Dear Grace-Mar Farms Ltd.

Re: An Investigation Referral, Environmental Management Act 108389, 5093 Salmon River Road, Armstrong, BC, Effluent

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

On February 14, 2017, Ministry of Environment, Environmental Protection Division staff conducted an inspection of your facility, Grace-Mar Farms Ltd. located at 5093 Salmon River Road, Armstrong, BC with Pollution Abatement Order number 108389 under the Environmental Management Act.

For your information, this inspection record is being referred to the Conservation Officer Service for investigation.

Inspection Details:

<table>
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<tr>
<th>Requirement Description:</th>
<th>Details/Findings:</th>
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<tbody>
<tr>
<td>1. Within 45 days of the issuance of this order, must submit to the Director for approval,</td>
<td>On June 28, 2016, Associated Environmental submitted a Terms of Reference (ToR) and a Work plan for an Environmental Impact Assessment in order to satisfy requirement #1 of</td>
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<td>terms of reference and a work plan, prepared by a Qualified Professional, for completing a</td>
<td>Pollution abatement Order #108389.</td>
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<td>comprehensive monitoring program and an Environmental Impact Assessment (“EIA”) for nitrate</td>
<td>On July 29, 2016 a letter confirming acceptance (contingent on edits provided by MoE staff) of the ToR and Work plan was issued to Grace-Mar Farms.</td>
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<td>s and other nitrogen compounds in the soil and groundwater on the Lands identified in this</td>
<td>In discussion between the Order recipient and the Director, June 30, 2016 was the agreed date for this submission.</td>
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<td>order.</td>
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<td>The EIA must, at a minimum, assess the impact the following operations have on nitrates</td>
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<td>and other nitrogen compounds entering surface or groundwater:</td>
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<td>a) all fields located on the Lands where agricultural wastes including manure are</td>
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<td>generated or permanently or temporarily stored;</td>
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<td>b) all storage facilities located on the Lands;</td>
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<td>c) all seasonal and confined feeding areas on the Lands; and</td>
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<td>d) all drainage management structures on the Lands.</td>
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<td>The Environmental Impact Assessment must be completed no later than August 1, 2016 and</td>
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<td>the monitoring program must be designed to inform the Environmental Impact Assessment.</td>
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Compliance: In

Actions to be taken: None
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<td>2: Immediately upon approval of the terms of reference and work plan by the Director, cause a Qualified Professional to implement the comprehensive monitoring program and complete the comprehensive EIA according to the work plan and terms approved by the Director, but subject to any further directions or amendments to the work plan or terms of reference made by the Director.</td>
<td>I have received no information on the timeliness of the Qualified Professional (QP) initiating the comprehensive monitoring program. While the Environmental Impact Assessment was provided within the expected timeframe, it cannot be determined when the QP initiated the monitoring program.</td>
<td>Not Determined</td>
<td>None</td>
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<td>3: Submit the Environmental Impact Assessment together with the results of the comprehensive monitoring program to the Director by August 1, 2016.</td>
<td>On July 29, 2016, an amendment letter for Pollution Abatement Order #108389 was issued to Grace-Mar Farms. Included in this amendment letter was a change in the date for submission of the Environmental Impact Assessment (EIA) from August 1, 2016 to November 17, 2016. On November 17, 2016, Associated Environmental submitted an EIA in order to satisfy requirement #3 of Pollution abatement Order #108389. On January 1, 2017 a response letter from the Ministry of Environment to Grace-Mar Farms and Associated Environmental was issued requiring an addendum to the EIA to address gaps discovered during the review period. The submission deadline for the EIA addendum is February 8, 2017.</td>
<td>In</td>
<td>Submit the EIA addendum to the Director immediately.</td>
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<td>4: Retain a Qualified Professional to prepare an Action Plan detailing measures to be taken to abate the environmental impacts identified in the EIA and submit the Action Plan to the Director by August 15, 2016. The Action Plan must include, but is not limited to: i) description of proposed manure storage measures that ensure sufficient storage, ensure proper construction of permanent and temporary storage facilities with appropriate setbacks, and ensure minimal impact to the environment; ii) description of proposed drainage management measures to effectively control runoff to ensure that solids, leachate, contaminated runoff and drift from sprayed materials do not enter watercourses, penetrate to groundwater or leave the property; iii) determination of Agronomically Correct rates of application of agricultural waste during agricultural operations on the Lands, and a plan for ensuring application of agricultural wastes does not exceed Agronomically Correct rates; iv) description of proposed remedial measures to ensure manure applications do not extend beyond property boundary, in a watercourse, and near industrial and drinking water wells; v) description of a proposed ongoing soil, surface and groundwater monitoring program for nitrate and E.coli for the purposes of monitoring the effects of Action Plan; vi) a map identifying all fields (owned, leased, licenced or otherwise part of the Lands) utilized for farm operations, identifying the locations of manure storage facilities, feeding areas, drinking water well(s), industrial well(s), surface water intakes, and any other notable work(s) and identify all setbacks (i.e. minimum distances) between such facilities or areas and wells or relevant water works; and vii) a timeline for implementation of the Action Plan.</td>
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Details/Findings: On July 29, 2016, an amendment letter for Pollution Abatement Order #108389 was issued to Grace-Mar Farms. Included in this amendment letter was a change in the date for submission of the Action Plan from August 15, 2016 to November 30, 2016.

On November 30, 2016, Associated Environmental submitted an Action Plan to fulfill requirement #4 of Pollution abatement Order #108389.

Compliance:

Actions to be taken:

Requirement Description: 5: Upon approval by the Director, implement the Action Plan referred to in section 4 in accordance with any amendments to the Action Plan required or approved by the Director, or any further directions of the Director.

Details/Findings: As of February 14, 2017, the submitted Action Plan has not yet been approved therefore this requirement does not apply at this time.

Compliance: Not Applicable

Actions to be taken:

Requirement Description: 6: Submit to the Director a formal written summary by November 30, 2016 and annually for the next two years including:
   i) summarizing in reasonable detail what actions from the Action Plan were undertaken;
   ii) identification of all agriculture operational changes that occurred;
   iii) summarizing in reasonable detail monitoring results;
   iv) summarizing environmental impact assessment (first year only); and
   v) recommending additional mitigation and restoration measures, if appropriate.

Details/Findings: On July 29, 2016, an amendment letter for Pollution Abatement Order #108389 was issued to Grace-Mar Farms. Included in this amendment letter was a change in the date for posting of the first formal written summary from November 30, 2016 to June 30, 2017. As the due date for this requirement has not past, compliance cannot be determined at this time.

Compliance: Not Determined

Actions to be taken: Submit the first formal written summary by June 30, 2017.

Requirement Description: 7: Publically post the Action Plan required by this order by August 15, 2016 and publicly post the annual summary required by this order by November 30, 2016, including physically posting the Action Plan and Annual Summary at the Hullcar Community Hall. Any updates to the Action Plan and future Annual Summaries must be posted at Hullcar Community Hall annually for the next two years, by November 30 of each year.

Details/Findings: On July 29, 2016, an amendment letter for Pollution Abatement Order #108389 was issued to Grace-Mar Farms. Included in this amendment letter was a change in the date for posting of the Action Plan from August 15, 2016 to November 30, 2016 and for posting of the annual summaries from November 30, 2016 to June 30, 2017.

As of February 14, 2017, no information regarding posting of the Action Plan has been provided.

Compliance: Out

Actions to be taken: Immediately post the Action Plan at Hullcar Community Hall.
On May 12, 2016, Grace-Mar Farms Ltd. was issued a Pollution Abatement Order (PAO108389) for their agricultural operation located at 5093 Salmon River Road, Armstrong, BC. The Abatement Order was issued as a result of nitrogen concentrations in the local aquifer exceeding the Canadian drinking water guidelines. On January 16, 2017 the Steele Springs Water District source was tested. The results showed Nitrate levels at 13.2mg/L, exceeding the Canadian Drinking Water standard of 10mg/L.

On September 14, 2016, the Ministry of Environment (MoE) invited the Regulated party to take part in a Post Harvest Nitrate Study being conducted by the Ministry of Agriculture. The Director advised the Regulated Party that if they chose to participate in the Ministry of Agriculture Post Harvest Nitrate Study, that this would meet the soil analysis requirement for the EIA. The Regulated party confirmed their willingness to be part of the study via email received by MoE staff on September 15, 2016.

On February 14, 2017, Environmental Protection Officer Devan Oldfield, Compliance Section, completed a desktop review of the requirements listed in PAO108389. After a desktop inspection against the requirements of PAO108389, I have determined that Grace-Mar Farms Ltd. are out of compliance with requirements 1 and 7.

Compliance History
February 10, 2016 - UA25608 - Warning

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

Yours truly,
Devan Oldfield
Environmental Protection Officer

cc:

Attachments:

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

Ministry of Environment
Compliance
Environmental Protection Division
Mailing Address:
102 Industrial Pl
Penticton BC V2A 7C8
Telephone: 250 490 8200
Facsimile: 250 490 2231
Website: www.gov.bc.ca/env

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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 or visit:
http://www2.gov.bc.ca/gov/topic.page?id=DF89089126D042FD96DF5D8C1D8B1E41&title=Publically%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.