

## Featured Project

### City of Petaluma Utility Infrastructure

Petaluma, California

ArcSine Engineering has performed a wide range of services for the City of Petaluma utility systems including water and wastewater.

#### Wastewater Master Planning:

For electrical and instrumentation and controls, ArcSine developed a master plan covering 14 pumping stations and the treatment plant. The work consisted of a comprehensive assessment, conceptual design of upgrades, conceptual design of collection system SCADA, and development of City-wide standards for tagging and identifying assets of all kinds. Asset management/computerized maintenance management for water and wastewater were planned, with provisions to integrate with other City enterprises.

#### Pumping Station Designs:

Designed electrical and instrumentation/controls for the following pumping stations:

- Pond Influent Pump Station (2,000 hp total, 1,500kW standby generator)
- C-Street
- Factory Auto Mall
- Recycle Pump Station #1
- Recycle Pump Station #2
- Main Recycle Pump Station

#### Treatment Plant Programming:

For the \$180 million treatment plant project, ArcSine Engineering performed plant control system programming, startup, and testing, including the following:

- Reviewing/optimizing contract plant control strategies.
- Developing code for 12 PLC's, network interfacing with 4 PLC's, modifying 2 existing PLC's.
- Furnishing, programming, installing human machine interface hardware and software, including 2 servers, 1 historian, 11 client workstations.
- Comprehensive startup and testing.
- Training of City staff.

#### Asset Management/Computerized Maintenance Management:

ArcSine Engineering is qualifying and selecting AMS/CMMS products for use City-wide, and will be assisting the City in deployment. One of ArcSine's goals is to assist the City in achieving self-sufficiency in AMS/CMMS systems.

#### Treatment Plant Construction Support:

ArcSine Engineering provided electrical and instrumentation controls field support for the Treatment Plant construction project including construction observation, estimating, and test witnessing.

Design Completion Date

2009 (various)

Construction Completion Date

2011 (various)

**Electrical  
Programming  
Power Distribution  
Construction Services  
Instrumentation  
Control System  
Master Planning**

