

SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEM (SCADA) REPLACEMENT AND UPGRADE, Saint Lucia

Saint Lucia Water System

The WATER AND SEWERAGE COMPANY INC. (WASCO) is the sole water utility in Saint Lucia. Its mission is to safely deliver clean, affordable, reliable water and excellent customer service. The company has a production capacity of 90,720 m³/d. The utility provides water to an estimated 58,000 customers and a population of one hundred and seventy-five thousand persons in Saint Lucia.

The drinking water supply infrastructure on the island includes:

- Twenty-eight (28) water intakes;
- John Compton dam located at Roseau with a 3 million cubic meters capacity;
- Over 800 km of pipeline distribution;
- Over 70 pumping stations;
- 107 storage tanks (42 tanks in North – 35,782 m³ capacity, 65 tanks in South – 13,910 m³ capacity)
- Twenty-six (26) water treatment facilities;



SCADA System

The project is involved with replacing the SCADA System with the following objectives:

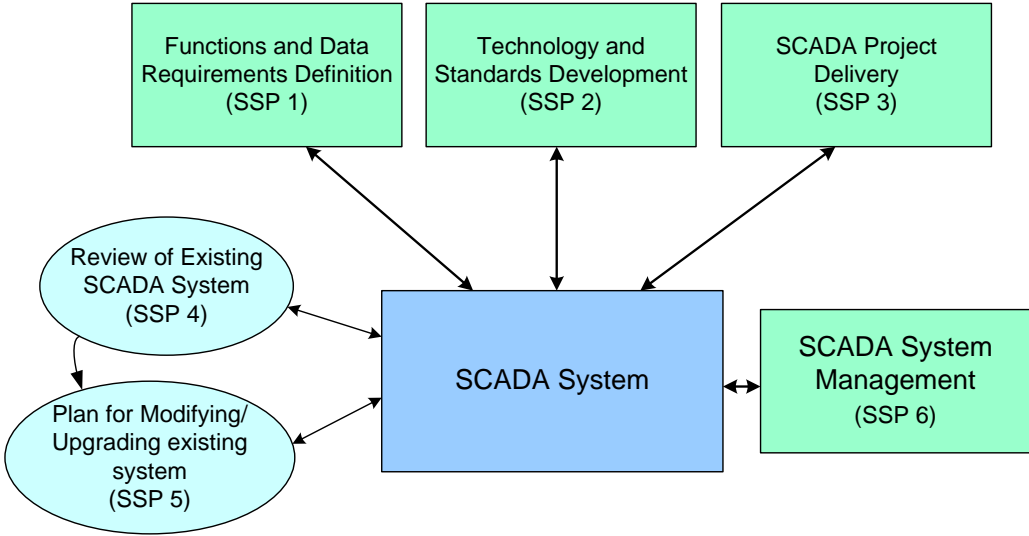
- Control and Monitoring water (and wastewater) systems, in support of operating/process objectives, identify excursions from acceptable operating conditions, identify leakages
- Alarms and alarm management, reduce/prohibit damaging environmental situations, improve efficiency in diagnosing and fixing issues
- Data storage and reporting – operational and regulatory reporting
- Assist with asset management procedures
- Assist with forecasting maintenance and repairs, replacement
- Improve operational efficiency
- Reduce power consumption, operational optimization
- Optimize operational staffing levels
- Support real-time modelling – hydraulic and water quality (and water consumption) models
- Identify intrusions, system security

Issues and Opportunities

Area of Opportunity	Potential Improvement or Change Offered by SCADA
Customer Satisfaction	Public's access to real (field) information will improve, via WASCO's staff
	Quicker response time to customer issues
	Improvement in service delivery parameters
	Security monitoring
Environmental Responsibility	Reduce leakage, losses
	Water quality, Regulatory reporting
	Industrial customer water usage
	Sanitary spills
Overall Operating Efficiency	Energy usage, minimization
	Provide ability to respond efficiently and effectively (to process upsets)
	1. operational control and monitoring of WASCO's facilities
	2. dispatch control for increased efficiencies
	3. emergency support
Capture performance indicators, cost	
Support decision-making, based on (real-time) field information	
Optimize water distribution and wastewater collection systems; water loss and infrastructure management	

SCADA Strategy Plan and Development

SCADA Strategic Plan: Components



**SCADA System serving
Business Units / Departments**

