LABORATORY ANALYST I **586**

MAJOR FUNCTION

This is professional level laboratory work performing routine and non-routine physical, chemical, or biological analyses on water, wastewater, and/or other environmental samples. Duties are performed with limited independence and under the general direction of the Supervisor-Water Quality Laboratory. .

ESSENTIAL AND OTHER IMPORTANT JOB DUTIES

Essential Duties

Performs analyses on water, wastewater, groundwater, sediments, sludges and related environmental samples. Conducts a variety of water quality tests, which may include, but not limited to biochemical oxygen demand (BOD), residual chlorine, bacteriological tests and pH. Performs routine maintenance on analytical equipment for accurate performance. Reports supply needs to supervisor. Responsible for the care and cleaning of equipment used in testing. Prepares standard solutions, ,reagents and media. Reviews analyses for accuracy and QA/QC acceptability before submitting to supervisor. Reports analytical problems and procedures to supervisor Modifies existing methods and procedures when necessary.

Essential Duties – Chemistry Track

In addition to the essential duties listed above, achieves and maintains expertise in one of the following chemistry areas: physical, metals, or nutrients.

Essential Duties – Microbiology Track

In addition to the essential duties listed above, achieves and maintains expertise in the microbiology section. Maintains control cultures.

Other Important Duties – Chemistry & Microbiology Track

Assists in the development and revision of procedures. .Weekend/holiday work is required as part of a scheduled rotation. Performs related work as required.

DESIRABLE QUALIFICATIONS

Knowledge, Abilities and Skills

Basic knowledge of standard laboratory procedures, hazards, and safety precautions in using chemicals and laboratory equipment, including but not limited to: analytical balance, spectrophotometer, pH meter and other standard laboratory equipment. Ability to perform routine maintenance on analytical instruments. . Knowledge of mathematics sufficient for laboratory calculations. Basic knowledge of statistics, with the ability to use least square and normal distribution analysis. Ability to learn complex analytical procedures. Ability to learn complex analytical procedures. Ability to establish and maintain effective working relationships as necessitated by the work. Ability to learn, understand and apply environmental regulations, policies and procedures Ability to communicate effectively both orally and in writing. Ability to work independent of immediate supervisor. Ability to maintain records and statistical reports. Skilled in the use of computers and experienced in the use of analytical and laboratory software. Ability to understand and utilize problem solving techniques.

Knowledge, Abilities and Skills - Chemistry Track:

Basic knowledge of inorganic and/or organic analytical chemistry. Basic knowledge of advanced analytical instrumentation such as GC, GC/MS, AA or auto analyzers.

Knowledge, Abilities and Skills – Microbiology Track
Basic knowledge of biological and microbiological techniques and theories. Basic knowledge of water and wastewater biology.

Minimum Training and Experience
Possession of a Bachelor's degree in chemistry, biology, environmental science, or a related field and one year of technical, professional experience in environmental water and/or wastewater analysis or analytical chemistry; or an equivalent combination of training and experience A Master's degree in chemistry, biology, environmental science or a related field can substitute for the one year of required experience

Established: 11-23-22