



The Grafton Lake pilot treatment plants achieves the desired level of water treatment for the Cove Bay water system.

## GRAFTON LAKE WATER TREATMENT RESIDUAL CHARACTERIZATION

**Client:** Bowen Island Municipality

Bowen Island Municipality is currently piloting water treatment technology to improve drinking water quality for the residents of Bowen Island. SYLVIS completed a characterization study of the water treatment residuals (WTR) produced from the Grafton Lake pilot treatment plant. The Grafton Lake pilot treatment plant is currently assessing the suitability of a ceramic membrane ultrafiltration technology in achieving the desired level of water treatment for the Cove Bay water system. The pilot treatment plant produces WTR that Bowen Island Municipality must manage in a responsible and cost-effective manner should the plant become operational.

SYLVIS conducted a sampling and analysis program to characterize the WTR material and examine the factors that may impact its beneficial use. The study assessed specific physical and chemical characteristics of the WTR in relation to regulatory standards to assist Bowen Island Municipality in determining the suitability of the residuals for a number of potential beneficial uses.

Following this characterization, SYLVIS compared the material to other beneficially used WTR, and provided a synopsis of how the material may be beneficially utilized in the current regulatory environment in British Columbia. By providing examples of compatible beneficial uses, SYLVIS enabled Bowen Island Municipality to assess the suitability of the beneficial use pathway for the WTR produced at the future full-scale Grafton Lake Water Treatment Plant.

### AREAS OF EXPERTISE

- Applied Research
- Consultation & Education
- Operational Management

> **Options Assessment & Development**

> **Policy & Practices**

### RESIDUALS

- Ash
- Biosolids
- Effluent and Leachate
- Pulp and Paper Residuals
- Unique Residuals

> **Water Treatments Residuals**

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