

## Biosolids

### **WHAT ARE BIOSOLIDS?**

Biosolids are a safe, resource-rich byproduct of wastewater treatment that are produced by treating organic material removed during the treatment process. Biosolids can be used for a number of beneficial uses.

The treatment process at the Residuals Treatment Facility will create Class A biosolids.

The biosolids produced in our region will be a minimum 90% dry and will be dark, dry granular pellets. Approximately 7,000 tonnes of Class A biosolids will be produced each year, starting in 2021.



### **WHAT IS IN BIOSOLIDS?**

Biosolids contain nutrients and energy that can be recovered and used. For example biosolids contain nutrients such as nitrogen, phosphorus, calcium, sulphur, iron, and others that are required for vegetation growth. The nutrient content and organic matter in biosolids are often used to promote vegetation establishment and growth; alternatively, their energy can be harnessed through combustion as an alternate fuel.

Class A biosolids must meet regulatory requirements set by the Province of B.C. through the Organic Matter Recycling Regulation. These requirements

dictate maximum allowable levels of pathogens and contaminants (e.g. heavy metals) to ensure protection of human health and the environment. These regulations also provide strict controls on how and where biosolids may be used.

### **HOW ARE BIOSOLIDS MADE?**

During the wastewater treatment process at McLoughlin Point Wastewater Treatment Plant, residual solids will be removed from wastewater and conveyed to the Residuals Treatment Facility for further treatment.

Each treatment step at McLoughlin Point and the Residuals Treatment Facility will contribute to a higher quality of effluent and biosolids.

At the Residuals Treatment Facility, the residual solids undergo anaerobic digestion in which microorganisms will break down biodegradable material in the absence of oxygen and produce biogas. The residual solids are then dewatered and heated at a very high temperature (220°C), creating Class A biosolids. Biogas produced during the digestion process will be collected within the facility and fully used as fuel for the dryer.

### **BENEFICIAL USE OF BIOSOLIDS**

Once treated, biosolids can be used for a number of beneficial purposes. Beneficial use means that the nutrient and organic matter and/or energy content of the biosolids are utilized. The B.C. Ministry of Environment & Climate Change Strategy establishes and enforces standards for wastewater treatment and the beneficial use of biosolids.

Using these biosolids beneficially aligns with the CRD's commitment to climate action and environmental stewardship.

Visit [crd.bc.ca/biosolids](http://crd.bc.ca/biosolids) to learn about the CRD's plan for the beneficial use of biosolids.

**Any questions about the work, please contact the Project Team.**



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