



Details/Findings:	<p>Inspection Overview</p> <p>On June 25, 2018, Ministry of Environment and Climate Change Strategy (ENV) Environmental Protection Officer Colin Meldrum (Officer Meldrum) conducted an office review inspection of Cobble Hill Holdings Ltd. (BC0754588) landfill cell located at 460 Stebbings Road, Shawnigan Lake (Facility). The purpose of the inspection was to verify compliance with Spill Prevention Order MO1701 (SPO), dated January 27, 2017 and last amended June 29, 2017, and the Minister's letters dated August 11, 2017 and September 18, 2017. The scope of the inspection included a review of the semi-monthly status report submissions of February 15, 2018, February 28, 2018, March 15, 2018, March 30, 2018, April 15, 2018, April 30, 2018, May 15, 2018, May 31, 2018, June 15, 2018 and June 30, 2018. The inspection period was from February 15, 2018 to July 10, 2018. The Facility was inspected onsite by Officer Laura Hunse (Officer Hunse) on the morning of July 4, 2018. The weather conditions ranged from sunny to slightly overcast and warm (low 20 C), and there had been no recent significant precipitation. Officer Hunse was accompanied on site by Facility representatives Mr. Todd Mizuik and Mr. Rahim Gaidhar.</p> <p>Compliance Assessment</p> <p>Officer Hunse viewed the covered pile in the Soil Management Area (SMA) as well as walked the perimeter of the landfill and confirmed that it continues to be weighted and secured with an impermeable cover; no signs of leaks were evident. Storm diversion ditches and swales were in place and no concerns were noted by Officer Hunse (see Photos 1 – 6, attached).</p>
Compliance:	In
Actions to be taken:	n/a
Requirement Description:	<p><b>2017-06-29 SPO</b></p> <p>1. b: All Leachate generated at the facility, including from the landfill, soil management area and wheel wash area, is collected, stored temporarily pending removal from the Facility, and transported from the Facility to an off-site facility that is authorized to treat and/or dispose of the Leachate. The collection and temporary storage of Leachate at the Facility must be carried out so as to prevent an escape or spill of Leachate into the environment;</p>
Details/Findings:	<p>Officer Hunse confirmed onsite that all leachate is collected and stored at the Facility in a secure manner. Collection pipes are welded directly to the impermeable cover to inhibit leaks that could be caused by temperature induced expansion and contraction at the entry point. Leachate is collected into two tanks in a locked, weather protected building and transported offsite, currently by Coast Environmental, approximately every three months; a tank to collect any leakage from the landfill is located in the same building and remains dry (Photos 7 and 8). Tank levels are monitored 24 hours using specific gravity transducers and employ an automatic callout system in case of high levels in the tanks. A gravel berm is built up along the pipe collection path and no erosion was noted (Photo 9).</p>

Compliance:	In
Actions to be taken:	n/a
Requirement Description:	<b>2017-06-29 SPO</b> 1. c: All works for the collection and temporary storage of Leachate generated at the Facility are inspected regularly and maintained in good working order; and
Details/Findings:	All works for the collection and storage are inspected twice monthly; records of these findings are included with the reports submitted and addressed in section 1. d 2017-06-29 SPO, below.
Compliance:	In
Actions to be taken:	n/a
Requirement Description:	<b>2017-06-29 SPO</b> 1. d: Records of the volumes of Leachate collected, stored and transported, including the name and location of the authorized facility(ies) receiving the Leachate, are maintained and submitted to the director on or immediately before the 1st and 15th day of each month, until the Named Parties have complied with section 6 or section 11 of this order. Submissions must be made electronically to the following email inbox: EnvironmentalCompliance@gov.bc.ca.
Details/Findings:	Records of the volumes of leachate collected, stored and transported were maintained and submitted in the semi-monthly status reports on February 15, 2018, February 28, 2018, March 15, 2018, March 30, 2018, April 15, 2018, April 30, 2018, May 15, 2018, May 31, 2018, June 15, 2018 and June 30, 2018. The removal and transport of leachate from the Facility only took place during early May 2018. Records of the volumes of leachate transported, including the name and location of the authorized facility receiving the leachate were maintained and submitted in the semi-monthly status report on May 15, 2018.

Compliance:	In
Actions to be taken:	n/a
Requirement Description:	<p><b>2017-06-29 SPO</b></p> <p>2. a.: The Ministry acknowledges receipt of a package of “As-Built” plans and specifications for the existing facility, and a report entitled “Cobble Hill Landfill Final Closure Plan Report” prepared by Sperling Hansen Associates Inc., dated May 31, 2017 (the “Final Closure Plan”). By July 21, 2017, the Named Parties must submit an updated version of the Final Closure Plan to the Ministry for review and approval (the “Updated Final Closure Plan”). The Updated Final Closure Plan must be certified by a qualified professional as defined in the Landfill Criteria for Municipal Solid Waste, Second Edition, June 2016 (“Qualified Professional”) and must revise the Final Closure Plan to include the following: a. a description of how leachate, and leak detection, collection and storage will be carried out during the transition from the existing leachate, and leak detection, collection and storage works to the new leachate, and leak detection, collection and storage works. If temporary collection and storage works are necessary during the transition, provide a description and details of the temporary works; The Updated Final Closure Plan may be approved by the Minister, with or without conditions.</p>
Details/Findings:	The Updated Final Closure Plan is currently being reviewed by the Ministry; therefore, compliance with this requirement and all other requirements of SPO1701 Section 2. were not assessed at this time.
Compliance:	Not Determined
Actions to be taken:	n/a
Requirement Description:	<p><b>2017-06-29 SPO</b></p> <p>3: Following approval of the Updated Final Closure Plan, the Named Parties must carry out all closure activities set out in the approved Updated Final Closure Plan in accordance with any conditions of the approval. A Qualified Professional must be continuously present on-site to supervise all closure activities and must carry out the following: inspect and approve works as they are constructed for conformance with plans and specifications; perform quality assurance and quality control, including for the clay secondary liner and the geomembrane base and cover liners; perform testing, including seam and leak testing; and report to the Ministry in accordance with section 4 below. The Named Parties must carry out the closure activities in accordance with the implementation schedule in the approved Updated Final Closure Plan or such other dates as specified by the Minister.</p>

Details/Findings:	The Updated Final Closure Plan has not been approved by the Ministry; therefore, compliance with this requirement is not applicable for the inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<b>2017-06-29 SPO</b> 4: Commencing in the month that closure activities commence pursuant to the approved Updated Final Closure Plan, the Named Parties must submit semi-monthly status reports, certified by a Qualified Professional. The reports must include the status of closure activities, inspection results, quality control and testing results, photographs which support/document the quality control and testing results, inspection reports and other supporting documents as needed to fully document all stages and components of the closure activities. Status reports must be submitted by the 15th and 30th of each month (or the next business day thereafter if the 15th or 30th of the month is not a business day) until closure activities have been completed. Submissions must be made electronically to the following email inbox: EnvironmentalCompliance@gov.bc.ca.
Details/Findings:	Semi-monthly status reports were submitted electronically for February 15, 2018, February 28, 2018, March 15, 2018, March 30, 2018, April 15, 2018, April 30, 2018, May 15, 2018, May 31, 2018, June 15, 2018 and June 30, 2018. Each semi-monthly status report was certified by a Qualified Professional with Islander Engineering Ltd. The semi-monthly status reports included inspection results, quality control and testing results and photographs.
Compliance:	In
Actions to be taken:	n/a
Requirement Description:	<b>2017-06-29 SPO</b> 5: The Named Parties must submit complete detailed final "As-Built" plans and specifications, certified by a Qualified Professional, of any revisions to the Facility including the landfill final cover, resulting from implementing the approved Updated Final Closure Plan in accordance with any conditions of the approval, within 30 days after the works have been constructed.

Details/Findings:	<p>The Named Parties were previously found to be in compliance with this requirement in IR072415 for having submitted As-Built drawings certified by a Qualified Professional for the approved Minor Construction Works.</p> <p>The Updated Final Closure Plan has not been approved by the Ministry; therefore, compliance with this requirement is not applicable for the inspection period.</p>
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<p><b>2017-06-29 SPO</b></p> <p>6: Following completion of all closure activities in the approved Updated Final Closure Plan, the Named Parties must submit quarterly implementation reports to the Ministry on or immediately before the last day of March, June, September and December of each year, for the duration specified in the approved Updated Final Closure Plan. Implementation reports must include records of inspections, operations and maintenance of the Facility, records of the volumes of Leachate collected, stored and transported, including the name and location of the authorized facility(ies) receiving the Leachate, and environmental monitoring program records interpreted and certified by a Qualified Professional. Submissions must be made electronically to the following email inbox: EnvironmentalCompliance@gov.bc.ca.</p>
Details/Findings:	The Updated Final Closure Plan has not been approved by the Ministry; therefore, compliance with this requirement is not applicable for the inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<p><b>2017-08-11 SPO Clarification Letter</b></p> <p>1.: Construction activities for the Minor Construction Works must commence by August 28, 2017, and be completed as early as possible, and no later than October 31, 2017.</p>

Details/Findings:	The Named Parties were previously found to be in compliance with this requirement in IR070056; therefore, compliance with this requirement is not applicable for this inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<b>2017-08-11 SPO Clarification Letter</b> 2.: A qualified professional as defined in the Landfill Criteria for Municipal Solid Waste, Second Edition, June 2016 (Qualified Professional or QP) must be continuously present on-site to supervise all Minor Construction Works activities and must carry out the following: Inspect and approve works as they are constructed for conformance with plans and specifications; Perform quality assurance and quality control monitoring and testing; and Report to the Ministry in accordance with condition 6 below.
Details/Findings:	The Named Parties were previously found to be out of compliance with this requirement in IR068133; however, all Minor Construction Works activities have been completed; therefore, compliance with this requirement is not applicable for this inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<b>2017-09-18 SPO Clarification Letter Amendment</b> 3.: By September 30, 2017, the presence and integrity of the basal clay layer must be assessed and documented when a portion of the toe of the northern slope of the landfill is exposed. The Named Parties must provide notice and an opportunity for a ministry staff representative and/or other contractor designated by the Ministry to be present when the clay layer is exposed to have opportunity to assess the presence and characteristics of the basal clay layer before securing the area. As early as possible in 2018 and no later than April 30, 2018, a minimum of three (3) additional test pits must be excavated to assess and document the presence and integrity of the basal clay layer at locations agreed to by ministry staff. The Named Parties must provide notice and an opportunity for a ministry staff representative and/or other contractor designated by the Ministry to be present during the excavation and to have opportunity to assess the presence and characteristics of the basal clay layer before securing the area.

Details/Findings:	The Named Parties were previously found to be in compliance with this requirement in IR068133; therefore, compliance with this requirement is not applicable for this inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<b>2017-08-11 SPO Clarification Letter</b> 4.: The Environmental Monitoring Program must involve collection of monthly rather than quarterly samples from the surface water, groundwater and seepage blanket as identified in sections 9.4 to 9.6 of the Updated Final Closure Plan. With regard to section 9.3, leachate in the Leak Detection Tank must also be sampled monthly when liquid is present in the tank, and analyzed for the same parameters as indicated in the Leachate Tank sampling program. Monitoring must commence at existing sampling sites by August 31, 2017, and must commence at the seepage blanket monitoring wells by October 31, 2017.
Details/Findings:	The semi-monthly status reports for February 15, 2018, March 15, 2018, April 15, 2018, May 15, 2018, and June 15, 2018 include the results of the monthly samples collected from the surface water (SHA-SW1 and SHA-SW2), groundwater (MW2, MW3(S/D), and MW6) and seepage blanket (SB-1, SB-2 and SB-3) as identified in sections 9.4 and 9.6 of the Updated Final Closure Plan.  In addition, the semi-monthly status reports for February 15, 2018, March 15, 2018, April 15, 2018, May 15, 2018, and June 15, 2018 include the results of the monthly samples collected from the Leachate Tank (SHA-LE-1) as identified in section 9.3 of the Updated Final Closure Plan.
Compliance:	In
Actions to be taken:	n/a



Requirement Description:	<p><b>2017-08-11 SPO Clarification Letter</b></p> <p>4.: The Environmental Monitoring Program must involve collection of monthly rather than quarterly samples from the surface water, groundwater and seepage blanket as identified in sections 9.4 to 9.6 of the Updated Final Closure Plan. With regard to section 9.3, leachate in the Leak Detection Tank must also be sampled monthly when liquid is present in the tank, and analyzed for the same parameters as indicated in the Leachate Tank sampling program. Monitoring must commence at existing sampling sites by August 31, 2017, and must commence at the seepage blanket monitoring wells by October 31, 2017.</p>
Details/Findings:	<p>The semi-monthly status reports for March 15, 2018, April 15, 2018, May 15, 2018, and June 15, 2018 state that no monthly samples were collected from the surface water at SHA-SW2 as identified in section 9.4 of the Updated Final Closure Plan due to no flow being present.</p> <p>The semi-monthly status report for June 15, 2018 states that no monthly samples were collected from the seepage blanket at SB-3 as identified in section 9.6 of the Updated Final Closure Plan due to dry conditions.</p> <p>The semi-monthly status reports for February 15, 2018, March 15, 2018, April 15, 2018, May 15, 2018, and June 15, 2018 state that no monthly samples were collected from the leak detection tank at SHA-LD-1 as identified in section 9.3 of the Updated Final Closure Plan due to dry conditions.</p>
Compliance:	Not Applicable
Actions to be taken:	Please continue to document monitoring variances due to no flow or dry conditions and ensure that monthly samples are collected when flow or leachate is present.
Requirement Description:	<p><b>2017-08-11 SPO Clarification Letter</b></p> <p>5.: A high water level alarm system must be installed by October 31, 2017, and remain operational in the leachate collection tank to minimize the risk of an unforeseen overflow of leachate.</p>
Details/Findings:	The Named Parties were previously found to be in compliance with the requirement to install a high water level alarm system in IR068133. Officer Hunse confirmed onsite in discussion with Mr. Mizuik and Mr. Gaidhar that the high level alarms (specific gravity transducers) continue to be in place and functional with auto-callout in high level situations and are inspected periodically by an electrician.
Compliance:	In

Actions to be taken:	n/a
Requirement Description:	<b>2017-08-11 SPO Clarification Letter</b> 6. a.: Additional reporting to the Ministry must be carried out as follows: a. A detailed construction work plan and schedule must be submitted prior to commencement of construction activities, and by August 25, 2017, at the latest. The schedule must identify the timing of tasks associated with each of the Minor Construction Works, and identify the QP(s) responsible for oversight of those activities.
Details/Findings:	The Named Parties were previously found to be in compliance with this requirement in IR068133; therefore, compliance with this requirement is not applicable for this inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<b>2017-08-11 SPO Clarification Letter</b> 6. b. i.: Additional reporting to the Ministry must be carried out as follows: b. In addition to including the information listed in section 4 of the SPO, the semi-monthly status reports must also: i. Identify any deviations to the construction work plan and schedule mentioned above;
Details/Findings:	Compliance with this requirement was previously not determined in IR068133; however, all Minor Construction Works activities have been completed; therefore, compliance with this requirement is not applicable for this inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a

Requirement Description:	<b>2017-08-11 SPO Clarification Letter</b> 6. b. ii.: Additional reporting to the Ministry must be carried out as follows: b. In addition to including the information listed in section 4 of the SPO, the semi-monthly status reports must also: ii. Confirm the planned activities (and associated timing) for the next reporting cycle; and
Details/Findings:	The Named Parties were previously found to be out of compliance with this requirement in IR068133; however, all Minor Construction Works activities have been completed; therefore, compliance with this requirement is not applicable for this inspection period.
Compliance:	Not Applicable
Actions to be taken:	n/a
Requirement Description:	<b>2017-08-11 SPO Clarification Letter</b> 6. b. iii.: Additional reporting to the Ministry must be carried out as follows: b. In addition to including the information listed in section 4 of the SPO, the semi-monthly status reports must also: iii. Include water quality results received from the lab during the reporting period, suitably tabulated with copies of the original lab reports.
Details/Findings:	The semi-monthly status reports for February 15, 2018, March 15, 2018, April 15, 2018, May 15, 2018, and June 15, 2018 include the results of the monthly samples from the surface water, groundwater, seepage blanket and leachate tank suitably tabulated and with copies of the original lab reports.
Compliance:	In
Actions to be taken:	n/a

**Compliance History:**

2018-02-01 IR078018 - Notice of Compliance

2017-12-04 IR072415 - Notice of Compliance

2017-10-17 IR070056 - Notice of Compliance - All Minor Construction Works have been constructed

2017-09-27 IR068133 - Warning - Qualified Professional not continuously present on-site, monthly monitoring did not commence by date required, minor construction works schedule not received

2017-06-15 IR057193 - COS Referral - Landfill cell liner not covered completely with weighted and secured impermeable cover resulting in discharge of leachate

2017-05-18 IR056323 - Warning - Leak detection piping not connected to the leak detection tank, records of Leachate volume stored on-site not provided in email submissions

2017-04-06 IR052631 - Advisory - Minor issues with the landfill liner integrity noted, volumes of leachate collected being inaccurately reported

Please submit all annual/quarterly/monthly reports and data submissions to the Ministry's Routine Environmental Reporting Submission Mailbox at EnvAuthorizationsReporting@gov.bc.ca. More information about the reporting requirements may be found at <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-dischargeauthorization/data-and-report-submissions/routine-environmental-reporting-submission-mailbox>.

Please be advised that this inspection report may be published on the provincial government website within 7 days.

Below are attachments related to this inspection.

If you have any questions about this letter, please contact the undersigned.

Yours truly,

Colin Meldrum

Environmental Protection Officer

cc:

**Attachments:**  
1) 2018-07-04 Photo Record.pdf    Inspection Photo Record

**Deliver via:**  
Email:     Fax:     Mail:   
Registered Mail:     Hand Delivery:

**Ministry of Environment  
and Climate Change  
Strategy**

Compliance  
Environmental  
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**DISCLAIMER:**

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of the regulations and codes of practices please visit <http://www.bclaws.ca>

If you require a copy of the original permit, please contact the inspector noted on this inspection record.

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.

Authorization: MO1701	460 Stebbings Road near Shawnigan Lake
NRIS IR #: 90482	July 4, 2018 Site Inspection Photos

Photo 1  
SMA, west side  
looking north



SMA, east side  
looking south



Photo 2  
Looking west  
over clean soil  
(foreground,  
partially  
uncovered), and  
at northeast  
corner of sealed  
landfill



Authorization: MO1701	460 Stebbings Road near Shawnigan Lake
NRIS IR #: 90482	July 4, 2018 Site Inspection Photos

Photo 3  
Southwest corner  
of landfill



Photo 4  
Southwest  
boundary  
perimeter of  
landfill, looking  
northwest



Authorization: MO1701	460 Stebbings Road near Shawnigan Lake
NRIS IR #: 90482	July 4, 2018 Site Inspection Photos

Photo 5

Northwest perimeter of landfill, looking northeast



Photo 6

Northeast perimeter of landfill, looking south



Authorization: MO1701	460 Stebbings Road near Shawnigan Lake
NRIS IR #: 90482	July 4, 2018 Site Inspection Photos

Photo 7

Leachate collection building



Photo 8

Foreground two tanks – leachate collection; background single tank – leak detection





Authorization: MO1701	460 Stebbings Road near Shawnigan Lake
NRIS IR #: 90482	July 4, 2018 Site Inspection Photos

Photo 9

Gravel berm  
along leachate  
collection pipe  
path to  
tankhouse



Document : 2018-07-04 Photo Record.pdf

Document comment: Inspection Photo Record