

Additional Information Requirements For Golf Courses

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. Note that the following items are requirements **in addition to** those outlined in the Registration Guide. The information requested in the Registration Guide must also be provided. 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.

Definition

This guideline is applicable to all golf courses proposed within the province of New Brunswick that consist of, or are a part of projects that require registration in accordance with Item (p) of Schedule “A” of the *Environmental Impact Assessment Regulation*. Item p) requires registration for “all major recreational or tourism developments, including developments which consist of changing the use of land so that it is used for recreational or tourism purposes.”

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 and Approvals Branch at the number listed above.

1.0 THE PROPONENT

See Registration Guide

2.0 THE UNDERTAKING

(iv) Project Location:

- Provide a 1:10,000 map (with topographic contour lines) indicating the location of the proposed development.
- Provide a colour aerial photograph of the site.

(vi) Physical Components and Dimensions of the Project:

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

- The site plan should show: a) physical features of the site (including topography, forest cover, wetlands, watercourses, grasslands, areas prone to erosion) and b) the planned course layout (including the location and orientation of holes, buildings, parking areas, walking trails, cart paths, watercourses, practice areas, ponds, reservoirs, wells, pesticide/fertilizer storage areas, club house, maintenance and storage areas, associated residential or commercial development, etc).
- If the project will consist of several phases that will be gradually implemented over time, be sure to provide all available details on the location and layout of the future phases.
- Show the proposed conceptual site grading and drainage pattern of the golf course in relation to the adjacent properties and watercourse(s).
- Provide details of the proposed clubhouse if applicable. Will it include a restaurant? If so, give details (liquor license, number of seats, etc.).
- How will the club house be serviced (water and sewage)?
- Will there be any proposed holding tanks, privies, or other sanitary facilities located through out the golf course that will not be connected to the main sewage treatment system?

(vii) Construction Details:

Provide a detailed description of the proposed construction activities and methods, addressing the requirements contained in the Registration Guide. For this class of project the required information includes but is not limited to:

- the type(s) of soil that will be affected (clay, sandy, etc.);
- the construction method of any reservoirs, ponds or wells (note that ponds and reservoirs should be lined with compacted clay or synthetic liners to minimize seepage).;
- the proposed method of removal and disposal of grubblings (chipping, buried, hauled away, etc.);
- the construction schedule (will the holes be graded sequentially or all at once?);

- the origin of any fill materials including topsoil.

(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:

Water Supply

- Provide an estimate of daily water use for all purposes including irrigation, potable water, water for fire fighting, etc. A monthly water demand/water balance for the proposed project, taking into consideration local precipitation records and estimated losses due to evapotranspiration and infiltration, should be presented to verify the estimate of water demand.
- Note that if the daily water requirement will be in excess of 50 cubic metres/day then a Water Supply Source Assessment shall be required. Contact Project Assessment Branch for further details.
- Provide details of the proposed source(s) of water for the above purposes (i.e. municipal water supply, irrigation well, irrigation pond, pumping from a watercourse, etc.). Note that the use of artificial reservoirs (including excavated lakes and ponds) is encouraged wherever possible to avoid depleting surface water and groundwater resources.
- If any water supply will be obtained from ground water, indicate the proposed pump capacity, and provide an estimate of monthly groundwater use. State the assumptions used to calculate this.
- If an irrigation pond will be used, describe the location, size, capacity, and retention time provided by the reservoir. Describe the irrigation pond overflow location and the receiving watercourse(s) (if applicable).
- If water will be pumped from a watercourse list any upstream and downstream users of the watercourse.
- Based on the conceptual drainage and grading plan, and proposed fertilizer use, provide an estimate of the nutrient loadings to watercourses (lakes, rivers, streams)?

Pesticides

- Identify the pesticides proposed for use on the facility, using the Pest Control Product Number (PCP #), the product trade name and the active ingredient(s).
- Describe the proposed method and timing of application of the above substances.
- Describe any integrated pest management (IPM) practices considered for use.
- Where would pesticides be stored and how would pesticide containers be disposed of ?
- Note that under the New Brunswick Department of the Environment and Local Government's Pesticides Control Act, any employee using a pesticide must hold a valid Pesticide Applicator's Certificate – Class L (Private Pesticide Use). If the proponent hires a contractor to apply pesticides, the contractor's business must hold a valid Pesticide Operator's Licence, a Pesticide Use Permit and all individuals using a pesticide must hold commercial Pesticide Applicator Certificates – Class B (Agriculture).

Waste Disposal

- The proponent is encouraged to develop a recycling and composting program to minimize the volume of waste produced and to reduce the amounts requiring landfill disposal.

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:

- Watercourses, fish and fish habitat;
- The quality and quantity of groundwater resources and the depth to groundwater in the project area and the location of the nearest wells (both residential and municipal).

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. Examples of impacts resulting from this class of project may include but are not limited to the following:

Construction

- Grubbing, clearing, draining, hauling, and building are typical components of construction activities. These activities can produce water, noise, air and solid waste pollution. Perhaps the most significant of these is the impact on water quality due to erosion and sedimentation.
- A project may affect a watercourse either directly or indirectly. Examples include: (a) works within a watercourse, including any watercourse diversions, footbridges, etc., (b) water withdrawal, (c) discharge of runoff to a watercourse d) removal of stream bank vegetation, and e) construction or operation activities in proximity to a watercourse. Any anticipated impacts resulting from such activities must be described.

Operation and Maintenance

- Lowering of the water table due to water withdrawal;
- Impacts on groundwater quality due to pesticide applications, fuel or chemical spills, etc.;
- Impacts on surface water quality (due to sedimentation, pesticides and fertilizer application, fuel or chemical spills etc.);
- Drawdown of watercourses and noise from irrigation pumps.

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:

- Many of the impacts to the watercourses are directly related to the buffer zone and the methods used to prevent runoff (sediment, pesticides, fertilize, etc.) from reaching these watercourses (non-directed flow, etc.). Describe any such measures to be employed including buffer zones between the facility and adjacent properties and between holes and watercourses. It is generally recommended that a minimum 15-metre buffer zone of unmaintained native vegetation on flat land adjacent to watercourses be employed. The width of the buffer zone should be increased in the event that the land slopes toward the water.
- An Environmental Protection Plan (EPP) is a valuable tool for ensuring minimization of environmental impacts during the construction and the operation of the site. A site-specific EPP will be required prior to any environmental approvals being issued. The EPP for the golf course should emphasize the Erosion Control and Drainage/storm Water Management Plan in order to address the potential impacts with sedimentation, fertilizer and pesticides in the watercourses.

- Prior to the start of construction baseline water samples from adjacent watercourses and residential wells will be required.
- A proposed pest management program must be included with the EIA registration.

6.0 PUBLIC INVOLVEMENT

See Registration Guide

7.0 APPROVAL OF THE UNDERTAKING

See Registration Guide

8.0 FUNDING

See Registration Guide

9.0 SIGNATURE

See Registration Guide

10.0 SUBMISSION INSTRUCTIONS

See Registration Guide

OTHER APPLICABLE GUIDELINES

Depending on the details of the project, it may be appropriate to also consult the guidelines Additional Information Requirements for Water Works and Water Supply Projects, and Additional Information Requirements for Wastewater Treatment Projects.