

# Wide Area Wireless Network Upgrade



## Passaic Valley Sewerage Commission

Newark, NJ

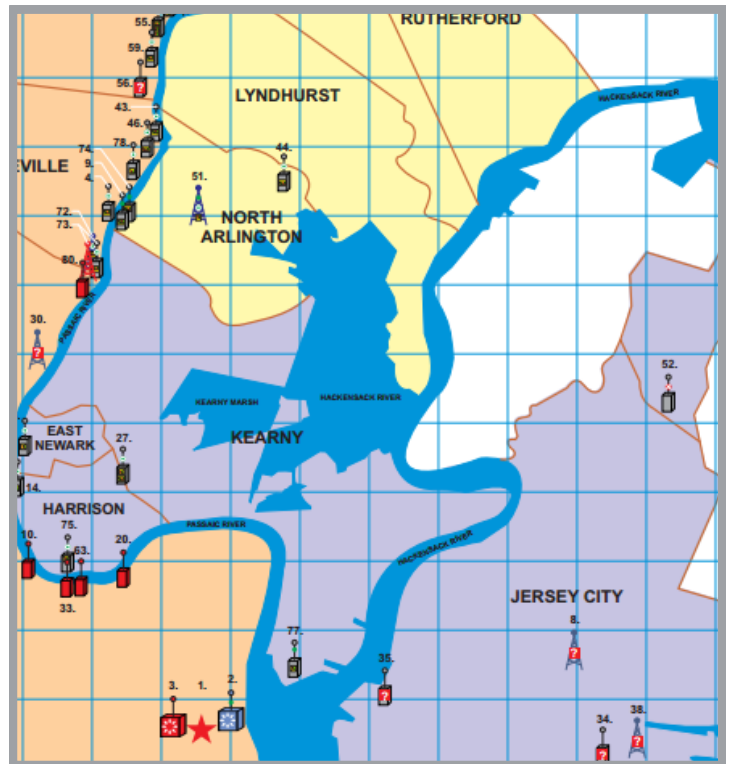
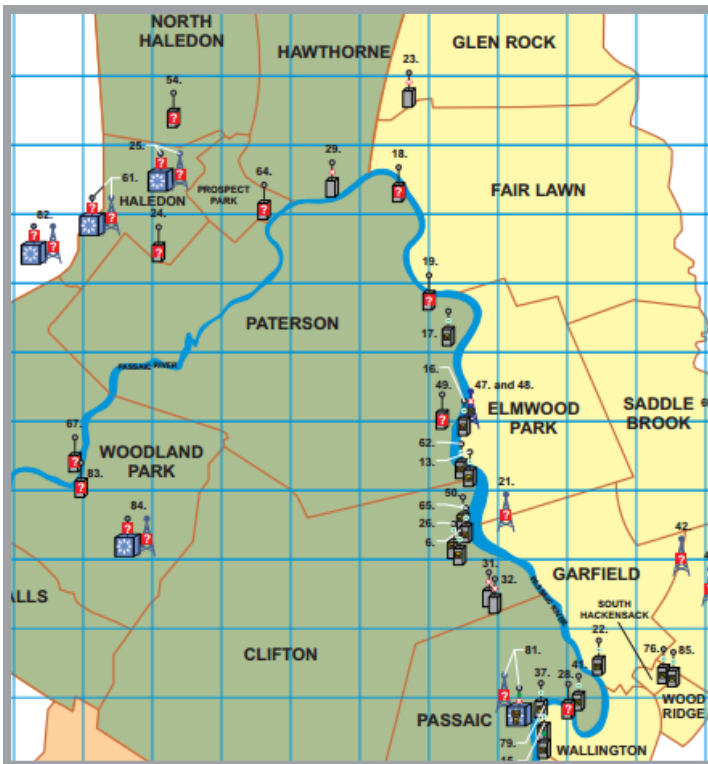
Construction Costs: \$30K

### SERVICES PROVIDED

Wireless I/O Radio & Cellular Site Survey

Network Infrastructure Consultation

Data Acquisition Instrumentation Consultation



## Wireless Communications Network Improves Sewage Plant Efficiency and Preparedness

Neal Systems supplied both hardware and engineering services to assist a major northern New Jersey wastewater treatment plant in designing, implementing, and integrating into the plant SCADA a wide area wireless communications network.

Consisting of more than 90 unlicensed 900 MHz and cellular I/O radios, the network linked together remote instrumentation stations within a municipal sewer system covering a region approximately 200 square miles in size. In addition to an I/O radio, each remote station contained instruments and sensors for measuring sewage flow, level, and toxicity levels at each of over 80 locations throughout the entire sewer system.

The wireless network delivered remote station data to the plant SCADA where operators could analyze it and take appropriate action to ensure the plant was adequately prepared to process the amounts of raw sewage the remote stations predicted was headed toward the plant.

The network greatly improved plant efficiency and its ability to quickly react to changing influent conditions - most especially in times of when run off from fast moving rainstorms or melting snow caused by unexpectedly warm winter weather would otherwise strain plant resources.