

Kissimmee Monitoring Program Support



Background

In 2005, the city of Kissimmee, along with YSI, developed a water quality monitoring program that included manual grab sampling and an expansive 18 station continuous monitoring network for the collection of water quality and quantity data.

Challenge

Kissimmee wanted to better leverage its continuous data from 18 monitoring stations for compliance with the Lake Tohopekaliga Nutrient Reduction Plan. The city also desired to upgrade its data hosting platform, obtain ongoing oversight of day-to-day data and improve quality control of its long-term flow dataset. To meet these needs, Woolpert was tasked with performing a historic data analysis and pilot watershed loading study on Shingle Creek.

Solution

To begin, Woolpert used historic lab data, continuous water quality data and a proven regression-based approach to estimate concentrations and watershed loads for nutrients such as phosphorus and nitrogen. The team then provided the city with various monitoring/sampling recommendations and began hosting the city's continuous water quality and flow data through a Vista Data Vision platform. As a final step in developing a more robust data management program (with quality control), Woolpert uploaded and reviewed the city's flow data in Aquarius, an Aquatic Informatics database management software for continuous environmental data.

Outcome

The city of Kissimmee, YSI and Woolpert cooperated to effectively enhance the city's monitoring program and meet various objectives. Additional ongoing collaborations include troubleshooting data logger programming and telemetry issues, developing procedures for resolving station connectivity issues, reviewing periodic flow data, hosting data and providing consulting based on ongoing remote data observations.

CLIENT

City of Kissimmee Department of Public Works and Engineering

LOCATION

Kissimmee, FL

CHALLENGE

Enhance current watershed monitoring program

SOLUTION

- Evaluate existing watershed data
- Develop recommendations for improvement

SERVICES

- Historic data interpretation and analysis
- Remote data hosting and reporting
- Flow data quality control
- Real-time data accessibility

BENEFITS

- Improved data visualization and reporting
- Reliable long-term datasets
- Understanding of local contributions to Lake Tohopekaliga

Benefits

The city has been pleased with the vastly improved data hosting platform, data alarms and reporting as well as remote consulting services provided by Woolpert. The city recently requested further enhancements to the website and an additional subwatershed analysis of nutrient contributions to Lake Tohopekaliga. Kissimmee also extended the ongoing service agreement with Woolpert.