



# Managing Tauranga's

Downer has the operations and maintenance contract for the potable water, wastewater and stormwater assets throughout Tauranga City.

By Alan Titchall.

This article is based on Downer's entry to the CCNZ/Hirepool Construction Excellence Awards 2016.

**D**owner's performance-based contract focuses on the mechanical and electrical operations and maintenance of potable water, wastewater and stormwater assets throughout the Tauranga region.

The client is Tauranga City and the \$22 million (\$5.5 million a year) project started in 2013 and goes to June 2021, and includes four years right of extension if KPIs are met or exceeded.

These assets provide three waters services to over 120,000 residents. Downer secured this contract in 2013. With a locally based team comprising of 37 personnel, Downer undertakes mechanical and electrical maintenance of all water and wastewater treatment plants and pump stations, inspection, monitoring and renewal of over 1200 kilometres of watermain (including backflow testing). On the water front the contract covers inspection and maintenance of 46 reservoirs, flushing and maintenance to over 4800 hydrants, meter reading services



# three waters

for over 51,000 residential and 98 bulk water meters, and fresh water delivery where required.

Wastewater services involve monitoring, maintenance and renewal of over 800 kilometres of sewer main, M&E and grounds maintenance of two wastewater treatment plants and 143 pump stations.

Stormwater services involve the inspection and maintenance of over 490 kilometres of stormwater mains and 84 kilometres of open drains, inspection and maintenance of 122 stormwater catchment ponds, and monitoring and maintenance of two stormwater pump stations.

Asset management is carried out within Tauranga City Council using its system Accela. In addition to undertaking maintenance service tasks, Downer provides a service analysing asset information and developing business cases with regards to future capital expenditure, as well as providing market

solutions and advice on innovation and cost savings measures.

"In addition, we collaborate with council in developing solutions and measures in tending to specific issues impacting the city's water assets as well as provide support with development of their forward works programme," says Downer.

The company's Optimisation Engineer works closely with council in identifying factors to be considered for the council's renewals programme.

"This may include investigating technology improvements or changes with current items such as new pipe materials or suppliers. One example has been the introduction of variable speed drives as replacement for fixed speed drives within the city's pump stations. These have provided energy savings to the network.

"Contract Workbench is used as the primary job management system. Workbench is a comprehensive suite of online reports

that is integrated in to the council's asset management system, Accela."

Downer says this system allows the team to summarise asset data into an easily useable form, enabling effective identification of recurring issues throughout the city.

"Workbench includes a mobile field package that allows ground staff to receive jobs and provide real-time updates from the field, reducing the need for staff to return to the depot.

"This has provided benefits such as improved productivity and communication as staff can provide council updates on job progress in real time. Emergency work requires a one hour response target. The use of GPS tracking allows dispatchers to check which field technician is most appropriate to tend to a request."

Tauranga City Council's call centre receives the service request and transfers them to Downer for investigation after it has been recorded into Accela. After logging the request into Workbench, it is then dispatched to the appropriate field staff for response. The location of field staff is monitored through GPS tracking, installed within each service vehicle.

Also employed is what the company calls 'the Downer smile' – an award winning programme developed for frontline staff and how they approach customer care as they interact daily with our clients' customers.

"Smile has been rolled out across the national business by our foremen, supervisors and managers. Smile cards and posters are highly visible throughout all depots."

Community relationships have also been strengthened over the past two years by members of Downer's water and grounds maintenance teams who have volunteered their assistance with the Stream and Estuary Clean-up programme.

"This programme run jointly by Tauranga City Council and Bay of Plenty Regional Council and supported by Tauranga estuary care groups and the Tauranga Envirohub involves engaging local schools in the region to take part in up to 10 clean-up day events throughout the year. In addition to providing staff and logistical support, Downer is a major sponsor of the event."

Downer says it works closely with the council to trial, review and implement innovations focused on improving the maintenance and operations of Tauranga's three waters network.

An example is Downer's involvement in improving Tauranga City Council's GIS system.

"While the council's pre-existing GIS system offered excellent access to spatial data, there were requirements relating to operational processes, planning and scenario analysis that were not easily addressed. This created significant demand on the GIS team as work-arounds became unwieldy and unsustainable. A more robust solution was sought which would provide increased efficiency in data accessibility and improve decision making relating to management of the three waters network."

Members of Downer's Three Waters team worked closely with Tauranga City Council in developing a solution that allowed it to better leverage geographic information as well as the underlying feature of the ArcGIS Platform that were previously under-utilised.



"Since these changes to the GIS system have been made, Tauranga City Council now has the ability to meet all their information requirements including; data integrity, valve isolation, emergency shutdowns, critical customer identification as well as DMA and pressure zone creation and reporting."

For instance, Tauranga City Council is now able to conduct criticality ranking of assets which was not previously feasible. This solution takes into account critical users such as hospitals, schools and dialysis patients.

"As asset criticality is now feasible, council can now conduct vulnerability scenarios quickly, accurately and on-demand within a fraction of the time of the former system."

Downer contract management team meets with the council monthly and presents a report, while an annual review is held to report on performance throughout the year.

"Council use this as part of their evaluation process when determining if the following year's contract extension will be awarded."

The contract allows for four, one-year extensions based on achieving a weighted KPI score of greater than or equal to 92.5 percent.

"The first extension was achieved and the contract comfortably achieved an overall KPI score exceeding 97 percent for the 2015/16 contract year."

"These scores have been achieved through a focused team, passionate about the delivery of a service for the communities in which they reside."

"The training and access to national support and systems improvements have all contributed to achieving these outstanding results repeatedly." **WNZ**



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