

Thames-Sydenham and Region - Assessment Reports

Conditions

The Source Protection Committee is required to identify as a drinking water threat any "Condition" of which it is aware. A condition is the result of a past activity which has the potential to pose a risk to a drinking water source. The Technical Rules: Assessment Report identifies the type of things which can be considered a condition.

What is a Condition?

A condition must satisfy one of the following in order to be identified as a Condition:

- the presence of a non-aqueous phase liquid in groundwater in a highly vulnerable aquifer, significant groundwater recharge area or wellhead protection area;
- the presence of a single mass of more than 100 litres of one or more dense non-aqueous phase liquids in surface water in a surface water intake protection zone
- the presence of a contaminant in groundwater in a highly vulnerable aquifer, significant groundwater recharge area or a wellhead protection area, if the contaminant is listed in Table 2 of the Soil, Ground Water and Sediment Standards and is present at a concentration that exceeds the potable groundwater standard set out for the contaminant in that Table;
- the presence of a contaminant in surface soil in a surface water intake protection zone if, the contaminant is listed in Table 4 of the Soil, Ground Water and Sediment Standards is present at a concentration that exceeds the surface soil standard for industrial/commercial/community property use set out for the contaminant in that Table; and
- the presence of a contaminant in sediment, if the contaminant is listed in Table 1 of the Soil, Ground Water and Sediment Standards and is present at a concentration that exceeds the sediment standard set out for the contaminant in that Table.

Section Summaries - *The Assessment Reports for the Thames-Sydenham Region are large summary documents compiling information from many technical reports. These technical reports include Water Budgets, Watershed Characterization Reports and many SP Technical Studies related to municipal drinking water systems. That information has been summarized and compiled into the Assessment Reports of the Region. Each section on the Assessment Reports has been summarized in a series of Section Summaries.*

Impact of identifying a Condition

Should the committee become aware of a condition, as described above, it is to be considered a drinking water threat. As for all drinking water threats, risk is quantified in the Technical Rules: Assessment Report, as the product of vulnerability and hazard.

$$\text{Risk} = \text{Vulnerability} \times \text{Hazard}$$

Although for activities the hazard score is determined through the table of drinking water threats, for a condition the hazard score is ten due, in part, to the fact that the chemical has already been released into the environment within a vulnerable. As a result the threat level is therefore dependant entirely on the vulnerability score of the area within which the condition is located.

Threat Level	Hazard	Vulnerability
Significant	80 or more	8 or greater
Moderate	60 or greater and less than 80	6 or greater, but less than 8
Low	Greater than 40 but less than 60	Greater than 4 but less than 6

The Clean Water Act requires that significant threats be managed to the point that they no longer become significant. The Source Protection Committee may also develop policies for moderate and low drinking water threats, however it is anticipated that the types of policies which can be applied to moderate and low threats will not be as broad as for the significant drinking water threats. Policies for conditions are however anticipated to be significantly different than those for prescribed activities as a result of the fact that the

Thames-Sydenham and Region - Assessment Reports

activity is no longer being undertaken and that the contaminant has already been released into the environment. The province has yet to release the regulation which will describe the type of policies which the Source Protection Plan can include.

Assessment Report to include any conditions which they identify.

Conditions Investigations

At the time of drafting this Assessment Report, the Source Protection Committee has not completed an extensive investigation to determine if there are any conditions which need to be reported on. Their investigation at this point is limited to the following:

- Those undertaking municipal technical studies were requested to determine if there are conditions of which the operating authorities are aware.
- MOE provided information from their local offices to determine if their files contain any information which might lead to identifying a condition. This information was restricted to a fixed radius around intakes and wells. Although it has been provided to the consultants for their consideration not all of the consultants have been able to review the information. Further the information does not include the entire vulnerable areas.
- It is anticipated that stakeholders may identify situations which they believe may be a concern and will require investigation to determine if they are conditions. Some of these have been identified, but have yet been reviewed to determine if they should be considered a condition.

While the efforts completed to date do not constitute an extensive investigation of potential conditions it serves as a preliminary screening for known situations which the Source Protection Committee should consider in developing a Source Protection Plan for the area.

Next Steps for Conditions

At this time the Source Protection Committee has not identified any conditions resulting from past activities. They will however continue to investigate any situations or concerns which they become aware of. Should they identify any conditions, it will be necessary to revise the