



December 7, 2016

Reference No. 088877

Mr. Allan Leuschen
Senior Environmental Protection Officer
Authorizations - South
Environmental Protection Division
Ministry of Environment

Original Sent Via Email

Dear Mr. Leuschen:

**Re: Responses to Comments dated October 6, 2016
Upland Landfill Waste Discharge Application
Upland Excavating, Campbell River, BC**

GHD is submitting this letter to the Ministry of Environment (MOE) on behalf of Upland Excavating Ltd. in response to the MOE's letter dated October 6, 2016 regarding "Application for an Operational Certificate under the Environmental Management Act on behalf of Upland Excavating Ltd. (Upland)." The Waste Discharge Application (Application) was submitted to obtain an Operations Certificate for the Upland Landfill (Site) to replace the existing Permit PR-10807. The Application is filed under Tacking Number 335965 and Authorization Number 107689.

1. Background

GHD submitted the Application to the MOE on May 27, 2016 on behalf of Upland. The Application included the following documents:

- Waste Discharge Application Form
- Technical Assessment Report
- Hydrogeology and Hydrology Characterization Report
- 2016 Design, Operations, and Closure Plan
- 2016 Geotechnical Investigation
- Stakeholder Consultation Summary Report

GHD understands that the MOE conducted a review of the documents and has identified additional information required for the review.

2. Requested Additional Information

In the October 6, 2016 letter, the MOE provided a list of twelve additional information requests. A copy of the letter is provided in Attachment A. The list of information requests has been reviewed and responses provided on behalf of Upland are summarized in Table 1. The responses present an action plan that is



proposed to be carried out to develop the additional information requested and the proposed format for submitting the information.

3. Additional Information Requested by Stakeholders

GHD and Upland will work to ensure that carrying out the action plan referenced above will assist with developing responses to the Stakeholder comments received during Upland's September to October 2016 Stakeholder consultation period.

4. Proposed Timeline

As shown in Table 1, each of the twelve additional information requests require varying levels of effort to address. Upland proposes to complete the required work as described in Table 1 in a staged approach. The timeline for completing the required work and submitting the additional information the MOE is provided in Figure 1.

We trust the action plan and corresponding timeline proposed herein is satisfactory to the MOE. Should you have any questions or require further information regarding the proposed action plan please do not hesitate to contact the undersigned.

Sincerely,

GHD

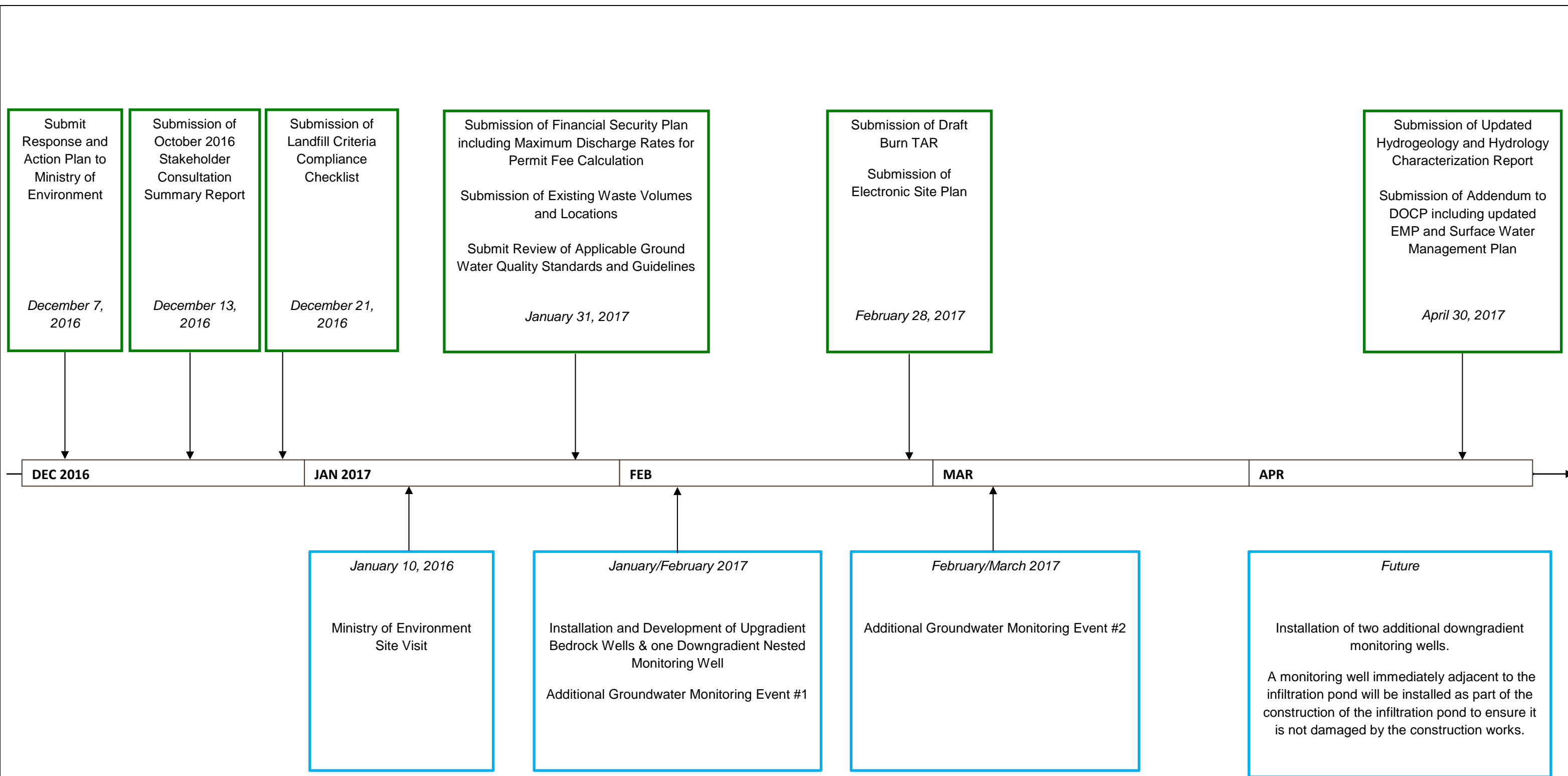
A handwritten signature in blue ink, appearing to read "Gregory D. Ferraro".

Gregory D. Ferraro. P. Eng.

SS/sz/01

Encl.

cc: Terry Stuart – Upland Excavating Ltd.
Brian Fagan – Upland Excavating Ltd.
Mark Stuart – Upland Excavating Ltd.
Shauna Sturgeon - GHD



Legend
 Blue - Schedule for Investigation and Field Work
 Green - Additional Information Submissions to MOE

Figure 1

**TIMELINE FOR SUBMISSION OF ADDITIONAL INFORMATION TO MOE
 WASTE DISCHARGE APPLICATION FOR OPERATIONAL CERTIFICATE**

UPLAND LANDFILL, CAMPBELL RIVER, BC

Upland Excavating Ltd.



**MOE Additional Information Requests and Proposed Action
Upland Landfill - Waste Discharge Application
Upland Excavating Ltd.
Campbell River, BC**

Item #	MOE Additional Information Request (Letter dated October 6, 2016)	MOE Additional Information Request Summary	Proposed Action	Proposed Schedule
0	MOE Letter addressed to Upland requesting the following information.	<ul style="list-style-type: none"> Request for Additional Information 	<ul style="list-style-type: none"> Responses will be provided for each additional information request. The responses will be in the form of an action plan and will include the proposed approach to obtain and submit additional information requested by the MOE. 	<ul style="list-style-type: none"> December 7, 2016
1	Please provide a consultation report with regard to comments/concerns received after the first stakeholder review process and comments/concerns received as a part of the recently initiated second stakeholder review process, including comments/concerns received and GHD/Upland responses.	<ul style="list-style-type: none"> Provide a Second Consultation Report 	<ul style="list-style-type: none"> A Draft Consultation Report will be prepared in a format similar to May 2016 Consultation Summary report. The report will be stand alone document summarizing the consultation activities completed and comments received during the September to October 2016 Consultation Period. A comment summary table will be included in the Consultation Summary Report that includes all comments submitted during the consultation period, and where applicable technical responses. In some cases the response will be a proposed approach to obtain the necessary information to respond to the comment. The necessary information will be developed as part of the action plan. 	<ul style="list-style-type: none"> December 13, 2016 If Required, Additional Technical Responses will be developed by April 30, 2017
2	The Ministry of Environment Landfill Criteria for Municipal Solid Waste, 2nd Edition dated June 2016 (Landfill Criteria), has recently been finalized and is available at http://www2.gov.bc.ca/gov/content/environment/wastemangement/garbage/landfills . Please review the Landfill Criteria and provide confirmation the application/information are in accordance with the Landfill Criteria or any necessary revisions to the application/information to be in accordance with the Landfill Criteria.	<ul style="list-style-type: none"> Confirm the application's alignment with the latest (June 2016) Landfill Criteria 	<ul style="list-style-type: none"> A compliance checklist will be completed to show how each criteria of the June 2016 Landfill Criteria is met. A cover letter will outline the conclusions of the compliance checklist. If any changes are required to any of the supporting technical reports as a result of the changes to the Landfill Criteria, a schedule will be proposed to submit the Reports updates or addendums. 	<ul style="list-style-type: none"> December 21, 2016
3	The HHCR (s. 3.4.2) indicates there are insufficient monitoring points to accurately map the groundwater flow direction within the fractured bedrock aquifer unit; however, it is expected that flow direction will be similar to regional flow which is expected to be to the southeast towards the Quinsam River. The HHCR (s. 3.4.5, 5) also recommends the nature of the bedrock ridge extending from the southwest to northwest of the Site and the direction and magnitude of groundwater flow between the Site and Mclvor and Rico Lakes should be further investigated with three bedrock monitoring wells (MW7-16, MW8-16 and MW9-16) however the DOCP (s. 14, Figure 14.1) Environmental Monitoring Program (EMP) does not include these monitoring wells. After the recommended three bedrock monitoring wells have been installed and sampled/monitored, please provide updated hydrogeological, environmental and technical interpretations, conclusions and recommendations including with regard to the EMP.	<ul style="list-style-type: none"> Install 3 Bedrock MW Investigation of groundwater flow with 3 Bedrock MW Include Bedrock MW's in EMP in DOCP Provide updated HHCR report with updated interpretations and conclusions 	<ul style="list-style-type: none"> A subcontractor will be retained to install the three Bedrock monitoring wells as recommended by GHD in the HHCR. An updated HHCR will be prepared using the additional information collected, including updated bedrock contours, groundwater flow direction and characterization of hydraulic connection with the Lakes An updated EMP will be prepared that will include the new monitoring wells. 	<ul style="list-style-type: none"> Complete Drilling and Survey in January/February 2017 Prepare updated bedrock and groundwater contours - February 28, 2017 Submit updated HHCR and EMP April 30, 2017

Table 1

**MOE Additional Information Requests and Proposed Action
Upland Landfill - Waste Discharge Application
Upland Excavating Ltd.
Campbell River, BC**

Item #	MOE Additional Information Request (Letter dated October 6, 2016)	MOE Additional Information Request Summary	Proposed Action	Proposed Schedule
4	<p>The HHCR (s. 3.4.5, 4.4 & 5) recommends the installation of one additional monitoring well (MW6-16) in the overburden sand and gravel aquifer near the downgradient site boundary before landfill development to obtain baseline water quality data, and for assessing site groundwater compliance after landfill development. The DOCP (s. 14, Figure 14.1) includes an EMP that includes 1 down-gradient monitoring well (MW6-16).</p> <p>The Landfill Criteria (s. 9) indicate that the EMP shall be developed in accordance with the Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills (Monitoring Guidelines). The Monitoring Guidelines (s. 3.3) recommend a minimum of 1 up-gradient monitoring well (2 are recommended), a well immediately adjacent to the down-gradient edge of the landfill/infiltration basin to enable sampling of 'raw' leachate, and a line of three wells situated down-gradient from the landfill and perpendicular to groundwater flow, and also indicate:</p> <p>To facilitate early contaminant detection, monitoring wells should be located to sample groundwater from the uppermost aquifer, at the closest practicable distance from the site boundary, encompassing all possible routes to detect leachate migration. Monitors at up-gradient and down-gradient locations should generally be installed at two depths; one in the uppermost aquifer and a deeper one to assess vertical hydraulic gradients and the potential for leachate movement to depth.</p> <p>Please provide revisions to the EMP in accordance with the Landfill Criteria & Monitoring Guidelines, particularly with regard to a well immediately adjacent to the down-gradient edge of the landfill/infiltration basin, and a line of three wells situated <u>down-gradient from the landfill and perpendicular to groundwater flow.</u></p>	<ul style="list-style-type: none"> Update the EMP to include a well adjacent to the down-gradient edge of the landfill basin/infiltration pond and a line of 3 down-gradient wells, installed perpendicular to flow 	<ul style="list-style-type: none"> A downgradient monitoring well will be installed at the same time as the three bedrock monitoring wells outlined above. The downgradient monitoring well will be installed to prove the depth to bedrock and will be nested in the shallow and deep overburden aquifer to provide additional information on the vertical hydraulic gradient on-Site. Two full rounds of groundwater sampling will be conducted for leachate indicator parameters to support the groundwater characterization in the HHCR. The groundwater levels will also recorded, which will provide for a additional seasonal data for assessing groundwater flow direction. An updated HHCR will be prepared using the additional information collected, including updated bedrock contours, groundwater flow direction and characterization of hydraulic connection with the Lakes An updated EMP will be prepared that will include the new and proposed monitoring wells. Upland proposes to complete the installation of the monitoring well immediately adjacent to the infiltration pond on the downgradient side, and install the additional two downgradient monitoring wells near the property boundary perpendicular to the flow of groundwater as part of the construction of the landfill and leachate treatment ponds. 	<ul style="list-style-type: none"> Complete Drilling and Survey in January/February 2017 Prepare updated bedrock and groundwater contours - February 28, 2017 Submit updates to HHCR and EMP April 30, 2017 Install remaining monitoring wells subsequent to issuance of OC
5	<p>The HHCR (s. 4.1, 5) refers to Contaminated Sites Regulation (CSR) Technical Guidance (TG) 6 "Water Use Determination", and summarizes the applicable CSR standards and WQGs that apply at the boundary of the Site as follows:</p> <ul style="list-style-type: none"> CSR Schedule 6 & 10 numerical Drinking Water (DW) standards BC WQGs for DW and freshwater aquatic life (FWAL) along the western property boundary <p>The TAR (s. 6.1.1) indicates that the CSR DW standards would apply on-site, the CSR freshwater aquatic life AW standards would not apply at the site boundary as the nearest freshwater aquatic receptor where the groundwater may potentially discharge to is greater than 500 metres from the on-Site infiltration pond, and the water quality passing the Site boundary will meet the BC WQGs for DW. The DOCP (s. 13.3, Table 13.1) compares groundwater substance concentrations to the BC WQGs for DW.</p> <p>The Landfill Criteria (s. 4.1) refers to the CSR, Generic Numerical Water Standards for the applicable water use(s) as defined in Protocol 21 "Water Use Determination" (dated December 15, 2015, effective Feb. 1, 2016, supersedes former TG 6 "Water Use Determination" dated July 2010). Protocol 21 (s. 5, Figure 3) also indicates that CSR AW Aquatic life water use applies to groundwater located beyond 500 metres of an aquatic receiving environment if the groundwater contains substances with concentrations above the aquatic life water use standards and has the potential to migrate within 500 metres of the aquatic receiving environment.</p> <p>Please provide confirmation/assessment of the recommended water quality standards and guidelines that would apply on-site and at the landfill site (property) boundaries, including whether CSR AW standards would apply at the down-gradient landfill site (property) boundary. Please provide a table(s) that compares groundwater substance concentrations to the recommended water quality standards and guidelines.</p>	<ul style="list-style-type: none"> Assess the water quality standards and guidelines applicable to the Site Prepare a water quality comparison table Provide confirmation of applicable guidelines and standards 	<ul style="list-style-type: none"> GHD will further assess the applicability of the standards/guidelines per the July 2016 Landfill Criteria and establish a water quality standards and guidelines table for the Site. The water quality standards and guidelines table will be adopted by the EMP. GHD will provide the recommended standards/guidelines and corresponding rationale in the updated HHCR and an updated EMP will be included as part of an addendum to the DOCP. 	<ul style="list-style-type: none"> Provide applicable site specific water quality standards and guidelines table to MOE January 31, 2017

Table 1

**MOE Additional Information Requests and Proposed Action
Upland Landfill - Waste Discharge Application
Upland Excavating Ltd.
Campbell River, BC**

Item #	MOE Additional Information Request (Letter dated October 6, 2016)	MOE Additional Information Request Summary	Proposed Action	Proposed Schedule
6	The existing permit authorizes landfilling. Please provide the location(s), volume(s), and waste types of any on-site landfill(s), and confirmation that that all on-site waste will be relocated into the lined landfill.	<ul style="list-style-type: none"> • Provide location, volume and waste types of any on-site landfills • Confirm on-site waste relocation to lined landfill 	<ul style="list-style-type: none"> • The location, volumes and waste types of all on-site waste up to the end of 2016 will be provided. Non-recyclable waste will be relocated to the lined landfill. 	<ul style="list-style-type: none"> • January 31, 2017
7	The existing permit authorizes open burning and the DOCP (s. 6.10) proposes continued open burning. The Landfill Criteria (s. 6.6) indicates that "Open burning of wastes at the landfill site is generally prohibited. However, open burning of clean wood and yard waste may be approved in the SWMP, OC or permit if it can be demonstrated to the director that there is no viable alternative such as reuse, recycling, energy recovery, or composting. A technical assessment report satisfactory to the director shall be submitted and the open burning shall be approved in the SWMP, OC or permit. Approval must also be obtained from any other applicable fire protection authorities." Please provide a TAR certified by a qualified professional that demonstrates that there is no viable alternative to open burning, and that the proposed open burning is protective of human health and the environment.	<ul style="list-style-type: none"> • Provide a certified TAR to demonstrate no viable alternative to open burning • Demonstrate proposed open burning is protective of health and environment 	<ul style="list-style-type: none"> • A Technical Assessment Report (TAR) in accordance Open Burn Smoke Control Regulation and the latest edition of the Landfill Criteria will be submitted. The TAR will describe the climatic conditions for which burning events will take place and include air modelling showing ambient air quality can be met at the Site boundary during and after burn events. The TAR will also show the waste streams that will be included in the burning and show there is no viable alternatives to open burning. 	<ul style="list-style-type: none"> • Draft Report February 28, 2017
8	The Landfill Criteria (s. 8) indicate that financial security is required for all privately-owned landfills, provides guidance regarding financial security amount, calculation and type, and indicates the DOCP shall include a financial security plan. Please provide a financial security plan in accordance with the Landfill Criteria.	<ul style="list-style-type: none"> • Provide financial security plan 	<ul style="list-style-type: none"> • A cost estimate will be developed for the emergency closure of the landfill, post-closure monitoring and maintenance and implementation of contingency measure(s) described in the submitted Technical Assessment Report. • A financial security plan will be prepared in accordance with the latest edition of the Landfill Criteria and the costs developed above. 	<ul style="list-style-type: none"> • January 31, 2017
9	The DOCP (s. 8) includes a surface water management plan and indicates that the design criteria make allowances for additional water that may result from snowmelt (s. 8.2.1). The Landfill Criteria (s. 5.6) indicate that the surface water management works shall be designed in accordance with criteria including the design shall make allowances for additional water that may result from snow melt and from prolonged multi-day precipitation events. Please confirm that the surface water management works design makes allowances for additional water that may result from prolonged multi-day precipitation events.	<ul style="list-style-type: none"> • Confirm surface water management design allows additional water from multi-day precipitation events 	<ul style="list-style-type: none"> • A supplement to the surface water management section of the DOCP will be provided in an Addendum to the DOCP. The supplement will show how snow melt and multi-day precipitation events are accounted for in the surface water management works plan. 	<ul style="list-style-type: none"> • April 30, 2017
10	The GEO report recommends leachate level monitoring in the landfill (s. 4.2, 6). The DOCP (s. 9.8.3.2) mentions leachate storage in the landfill and appears to indicate that leachate levels in the landfill will be monitored however the DOCP EMP (s. 14) does not specifically include leachate level monitoring in the landfill. The Landfill Criteria (s. 9 Monitoring Criteria, 9.1) requires leachate level monitoring in the landfill. Please provide revisions to the EMP that include leachate level monitoring in the landfill.	<ul style="list-style-type: none"> • Revise EMP to include leachate level monitoring 	<ul style="list-style-type: none"> • Leachate level monitoring will be included in updated EMP that will be included in an addendum to the DOCP. 	<ul style="list-style-type: none"> • April 30, 2017
11	The Permit Fees Regulation (s. 3) indicates how the annual fee for a permit is calculated based on the maximum (annual) authorized discharge rate and concentration specified in the permit. Please provide/confirm the proposed maximum (annual) authorized discharge rate for the refuse discharge, and maximum (annual) authorized discharge rate and concentration(s) for the treated leachate discharge.	<ul style="list-style-type: none"> • Confirm maximum discharge rate for refuse • Confirm concentration for treated leachate discharge 	<ul style="list-style-type: none"> • The maximum annual discharge rate of refuse and the maximum annual authorized discharge rate and concentration for the treated leachate that will be used to calculate the applicable permit fees. The development of these rates will be completed in conjunction with the development of the financial security plan. 	<ul style="list-style-type: none"> • January 31, 2017
12	Please provide an electronic pdf site plan (e.g. 8.5x11 inch, to scale, N arrow, high resolution, colour, clearly shows the landfill site, landfill site boundary, buffer zone, landfill footprint (to nearest 0.01 ha), facilities and works, structures, groundwater and surface water monitoring locations, etc.).	<ul style="list-style-type: none"> • Provide electronic PDF site plan 	<ul style="list-style-type: none"> • A Site Plan will be prepared and submitted as requested 	<ul style="list-style-type: none"> • February 28, 2016

Attachment A
MOE Letter dated October 6, 2016

October 6, 2016

Tracking Number: 335965
Authorization Number: 107689

Gregory D. Ferraro, PEng
GHD Limited
greg.ferraro@ghd.com

Dear Mr. Ferraro,

Re: Application for an Operational Certificate under the Environmental Management Act on behalf of Upland Excavating Ltd. (Upland)

Thank you for the emails of May 27, 2016, and the attached information:

- Waste Discharge Application Form (WDA), May 27, 2016
- Technical Assessment Report (TAR), GHD, May 27, 2016
- Hydrogeology and Hydrology Characterization Report (HHCR), GHD, May 27, 2016
- 2016 Design, Operations and Closure Plan (DOCP), GHD, May 27, 2016
- 2016 Geotechnical Investigation (GEO), GHD, May 27, 2016
- Stakeholder Consultation Summary Report (CONSULT), GHD, May 27, 2016

GHD/Upland also recently initiated a second stakeholder review process.

In response to the information submitted, this letter details the additional information required at this time:

1. Please provide a consultation report with regard to comments/concerns received after the first stakeholder review process, and comments/concerns received as part of the recently initiated second stakeholder review process, including comments/concerns received and GHD/Upland responses.
2. The ministry Landfill Criteria for Municipal Solid Waste, 2nd Edition, dated June 2016 (Landfill Criteria), has recently been finalized and is available at <http://www2.gov.bc.ca/gov/content/environment/waste-management/garbage/landfills>. Please review the Landfill Criteria and provide confirmation the application/information are in accordance with the Landfill Criteria or any necessary revisions to the application/information to be in accordance with the Landfill Criteria.
3. The HHCR (s. 3.4.2) indicates there are insufficient monitoring points to accurately map the groundwater flow direction within the fractured bedrock aquifer unit; however, it is expected that flow direction will be similar to regional flow which is expected to be to the southeast towards the Quinsam River. The HHCR (s. 3.4.5, 5) also recommends the nature of the bedrock ridge extending from the southwest to

northwest of the Site and the direction and magnitude of groundwater flow between the Site and McIvor and Rico Lakes should be further investigated with three bedrock monitoring wells (MW7-16, MW8-16 and MW9-16) however the DOCP (s. 14, Figure 14.1) Environmental Monitoring Program (EMP) does not include these monitoring wells. After the recommended three bedrock monitoring wells have been installed and sampled/monitored, please provide updated hydrogeological, environmental and technical interpretations, conclusions and recommendations including with regard to the EMP.

4. The HHCR (s. 3.4.5, 4.4 & 5) recommends the installation of one additional monitoring well (MW6-16) in the overburden sand and gravel aquifer near the down-gradient site boundary before landfill development to obtain baseline water quality data, and for assessing site groundwater compliance after landfill development. The DOCP (s. 14, Figure 14.1) includes an EMP that includes 1 down-gradient monitoring well (MW6-16).

The Landfill Criteria (s. 9) indicate that the EMP shall be developed in accordance with the Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills (Monitoring Guidelines). The Monitoring Guidelines (s. 3.3) recommend a minimum of 1 up-gradient monitoring well (2 are recommended), a well immediately adjacent to the down-gradient edge of the landfill/infiltration basin to enable sampling of 'raw' leachate, and a line of three wells situated down-gradient from the landfill and perpendicular to groundwater flow, and also indicate:

- To facilitate early contaminant detection, monitoring wells should be located to sample groundwater from the uppermost aquifer, at the closest practicable distance from the site boundary, encompassing all possible routes to detect leachate migration. Monitors at up-gradient and down-gradient locations should generally be installed at two depths; one in the uppermost aquifer and a deeper one to assess vertical hydraulic gradients and the potential for leachate movement to depth.

Please provide revisions to the EMP in accordance with the Landfill Criteria & Monitoring Guidelines, particularly with regard to a well immediately adjacent to the down-gradient edge of the landfill/infiltration basin, and a line of three wells situated down-gradient from the landfill and perpendicular to groundwater flow.

5. The HHCR (s. 4.1, 5) refers to Contaminated Sites Regulation (CSR) Technical Guidance (TG) 6 "Water Use Determination", and summarizes the applicable CSR standards and WQGs that apply at the boundary of the Site as follows:
 - CSR Schedule 6 & 10 numerical Drinking Water (DW) standards
 - BC WQGs for DW and freshwater aquatic life (FWAL) along the western property boundary

The TAR (s. 6.1.1) indicates that the CSR DW standards would apply on-site, the CSR freshwater aquatic life AW standards would not apply at the site boundary as the nearest freshwater aquatic receptor where the groundwater may potentially discharge

to is greater than 500 metres from the on-Site infiltration pond, and the water quality passing the Site boundary will meet the BC WQGs for DW. The DOCP (s. 13.3, Table 13.1) compares groundwater substance concentrations to the BC WQGs for DW.

The Landfill Criteria (s. 4.1) refers to the CSR, Generic Numerical Water Standards for the applicable water use(s) as defined in Protocol 21 “Water Use Determination” (dated December 15, 2015, effective Feb. 1, 2016, supersedes former TG 6 “Water Use Determination” dated July 2010). Protocol 21 (s. 5, Figure 3) also indicates that CSR AW Aquatic life water use applies to groundwater located beyond 500 metres of an aquatic receiving environment if the groundwater contains substances with concentrations above the aquatic life water use standards and has the potential to migrate within 500 metres of the aquatic receiving environment.

Please provide confirmation/assessment of the recommended water quality standards and guidelines that would apply on-site and at the landfill site (property) boundaries, including whether CSR AW standards would apply at the down-gradient landfill site (property) boundary. Please provide a table(s) that compares groundwater substance concentrations to the recommended water quality standards and guidelines.

6. The existing permit authorizes landfilling. Please provide the location(s), volume(s), and waste types of any on-site landfill(s), and confirmation that that all on-site waste will be relocated into the lined landfill.
7. The existing permit authorizes open burning and the DOCP (s. 6.10) proposes continued open burning. The Landfill Criteria (s. 6.6) indicates that “Open burning of wastes at the landfill site is generally prohibited. However, open burning of clean wood and yard waste may be approved in the SWMP, OC or permit if it can be demonstrated to the director that there is no viable alternative such as reuse, recycling, energy recovery, or composting. A technical assessment report satisfactory to the director shall be submitted and the open burning shall be approved in the SWMP, OC or permit. Approval must also be obtained from any other applicable fire protection authorities.” Please provide a TAR certified by a qualified professional that demonstrates that there is no viable alternative to open burning, and that the proposed open burning is protective of human health and the environment.
8. The Landfill Criteria (s. 8) indicate that financial security is required for all privately-owned landfills, provides guidance regarding financial security amount, calculation and type, and indicates the DOCP shall include a financial security plan. Please provide a financial security plan in accordance with the Landfill Criteria.
9. The DOCP (s. 8) includes a surface water management plan and indicates that the design criteria make allowances for additional water that may result from snowmelt (s. 8.2.1). The Landfill Criteria (s. 5.6) indicate that the surface water management works shall be designed in accordance with criteria including the design shall make allowances for additional water that may result from snow melt and from prolonged

multi-day precipitation events. Please confirm that the surface water management works design makes allowances for additional water that may result from prolonged multi-day precipitation events.

10. The GEO report recommends leachate level monitoring in the landfill (s. 4.2, 6). The DOCP (s. 9.8.3.2) mentions leachate storage in the landfill and appears to indicate that leachate levels in the landfill will be monitored however the DOCP EMP (s. 14) does not specifically include leachate level monitoring in the landfill. The Landfill Criteria (s. 9 Monitoring Criteria, 9.1) requires leachate level monitoring in the landfill. Please provide revisions to the EMP that include leachate level monitoring in the landfill.
11. The Permit Fees Regulation (s. 3) indicates how the annual fee for a permit is calculated based on the maximum (annual) authorized discharge rate and concentration specified in the permit. Please provide/confirm the proposed maximum (annual) authorized discharge rate for the refuse discharge, and maximum (annual) authorized discharge rate and concentration(s) for the treated leachate discharge.
12. Please provide an electronic pdf siteplan (e.g. 8.5x11 inch, to scale, N arrow, high resolution, colour, clearly shows the landfill site, landfill site boundary, buffer zone, landfill footprint (to nearest 0.01 ha), facilities and works, structures, groundwater and surface water monitoring locations, etc.).

Please provide the information in electronic pdf format to PermitAdministration.VictoriaEPD@gov.bc.ca with a copy to allan.leuschen@gov.bc.ca so that processing of the application may continue. Of course, based on the additional information provided, or any other information, further additional information may be requested in future. If you have any questions or concerns, please contact the undersigned at telephone 250 751 3199 or email allan.leuschen@gov.bc.ca.

Yours truly,



A. Leuschen
Senior Environmental Protection Officer
Authorizations - South

ENCL: None

cc: Terry Stuart, Upland Excavating Ltd. terry.stuart@uplandgroup.ca