



Project Summary

GIS –Sewer & Water

PROJECT NAME AND LOCATION

Sewer and Water Inventory and Modeling
Alfred, NY

PERFORMANCE DATA

Performed 100% of the work
Project fee: NA
Project completed in 2002

OWNER INFORMATION

Village of Alfred
Alfred, NY



KEY PROJECT FEATURES

- Flight planning.
- Production of black and white digital orthoimagery.
- Built comprehensive inventory of water (and sewer) assets.
- Used ESRI ArcGIS Water Utilities Data Model.
- Utilized student surveyors from Alfred State College to provide base control.

The Village of Alfred is home to Alfred University, Alfred State College, and the New York State College of Ceramics. When all the schools are in session, the village population swells from approximately 3,000 to over 10,000. The Village maintains both the water distribution system and the sewer systems. With recent growth at all the universities, the Village was sometimes experiencing low water pressure during periods of peak demand. For this reason, the Village wanted to perform a hydraulic study of their system and identify alternatives for fixing the water pressure problem. However, the village did not have a complete and accurate digital mapping inventory of its water network.

The Village could not afford to develop new spatially accurate asset management maps. As an alternative, Erdman Anthony (**EA Maps LLC**) proposed creating digital orthoimagery to use as a base map, which could be overlaid with utility layers. Visible water and sewer features such as manholes, hydrants, and valve covers were located from existing utility drawings and Global Positioning System (GPS). The older existing utility drawings were then scanned and digitized. Both the water and sewer networks were modeled using the ESRI ArcGIS Water Utilities Data Model. Uncertain areas were field verified.

At the conclusion of this project, Erdman Anthony's Civil Group was selected for a comprehensive study of the water distribution system.