

KINGFISHER RTUS

STANDARDISED REMOTE CONTROL
FOR WATER AND WASTEWATER
SITES



THE CHALLENGE

Hastings District Council and Napier City Council are both located in Hawke's Bay, on New Zealand's North Island. The two local authorities wanted a single, standardised remote telemetry solution to be deployed across all their water and waste-water treatment plants, pump stations and treatment plant infrastructure.

The new solution would replace the outdated programmable logic controllers (PLCs), aged remote telemetry units (RTUs) and analogue radios installed across the sites, while also simplifying technological requirements for their maintenance teams. They also wanted to reduce the need to stock spare parts from multiple vendors. To solve these challenges, the councils turned to Ovarro for a robust and reliable solution.

THE SOLUTION

Ovarro's Kingfisher CP-35 remote RTUs were chosen as the best solution for the two Hawke's Bay councils' needs. The RTUs had already proved successful when implemented across the water infrastructure in the city of Auckland, over 400 km away from Hawke's Bay.

Supported by Ovarro's local distributor, CSE W Arthur Fisher (CSE-WAF), the Kingfisher RTUs were installed across the Hawke's Bay region's wastewater and water treatment sites, reservoirs and pump stations. The modular RTUs have replaced outdated PLCs with a uniform technology.

The Kingfisher uses Toolbox Plus v8.3 software that supports online changes during commissioning. Water- and shock-proof SD cards are installed in the RTUs' processors, safeguarding against the loss of critical data in the case of a catastrophic failure. The cards also allow quick-cloning of the RTUs after environmental disasters like cyclone damage and flooding.



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WATER



MONITORING
& CONTROL



RTU'S



REPLACING OUTDATED PLCS

The high-performance capabilities of the Kingfisher CP-35 RTU make it an easy choice to replace ageing PLC assets. Parts of the Hawke's Bay's infrastructure already used Kingfisher RTUs including the PC1, CP-11, 12, and 21. This was an advantage, as the modules within its network — inputs / outputs (IO), backplanes and power supplies — were compatible and interchangeable with the new RTUs. This increased the speed of roll-out, and reduced costs, when replacing the old PLCs.



“With Ovarro’s Kingfisher C-35 RTUs, a single, standardised remote telemetry solution has been successfully rolled-out across the region — delivered on-time, on-budget and it continues to operate extremely well.”

— Napier City Council



OPERATIONAL BENEFITS

Kingfisher CP-30 RTUs were first standardised in New Zealand, in 2010, by Watercare Services Ltd, the local water authority in Auckland. The RTUs were rolled-out across over 700 assets in the city. Watercare then worked with CSE-WAF and Ovarro to develop the Kingfisher CP-35 with daughter cards that improved the RTUs’ expansion and customisation capabilities, modularity and flexibility. The CP-35 was rolled out in Auckland, and is now being used in Hawke’s Bay.

The Kingfisher has software for executing control algorithms, and a graphical interface that displays SCADA control parameters. Both features have been shared with other regional water authorities to reduce development and roll-out costs, and speed-up standardisation processes. This makes it easier for Ovarro and CSE-WAF to support local communities and helps engineers familiar with Kingfisher RTUs work across different territories.

KEY DELIVERABLES

- Reduced initial development costs
- Improved operational efficiency
- Better staff management
- Accelerated system deployment
- Reduced risk of system failures
- Less training, which unlocked cost savings

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