



Date: May 12, 2016

File: UA Hullcar Aquifer  
AMS#350103

George E Curtis  
5058 Parkinson RD  
Armstrong, BC V0E1B4

Kevin F Curtis  
5058 Parkinson RD  
Armstrong, BC V0E1B4

### **POLLUTION ABATEMENT ORDER**

I am satisfied on reasonable grounds that pollution is being caused by the introduction into the environment of agriculture waste, including manure and/or manure laden effluent, from agricultural operations located on the following lands:

That Part of the South East 1/4 Outlined Red on Plan B714, Section 26, Township 34, Kamloops (Formerly Osoyoos) Division Yale District, Parcel Identifier 013-574-612;

That Part of the South East 1/4 Outlined Red on Plan B1137, Section 26, Township 34, Kamloops (Formerly Osoyoos) Division Yale District, Parcel Identifier 013-573-951; and

lands, used from time to time for agricultural operations that are part of or associated with the agricultural operations on the above lands, and are controlled directly or indirectly by George E. Curtis or Kevin F. Curtis

(the “**Lands**”).

I am satisfied that:

- George Edward Curtis is the owner of a portion of the Lands; and
- George Edward Curtis and Kevin F. Curtis (the “**Addressees**”) had possession, charge and control of the polluting substance at the time it was introduced into the environment.

The specific substance causing pollution is agricultural waste, including manure and/or manure laden effluent, from which nitrate is leaching into groundwater.

The usefulness of the environment has been impaired due to the presence of nitrates in the groundwater as the presence of nitrate is causing the groundwater in the unconfined aquifer that lies in part underneath the Lands (commonly referred to Hullcar Aquifer 103) to be unfit for potable water for specific persons in the population.

Pursuant to Section 83 of the *Environmental Management Act* [SBC 2003] Chapter 53, the Addressees are hereby ordered to comply with the following requirements:

1. Within 45 days of the issuance of this order, must submit to the Director for approval, terms of reference and a work plan, prepared by a 'Qualified Professional', for completing a comprehensive monitoring program and an Environmental Impact Assessment ("EIA") for nitrates and other nitrogen compounds in the soil and groundwater on the Lands identified in this order.

The EIA must, at a minimum, assess the impact the following operations have on nitrates and other nitrogen compounds entering surface or groundwater:

- a) all fields located on the Lands where agricultural wastes including manure are generated or permanently or temporarily stored;
- b) all storage facilities located on the Lands;
- c) all seasonal and confined feeding areas on the Lands; and
- d) all drainage management structures on the Lands.

The Environmental Impact Assessment must be completed no later than August 1, 2016 and the monitoring program must be designed to inform the Environmental Impact Assessment.

In this order "Qualified Professional" means an applied scientist or technologist specializing in a particular applied science or technology, including agrology, biology, chemistry, engineering, geology, hydrology or hydrogeology, who

- a) is registered in British Columbia with the professional organization responsible for his or her area of expertise, acting under that professional association's code of ethics and subject to disciplinary action by that association, and
  - 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 order;
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.
  3. Submit the Environmental Impact Assessment together with the results of the comprehensive monitoring program to the Director by August 1, 2016.
  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 for approval. 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.

In this order "Agronomically Correct" in relation to the application of agricultural waste to crop land means a rate and timing of application that does not exceed levels of uptake by the relevant crops and minimizes introduction of nitrates into ground or surface waters.

The Addressees may from time to time cause a Qualified Professional to recommend amendments to the Action Plan, if the Qualified Professional determines that the amendments are advisable for the purpose of reducing nitrates entering groundwater or surface water. Any such amendments must be approved by the Director.

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 by the Director, or any further directions of the Director.
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.
7. Publicly 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.

Failure to comply with the requirements of this order is a contravention of the *Environmental Management Act* and may result in legal action. I direct your attention to Section 120(10) of the *Environmental Management Act*, which reads:

*“(10) A person who contravenes an order...that is given, made or imposed under this Act by a ...director...commits an offence and is liable on conviction to a fine not exceeding \$300 000 or imprisonment for not more than 6 months, or both.”*

Failure to comply with the requirements of this order may also result in an administrative penalty under the *Administrative Penalties Regulation (Environmental Management Act) (B.C. Reg 133/2014)*. I direct your attention to Section 12(4) of this *Regulation*, which reads:

*“(4) A person who fails to comply with an order under the [Environmental Management] Act is liable to an administrative penalty not exceeding \$40 000.”*

In this order, the Addressees are jointly and separately responsible for compliance with all terms of the order. For greater certainty, this means that an Addressee may comply with this order by ensuring that the other Addressee complies with the order. However, both Addressees are fully responsible for ensuring compliance. Compliance and enforcement actions taken in response to non-compliance with any term of this order may be taken against both Addressees together or either Addressee individually.

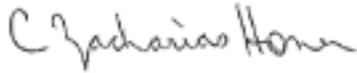
Nothing in this order relieves the Addressees from complying with the requirements of the *Agricultural Waste Control Regulation*, and, in particular any deadlines for compliance with order requirements do not excuse the Addressees from compliance with the regulation prior to that deadline.

This order does not authorize entry upon, crossing over, or use for any purpose of private or crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the Addressees. It is also the Addressees' responsibility to ensure that all activities are carried out with due regard for the rights of third parties, and comply with other applicable legislation that may be in force, such as municipal bylaws relating to the discharge of waste to municipal storm or sanitary sewers.

This order may be appealed to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date notice of this order is given. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

If you have any questions, please call the undersigned or Devan Oldfield at (250) 490-2222.

Yours truly,



Christa Zacharias-Homer  
Deputy Director  
Regional Operations Branch  
for Director, Environmental Management Act

cc: Devan Oldfield, P.Ag., Environmental Protection Officer  
Hullcar Inter-Ministry Working Group