

Additional Information Requirements for Waterworks and Water Supply Projects

Pursuant to Section 5(2) of the *Environmental Impact Assessment Regulation* of the Clean Environment Act, this document is intended to assist proponents in preparing a registration submission for projects involving the above-mentioned sector. It should be read in conjunction with the General Information Requirements as outlined in the latest version of the Registration Guide. The information requested in the Registration Guide must also be provided. Note that the following items are requirements **in addition to** those outlined in the Registration Guide. For further assistance, please contact the Project Assessment and Approvals Branch, Department of Environment at (506)-444-5382.

After reviewing a registration submission, the Technical Review Committee may require other information beyond the items listed below and in the Registration Guide.

Note: If your project involves any of the following components please contact the Canadian Environmental Assessment Agency, Atlantic Region at (902) 426-0564 to determine if your project requires a comprehensive study under the Canadian Environmental Assessment Act: a) extraction of 200,000 m³/ per year or more of groundwater, b) structures for the diversion of water from a natural water body into another natural water body, or c) constructing or expanding a dam or dyke.

Definition

These guidelines are applicable for projects involving the extraction or withdrawal of groundwater or surface water at a rate greater than 50 cubic metres per day. Examples of such projects include the development of new water supplies or expansion of existing supplies for: municipalities (including development of new production wells in an existing wellfield), major residential developments, industry, food and beverage production, agriculture, aquaculture, golf courses, or other uses.

A complete list of potential triggers for project registration is provided in Schedule "A" of the Regulation. To determine if registration is required for a specific project, please contact the Project Assessment Branch at the number listed above.

EIA and the Water Supply Source Assessment Process

Municipal Water Supplies

The project's EIA registration must also meet the requirements of the Department of Environment and Local Government's Guidelines to the Water Supply Source Assessment Process (WSSA). The WSSA guidelines describe a sequential process in which qualitative information on the proposed groundwater or surface water exploration targets must be provided for review and

approval prior to any drilling, field testing or water extraction. This allows the Technical Review Committee (TRC) to evaluate the potential for adverse effects to the environment from disturbing the land, and to evaluate the long term viability of the proposed groundwater or surface water extraction project, in advance of any physical works.

The requirements of the WSSA process are normally completed concurrently with the registration and review of the project under the EIA Regulation. The proponent is free to complete the Step 1 (site reconnaissance and initial application) portion of the WSSA requirements in advance of EIA registration, however, it is important to note that prior to any physical works (placing of test wells or monitoring wells, completion of pump tests, etc.), the registration document must be submitted and the Department's written approval to proceed to the Step 2 (field investigations) portion of the WSSA process must be received.

If the TRC determines that the proposed undertaking appears to be viable based on the information provided in Step 1, approval may then be granted to the proponent to proceed to Step 2. In the case of projects aimed at developing groundwater supplies, the Step 2 field investigations will generally consist of well drilling, hydraulic testing to determine drawdown and recovery rates, pump tests to determine yields, water quality analyses, and other components aimed at assessing the viability of the water supply in a more comprehensive and quantitative manner. All hydrogeological assessments and yield testing must be completed and signed by a qualified hydrogeologist.

Upon the proponent's completion and submission of the Step 2 results, the TRC will then determine if there is water of sufficient quality and quantity to allow the project to proceed. A recommendation will be made to the Minister based on a quantitative review of the field investigation results.

It should be noted that, under a recent Cabinet policy, any development of a new **municipal** wellfield must undergo designation through the wellfield protection program. Refer to "*Understanding the Law: A Guide to New Brunswick's Wellfield Protection Area Designation Order*" (NBDELG 2003a) for additional information about wellfield protection, or contact the Program Manager at 457-4846. Likewise, any surface water supply for potable water must undergo designation under the Watershed Protected Area Designation Order, regulation 2001-83—Clean Water Act. The reader is referred to *Understanding the Law: A Guide to New Brunswick's Watershed Protected Area Designation Order* (<http://www.gnb.ca/0009/0371/0004/watershed-e.pdf>) for additional details.

Residential Water Supplies

Residential developments serviced by communal wells will require a Water Supply Source Assessment as noted above.

1.0 THE PROPONENT

See Registration Guide.

2.0 THE UNDERTAKING

(iii) Purpose/Rationale/Need for the Undertaking:

- How are current water demands being met? Have water conservation initiatives been considered instead of or as part of this project?

(v) Siting Considerations:

- A siting study should be conducted prior to registering the project under the EIA Regulation. The siting study should focus on determining the potential for obtaining a sustainable yield of water for the project, based on a qualitative review of topography, watershed boundaries, nearby water uses, and nearby sources of potential contamination. Other factors to be considered include the geology and hydrogeology of the area, compatibility with existing land uses, consultation with local authorities, and ecological and cultural considerations. In designing this siting study, the proponent should also refer to the information requirements listed in the Guidelines to the Water Supply Source Assessment Process.
- Although not specifically part of the undertaking, the construction of pipelines and associated infrastructure will likely be required in order to convey the water to its intended users. It may therefore be appropriate to conduct a route selection study to determine the best possible route for such piping and infrastructure, using much the same methodology and considering many of the same aspects as for site selection.
- Note: Should the proposed target site(s) be located within 30 m of a watercourse(s) (stream, brook, river, wetland, etc.) a Watercourse Alteration permit will be required prior to any work (including the field investigations required under WSSA). For more information on Watercourse Alteration contact the Program Manager at 457-4850.
- Note that the proponents of new water wells for municipal use should examine and fully exhaust potential locations within the municipal boundaries prior to looking outside the municipal limits.

(viii) Operation and Maintenance Details:

Provide a detailed description of the proposed project's operation and maintenance characteristics, addressing the requirements contained in the Registration Guide. For this class of project the required information includes but is not limited to the following:

- Who will be responsible for operating and maintaining the water system ? Note that for residential subdivisions with communal water and wastewater systems outside incorporated areas, the department will require that a public entity (municipality, commission, etc.) own and maintain the infrastructure associated with the development.

3.0 DESCRIPTION OF THE EXISTING ENVIRONMENT

Include all relevant environmental features as noted in the Registration Guide. Examples of issues that may be of particular relevance to this class of project include but are not limited to the following:

- The surrounding freshwater resources including the general drainage direction of surface water, and the presence upstream sources of potential contaminants.
- The surrounding groundwater resources including current quality, availability of resources, location of existing wells near the proposed undertaking, the presence of potential groundwater contaminants (septic systems, underground storage tanks, etc.)the nature of the groundwater use, and site-specific geology and hydrogeology of the proposed site. Refer to the information requirements listed in the Guidelines to the Water Supply Source Assessment Process.

4.0 SUMMARY OF ENVIRONMENTAL IMPACTS

All anticipated impacts should be described and discussed. These will depend on the scope and complexity of the project as well as the project location. See the Registration Guide for further information.

5.0 SUMMARY OF PROPOSED MITIGATION

Describe all mitigative measures that will be employed to minimize the potential environmental impacts identified above. These may include but are not limited to the following:

- Provide a plan for the monitoring of the water quality and to ensure the sustainability of the resource.

- Provide a contingency plan for the provision of water in case of malfunction and/or emergency demand.

6.0 PUBLIC INVOLVMENT

See Registration Guide.

7.0 APPROVAL OF THE UNDERTAKING

A policy is in place requiring the owners of all new municipal production wells to formally request wellfield protection designation before bringing the production well on line. A well field protection study must be completed by the proponent within one year of bringing the production well on line. Refer to “*Understanding the Law: A Guide to New Brunswick’s Wellfield Protection Area Designation Order*” (NBDELG 2003a) for additional details, or contact the Program Manager at 457-4846.

8.0 FUNDING

See Registration Guide.

9.0 SIGNATURE

See Registration Guide.

10.0 SUBMISSION INSTRUCTIONS

See Registration Guide.

OTHER APPLICABLE GUIDELINES

- The Department’s Guidelines to the Water Supply Source Assessment Process must be followed as part of the EIA Registration.
- Depending on the eventual use of the water source being developed, it may be appropriate to consult other appropriate Sector Specific Guidelines for EIA reviews.