



Date: June 7, 2016

File: 108431

Purple Springs Nursery Inc.  
4516 Hullcar RD  
Armstrong, BC V0E 1B4

Attention: Joe Klassen, Director

### **POLLUTION PREVENTION ORDER**

This Order is being issued under section 81 of the *Environmental Management Act (the Act)*. Under section 15 of the Agricultural Waste Control Regulation, agricultural waste may be composted on a farm if the agricultural waste is composted in a manner that does not cause pollution.

On February 10, 2016 an Environmental Protection Officer, Regional Operations Branch, Environmental Protection Division inspected your facility noted storage of wood waste within 15 meters of a water course as a potential issue. They also noted there is surface water drainage that enters the nursery property from the Regehr feedlot under Hullcar Road. This water is tested for nitrates, a contaminant of concern in Hullcar Valley, as it leaves the feedlot; however, it was noted that the surface water is not analysed again to determine the contributions of contaminants from Purple Springs Nursery storage to where the surface water dissipates to ground on the nursery lands.

On May 25, 2016 Joe Klassen described the composting method practiced at Purple Springs Nursery was the use of a Windrow system where wood chips are used as the base layer with agricultural waste from the adjacent feedlot used as additional layer along with other compostable medium. Mr. Klassen explained the windrow is typically ten feet wide and can be up to 1200 feet long. The windrows are built over a nine month period along the nursery rows where trees will be grown. The windrows are built on a base of permeable soil without cover. There is no leachate collection currently.

Based on this information, I am satisfied on reasonable grounds that this operation is being performed by a person in a manner that is likely to cause pollution on the following lands:

that portion of District Lot 48, Kamloops Div of Yale Land District, Property Identification 011-227-486 occupied by Purple Springs Nursery Inc.; 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 Purple Springs Nursery Inc.

(the "Lands").

I am satisfied that:

- Brenda Lynn Regehr and Kenneth John Regehr are the owners of a portion of the Lands; and
- Purple Springs Nursery Inc. and Joe Klassen (the “Addressees”) had possession, charge and control of the polluting substance at the time it was introduced into the environment.

The specific substance likely to cause 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 nitrate in groundwater as the presence of nitrate is causing the groundwater in the unconfined aquifer that lies in part underneath the Lands (commonly referred to as the Hullcar Aquifer 103) to be unfit for potable purposes for specific persons in the population.

Pursuant to Section 81 of the *Environmental Management Act* [SBC 2003] Chapter 53, Purple Springs Nursery Inc. and Joe Klassen are hereby ordered, upon receipt of this Pollution Abatement order or otherwise indicated, to comply with the following requirements:

1. Retain a Qualified Professional to prepare a report (the “**Farm Book**”) for the 2016 calendar year which includes at a minimum the following information :
  - i) a list of all fields that are or are reasonably anticipated to form part of the Lands (including proposed leased or licenced fields) and utilized for farm operations during 2016;
  - ii) the groundwater monitoring information collected to July 15, 2016;
  - iii) the storage capacity needed to store all feedstock (including manure) stored by agricultural operations on the Lands during 2016 until it can be applied to the Lands in accordance with the rates and timing of application determined under section 11 of this order and the length of time the manure needs to be stored;
  - iv) types and quantities of feedstock (including manure and/or inorganic fertilizer) used and planned to be used on the Lands in 2016 and a description of how it is/ will be utilized, including amounts of different types applied or planned to be applied during different stages for which there are specific use patterns;
  - v) all manure management systems utilized and planned to be utilized during 2016 for farm operations on the Lands including descriptions of temporary and permanent manure storage facilities/ field storage areas;
  - vi) dates and rates of manure spreading completed during and planned for 2016 (may include work sheets used to calculate agronomically-correct manure and other nutrient sources application rates);
  - vii) crops/trees (to be) planted in 2016;
  - viii) drainage management measures undertaken or planned to be undertaken in 2016; and,
  - ix) a map of the Lands and nearby surrounding lands as of July 15, 2016, identifying all fields (owned or leased) utilized for farm operations; identifying the locations of manure storage facilities/ field storage areas; drinking water well(s), industrial well(s), surface water intakes, and any other relevant water work(s); groundwater

monitoring locations; and identifying all setbacks (i.e. minimum distances) between such facilities or areas and wells or relevant water works.

The 2016 Farm Book must be provided to the Director under the *Environmental Management Act* (the “**Director**”) by August 15, 2016. Subsequent updates to the 2016 Farm Book indicating any changes to the above required information must be provided to the Director by October 30, 2016 and January 30, 2017.

In this order, “Manure” includes composted manure.

2. Retain a Qualified Professional to prepare a 2017 Farm Book which includes at a minimum the information required by section 1 of this order to be included in the 2016 Farm Book, but for the 2017 calendar year.

The 2017 Farm Book must be provided to the Director by January 30, 2017. Subsequent updates to the 2017 Farm Book indicating any changes to the required information must be provided to the Director by April, 30 2017; July 31, 2017; and, October 30, 2017.

3. Publicly post the Farm Books and subsequent updates required by this order, including physically posting the Farm Books and subsequent updates at the Hullcar Community Hall, on the same day the respectively Farm Book or update is required to be provided to the Director.
4. Retain a qualified professional to identify drainage management measures necessary to effectively control runoff and to ensure that solids, leachate, contaminated runoff and drift from sprayed materials do not enter watercourses, irrigation or drinking water wells or leave the Lands. Implement drainage management measures identified by the Qualified Professional by July 15, 2016 and continue implementing such measures until this order is amended or cancelled.

In this order “Qualified Professional” means an applied scientist or technologist specializing in a particular applied science or technology, including agronomy, biology, chemistry, engineering, geology 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;
5. Retain a qualified professional to review the existing groundwater monitoring program for nitrates and other nitrogen compounds in the groundwater on the Lands identified in this order. Implement any adjustments recommended by the Qualified Professional by July 15, 2016 and continue implementing such measures until this order is amended or

cancelled.

6. By July 15, 2016 establish functional Manure storage facilities which have, at a minimum, the storage capacity necessary to store all Manure transferred to or produced by Purple Springs Nursery Inc. for the length of time necessary to allow for storage of such Manure in accordance with this order until it is applied in accordance with this order. Storage capacity must be determined based on Purple Springs Nursery Inc. receiving amounts of manure at least equal to any amounts Purple Springs Nursery Inc. from time to time agrees to receive from any other party.
7. By July 15, 2016 ensure all permanent manure storage facilities have a minimum setback of:
  - i) 30 meters from any source of water used for domestic purposes including drinking water well or surface water intake;
  - ii) 15 meters from the high water mark of all watercourses; and
  - iii) 4.5 meters from all property lines.
8. By July 15, 2016 ensure all field storage areas for manure are not located:
  - i) on areas having standing water,
  - i) on saturated soils, or
  - ii) on low-lying areas in fields prone to seasonal flooding.
9. By July 15, 2016 ensure all manure field storage areas have a minimum setback of:
  - i) 30 meters from any source used for domestic purposes including a drinking water well or surface water intake,
  - ii) 30 meters from the high water mark of all watercourses, and
  - iii) 4.5 meters from all property lines.
10. By July 15, 2016 must ensure all manure field storage areas are:
  - i) established such that any leachate must be collected and contained, and
  - ii) established and located such that storm or rain water flowing along the surface of manure storage site is diverted from entering the field's stored manure pile(s).
11. By December 30, 2016 must submit a plan identifying how manure field storage areas can be:
  - i) covered, and
  - ii) located on a base of low permeability soil (hydraulic conductivity of  $10^{-6}$ ) or base, e.g., layer of clay, or on an impermeable liner.
12. By July 15, 2016, ensure that no manure and/or manure effluent is stored in sites other than storage facilities or field storage areas.
13. Prior to any manure and/or inorganic fertilizer application to fields and tree growing areas, retain a Qualified Professional to determine agronomically-correct rates of application of manure and/or inorganic fertilizer. All records and data used to calculate the manure application rate must be retained for two (2) years and must be made available to the Ministry upon request.

Manure applications must adhere to best management practices and principles as outlined in the [Canada-BC Environmental Farm Plan Program Reference Guide](#) and the [Nutrient Management Reference Guide](#).

14. Ensure all applications of manure and/or inorganic fertilizer are:
  - i) a minimum of 3.5 meters from the high water mark of a watercourse;
  - ii) 3.5 meters from all property lines;
  - iii) 3.5 meters from any industrial wells; and
  - iv) 30 meters from any drinking water wells.
  
15. Prior to conducting any manure and/or inorganic fertilizer application, ensure the buffer requirements above have been visibly identified either using a visual marking system (such as flagging tape) or GPS enabled datalogger.

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)* (Regulation). I direct your attention to Section 12(4) of the *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 one or both of the other Addressees complies with the order. However, all 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 all Addressees together or each 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.

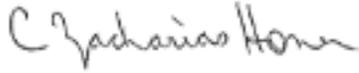
This order does not authorize entry upon, crossing over, or use for any purpose of private or crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the Addressees. It is also the Addressees' responsibility 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,

A handwritten signature in cursive script that reads "Christa Zacharias-Homer".

Christa Zacharias-Homer  
Deputy Director  
Regional Operations Branch

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