

Preserving water in Australia

Regular high pressure jetting of sewer mains is an essential and accepted part of routine pipe maintenance. The process clears pipelines of roots, debris, obstructions and cleans the inside of the pipe. As a result, the hydraulic capacity of the pipe is typically restored and the potential for surcharges and overflows is reduced.

Typical industry practice has been to use potable water for cleaning wastewater pipes because it has often been the most practical choice available. However, the concept of taking water from a catchment, treating it to drinking water quality and then using it to clean a wastewater pipe seems somewhat illogical, inefficient and wasteful. To put this in perspective, approximately 5,000 litres of water would be used to clean a 100 metre long section of DN450 sewer main containing an average amount of silt and debris: in the case of heavily silted pipes this can be much higher.

A smarter approach would be to clean the pipe using the water that is already inside, eliminating water wastage.

In recent years there has been an increased use of recycler and vacuum cleaning technology to clean wastewater pipes. This approach uses the wastewater itself to clean the pipes and does not require any potable water. Interflow, an ISO140001 (Environmental Management) certified company has invested in recycler cleaning technology and intends to use this technology to an increased degree going forward. The move is consistent with the company's ongoing commitment to reducing the environmental impact of its operations.

Recycler cleaning trucks are of particular benefit in areas where supply of potable water is limited or not available, such as in regional Australian towns where the sensitivity to water conservation is often very high.

Protecting regional water supplies

Interflow used its recycler cleaning truck for a recent pipe cleaning contract for Goulburn Mulwaree Council in regional New South Wales. Interflow was able to clean 3.6 kilometres of the town's

sewer mains without wasting any potable drinking water. In fact, it was estimated that the process saved almost two million litres from the town's potable water supply. Given that the town's usable water storage levels were at approximately 46 per cent, the operation was appreciated by the community to the extent that it was featured in the local media.

Goulburn Mulwaree Council's Acting Water Services Manager Marina Holland said the mains had been cleaned without interruption to residential services.

"This particular truck has made the jobs of council staff infinitely easier. These mains, which were installed in 1916, will be able to operate at full volume during periods of high demand," Ms Holland said.

"Now that they've been cleaned out, there should be minimal overflow when we do have times of heavy rain."

Super soaker

For this particular contract Interflow used its Super 2000 recycler vacuum truck. The truck has the ability to jet clean the pipe at the same time as it removes debris and silt. The truck is specially designed for fast, high-volume silt removal – making it ideal for cleaning high-flow large bore and carrier sewer mains as well as reticulation pipelines.

The Super 2000 is equipped with a high performance vacuum pump that sucks the existing water from inside the sewer pipe. The water is then recycled through five different tanks onboard the truck so that any debris and silt is collected before the water is used to jet clean the main pipe.

The process is fast. The truck has the capacity to suck up over 60 cubic metres of water per minute, recycle it, collect silt and debris and then return the water at a jet-cleaning pump pressure of over 2,000 psi and a flow rate of over 450 litres per minute.

The silt and debris that is removed from the pipe is collected and stored in a separate onboard tank, which can be disposed of at an appropriate waste facility.

Interflow is currently in the process of commissioning an even larger recycling unit that will greatly increase the capacity to clean and remove silt, particularly in large diameter sewer mains. This truck will have even greater storage capacity, jetting flow-rates and suction capacity. This unit will be the largest recycler cleaning truck in operation in Australia and one of the largest in the world, said the company.

Going green

Water usage is becoming an increasingly sensitive environmental issue, especially given the effects of ongoing drought. There is increasing pressure and expectation from government and the community sector for corporations and authorities to





Above and below: Interflow's Super 2000 Recycler Cleaning truck in operation in Chatsbury Street, Goulburn, New South Wales.



Far right top: A CCTV shot of sewer main before it has been cleaned. Root ingress is clearly visible as is scale build up on the pipe walls.

Far right bottom: A CCTV shot of sewer main after it has been jetted/cleaned. The roots have been removed and the pipe surfaces are smooth again.

reduce water wastage and minimise the impact of their operations on the environment. In much the same way that rainwater tanks are now increasingly being used for watering residential gardens, it seems inevitable that in the future the pipe maintenance industry will be using only recycled water to clean wastewater pipes. The idea is logical and makes good economic and environmental sense. ①

For more information about Interflow's recycling cleaning trucks and the benefits of recycler/vacuum cleaning technology visit www.interflow.com.au