² In response to Question 19.

⁷³ Mr Bashford in his oral evidence conceded that "condition 2A condition is not achievable. Even if there were to be another drain put on the site, it appears that there could still be some leachate that would get through to the drain and the stream.

- 82. While not avoiding Landfill leachate in the groundwater and day-lighting in the Tatana Drain (the evidence has made very clear that complete avoidance is not possible⁷⁴ and any such requirement would therefore be unlawful), this cut-off drain will provide a "sufficient" reduction in Landfill leachate in the groundwater reaching the Tatana Drain, and therefore Hokio Stream.⁷⁵ The Panel heard oral evidence from Mr Bashford that such a drain would be unlikely to require resource consents.⁷⁶ The 12 month period is necessary to ensure an appropriate design is established as explained in Mr Douglass' evidence.⁷⁷ As broadly set out in Mr Saidy's evidence, this proposed cut-off drain has an approximate establishment cost of \$280,000 and an annual operating cost of \$26,000.⁷⁸
- 83. HDC's position is that its proposed cut-off drain condition above should replace Horizon's proposed condition 2A. Mr Bashford supported this approach in his oral evidence.
- 84. HDC's section 127 application sought the removal of conditions 18-27 of Discharge Permit 6010. These conditions provide for the irrigation of Landfill leachate back on to the Landfill site. HDC withdraws this application because these conditions are required for the irrigation of Landfill leachate captured by the new cut-off drain.

Cultural

85. The potential for contamination of the nearby Hokio Stream by Landfill leachate and the impact of this contamination on the relationship of Māori and their culture and traditions was the focus of the 1995 consent application, 1998 decision and the 2010 review decision. The 1998 decision also considered the broader cultural effects of the Landfill.

1995 application

86. The 1995 application recognised cultural concerns as one of three key issues of the Landfill proposal.⁷⁹ The Royds Consulting Ltd study⁸⁰ appended and referred to in the 1995 application found that "Both"

⁷⁴ As agreed by the water quality experts during conferencing in answer to question 19.

⁷⁵ Oral evidence of Stephen Douglass.

⁷⁶ HDC's understanding is that this is the correct position as the evidence at the hearing is that no wetland would be affected as per Rules 13.1 and 16.11 of the One Plan.

Paragraph 70.paragraph 80(f).

⁷⁹ Section 4.1.

⁸⁰ Royds Consulting Ltd report entitled 'Assessment of Hydrogeology and Impact of Leachate at Levin Landfill', dated June 1994.

- historically and to the present day the stream figures significantly in Maori culture both as a water resource and a fishery".⁸¹
- 87. The 1995 application provided a summary of the submissions that had been received on the application lodged in September 1994 and later withdrawn. A number of submissions were received relating to cultural issues, including on the effects of leachate on the mauri of the Hokio Stream.⁸²
- 88. The 1995 consent application process involved consultation with iwi that HDC followed in support of its application. Hui were held at "Kawiu Marae" on 5 February 1995 and on 7 October 1995 with tangata whenua to discuss the Landfill proposal. The 1995 application also set out the notes taken from the Hui held on 5 February 1995. Approximately 70 representatives for the Muaupoko Iwi, Raukawa Iwi and members of the public attended. These notes make clear that the potential effects of the Landfill on Māori cultural values were raised during the application stating as follows:⁸³
 - (a) "Raukawa Runanga and Hapu say "no" to the continued use of the landfill";84
 - (b) "The Marae is totally opposed to the continued use and tabled a letter opposing the present site as a regional rubbish dump",⁸⁵
 - (c) "Leachate can travel anywhere. It may not be picked up in the monitoring bores";⁸⁶
 - (d) "Water must be clean enough for people to drink not just animals",87 and
 - (e) "Effect on food chain polluted water affects fish life, plant life etc".88
- 89. The 1995 application recognised that Hokio Stream is "of great significance to the tangata whenua." 89

⁸¹ Page 14.

⁸² Charles Rudd opposed among other matters, the effect on Hokio Stream mauri.

Annexe 1 of 1995 application.

⁸⁴ Paragraph 16.

⁸⁵ Paragraph 17.

⁸⁶ Paragraph 20.

⁸⁷ Paragraph 21.

⁸⁸ Paragraph 22.

⁸⁹ Application for Resource Consents section 7.2 page 33.

1998 decision

- 90. In the 1998 decision the Committee considered that one of the most significant adverse effects of the Landfill related to "the impact on Māori cultural values". 90
- 91. In making the 1998 decision the Committee not only had the 1995 application (discussed above) before it, but also heard substantial evidence and submissions on cultural issues.
- 92. A number of submitters were concerned about the potential impact of contamination from the Landfill on Lake Horowhenua, Hokio Stream and Hokio Beach having significant cultural effects. These submitters also raised cultural concerns that were broader than just those pertaining to the impact of Landfill leachate on the surrounding waterbodies.
- 93. The 1998 decision provided the following summary of the relevant submissions:⁹¹
 - (a) "The Wirihana Whanau Trust on behalf of Muaupoko Iwi opposes the applications for landfilling activity. Their submission explains that there is a lack of understanding and sensitivity for the values of Muaupoko Iwi and local community at Hokio Beach, and that the Hokio Stream is the Muaupoko iwi life line and must not be put at risk. The Wirihana Whanau Trust is concerned that contaminated groundwater will discharge to the Hokio Stream and that alternative landfill sites have not been investigated. They request that the applications be declined."
 - (b) "The Lake Horowhenua Trustees who oppose the granting of the applications of the Horowhenua District Council. Their opposition relates to the damage to archaeological sites caused by landfilling operations, pollution effect and long term environmental and cultural problems. The trustees have requested that the application be declined."
 - (c) "R Jacob, M A Jacob, I Morgan, Benton Family and Ngata
 Kowaru [Ngātokorwaru] Marae Committee who own property close
 to the Hokio Landfill. They explained that they consider the
 Manawatu-Wanganui Regional Council determined to ignore previous

⁹⁰ Original decision paragraph 106.

⁹¹ 1998 decision for example paragraphs 68-70 and 80-83.

objections they have made to landfilling operations of the Horowhenua District Council and that the Regional council shall have regard to Section 8 of the Resource Management Act 1991 and to Ngati Raukawa and Muaupoko who are the owners most affected by the landfill. They state that their environment is being polluted, their health and safety threatened, their water and food chain endangered and land de-valued."

- (d) "Charles Rudd who opposed the applications because of the effects of the landfilling operation on the road, cultural and historical perspectives, the environment, human health and Te Mauri. Mr Rudd requested that the applications be refused and an alternative site found for the operation."
- (e) "Runanga Ki Mua-Upoko opposes the discharge of liquid waste because of concerns about the effect of leachate on the Hokio Stream."
- (f) "Te Warena Kerehi Trust opposes the discharge of liquid waste because of concerns that the Hokio Stream, as a food source, is being contaminated."
- 94. Mrs Taueki who presented evidence in support of the submission by "Runanga Ki Mua-Upoko" highlighted the provisions of Part 2 of the RMA regarding Māori cultural matters.⁹²
- 95. Mr Broughton spoke on behalf of the Lake Horowhenua Trustees and referred to the strong opposition to the Landfill expressed at both hui in 1995. Mr Broughton submitted that as guardians of the Lake and Hokio Stream the Trustees were very concerned about the potential impact on these resources. Mr Broughton emphasised that there was a strong desire to get the mana and the mauri back for both Lake Horowhenua and Hokio Stream. He submitted that contamination from a source such as the Landfill undermines this objective.⁹³
- 96. Mr Kopa spoke in support of Mr Broughton and referred to the potential of the area for tourism (eco-tourism and the clam export potential of the coastal area.⁹⁴

93 Paragraphs 78 and 79.

⁹² Paragraph 74.

⁹⁴ Paragraph 81.

- 97. Mr Huria representing landowners and shareholders in land in the vicinity of the Landfill stated that the Landfill was abhorrent to iwi. Mr Huria was concerned with the potential rupturing of the liner for the new landfill resulting in further leaching to groundwater. Mr Huria stated that the Landfill posed an unacceptable threat.95
- 98. Mr Trevor Wilson and Mr Dyson spoke in support of the submission by the Wirihana Whanau Trust.
- Mr Charles Rudd made specific reference to Part 2 of the RMA and 99. references to the Māori cultural matters contained therein. Mr Rudd emphasised the valued food source of the waterways to Māori. He was not convinced that leachate contamination would not have significant adverse effects.96
- 100. The 1998 decision recognised the potential for Landfill leachate to adversely affect cultural values, and in granting consent reached the following conclusions:
 - (a) "The Committee were particular [sic] concerned with the cultural issues raised by submitters. The committee heard much evidence on iwi consultation from applicant, submitters and Council staff."97
 - (b) "The Committee acknowledges that the degraded water quality of Hokio Stream and Lake Horowhenua is of serious concern however the technical evidence confirms that the landfill is not adding to the reduction of water quality."98
 - "The concern relating to leachate contamination is largely covered in (c) the assessment of groundwater effects. The technical evidence provided by the Applicant has concluded that the landfill leachate is having little or no adverse effects on Hokio Stream."99
- 101. Having considered the relevant planning documents and Part 2 of the RMA, including specifically section 5 sections 6(a), 6(e), sections 7(a), 7(b), 7(c), 7(f) and section 8, the Committee concluded as follows:

"the technical design and management together with appropriate monitoring can adequately safeguard the life supporting capacity of

⁹⁵ Paragraphs 82,, 83, 84.

⁹⁶ Paragraphs 91 and 92.

Original decision paragraph 109.

⁹⁸ Original Decision paragraph 110.

^{99 1998} Decision paragraph 111.

air, water, soil and ecosystems and also ensure appropriate avoidance remedy and mitigation of adverse effects.

The cultural issues intertwined in section 5, 6, 7 and 8 of the Act were given serious consideration by the Committee.

The Committee appreciate the strong cultural objection to the proposal, however, there was no clear evidence submitted to the Hearing that would support refusal of the applications on cultural grounds. "¹⁰⁰

102. The 1998 decision in considering the consultation undertaken in preparing the application heard evidence that the maintenance of the physical, cultural and spiritual relationships the tangata whenua have with their resources is a matter of significant concern. The Committee noted that this had been:

"emphasised in the tangata whenua submissions and consultation outcomes. Generally speaking, the discharge of waste, either solid or liquid to areas of spiritual or cultural significance to Māori (waahi tapu, ancestral sites) is a practice that is seen as abhorrent to Māori. The potential for contaminants to enter groundwater, streams and lakes, which are also considered important taonga to tangata whenua, intensifies this feeling."

2010 review decision

- 103. Effects relating to the cultural values associated with the groundwater and surface water, in particular the Hokio Stream was a key issue considered during the 2010 review.
- 104. Members of the Ngātokowaru Marae Committee, Ngāti Rakau, Ngāti Te Au, Ngāti Turanga, and Muaupoko Co-operative Society each lodged submissions in support of the review. Mr Pataka Moore, Charles Rudd, and Ngāti Pareraukawa, who have participated in this review process, also submitted on the 2010 review decision raising cultural concerns.

 $^{^{\}rm 100}$ 1998 Decision paragraph 151, 152 and 153.

^{101 1998} Decision paragraph 141.

105. With respect to cultural effects, the 2010 review decision, approved by Mr Carlyon, found that:

> "The recommended changes to conditions have taken into consideration the relationship of nga hapu and nga iwi and their culture and traditions with their lands and water, largely through the establishment of a more robust monitoring programme with specific testing parameters for groundwater and surface water quality."102

106. The 2010 review decision noted that Ngāti Pareraukawa (which has participated in this 2015 review process) in particular had been actively involved in the review process. 103

Submissions on cultural issues

- 107. Many of those who have submitted on cultural issues during this 2015 review process also participated in the earlier decisions. Given the passion with which submissions relating to cultural issues have been presented during this 2015 review process, it is inconceivable that the parties did not raise these issues with equal fervour in the earlier decisions.
- 108. As Pataka Moore stated in his oral evidence, marae members have been intermittently involved in the various hearings concerning the Landfill. Pataka Moore stated that if they had been there they would have made their views known.
- 109. As David Moore stated in his oral evidence Tangata whenua objected on a number of grounds to the original grant of consent. David Moore's evidence was that Ranfurly Te Maharanui Jacob, a highly respected kaumatua, participated in the 1998 decision process¹⁰⁴ (as quoted above from the 1998 decision).
- 110. Whilst recognising the cultural concerns, the 1998 decision concluded that they did not warrant the refusal of consent. They therefore became an anticipated effect of the consented Landfill activity. There is no evidence of the Landfill activity now causing cultural effects above and beyond those anticipated by the earlier decisions.

29

¹⁰² Review of Resource Consent Decision dated May 2010 - section 2.2.1.

¹⁰³ 2010 decision section 2.2.1. Paragraph 7.

- 111. Also, this is not a process that can consider the location of the Landfill. That is a HDC matter and the Landfill site is designated in the District Plan.105
- 112. Therefore the Panel does not have jurisdiction to impose proposed new conditions 1 and 2 set out in the memorandum from Greg Carlyon dated 3 October 2016. On the same basis the Panel has no jurisdiction to impose the proposed additions to condition 3 of Discharge Permit 6010 as set out in Mr Carlyon's memorandum (these matters also go far beyond those associated with the Landfill consents). None of these matters were raised by Mr Carlyon in his approval of the 2010 Review Decision.
- 113. However, despite the legal position (whereby conditions cannot be imposed in the absence of a more than minor unanticipated effect) HDC has developed and agreed to the significant extra water quality monitoring, and the leachate cut-off drain. As quoted above, the 2010 Review Decision, approved by Mr Carlyon, accepted that the then "stringent" monitoring conditions provided "consideration the relationship of nga hapu and nga iwi and their culture and traditions with their lands and water". Not only have these "stringent" monitoring conditions been significantly enhanced (with actual response mechanisms now included too) but, despite 20 years of monitoring showing no measurable effect of Landfill leachate on water quality in the Hokio Stream, HDC has proposed a condition requiring the installation of a leachate cut-off drain on the Landfill site. This will help mitigate the consented cultural effects of Landfill leachate.

Odour

Earlier decisions - anticipated odour effects

- 114. In the 1995 application odour was identified as a potential effect beyond the boundary of the Landfill site that required resource consent but had been adequately avoided or mitigated. 106
- 115. At the 1997 hearing the air quality expert for Horizons provided evidence that any odours generated from the site would be minimal provided the procedures outlined in the management plan were followed. 107

30

¹⁰⁵ Late in the hearing Mr Rudd provided some early plans to the Panel, including a map referenced the 'Horowhenua' GL Atkins, 1948 Department of Internal Affairs. This map does not show any sites of significance on the Landfill site (although there are some on neighbouring properties).

¹⁰⁶ Application for Resource Consents section 4.2 page 12.¹⁰⁷ 1998 decision paragraph 120.

116. In the 1998 decision the Committee concluded that the potential effects of air discharges could be avoided, remedied or mitigated with appropriate design, operation and management.¹⁰⁸

HDC response to odour complaints - implementation of mitigation to date

- 117. From early 2014 Horizons began receiving regular complaints from the Granges stating that Landfill odour was being detected at their residence and property. In response HDC commissioned Dr Boddy to undertake an odour assessment to determine the potential for odour nuisance effects beyond the Landfill site boundary. Dr Boddy conducted this assessment in November 2014.
- 118. Following this assessment Dr Boddy issued a report in February 2015.¹⁰⁹ This report concluded that while there was potential for odour nuisance effects beyond the Landfill site, with the implementation of mitigation measures recommended in the report the potential for odour nuisance effects would be significantly reduced.¹¹⁰
- 119. From 13 February 2014 9 August 2016 the Granges recorded 158 dates where odour has been detected at their residence. Detection of an odour was always an anticipated effect. Condition 3, and this review, relates to objectionable, offensive, noxious and dangerous odour effects.
- 120. In response to the Granges' email notifications and on-going nature of the odour complaints, Horizons graded condition 3 of discharge permit 6011 as a significant non-comply in a compliance report dated 9 February 2015.
- 121. HDC engaged Dr Boddy to undertake additional monitoring and investigations to assess the ambient concentrations of hydrogen sulphide measured at the Granges between March-June 2015. The findings of this monitoring were contained in a report dated 10 July 2015. Unfortunately, as stated by the Granges in their oral evidence, during this time the Granges did not keep an odour diary or make any odour complains so it is not possible to check the Granges' detection of odour against the machine monitoring. This report again concluded that provided the mitigation measures recommended in the report dated February 2015 were implemented the potential for further odour nuisance effects arising in the

Report entitled "Levin Landfill Odour Assessment" February 2015.

¹⁰⁸ Original Decision paragraph 106.

Report entitled "Levin Landfill Odour Assessment" February 2015 section 5.4 and 5.5.

- surrounding community as a result of the Landfill would be significantly reduced.¹¹²
- 122. Dr Boddy undertook further investigations in August 2015 to assess ambient concentrations of hydrogen sulphide measured at the leachate pond culminating in a third report dated 14 October 2015. This report concluded that the potential for odour effects beyond the Landfill site remained. It was therefore recommended that the mitigation measures stated in the report dated February 2015 for the working face, leachate collection manhole and stage 2 capping (but not a flare) be implemented without delay.¹¹³
- 123. As discussed in the evidence of Mr Saidy, engaging Dr Boddy to undertake the investigations and provide the reports has cost \$120,000.
- 124. The Notice of Review was issued by Horizons on 30 October 2015.
- 125. The HDC did not wait for the review to commence before implementing the recommendations in Dr Boddy's report and has spent \$170,000 to date on the mitigation and management measures recommended by Dr Boddy and has undertaken the following:
 - (a) developing an Odour Management Plan as part of the Landfill Management Plan;
 - (b) controlling odour at the working face by initiating cover processes in line with recommendations;
 - (c) controlling of odour at the intermediate cover areas by commencing clay capping at a cost of \$70,000 to date;
 - (d) desludging the leachate pond at a cost of approximately \$40,000;
 - (e) installing a weather station for monitoring;
 - (f) constructing a biofilter at the leachate manhole cover, expected to be operational by November at a cost of approximately \$50,000;
 - (g) moving to implement a gas collection system and flare which, as explained in Mr Saidy's evidence, went to tender earlier this year but due to the significant unanticipated cost (approximately \$500,000) has taken longer to progress than initially planned.

¹¹² Letter from Doug Boddy to Horowhenua District Council dated 10 July 2015 section 4

Letter from Doug Boddy to Horowhenua District Council dated 14 October 2015 Section 4.

126. The Panel must have regard to whether the consents will be viable after the changes. These sums of money are significant for a small council such as HDC. The resources involved to complete these recommendations (in addition to the review process) are also significant. HDC must be prudent in ensuring that it implements cost efficient and environmentally effective options.¹¹⁴

Odour effects to date - anticipated or unanticipated

- 127. Not all experts are agreed that the odour beyond the Landfill site boundary is offensive. Dr Boddy in his supplementary evidence has clarified that while he considers there to be potential for nuisance odour effects beyond the boundary (this conclusion was reached through a conservative assessment whereby a modelling uncertainty factor of 10 was assumed (ie the predicted modelling results were multiplied by 10) as explained in paragraph 56 of his evidence), there is no evidence of any objectionable or offensive odour effects having occurred beyond the boundary of the Landfill site. Nuisance odour is distinct from objectionable odour and would not breach condition 3 of discharge permit 6011 (discussed below). This is not a no odour baseline, some odour was anticipated in the granting of the air discharge effects.
- 128. Notably, even though there have been 158 dates where the Granges have recorded detecting odours (as opposed to objectionable odours) at their residence and/or property, Mr Standen's oral evidence was that he has never detected an odour. This is despite him proactively using the weather conditions to determine the best possible odour conditions, and attending the Granges property for the purpose of verifying the odour on approximately a dozen occasions.
- 129. Of all the occasions that Dr Boddy was on site, "no objectionable or offensive odours were detected at or beyond the boundary of the Landfill at the time of my site visit, or during any of my subsequent site visits". 115
- 130. As Mr Landmark stated in his oral evidence, while the Granges are 200m from the Landfill, other residents reside 300m away and he is not aware of any complaints having been raised by these residents.

Evidence of Dr Boddy paragraph 39.

¹¹⁴ Evidence of Mr Gallo Saidy paragraph 91 and 92.

- 131. Furthermore, in his oral evidence, Mr Carlyon stated that each and every time he has been on the Granges' property he has not detected an objectionable odour.
- 132. Lastly, when the additional monitoring was undertaken at the Granges' property during March-June 2015, the Granges discontinued their odour record. This unfortunately removed the ability to match their odour assessments with the detector's findings. The Granges stated in oral evidence that they did not keep a record because they were under the impression that the odour detector would record any odour events.¹¹⁶

Conditions - Discharge Permit 6011

- 133. Applying the legal framework, conditions relating to objectionable odour effects are within scope of this review. However, this review is not about avoiding all odour effects, that is beyond scope. Rather the scope of the review is focused on current "best practice" 117 to avoid "noxious, dangerous offensive or objectionable odours beyond the boundary of the site".
- 134. Potential odour effects beyond the Landfill site were identified in the earlier decisions. Dr Boddy has concluded that while there is potential for odour nuisance effects beyond the Landfill boundary, there is no evidence of objectionable or offensive odour beyond the Landfill boundary site. It is therefore arguable whether the odour effects of the Landfill activity have increased above and beyond those anticipated in the earlier decisions.
- 135. However, despite the initial narrow focus of the proposed Horizons review, as HDC has commenced much broader actions in response to Dr Boddy's reports, HDC supports all the conditions set out in the conditions table appended to these closing submissions in **Appendix A** with the following exceptions:
 - (a) HDC agrees with the following conditions proposed by Horizons subject to minor amendment:
 - (i) Condition 3(f) Discharge Permit 6011 Trigger levels and remedial action following emission testing;
 - As discussed in HDC's opening submissions, 118 HDC maintains its concern about the ability to achieve the extremely low

¹¹⁸ Paragraph 8.8 of opening submissions.

¹¹⁶ Oral evidence of Granges.

Horizons' Notice of Review dated 30 October 2016.

- methane emission trigger levels proposed in condition 3(f). The trigger levels for the Landfill are 100ppm compared to 5,000ppm for the Bonny Glen Landfill ¹¹⁹
- (ii) Condition 3(g) Discharge Permit 6011 Record of emission testing;
- (iii) Conditions 3(I)-(m) Discharge Permit 6011 Investigation of potential additional odour source;
- (iv) Conditions 6B Discharge Permit 6011 Complaints procedure;and
- (v) Condition 6D Discharge Permit 6011 odour investigations.
- (b) HDC disagrees with condition 3 (compliance) as proposed by Ms Ryan in the joint witnessing statement dated 28 September 2016 attached as **Appendix D**. This condition is addressed below.
- (c) HDC agrees in part with the following conditions proposed by Horizons subject to amendment (these conditions are addressed below):
 - (i) Condition 3(o) Discharge Permit 6011 Installation of flare.
 - (ii) Condition 6A Discharge Permit 6011 odour complaint procedure.
- 136. Dr Boddy's evidence makes clear that provided the mitigation measures set out in the proposed conditions appended to these closing submissions are implemented it is "unlikely that there will be any further odour nuisance effects arising in the community as a result of odour emissions at the Landfill". 120 In his oral evidence Dr Boddy said that he was "very confident" that the measures being implemented would be effective and that they go "further than best practice".
- 137. In her oral evidence Ms Ryan stated that although there is still potential for odour from time to time there will be a "huge reduction in odour through these measures". Again, this review is not about ensuring that there are no odour effects, but rather ensuring best practice to avoid "noxious, dangerous offensive or objectionable odours beyond the boundary of the site".

¹¹⁹ Air Discharge Condition 8.

Evidence of Dr Boddy paragraph 72.

Condition 3 Compliance

138. Condition 3 of Discharge Permit 6011 provides that:

"There shall be no discharge of odour or dust from the landfill that in the opinion of a Regional Council Enforcement Officer is noxious, dangerous, offensive or objectionable beyond the property boundary."

- 139. The Panel questioned whether it was necessary for an odour complaint to be verified by a regional officer. Ms Ryan provided oral evidence that it was not necessary for a complaint to be verified by an enforcement officer, and such an approach was in line with the Ministry for the Environment Good Practice Guide for Assessing and Managing Odour in New Zealand (June 2003) (MfE GPG).
- 140. The Panel directed Ms Ryan to consider some alternative wording to condition 3 that would allow Horizons to enforce condition 3 without verification by an enforcement officer. That direction has now been made obsolete by Horizons informing HDC on 29 September 2016 that it "does not deem it necessary for an Enforcement Officer to detect odours beyond the landfill property boundary in order to determine non-compliance with condition 3".

Is condition 3 within scope?

141. While the Panel's concerns have now been responded to by Horizons, HDC agrees with Mr Standen's oral evidence that such a change to the wording of condition 3 is beyond the scope of the review. The scope of the review is set by Discharge Permit 6011 condition 7 and the letter from Horizons dated 30 October 2015. This relates to best practice measures to avoid, remedy and mitigate adverse effects, not enforcement.

Irrespective to the above, should condition 3 be amended?

- 142. Even if Horizons had not altered its interpretation of condition 3 and it was within scope, some form of onsite verification of objectionable or offensive odour by a trained and calibrated assessor is required to determine compliance.
- 143. In the Joint Witness Statement dated 28 September 2016, Dr Boddy proposes that condition 3 be amended so that an independent and trained

- field odour assessor appointed by the Regional Council under delegated authority also be allowed to verify an objectionable or offensive odour.
- 144. Ms Ryan's position is that condition 3 should not be worded so to require verification of an objectionable or offensive odour by any Regional Council Officer or assessor with delegated authority.
- 145. Dr Boddy has provided thorough reasoning in the Joint Witness Statement dated 28 September 2016 for his position as to why a breach of condition 3 requires verification by a Regional Council Officer or an independent and trained field odour assessor appointed by the Regional Council under delegated authority.
- 146. In essence, Dr Boddy considers that the test for whether an odour is offensive or objectionable in the opinion of an ordinary reasonable person, requires the insertion of more objectivity into what is a very subjective assessment, for example through application of the FIDOL factors and a trained assessor's experience gained from other project sites. A trained and calibrated field odour assessor should therefore be used to determine whether odour beyond a boundary is considered to be offensive or objectionable, not a member of the public.
- 147. The MfE GPG makes clear that objectionable or offensive effects should be determined on a case-by-case basis by considering the FIDOL factors.¹²¹
- 148. Case law provides that an ordinary reasonable person is not a person who is hypersensitive but rather a person whose views are "reflective of the opinions of a significant proportion of the public". It is not sufficient that "a neighbour or other person within the relevant environment considers the activity or matter to be offensive and objectionable". This means that for an odour to be considered objectionable or offensive, information on the effects of the odour must be gathered which demonstrates that the test of the ordinary reasonable person can be met. ¹²²
- 149. Importantly the recent Redvale decision¹²³ supported the above position, holding that the test as to whether an odour is offensive or objectionable in the opinion of an ordinary reasonable person is based on an assessment of the odour applying the FIDOL factors.¹²⁴ While the Court recognised the

¹²² Zdrahal v Wellington City Council [1995] 1 NZLR 700.

¹²⁴ Paragraph 37

¹²¹ Page 30.

Waste Management NZ Limited v Auckland Council [2015] NZEnvC 178.

practical difficulties in implementing the FIDOL regime for assessing odour complaints, the Court concluded that the FIDOL factors provide a structured and repeatable assessment methodology which is well established in New Zealand. 125

150. Furthermore, condition 6 of Discharge Permits 107077 and 107078 recently granted for the Bonny Glen landfill refers to the need to have objectionable and offensive odour verified by a regional council officer as follows:

"Beyond the boundary of the site there shall be no odour or dust caused by discharges from the site, which in the opinion of an enforcement officer, has a noxious, dangerous, offensive or objectionable effect." 126

151. Section 15.3 of the One Plan refers directly to some of the above case law as follows:

"Case law has established that an odour is deemed offensive or objectionable only if a reasonable ordinary person, who is neither sensitive nor insensitive, would be offended or find it objectionable. It is not enough for a neighbour or some other person within the relevant environment to consider the activity or matter to be offensive or objectionable."

- 152. Section 15.3 of the One Plan goes on to state that "in determining whether an odour is offensive or objectionable, a council enforcement officer" should be applying the FIDOL factors.
- 153. Importantly Mr Standen in his oral evidence supported Mr Boddy's position, stating that while views of odour diaries can be helpful, in this case it was appropriate to have an enforcement officer to detect odour because there is only one house being affected.¹²⁷
- 154. For these reasons it is considered that the Panel does not have the jurisdiction to amend condition 3. In any case, condition 3 cannot be amended in the manner proposed by Ms Ryan because removing the need for objectionable and offensive odour to be verified by a council officer (or an independent assessor with delegated authority) would be contrary to

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¹²⁵ Paragraph 44

¹²⁷ Mr Standen has now changed his opinion as per his letter of 29 September 2016.

best practice (MfE GPG), case law, the One Plan and other odour compliance conditions in the region.

Side agreement

155. In his oral evidence Mr Carlyon raised the issue for potential side agreements between the HDC and the Granges which would allow the Granges to ne temporarily relocated and compensated until the flare is installed. He also stated that broader discussions were occurring between the parties. HDC has been having discussions with the Granges since earlier this year but no agreement has been reached. The Panel does not have the jurisdiction, nor the scope, to impose a condition that would require the HDC to temporarily relocate and compensate the Granges.

Flare - Condition 3(o)

- 156. Much comment was made of the installation of a new flare and the stoppage of the old flare. Horizon's 30 October 2015 notice of review contained no new conditions relating to a flare. The old flare was installed in early 2012. It was stopped on 11 November 2014 to enable Dr Boddy's odour assessment and restarted on 22 December 2014. It broke down in March 2015 and was not restarted as HDC was focused on Dr Boddy's "Phase 1" mitigation matters (which did not include the flare) as set out below.
- 157. Dr Boddy's February 2015 report¹²⁸ phased his recommended mitigation options. Phase 1 included de-sludging the leachate pond, ensuring suitable daily cover is applied, applying effective stage 2 capping, installing a biofilter on the leachate collection manhole, undertaking real-time odour monitoring at the Granges' property and installing a weather monitor. The Phase 2 mitigation¹²⁹ related to the existing flare and to the benefits of continuing to operate it, suggesting additional monitoring and potentially its replacement.
- 158. HDC initiated Dr Boddy's Phase 1 recommendations and also started to advance tenders for the flare in line with further monitoring undertaken by Dr Boddy during March-June 2015 and August September 2015. It was only in his 14 October 2015 report, after these further investigations, that Dr Boddy recommended that Phase 1 (not including the new flare system)

¹²⁸ Levin Landfill Odour Assessment.

Section 6.2 of the report.

be implemented without further delay. HDC did, without delay continue and expand implementing the Phase 1 mitigation and management measures. Despite it not being recommended by Dr Boddy, HDC also initiated a tender process for a new flare. As explained in Mr Saidy's evidence the cost came back significantly over budget such that further negotiations have been required and a change to HDC's Long Term Plan is necessary for funding to be allocated.

- 159. HDC opposes the 6 month timeframe proposed in condition 3(o) for installing the flare. HDC has proactively responded to the Granges' odour complaints, commenced or implemented the mitigation measures recommended in Dr Boddy's report at significant cost and HDC is committed to implementing the remainder of his recommendations.¹³⁰
- 160. Importantly, as discussed in the oral evidence of Mr Saidy and Mr Landmark, 12 months is required for the design, construction and installation of a flare. As Mr Landmark noted in his oral evidence, procurement of the flare will take some time because they are not off the shelf machinery. They need to be designed and manufactured specifically for the site. Ms Ryan in her oral evidence stated that she had discussed the commissioning of a flare with her colleagues who had advised that 12 months was necessary to install such a system.
- 161. HDC therefore seeks an "as soon as practicable and no later than 12 months from the commencement date of the 2015 review of conditions" requirement to install a GCS and flare on the site. Any lesser time period will either not be able to be complied with by HDC, invalidating the exercise of the consent, or simply encourage the installation of an expensive system that may not be effective. Given all the other mitigation measures being implemented by HDC it is submitted that a 12 month timeframe is reasonable and that adverse odour effects would have already reduced through the implemented measures.

Complaints procedure

162. Condition 6A as currently drafted is not practicable. It requires HDC to have a person available at all times to respond to odour or dust complaints. This requirement is unrealistic and will render the consents unviable and incapable of implementation. For this reason it must be amended as

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¹³⁰ Evidence of Mr Gallo Saidy paragraph 92.

sought by HDC. Further, it goes significantly beyond what is required for the much larger Bonny Glen Landfill. The Bonny Glen conditions require the Consent Holder to nominate a liaison person to manage any air quality complaints received but this liaison person is not required to be available at all times.

Neighbourhood Liaison Group

- 163. In its section 127 application HDC seeks amendments to conditions 32, 33, 34 of Discharge Permit 6009 to refine the purpose, and rationalise the membership of, the NLG.
- 164. The history to the formation of the NLG via the 2002 consent order, the comments from the Parliamentary Commissioner for the Environment, and the strengthening of the role of the NLG in the 2010 review decision have been discussed in detail in the opening legal submissions and are not repeated here.¹³¹
- 165. As discussed in the evidence of Mr Saidy, in recent years the operation of the NLG has deteriorated largely due to the large number of members and the members beginning to position themselves for the 2015 review. The NLG has suffered from progressively confrontational discussions on matters far beyond the ambit of the NLG. Productive discussions and the resolution of matters have been impossible.¹³²
- 166. The HDC therefore seeks amendment to clarify the NLG's role and purpose and manage the number of members and frequency of meetings to try and overcome the difficulties that have been experienced in recent years and make the NLG more effective and efficient. Such amendment would recalibrate the NLG so that it aligned more closely with the Whakawatea Forum and the NLG model prior to the 2010 review changes. The details of these changes are set out in the conditions table attached to these closing submissions as **Appendix A**.
- 167. Such changes are supported by the oral evidence of submitters. Mr Smith gave oral evidence that the Whakawatea Forum (consisting of five people) had functioned effectively. Mr Everton gave oral evidence that the NLG ran well when there was a nucleus of about "four people involved".

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¹³¹ Paragraphs 9.3-9.7.

Evidence of Mr Gallo Saidy, paragraph 55.

- 168. Mr Hadlum provided oral evidence that the NLG prior to the 2010 review used to be "*more effective*", using the pre-hearing to resolve matters prior to the 2010 review as an example.
- 169. A number of submitters were positive about the use of a facilitator in the Whakawatea Forum. Pataka Moore in oral evidence considered that the facilitator led Whakawatea forum was "pretty positive". Ann Hunt also gave oral evidence that a facilitator is needed.
- 170. In response, so long as the numbers and scope of the NLG are refined back to the original model, HDC is willing to amend the conditions to enable a facilitator to assist the parties in NLG discussions.
- 171. Conditions 32-34 should therefore be amended as per the conditions attached to these closing submissions.

Stormwater

- 172. HDC proposes to amend condition 5 of Discharge Permit 102259 so it is not obliged to keep the stormwater system clear of refuse at all times.
- 173. As worded by Horizons this condition is impractical and impossible to achieve, rendering the exercise of the consent invalid as set out in detail in the opening submissions.¹³³ It is therefore unlawful to impose.
- 174. As Mr Landmark stated in his oral evidence, while it is obvious and sensible to have a condition similar to proposed condition 5 to avoid the build-up of rubbish in the stormwater system the wording needs to be reconsidered so that it is practicable to implement.
- 175. In his oral evidence Mr Standen agreed that so long as the rubbish in the stormwater system was not noxious, then some flexibility for removing rubbish was required.
- 176. The 2015 conditions of consent for Bonny Glen (a much larger landfill compared with the Levin Landfill) do not impose any such conditions on the operation of that landfill and the litter conditions require collection where practicable.
- 177. Unfortunately Horizons has not provided an updated condition to reflect HDC's concerns and the comments made during the hearing. Condition 5 as amended by HDC allows HDC reasonable time to remove the rubbish

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¹³³ paragraphs 9.8-9.11.

and is included in the table of conditions attached to these closing submissions as **Appendix A**.

Review conditions

- 178. HDC seeks that condition 19 of Discharge Permit 102259 be amended to provide that a review can be initiated at ten yearly intervals.
- 179. Mr Bashford's justification for refusing this amendment is that the "current issues of odour and the daylighting of leachate only seem to have come to light since the previous review in 2010". As discussed in detail above, these issues have been at the forefront of the 1995 consent application (1994 Royds consulting report), 1998 decision and the 2010 review decision.
- 180. As Mr Bashford acknowledges in his report, "reviews of conditions can be costly and are often seen to derogate the rights of the consent." 135
- 181. The existing and proposed monitoring and mitigation conditions will ensure that any potential significant odour and leachate adverse effects of the Landfill are identified and adequately responded to, negating the need for such frequent reviews. In particular this review imposes significantly greater odour management conditions, including more stringent limits and significant additional monitoring of water quality and response actions. In addition the cost of the five yearly review significantly affects the viability of the consents.
- 182. For these reasons a ten yearly review interval is appropriate as set out in the conditions attached to these closing submissions as **Appendix A**.

Conditions

183. There is a large degree of agreement between HDC and Horizons on the proposed conditions. The conditions that HDC agrees with, agrees with subject to minor amendment, or disagrees with are set out in **Table 1** below:

¹³⁴ Mr Bashford's comment on condition 30 of Discharge Permit 6010 as set out in the table appended to his section 42A report.

section 42A report.

135 Mr Bashford's comment on condition 30 of Discharge Permit 6010 as set out in the table appended to his section 42A report.

Table 1

HDC's position	Discharge Permit 6010	Discharge Permit 6011	Discharge Permit 6009	Discharge Permit 7289	Discharge Permit 102259
Agree	3, 5, 9, 10,11(a), 11(aa), 15(f).	3(c), 3(d),3(e), 3(f), (noting that the HDC has concerns about the practicalities of complying with this condition), 3(h), 3(i), 3(j), 3(k), 3(n), 3(p) 3 (r), 6C, 6E, 6F	8, 14, 14(m), 14, 28(d), 29	5	7, 9, 18
Agree subject to minor amendment		3(g), 3(l), 3(m), 6B, 6D			
Disagree	2, 2A (delete 2A as proposed in Mr Bashford's section 42A report and replace with new condition requiring the installation of a cut off drain), 18-27 (HDC's section 127 application sought the removal of these conditions. HDC withdraws this application because these conditions are required for the irrigation of Landfill leachate captured by the new cut off drain (new condition 2A), 30	3, (as proposed by Ms Ryan in the joint witnessing statement of odour experts dated 28 September, 3(o), 6A, 7	31, 32- 34,	19	5, 19

184. The conditions proposed and accepted by HDC are attached to these closing submissions as **Appendix A**.

Conclusion

185. For all the reasons set out above the conditions proposed and agreed to by HDC as attached to these closing submissions promote the sustainable management purpose of the RMA.

DATED this 7th day of October 2016

David Allen / Victoria Brunton
Counsel for HDC

APPENDIX A

Proposed conditions

(Overleaf)

ANNEXURE B

Map identifying surface and groundwater monitoring sites to be appended to conditions (Overleaf)

ANNEXURE C

Joint witnessing statement of water quality and planning experts produced following the hearing

(Overleaf)

ANNEXURE D

Joint witnessing statement of odour experts dated 28 September 2016 produced following the hearing