

News Bulletin

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Malaspina to demonstrate green solution for region's looming waste disposal problem

A project by Malaspina College this summer aims to combine municipal recycling with growing healthy forests. The project aims to recycle dried and treated sludge from the wastewater and sewage treatment process as a soil enhancer and fertilizer in the college's forest.

"This will demonstrate how to turn two problems - poor forest soils and sludge disposal - into an environmentally-responsible solution," said project leader Dr. Jim Baxter, Dean of Malaspina's Science and Technology department.

The joint project between the college's Forestry department, the Regional District of Nanaimo (RDN) and the Greater Vancouver Regional District (GVRD) has been in the planning stages for the last year.

The sludge is the solid residue that is left after wastewater and sewage have been processed. It is dry, like a combination of peatmoss and topsoil, and has a faint musty smell, like garden compost. To be applied in the forest, it is mixed with water and sprayed from a specially-designed tanker truck.

The value to the forest is in the sludge's rich organic humus and the extra boost of nutrients, particularly nitrogen. Where it is not recycled as agricultural or forestry fertilizer, sludge is usually dumped in landfills.

"Recycling sludge as a fertilizer will be new for Nanaimo, but it has been widely used elsewhere in Canada and the U.S. for many years," explained Dr. Baxter.

Lionel Benoit, RDN Director of Public Works, said that he welcomes the opportunity to work with college foresters on the fertilization project.

"Nanaimo may not have an immediate problem with sludge disposal, but judging by the population increases here, it may well become a problem in a few years," he said.

"We need to plan now for a new approach."

He pointed out that all of the sludge generated at the French Creek Pollution Control Centre is used to fertilize hay farms in the Parksville/Qualicum area.

"This project gives us an opportunity to take advantage of an available resource and proven technology to create a model for recycling a waste product in a useful and environmentally-responsible manner," Benoit said.

With technical expertise from the GVRD and scientific backup from the University of B.C. and the Ministry of Environment, the project will use

approximately 600 dry tonnes of the sludge fertilizer to treat 16 hectares of the college's 1,303 hectare forest on the north-eastern slopes of Mount Benson.

The project will use all of Nanaimo's current supply of sludge plus a bargeload from the GVRD's stockpile in Vancouver.

Baxter said that more than 40 years of experience has shown how sludge can be effectively and safely used without harming the environment or public health. He said the project will be conducted under stringent guidelines set by the Ministry of Environment.

Dr. Charles Henry of the University of Washington has conducted extensive analysis of the sites and has recommended the appropriate rate of application, Dr. Baxter explained.

"We have developed a detailed operating and monitoring program, including plans to minimize any impact on local residents during transport of the material and equipment," he said.

Public consultation will be an essential part of the project, Dr. Baxter said.

Local residents and the public are invited to an open house on the project proposal at the Pleasant Valley Elementary School gymnasium on Tuesday June 23 from 4 p.m. to 8 p.m.

Representatives of environmental and recreational groups have been invited to an information session at Malaspina College on June 22.

City councillors, RDN directors, MLAs and MP have all been informed about the project proposal.

"We will be explaining our plans and the precautions that we will be taking. The project will be conducted under strict provincial guidelines, but we also want to hear any concerns and suggestions," Baxter said.

The project has been given approvals by the college Board, the RDN Board and the City of Nanaimo, subject to all environmental and public health requirements being met.

"We have been working closely with the Ministries of the Environment, Health, Forests and Fisheries and Oceans," Baxter said. "We intend that this project will at least meet, if not do better than all the guidelines."

The nutrient-poor areas of the forest are not uncommon," Baxter said. "Much of BC's forest soils have inadequate amounts of nutrients necessary for healthy tree growth."

Studies by the University of Washington on similar programs found that tree growth accelerated by up to 400 per cent after being fertilized with municipal sludge.

The fertilizer will be sprayed on four blocks in the forest. Thirty to sixty-metre buffer zones will be maintained around the two creeks and several marshes in the area to be treated, and three metres setback from public access roadways.

"We hope to complete the project in the dry months this summer," Baxter said.

A display about the project will be open for viewing in the foyer outside the Board Room every day this week.

