



The top tree branch was unfertilized and the bottom branch was fertilized with biosolids (left). The SYLVIS High Efficiency Residuals Applicator (HERA) is used to apply biosolids to the forest (right).

FOREST FERTILIZATION USING REGIONAL DISTRICT OF NANAIMO BIOSOLIDS

Client: Regional District of Nanaimo

Forest fertilization using biosolids provides two primary benefits: biosolids act as a soil conditioner, and also serve as a nutrient source. Soil conditioning occurs when an organic amendment is added to soil to improve its physical properties as they relate to growth and productivity. The addition of organic matter improves overall soil structure, water-holding capacity, bulk density, and free air space. Biosolids are applied to forests throughout British Columbia (BC) to improve productivity of the forest and increase tree growth rates.

The Regional District of Nanaimo's (RDN) biosolids are managed in a forest fertilization program in Nanaimo, BC on private forest land. Following a biosolids forest fertilization research and demonstration project in 1992, SYLVIS participated in a comprehensive stakeholder consultation program providing scientific and technical expertise. Based on the results of monitoring, research, and the input from stakeholders, an operational-scale biosolids forest fertilization program was initiated.

SYLVIS has managed all aspects of the RDN's biosolids forest fertilization program since 2013. Biosolids from the RDN are applied to the forestland under a Land Application Plan (LAP) authored by SYLVIS. SYLVIS is responsible for all regulatory authorizations, environmental monitoring, site maintenance, and biosolids fertilization activities using specialized equipment which applies dewatered biosolids up to 30 metres into the forest stands. As the site has concurrent recreational use, SYLVIS interfaces regularly with other site users and project stakeholders to ensure that the project is well notified and accommodating of other site uses.

This successful, award-winning, long-term biosolids management program was initiated through the partnership of numerous stakeholders and biosolids generators. Proactive stakeholder consultation and environmental monitoring supports the program objectives. SYLVIS continues to be an integral part of the biosolids fertilization, stakeholder engagement, and research activities.

HEAD OFFICE

427 Seventh Street
New Westminster, BC Canada V3M 3L2
T 604.777.9788 F 604.777.9791
Toll Free 1.800.778.1377

ALBERTA OFFICE

203 - 10171 Saskatchewan Drive
Edmonton, AB Canada T6E 4R5
F 780.437.0719
Toll Free 1.800.778.1377

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

**CONTACT US AT INFO@SYLVIS.COM
FOR MORE INFORMATION**

[Email us](mailto:INFO@SYLVIS.COM)