



"It's great to see technology making a difference!"

Steps to sustainability with hydro services

The Southeys Group continues improve its hydro excavator fleet in terms of energy use, carbon emissions, noise levels and water use, while delivering superior and safer excavation. Story supplied by Southeys.

With more than two decades dedicated to hydro excavation and the removal of liquid waste, Rob Southey has ensured the ongoing success of his business by staying at the forefront of technology with his gear. In 2019, Southeys enhanced the Smart-Dig HX 8000 by adding the 'Whisper Pack' to this hydro excavator. This super quiet hydro excavator is unlike anything else operating in New Zealand, and has proved so popular with clients that, in June 2020, Southeys added a second to its fleet.

These hydro excavators emit just half the noise of their traditional counterparts, which benefits the operators, the

neighbours, and everyone on the worksite. However, what is less obvious is how environmentally friendly these machines are.

Hydro excavation works by pumping water in at low pressure and then sucking it back out again along with the debris. To do this, Southeys uses 100 percent recycled water from the ponds at its consented disposal facility.

The combination of advanced hydro excavation techniques, excavator design, and innovative material processing, results in a water positive system. In other words, Southeys recovers more water from its activities on civil construction sites than it

uses during hydro excavation.

The innovative recovery system combines natural and mechanical filtration steps that are quality controlled, ensuing Southeys' process water meets industry standards.

"Our trucks use about 830 cubic metres of water per month, so it's important we are doing our part to use recycled water," says Rob Southey.

"I'm sure our clients appreciate that.

"We've operated this way for quite some time now, but the recent water shortages in Auckland has brought the issue to the fore. The drought and water restrictions that have been in place for much of 2020 haven't had an impact on our operation – thanks to

the sustainable approach we took from the outset."

Each year, in Auckland, Southeys recycles around 22,000,000 litres of water from construction sites, with 11,500,000 litres used in hydro excavation.

Rob says the company's water recycling capacity will increase in 2021 as it introduces a new recycling technology to the market.

While doing their bit for the planet is one part of their caring approach, making life better for operators and others on the worksite, along with the public, is another priority. The quietness of the hydro excavation units has to be heard to be believed.

John Filimoto, a site engineer with Downer, says if you compare the Southeys' hydro excavator with a regular one; "the difference is like night and day".

"For us, we're often limited with what we can do at night to ensure we don't disturb the local residents, but the quietness of this machine means we can use it at night without keeping anyone awake.

"However, the quietness of the machine is a bonus; most importantly, it's a big unit and it does the job we need it to do."

The gentle excavation of the hydro excavator negates the chance of accidentally damaging the underground services, as well as eliminating the risk of injury to a digger operator who may hit an electrical cable or gas pipe.

Rob says it's the safest way to dig around underground services.

Pat, the operator of the hydro machine, loves how quiet his hydro excavator is.

"Not only is the quieter working environment more comfortable, it makes it so much easier to communicate with my assistant and other people on site," he says.

This feature has not gone unnoticed by the public either.

Long Bay resident Philip Buys recently sent the following compliment to the Southeys' team:

"I just wanted to congratulate the team on a very impressive vehicle and seeing it in silent operation is quite incredible.

"As Long Bay residents, we have suffered through a lot of disruption with all the development in our area. Recent excavations along Glenvar Road a prime example of this. One of your competitors caused serious noise and for a couple of

days it was unbearable – I could clearly hear their workings in my house a couple of blocks away.

"I saw your team arrive and thought, here we go again, only to hear NOTHING. My first thought was they hadn't started, until I drove past and saw them working without any ruckus!

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On top of all this, the Smart-Dig machines are also gentler on the planet with regards to emissions.

As Rob explains, the power required to efficiently and effectively run a Southeys hydro excavator unit from an auxiliary motor is 137hp, which is 65 to 72 percent lower than more traditional machines that run their hydro excavator units off 400-500hp engines.

"We use an auxiliary engine to power the hydro excavation units in a bid to save weight and fuel as well as reducing wear on the truck engine. And it works.

"The auxiliary motor has a sizeable impact on fuel consumption, which in turn means significantly reduced greenhouse gas emissions." ■