

Thames – Sydenham and Region Drinking Water Source Protection Source Protection Committee Discussion Paper

Report to Chair and members
Thames – Sydenham and Region
Source Protection Committee

Agenda # 2010.10.7b.iii

Cc SP Management Committee

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Prepared By Ingrid Vanderschot, SP Policy Advisor
Chris Tasker, Project Manager

Re: Source Protection Plan decision making criteria

Background

The development of the Source Protection Plan will require the Thames-Sydenham SPC to draft policies that have been evaluated and chosen from a range of existing and new policy options. Evaluative criteria should be established by the SPC to guide the Source Protection Committee and working groups in assessing policies and to provide the rationale influencing policy decisions. This rationale may then formulate the basis of the SPP Explanatory Document.

Discussion

There are a wide range of decision making criteria upon which to assess SPP policies. Some examples of evaluation criteria include: *Efficiency, Effectiveness, Consistency, Flexibility, Fiscal Responsibility, Compatibility, Feasibility, Appropriateness; Fairness, or Justifiability*. These types of criteria could also be categorized or grouped. The following are examples of criteria the SPC may wish to consider. The SPC may also wish to add to this list.

Criteria

Economic criteria

- Financial capacity:
 - The financial capacity of the delivery agent to implement the policy
 - The effect on the person engaged in the activity
 - Comparison to requirements outside vulnerable areas
- Comparison of net costs to benefits
 - Direct and indirect financial costs and benefits for landowners, business operators, First Nations and municipalities. This would include the avoidance of future costs and the benefit of maintained or improved water quality.
 - Consideration of beneficiary and funder
- Monitoring requirements
 - The level of monitoring required to demonstrate the effectiveness of the policy

- The administrative capacity of the delivery agent to implement the policy, including compliance monitoring.

Effectiveness criteria

- Adequacy:
 - How adequate the policy will be to manage site specific activities or land uses that are or could be threats
- Timeliness:
 - How much time will be required to implement the policy and to address the threat in order to reduce the risk the threat poses to people and the environment

Appropriateness criteria

- Consistency
 - How consistent the policy with those in neighbouring regions
 - Consistency within the municipality
 - Consistency with other policies within the region
 - Comparison with requirements outside of the vulnerable areas
- Scale
 - Is the scale of the policy suitable for the scale of the threat
- Community acceptance
 - The potential for the policy to be accepted by the community, to raise awareness and participation
 - Need to consider acceptance by both the users of the water and those who will be engaged in the activity

Process

Decision making criteria may be used in the decision making processes to choose between alternatives. For such purposes, measures or alternatives may be weighted on a qualitative scale (e.g. good, fair, and poor) or assigned numeric values to allow scoring of alternatives. Below is an example of how a few of the above criteria could be adapted for weighing of alternatives. It should be noted that in evaluating policies for inclusion in the SPP, it is likely that more than one policy will be chosen to reduce the risk of a threat activity. Policies may compliment each other as well as be compared as alternatives to each other.

Example of Weighting Criteria

| Criteria | Consideration | Measure | | Score |
|--------------------|--|---------|--|-------|
| Adequacy | How adequate the policy will be to manage site specific activities or land uses that are or could be threats | Good | Very good, very few performance problems | 3 |
| | | Fair | Somewhat adequate, some performance problems | 2 |
| | | Poor | Not adequate, many performance problems | 1 |
| Financial Capacity | The financial capacity of the delivery agent to implement the policy, including compliance monitoring | Good | Availability of funds | 3 |
| | | Fair | Reasonable availability of funds | 2 |
| | | Poor | No availability of funds | 1 |

Policy Matrix for addressing set of circumstances

More than one policy approach may be employed to ensure the effectiveness of the Source Protection Plan in reducing the risk. For a particular set of circumstances, policies may vary in how they address the different levels of threat and the type of activity or circumstance. A policy matrix could show, at a glance, the number of policies that could be related to a set of circumstances and may outline the variations that exist in a set of circumstances. The SPC could utilize the matrix in the policy development stages to select approaches. Below is a simplified example of using a policy matrix.

Sample Policy Matrix:

| | |
|---------------|---|
| Threat: | The handling and storage of road salt |
| Sub-threat: | The storage of road salt |
| Circumstance: | <ol style="list-style-type: none"> 1. The storage of road salt in a manner that may result in its exposure to precipitation or runoff from precipitation or snow melt. 2. The quantity stored is at least 500, but not more than 5,000 tonnes. 3. Runoff from the area in which the salt is stored may result in the presence of Chloride in groundwater or surface water. |

| Policies addressing: | Significant Threats | | Moderate/Low Threats | | Transport Pathways | | Spills Policies |
|------------------------------|---------------------|--------|----------------------|--------|--------------------|--------|-----------------|
| | Existing | Future | Existing | Future | Existing | Future | Future |
| Prescribed Instruments | | | | | | | |
| Land Use Planning Approaches | X | X | | | | | |
| Incentives | X | | | | | | |
| Education/Outreach | X | | | | | | |
| Other | | | | | | | |
| S. 57 prohibition | | X | | | | | |
| Risk Management Plans | X | | | | | | |
| Restricted Land Use | | | | | | | |
| Monitoring | X | | X | | | | |