



Timelapse from 2011 to 2014 at Bob's Lake Pit (left). Excellent vegetation growth after reclamation at Pennask Pit (right).

BIOSOLIDS STRATEGY AND PIT RECLAMATIONS

Client: Regional District of Central Okanagan

The Regional District of Central Okanagan contacted SYLVIS Environmental to undertake an assessment of short and long term biosolids management options. The goal of the project was to identify management opportunities that would provide the RDCO with diversified options for biosolids beneficial use to be applied over the long term, reflecting RDCO's commitment to promoting public health, environmental sustainability, flexibility, and cost effectiveness.

Several potential biosolids land application opportunities resulted, including land application of biosolids for reclamation at Bob's Lake Pit and Pennask Pit. Bob's Lake Pit was a source of aggregate for the construction of Highway 97C in the early 2000's. Prior to the reclamation project, the 30 hectare area had little to no soil present with extremely low nutrient and organic matter concentrations, which inhibited vegetative growth.

Similarly, while Pennask Pit had been initially reclaimed using biosolids in the early 2000's, the lack of soil had resulted in a slow decline in the quality of the site, resulting in sparse vegetation.

Regional District of Central Okanagan biosolids were applied and incorporated to both sites. Several techniques were utilized to facilitate even application rates and thorough incorporation to both the sloped and more level sections of the pits.

The application of biosolids at Bob's Lake and Pennask Pits has provided nutrients, organic matter and a stable growing medium for grasses in the short term and eventual succession of naturally occurring tree species in the area as the soil develops. Enhanced ecological monitoring has proven that the projects have had no adverse environmental effects on nearby surface waters, or to the vegetation on site.

SYLVIS continues to work with the Regional District of Central Okanagan to develop other biosolids management opportunities throughout the region.

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