

## Department of Environment and Local Government

# Sand and Gravel Pit Guideline

### OBJECTIVE

The purpose of this document is to provide information and guidance to sand and gravel pit owners/operators to minimize potential impacts to the environment.

This guideline does not exempt the owner/operator from compliance with any other bylaws, federal or provincial Acts and Regulations, permits, approvals, authorizations or guidelines issued pursuant to regulations.

### APPLICABILITY

This guideline applies to all sand and gravel pits in the Province of New Brunswick.

### OPERATIONAL REQUIREMENTS

A number of regulatory requirements are associated with the operation of sand and gravel pits. Key requirements from an environmental perspective are highlighted below.

Please note that this list is intended to provide guidance. It is **not** a comprehensive listing of all provincial requirements.

#### Blasting

Blasting is **not permitted**. If blasting is required, the owner/operator must apply to the Department for an Air Quality Approval to Operate. Additional information is available at [www.gnb.ca/environment](http://www.gnb.ca/environment) (Search for "Approvals").

#### Washing with discharge

Washing of sand or gravel is only permitted if there is no discharge of wash water from the site. If a discharge is planned, the site will require a Water Quality Approval to Operate issued by the Department. Additional information is available at: [www.gnb.ca/environment](http://www.gnb.ca/environment) (Search for "Approvals").

If surface water is used, a Watercourse and Wetland Alteration Permit may be required for the withdrawal. If you are using more than 50 m<sup>3</sup> per day of ground water, you will be required to register your project for review under the *Environmental Impact Assessment Regulation*. More information is available at: [www.gnb.ca/environment](http://www.gnb.ca/environment) (quick link to Environmental Impact Assessment on the right hand side of the page).

## **Siting**

The boundary of a sand or gravel pit must not be located within the setback distances specified below:

### ***Wellfield Setbacks***

The removal of sand and/or gravel from a site in Zone A, B or C of a designated wellfield **is prohibited** by the *Wellfield Protected Area Designation Order – Clean Water Act*.

As such, the owner/operator of an existing site shall not remove sand and/or gravel from areas in Zones B and C of a designated wellfield, without first applying for and receiving an exemption from the Minister. **No exemptions will be issued to existing Sand and/or Gravel Pits located in Zone A of a designated wellfield.**

For further information, the owner/operator can visit the Department's website or contact the Drinking Water Protection Section or nearest Regional Office.

### ***Watershed Setbacks***

The removal of sand and/or gravel from sites in Zone A and B of a designated watershed **is prohibited** by the *Watershed Protected Area Designation Order – Clean Water Act*.

As such, the owner/operator of an existing site shall not remove sand and/or gravel from areas in Zones A and B of a designated watershed, without first applying for and receiving an exemption from the Minister.

The extraction and crushing of sand and/or gravel is permitted within Zone C of a designated watershed. Washing, grading and other secondary processing within Zone C **is not permitted** without first applying for and receiving an exemption from the Minister.

For further information, the owner/operator can visit the Department's website or contact the Drinking Water Protection Section or nearest Regional Office.

### ***Watercourse and Wetland Setbacks***

The owner/operator shall not conduct any activity within **thirty (30) meters** of the edge of a regulated wetland and/or the shoulder of the bank of a watercourse, without first applying for and receiving a Watercourse and Wetland Alteration Permit from the Department as per the *Watercourse and Wetland Alteration Regulation - Clean Water Act*.

The owner/operator should be aware that digging below the water table may alter nearby wetlands and watercourses.

For further information, the owner/operator can visit the Department's website or contact the Surface Water Protection Section or nearest Regional Office.

## **Municipal/Rural Planning and Zoning Restrictions**

Many municipalities, rural communities and unincorporated areas have enacted municipal, rural community or rural plans and zoning by-laws which may prohibit or include restrictions on the location and operation of sand and gravel pits.

A development permit must be acquired prior to any extraction.

The owner/operator is strongly encouraged to speak with the local municipality or Regional Service Commission to obtain a development permit and for more information about potential restrictions in their area.

To ensure that gravel pit development is planned to mitigate impacts to adjacent properties and the environment, the owner/operator should contact the Drinking Water Source Protection Section or nearest Regional Office.

### **Other Required Setbacks**

There are a number of other setback requirements in force in New Brunswick implemented through regulations or other provincial standards. These include setbacks from public roads and other features. The owner/operator is strongly encouraged to approach the Department of Transportation and Infrastructure, WorkSafe NB, the local municipality or other planning body, and other such agencies for additional information about these requirements.

### **Petroleum**

The use of petroleum products as a dust control agent is **not permitted**.

The owner/operator shall ensure that all petroleum products stored on-site are stored in compliance with the *Petroleum Product Storage and Handling Regulation -Clean Environment Act*

### **Waste Management**

The owner/operator shall not deposit any wastes at the site without first obtaining written approval from the Department in the form of an Approval to Operate.

## **OPERATIONAL BEST PRACTICES**

The owner/operator is strongly encouraged to adopt the following best practices in the operation of their site.

- 1.1 Avoid digging below the groundwater table. The owner/operator should be aware that digging below the water table may cause: a) groundwater (dug wells and springs) to become depleted; b) a progressive lowering of groundwater levels; c) water quality degradation; or d) reduction in the quantity of surface water to an extent that would adversely affect wetlands, aquatic habitat, aquatic ecosystems, or other water users. The owner/operator can be held responsible to mitigate any negative impacts of digging below the water table
- 1.2 Avoid any activity within **one hundred and fifty (150) meters** from any residential dwelling.
- 1.3 Avoid any activity within **thirty (30) meters** from neighbouring property lines, including excavation and placement of stockpiles. In some cases, additional space may be required to allow slope stabilization.
- 1.4 Take steps to ensure that odour, dust, noise, and site run-off do not negatively impact off-site

properties or members of the public.

- 1.5 Design the operation such that site runoff does not leave the property. If this is not possible, sediment and erosion control measures should be installed to minimize the level of suspended sediment in the run-off. In some cases, additional measures may be required by the Department.
- 1.6 Ensure that all chemicals stored on-site are stored in a dedicated Chemical Storage System. At a minimum, the system should be set up to ensure that all chemicals are:
  - a) secured in sealed and chemically resistant containers;
  - b) away from high traffic areas and protected from vehicle impacts;
  - c) away from electrical panels;
  - d) in a containment area that has secondary containment adequate to contain 110 % of the nominal volume of the largest container in the containment area;
  - e) in a containment area that is designed to prevent contact between incompatible chemicals; and
  - f) in a containment area designed to prevent the release or discharge of chemicals to the environment as a result of a spill.

## UPDATE

This guideline was last updated on August 2014. To inquire whether this is the most recent version of the Guideline, please contact the nearest Regional Office of the New Brunswick Department of Environment and Local Government at:

Region #1 – Bathurst	(506) 547-2092
Region #2 – Miramichi	(506) 778-6032
Region #3 – Moncton	(506) 856-2374
Region #4 – Saint John	(506) 658-2558
Region #5 – Fredericton	(506) 444-5149
Region #6 – Grand Falls	(506) 473-7744