

LOWER ELKHORN NATURAL RESOURCES DISTRICT WATER RESOURCES TECHNICIAN

Job Description

Nature of Work

This technical position provides support to the water resources department for the Lower Elkhorn Natural Resources District (NRD).

The objective of this position is to participate in activities that provide information to monitor, analyze, and interpret the quality and quantity of water resources in the NRD. This is accomplished through careful, accurate field research and data collection, application of spatial and statistical analyses to these data, and presentation of this information to policymakers, and technical and nontechnical audiences.

This position exercises considerable independent judgment to complete District data collection goals, objectives, and policies, and must make unsupervised decisions daily to effect the management of District field data collection, programs, and projects.

This is a full-time, permanent position, located in the NRD office in Norfolk, Nebraska. Supervision is received from the NRD General Manager or their designee.

Principal Duties and Tasks

Measure groundwater elevation in irrigation, monitoring, observation, domestic, and other groundwater wells. Measure surface water elevation, volume, flow rate and flow volume.

Collect and/or process water quality samples from irrigation, monitoring, domestic, municipal, and other groundwater wells, and from streams, lakes, and other surface water sources. Perform field and laboratory water quality measurements. Receive, preserve, and ship samples. Maintain the water quality equipment inventory.

Complete and maintain appropriate water resources data and reports and perform quality assurance and quality control on sample data.

Download water level transducers in monitoring wells and maintain databases.

Assist the University of Nebraska Conservation and Survey Division to install and maintain groundwater monitoring wells and associated equipment and instrumentation.

Assists Nebraska Department of Natural Resources in dam safety inspections and perform routine inspections on behalf of the NRD including: visual inspections of dams; measurements, surveys and tube inspections; check inlet and outlet areas; and observe and record water level changes.

Conduct flow meter inspections.

Conduct chemigation inspections.

Perform ultrasonic flow meter tests on irrigation wells throughout the district as requested by landowners and analyze results and make recommendations to irrigators.

Provide assistance in managing certified irrigated acre databases and facilitate modification of changes in land use as allowed by approved variances to increase groundwater irrigated acres. Learn basic concepts of GIS software and participate in trainings as recommended.

Perform global positioning system (GPS) surveys.

Recommend improvements to NRD programs and procedures.

Develop and manage databases and geodatabases.

Describe and measure physical and chemical characteristics of soil and the vadose zone. Collect and process soil and vadose zone samples.

Meet with the NRD Board of Directors and the general public to provide assistance and technical guidance relating to NRD programs.

Represent the NRD and coordinate with federal, state and local agencies, and interested groups.
Prepare written and oral reports.

Provide auxiliary support for other NRD staff as requested by the Administrative Assistant, Water Resources Manager, Assistant Manager and/or General Manager. This work may include but is not limited to fieldwork, office work, or public relations.

Other duties as assigned.

Knowledge, Skills and Abilities

Thorough knowledge of water monitoring techniques, processes and equipment, and the ability to observe errors in monitoring techniques or results, and to exercise judgment for resolving problems. Thorough knowledge of irrigation systems and chemigation safety equipment.

Thorough knowledge of occupational safety hazards and necessary safety precautions associated with field and maintenance activities.

Thorough knowledge of and proficiency with GIS, GPS, and database equipment and software.

Ability to establish professional and effective working relationships with federal, state and local governmental employees and officials, co-workers, private landowners, and a diverse general public.

Ability to analyze and maintain accurate records and interpret and apply appropriate federal, state and local governmental regulations and policies.

Ability to communicate technical information to nontechnical audiences both orally and in writing.

Ability to learn and apply changing technologies and techniques to accomplish the tasks required of this position in an efficient and accurate manner.

Good organizational skills and ability to prioritize tasks and take on new assignments.

Skilled in reading and interpreting maps and the public land survey system.

Performance of the essential job functions of this position requires the minimal knowledge, skill and ability to:
Ability to work in a field setting including navigating rough terrain, inclement weather and extreme temperatures, and work around electrical equipment and supplies to include water pumps, irrigations systems and other field equipment and generators. Work with lab equipment and harmful chemicals such as acids, preservatives, etc. Must be able to lift and carry 80 pounds or more.

Work in the office or field, which includes driving and walking over rough terrain, during inclement weather and under extreme outdoor temperatures;

Work around farm and other equipment requiring safety precautions, and work with laboratory equipment and harmful chemicals;

Work proficiently with Microsoft Access, Excel, Word, and PowerPoint.

Desired Qualifications

Graduation from an accredited four-year college or university specializing in geography, water resources management, natural resource management, geology, engineering, or a related field of study. One (1) year of experience with collecting and testing water samples.

Minimum Qualifications

Graduation from an accredited two or four-year college or university specializing in geography, water resources management, natural resource management, geology, engineering, or a related field of study; or any equivalent combination of training and experience which provides the necessary knowledge, skill and ability.

Necessary Requirements

Must have a water well monitoring technician's or NRD technician's certification, or the ability to obtain such certification within one (1) year of appointment.

Must have a valid Nebraska Driver's license when operating a vehicle is necessary to the satisfactory performance of assigned duties.

This position was prepared to indicate the kinds of activities and levels of work difficulty required of this position. It is not intended as a complete list of specific duties and responsibilities.