

NEW POLICIES – PRESCRIBED THREATS

SNOW STORAGE

Policy O-1: Relocation of Snow Storage or Risk Management Plans

Intent: Require the relocation of existing snow storage facilities where feasible. If there is no appropriate alternate location for the snow storage facility, the development of a Risk Management Plan will be required. The content of the Risk Management Plan will be negotiated between the landowner and Risk Management Official.

Rationale: There is one existing significant threat related to the storage of snow. The desired outcome is relocation of the storage facility outside of the vulnerable area. If there is no appropriate alternate location for the snow storage, a Risk Management Plan will ensure that the site is managed appropriately as to prevent runoff that could affect groundwater or surface water.

Policy Text: **Existing Snow Storage**

(1) Where the storage of snow is a significant drinking water threat:

- (a) The municipality with jurisdiction will assess the feasibility of relocating the snow storage facility to an area where it would not be a significant drinking water threat. If an appropriate alternate site is identified, the snow storage facility will be relocated to the alternate site.
- (b) If an appropriate alternate site is not identified per clause (1), the Risk Management Official with jurisdiction will:
 - (i) Develop a Risk Management Plan as defined in Section 58 of the *Clean Water Act, 2006* for each property on which the activity is occurring.
 - (ii) Report annually to the Source Protection Authority with jurisdiction on the status of the Risk Management Plan.

Future Snow Storage

(2) Where the storage of snow would be a significant threat if undertaken in the future:

- (a) The Risk Management Official with jurisdiction will negotiate a Risk Management Plan with the landowner in accordance with (1)(b).

Outstanding Comments:

- Should future snow storage be allowed in the future subject to a Risk Management Plan or prohibited entirely? (*no consensus from working groups*)
- Moving the snow storage outside of the vulnerable area could simply move the contamination elsewhere.
- Suggestion to use zoning by-law/permitted usage details
- Identifying a suitable alternate snow storage site might require a hydrogeological study
- Lack of confidence in the threat assessment for this activity (i.e. it is suspected that there are probably other snow storage sites that were not identified)
- Does policy cover snow storage by a private contractor on private land in a vulnerable area (i.e. should we change the delivery agent to the landowner or individual undertaking the activity?)
- Conflict of interest where municipality own snow storage location (i.e. municipality is delivery agent through RMO)
- MOE should consider requiring Certificates of Approval for larger snow disposal sites (area or volume-based)

AIRCRAFT DE-ICING

Policy O-2: Prohibition of Future Aircraft De-icing

Intent: Prohibit future occurrences of aircraft de-icing under Section 57 of the *Clean Water Act, 2006*. (Note that the threat is officially “the management of runoff that contains chemicals used in the de-icing of aircraft.)

Rationale: There are currently no significant threats related to aircraft de-icing identified in the Source Protection Region. It was felt that since there are no existing threats that it would be appropriate to prohibit the activity in the future.

Policy Text: Where the management of runoff that contains chemicals used in the de-icing of aircraft would be a significant drinking water threat, future occurrences of the activity will be prohibited under Section 57 of the *Clean Water Act, 2006*.

Outstanding Comments:

- It is acknowledged that airports are federally regulated – it has been suggested that this policy may not be possible to enforce.

MANAGEMENT OF AGRICULTURAL SOURCE MATERIAL (i.e. Aquaculture)

Policy O-3: Prohibition of Aquaculture

Intent: Prohibit future occurrences of the management of ASM (aquaculture) under Section 57 of the *Clean Water Act, 2006*.

Rationale: The only circumstance in the Tables of Drinking Water Threats for this activity refers to the “use of land or water for aquaculture”. There are currently no threats related to aquaculture identified in the Source Protection Region. It was felt that since there are no existing threats that it would be appropriate to prohibit the activity in the future where it would be a significant threat. However, since the activity cannot be a significant threat in any circumstance, Section 57 prohibition (and other Part IV tools) cannot be used for this activity.

Policy Text: Where the management of agricultural source material would be a significant drinking water threat, future occurrences of the activity will be prohibited under Section 57 of the *Clean Water Act, 2006*.

Outstanding Comments:

- Section 57 prohibition cannot be used in this case because management of ASM cannot be a significant drinking water threat in any circumstances
- Policy approach should be evaluated if/when moderate threats are addressed by the SPC

NEW POLICIES - LOCAL THREATS

WATERFOWL

Background

This drinking water threat refers to the maintenance of open areas of mown grass for recreational activities that promote the congregation of waterfowl within or near surface water bodies. This activity is considered a drinking water threat where (per the Director's approval) "congregation of waterfowl results in discharge of pathogens to surface water in an area where there are known drinking water quality impacts from waterfowl within an intake protection zone." This activity was approved as a local drinking water threat for specifically the **Lakefield** and **Peterborough** drinking water intakes. Data collected by the Peterborough Utilities Commission suggests that waterfowl are a significant source of pathogens in the vicinity of these intakes (i.e. the ratio of E. coli to fecal streptococcus in water samples).

Policy L-1: Requirement for Waterfowl Management Plan

Intent: Require the development and implementation of a plan to minimize the impacts of waterfowl congregation on park land. This activity has been identified as a significant threat in two areas: Isabel Morris Park (near the Lakefield intake) and the park area at the Peterborough Zoo (near the Peterborough intake).

Rationale: The presence of waterfowl on parkland is encouraged by the maintenance of manicured lawns and by human behavior (i.e. feeding). Waterfowl management is a difficult undertaking that has been approached in many jurisdictions; literature suggests that waterfowl management plans must be adaptive to changing conditions and include a variety of management strategies to be effective. Requiring the development and implementation of a waterfowl management plan (clause 1) will allow the landowner to develop a plan that is appropriate to the conditions of the site without being restricted to the contents of a Section 58 Risk Management Plan. The Risk Management Official would not have a direct role in implementation of the policy. Rather, development and implementation of the plan would be self-directed by the affected municipalities, subject to the submission of an annual report to the Source Protection Authority.

The posting of signage (clause 1b) and the adoption of a waterfowl feeding by-law (clause 2) will help to minimize the presence of waterfowl related to human feeding. These approaches may also serve to decrease waterfowl populations outside of the intake protection zone.

Policy Text: Where “*maintaining open areas of mown grass for recreational activities that promote the congregation of waterfowl within or near surface water bodies*” is or would be a significant drinking water threat:

Requirement for Waterfowl Management Plan

- (1) The owner of the affected property will:
 - (a) Develop a waterfowl management plan to reduce the presence of waterfowl on the property. The plan must follow an adaptive approach to waterfowl management that includes habitat modification, population control, and ongoing monitoring of the plan’s effectiveness. The plan may include, but is not limited to:
 - (i) Site alterations to reduce the attractiveness of the property to waterfowl such as planting of shoreline vegetation or installation of physical barriers; and
 - (ii) Population control such as nest removal, egg oiling, and waterfowl relocation.
 - (b) Post signage at any areas frequently used by the public to feed waterfowl that indicate that the feeding of waterfowl is prohibited.
 - (c) Report annually to the Source Protection Authority with jurisdiction on the activities undertaken as part of the waterfowl management plan and the results of any related monitoring activities.

Requirement for Waterfowl Feeding By-law

- (2) The municipality with jurisdiction will establish a by-law to prohibit the feeding of waterfowl at parks and mown areas.

Outstanding Comments:

- Enforcement of a waterfowl feeding by-law may be difficult
 - Suggestion – municipalities could expand by-law to include all parks but only enforce the bylaw where the activity would be a significant threat
 - Note that there is a bylaw in the Town of Cobourg that prohibits waterfowl feeding
- An education component should be added (i.e. should we add this activity to the Education & Outreach – General Provisions policy?)
- Consider using dog control

GASOLINE PIPELINE

Background

This drinking water threat refers to the rupture of a pipeline in an area where the pipeline crosses a body of open water that could contaminate surface water. A modeling study undertaken by the Lake Ontario Collaborative showed that a rupture of the 12" Trans-Northern gasoline pipeline that crosses through the Ganaraska Source Protection Area could cause high concentrations of benzene at the Port Hope, Cobourg, and Newcastle drinking water intakes. Per the Director's approval for this local threat, the following circumstances make the pipeline a drinking water threat:

1. The conveyance of oil by way of a pipeline that would be designated as transmitting or distributing "liquid hydrocarbons", including "crude oil", "condensate", or "liquid petroleum products", and not including "natural gas liquid" or "liquefied natural gas", within the meaning of O. Reg. 210/01 under the Technical Standards and Safety Act, or is subject to the National Energy Board Act.
2. The rupture of a pipeline in an area where the pipeline crosses a body of open water and may result in the presence of BTEX¹ in surface water.

¹Benzene, toluene, ethylbenzene, xylene (benzene was the modeled parameter)

Policy L-2: Review of Emergency Response Plans

Intent: Require the affected municipalities and the owner of the pipeline to review their emergency response procedures to ensure that they are adequate to respond to the rupture of the Trans-Northern pipeline at a river crossing.

Rationale: Municipalities have existing emergency plans to address large scale spills. Rather than developing a separate emergency plan to specifically address a pipeline rupture, it would be more appropriate to review the existing plans in light of the pipe rupture scenario and amend them to address any deficiencies.

Policy Text: Where the conveyance of oil by way of a pipeline is a significant drinking water threat:

- (1) The owner of the pipeline will:
 - (a) Review any relevant emergency response plans or procedures within one year to ensure that they are adequate to respond to a pipeline rupture at a river crossing. The emergency response plan must include, at a minimum:
 - (i) Specific procedures for responding to a pipeline rupture at a river crossing;
 - (ii) A communications protocol;
 - (iii) The location of available spill response materials; and
 - (iv) Provisions to immediately notify the affected water treatment plant and municipality in the event of a pipeline rupture
 - (b) Provide a summary to the Source Protection Authority of any updates to existing emergency plans made to address a pipeline rupture within one year; and
 - (c) Report to the Source Protection Authority regarding any activation of the emergency response plan for activities undertaken as a result of a pipeline rupture.
 - (d) Review the emergency response plans annually.

- (2) The municipality with jurisdiction will:
- (a) Review any relevant emergency response plans or procedures within one year to ensure that they are adequate to respond to a pipeline rupture at a river crossing. The emergency response plan must include, at a minimum:
 - (i) Specific procedures for responding to a pipeline rupture at a river crossing;
 - (ii) A communications protocol;
 - (iii) The location of available spill response materials;
 - (b) Provide a summary to the Source Protection Authority of any updates to existing emergency plans made to address a pipeline rupture within one year; and
 - (c) Report to the Source Protection Authority regarding any activation of the emergency response plan for activities undertaken as a result of a pipeline rupture.
 - (d) Review the emergency response plans annually.

Notes:

- It takes about a half hour to stop the flow in the pipeline
- The volume expected from a pipeline spill makes containment the first priority (cleanup is second)
- Spill response materials could be shared between jurisdictions (i.e. spill response trailer)
- Other approaches were discussed that would require consultation with the pipeline owner:
 - Inspect the condition of the pipeline at river crossings located upstream of the Port Hope, Cobourg, and Newcastle drinking water intakes
 - Upgrade pipeline material / cathodic protection at river crossings
 - Install additional control valves on either side of river crossings upstream of the subject intakes

Outstanding Comments:

- This policy may be more appropriate as a Risk Management Plan
- Responsibility for ultimate plan approval should be specified (it was suggested that this should be the MOE or the pipeline owner, not the municipality) (i.e. concern with lack of specificity for “adequate” measures)
- Requirements for communication should be more explicit – i.e. notification of municipality when maintenance is undertaken,
- The policy should incorporate cross-jurisdiction cooperation during the event of a break (i.e. if the break happens in one municipality and affects the drinking water system of another)
- Consider requiring a practice exercise/emergency response scenario developed jointly by the municipalities and pipeline owner
- RE Liability:
 - Pipeline company should be ultimately responsible for emergency response plan, financial liability, training for emergency response officials and first responders
 - There may be a liability issue for the municipality
- Municipalities should ensure that pipeline has proof of adequate insurance
- Spills Action Centre should be included in policy (notification requirements, SAC review of plans, and other roles as appropriate)