QUEENSTOWN LAKES DISTRICT COUNCIL

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Project Groundswell: Frequently Asked Questions

Q: What is "Project Groundswell"?
A: "Project Groundswell" is an innovative and 100% natural way of disposing of the sludge from Wanaka's "Project Pure" wastewater treatment facility.

Q: What is sludge?
A: It's the solid material left after the Wanaka and Albert Town communities' sewage and wastewater has been treated at "Project Pure". Sludge comprises a mix of human waste, organic material and a small amount of metal residue, all of it originating from domestic and commercial sewerage and industrial wastewater.

Q: What happens to the sludge now?
A: It's transported over 70km and buried in the Victoria Flats landfill.

Q: What's wrong with that?
A: It's costly to transport and dispose of the sludge to landfill;
The sludge generates methane gas in the landfill, which is harmful to the environment;
It's a waste of a nutrient-rich resource that could be put to good use.

Q: What are you proposing to do?
A: The Queenstown Lakes District Council (QLDC) proposes to partner with Fulton Hogan, who will build and operate a completely new solar drying facility on rural land screened from the road. The facility will essentially be a large greenhouse. Sludge will be spread on the drying bed; it will be spread and turned mechanically so that all the sludge is progressively exposed to the air to dry naturally. As it dries, the volume also reduces so that for every 1000 tonnes of sludge that's brought to the facility, only between 100-200 tonnes need to be removed as dry matter. The rest is moisture that evaporates.

Q: What happens to the material after it's dried?
A: The dry material will be removed and ploughed into the ground as fertiliser on two adjoining privately owned properties. It will significantly improve the fertility of their soil. Crops will be grown on the land, which will be cut and used as silage or hay. Animals will not graze the land for a minimum of three years after the sludge has been ploughed in.

Q: Will the sludge smell bad while it's drying?
A: The greenhouse uses a combination of fans, vents and flaps to keep air flowing inside, which helps the drying process, and vents the air to the outside. During the drying process the aerobic bacteria that are active in the sludge change the odour to a smell similar to compost. There will be no smell noticeable outside the boundary of the facility, and the nearest dwelling is 850 metres away across the Clutha River.

Q: Will the sludge generate methane in the glasshouse like it does in the landfill?
A: No.

Q: How do you know this will work?
A: The process is called the "Wendewolf" drying system, which is used extensively in Europe, North America and Australia. We will be the first community in New Zealand to adopt this technology but it's well tested and found to be successful overseas.

Q: Why did you choose Wendewolf?
A: The Council requested proposals from suppliers in an open tender process for a more cost effective, beneficial alternative to landfill disposal. The process generated a lot of interesting proposals. The Wendewolf drying system proposed by Fulton Hogan met the evaluation criteria most effectively. It's been proved to be successful overseas and it's a better solution for our climate and conditions than other natural systems that we considered.

Q: What will it cost ratepayers?
A: There is no capital cost to the ratepayers because Fulton Hogan will build and operate the drying facility. QLDC will pay a set rate for every tonne of sludge transported to the facility.

Q: Will there be any savings to ratepayers?
A: The contract will deliver annual savings of $113,000 on the existing cost of the Wanaka / Albert Town scheme – that's a saving of $23.54 per household each year.

Q: How will the sludge get from Project Pure to the greenhouse?
A: In closed skip trucks. There will be between one and three truck trips a week, moving approximately five tonnes of sludge in each trip.

Q: Human wastes and material containing metals would normally be considered contaminants – how can it be good to put this into the soil?

A: By the time the sludge has been through the treatment process at Project Pure and dried, it will be a valuable fertiliser that will improve the condition of the existing soils. Trace metals such as zinc contained in the dried material will also improve soil health by countering natural deficiencies. We expect that any resource consent issued by ORC to apply the dried material to land would include consent conditions setting upper limits of pathogens and heavy metals. The material would be tested before leaving the treatment facility, to ensure it met the consent limits.

Q: How far advanced is the planning?
A: Fulton Hogan is preparing to lodge applications for resource consents with QLDC and Otago Regional Council (ORC) to operate the drying facility and to apply the dried material to land. The two neighbouring landowners have already given their approval as "affected parties" and consultation is now underway with iwi and the local community, including groups known to have a particular interest in the Upper Clutha area. This follows extensive research and consideration by QLDC, which concluded that the solar drying proposal was the best suited to local conditions and needs. The proposal was approved by the QLDC's Infrastructure Services Committee in July.

Q: When will the facility be built?
A: Once the necessary approvals have been granted, it is likely to take up to six months to complete construction of the drying facility. It is hoped to start delivering sludge to the new facility before the end of June 2014.

Q: Who can I talk to if I have more questions?
A: Please contact Erik Barnes at QLDC 03 441 0499 or either Alan Peacock or Pete Reid at Fulton Hogan 03 440 0500.

Fulton Hogan

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