

DRINKING WATER THREATS FACTSHEET

Agriculture

Several activities that occur on a farm could be a threat to municipal sources of drinking water. Through the development of the Source Protection Plan, vulnerable areas were mapped and potential activities that would constitute a Significant Drinking Water Threat were identified. This fact sheet outlines the potential farm related activities that are a concern for the protection of drinking water sources.

The Ontario Farm Environmental Coalition (OFEC) has produced another excellent source of information for farmers, entitled Farm Source Water Protection – OFEC Framework, October 2013.

What are the Threats?

Drinking water threats that could relate to agriculture include the following:

- Application, storage and handling of agricultural source material (ASMs)
- Application, storage and handling of non-agricultural source material (NASMs)
- Application and storage of commercial fertilizers
- Application, storage and handling of pesticides
- Outdoor confinement areas
- Livestock grazing and pasturing



Where are these Activities a Threat?

In most cases, these activities can be a Significant Drinking Water Threat in Wellhead Protection Areas (WHPA) A and B with a vulnerability score of 10. For Intake Protection Zones (IPZ), these activities can be a Significant Drinking Water Threat in IPZ-1 with a vulnerability score of 8 or 9. The storage of fertilizer in excess of 124,000 of 46% nitrogen is a Significant Drinking Water Threat where this risk has been modelled.

How are these Threats Being Managed?

Application, storage and handling of agricultural source material (ASMs)

Where these activities are a Significant Drinking Water Threat, they are managed through a Risk Management Plan (RMP) negotiated between the landowner and the Risk Management Official (RMO). Generally, Nutrient Management Act (NMA) principles form the basis of the RMO. However, the RMP does not allow at or above grade, temporary field nutrient storage sites as defined under the NMA (policies 2.21 and 2.22).

Low and moderate threats will be addressed through education and outreach (policy 1.01).

Application, storage and handling of non-agricultural source material (NASMs)

The application of NASMs is prohibited in areas where it would be a Significant Drinking Water Threat (policy 2.23). Where NASMs are stored in an existing nutrient storage facility as defined under the NMA, this activity is managed through a RMP. Generally, NMA principles form the basis of the RMP (policy 2.24). Future application, storage, and handling of NASMs where it would be a significant threat is prohibited (policy 2.25).

Low and moderate threats will be addressed through education and outreach (policy 1.01). In addition, the Province should consider incorporating terms and conditions into existing Prescribed Instruments. These terms and conditions, when implemented, should manage the activity such that it does not become a Significant Drinking Water Threat. Where appropriate, these terms and conditions should reduce the risk (policy 3.03).



Application and storage of commercial fertilizers

Where commercial fertilizers are applied and stored, these activities are a Significant Drinking Water Threat. They are managed through a RMP (policies 2.26, 2.27, 2.29) negotiated between the landowner and the RMO. Generally, NMA principles (including NMA prohibitions) form the basis of the RMP. New handling and storage facilities in areas that would create a Significant Drinking Water Threat are prohibited (policy 2.28). Low and moderate threats will be addressed through education and outreach (policy 1.01).

In Event Based Areas, the handling and storage of nitrogen fertilizer (in excess of 124,000 kg of 46% nitrogen) is a Significant Drinking Water Threat where this risk has been modelled. In these areas, this activity is managed through a RMP. The RMP shall not allow temporary storage of nitrogen fertilizers (policy 2.29).

Low and moderate threats will be addressed through education and outreach (policy 1.01). In addition, the Province should consider incorporating terms and conditions into existing Prescribed Instruments. These terms and conditions, when implemented, should manage the activity such that it does not become a Significant Drinking Water Threat. Where appropriate, these terms and conditions should reduce the risk (policy 3.03).

Application, storage and handling of pesticides

Where there are existing activities that are a Significant Drinking Water Threat, for pesticides identified in the Provincial Drinking Water Threats Tables provided by the Ministry of the Environment and Climate Change (MOECC), the activities are managed through a RMP negotiated between the landowner and the RMO. All pesticide permits (existing and new) issued under the Pesticide Act prohibit the use of pesticides that would be a Significant Drinking Water Threat (policies 2.30 and 2.31).

Low and moderate threats will be addressed through education and outreach (policy 1.01). In addition, the Province (MOECC) should consider reviewing and, if necessary, amending pesticide permits issued under the Pesticides Act, to incorporate conditions to address the protection of municipal drinking water sources (policy 3.02).

Outdoor confinement areas

Existing outdoor confinement areas that are in an area that results in them being a Significant Drinking Water Threat are managed through a RMP negotiated between the landowner and the RMO. Generally, NMA principles (including NMA prohibitions) form the basis of the RMP. Where, in the opinion of the RMO, the size of a future outdoor confinement area is such that it cannot be managed so that the activity never becomes a Significant Drinking Water Threat, the activity is prohibited (policy 2.51).

Low and moderate threats will be addressed through education and outreach (policy 1.01). In addition, the Province should consider incorporating terms and conditions into existing Prescribed Instruments. These terms and conditions, when implemented, should manage the activity such that it does not

become a Significant Drinking Water Threat. Where appropriate, these terms and conditions should reduce the risk (policy 3.03).

Livestock grazing and pasturing

Where livestock grazing and pasturing would be a Significant Drinking Water Threat, they are managed through a RMP negotiated between the landowner and the RMO. Generally, NMA principles (including NMA prohibitions) form the basis of the RMP (policy 2.51).

Low and moderate threats will be addressed through education and outreach (policy 1.01). In addition, the Province should consider incorporating terms and conditions into existing Prescribed Instruments. These terms and conditions, when implemented, should manage the activity such that it does not become a Significant Drinking Water Threat. Where appropriate, these terms and conditions should reduce the risk (policy 3.03).

For More Information

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