

# Lincoln Water System

## Company:

Lincoln Water System  
Lincoln, Nebraska

<http://www.lincoln.ne.gov/city/pworks/>



## Business Strategy:

Lincoln Water System will produce and distribute an adequate supply of quality water to meet the ever increasing demands of residential, commercial, and industrial customers within the City of Lincoln. This will be accomplished safely and efficiently at the least cost to the customers of the Lincoln Water System. Distribution of water to the customer's tap will be insured through the proper construction, maintenance and operation of a grid of water distribution mains and services. Water quality shall meet or exceed all local, State and Federal standards governing distribution. A long term water conservation program will be continued in order to conserve this valuable resource. Fees will be set to provide the Department of Public Utilities with a sound financial base, so it can serve the needs of the City of Lincoln both now and in the future.

## Company Profile:

Lincoln Water System (LWS), part of the Public Works and Utilities Department, serves the 240,000 citizens in the City of Lincoln, Nebraska. Water from forty vertical wells and two horizontal collector wells is treated at two treatment plants located in Ashland, Nebraska. The water is then sent 30 miles west to the City of Lincoln and distributed to the 240,000 customers through approximately 1200 miles of pipe.

Located in the Ashland Water Treatment Facility is the LWS Water Quality Laboratory. The Laboratory is responsible for assisting treatment plant staff with production process control and well field management, customer service including responding to customer complaints/inquiries, sampling of main break repairs, Safe Drinking Water Act (SDWA) compliance sampling, Total Coliform Rule sampling and analyses. Samples are collected daily from the untreated water supply coming into the treatment facility, the finished treated water supply leaving the facility and at various locations within the treatment facility for quality assurance analysis.

The Laboratory is equipped with state-of-art equipment for an analysis of a variety of inorganic (i.e. iron, manganese), organic (i.e. herbicides and pesticides) and microbiological analytes (i.e. total coliform, e-coli). Some of the instrumentation includes Horizon Technology Spe-Dex Extractors and DryVap, Metrohm-Peak Ion Chromatograph, Shimadzu Gas Chromatograph/Mass Spectrometer and Varian Atomic Absorption Spectrometer. Laboratory Specialists also collect samples daily from various locations within the distribution system with the ability and necessary instrumentation to analyze many analytes on-site.

## Sample Master<sup>®</sup> Pro at Lincoln Water System:

Following a Request for Proposal process, several systems were evaluated, reviewed and rated. Primary criteria included; client references, ISO Certification, modularity, features/functions of the LIMS and the quality of the support and training offered. LWS selected and purchased Sample Master<sup>®</sup> Pro LIMS on Microsoft SQL Server for its water treatment plant laboratory.

LWS chose Sample Master<sup>®</sup> Pro because it met all of its primary criteria. In addition, the LIMS has an open architecture, a secure database to limit access and set permissions, is user-friendly, CFR 21 Part 11 Compliant, integrated with Excel, Word and also with Outlook for sending e-mail alerts. The fact that the system is modular allowed the laboratory to initially purchase the key modules and additional modules could be purchased at any time.

Since implementation of Sample Master<sup>®</sup> Pro, the laboratory has seen significant improvements (less time spent) in the areas of sample log-in, data-entry, data review/analysis and validation, data retrieval / reporting and field data collection.

***"The purchase and implementation of Sample Master<sup>®</sup> Pro has been a great improvement in our laboratory with regards to laboratory operations, efficiency and accuracy. Sample Master<sup>®</sup> Pro allows us to do so much more with the sample data than our previous LIMS. We have just begun to discover the full capabilities that Sample Master<sup>®</sup> Pro LIMS offers!"***

**John D. Keith, Manager of Laboratory Services  
Lincoln Water System**