



# Hikurangi Swamp Flood Control Project

<b>Project</b>	Hikurangi Swamp Flood Control Project
<b>Client</b>	Whangarei Regional Council
<b>Location</b>	Hikurangi Pumping Station, Whangarei
<b>Date</b>	2003
<b>Brief</b>	To drill a 1050mm diameter hole for entry of a flood control pump

When engineers needed to upgrade a flood control pumping station, they were faced with the challenge of needing a 1000mm diameter hole, 3.5 metres up a 7 metre concrete face. Having seen Lowery technical bulletins, they approached Lowery's to come up with a solution.

A possible solution was to import from overseas a 1000mm core drill specifically for this job. Lowery opted to design and manufacture a radial wire saw, taking its experience and skills in wire sawing to a new level. The great benefit of the radial wire saw is the flexibility of changing diameters with a simple adjustment and the ability to cut very large diameter holes.

This flexibility ended up being critical as once on site, engineers increased the required diameter by 50mm, to 1050mm. With a simple adjustment the change in diameter was made to 1050mm. Cutting the hole through the 400mm concrete wall with two mats of D16 reinforcing bars was undertaken after setting up the radial wire saw in place. Cutting went smoothly and was completed in 2.5 hours.

The job was a success, completing the hole to the engineers requirements and proving the radial wire saw was effective in producing variable diameter holes. The use of radial wire saws to cut large diameter holes remains a preferred technique and further holes in April 2005 have been completed successfully at the pumping station.