



# Mount Polley Mining Corporation

an Imperial Metals company

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## What are biosolids?

Biosolids are treated municipal wastewater solids. This material undergoes a microbiological digestion and heating process to break down the solids, reduce odors, and destroy pathogens. The result is an earth-like substance that is high in organic matter and nutrients.

## What are biosolids used for?

Biosolids contain nitrogen, phosphorus and other macro and micro nutrients required for plant growth, and are composed primarily of organic matter, which helps improve the moisture retention capacity of soils. These properties make biosolids useful as soil conditioners and fertilizer. Across BC, biosolids are used in commercial landscaping soils, fertilization of agriculture and forest lands, and reclamation of mine sites, gravel pits, and landfills.

## Are biosolids safe?

Biosolids in BC are highly regulated. Metro Vancouver's biosolids meet the quality standards set out by the BC Ministry of Environment in the [Organic Matter Recycling Regulation](#) and each batch of biosolids is sampled for fecal coliforms, nutrients, and trace metals. Extensive research has shown biosolids are safe to use in public applications; however, normal hygiene (such as hand washing) is recommended after directly handling biosolids, similar as would be done when handling manure or compost.

## Biosolids at Mount Polley

Mount Polley accepts shipments of biosolids from Metro Vancouver (formerly known as the Greater Vancouver Regional District) for use in reclamation. Since 2010, over 23 hectares of the mine site have been reclaimed using biosolids as a soil amendment. Figure 1 shows an image of a reclamation parcel on the North Bell Dump in its first growing season. Prior to 2010, biosolids were also used as a soil amendment in reclamation research plots established in 1998 – 2000 (Figure 2). In 2014 Mount Polley and Metro Vancouver started a joint research project to investigate the use of biosolids and various ground cover vegetation species to promote the growth of native trees and shrubs.

Biosolids storage and application at Mount Polley is regulated by a Ministry of Environment Permit under the BC *Environmental Management Act*. Mount Polley currently has one (1) storage facility where biosolids are stockpiled for future use. It is located upstream of the Tailings Storage Facility (TSF) and away from natural watercourses. No biosolids have ever been placed within the TSF impoundment.



Figure 1. North Bell Dump reclamation parcels 1 – 10



Figure 2. Reclamation research plot E, established 1998