

Wastewater GIS Support for South Adams County

SOUTH ADAMS COUNTY WATER & SANITATION DISTRICT

PROJECT SUMMARY

South Adams County Water & Sanitation District staff needed to update their water utility Geodatabase which was out of date and inaccurate. Riverside Technology, inc. implemented a three-step approach updating the Geodatabase with current data and correcting the existing data with field collected GPS data. The Geodatabase was then made more useful by incorporating hyperlinks to original design plans and as-builts.

LOCATION
Colorado, U.S.A.

PERIOD
2004 – Present

PROJECT DETAILS

Riverside Technology, inc. (Riverside) has provided Geographic Information Systems (GIS) support services for South Adams County Water & Sanitation District (SACWSD) since 2004. SACWSD had obtained a GIS database (geodatabase) from a previous consultant that contained the water and sewer assets in their district. This geodatabase contained a comprehensive geometric network of water and sewer mains. However, the geodatabase was outdated due to rapid development and was also not spatially accurate.

Riverside implemented a three-step approach to updating the geodatabase.

First, Riverside obtained all as-built data in AutoCAD format from SACWSD. Any new developments that were not in the geodatabase were imported from the AutoCAD files.

Second, all of the features and assets in the geodatabase were spatially adjusted to align them with aerial photography. While this still did not provide an accurate positioning of the assets it did provide logical locations for the assets when overlaying them with other data such as aerial photography and transportation data.



Geodatabase Before Corrections

Third, Riverside developed a GPS field campaign and workflow, and trained SACWSD staff.

Riverside created a versioned geodatabase using personal ArcSDE technology and trained SACWSD staff to check data out of the geodatabase onto a Trimble GeoXH handheld GPS receiver for field edits. Riverside maintains a geodatabase that is synchronized with SACWSD. After field corrections are made Riverside checks and corrects any errors or discrepancies in the geodatabase. Riverside also continually evaluates the water and sewer geometric networks for accuracy. The result will be a complete geodatabase that has been 100% corrected with location data from the field.

Another area of support Riverside has provided is in geographic document management. Riverside has linked SACWSD's original AutoCAD design plans to the GIS. SACWSD has maintained thousands of paper maps and design plans for their district. SACWSD staff scanned these documents. Riverside then identified the location of each design plan and created a link to it from the GIS. This provides the Water Operations Manager a quick and useful tool to view additional information about their system.

Riverside continues to support SACWSD with GIS analysis, database support, and cartographic needs.

RELATED PROJECTS

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Monitoring Irrigated Lands in the Lower Arkansas River Basin

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