



## **Biosolids FAQ**

**March 2011**

### **What are biosolids?**

Biosolids are an organic resource, rich in nutrients. Biosolids are produced through a recycling process that treats and stabilizes domestic sewage and septage sludge. During this process, sludge from waste water facilities is transformed into a useful, soil-enhancing material. Biosolids are subject to strict standards for pathogens, heavy metals, and chemicals. The treatment process is what differentiates biosolids from sewage and septage sludge.

### **Are biosolids safe?**

There is no evidence of risk when biosolids are treated and used according to the *Guidelines for the Land Application and Storage of Biosolids in Nova Scotia*. Nova Scotia has the most stringent guidelines in North America with regard to standards and testing of biosolids. Our guidelines are based on the best possible science and the experience of dozens of other jurisdictions where biosolids have been used for over 50 years.

Nova Scotia's Department of Environment is a member of the Canadian Council of Ministers of the Environment (CCME) Biosolids Task Group. This Group is working to develop a Canada-wide approach to biosolids management that prioritizes public health and the environment.

### **What are the benefits of biosolids?**

Biosolids are a local, renewable, and environmentally friendly soil amendment. They are a valuable nutrient source for agriculture and useful for land reclamation, e.g. strip mines, quarries, and gravel pits.

Using biosolids as a soil amendment:

- puts important nutrients back into the soil and helps address soil depletion;
- adds organic matter that helps reduce the potential for soil erosion and run-off ;
- reduces the need for commercial fertilizers; and
- reduces production costs for farmers.

### **How can biosolids be used?**

Biosolids can be used in forestry, in agriculture, or in cover for reclamation sites. Producing biosolids is a good way to keep sewage sludge from treatment plants out of our environment.

### **What is the difference between Class A and Class B biosolids?**

In Nova Scotia, Class A and Class B are two separate and distinct classifications of municipal biosolids. These classes are not equivalent to classifications in other jurisdictions in Canada or the United States.

Class A refers to treated and stabilized municipal biosolids that meet very high standards for pathogen, metal, and contaminant concentrations. Because of the extensive treatment process and quality, the Department of Environment does not consider Class A municipal biosolids as generated waste, wastewater, or wastewater sludge. No Approval is required to land apply Class A municipal biosolids.

Class B municipal biosolids are not treated and stabilized to the same extent as Class A municipal biosolids. Class B municipal biosolids meet a lower quality standard for metal, pathogen, and contaminant concentrations. The Department of Environment requires an Approval for land application of Class B municipal biosolids. Class B biosolids cannot be applied to agricultural land.

### **How do Nova Scotia's biosolids guidelines compare with other jurisdictions?**

Nova Scotia's current guidelines are the most stringent in North America. Our guidelines are based on current standards and policies from across Canada and internationally, including the European Union. The latest scientific information on trace metals, pathogens, and chemical contaminants was taken into consideration when establishing the classification requirements for Class A and Class B biosolids.

## **Can biosolids be applied to farm land?**

Yes, but only Class A biosolids. Class A refers to the highest quality biosolids, which meet strict standards for pathogens, heavy metals, and chemicals. Any biosolids that do not meet these high standards cannot be applied to farmland in Nova Scotia.

## **Are biosolids applied to land in other jurisdictions?**

Biosolids are applied to land, including forestry and farm land, in almost every province in Canada and throughout the United States. Biosolids have also been applied to land for many years in European countries and in other places across the world.

## **Is it safe to eat food grown with biosolids?**

Scientific research has not confirmed any link between the use of biosolids on farmland and food safety.

## **How will I know if my food has been produced using biosolids?**

There is no jurisdiction where labeling of foods produced with biosolids is required. Biosolids are used around the world to grow crops for both the domestic and export market.

## **How do biosolids help manage human waste?**

Sewage sludge is an unavoidable byproduct of wastewater treatment. Turning sewage sludge into biosolids is a 'green' method of managing human waste - a way of transforming an unavoidable 'waste' product into a valuable resource.

## **What is the difference between biosolids and 'sewage sludge'?**

Sewage sludge is the solid, semi-solid, or liquid residue generated during the wastewater treatment process. Septage sludge is the solid or semi-solid organic material that is removed from septic tanks, holding tanks, vault privies, etc. Municipal biosolids refers to the organic, stabilized material

produced according to Nova Scotia's strict guidelines during the treatment of domestic sewage and septage sludges.

**What is the difference between biosolids and animal manure?**

Animal manure is generally raw or untreated when applied, whereas biosolids have undergone significant treatment to destroy pathogens.