

**Smooth Hill Landfill – ORC Comments on Updated Draft ORC Consent Conditions**

**General observations from ORC**

<b>ORC Comment</b>	<b>Applicant Response</b>
The suite of conditions is now a lot longer than the set that was presented at the hearing. Provisions to be included in the LMP are scattered throughout the consent documents, and there also seems to be some overlap e.g. between the requirements of Bird Management Plan and other conditions of consent. Opportunities to consolidate and simplify (where possible) these consent conditions should be explored.	The applicant is comfortable with the draft consent conditions as presented. Further changes have been made to the conditions relating to bird management in response to the more specific comments from ORC in this table, and also consultation with DIAL.  The applicant considers that the Bird Management Plan remains an important part of the overall suite of bird management conditions in clearly setting out how the more specific performance-based conditions will be implemented in practice during the operation of the landfill.
The applicant has proposed grouping the activities onto 5 permits: <ul style="list-style-type: none"> <li>○ Discharge waste and leachate (S.15 DISCHARGE PERMIT)</li> <li>○ Discharge of odour, dust, LFG and flare emissions to air (S.15 DISCHARGE PERMIT)</li> <li>○ Discharge of stormwater and groundwater (S.15 DISCHARGE PERMIT)</li> <li>○ Take and use of groundwater (S.14 WATER PERMIT)</li> <li>○ Diversion and damming of surface water (S.14 WATER PERMIT)</li> <li>○ Earthworks and vegetation clearance (S.9 LAND USE CONSENT – applied for under NES-F)</li> </ul> This is considered to be reasonable. Combining the s15 discharge of waste/leachate permit and the s15 discharge of stormwater/groundwater permit would also be supported.	The applicant is comfortable with the proposed grouping of consents as presented. However, it would not be adverse to combining the s15 discharge of waste/leachate and discharge of stormwater/groundwater permits if the Panel prefers.
The following conditions were included on the set presented at the hearing but have since been omitted, with no explanation why:	See responses below.
○ <i>The construction and operation of the landfill must not cause after reasonable mixing there to be a conspicuous change in colour or visual clarity, objectionable odour, water unsuitable for consumption by farm animals, or significant effect on aquatic life in the Ōtokia Creek or any of its tributaries downstream of the discharge of stormwater from the landfill site.</i>	This condition was removed in response to a question from the Panel that the evidence should demonstrate that these effects which are restricted by s107 RMA won't occur. The applicant considers that its evidence has demonstrated that such effects will not occur such that the condition is unnecessary.
○ <i>All areas where further waste will not be placed for three months, must be covered with non-combustible compacted intermediate soil cover to a minimum depth of 300 millimetres. Grass cover must be established by hydroseed, except where within 10m of the active landfilling area.</i>	This condition is included as general condition 36 in the attached conditions.
○ <i>An appropriately experienced person must be retained to supervise the operation of the landfill.</i>	This condition is included as general condition 28 in the attached conditions.
○ <i>Municipal Solid Waste shall be accepted for disposal only if it has been transported to the landfill in sealed truck and trailer units or bins.</i>	This condition is included as condition 39 on the discharge of waste to land and leachate to land conditions.

**ORC and DIAL Comments on conditions**

<b>Original Condition #</b>	<b>ORC or DIAL Comment</b>	<b>Condition Wording Preferred by ORC or DIAL</b>	<b>Applicant Response</b>
<b>A. Schedule 1 – General Conditions Relevant to All Consents</b>			
1	ORC question the use of a semi colon part way through the first sentence.	Replace with a comma or use brackets around 'including all associated discharges of contaminants to land, water, and air'.	Accepted by applicant. See attached general condition 1.

2	<p>ORC consider allowing this consent condition would be risky. This condition allows the applicant to act in a way that is inconsistent with the conditions of the granted consent without applying for a s127 variation. It will become increasingly difficult for ORC's compliance team and the IPRP to keep a track of what exactly is authorised by the consent.</p> <p>To ensure that a high level of performance is maintained, auditing compliance with the consent conditions should be relatively straight-forward, but that won't be the case if this condition is allowed.</p> <p>Furthermore, there is no process requiring the applicant to demonstrate that the effects of the alternative design/method are no more than that authorised by the consent conditions, rather it is left up to the IPRP and ORC to undertake this review.</p>	Remove condition 2 in its entirety.	<p>Condition 2 responds to the issues raised in the ORC s42A report to include in the consent conditions a mechanism for amendment of the design and is consistent with the approach adopted within the consent conditions for the AB Lime landfill in Winton.</p> <p>It is expected that the peer review panel and ORC's acceptance of any alternative design/methodology would require the applicant to first demonstrate the effects are no than that authorised by the consented design/methodology. A change has been made to attached general condition 2(a) accordingly.</p> <p>The applicant considers that if the adverse effects are not the same as the consented design or methodology, then a s127 RMA variation, or new consent would be required. The applicant considers general condition 2 to be a useful addition, however, is not wedded to it should the Panel agree with the ORC's position.</p>
4	ORC note need to be careful about requiring a third party to achieve an outcome. How effective will the community engagement process be with only 3 community representatives allowed to attend future meetings? Are those who live >2km allowed to attend the first meeting too? Should a representative from Aukaha not be invited too?	<p>Amend –</p> <p><i>The consent holder must invite the Otokia Creek Habitat and Marsh Habitat Trust and all residents who own property within 2km of the landfill site to the first meeting of the CLG. <u>Persons who live more than 2km from the landfill site must not be excluded from the meeting should they wish to attend.</u> At the first meeting of the CLG, the consent holder must invite those in attendance to nominate up to <u>35</u> persons to attend future meetings as representatives of the <del>wider group</del> <u>community</u>.</i></p>	Accepted by applicant, with the exception that Aukaha on behalf of Te Rūnanga o Ōtākou is not proposed to form part of the CLG. Te Rūnanga o Ōtākou is more directly involved in the exercise of the consents including preparation and review of management plans and monitoring activities, and therefore their involvement in a group intended to facilitate engagement between the consent holder and community is considered unnecessary. See attached general condition 4.
5	ORC note need to be careful about requiring a third party to achieve an outcome. If the local community board representative does wish to act as Chair then the consent holder is in breach of the consent condition as it is currently worded.	<p>Amend –</p> <p><i>In addition to the persons nominated under general condition 4, the applicant must <del>comprise</del> <u>also invite the following to participate as members of the CLG:</u></i></p> <ol style="list-style-type: none"> <li><i>a. A member of the local community board (who shall <u>be invited to act as Chairperson of the CLG</u>).</i></li> <li><i>b. A member of the independent peer review panel.</i></li> <li><i>c. Two representatives of the consent holder/operator.</i></li> </ol>	Accepted by applicant. See attached general condition 5.
10.	ORC note need to be clearer that the IPRP's activities do not replace ORC's regulatory functions. This can be achieved by stating "where required by a condition of this consent, to review and confirm". Further amendments to the wording to make the purpose of the IPRP more clear are also suggested.	<p>Amend -</p> <p><i>The consent holder must at least 6 months prior to construction of the landfill commencing, establish and retain at its own cost, an <u>independent peer review panel</u>. The purpose of the independent peer review panel is, <u>where required by a condition of this consent</u>, to review and <del>assess confirm</del> <u>whether the detailed design, construction, operation, and closure of the landfill, and the management of environmental effects has been undertaken by appropriately qualified personnel and in accordance with the conditions of the resource this consent and in accordance with good practice.</u></i></p>	Accepted by applicant. See attached general condition 10.

11	ORC consider use of the comma after the word 'qualified' means that this condition could be interpreted as meaning that the qualifications held do not necessarily need to relate to the subject matter listed. Suggest removing these commas.	Amend -  <i>b. Qualified, and experienced in landfill design, construction, and management.</i> <i>c. Qualified, and experienced in geotechnical, groundwater, and surface water aspects.</i> <i>d. Qualified, and experienced in terrestrial and freshwater ecology.</i>	Accepted by applicant. See attached condition 11.
12, 13	ORC's compliance team are opposed to the of the term 'certify'. In the context of condition 12, the term 'satisfied' would be more suitable.  Suggest combining 12 and 13 and simplifying.  The advice note must be removed as it requires an action of the ORC, whereas the consent must be binding on the consent holder only.	Replace conditions 12 and 13 with -  <u><i>The consent holder must not ask the Independent Peer Review Panel to commence work until the Otago Regional Council is satisfied that the members of the Independent Peer Review Panel meet the requirements of general condition 11. The members of the Independent Peer Review Panel may be changed at any time as agreed in writing with the Otago Regional Council.</i></u>	Accepted by applicant. See attached general condition 12.
14	ORC suggest making it clear that the matters for consideration under c) and d) are not limited.	Amend -  <i>c. Construction activities undertaken including, but not limited to:</i> <i>d. Landfill operation including, but not limited to:</i>	Accepted by applicant. See attached general condition 13.
14	DIAL consider the daily and intermediate cover requirement in condition 13(d)(iii) should be tied to the requirements in other conditions for immediate cover to reduce attractiveness to birds. There may also be other reasons for immediate cover to appropriate that should be captured.	Amend -  <i>d (iii). <u>Immediate, daily, and intermediate cover placement – explicitly as related to Commercial Waste, Medical Waste and Highly Odorous Waste for the purpose of reducing attractiveness to bird species.</u></i>	The applicant considers this is unnecessary detail in this condition given the purpose of the condition is to broadly set out the contents of the annual report. No change is made to condition 13.
15	ORC consider these are two separate conditions.	Split condition 15 as follows -  <u><i>15. The detailed design, construction, operation, closure, and aftercare of the landfill must be undertaken in accordance with a Landfill Management Plan.</i></u>  <u><i>16. The Landfill Management Plan must be developed by the consent holder, in consultation with Te Rūnanga o Ōtākou, with the overall objective of setting out details of the practices and procedures to be adopted to achieve compliance with the conditions of resource consent.</i></u>	Accepted by applicant. See attached general conditions 14 and 15.
17 (g)	ORC consider placement of a comma after 'highly odorous' could cause confusion.	Amend -  <i>g. Methods of placing and covering waste, including highly odorous, and special waste.</i>	Accepted by applicant. See attached general condition 16(g).
18	ORC note the applicant has suggested that there need not be a separate Fire Preparedness and Response Plan or a separate Receiving Waters Environment Management Plan, and that the provisions that were to be contained in these plans are included in the LMP instead. This is considered acceptable.	N/A	No change to attached condition 17.

19, 20, 21	<p>ORC note that the timing of submission of these items to the IPRP is not of concern to ORC, rather it is only the timing of submission of these items to ORC that is of concern to ORC.</p> <p>The consent conditions can't require a third party to perform a task, therefore the IPRP review process does not need to be detailed on the consent.</p> <p>ORC's compliance team are opposed to the of the term 'certify', especially in regards to material of a highly technical nature.</p> <p>The comma after 'condition 27' is unnecessary and could result in misinterpretation.</p>	<p>Replace conditions 19 – 21 with:</p> <p><i><u>The management plans required by general conditions 15 – 17 and the detailed design details outlined in general condition 27 must be submitted to the Otago Regional Council for acceptance at least 20 working days prior to construction commencing. Prior to submission to the Otago Regional Council, the consent holder must provide these items to the Independent Peer Review Panel for review and confirmation that they have been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice. Where there is disagreement between the consent holder and the Independent Peer Review Panel, this must be explained in writing and submitted to Otago Regional Council along with the relevant management plan or detailed design details.</u></i></p>	<p>Accepted by applicant, except that ORC's wording is split into 2 conditions with minor wording changes. The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance". See attached general conditions 18 – 19.</p>
22, 23	<p>ORC not responding quick enough should not automatically make a management plan / design detail compliant when it is not. If the item has been reviewed by the IPRP and they have not identified any issues, then proceeding without ORC's final approval should be low risk for the consent holder.</p>	<p>Remove conditions 22 and 23 in their entirety.</p>	
21(b)	<p>DIAL consider the consent holder should address the recommendations of the peer review panel to the level acceptable to the panel.</p>	<p>Amend -</p> <p><i><u>b. Make recommendations to the consent holder on the suitability of the contents of the management plan, or design details in addressing the relevant conditions of consent. The consent holder must make every reasonable effort to address the recommendations to the satisfaction of the independent peer review panel; or</u></i></p>	<p>As noted above, condition 21(b) has been deleted on the basis the process between the consent holder and independent peer review panel is not of concern to ORC.</p>
Advice note after condition 22	<p>ORC suggest avoiding removing references of functions being assigned to the IPRP as this infers delegation of ORC's functions, which is not intended. The purpose of the IPRP is to assist in the audit process, but not to replace any function of ORC.</p>	<p>Replace advice note with -</p> <p><i><u>The function of the Independent Peer Review Panel is not a substitute of Otago Regional Council's function in auditing compliance with consent conditions. Otago Regional Council will make the ultimate determination regarding whether the Consent Holder has achieved compliance with the conditions of this consent.</u></i></p>	<p>Accepted by applicant. See attached advice note after general condition 19.</p>
24	<p>ORC's compliance team are opposed to the of the term 'certify', especially in regards to material of a highly technical nature. Condition 24 can be reworded to simply refer to any current management plans/design details.</p>	<p>Amend -</p> <p><i><u>This resource consent and a copy of the <del>Otago Regional Council certified current</del> version of any management plan and design details required by this consent must be kept on site at all times, and the consent holder must ensure all relevant personnel are made aware of each plan's contents.</u></i></p>	<p>The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance". No change is made to the attached condition 20.</p>
25	<p>ORC consider it is not clear what 'unless otherwise agreed' means and who is party to that agreement.</p> <p>Also this condition refers to the IPRP 'accepting' the revised plans, but the IPRP's function is 'review and confirmation' only.</p>	<p>Replace condition 25 with -</p> <p><i><u>By 1 July each year, the consent holder must, in consultation with Te Rūnanga o Ōtākou, complete a review of the management plans required by general conditions 15 – 17 to ensure that management practices contained within are still adequate to ensure compliance with the conditions of this consent. If amendments are subsequently made to a management plan, the amended plan must be provided to the Independent Peer Review Panel for review and</u></i></p>	<p>Accepted by applicant with minor amendments, but with reference to the requirement for review and confirmation by the independent peer review panel followed by certification by ORC in accordance with general conditions 18 – 19 being retained. See attached general condition 21.</p>

	It is recommended that conditions 21 & 22 be removed, so reference to these conditions needs to be removed from condition 24.	<u>confirmation that the plan has been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice. Written confirmation of the review process and copies of any amended management plans must be submitted by the consent holder to the ORC by 1 October each year.</u>	
26	ORC consider there is too much uncertainty in this condition e.g. what exactly meant by 'material to the performance of conditions'? The annual review should be adequate.	Remove condition 26 in its entirety.	The applicant considers it important that flexibility is retained to make any updates necessary to those sections of the management plans in response to any issues that might arise outside of the annual review cycle.  The applicant accepts it is unclear what is meant by the term "material to the performance of conditions". See changes to attached condition 22.
28	ORC consider as noted above, the IPRP's role is 'review and confirmation' only, whereas ORC's role is acceptance.  As noted above, ORC compliance team does not support the use of the term 'certify', especially in regards to material of a highly technical nature.  It is recommended that conditions 21 & 22 be removed, so reference to these conditions needs to be removed from condition 27.	Replace condition 24 with -  <u>At least 20 working days prior to commencing the construction of any:</u> <i>[LIST]</i> <u>the consent holder must submit a design report with specifications and design drawings to the Otago Regional Council. Prior to submission to the Otago Regional Council, the consent holder must provide these items to the Independent Peer Review Panel for review and confirmation that they have been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice. Construction must not commence until Otago Regional Council has confirmed acceptance.</u>	The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance".  Minor amendment made to attached general condition 24. Reference to the requirement for review and confirmation by the independent peer review panel followed by certification by ORC in accordance with general conditions 18 – 19 is retained as noted above.
29, 30	ORC note the use of the term 'certify' is not supported by ORC's compliance team.	Replace the word 'certified' with 'current'.	The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance". No change is made to the attached conditions 25 and 26.
31	ORC notes is this condition meant to say 'no less than'? Regardless, this condition seems redundant due to condition 28.	Remove condition 31 in its entirety.	Accepted by applicant. General condition is deleted in the attached conditions.
32	ORC note ORC compliance team does not support the use of the term 'certify'. This condition can be made a lot simpler. Why has the CPEng reference been removed?	Replace condition 27 with -  <u>Within 3 months of the completion of any of the works referred to in Condition 27, the consent holder must submit to the Otago Regional Council a Construction Quality Assurance (CQA) report prepared by a suitably experienced Chartered Professional Engineer (CPEng) confirming that the works were completed in accordance with the design report, specifications and design drawings submitted to the Otago Regional Council under Condition 27.</u>	The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance".  The applicant accepts reference to a CPEng should be included in the condition. See attached general condition 27.
36	ORC note apostrophe is missing	Amend to ... <i>consent holder's</i> ...	Accepted by applicant. See attached general condition 31.
37	ORC consider poor grammar in the first sentence, suggest rewording  A definition for 'non-combustible would be helpful.  It is not clear what standard is referred to here... combustibility? Odour retention? Bird aversion? Suggest removing b) to avoid misinterpretation.	Amend -  <i>All waste must <del>at least</del> be covered at the end of each working day with <u>at least</u> non-combustible compacted soil cover to a minimum depth of 150 millimetres.</i>  Delete (b)	The applicant agrees the grammar should be corrected, but that it is reasonably understood what non-combustible means without the need to include a definition.  The applicant considers that rather than deleting clause (b) reference should instead be made as to ensuring any alternative cover material performs to an equivalent or higher

			standard in terms of management of odour and birds. See attached general condition 32.
37	DIAL note that special waste, highly odorous waste, medical waste, and commercial waste which does not go via the waste transfer station has a higher likelihood of containing putrescible materials which are more likely to attract birds. Such waste should be treated with the highest level of management – i.e. immediate cover.	Amend - <i>37. Except where required by Condition 37A, all waste must at least be covered at the end of each working day with:</i> <i>a. non-combustible compacted soil cover to a minimum depth of 150 millimetres; or</i> <i>b. non-combustible alternative materials that perform to an equivalent or higher standard to 150 millimetres soil cover.</i>  <i>37A. All special waste, highly odorous waste, medical waste and commercial waste must be covered immediately, and no later than 30 minutes following placement on the active landfill area with:</i> <i>a. non-combustible compacted soil cover to a minimum depth of 150 millimetres; or</i> <i>b. non-combustible compacted alternative non putrescible materials that perform to an equivalent or higher standard to 150 millimetres soil cover.</i>	Accepted by applicant with minor amendments. The applicant considers that only special waste, highly odorous waste, medical waste, commercial, and industrial waste containing putrescible material should be covered immediately. Most the commercial and industrial waste received at Smooth Hill is likely to be non-putrescible. See attached condition 32 and 33.
38	ORC suggest rewording to improve grammar	Replace condition 38 with -  <i>There must be no waste that remains uncovered overnight.</i>	Accepted by applicant. See attached general condition 34.
39	ORC consider the condition as worded does not describe the technical requirement for removal of daily cover.	Replace condition 39 with -  <i>Daily cover must be removed before refuse placement at the start of each day. As a minimum, windows must be cut through the previous layer of daily cover sufficient to allow the free flow of leachate from the new waste layer to the underlying layers.</i>	Accepted by applicant. See attached general condition 35.
42	ORC consider the IPRP's role is 'review and confirmation' only, and ORC's compliance team does not support the use of the term 'certify'.  It is recommended that conditions 21 & 22 be removed, so reference to these conditions needs to be removed from condition 41.	Replace condition 42 with -  <i>Alternative final capping specifications to those specified in general condition 40 may be used where they provide equivalent or better performance. Prior to adopting the alternative capping design, the consent holder must submit details to the Otago Regional Council for acceptance. Prior to submission to the Otago Regional Council, the consent holder must provide the alternative capping design to the Independent Peer Review Panel for review and confirmation that it has been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice.</i>	The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance".  Minor amendment made to attached condition 38. Reference to the requirement for review and confirmation by the independent peer review panel followed by certification by ORC in accordance with general conditions 18 – 19 is retained as noted above.
46	ORC consider all too often, poorly designed met stations (equipment, siting etc) are installed, making the resulting data of very limited use. Suggest using the wording that was previously recommended by T+T.	Replace condition 46 with -  <i>An automatic weather station that continuously and accurately records wind speed and direction, temperature, relative humidity, and rainfall must be installed, operated, and maintained on the site in a location that is free from obstructions. The weather station must be serviced and calibrated by a suitably qualified and experienced technician at least annually to ensure accurate monitoring. Wind speed and direction are to be measured at a height of 10 m above ground level. The instruments, site location, operation, maintenance and calibration are to be in accordance with the requirements of AS/NZS 3580.14:2014 'Methods for sampling and analysis of ambient air – Part 14: Meteorological monitoring for ambient air quality monitoring applications'.</i>	The applicant notes that the current weather station at the Smooth Hill site (which will be retained) has a height of 5m rather than 10m above ground level. Wind data is adjusted using a correction factor of 1.15 to provide an equivalent wind speed measurement at a 10m height. This approach has been accepted by both NIWA and MetService who rely on such data for weather forecasting. ORC's condition wording is therefore accepted, with minor changes. See attached general condition 42.

47	<p>ORC consider there is still concern that surface water levels in the wetland are not being measured. WT1 – WT6 are designed to measure sub-surface water levels, but there are no provisions in place for measuring</p> <p>Is GW4 deliberately missing from this table?</p>	<p>Applicant to propose how this would be done.</p>	<p>General condition 47 (renumbered 43) requires piezometers to be installed at locations WT1 – WT6 in the swamp wetland for the purposes of measuring sub-surface water levels only, with such measurement being required continuously during the 36-month baseline period under general condition 51 (renumbered 47).</p> <p>General condition 47 (renumbered 43) is not intended to address measurement of surface water levels in the swamp wetland. Surface water levels within the swamp wetland are instead required to be measured at surface water monitoring locations SW3 and SW4 during the 36-month baseline period under general condition 50 (renumbered 46).</p> <p>There is no groundwater monitoring location GW4 shown on monitoring location plan C309 (attached to Mr Kirk’s evidence). Accordingly, there is no need for inclusion of GW4 in general condition 47 (renumbered 43).</p> <p>No change is made to the attached conditions.</p>
49	<p>ORC question within 3 months of what? Need to be specific about when the 3-month window commences.</p>	<p>Amend -</p> <p><i>... In the event of a well or piezometer being destroyed or unsuitable for sampling, the consent holder must replace it with a well or piezometer in the same general location within 3 months of the issue arising.</i></p>	<p>Accepted by applicant. See attached general condition 45.</p>
51	<p>ORC questions will this automated monitoring continue beyond the 36 baseline monitoring period? If yes, that needs to be stipulated here.</p> <p>There appears to be a typo with the drawing number referred to, shouldn’t it be 12506381-C309?</p> <p>Need to add the word ‘be’ into the last sentence.</p> <p>ORC’s compliance team would also like GPS references of all monitoring locations to be provided.</p>	<p>Amend -</p> <p><i>Automated monitoring equipment must be installed at the locations described in <b>Table 2</b> and as shown on drawing 12506381-C309. The consent holder must submit GPS references (in both NZTM2000 and WGS84 formats) for each monitoring location to Otago Regional Council prior to the commencement of monitoring. Automated collection of baseline data must commence at these locations at least 36 months prior to the commencement of construction of the landfill for the purpose of <del>to inform</del> the development of trigger levels and for the purpose of long-term monitoring. Monitoring must <u>be</u> for the parameters and the frequency set out in <b>Table 2</b>.</i></p>	<p>The automated monitoring under general condition 51 (renumbered 47) is not currently proposed to continue past the 36-month baseline period, however flexibility exists to continue such automated monitoring as part of the development of the long-term operational monitoring practices and procedures under general conditions 54 and 55 (renumbered 50 and 51) where appropriate.</p> <p>This could for example include continuing automated monitoring at wetland locations WT1 – WT6 as part of managing effects on wetland and freshwater habitats. Decisions on such monitoring will be made following full analysis of the baseline data, and in conjunction with the development of the ecological management plans.</p> <p>The minimum long-term operational monitoring requirements are captured in general conditions 54 to 61 (renumbered 50 – 57). This includes requirements for automated continuous monitoring for the sub-liner groundwater drainage system,</p>

			sediment retention pond for the stage 1 area, and attenuation basin.  All other changes accepted by applicant. See changes to attached general condition 47.
53	ORC consider need to refer to 'wetland water level' in a) rather than 'wetland level'.  Remove unnecessary comma in a) after 'monitoring well' to avoid misinterpretation.	Amend -  <i>a)...wetland <u>water level</u> data from each monitoring well, and piezometer....</i>	Accepted by applicant. See changes to attached general condition 49.
54	ORC consider reword d) so that it is clearer.	Amend -  <i>d) <u>Ensure compliance with the relevant conditions of this consent.</u></i>	Accepted by applicant. See changes to attached general condition 50.
55	ORC consider in reference to point b., it is noted that hydrological and water level trigger levels are not defined anywhere.  In reference to point c., see comments on condition 46 i.e. there is no provision to monitor surface water levels in the wetlands.	Applicant to propose how this would be done.	Hydrological and water level trigger levels are not proposed in the table of water quality parameters to monitored in Attachment 1 to the general conditions. The reference to establishing hydrological trigger levels in condition 55(b) (renumbered 51(b)) is therefore redundant and has been deleted in the attached conditions.  Establishing hydrological triggers levels for the purposes of initiating wetland and freshwater ecology management responses is not possible due to the dynamic and temporal nature of surface water hydrology over long time scales. Instead of establishing hydrological trigger levels, it is proposed that baseline and ongoing vegetation surveys undertaken under the Freshwater and Wetland Monitoring and Management Plan will provide effective monitoring of effects to wetland hydrology to trigger management action.  Water level and flow information will however still be collected during baseline monitoring, and during operation as noted in condition 55(c) (renumbered 51(c)) to provide context to vegetation surveys and management responses.
56	ORC consider the purpose of a trigger level is to indicate a change that requires attention before there is an adverse effect, as this allows some breathing room for the consent holder to put in place remedial measures before water quality is affected.  Turbidity is a measure, not a contaminant in itself. Suggest rewording this condition.	Amend –  <i>Water quality trigger levels must be developed and included in the Landfill Management Plan for the indicated parameters set out in <b>Attachment 1</b> to <u>identify changes in water quality requiring attention in advance of</u> <del>detect whether</del> <i>groundwater quality is being adversely affected by leachate leakage; and whether or surface water quality is being adversely affected by leachate, <del>suspended solids and turbidity</del> or any other contaminants when monitored at the following locations:</i></i>	The trigger levels proposed are based on detecting deviation from the existing, and progressively improving, condition. In the context of the site, adverse effects to groundwater and stormwater are only relevant in so far that they will result in adverse effects to the receiving surface waters. Detection of changes prior to adverse effects in surface water is achieved by identification of changes in groundwater and stormwater quality before this enters surface water. Actions in the event of trigger level exceedances are proposed to be undertaken before adverse effects to surface water occur, with these outlined in condition 58 (renumbered 54) Table 3.

			<p>It is noted that stormwater and groundwater contributions to the swamp wetland represent a minor component of flow during rain events. So while trigger level exceedance implies a potential for adverse effects to surface water, the discharge of stormwater or groundwater with contaminant concentrations above the trigger level values does mean adverse effects will occur. The trigger level methodology proposed provides a high degree of protection for the receiving environment.</p> <p>The applicant accepts that suspended solids and turbidity are a measure and not contaminants and considers that reference to “suspended solids and turbidity” should be replaced with “suspended sediment” to recognise the intent of the long-term monitoring under general condition 54 (renumbered 50) in confirming erosion and sediment controls are effective. See changes to attached condition 52.</p>
57	<p>ORC consider that in reference to point a., this type of trigger level will identify potential outliers, but won't deal with changes over time. The Commissioners have asked for more certainty, but this condition really doesn't help. From the evidence of Antony Kirk and Allen Ingles - two things emerged. The first is the need for continuous monitoring to detect situations where there is a spontaneous release of contaminants. Here the 3xSD approach is useful, but should be based on a rolling average, rather than a static baseline dataset. The second is around longer-term trends in water quality, which Mr Kirk discussed, which would achieve the objective in this condition.</p> <p>In reference to point b., this condition is getting suspended sediment and turbidity mixed up. Suggest deleting the words suspended sediment and replacing with turbidity. That would meet the intent of the condition.</p> <p>In reference to point c., suggest deleting the word 'adverse'. It also noted that there is no basis for comparison of a change at any of the SW monitoring points. In other words there is no upstream control site.</p> <p>The issue that we are facing is that the Applicant has insufficient data to come up with a trigger level, and is proposing a baseline period to enable this data to be captured. Until such time it is premature to pre-empt what the trigger level might be.</p> <p>The Applicant should either:</p>	Applicant to find a workable solution.	<p>The originally presented approach of statistical trend-based trigger levels has not been preferred by Commissioners but is considered to provide the most appropriate means of managing long term water quality where no degradation is desired. Such methods can accommodate long term improvements and detect more subtle changes in water quality that would otherwise fall within a historical range.</p> <p>As the approach was not preferred by Commissioners the current approach of defining upper concentrations trigger levels with regularly updates has been proposed in condition 57(a) (renumbered 53(a)) as follows:</p> <p style="text-align: center;"><i>Trigger levels must be reviewed every 5 years, with the lessor of the then existing trigger levels or those calculated from the proceeding 5 years monitoring data to be adopted. The review is to ensure changing land use over time (forestry cycles), slow rate of improvement over time, and variability in baseline water quality are accounted for.</i></p> <p>The assessment of trigger levels at 5 yearly intervals accommodates the long-term improvements in water quality that may result in the catchment due to landfill development and/or change in forestry.</p> <p>The upper concentration trigger method currently proposed does allow detection of long-term change in water quality, where that change results in parameter concentrations greater than previously measured at the site. This effectively constrains any changes in water quality to within the range</p>

	<p>a) Put in a lot more thought into its response to the Commissioners on how it will go about the establishment of trigger levels for the monitoring that it is proposing; or</p> <p>b) Alternatively could develop trigger levels based on water quality objectives sought for this catchment through the Regional Plan, NPS-FM, but be flexible on changing those should the baseline monitoring suggest that these objectives might be difficult to achieve due to natural catchment/water quality conditions.</p>		<p>experienced at the site over the preceding 5 years or the baseline condition if catchment improvements do not occur.</p> <p>The regular review and update of trigger levels is considered more appropriate than use of a rolling average, which would require recalculation of trigger levels with each sampling event. Rolling averages are also particularly difficult when considering continuous water quality monitoring, where the trigger would need to be continuously adjusted.</p> <p>Changes to the catchment and progressive landfill development that may improve water quality are not expected to occur at such pace as to warrant such continuous recalculation. Instead, consideration every 5 years is considered to achieve the same objective of accommodating improving conditions.</p> <p>Continuous updates also create a number of issues relating to administration, data quality and the ability to apply expertise in the consideration of trigger level updates. Having periodic reviews will allow DCC to engage an appropriately experienced water quality practitioner to undertake review of the data, provide recommendations and update the trigger levels accordingly.</p> <p>The proposed approach is commonly used for the management of discharges to the environment. Monitoring prior to the receiving environment (sentinel locations) allows detection of potential issues prior to adverse effects being realised in the receiving environment. These locations include groundwater (for long term effects) and stormwater monitoring locations (for predominantly event-based effects, such as associated with leachate collection system failure). Monitoring is also undertaken in the receiving environment to validate predictions and provide the means of further understanding any adverse effects.</p> <p>Statistical trend analysis remains an important tool of water quality practitioners to understand changing water quality and would be utilised in the event of trigger level exceedance as a means of determining whether the trigger level exceedance was the result of long term changes, a specific event or some other duration of change. Table 3 of the proposed conditions of consent outlines actions in response to trigger level exceedance, with this including statistical analysis of water</p>
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			<p>quality. Such analysis is also routinely undertaken during review of long term monitoring results, and would be included in the landfill annual monitoring report. By doing so, statistical analysis will continue to support the management of long term water quality, although not as the primary means of detecting change.</p> <p>Use of the catchment improvement targets as trigger levels, such as those which may be developed through implementation of NPSFM is not considered appropriate. This is primarily because the current water quality and effects to it are the result of the forestry within the catchment, with the improvements predicted to occur due to landfill development a result of retiring a portion of land from forestry use. The improvements are therefore achieved passively and not a function of operations and performance of the landfill i.e. there is limited potential to actively achieve water quality improvement through landfill operation.</p> <p>As the landfill makes up only a small part of the catchment within the designation, any further improvements in catchment water quality would be achieved by changes to the forestry land-use and imposing catchment improvement targets on DCC would not be appropriate.</p> <p>No changes have been made to the attached conditions.</p>
58	<p>ORC consider there is a typo with the drawing number referred to in Table 3; it should read 12506381-C309.</p> <p>The point for continuous monitoring of the sub-liner groundwater drainage system prior to discharge to the unnamed tributary of Ōtokia Creek or abstraction for non-potable water supply is not defined in the conditions or shown on Drawing 309.</p> <p>In reference to, <i>“The manhole outlet from the groundwater collection system must be closed immediately following any exceedance being detected”</i> - the condition needs to define what “immediately” means in the context of continuous monitoring. For example, if hourly measurements are being made, an immediate reaction would be within one hour.</p> <p>In reference to:</p> <ul style="list-style-type: none"> <li>- An additional monitoring round must be undertaken no later than 1 week following any</li> </ul>	Applicant to find a workable solution.	<p>Continuous monitoring of the sub-liner groundwater drainage system prior to discharge to the unnamed tributary of Ōtokia Creek or abstraction for non-potable water supply will occur at the manhole outlet from the groundwater collection system. See change made to attached general conditions 52 and 54.</p> <p>The applicant considers any change in groundwater quality from the sub-liner groundwater drainage system that is indicative of leachate contamination is likely to become apparent from continuous measurements over a long period of time, rather than being detected suddenly based on one measurement. Accordingly, the consent holder is likely to have advanced warning of any leachate contamination occurring. However, the applicant considers it would be appropriate for closure of the manhole outlet from the groundwater collection system to be closed within 1 hour. See change made to attached general condition 54.</p>

	<p>exceedance being detected and analysed for the full parameter suites outlined in Attachment 1; and</p> <ul style="list-style-type: none"> <li>- An additional monitoring round of the surface water monitoring points SW1 – SW7, and a sample from the sediment retention pond or attenuation basin, must be undertaken no later than 24 hours following any exceedance being detected and analysed for the full parameter suite outlined in Attachment 1 for SW1 – SW7.</li> </ul> <p>This commits the consent holder to doing a full suite of analyses for every exceedance of a continuous monitoring parameter. Is this really what the Applicant is proposing?</p> <p>In reference to, “<i>Sediment controls must be adjusted so that the site does not contribute a disproportionate sediment load downstream in comparison to the catchment above McLaren Gully Road</i>” – it is unclear how this would be demonstrated. Suggest that an assessment method is included in the LMP.</p>		<p>The applicant considers rather than completing a full suite of analytes for every exceedance of a continuous monitoring parameter, there should be a process of first validating the exceedance before proceeding with more detailed analysis due to the potential for overreacting to instrument errors. A change to attached general condition 54 is therefore proposed which requires that where there is an exceedance of a continuous monitoring trigger the results is first validated through inspection of the monitoring instrument, followed by retesting. Where exceedance of the trigger continues, full testing of the basic parameter suite will be undertaken.</p> <p>The applicant accepts that demonstrating how the site does not cause a disproportionate sediment load downstream in comparison to the catchment above McLaren Gully Road could be clearer. The applicant proposes the requirement in general condition 54 is amended to require discharges from the stage 1 sediment retention pond or attenuation basin shall be sampled for suspended solids and compared with samples from the adjacent contributing catchment to determine if the sediment loads from the sediment retention pond or basin are causing the exceedance of the sediment trigger levels, and if so require adjustment of sediment control measures to achieve compliance. See changes made to attached general condition 54. The sampling methodology will be included in the LMP as required under general condition 51.</p>
59	ORC consider condition c) is better placed as a standalone condition.	<p>Amend (c) as new condition -</p> <p><i>59. The Landfill Management Plan must include contingency response procedures in the event of an exceedance of trigger levels for continuous monitoring in general condition 57. This must as a minimum include the relevant actions outlined in condition 57.</i></p>	Accepted by applicant. See attached general condition 56.
61	ORC consider certification by the IPRP under c) is not appropriate. Simpler solution has been recommended.	<p>Amend –</p> <p><i>c) All sample analysis must be performed by a laboratory that meets International Accreditation New Zealand (“IANZ”) approved laboratory or otherwise as <del>specifically certified by the independent peer review panel</del> agreed in writing with the Otago Regional Council.</i></p>	Accepted by applicant. See attached general condition 57.
62	<p>ORC note it would still be its preference to reference specific tools or best practice used to measure potential offset and compensation, however, this condition is adequate when read in conjunction with conditions 64 and 67.</p> <p>Suggest including the word ‘hydrogeological’ so the effects on groundwater are included.</p>	<p>Amend -</p> <p><i>Adverse effects on wetland and freshwater ecology arising from any hydrological, hydrogeological or water quality changes...</i></p> <p><i>...with the Freshwater and Wetland Monitoring and Management Plan <u>required</u> under general condition 64...</i></p>	Accepted by applicant. See attached general condition 58.

	Insert the word 'required' to make the second sentence clearer.		
63	ORC request insert of the word 'required' to make the first sentence clearer.  Suggest rewording the opening of the second paragraph to make it clearer.	Amend –  <i>...and preparation of the Vegetation Restoration Management Plan <u>required</u> under general condition 62.</i>  <i>To define and monitor the <u>extent of the swamp wetland...</u></i>	Accepted by applicant. See attached general condition 59.
64	ORC request rewording of (c)(vi). as it currently contains conditions within conditions.  The second paragraph is a standalone condition and can be simplified.  The final paragraph ("Once certified, implementation of the plan must commence as part of the initial construction works for the landfill") is not required as condition 15 requires activities to be undertaken in accordance with the LMP, and the LMP includes the Vegetation Restoration Management Plan.	Replace condition 64(c)(vi) with –  <i><u>(vi) Ground preparation, planting and maintenance specifications so that all plants used are eco-sourced from the same eco-region, are free of pest plants, and so that plant size and densities are relevant to the location where they are being placed and relevant to the specified restoration outcomes.</u></i>  Split second paragraph into new condition –  <i><u>65. When the Vegetation Restoration Management Plan is submitted to the Otago Regional Council in accordance with condition 18, the applicant must also provide written confirmation from a suitably qualified expert in bird strike risk assessment that any proposals for restoration will not increase aviation risk from birds.</u></i>  Delete last para –  <del><i>Once certified, implementation of the plan must commence as part of the initial construction works for the landfill</i></del>	Accepted by applicant with minor amendments. See attached general conditions 60 and 61.
67	ORC request the second paragraph is a standalone condition and can be simplified.  The final paragraph ("The certified plan is to be implemented during the construction and operation of the landfill") is not required as condition 15 requires activities to be undertaken in accordance with the LMP, and the LMP includes the Vegetation Restoration Management Plan.	Split second paragraph into new condition –  <i><u>68. When the Freshwater and Wetland Monitoring and Management Plan is submitted to the Otago Regional Council in accordance with condition 18, the applicant must also provide written confirmation from a suitably qualified expert in bird strike risk assessment that any proposals for restoration will not increase aviation risk from birds.</u></i>  Delete last para –  <del><i>Once certified, implementation of the plan must commence as part of the initial construction works for the landfill</i></del>	Accepted by applicant with minor amendments. See attached general conditions 63 and 64.
70	ORC consider misuse of semicolon could lead to misinterpretation. Replace with a comma.	Amend –  <i>...and aftercare of the landfill, and construction of the road upgrades...</i>	Accepted by applicant. See attached general condition 66.
79	DIAL request the following addition to the bond condition 79(c)(viii).	Amend -  <i>(viii) Monitoring program for:</i>  <ul style="list-style-type: none"><li>• Groundwater;</li></ul>	The applicant considers this is unnecessary detail in this condition given the purpose of the condition is to broadly set out the contents of the bond. No change is made to attached condition 75.

		<ul style="list-style-type: none"> <li>• <i>Surface water;</i></li> <li>• <i>Leachate;</i></li> <li>• <i>Landfill gas; and</i></li> <li>• <i>Birds <u>management, including before closure - adaptive management under Condition 54.</u></i></li> </ul>	
84	DIAL request a new clause is added to the s128 condition given the Draft bird Management Plan, and a number of the conditions are predicated on establishing baselines through conditions, rather than pre-application.	Add - <i><u>b. Determining whether the baseline information gathered through monitoring identifies that the information provided for the purposes of the application contained material inaccuracies and that the exercise of consent would result in significant adverse effects on the environment which engage section 132(3) of the Resource Management Act 1991.</u></i>	The applicant considers this addition is unnecessary. The power under s132(3) of the RMA exists irrespective of whether it is included in a consent condition. No change is made to attached condition 80.
84	DIAL seeks the following amendment to clause (d) of the s128 condition to recognise the imposition of operational constraints on the airport by CAA.	Amend - <i><u>d. Ensuring the bird management conditions of this consent are effective to ensure there is no increase in existing bird strike risk to aviation benchmarked against baseline monitoring under Discharge to Land Condition 49 and the full risk assessment undertaken under Discharge to Land Condition 50; or in the event that the Civil Aviation Authority impose operational constraints on the Airport Operator at Dunedin Airport as related to bird strike risk as associated with breeding, habitat or foraging activities connected with this consent or operation of the site.</u></i>	The applicant considers conditions cannot be contingent on the actions of a 3 <sup>rd</sup> party (CAA). Furthermore, it is unclear how CAA would determine that the operation of Smooth Hill alone is determinative of the need to impose operational constraints on DIAL. The need to impose operational constraints on DIAL may be for a range of reasons not necessarily caused by Smooth Hill. No change is made to attached condition 80.
Attachment 1 to General Conditions	<p>ORC note continuous monitoring of suspended sediment from the Sediment Retention Pond for Stage 1, attenuation basin, and groundwater collection system prior to discharge to the unnamed tributary of Ōtokia Creek is not proposed. The consent holder will be unable to calculate its contribution of sediment to sediment loads in the catchment without measurement of discharge from the attenuation pond, and the establishment of a relationship between turbidity and suspended solids.</p> <p>In d. there is a reference to the Receiving Waters Environment Monitoring Plan, which is no longer going to be produced.</p> <p>The sentence below (Basic and full suite parameters and trigger levels to be monitored at each location are identified with a "X" in the table) does not read very well. Suggest rewording.</p>	<p>Applicant to amend the table to include continuous monitoring of suspended sediment from the Sediment Retention Pond for Stage 1, attenuation basin, and groundwater collection system prior to discharge to the unnamed tributary of Ōtokia Creek.</p> <p>Amend –</p> <p>d. The surface water monitoring points shown as SW1 – SW7 (and SW8 if access is available) on drawing 12506381-C309 or as otherwise specified in the <del>Receiving Waters Environment</del> <u>Landfill Management Plan</u>.</p> <p><u>Table 1 below shows which Basic and full suite parameters and trigger levels to be parameters must be monitored at each location are identified with a "X" in the table. Table 1 also shows locations where trigger levels for certain parameters must be monitored. Trigger levels for each parameter must be established in accordance with general condition 55.</u></p>	<p>The applicant considers that continuous monitoring of suspended solids is not technically possible, and that continuous measurement of turbidity can be used as an appropriate proxy for suspended solids. There is typically a good linear relationship between suspended solids and turbidity in surface waterways.</p> <p>All other changes accepted by applicant. See attached Attachment 1 to general conditions.</p>
<b>B. Discharge Waste and Leachate to Land Conditions (S.15 DISCHARGE PERMIT)</b>			
4 - 6 & 13 - 16	ORC consider it might be clearer for the reader to place these conditions adjacent to each other.	N/A	No change.

4	<p>ORC note the consent conditions now require (implicitly) that the loess must be treated with lime to stabilise it, which has not previously been a condition. While this may be a suitable solution for Type 1 lining system (with no GCL), it is not a suitable solution with Type 2 lining systems (where the GCL would be laid directly in contact with the lime-treated loess). The bentonite in the GCL comprises sodium bentonite, and if placed over lime-treated loess the bentonite would become saturated with calcium-rich groundwater from the lime. The calcium will replace the sodium in the bentonite by ion exchange processes, making it more permeable, and hence not performing as expected for a Type 2 liner. The use of lime stabilisation therefore needs to be specifically prohibited for a Type 2 lining system.</p> <p>As a further note, in T+T's experience, dispersive soils can be used for lining systems. Their greatest challenge is during the construction period, and there are suitable ways for managing construction (such as overfilling to provide temporary protection and then trimming back to design liner-level just before GCL/HDPE placement). However, once in place they can perform as well as any other soil, provided they achieve the target permeability.</p>	<p>Amend -</p> <p><i>Lime may be used for stabilisation of loess soils where they are to be used as part of a Type 1 lining system. Lime must not be added to loess for use with a Type 2 lining system. Alternative stabilisers, such as bentonite, can be considered for all lining systems. In addition to standard soil classification testing requirements for soil liners (including those in WasteMINZ, Technical Guidelines for Disposal to Land 2018 – Appendix B, B.1 Landfill liners), loess soil to be used for a Type 1 lining system must be assessed as part of detailed design for its suitability for re-use as a low permeable mineral liner within the landfill liner design by:</i></p> <ul style="list-style-type: none"> <li><i>a. Determining what percentage of lime or bentonite is required to stabilise the loess and reduce its dispersity to non-dispersive. The dispersity test must be undertaken in both de-ionised water and a leachate equivalent solution. <del>Alternative stabilisers, such as bentonite, can also be considered;</del> and</i></li> <li><i>b. Assessing the change, if any, in the Atterberg limits of unstabilised loess against stabilised loess. The Atterberg limits shall be determined using NZS 4402:1988 Test 2.4; and</i></li> <li><i>c. Using a triaxial cell, assessing the change, if any, in saturated hydraulic conductivity of a re-compacted stabilised sample of loess across a range of moisture contents and strains, using first de-ionised water, then a leachate equivalent solution.</i></li> </ul>	Accepted by applicant. See attached condition 4.
5	<p>ORC notes this condition defines the minimum number of (condition 4) tests to be carried out and again is reasonable. However, there is no discussion of how representative the tests/samples would be (the way it's written now, all tests could be on samples could be taken from the same spot). Additional wording has been recommended. The reference to 'lime' also needs to be removed.</p>	<p>Amend -</p> <p><i>A minimum of five tests must be undertaken on the loess under condition 4 to ensure a representative result is obtained. The results of this testing must inform the landfill design and assessment of the suitability of stabilised loess as a component of the liner design. Stabilised loess will be assessed as not acceptable if there is an increase in hydraulic conductivity of the material caused by suspected brittle micro-fracturing. The tests must be carried out on representative samples of loess taken from areas intended to be used as borrow areas for loess liner materials. Should additional borrow areas be identified later, then further samples, representative of those additional borrow areas, must be taken and tested in a similar manner.</i></p>	Accepted by applicant. See attached condition 5.
6	<p>ORC notes this condition states that if the loess is identified as unsuitable for liner, any other mineral component (e.g. clay) considered for use must be sampled and tested in a similar manner as proposed now for the loess. This is considered reasonable.</p>	N/A	No change.
9	<p>ORC note reference is made to certification by the IPRP, but the IPRP's function is 'review and confirmation' only.</p>	<p>Amend -</p> <p><i>...Where publicly available material data is used, a verification programme must be included as part of the detailed design documentation provided to the Independent Peer Review Panel for <del>certification</del> review to confirm that the construction materials align with any assumptions made as part of the slope stability analysis.</i></p>	Accepted by applicant. See attached condition 9.

13	ORC consider the liner design for the base of the landfill is the most critical as the potential for a significant leachate head to develop is much greater on the floor areas (with shallower drainage slopes and receiving all leachate from upper areas) compared with side slopes. To avoid any doubt, it should be reiterated in the condition that lime stabilised loess must not be used as part of this lining system.	Amend -  <i>The lining system for the base of the landfill (the portion of the liner that is generally less than 4% crossfall, and continuing 5 horizontal metres up the side slopes) must, as a minimum, comprise the following lining system (from top to bottom):</i> <i>a. 300 mm layer of leachate drainage material;</i> <i>b. Protection geotextile;</i> <i>c. 1.5 mm HDPE geomembrane;</i> <i>d. Geosynthetic clay liner (GCL); and</i> <i>e. 600 mm compacted soil with a coefficient of permeability <math>k &lt; 1 \times 10^{-9}</math> m/s.</i> <u><i>Lime stabilised loess must not be used as part of this lining system.</i></u>	Accepted by applicant. See attached condition 13.
14	ORC note the numbering under (b) needs to be corrected.	N/A	Accepted by applicant. Corrected in attached conditions.
15	ORC note reference is made to acceptance by the IPRP, but the IPRP's function is 'review and confirmation' only. Also, ORC's compliance team do not support the use of the term 'certify'.	Amend -  <i>Alternative lining and leachate drainage system designs to those specified in conditions 13 and 14 may be used where they provide equivalent or better performance and are submitted to the Independent Peer Review Panel for review and <del>acceptance confirmation followed by the Otago Regional Council for certification in accordance with the process in general conditions 20 – 22 that it meets this condition, that they have been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice.</del></i>	The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance". Minor change made to attached condition 15.
16	ORC note this condition discusses how to prepare the loess for use as liner. A batch processing approach is preferred, and this condition is, therefore, considered reasonable.	N/A	No change.
17	ORC note the ORC compliance team does not support the use of the term 'certify', especially in regards to material of a highly technical nature.	Replace condition 17 with -  <u><i>The installation of the landfill lining system must be subject to independent construction quality assurance (CQA), to include the soil and geosynthetic components of the lining system. On completion of each stage of lining system construction a CQA report must be prepared and submitted to the Otago Regional Council. The CQA report must include all of the test results, a description of the observations undertaken, and certification that the lining system has been installed in accordance with the specification submitted under general condition 27. Prior to submission to the Otago Regional Council, the consent holder must provide the CQA report to the Independent Peer Review Panel for review and confirmation that it has been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice.</i></u>	The applicant considers that since the CQA report is required to be independent of the consent holder, there is no need for the report to be reviewed and confirmed by the independent peer review panel, followed by certification by ORC. Instead, the independent CQA report is to be provided to the panel, who will then report the outcomes of the report to ORC as part of its annual report under general condition 13. No change made to attached condition 17.
18	ORC suggest rewording to improve grammar as (c) currently does not follow on from the first sentence.	Amend –  <i>The leachate collection system must be:</i> <i>a. Be designed...</i> <i>b. Be designed...</i> <i>c. Provide leachate...</i>	Accepted by applicant. See attached condition 18.

24, 25	ORC suggest combining and simplifying these two conditions	<p>Replace conditions 24 and 25 with -</p> <p><i><u>The level of leachate in the landfill and the volume of leachate that has been pumped from the landfill to the leachate storage facilities must be recorded daily. This record must be provided to the Independent Peer Review Panel and Otago Regional Council upon request and no less than annually.</u></i></p>	Accepted by applicant. See attached condition 24.
29	ORC consider beginning the opening sentence with 'to the extent practicable' makes it unclear whether the 10% is a consent limit or aspirational target.	<p>Replace start of condition 29 with -</p> <p><i><u>Putrescible material must make up no more than 10% (by weight) of the waste being disposed of at the Smooth Hill landfill. To ensure that this condition is complied with at all times, practices and procedures must be included in the Landfill Management Plan required by general condition 15 that provide for:..</u></i></p> <p>[LIST]</p>	The applicant notes that the 10% of residual putrescible waste is intended to be a target rather than a limit. it would be impracticable to measure organic contamination by weight in each and every load to determine compliance with a limit, especially as separating all organic contamination from a load of general waste would be practically impossible. Condition 28(e) provides a mechanism whereby confirmation that the 10% target is being met, by undertaking an annual assessment using the MfE Solid Waste Analysis Protocol. No change made to attached condition 28.
29.	<p>DIAL consider the 10% of putrescible content of waste going to Smooth Hill should be across all waste streams, including highly odorous, medical, and commercial waste, noting that DIAL also continue to oppose the acceptance of these waste streams at Smooth Hill.</p> <p>In regard to clause 29(e), DIAL question what assessment is going to be undertaken for other waste streams such as commercial and medical waste.</p>		<p>The applicant notes that the waste separation process in condition 29 (renumbered 28) captures –</p> <ul style="list-style-type: none"> <li>- To the extent practicable the removal of putrescible waste from all general waste received at the Bulk Waste Transfer Station prior to delivery to Smooth Hill. Where putrescible waste cannot be removed, such contaminated waste will be delivered to Smooth Hill as special waste and covered immediately.</li> <li>- Separation of organic food and garden waste contaminated with general waste, with such contaminated waste will be delivered to Smooth Hill as special waste and covered immediately.</li> <li>- Separation of recycling contaminated with organic food and garden waste, with such contaminated waste will be delivered to Smooth Hill as special waste and covered immediately.</li> </ul> <p>It would not be appropriate for 'highly odorous' and medical waste to be delivered to the BWTS for sorting prior to delivery to Smooth Hill. Furthermore, highly odorous waste is putrescible by nature, and therefore it is not practicable for the putrescible content of such waste received to be less than 10%. Under general condition 33 proposed by DIAL and accepted by the applicant above, 'highly odorous', medical, commercial, and industrial waste containing putrescible material will be covered immediately.</p>

			<p>While most general waste will be delivered to the BWTS for separation of any putrescible content prior to delivery to Smooth Hill, some general waste will be delivered directly by commercial waste transporters to Smooth Hill, including larger scale commercial and industrial waste. Most of the commercial and industrial waste received at Smooth Hill is likely to be non-putrescible. As noted above, to the extent that it contains putrescible material, such waste will be covered immediately.</p> <p>To provide assurance that the 10% putrescible target applies to general waste delivered directly to Smooth Hill The applicant proposes an amendment to attached condition 28(b) which requires that all commercial waste transporters delivering any general waste directly to Smooth Hill to have a valid Waste Acceptance Agreement with the Dunedin City Council at the time of delivery that requires less than 10% putrescible material of the of the total waste (by weight). The annual SWAP analysis under condition 28(e) has also been expanded to capture deliveries of such general waste to confirm the 10% target is being met.</p>
36	ORC consider this condition seems superfluous in addition to conditions 29 -34.	Remove this condition.	The applicant considers this condition is necessary in order to ensure any waste meets the waste acceptance criteria to be developed and included in the LMP under condition 32. No change is made to the attached condition 35.
37	ORC consider as noted above, the IPRP's functions are 'review and confirmation' only, and ORC compliance team does not support the use of the term 'certify'. Suggest simplifying this condition. Also need to refer to the LMP review condition (21) rather than condition 14.	<p>Replace condition 37 with -</p> <p><i><u>The consent holder must review the waste acceptance criteria included in the Landfill Management Plan and prepare a report annually identifying any changes and/or additions required to give effect to any updated applicable Ministry for the Environment and Environmental Protection Authority guidance, standards, and notices, including as a result of emerging contaminants. The report must be provided to the Independent Review Panel as part of the annual review of the Landfill Management Plan under general condition 21.</u></i></p>	<p>The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance".</p> <p>Minor changes made to attached condition 36.</p>
38	ORC request add 'to Smooth Hill landfill'	<p>Amend -</p> <p><i>Waste must only be delivered to <u>Smooth Hill landfill</u> by officers of Dunedin City Council and/or commercial waste transporters...</i></p>	Accepted by applicant with minor amendment. See attached condition 37.
Advice note after condition 38	ORC note the word 'and' is missing.	<p>Amend -</p> <p><i>...between the disposer of waste <u>and</u> the Dunedin City Council...</i></p>	Accepted by applicant. See advice note under attached condition 37.
40	ORC note the word 'is' is missing.	<p>Amend -</p> <p><i>...must be covered if there <u>is</u> any potential for litter or debris...</i></p>	Accepted by applicant. See attached condition 39.

44	<p>ORC suggest adding 'and' after a. Typo in 44 b. Suggest moving c. to a standalone condition as it does not follow from the first sentence well.</p>	<p>Amend -</p> <p><i>44. Quarantined special waste received at Smooth Hill under conditions 29(c) and (d) must be:</i></p> <p><i>a. Pre-booked to ensure preparations are made including ensuring cover material is available at the disposal location; <u>and</u></i></p> <p><i>b. Prioritised for disposal ahead <del>or</del><u>of</u> more general waste and loads and covered immediately.</i></p> <p><i><u>45. The Landfill Management Plan required by general condition 15 must include specific practices and procedures for the pre-acceptance, handling, and placement of quarantined special waste. This must include as minimum processes for prioritising placement and covering of quarantined special waste as required by conditions 44(a) and (b).</u></i></p>	Accepted by applicant. See attached conditions 43 and 44.
46	ORC suggest adding 'and' after each point.	<p>Amend -</p> <p><i>Records must be maintained of:</i></p> <p><i>a. The quantities and types of waste accepted and rejected;</i></p> <p><i>b. Load inspections; <u>and</u></i></p> <p><i>c. Disposal locations of highly odorous and special waste</i></p> <p><i>These records must be included in the annual report provided under general condition 71.</i></p>	Accepted by applicant. See attached condition 45.
49	<p>ORC consider first sentence is very long, suggest restructuring.</p> <p>Note that the killing of any BBGs is contrary to the aspirations of Mana Whenua relating to the protection of taonga species.</p>	<p>Replace condition 48 with -</p> <p><i><u>Within 6 months of the granting of this consent, the consent holder must engage a suitably qualified person to prepare and submit to the Otago Regional Council a Southern Black-Backed Gull Management Plan. The purpose of this plan must be to manage the availability of food for black backed gulls at the Green Island landfill and to manage the success of black backed gull breeding at accessible Dunedin breeding sites, with the objective of reducing the existing level of aviation bird strike risk prior to the closure of the Green Island landfill. The plan must be developed...</u></i></p>	Accepted by applicant with minor changes. See attached condition 48.
49	DIAL consider the condition should specify that this plan is to be implemented by the consent holder and include measurable targets for reduction in numbers.		Accepted by applicant. See attached condition 48. A new clause (c) has been added to the condition requiring inclusion of measurable targets for reduction of the population. The applicant considers that setting such targets needs to be informed by monitoring to confirm the baseline population characteristics, and consultation with stakeholders as required by the condition.
50	<p>ORC consider in the second sentence, further monitoring might supplement or 'add to' previous monitoring but does not 'update' it per say, as it cannot retrospectively change what was monitored previously.</p> <p>Under b, no comma is needed after 'other species'. Under b, what if no management initiatives have been deployed at GI in the 12-month monitoring period?</p>	<p>Amend –</p> <p><i>...The purpose of the monitoring is to <del>updated</del> <u>build on</u> monitoring previously completed to inform the resource consent application, and:...</i></p> <p><i>b. Determine how southern black-backed gulls and <u>key</u> bird other species respond to management initiatives <del>at Green Island Landfill and their key breeding sites leading up to its closure to organic waste, as informed by monitoring completed undertaken as part of the</del> Southern Black-Backed Gull Management Plan required by condition 48.</i></p>	Accepted by applicant with minor wording changes. See attached conditions 49 and 50.

	Suggest that the second part of this condition is a standalone condition. Rework d. so that it reads more clearly.	Add - <i>d. <u>Surveys of key habitats across the Dunedin area and surrounds.</u></i>	
50	DIAL request the amendment of clause (b) -	Amend - <i>b. Determine how southern black-backed gulls and other species, respond to management initiatives at Green Island Landfill <u>and measurable reductions in numbers, and their key breeding sites leading up to its closure to organic waste, as informed by monitoring completed as part of the Southern Blacked Backed Gull Management Plan under condition 48.</u></i>	The applicant considers this addition is unnecessary given the condition cross references to the SBBG management plan in condition 48. Measurable targets will be included in the SBBG management plan as noted above. No change is made to attached condition 49.
52	<b>It is not clear whether or not this condition has been developed in consultation with DIAL and the CCA, as requested in Minute 4.</b>  ORC consider the purpose can't be 'confirming that the landfill will not increase the existing level of bird strike risk, because it's not certain that the assessment will draw this conclusion. Suggest this is addressed by elaborating on point f. instead.  Need to refer to monitoring undertaken under condition 49, not 48.	Amend -  <i>51 <u>The consent holder must engage a suitably qualified expert to undertake a full aviation bird strike risk assessment <del>must be completed by a suitably qualified expert at least 6 months prior to construction of the landfill commencing</del> for the purpose of confirming <u>whether or not the landfill will not increase affect the existing level of aviation bird strike risk taking into account.</u> This assessment must consider the results of monitoring undertaken under condition 50. The risk assessment must address the limitations outlined in the Smooth Hill Preliminary Bird Hazard Assessment, Avisure, dated May 2021, and consider the following:</u></i> <i>a. Species (behaviour, mass, tendency to flock or roost communally).</i> <i>b. Land use / activity type.</i> <i>c. Location relative to Dunedin International Airport and the approach / departure paths.</i> <i>d. Location relative to nearby land uses that may also attract, or have the potential to attract, birds.</i> <i>e. Species strike risk based on Dunedin Airport strike data.</i> <i>f. <del>Recommended</del> Landfill operational procedures and bird control and deterrence measures required to ensure that there is no increase in aviation bird strike risk resulting from the construction, operation and closure of the landfill.</i>  <i>The <u>completed</u> risk assessment must be provided to the Otago Regional Council, the Independent Peer Review Panel, and Dunedin International Airport <u>at least 6 months prior to construction of the landfill commencing.</u> The risk assessment must also be <del>and</del> used to inform the Landfill Operational Bird Management Plan required by condition 55.</i>	DIAL has been consulted and sought no changes to this condition.  The applicant accepts clause (f) could be expanded as requested by ORC. Furthermore, it accepts the completed assessment should also be provided directly to ORC. See attached changes to condition 51.
53	<b>It is not clear whether or not this condition has been developed in consultation with DIAL and the CCA, as requested in Minute 4.</b>  ORC consider the condition needs rewording as it currently reads that the bird control officer only needs to be in their poison until operation commences.	Amend -  <i>53 <u>Prior to commissioning of the landfill, the consent holder must appoint <del>and retain</del> a Bird Control Officer responsible for overseeing bird management at the site prior to the operation of the landfill commencing, and retain someone in this position throughout the operational lifetime of the landfill. The Bird Control Officer must be suitably trained to undertake the following responsibilities:</u></i> <i>a. Ensuring bird sightings at the site are recorded in the bird registers required by condition 55.</i> <i>b. Identifying when bird trigger levels are exceeded, notifying Dunedin International Airport, and initiating and overseeing management actions required by condition 56.</i>	DIAL has been consulted and sought the changes in the row below.  The applicant accepts the condition should also require the Bird Control Officer to be retained for the duration of the landfill's operation. See attached change to condition 52.

53	DIAL request the amendment of condition 53	<p>Amend -</p> <p><i>53 The consent holder must appoint and retain a Bird Control Officer responsible for overseeing bird management at the site prior to commencement, and throughout the operation of the landfill commencing. The Bird Control Officer must be suitably trained to undertake the following responsibilities:</i></p> <p><i>a. Ensuring bird sightings at the site are recorded in the bird registers under condition 55.</i></p> <p><i>b. Identifying when bird trigger levels are exceeded, notifying Dunedin International Airport within one (1) hour of the trigger level being exceeded, and initiating and overseeing management actions under condition 56.</i></p>	Accepted by applicant with minor wording changes. See attached change to condition 52.
54	<p><b>It is not clear whether or not this condition has been developed in consultation with DIAL and the CCA, as requested in Minute 4.</b></p> <p>ORC consider provisions for the placement of a net or array of closely spaced wires over the attenuation basin has been removed from the consent conditions. Suggest adding this to condition 52.</p> <p>Note that this is included on the damming/diversion permit, but it is best included here as its primary purpose is as a bird deterrence method.</p>	<p>Add -</p> <p><i>e. A net or an array of closely spaced wires over the attenuation basin to prevent the basin attracting birds.</i></p>	<p>DIAL has been consulted and sought the changes in the row below.</p> <p>The applicant considers proposed clause (e) is more appropriately contained on the damming/diversion permit as it relates specifically to the effects of that activity as opposed to discharge of waste to land. No change is made to attached condition 53.</p>
54	DIAL request the amendment of clause (d) -	<p>Amend (d) -</p> <p><i>d. A design and specifications for wires and a bird exclusion net over the active landfill area, and a list of pre-approved contractors for supply of materials and installation of the wires and net must be prepared and maintained. Where under Condition 54(d) there are more than nine (9) breaches of the threshold in Condition 54(c) in any 12-month period, a net shall be prepared and stored on site.</i></p>	<p>The applicant understands the intent of this change is to ensure a net is ready and available on site prior to the threshold in condition 54(d) (renumbered 55(d)) being breached that would require installation of the net.</p> <p>The applicant is concerned that requiring the preparation and storage of the net on the site may result in a net being prepared at significant cost but ultimately never used if the threshold in condition 54(d) (renumbered 55(d)) is never breached.</p> <p>The applicant however is willing to require that where there is any breach of the threshold in condition 54(c) (renumbered 55(c)), the consent holder ensure the pre-approved contractors have the materials and resources immediately available to prepare a net. See attached change to condition 55(c).</p>
55	<p><b>It is not clear whether or not this condition has been developed in consultation with DIAL and the CCA, as requested in Minute 4.</b></p> <p>ORC note Point a. could be worded more clearly. The word 'of' is missing from b.</p>	<p>Amend -</p> <p><i>The following bird registers must be maintained on site and updated daily during operation of the landfill:</i></p>	<p>DIAL has been consulted and sought the changes in the row below.</p> <p>Accepted by applicant. See changes to attached condition 54.</p>

	<p>Points b and c should include reference to species. How will it be possible to monitor the number of birds killed by poisoning? Points d – f need rewording.</p>	<p>a. <del>The number and species of birds</del> <del>bird species</del> with an individual body weight exceeding 50 g <u>sighted at the site</u> (as per condition 55(f) these species will be listed in the Landfill Operational Bird Management Plan).</p> <p>b. The number <u>and species</u> of birds killed by shooting at the site.</p> <p>c. <u>Where known</u>, the number <u>and species</u> of birds killed by poison at the site.</p> <p>d. The <u>date and</u> number <del>and date</del> of breaches of the bird threshold triggers specified in condition 54.</p> <p>e. The date/s that bird control measures in condition 54 are implemented and the duration of implementation.</p> <p>f. A success register that documents how effective bird control measures are / were in reducing the bird numbers to below the trigger levels specified in condition 54.</p> <p>g. Sightings of eastern falcon at or near the landfill (this will help inform if it is appropriate to use falcon decoys as a potential bird control option).</p> <p>These registers must be provided monthly to <u>the Otago Regional Council</u>, the Independent Peer Review Panel and Dunedin International Airport Limited.</p>		
55	DIAL request the amendment of clause (d) -	<p>Amend -</p> <p>d. The number and date of bird threshold <u>counts at the site that</u> trigger breaches with condition 54</p>		Accepted by applicant with minor wording changes. See changes to attached condition 54.
54	<p><b>It is not clear whether or not this condition has been developed in consultation with DIAL and the CCA, as requested in Minute 4.</b></p> <p>Under Trigger Level A, correct grammar would be “fewer than 20 individuals’.</p> <p>Under Trigger Level B, it is not clear why ‘progressive’ implementation of lethal bird control measures is now proposed, or what threshold needs to be reached for the next level of lethal control to be implemented. It would be impossible for the consent holder to target only non-threatened species with poison, and so this condition is unworkable.</p> <p>It isn’t clear why colony control would only be initiated once these thresholds are reached. This seems to be contrary to the intention of the Black-Backed Gull Management Plan, which requires colony control (where possible) regardless.</p> <p>It is still not obvious in the wording of the Trigger Level B provisions that BBGs are likely to be the only applicable bird species that can be controlled by lethal methods, and, therefore, if 20 or more individuals of other species are present then actions must quickly escalate to those specified in Trigger Level C.</p>	<p>Amend -</p> <p><b>Trigger Level</b></p> <p>a. Where at any time there are <del>fewer less</del> than 20 individuals with a typical adult body mass greater than 50 g.</p> <p>b. Where at any time there are more than 20 individuals with a typical adult body mass greater than 50 g.</p>	<p>Amend -</p> <p><b>Management Action</b></p> <p>Implementation of operational procedures set out in this consent and the Landfill Management Plan.</p> <p>Implementation of bird deterrence and control measures, including dispersal of birds from the active landfilling area.</p> <p>Notify Dunedin International Airport within 1 hour.</p> <p>In addition to the above <del>progressive implementation of lethal bird control measures including:</del></p> <p>a. Shooting of non-protected species; followed by <u>and</u> b. Poisoning of non-protected species; followed by c. <del>Colony control in accordance with the Southern Black-Backed Gull Management Plan under condition 48.</del></p>	<p>DIAL has been consulted and sought the changes in the row below.</p> <p>The applicant notes that the progressive implementation of the lethal control measures under clause (b) reflects the intent of the draft Landfill Operational Bird Management Plan whereby control measures escalate relative to the numbers of birds and success of control. The applicant considers it is possible to target only non-protected species with poison as noted in the methods detailed in the draft Landfill Operational Bird Management Plan.</p> <p>The Southern Black Backed Gull Management Plan under condition 48 is a measure that is proposed to be implemented in advance of the closure of Green Island landfill and the commencement of the operation of Smooth Hill. Accordingly, it may not necessarily continue to be implemented during the operation of Smooth Hill. The requirement in clause (c) is intended to ensure reactivation of that plan (if not otherwise in effect at the time a breach of the threshold in clause (b) occurs). Amendments are proposed to attached condition 55(b) to make this clearer.</p> <p>The applicant considers the trigger under clause (c) is clear that where there are more than 20 individuals from a species greater than 50 g, or combined numbers of these species</p>

	<p>It is appropriate to require the consent holder to cease the discharge of all problematic (putrescible) wastes in the event that a net or wires is required, and that this waste must not be accepted again until the net/wires is commissioned. In the hearing, Mr Shaw acknowledged DIAL's concerns that there may be some delay in installing the net and advised that there may need to be diversion of problematic wastes in the meantime.</p>	<p><i>c. Where <del>lethal bird control measures in (b) above are unsuccessful and</del> at any time there are more than 20 individuals from a species greater than 50 g, or combined numbers of these species exceeds 100 individuals.</i></p> <p><i>d. Where there are more than 12 breaches of the threshold in c. above in any 12-month period</i></p>	<p><i>b. Initiation of preparations for implementing the bird control measures in c. below.</i></p> <p><i>Notify Dunedin International Airport within 1 hour.</i></p> <p><i>In addition to the above, <del>implementation of additional bird deterrence and control measures, including cessation of the acceptance of any putrescible or highly odorous waste at the Smooth Hill landfill until the following measures have been put in place:</del></i></p> <p><i>a. Installation of wires above the active landfilling area.</i></p> <p><i>b. Bailing waste</i></p> <p><i>c. Initiation of preparations for implementing the bird control measures in d. below.</i></p> <p><i>Notify Dunedin International Airport within 1 hour.</i></p> <p><i>In addition to the above, <del>cessation of the acceptance of any putrescible or highly odorous waste at the Smooth Hill landfill until the following measures have been put in place:</del></i></p> <p><i>a. Installation of a bird exclusion net over the active landfilling area.</i></p> <p><i>b. For the remaining landfill area, implementation of the landfill operational procedures set out in the Landfill Operational Bird Management Plan.</i></p>	<p>exceeds 100 individuals, the listed actions in clause (c) must then be implemented.</p> <p>The applicant notes that the intention is for the landfill to not accept putrescible waste other than –</p> <ul style="list-style-type: none"> <li>- General waste and recycling contaminated with organic food and garden waste.</li> <li>- Organic food and garden waste contaminated with general waste</li> <li>- Highly odorous waste</li> <li>- Commercial and industrial waste</li> <li>- Medical waste.</li> </ul> <p>With the exception of highly odorous waste which is putrescible by nature, the putrescible content of the waste received is targeted to be less than 10%. All waste containing putrescible material will be buried immediately as required by general condition 33 such that it will not be a source of attraction to birds. Consequently, the applicant considers it is not necessary to require the cessation of the acceptance of any putrescible or highly odorous waste in the event that the threshold triggers in clauses (c) and (d) are exceeded.</p>
54	<p>DIAL considers there should be more certainty as to how the Southern Black Backed Gull colony control under clause (b) will be initiated such that there is certainty.</p>			<p>The applicant accepts clause (b) should provide greater certainty as to the activation of colony control in recognition that the Southern Black Backed Gull Management Plan under condition 48 is a measure that is proposed to be implemented in advance of the closure of Green Island landfill and the commencement of the operation of Smooth Hill and may not necessarily continue to be implemented during the operation of Smooth Hill.</p> <p>Amendments are proposed to clause (b) to require reactivation of the SSBG Management Plan under condition</p>

			48 when the threshold in clause (b) is exceeded. See attached change to condition 55.				
54	DIAL requests amendment of clause (d) -	Amend (d) –  <i>Notify Dunedin International Airport within 1 hour <u>of explicitly identifying a breach of the 12 month threshold</u></i>	Accepted by applicant. See attached change to condition 55.				
54	DIAL request the addition of a new clause (e).	Add new clause (e) –  <table border="1"> <thead> <tr> <th>Trigger Level</th> <th>Management Action</th> </tr> </thead> <tbody> <tr> <td><i>e. Where DIAL advises the consent holder that the Civil Aviation Authority has imposed additional constraints on Dunedin Airport related to Birdstrike risk.</i></td> <td><i>Installation of a bird exclusion net over the active landfilling area.</i>  <i>For remaining landfill area, implementation of the landfill operational procedures set out in the Landfill Operational Bird Management Plan.</i></td> </tr> </tbody> </table>	Trigger Level	Management Action	<i>e. Where DIAL advises the consent holder that the Civil Aviation Authority has imposed additional constraints on Dunedin Airport related to Birdstrike risk.</i>	<i>Installation of a bird exclusion net over the active landfilling area.</i>  <i>For remaining landfill area, implementation of the landfill operational procedures set out in the Landfill Operational Bird Management Plan.</i>	The applicant considers conditions cannot be contingent on the actions of a 3 <sup>rd</sup> party (CAA). Furthermore, it is unclear how CAA would determine that the operation of Smooth Hill alone is determinative of the need to impose operational constraints DIAL. The need to impose operational constraints on DIAL may be for a range of reasons not necessarily caused by Smooth Hill. No change is made to attached condition 55.
Trigger Level	Management Action						
<i>e. Where DIAL advises the consent holder that the Civil Aviation Authority has imposed additional constraints on Dunedin Airport related to Birdstrike risk.</i>	<i>Installation of a bird exclusion net over the active landfilling area.</i>  <i>For remaining landfill area, implementation of the landfill operational procedures set out in the Landfill Operational Bird Management Plan.</i>						
57	<b>It is not clear whether or not this condition has been developed in consultation with DIAL and the CCA, as requested in Minute 4.</b>  ORC consider it is unclear what further value the Landfill Operational Bird Management Plan will add that is not already provided for in the conditions of consent. It may be that there will be a lot of overlap between the Landfill Operational Bird Management and the condition of consent, which could cause confusion. Perhaps the applicant could consider a way of consolidating all of this. The final paragraph of this condition needs to be reworded as the function of the IPRP is ‘review and confirmation’, and because ORC’s compliance team does not support the use of the term ‘certify’.	Amend -  <i>The plan must be provided to Dunedin International Airport Limited for review and feedback, before being submitted to the Independent Peer Review Panel for review and <del>acceptance</del> confirmation that it has been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice. The finalised plan must be submitted to followed by certification by the Otago Regional Council in accordance with the process in general conditions 20 – 22 prior to commissioning of the landfill. The certified plan must be implemented at all times during the operation of the landfill.</i>	DIAL has been consulted and sought no changes to this condition.  The applicant considers that the Bird Management Plan remains an important part of the overall suite of bird management conditions in clearly setting out how the more specific performance-based conditions will be implemented in practice during the operation of the landfill. The final Landfill Operational Bird Management Plan will need to be developed to align with the conditions such that no conflict or confusion will result.  The applicant considers that it is appropriate for ORC’s role to be described as “certification” rather than “acceptance”. Minor change made to attached condition 56.				
59	DIAL considers it should be made clear that the consent holder is to establish the Bird Management Operational Group, and not DIAL.  DIAL note there is no ability for the BMOG to escalate the adaptive management regime under condition 56 as contained in previous suite’s of the conditions.  DIAL request a cross reference in clause 59(b)(ii) to conditions setting out the approval processes for the LMP.	Add to clause (b)(ii) -  <i>b.(ii). whether any improvements are required to the Landfill Operational Bird Management Plan and how these are to be implemented pursuant to Landfill Management Plan Conditions 15, 24 and 25.</i>	The applicant accepts the consent holder is to establish the Bird Management Operational Group. See attached change to condition 58.  As noted above the applicant considers conditions cannot be contingent on the actions of a 3 <sup>rd</sup> party and therefore it would not be appropriate for the Bird Management Operational Group to require escalation of management actions under condition 55.  The applicant considers inclusion of the cross reference in clause (b)(ii) setting out the approval processes for the LMP is unnecessary, as this is addressed in condition 59.				

60	<p><b>It is not clear whether or not this condition has been developed in consultation with DIAL and the CCA, as requested in Minute 4.</b></p> <p>ORC consider this condition needs to be reworded as the function of the IPRP is 'review and confirmation', and because ORC's compliance team does not support the use of the term 'certify'.</p>	<p>Amend -</p> <p><i>Following any meeting under condition 59 the consent holder must (if necessary) update the Landfill Operational Bird Management Plan. The updated plan must be provided to Dunedin International Airport Limited for review and feedback, before being submitted to the Independent Peer Review Panel for review and <del>acceptance</del> confirmation that it has been prepared by appropriately qualified personnel in accordance with the conditions of this consent and in accordance with good practice. The finalised plan must be submitted to <del>followed by certification by the Otago Regional Council in accordance with the process in general conditions 20-22.</del></i></p>	<p>DIAL has been consulted and sought the changes in the row below.</p> <p>The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance". Minor change made to attached condition 59.</p>
60	DIAL requests amendment of condition 60	<p>Amend -</p> <p><i>60. Following any meeting under condition 57 the consent holder must (if necessary) update the Landfill Operational Bird Management Plan. The updated plan must be provided to Dunedin International Airport Limited for review and feedback, before being submitted, <u>along with any feedback from DIAL</u>, to the independent peer review panel for review and acceptance, followed by certification by the Otago Regional Council in accordance with the process in general conditions 20 - 22.</i></p>	Accepted by applicant. See attached change to condition 59.
67	ORC consider that under clause (f), there is no requirement to develop procedures for diverting waste while fires are being addressed.	<p>Add to condition 67(f) -</p> <p><i>viii. <u>Procedures for managing waste onsite that cannot be buried while fires are being tackled - particularly to ensure that birds are deterred from this waste - and procedures for diverting other waste away from the site while fires are being tackled.</u></i></p>	Accepted by applicant with minor amendments. See attached condition 66(f).
<b>C. Discharge of Odour, Dust, LFG and Flare Emissions to Air (S.15 DISCHARGE PERMIT)</b>			
3	<p>ORC note typo with the word 'qualified'.</p> <p>The second sentence would be better placed as an advice note.</p>	<p>Amend -</p> <p><i>...of a suitably <del>qualified</del> qualified and experienced...</i></p> <p><i>Advice Note: The determination of an offensive or objectionable effect must take into account the FIDOL factors and be made based on the guidance provided in Section 4.1.1 and Table 6 of the Ministry for the Environment Good Practice Guide for Assessing and Managing Odour (2016) or Section 4.2.1 and Table 8 of the Ministry for the Environment Good Practice Guide for Assessing Dust (2016).</i></p>	Accepted by applicant. See attached condition 3.
8	ORC notes the hours for receiving highly odorous loads were previously 10am – 4pm. There is no explanation as to why this has been changed to 9.30am – 4pm. Suggest changing back to 10am – 4pm.	<p>Amend -</p> <p><i>a. Highly odorous loads must only be received between the hours of <del>9.30am</del> 10:00 am and 4.00pm.</i></p>	The change to 9.30am was included in the conditions provided in the applicant's evidence to the Panel and was made to better align with the timing of commercial deliveries, including what currently occurs at the Green Island landfill. The applicant considers there is no apparent odour mitigation benefit from receiving odorous loads at the site 30 minutes earlier. No change made to attached condition 7.
8	<p>DIAL continue to oppose the acceptance of highly odorous waste.</p> <p>DIAL consider this waste stream needs to be part of the 10% of putrescible content of waste going to Smooth Hill.</p>		<p>The applicant acknowledges DIAL continue to oppose acceptance of highly odorous waste.</p> <p>As noted above in regard to condition 55 on the discharge to solid waste conditions, highly odorous waste is putrescible by</p>

			nature, and therefore it is not practicable for the putrescible content of the waste received to be less than 10%. All highly odorous waste will be buried immediately as required by general condition 33 such that it will not be a source of attraction to birds.
13	ORC question whether the second sentence is meant to refer to 18 months rather than 12 months?	Amend -  <i>...Sampling of ground gas must occur monthly for <del>12</del>18 months for the full suite of parameters set out in <b>Attachment 2</b>.</i>	The applicant accepts there is an inconsistency in this condition as to whether the baseline monitoring period is 12 or 18 months. A change has been made to attached condition 13 to refer to 12 months for consistency with condition 14.
16	ORC consider this condition should be more specific about the relevant regulations.	Amend -  <i>... and <u>Regulations 25, 26 and 27 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004.</u></i>	Accepted by applicant. See attached condition 16.
24	ORC request removal of reference to 'certified' details.	Amend -  <i>...in accordance with the specification <del>certified by</del> submitted to the Otago Regional Council under general condition 27...</i>	The applicant considers that it is appropriate for ORC's role to be described as "certification" rather than "acceptance". No change is made to attached condition 24.
27	ORC note check numbering in second half of this condition.	N/A	Accepted by applicant. Corrected in attached conditions.
31	ORC note Typo in the word 'trigger'  IPRP review of proposed trigger levels has been removed. Suggest adding this back in.	Amend –  <i>Trigger levels must be developed...</i>  <i>Proposed trigger levels must be provided to the Independent Peer Review Panel for review and confirmation that they are suitable to detect landfill gas. The consent holder must communicate this confirmation to Otago Regional Council prior to waste being accepted or at least 3 months following completions of any updated LFGRA.</i>	The applicant notes that the condition requires the trigger levels to be included in the LMP. As such they will be required to be provided as part of the LMP to the Independent Peer Review Panel for review and confirmation, followed by certification by ORC separate of this condition.  Minor change made to attached condition 31.
Table 2	ORC note this is Table 1 of the air discharge permit and should be numbered as such.	N/A	Accepted by applicant. See attached Attachment 1 to conditions.
<b>D. Discharge of Stormwater and Collected Groundwater to Water (S.15 DISCHARGE PERMIT)</b>			
6.	ORC question why has "within the landfill perimeter drain where design flows exceed 0.8m/s" been removed from this condition? Suggest reinstating the original condition.  Note that this has been placed on the damming/diversion permit (condition 6) instead, but it's not clear why.	Amend -  <i>Suitable scour protection must be placed <u>within the landfill perimeter drain where design flows exceed 0.8m/s, and placed at the outlet and spillway of the attenuation basin, to prevent scour.</u></i>	The applicant considers this condition more appropriately sits within the damming and diversion consent as it relates to diversion rather than discharge activities. No change made to condition 6.
11	ORC note under e., the use of the word 'earthworked' can be confusing. Suggest rewording to make more sense.	Replace condition 11(e) with -  <i><u>Areas where earthworks activities are undertaken are progressively stabilised with vegetation or other means as soon as practicable upon completion.</u></i>	Accepted by applicant. See attached condition 11.
<b>E. Take and Use of Groundwater from Landfill Groundwater Collection Systems (S14 WATER PERMIT)</b>			
	No comments.		No change.

F. Diversion and Damming of Surface Water within the Landfill Site (S.14 WATER PERMIT)			
4	ORC note typo after 'storm event'	Amend -  <i>...constructed to manage a 1% AEP (Annual Exceedance Probability) storm event and must be...</i>	Accepted by applicant. See attached condition 4.
G. Earthworks and Vegetation Clearance (S.9 LAND USE CONSENT)			
3	<p>ORC note following -</p> <p>a. What 'activity' exactly?</p> <p>e. Better grammar would be 'is' instead of 'must be'. Why does this condition refer to 'receiving waterbodies, but 5.f. refers to 'natural wetlands'?</p> <p>Does this list need to include a clause prohibiting the clearance of native vegetation?</p>	<p>Amend -</p> <p><i>a. <del>Machinery used for the activity sits outside the bed of a natural wetland. No machinery may be operated from within the bed of any natural wetland.</del></i></p> <p><i>e. ...into <u>natural wetlands or receiving waterbodies</u> <del>must be</del> <u>is</u> minimised as far as practicable.</i></p> <p>Add –</p> <p><i>g. <u>There is no clearing of native vegetation as a result of the exercise of this consent.</u></i></p>	<p>Changes to clause (a) and (e) accepted by applicant. See attached condition 3.</p> <p>The applicant notes that the areas within 10m of natural wetlands within the landfill site where vegetation clearance will occur are areas identified in the Boffa Miskell Ecological Impact Assessment (EIA) as 'Radiata Pine / gorse / cocksfoot – Yorkshire fog treeland'. The EIA notes that overall this vegetation type is not indigenous, however some weedy, fast-establishing indigenous species such as poroporo, fireweed and groundsel may however be present in these areas for which clearance will be required. The applicant therefore does not support ORC's proposed clause (g). The applicant further notes that effects on terrestrial flora and fauna will be a relevant matter to be addressed as part of the outline plan of works application. This is alluded to in advice note (b) of the discharge to land consent.</p>
Advice note after condition 3.	ORC note - advice note – best to refer to the consent number rather than 'the <i>Discharge of Contaminated Stormwater and Collected Groundwater to Water conditions</i> '	<p>Amend -</p> <p><i>Advice Note: Best practice stormwater, erosion, and sediment controls are required to be implemented in accordance with <del>the discharge of contaminated stormwater and collected groundwater to water conditions</del> <u>Discharge Permit RM20.280.XX</u></i></p>	Accepted by applicant. See attached advice note after condition 3.
5	<p>ORC note the following -</p> <p>a. Suggest rewording as above.</p> <p>c. The word 'water' is missing from c.</p> <p>f. Suggest rewording as above.</p> <p>Does this list need to include a clause prohibiting the clearance of native vegetation?</p>	<p>Amend -</p> <p><i>a. <del>Machinery used for the activity sits outside the bed of a natural wetland. No machinery may be operated from within the bed of any natural wetland.</del></i></p> <p><i>c. The points at which <u>water</u> flows into and out of any natural wetland does not change.</i></p> <p><i>f. ...into natural wetlands <u>or receiving waterbodies</u> <del>are</del> <u>is</u> minimised as far as practicable.</i></p> <p>Add –</p> <p><i>h. <u>There is no clearing of native vegetation as a result of the exercise of this consent.</u></i></p>	<p>Changes to clauses (a), (c), and (f) accepted by applicant. See attached condition 5.</p> <p>The applicant notes that the areas within 10m of natural wetlands along the road upgrades where vegetation clearance will occur are areas identified in the Boffa Miskell Ecological Impact Assessment (EIA) as either 'Yorkshire fog – cocksfoot grassland' or 'Gorse scrub'. The EIA notes that overall these vegetation type are not indigenous, however some weedy, fast-establishing indigenous species such as poroporo, fireweed and groundsel may however be present in these areas for which clearance will be required. The applicant therefore does not support ORC's proposed clause (h). The applicant further notes that effects on terrestrial flora and fauna have been considered as part of the application to DCC</p>

			for the road upgrades, and any such vegetation clearance would be authorised under that consent.
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