



File: 105809

June 28, 2016

REGISTERED MAIL

Cobble Hill Holdings Ltd. (BC0754588)
460 Stebbings Road
Shawnigan Lake BC V0R 2W3

Dear Cobble Hill Holdings Ltd. (BC0754588):

Re: Warning Letter, Waste Discharge Permit #105809

On June 14, 2016, Environmental Protection Officer Laura Hunse conducted an office review of Cobble Hill Holdings Ltd. (BC0754588) (CHH), authorised under *Environmental Management Act (EMA)*, waste discharge permit 105809 (Permit). The office review determined that CHH is out of compliance with the Permit, namely sections 1.4.2, 1.5.3, 2.10, 2.12, 2.15, 2.18, and 6.1. The description of the requirements found in the above sections of the Permit and the details supporting the determinations of non-compliance are included in the attached Inspection Report 27732.

Failure to comply with the requirements set out in your Waste Discharge Permit is an offence under the *Environmental Management Act (EMA)*. Section 120(6) of *EMA* states as follows:

A person who, holding a permit or approval issued to the person under this Act to introduce waste into the environment, introduces waste into the environment without having complied with the requirements of the permit or approval commits an offence and is liable on conviction to a fine not exceeding \$1 000 000 or imprisonment for not more than 6 months, or both.

It should also be noted that, as an alternative to prosecution of the offence referenced above, the Ministry may initiate action to impose an administrative penalty against CHH. The *Administrative Penalties Regulation (EMA)* (B.C. Reg. 133/2014) (APR) was brought into force in 2014. The APR describes the prescribed provisions of the *EMA* as well as that of specified regulations under which administrative penalties can be assigned. Section 12(5) of the APR states as follows:

12(5) A person who fails to comply with a requirement of a permit or approval issued or given under the Act is liable to an administrative penalty not exceeding \$40 000, unless the requirement the person failed to comply with is also a

prescribed provision of the EMA or the regulations that is subject to a different maximum administrative penalty.

If you fail to take the necessary actions to restore compliance, you may be subject to escalating enforcement action. This Warning Letter, Inspection Report #27732, and the alleged violations and circumstances to which it refers, will form part of the compliance history of CHH and will be taken into account in the event of future violations.

Finally, I request that CHH immediately implement the necessary changes or modifications to correct these non-compliances with the *Environmental Management Act*. Further, I request that CHH notify this office in writing by email or letter within 30 days of this letter, advising what corrective measures have been taken, and what else is being done, to prevent similar non-compliances in the future.

If you have any questions regarding this warning please contact the undersigned at laura.hunse@gov.bc.ca or 250.751.3224.

Yours truly,



Laura Hunse
Environmental Protection Officer, Compliance Section

LH

cc: Mark Graham, Compliance Operations Manager, Regional Operations Branch
A.J. Downie, Director Authorisations South, Regional Operations Branch
Sgt. Scott Norris, Conservation Officer Service, South Island
Via email: marty.sia@shaw.ca; mike.sia@shaw.ca; todd@sirm.ca

Enclosure, Inspection Report #27732



Ministry of Environment
Inspection Record

Environmental
Protection
Division

EP System: <u>AMS</u>	Inspection Status: <u>FINAL</u>
System Number: <u>105809</u>	Inspection No: <u>27732</u>
EP System Status: <u>Active</u>	Inspection Date: <u>2016-06-14</u>
Region: <u>West Coast</u>	Office: <u>Nanaimo</u>
Trigger: <u>Planned</u>	Incidents of Non-Compliance Observed: <u>Yes</u>
Non-Compliance Decision Matrix Level: <u>Level 2</u>	Non-Compliance Decision Matrix Category: <u>Category B</u>
Inspector Name(s): <u>Laura Hunse</u>	CPIX: <u>Over 2 = High</u>
Audit: <u></u>	Total Non-Compliance(s): <u>7</u>
Regulated Party: <u>COBBLE HILL HOLDINGS LTD. (BC0754588)</u>	
Regulated Party Contact(s): <u>Marty Block (CHH director), Todd Mizuik (SIRM)</u>	
Mailing Address: <u>South Island Aggregates Ltd. PO Box 282 Malahat BC V0R 2L0</u>	
Phone No: <u>(250)743-0811</u>	Fax No: <u>(250) 743-3338</u>
Contact Email: <u>marty.sia@shaw.ca</u>	
Location Description or Site Address: <u>460 Stebbings Road, Shawnigan Lake</u>	
Latitude: <u>48.5511</u> N	Longitude: <u>123.6066</u> W
Receiving Environment(s): <u>Groundwater, Land & Surfacewater</u>	

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:

From: 2016-01-01

To: 2016-03-31

Requirement Source:

Permit

Activity:

Office Review

Waste Type:

Effluent

Inspection Summary:

Response:

Warning

On June 14, 2016, I conducted an Office Review inspection of Cobble Hill Holdings Ltd. (BC0754588) (CHH)'s operation near Shawnigan Lake, authorized under Environmental Management Act refuse permit 105809 (Permit).

Reviewed was the Permit, issued August 21, 2013; a Permit letter amendment, dated June 4, 2015; the 2016 Quarter One Environmental Monitoring Report (South Island Resource Management (SIRM), April 29, 2016) (2016 Q1 Report); the Environmental Procedures Manual (SIRM, March 31, 2016) (EPM Revision 1.1); and associated data and correspondence.

The scope of this Office Review was to assess compliance with the Permit and letter amendment during the first quarter of 2016. This inspection record is limited to review of the Permit clauses specified in the "Inspection Details" section below.

Cobble Hill was found to be in compliance with the following sections of the Permit: 1.1.1, 1.3.2, 1.4.4, 1.5.1, 1.5.3, 2.10, 2.13, 2.14, 3.1, 3.3, 3.4, 3.5, 3.9, 5.2, and 5.3.

Non-compliances have been determined with regard to sections 1.4.2, 1.5.3, 2.10, 2.12, 2.15, 2.18, and 6.1.

Compliance with the following section of the Permit could not be determined or were not applicable to this inspection: 1.3.3, 1.5.3, 2.1, 2.4, 2.14, 3.2, 3.6, and 5.3.

In response to the dust concerns, it should be noted that SIRM has invested in technology to conduct the stabilization process within a closed system. In addition, mixing is now carried out under cover of the soil management area, which provides additional shelter and dust containment.

Further, a qualified professional, Stantec, was hired to conduct an assessment of the settling pond, and recommended reconfiguration of the influent point for the west ditch and an increase in the height of pond berms to above a 1 in 10 year storm event. This work was completed on March 18, 2016; however, as-builts and specifications for these have not been submitted, and not all Stantec recommendations have been implemented.

With regards to Non-Compliance with sections 1.4.2, 1.5.3, 2.10, 2.12, 2.15, 2.18, and 6.1 of the permit, the appropriate compliance response is a Warning. The Non-Compliances are rated as a level 2 for minor temporary impact or threat to the environment or human health or safety and category B for uncertain indications of future and ongoing compliance.

Please refer to the sections "Inspection Details" and "Additional Comments" below, and to the attached Warning Letter for actions required by the Permittee and additional information

ACTIONS REQUIRED BY REGULATED PARTY:

As noted in the attached Warning Letter, I request that CHH immediately implement the necessary changes or modifications to correct the non-compliances with the Environmental Management Act. Further, I request that CHH notify this office in writing by email or letter within 30 days of this letter, advising what corrective measures have been taken, and what else is being done, to prevent similar non-compliances in the future.

Regarding section 6.1, non-compliance reports must be reported to the Director within 30 days of the non-compliance occurrence, per the requirements of the permit section 6.1. Non-compliance reporting is to follow the format described at <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/non-compliance-reporting-mailbox>.

Please include the following information in future reports so compliance can be properly determined:

- note which PCOCs are sampled in the groundwater and why (for example for section 3.2, as it was for section 3.4 of the 2016 Q1 Report);
- include all relevant flow volume and turbidity data with quarterly reports;
- include in an Appendix, a table of contents with page numbers and/or section bookmarks;
- when there are parameters dependent on hardness or other factors, provide relevant calculations/information and concentration limits with the results data (eg. for Total Copper).

ADDITIONAL COMMENTS:

Groundwater in the Receiving Environment: Arsenic (at MW-1) and Manganese (at MW-5 and MW-6) were detected at concentrations above drinking water standards, and are possibly attributed to quarrying activities (higher dissolution rates with bedrock disturbance), sampling techniques, and naturally occurring processes. A detectable concentration of HEPH was observed in MW-5D, and cause is unclear at this time. Trends will continue to be monitored and low flow sampler is to be implemented for 2016, potentially decreasing solids in samples.

Settling pond volume and quality exceedances coincided with heavy precipitation events on/around January 21, February 15 and March 10. The 2016 Q1 Report attributes elevations of total iron and copper to increased suspended particles in the water and dissolved iron and copper did not exceed maximum guidelines. The one-time pyrene exceedance was attributed to a nearby housefire or laboratory variability and will continue to be monitored.

There has been some confusion regarding the reference in the permit to the sampling site known as SW-1. Historically, SW-1 has been used to describe the sampling site located at the ephemeral creek breakout (EMS ID E305365) just west of the settling pond outlet. However, according to the Permit, SW-1 refers to the actual discharge at the settling pond pipe outlet (E292898). Please contact me to discuss this further in order that we can agree on a way to clarify this in future sampling and reporting without losing the historical data.

Compliance History:

2015-12-17 Office Review -- update on previous undetermined non-compliance reporting clause (6.1) from 2015-11-14 inspection; No non-compliances noted.

2015-12-02 Onsite -- No non-compliances noted.

2015-11-14 Onsite -- Non-compliance as a result of water crossing the perimeter boundary instead of channelling to the settling pond as required (1.5.4, 1.5.5, 2.12). In addition, the permittee did not immediately contact the director upon discovering the discharge (2.12). 2A Warning

2015-09-15 Office Review -- Follow-up on 2015-05-13 non-compliances, now in compliance. No non-compliances noted.

2015-05-13 Onsite -- Non-compliances noted: monitoring well MW-4 no longer operational (3.3), sampling and reporting not conducted during appeal period (3.4, 3.6, 5.2), tracking process practice not matched to Environmental Procedures Manual (5.1(5)). 1A Advisory

2014-05-29 Onsite -- Non-compliances noted: permanent flow-measurement device not yet installed (1.5.4, 1.5.5), tracking process practice not matched to Environmental Procedures Manual (5.1(5)). 1A Advisory

Please contact me with any questions at laura.hunse@gov.bc.ca or 250.751.3224.

Compliance Summary	In	Out	N/A	N/D
Discharge	4	2	0	1
Operations	6	4	3	3
Reporting	2	1	0	2
Monitoring	8	0	1	0

Inspection Details

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Discharge	<p>1.1 Authorized Discharges -- General Conditions:</p> <p>This section applies to the discharge of refuse from a contaminated soil treatment and to the landfill facility.</p> <p>1.1.1 The combined maximum rate of discharge from the treatment and to the landfill facility is 100000 tonnes per year. The estimated density of soil accepted at the site ranges from 1.5 to 1.8 t/m³ for the purpose of sampling incoming soil or treated soil for characterization. The above density estimate may be modified at any time with a scientific sampling method approved by the Director.</p>	16,668.56 tonnes were discharged to the permanent encapsulation area (PEA) in the first quarter of 2016 (2016 Q1 Report, p. 2).	In
Operations	<p>1.3 Authorized Discharge -- Landfill Facility:</p> <p>This section applies to the discharge of refuse from a soil treatment facility and from relocated contaminated soil and associated ash. The site reference number for this discharge is E292889.</p>	No ash was accepted by the facility during this quarter (2016 Q1 Report, p. 7). Only non-hazardous waste class soil was imported onto the site (2016 Q1 Report, p. 3).	In

	<p>–</p> <p>1.3.2 The characteristics of the discharge must be better than:</p> <p>Hazardous waste, as described in the Schedule 1, 1.1, 3 and 4 (Part 3, table 1 - Leachate Quality Standards) of the Hazardous Waste Regulation (HWR) and must be limited to contaminated soils and associated ash. Hazardous waste (as defined in the Environmental Management Act and the HWR), liquids, putrescible and other wastes must not be discharged.</p>		
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Operations	<p>1.3 Authorized Discharge -- Landfill Facility:</p> <p>This section applies to the discharge of refuse from a soil treatment facility and from relocated contaminated soil and associated ash. The site reference number for this discharge is E292889.</p> <p>–</p> <p>1.3.3 The types of soil that can be discharged at the landfill facility are soils and associated ash contaminated with metals, Dioxins, Furans, BTEX, MTBE, VPHs, LEPHs/HEPHs, PAHs, Styrene, Chlorinated Hydrocarbons, Phenolic Substances, Chloride, Sodium and Glycols as defined in Schedules 4 and 5 of the CSR.</p>	<p>The specific soil contaminants are not required to be included in the 2016 Q1 Report but records must be kept available to the director for at least three years and made available upon request, as required by section 5.1.</p>	Not Determined
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Discharge	<p>1.4 Ancillary Discharge -- Water Treatment System:</p> <p>This section applies to the discharge of effluent from the water treatment system</p>	<p>The maximum rate of the WTS discharge was exceeded on February 15 and 16, and March 10, with rates of 331, 303 and 344 m3/day</p>	Out

	(WTS). The site reference number for the WTS discharge is E292170. — 1.4.2 The maximum rate of the WTS discharge is 274 cubic metres per day.	respectively (2016 Q1 Report, p. 16).	
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Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Discharge	<p>1.4 Ancillary Discharge -- Water Treatment System:</p> <p>This section applies to the discharge of effluent from the water treatment system (WTS). The site reference number for the WTS discharge is E292170.</p> <p>—</p> <p>1.4.4 The characteristics of the discharged treated effluent must be equivalent to or better than the most stringent of those British Columbia Approved Water Quality Guidelines (BCAWQG) and A Compendium of Working Water Quality Guidelines for British Columbia (BCWWQG) for Freshwater Aquatic Life (AL) protection and Drinking Water (DW) uses for the parameters of concern: Inorganic Substances including metals, VPHw, LEPhw, VHw6-10, EPHw10-19, PAHs, BTEX, Styrene, Chlorinated Hydrocarbons, Phenolic Substances, Chloride, Sodium, Glycols, pH and Oil & Grease.</p>	Effluent that met applicable standards was discharged to the settling pond (2016 Q1 Report, p. 17).	In

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Discharge	<p>1.5 Ancillary Discharge: This section applies to the discharge of stormwater from the settling pond. The site reference number for the settling pond outlet is E292898.</p> <p>1.5.1 The rate of the settling</p>	The highest flow rate in the first quarter was 911.08 cubic metres per day which occurred on March 10, 2016 (2016 Q1 Report, p. 5).	In

	pond discharge is 42,500 cubic metres per day for up to 1 in 10 year return period flood event of 24 hour duration.		
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Discharge</u>	<p>1.5 Ancillary Discharge: This section applies to the discharge of stormwater from the settling pond. The site reference number for the settling pond outlet is E292898.</p> <p>—</p> <p>1.5.3 The characteristics of the settling pond discharge effluent (SW-1) must be equivalent to or better than the most stringent of those BCA WQG and BCWWQG for Freshwater Aquatic Life uses and Total Suspended Solids (TSS) must not exceed 25 mg/L for up to 1 in 10 year return period flood event of 24 hour duration.</p>	<p>SW-1 turbidity results exceeded the AL guideline of 1 NTU above background on January 21, February 15 and March 10 with values of 31.7, 27.7 and 89.0 NTU respectively. TSS permit limit of 25 mg/L was exceeded with values of 43 and 45 mg/L on February 15 and March 10.</p> <p>Total Iron exceeded 1 mg/L guideline on these dates with concentrations of 1.61, 2.16 and 4.47 mg/L (2016 Q1 Report, pp. 17-18).</p>	<u>Out</u>
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Discharge</u>	<p>1.5 Ancillary Discharge: This section applies to the discharge of stormwater from the settling pond. The site reference number for the settling pond outlet is E292898.</p> <p>—</p> <p>1.5.3 The characteristics of the settling pond discharge effluent (SW-1) must be equivalent to or better than the most stringent of those BCA WQG and BCWWQG for Freshwater Aquatic Life uses and Total Suspended Solids (TSS) must not exceed 25 mg/L for up to 1 in 10 year return period flood event of 24 hour duration.</p>	<p>At p. 19, the 2016 Q1 Report states: "Pyrene levels above the WQG guideline were observed in samples from discharge point E292898 (0.03 _g/L) and SW-1 (0.03 _g/L) on March 10, 2016 versus the WQG AL guideline of 0.02 _g/L with an MRL of 0.02 _g/L. A major source of polycyclic aromatic hydrocarbons in aquatic environments is from fire. Polycyclic aromatic hydrocarbons from fires tend to sorb to suspended particles and can enter aquatic environments as atmospheric fallout. It is noted that a large house fire occurred (March 8, 2016) on a neighboring property prior to sampling on March 10, 2016. However, the lack of</p>	<u>Not Determined</u>

		<p>observance of other PAH_s in the samples may also suggest that the level could be attributable to laboratory variability (i.e. both concentrations observed are less than two times the laboratory detection limit)." Due to the house fire and concentration detected so close to the detection limits, compliance with the pyrene WQG guideline could not be determined.</p>	
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Discharge</u>	<p>1.5 Ancillary Discharge: This section applies to the discharge of stormwater from the settling pond. The site reference number for the settling pond outlet is E292898.</p> <p>—</p> <p>1.5.3 The characteristics of the settling pond discharge effluent (SW-1) must be equivalent to or better than the most stringent of those BCA WQG and BCWWQG for Freshwater Aquatic Life uses and Total Suspended Solids (TSS) must not exceed 25 mg/L for up to 1 in 10 year return period flood event of 24 hour duration.</p>	<p>Dissolved metals were analyzed in the samples from February 15, 2016 and March 10, 2016. Dissolved iron concentrations were found to be less than the BCAWWQG standard.</p> <p>Dissolved iron was analyzed in samples and found to be less than the laboratory detection limit (0.10 mg/L) on January 27 and February 15, 2016. The dissolved iron concentration for the sample on March 10, 2016 was observed at 0.012 mg/L. In all cases, results were below the BCAWWQG guideline of 0.35 mg/L.</p> <p>Elevated concentrations of total copper in the March 10, 2016 sample were detected but did not likely exceed the BCAWWQG Hardness Dependent Total Copper Standard (2016 Q1 Report, pp. 17-18).</p>	<u>In</u>
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Operations</u>	<p>2.1 Soils and Associated Ash Unacceptable for Treatment</p> <p>The following types of waste must not be accepted for treatment at the site:</p>	<p>No soil or ash was accepted for treatment during quarter one of 2016.</p>	<u>Not Applicable</u>

1) Hazardous waste as defined in the HWR;
 2) Soils contaminated with any substances not included in Subsection 1.2 above with concentrations exceeding relevant standards specified in Schedule 4 and 5 of the CSR;
 3) Soils and associated ash that cannot be treated or landfilled successfully in the opinion of the Director; and
 4) Liquid waste or soil and associated ash with a water content exceeding those described in the Soil Acceptance Plan.
 5) Restricted wastes listed in the Soil Acceptance Plan described in Subsection 2.2 of this permit.

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Operations</u>	<p>2.4 Bedrock Integrity and Inspection and Risk Assessment</p> <p>A bedrock integrity inspection and risk assessment report must be submitted to the Director prior to the construction of any landfill cells. For any abnormalities (open fractures, presence of water, percolation, etc) identified during the inspection, the Permittee must notify the Director immediately and issue a structural report within 30 days following the inspection. The report must be submitted to the satisfaction of the Director and prepared by a suitably Qualified Professional and must include, but is not limited to:</p> <p>a) all relevant information collected during the inspection and detailing the abnormality; b) an explanation and/or</p>	No new landfill cells were constructed during quarter one of 2016.	<u>Not Applicable</u>

	<p>interpretation of the abnormality;</p> <p>c) a risk assessment in regards to the risk to human health and the receiving environment; and</p> <p>d) remedial action planned and/or taken to control the risks.</p>		
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Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Operations	<p>2.10 Dust Control</p> <p>Fugitive dust created within the operation area must be suppressed. Measured dustfall must not exceed the B.C. Ambient Air Quality Residential Objective of 1.7 mg/(dm²-day) over a two week averaging period at the property boundary. The contingency measures must be documented in the EPM as defined in Subsection 2.13 and include, but not limited to, reduced activities, covering or application of dust suppressant on soil piles and exposed areas.</p>	<p>Additional dustfall sampling at a different temporary location (Temporary Location-Site Property on West Quarry Boundary) was conducted following concerns raised around airborne cement/flyash mix during geotechnical stabilization activities. The observed dustfall rate in January from the Temporary Location was 5.1 mg/(dm²-day) (January 7 - 21, 2016), exceeding the authorized rate of 1.75 (2016 Q1 Report, Appendix C p. 24).</p> <p>It is noted that in response to the dust concerns, SIRM has since invested in technology to conduct the stabilization process within a closed system. In addition, mixing is now carried out under cover of the soil management area, which provides additional shelter and dust containment.</p>	Out

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Operations	<p>2.10 Dust Control</p> <p>Fugitive dust created within the operation area must be suppressed. Measured dustfall must not exceed the B.C. Ambient Air Quality Residential Objective of 1.7 mg/(dm²-day) over a two week averaging period at the property boundary. The contingency measures must be documented in the EPM</p>	<p>Measured dustfall at the permanent sample site (E305367 Dustfall) did not exceed authorized dustfall limits in January, February or March, 2016 (2016 Q1 Report, Appendix C p. 24).</p>	In

	as defined in Subsection 2.13 and include, but not limited to, reduced activities, covering or application of dust suppressant on soil piles and exposed areas.		
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Operations</u>	<p>2.12 Maintenance of Works and Emergency Procedures:</p> <p>The Permittee must prepare and maintain an Emergency Response Plan (ERP) to the satisfaction of the Director that describes the procedures to be taken to prevent or mitigate any discharge in contravention of the EPM.</p>	Though the ERP is included in EPM Revision 1.1 as Section 9 and Appendix K, it has not been maintained to the satisfaction of the Director as Revision 1.1 is not certified by a Qualified Professional as required by section 2.15 of the permit (see requirement 2.15, below).	Out
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Operations</u>	<p>2.13 Environmental Procedures Manual</p> <p>An Environmental Procedures Manual (EPM) must be prepared and submitted by the Permittee to the Director. No soil may be received prior to acceptance of the EPM by the Director. The EPM must be kept current and available for use as a guide at all times at the facility. The manual must cover all typical aspects of an Environmental Management Systems (EMS) relevant to the management of the soil treatment, water treatment and landfill facilities including but not limited to, the following items:</p> <p>a) Risk identification and prioritization; b) Administrative and engineering controls; c) Roles and responsibilities; d) Training requirements; e) A Soil Acceptance Plan; f) A Water Management Plan; g) An Environmental Monitoring Plan, including on and off site monitoring</p>	The EPM includes the above requirements and EPM Revision 1.1 has been submitted as required.	In

locations and the sampling procedures for soil, water, groundwater and air quality, as required;
 h) An Emergency Response Plan, including contingency measures.
 i) Details on the site preparation and the construction of landfill cells;
 j) Operation, inspection and maintenance of the soil management and treatment facility, the landfill facility, the water treatment system, erosion and sediment controls measures, the settling pond and associated appurtenances;
 k) Internal and external EMS audits, and;
 l) Notification, reporting, investigation and corrective and preventive measures.

The Permittee must review the EPM at least on an annual basis to determine if any changes are required and submit any revisions to the Director for acceptance. Annual reviews and submission of revisions are due on March 31 of each year.

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Operations	<p>2.14 Advisory Committee</p> <p>The Permittee must establish an Advisory Committee and develop terms of references to the satisfaction of the Director. The Committee must be composed of one representative of each relevant regulatory agency, one representative from the local government, one representative from the Shawnigan Residents Association and/or other interested community members as chosen by the Director.</p>	<p>Both the permittee and MOE have attempted to ensure the Advisory Committee has representation by the Cowichan Valley Regional District and the Shawnigan Residents Association and/or other interested community members but have been unsuccessful thus far and compliance could not be determined.</p>	Not Determined
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:

<u>Operations</u>	2.14 Advisory Committee The Permittee must establish an Advisory Committee and develop terms of references to the satisfaction of the Director. The Committee must be composed of one representative of each relevant regulatory agency, one representative from the local government, one representative from the Shawnigan Residents Association and/or other interested community members as chosen by the Director.	The terms of reference (TOR) have been developed to the satisfaction of the Director.	<u>In</u>
Requirement Type: <u>Operations</u>	Requirement Description: 2.14 Advisory Committee — The Committee must meet annually within 3 months of the submission of the annual report as required under Subsection 5.3 and provide advice to the Director within 30 days of the meeting.	Details/Findings: Not yet applicable, annual report submitted March 31, 2016.	Compliance: <u>Not Applicable</u>
Requirement Type: <u>Operations</u>	Requirement Description: 2.15 QUALIFIED PROFESSIONALS All facilities and information, including works, plans, bedrock integrity and risk assessment, assessments, sampling, monitoring, investigations, surveys, programs and reports, must be conducted and certified by Qualified Professionals. "Qualified Professional" means a person who a) is registered to practice in British Columbia with his or her appropriate professional association, acts under that professional association's code of ethics, and is subject to disciplinary action by that professional association, and;	Details/Findings: The EPM Revision 1.1 (including the required information and plans) is not certified by a Qualified Professional.	Compliance: <u>Out</u>

b) through suitable education, experience, accreditation and knowledge may be reasonably relied on to provide advice within his or her area of expertise as it relates to this permit.

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Operations	<p>2.18 Plans - New Works</p> <p>Plans and specifications of the works must be certified by a Qualified Professional registered to practice in the Province of British Columbia, and submitted to the Director. A Qualified Professional must certify that the works have been constructed in accordance with the plans before discharge commences.</p>	<p>Plans and specifications certified by a qualified professional, and certification that the works have been constructed in accordance with the plans before discharge commences, have not been received for:</p> <ul style="list-style-type: none"> - additional water treatment system works (SIRM March 2, 2016 plans and specifications are not certified by a qualified professional) - revised settling pond - permanent roof over the soil management area - final west ditch - east-west pit crest ditch 	Out
Operations	<p>3.1 Incoming Soil and Associated Ash Sampling and Analysis</p> <p>The Permittee must follow sampling procedures and frequency specified in the approved Soil Acceptance Plan described under Subsection 2.2 to verify soil and associated ash quality. The contaminants must include, but not be limited to, the parameters of concern listed in Subsection 1.3.3, as determined by a Qualified Professional. The Director may require testing of soil and associated ash for additional parameters.</p>	<p>Incoming soil sampling was conducted in accordance with the above requirements (2016 Q1 Report, p. 8).</p>	In
Operations	<p>3.2 Treated Soil Sampling and Analysis</p>	<p>Records for incoming soil sampling and analysis were</p>	Not Determined

	<p>The Permittee must sample and characterize each batch of treated soil in accordance with Technical Guidance #1 Site Characterization and Confirmation Testing or an equivalent sampling protocol approved by the Director. Each batch must be considered to be of suspect waste soil quality. Soil must be analysed prior to disposal as authorized in Subsection 1.2 and 1.3 of this permit. The samples must be analysed for the parameters relevant to the type of contamination for which the soil is undergoing treatment as determined by a Qualified Professional. The appropriate parameters must include, but must not be limited to, the parameters of concern listed in Subsection 1.3 .3 as determined by a Qualified Professional. Confirmation of completion of soil treatment must be obtained in writing from a Qualified Professional prior to discharge, for each stockpile of treated soil.</p>	<p>not requested for this inspection so compliance with this section could not be determined. Records for incoming soil sampling and analysis are maintained at the site for inspection upon request. Ten metal parameters characterize the imported soils discharged to the landfill this quarter, as well as sodium and chloride, and hydrocarbons. Other potential contaminants of concern (PCOC) were not assessed in the imported soil in this quarter, based on the lab testing and data submitted in the Waste Approval Applications.</p>	
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.3 Groundwater Sampling and Analysis</p> <p>The Permittee must install and maintain a minimum of seven groundwater sampling facilities (MW-1(S/D), MW-2, MW-3(S/D), MW-4 and MW-5) as shown on Figure B and obtain groundwater samples once each quarter in a manner satisfactory to the Director.</p>	<p>Upgradient monitoring well MW-4 was replaced by MW-6 this quarter (acknowledged by Director in letter to Cobble Hill, February 5, 2016) due to the location of MW-4 being in an area of expansion of the quarry. Sampling was conducted as required.</p>	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.3 Groundwater Sampling and Analysis</p> <p>Groundwater samples must be analysed for all potential</p>	<p>Samples were analysed for potential contaminants of concern and compared to CSR schedules as required.</p>	In

	contaminants of concern. The contaminants may include, but not be limited to, the parameters of concern listed in Subsection 1.3.3, as determined by a Qualified Professional. The groundwater quality must be compared to the standards described in Schedules 6 and 10 of the CSR or any additional standards specified by the Director in writing.		
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.4 Surface Water Sampling and Analysis:</p> <p>The Permittee must sample the water treatment system effluent (WTS) and the settling pond discharge point (SW-1) monthly and every 2000 m3 for the water treatment system discharge effluent in a manner suitable to the Director.</p>	Sampling was conducted as required.	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.4 Surface Water Sampling and Analysis:</p> <p>Turbidity of the settling pond discharge effluent (SW-1) must be monitored biweekly between November to April and after every event greater than 1 in 10 year return period flood event of 24 hour duration.</p>	Biweekly turbidity data was not submitted with the quarterly monitoring report. SIRM staff confirmed that turbidity was measured using a rented meter from November to March and will record values in the future (email to EPO Laura Hunse from Rahim Gaidhar, 2016-05-30).	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.4 Surface Water Sampling and Analysis:</p> <p>Surface water samples must be analysed for all potential contaminants of concern (PCOC). The contaminants may include, but not be limited to, the parameters of concern listed in Subsection 1.3.3, as determined by a Qualified Professional. The surface water quality results</p>	Analyses of the samples included the PCOCs associated with the soil received and specific permit requirements (2016 Q1 Report, p. 16) and were compared against the applicable standards.	In

	must be compared to the standards set out in Subsection 1.4.4 and 1.4.5.		
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.5 Air Quality Monitoring</p> <p>The Permittee must collect monthly ambient air samples during the active season (i.e. between April and November, inclusive) at the down-wind property line using a Summa Canister. Ambient air samples must also be collected using a Summa Canister if and when soils with measurable volatile contaminant concentrations exceeding the established thresholds are being managed or treated at the soil treatment facility at the location and as documented in the EPM.</p>	Monthly two-week dustfall and monthly 24-hour Summa Canister samples were taken (2016 Q1 Report, p. 20).	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.5 Air Quality Monitoring</p> <p>The ambient air sample must be analysed for the all potential contaminants of concern, as determined by a Qualified Professional, and results must be compared to the CSR Schedule 11 RL standards. In the event that results exceed the standards, the Permittee must follow the requirements stated under Subsection 2.9.</p>	Ambient air samples were analysed for volatile organic compounds and no exceedences of Schedule 11 RL standards were detected (2016 Q1 Report, p. 20).	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.6 Receiving Environment Sampling</p> <p>The Permittee must implement a receiving environment monitoring program for the receiving groundwater and surface water summarized in the table below and as defined under the EPM:</p>	Monitoring of the surface water at the up and downgradient sites will be conducted in the second quarter of 2016 so this section is not applicable for this inspection.	Not Applicable

Groundwater Up Gradient (Quarterly Sample):
 EMS Site E305357 (MW-4) [now MW-6 E305357], commissioned in 2016
 Southeast corner of the site

Groundwater Down Gradient (Quarterly Sample):
 E305358 (MW-1(/D)) Onsite
 E305359 (MW-2) Property Boundary
 E305594 (MW-3(S/D)) Property Boundary
 E305360 (MW-5) North of Site

Surface Water Up Gradient (5 in 30* ((2 times/year, conducted during fall first flush event and in the spring freshet))
 E305361 (SW-4) Shawnigan Creek
 E305362 (SW-2) Ephemeral Creek 1

Surface Water Down Gradient (5 in 30* ((2 times/year, conducted during fall first flush event and in the spring freshet))
 E305363 (SW-3) Ephemeral Creek 2
 E305364 (SW-5) Shawnigan Creek

*5 in 30 refers to at least 5 weekly samples taken in a period of 30 days. Due to the ephemeral nature of some of the creeks, the first 5 in 30 sample should be collected when the ground has been saturated.

Flow measurements must be collected from all surface water monitoring locations at the time of sampling.

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	3.9 Quality Assurance a) The Permittee must	Duplicate samples were conducted for groundwater and surface water as	In

	<p>obtain from the analytical laboratory(ies) their precision, accuracy and blank data for each sample set submitted as well as an evaluation of the data acceptability, based on the criteria set by the laboratory.</p> <p>b) A duplicate sample must be prepared and submitted for analysis for each parameter sampled for each monitoring period.</p> <p>c) The analytical laboratory (ies) must be registered in accordance with the Canadian Association of Laboratory Accreditation (CALA) unless otherwise instructed by the Director.</p>	required.	
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Operations	<p>5.2 Environmental Quarterly Reports</p> <p>The Permittee must submit environmental quarterly reports prepared by a Qualified Professional with all monitoring data and associated QA/QC results, interpretations, conclusions and recommendations in a format acceptable to the Director and post the results online and provide a hard copy to the Director no later than 30 days after the end of each quarter.</p>	2016 Q1 Report was received by MOE on April 29, 2016 and posted online.	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Reporting	<p>5.3 Environmental Annual Reports</p> <p>The Permittee must submit an environmental annual report prepared by a Qualified Professional with monitoring data and associated QA/QC results, interpretations, conclusions and recommendations in a format acceptable to the Director no later than March 31 of each year.</p>	Annual report was received by MOE on March 31, 2016, and resubmitted April 29, signed by an alternate qualified professional (QP) after the applicability of the qualifications of the first QP was questioned as appropriate for this purpose.	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:

Reporting	<p>5.3 Environmental Annual Reports</p> <p>The environmental annual report must include, but is not limited to, the following:</p> <ol style="list-style-type: none"> 1) An executive summary; 2) Quality and quantity (in tonnes and m3) of soil and associated ash received for treatment, direct landfilling and as direct landfill cover; 3) Quality and quantity (in tonnes and m3) of soil and associated ash that could not be treated in the soil treatment facility and soil and associated ash rejected and diverted to other facilities for treatment and/or disposal; 4) Updated maps showing the active landfill area, the areas reclaimed and the location of each landfill cells (completed and in progress); 5) Landfill operational plan and remaining landfill life and capacity; 6) Review of the preceding year of operation, plans for the next year and a summary of any new information or changes to the facilities and plans, assessments, programs and reports; 7) Review of any non-compliances with the conditions of this permit, including an action plan and schedule to achieve compliance (as per Subsection 6.1); and 8) Results from the Environmental Monitoring Plan with interpretations, conclusions and recommendations. 	<p>The contents of the 2015 Annual Report were not reviewed for the purpose of this 2016 Q1 Report inspection and compliance with this requirement was not determined.</p>	Not Determined
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Reporting	<p>5.3 Environmental Annual Reports</p> <p>The Permittee must post the environmental annual report</p>	<p>The annual report is posted online.</p>	In

	online and provide a hard copy to the local library by March 31 of each year.		
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Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Reporting	5.3 Environmental Annual Reports The Permittee must post the environmental annual report online and provide a hard copy to the local library by March 31 of each year.	Provision of a copy to the local library was not verified for this inspection and compliance with this requirement was not determined.	Not Determined

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Reporting	6. NON-COMPLIANCE REPORTING 6.1 Non-compliance Reporting For any non-compliance with the requirements of this permit, the Permittee must submit to the Director, Environmental Protection, a written report within 30 days of the non-compliance occurrence. The report must include, but is not necessarily limited to, the following: a) all relevant test results related to the non-compliance; b) an explanation of the most probable cause(s) of the non-compliance; and c) remedial action planned and/ or taken to prevent similar non-compliance(s) in the future.	Non-Compliances including but not limited to those listed in sections 1.4.2, 1.5.3 and 2.10 as noted above were not reported in written format as described in section 6.1. Non-compliances must be reported to the Non-Compliance Reporting Mailbox. See Actions Reported by Regulated Party, above, for additional information.	Out

Were the following collected during inspection:

Samples? Photos? EMS No. _____

Other (please specify)

Is the Inspection related to an EA Project? EA Project Certificate Number: _____

INSPECTION CONDUCTED BY:

Signature _____ Date Signed _____

Laura Hunse	2016-06-29
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ENCLOSURE(S) TO REGULATED PARTY & DESCRIPTION:

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CVIS Archives

REGULATORY CONSIDERATIONS:

PE-105809

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 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 or visit: <http://www2.gov.bc.ca/gov/topic.page?id=DF89089126D042FD96DF5D8C1D8B1E41&title=Publicly%20Viewable%20Authorizations>

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.

Ministry of Environment	West Coast	Mailing Address:	Phone: (250) 751-3100
	Region	2080-A Labieux Rd	Fax: (250) 751-3103
	Environmental Protection Division	Nanaimo, BC V9T 6J9	Website: http://www.gov.bc.ca/env