

Case Study: Mobile GIS puts Riverina Water on the map

Overview

Established in 1997, Riverina Water County Council (RWCC) focuses on a single mission: deliver safe, reliable water to the community at the lowest sustainable cost. As water flows through RWCC's extensive network of treatment plants, pumps, storage facilities and pipework, water asset data flows just as easily between desktops across the council and mobile devices out in the field.

Business challenge

For more than a decade, Assets Officer Aran Beckett and GIS Draftsperson Virginia Ricardo had mapped and managed their asset data using software that Beckett says "did the job," but lagged in functional updates, eroding the value they were able to derive from it. What's more, the mapping software did not integrate with the council's asset management system and other business applications. "I was jumping from program to program and sometimes even had to access different computers," Ricardo says. "That took a lot of time, and it was very error prone."

Solution

With the encouragement of a new director of engineering who prioritized state-of-the-art spatial technology, Beckett, Ricardo and their team selected Precisely Spectrum Spatial software. The web-based solution allows employees and other authorities to access, analyze and revise spatial data from maps, which Ricardo creates in Precisely MapInfo Pro. Any changes that Ricardo makes in MapInfo Pro appear immediately in Spectrum Spatial. Users' edits and uploads from the web sync in real time, as well.

Ease of use guided the entire GIS project. "Our goal was to streamline everything," Beckett says, "to have as much information as possible through one portal. We saw the web interface as the obvious choice for that."

Without a team of IT specialists on staff, RWCC relied on Precisely to help get the system up and running. "Our Precisely consultant helped us upload our data, sort out what layers and what queries we wanted," Beckett says. Precisely also developed the interfaces to RWCC's asset management system, so water asset planning and management decisions can be made from accurate, current spatial data.

Client profile

Riverina Water County Council

rwcc.nsw.gov.au

- Supplies water to approximately 75,000 county residents in an area of approximately 15,400 square kilometers in New South Wales, Australia
- Maintains a network of water pipes with 32,000 connections

"Rather than calling us to ask where the pipes are running, or if they are connected, people can just go online and have a look in Spectrum Spatial."

— Virginia Ricardo, GIS Draftsperson,
Riverina Water County Council

Benefits

Greater efficiency was the most noticeable and immediate effect of the mobile self-service solution. Now, when crews go out to install or repair a pipe, they use tablets to connect to Spectrum Spatial from the field to verify asset locations, check and update the specifications, enter work order requests, upload photos and more. This saves them the drive back to the office in Wagga Wagga, which could be up to 70 kilometers from some locations.

Authorities outside the council benefit, too. Fire brigade inspectors can quickly locate hydrants, and they know their maps are current. "They used to carry paper maps in their trucks, which we updated every six months," Ricardo says. "That meant a lot of printing and paper wasting."

Through a specially configured public version of Spectrum Spatial residents can use the maps to locate the water connections to their property or find out if parcels they want to purchase can be served by RWCC. They can also refer to the maps to report the location of a water service problem.

Online access also means fewer phone inquiries to council staff, which gives those employees more time to spend on other service improvements. "Rather than calling us to ask where the pipes are running, or if they are connected, people can just go online and have a look in Spectrum Spatial," Ricardo says.

For her part, Ricardo appreciates the integration between the various systems. "My work is getting done a lot faster and more accurately now," she says, "because I have all the programs working well together. I can add information very quickly and just click from MapInfo Pro to our asset management program, and it's all connected."

As the assets officer for the 100-employee council, Beckett takes some measure of pride in RWCC being a pioneering adopter of Spectrum Spatial among local governments in Australia. "Precisely is a worldwide business and a worldwide leader in this field," he says. "To know that we've got their Spectrum Spatial software, you can't get any better than that."

Technology used

- Spectrum Spatial
- MapInfo Pro

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– Aran Beckett, Assets Officer,
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