



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](#)
[Eos 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 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 Gold 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 (formerly ArcGIS Collector) to conduct real-time data collection. 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 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 Field Maps-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.



esri.com/water