

Abstract

Many agencies today still use outdated paper maps and construction plans to manage their utility systems. Those using outdated information and methods can benefit from a digital upgrade.

Geographic Information System (GIS) is becoming a common solution for asset management and utilities because of its ability to combine spatial and non-spatial information all in one place.

This project implements a GIS for the landscape irrigation system on the Music Academy of the West campus in Montecito, California. Campus staff were using a series of disorganized and incomplete paper maps to manage their irrigation system. They also had no information about where the main line and lateral lines were, which proved to be problematic during construction projects and pipe leaks. Transitioning the paper maps to digital GIS format proved to be a good solution. Using GIS, spatial data collection methods, campus staff knowledge, and existing construction documents, new hardcopy maps and an online web map application for irrigation management were developed for campus staff. In the future, the new irrigation map data can provide efficient solutions for future campus facility projects such as water usage analysis and leak detection device placement. Creation of GIS data for irrigation and other utility systems will likely continue to be a solution for effective asset management in the future.