



DRINKING WATER
SOURCE PROTECTION
ACT FOR CLEAN WATER

**Response to the Mississippi Rideau Source Protection
Committee**

**Uranium mining activities, naturally occurring uranium and
the *Clean Water Act, 2006***

Ministry of the Environment

**Katie Fairman
August 7, 2008**

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Motions passed by the Committee

- **Motion 06-2/08:**
- *1. That the Mississippi-Rideau Source Protection Committee receive this report for information;*
- *2. That staff be directed to request the Ministry of the Environment (MOE) to further examine this issue and potential impacts to source water protection efforts in the Mississippi-Rideau Source Protection Region with other relevant provincial ministries (e.g., Ministry of Northern Development and Mines);*
- *3. And, that the Ministry of the Environment be requested to report back to the Mississippi-Rideau Source Protection Committee through a joint presentation with other relevant provincial ministries.*

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The purpose of the Clean Water Act, 2006 is to protect existing and future sources of drinking water.

- The *Ontario Water Resources Act* and the *Environmental Protection Act* and other Provincial and federal laws (such as the *Fisheries Act*) remain the chief vehicles for protecting the quality and quantity of Ontario's water resources:
 - CWA → provides additional protection to certain sources of water
- Maintaining safe and secure drinking water systems is the responsibility of homeowners, institutions and businesses who own their own water systems:
 - Regulated under the *Safe Drinking Water Act (SDWA)* and/or the *Health Protection and Promotion Act (HPPA)*



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How the Clean Water Act applies

- Four types of vulnerable areas are delineated for each source protection area:
 - wellhead protection areas (WHPA)
 - surface water intake protection zones (IPZ)
 - highly vulnerable aquifers (HVA)
 - significant groundwater recharge areas (SGRA)
- Within WHPAs and IPZs:
 - Applies to protection of municipal residential drinking water sources; and
 - Regulated drinking water systems that are not municipal-residential that are included in the terms of reference by 1) Municipal or Band council resolution or 2) Minister of the Environment

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Assessment Report – vulnerability scoring

- Within each area, vulnerability scores are assigned to reflect the vulnerability of the source of drinking water with respect to water quality:
 - Vulnerability assessment must also include an assessment of permissive pathways (e.g. wells, borings, tile drains) that may increase the vulnerability of source water
- With respect to eastern Ontario aquifers, it is likely that much of the area would be identified as highly vulnerable:
 - Much of the area consists of exposed bedrock, with abundant fracturing in the shallow bedrock, and thin overburden materials
 - The effect of drilled holes (e.g. water wells, exploration boreholes) would not likely increase the inherent vulnerability of the associated aquifers, which are already categorized as high



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Assessment Report- drinking water threats/issues

- Within each of the vulnerable areas, SPCs must list activities that are or would be drinking water threats and identify where those activities pose a significant risk to drinking water.
- Risk is determined by considering the vulnerability of the water source (scored out of 10) and the hazard score associated with the land use (scored out of 10)
 - Any activity with a risk score of 80 or higher is considered a significant drinking water threat

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Assessment Report- drinking water threats/issues

- Activities and conditions can be also be categorized as significant drinking water threats when they are associated with a drinking water quality issue:
 - Human-caused chemical water quality issues can be identified and threats associated with each issue are or would be significant drinking water threats within the area contributing to the issue
 - Currently proposed that this model be expanded to apply within significant groundwater recharge areas and highly vulnerable aquifers in addition to wellhead protection areas and surface water intake protection zones

Assessment Report- uranium mining activities

- If uranium mining should occur within any of the vulnerable areas, activities associated with mining will be assessed to determine if those activities are threats to drinking water and where the activities are or would be significant drinking water threats.
- It is anticipated that there are activities associated with exploration and mining that would likely be considered drinking water threats (eg. Tailings disposal, fuel storage, etc).
- Source Protection Plans must have policies to ensure these significant drinking water threats cease to be or do not become significant.

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Conformance

- Conformance Provisions- section 39
 - Decisions made under the *Planning Act* and the *Condominium Act* made by a municipal council, municipal planning authority, planning board, other local board, minister of the Crown or ministry, board, commission, or agency of the Government of Ontario, including the Municipal board, that relates to the source protection area, shall conform to the policies in the Source Protection Plan
- These provisions only apply to:
 - Policies related to activities or conditions identified as significant drinking water threats
 - Designated Great Lakes policies
- Must have regard for other policies in the source protection plan

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Conflict Provisions- section 39

- Official plans, by-laws – the source protection plan prevails in the case of conflict between the source protection plan and:
 - An official plan
 - A zoning by-law
 - A policy statement issued under section 3 of the Planning Act
- These provisions only apply to:
 - Policies related to activities or conditions identified as significant drinking water threats
 - Designated Great Lakes policies

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Conflict – section 39 con't

- Provisions in plans, policies – if there is a conflict between a significant threat policy or designated Great Lakes policy set out in the source protection plan and the following plans or policies:
 - Policy statement issued under section 3 of the *Planning Act*
 - Greenbelt Plan (*Greenbelt Act, 2005*)
 - Niagara Escarpment Plan (*Niagara Escarpment Planning and Development Act*)
 - Oak Ridges Moraine Conservation Plan (*Oak Ridges Moraine Conservation Act, 2001*)
 - Growth Plan (*Places to Grow Act, 2005*)
 - A plan or policy made under a provision of an Act that is prescribed by the regulations
 - A plan or policy prescribed by the regulations, or provisions prescribed by the regulations of a plan or policy, that is made by the Lieutenant Governor in Council, a minister of the Crown, a ministry or a board, commission or agency of the Government of Ontario
- The provision that provides the greatest protection to the quality and quantity of any water that is or may be used as a source of drinking water prevails.

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Conflict Provisions- section 105

- If there is a conflict between a provision of the CWA and a provision of another Act or regulation or instrument made or otherwise created under another Act with respect to a matter that affects or has the potential to affect the quality or quantity of any water that is or may be used as a source of drinking water
 - The provision that provides the greatest protection to the quality or quantity of water prevails
- If there is a conflict between a provision of the CWA and a provision of the Nutrient Management Act or a regulation or instrument made under the Act the provisions of the CWA prevail

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Motion 09-2/08:

- *That staff be directed, subject to funding support from Ministry of the Environment, to develop an information and awareness campaign in cooperation with local Health Units regarding naturally occurring uranium in drinking water for dissemination to local residents in conjunction with local municipalities.*

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Ontario Drinking Water Stewardship Fund

- \$28 million over a four-year period to fund education and outreach activities, early actions and special projects:
 - Funding provided currently to property owners, farmers and small and medium businesses to undertake early actions that aim to protect their municipal drinking water sources and promote the CWA
- According to the proposed funding criteria developed for the Program administration education and outreach activities related to natural uranium in the drinking water supply would not likely qualify for this funding:
 - Focus of the CWA and the ODWSP are anthropogenic activities, including land uses, which threaten drinking water sources
 - Until there is a mine with activities considered a threat there would be no education and outreach activities that would be considered eligible
 - The focus of education and outreach has to be on the CWA (activities that threaten drinking water sources and what can be done about it) and promoting the ODWSP itself