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## **Federal Contaminated Sites Action Plan (FCSAP)**

**FCSAP Advisory Bulletin (FAB):**

**How, when and why do I decommission a  
groundwater monitoring well?**

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## Federal Contaminated Sites Action Plan (FCSAP)

### FCSAP Advisory Bulletin

#### *How, when and why do I decommission a groundwater monitoring well?*

#### Background

Typical environmental site investigations at known or suspected federal contaminated sites involve the installation of groundwater monitoring wells for the purpose of determining the fate and transport of contaminants of concern through the sampling of groundwater, the measurement of groundwater levels and the determination of groundwater flow directions.

Most jurisdictions in Canada have guidelines and procedures outlining proper groundwater monitoring well installations. The majority of environmental site investigation and remediation plans incorporate these guidelines and procedures into their workplans. In addition to an installation and sampling plan for groundwater monitoring wells at contaminated sites, a proper decommissioning of monitoring wells should be incorporated into the workplans. Groundwater monitoring wells that are no longer in use or damaged can be conduits for contamination to aquifer(s) and soil. Aquifers are a vital resource for Canadians as a source for drinking water, irrigation water and for replenishing surface water; therefore they require appropriate management and protection.

#### Standard Approach

Groundwater monitoring wells should be decommissioned if they are no longer required for the following reasons;

- the site is closed and no longer monitored;
- the monitoring wells are no longer required for site investigation or remedial purposes; and/or
- the monitoring wells have been compromised or damaged.

Some jurisdictions in Canada have set out guidelines for the purposes of decommissioning groundwater monitoring wells (e.g. Atlantic Risk Based Corrective Action (RBCA) and Newfoundland and Labrador). In addition, some jurisdictions have regulations that require proper decommissioning of water wells (e.g. British Columbia, New Brunswick, Ontario and Yukon). Groundwater monitoring wells are covered under definition of water wells in these regulations. Most of the guidelines and procedures provided by jurisdictions in Canada generally emulate the procedures outlined in the American Society for Testing and Materials (ASTM) International document *Standard Guide for Decommissioning of Groundwater Wells, Vadose Zone Monitoring Devices, Boreholes, and other Devices for Environmental Activities* (ASTM D5299 – 99(2012)e1).

Decommissioning of groundwater monitoring wells should be an integral part of the overall site environmental plan at federal contaminated sites, and it is recommended that custodians follow the guidelines in the ASTM D5299-99(2012)e1 document.

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## **References**

American Society for Testing and Materials (ASTM) D5299 – 99(2012)e1 *Standard Guide for Decommissioning of Groundwater Wells, Vadose Zone Monitoring Devices, Boreholes, and other Devices for Environmental Activities*

Atlantic Risk Based Corrective Action (RBCA) – *Monitoring well Decommissioning Fact Sheet* January 2007

*British Columbia Water's Act – Ground Water Protection Regulation – amendment BC Reg 91/2009* March 6, 2009 – Section 9

*New Brunswick Water Well Regulation – Clean Water Act (90-79) Section 27*

Newfoundland Department of the Environment and Conservation – *Guidance Document for the Management of Impacted Sites* – Revised date: January 29, 2014

*Ontario Water Well Regulation 903, RRO 1990 – Ontario Water resources Act, Section 21*

*Yukon Government Environment Act – Contaminated Sites Regulation – Protocol No. 7 – Groundwater Monitoring Well Installation, Sampling and Decommissioning, OIC 2002/171*

Pour des renseignements supplémentaires :

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