



Bedford Pumps futureproof flood protection for New Zealand

Bedford Pumps have recently supplied two of their Submersible Axial Fish Friendly pumps to Waikato Regional Council for a new build Fish Friendly pumping station in New Zealand.

Muggeridges Pumping Station has been constructed near the Piako River in the Waihou Piako Zone to protect 1100 hectares of land near Ngātea. The pumping station is positioned at the lowest point in the catchment to provide and maintain a continuous drainage service to the community and farmland which had been experiencing poor drainage and ponding due to ongoing peat settlement. This settlement had resulted in land within the area approaching sea level in some parts with the present scheme floodgate and pump outlets becoming ineffective. Without the new pumping station, 90 to 95% of the area would be inundated or waterlogged within the next 50 years.

Bedford Pumps were selected as the pump manufacturers for this project following the success of their previous installation for Waikato Regional Council at Orchard Road Pumping Station. Bedford Pumps knowledge and expertise in the area of land drainage also led to a substantial saving in energy costs for the Council, following a recommendation to design the discharge bay to ensure that the discharge pipe is always submerged. This will allow the station to benefit from siphonic recovery and save an estimated £210,000 over the lifetime of the pump.

Bedford Pumps two submersible axial pumpsets will each provide a duty of 2000l/s at 5.5m head. To minimise construction costs the submersible pumps will be installed into a wet well canister. Each pump is fitted with Bedford Pumps' innovative Fish Friendly impeller which enables the fish to pass through the hydraulic passages unimpeded. The pumps are supplied with lifting chains, spare parts, pump condition monitor and 200mm siphon breaker valves.

Bedford Pumps were delighted to work once again with Waikato Regional Council in futureproofing flood protection for the region for the next 100 years, whilst at the same time protecting the life of fish and eels.

Bedford Pumps standard range of Fish Friendly pumps cover from 400 to 9,000 l/s at 2 to 14m head and are available as a submersible, direct drive or mixed flow variant. They are ideally suited for Land Drainage, Flood Defence and Fish Farm applications. Larger capacity pumps can also be designed to meet specific requirements.



Fig 1. Piako River, New Zealand



Fig 2. Submersible Axial Fish Friendly Pumps for Muggeridges P.S.