Case Study

UTILITIES

User
Oldham County Water District (OCWD)

Partner
Eos Positioning Systems (Eos)

Challenge
OCWD wanted real-time, field-to-office data collection with survey-grade location accuracy.

Solution
ArcGIS Online
ArcGIS Field Maps
Arrow Gold
iPad

Results
OCWD cut fuel and labor costs in half and achieved real-time field data collection.

Rural Water Utility Cuts Meter Installation Costs by 50 Percent

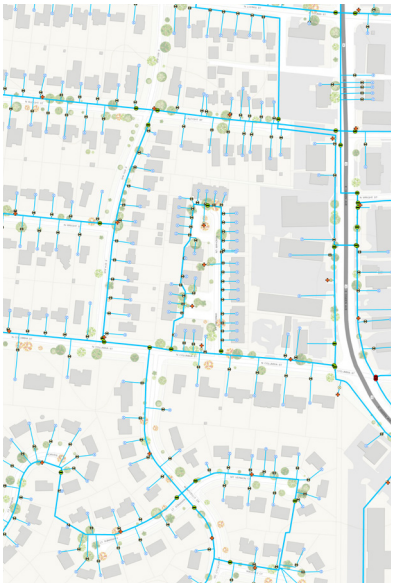
In northern rural Kentucky, the Oldham County Water District (OCWD) serves more than 8,300 residences with 369 miles of pipeline. The water district created the first electronic maps of its water system in 2001 through digitization. Fifteen years later, the utility explored ways to improve the accuracy of its maps to create operational efficiencies and a reliable system of record.

The Challenge

Accurate field maps are critical at OCWD, where field crews have to navigate rural, steep sloped, often disconnected terrain where assets can be hidden. In the past, OCWD used I mapping grade GPS devices to capture asset data during routine field activities – component replacement, interruption repair, meter installations. The issue was turnaround time—field data needed to be manually exported, digitized, and integrated into the geographic information system (GIS), which took several days.

The Partner

Eos Positioning Systems, an Esri Silver partner, designs and manufactures the world's leading high-accuracy Global Navigation Satellite System (GNSS) receivers for GIS users. Eos Arrow receivers connect via Bluetooth to any iOS, Android, or Windows smartphone and tablet. They offer real-time submeter or centimeter positioning that integrates seamlessly with all Esri® mobile workflows. With four models to pick from, Arrow receivers are rugged, reliable, and last all day on one charge.



Using ArcGIS Field Maps paired with the Arrow Gold high-accuracy GNSS receiver, OCWD achieved real-time field-to-office data collection.

"Installing each meter used to cost us approximately $211.91 in labor and fuel. With the high-accuracy mobile GIS workflow, the cost per meter went down to $111.19."

Kenny Ratliff
GIS Manager,
OCWD

The Solution

OCWD GIS manager Kenny Ratliff took advantage of the district's Esri platform by using ArcGIS Field Maps to conduct real-time data collection. ArcGIS Field Maps enabled him to use the utility-issued Android phones and iPads in the field. The Arrow Gold High-accuracy GNSS receiver was paired with ArcGIS Field Maps. This solution was compatible with any device, delivered centimeter survey-grade location, and fit his budget.

The Results

Not only did OCWD achieve real-time field-to-office data collection, but it did so without sacrificing accuracy. The Collector-Arrow-iPad solution eliminated the previously time-consuming postprocessing workflow; drastically lowered the number of repeated trips to the field; and, in turn, helped reduce fuel and labor costs. In meter installations alone, OCWD estimates it cut costs nearly in half.

EOS Positioning Systems

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