

HYDROLOGIC TECHNICIAN

DEFINITION: Under general supervision, performs work of moderate difficulty in providing support services related to hydrological data collection, which includes water quality, quantity, availability and distribution; performs related work as assigned.

ESSENTIAL FUNCTIONS: This list is ILLUSTRATIVE ONLY and is not a comprehensive listing of all functions and tasks performed by incumbents of this class.

TASKS:

Gathers and processes data from precipitation storage gauges, monitoring wells, windmills, automated weather stations, stream gauging, data loggers, belford storage gauges, snow surveys, GPS (Global Positioning System) restoration projects and other sources; monitors, tests and surveys restoration, soil moisture surveys of terrain, photo points, well, cross sections of fields and streams; assists with the design of various gauges, selection of data collection locations, delineation of flood plains and dams/diversion structures construction and calibration by providing refined and reliable hydrological data; constructs and installs field data collection gauges; reports on all wild life habitat and noxious weed encroachment.

Prepares maps utilizing survey notes, topographic maps and computer for plotting GPS locations; downloads digitized technical information/data and enters into database; verifies field survey notes for accuracy; provides weather statistics including temperature, dew point temperature, barometer pressures, soil moisture visibility and humidity readings; checks hydrographs, adds dates and scale; downloads automated data into hydrologic systems software; verifies accuracy and reliability of automated data; checks and records instantaneous readings from all sensors; prepares related reports and information.

Performs routine maintenance on all field data collection stations; utilizes specialized computer software to analyze data; coordinates data collection and information with other state and federal agencies; inspects, repairs and maintains survey field equipment; prepares reports and statistical data to be utilized in the preparation of proposals, project designs, construction activities, grant applications and emergency management tasks, i.e., drought, flood erosion and fire related situations.

KNOWLEDGE, SKILLS AND OTHER CHARACTERISTICS:

Knowledge of basic hydrology practices and procedures.

Knowledge of Federal, State and Navajo Nation laws, rules, regulations, and guidelines as related to water resources, rights, quality, reclamation and protection.

Knowledge of Global Positioning Systems (GPS) and Geographical Information Systems (GIS) methods, applications and procedures.

Knowledge of field data collection from automated sites.

Knowledge of computer hardware and software.

Skill in preparing reports, based on data collection and analysis.

Skill in utilizing effective written and verbal communication in preparing reports and technical information.

Skill in investigating and accurately gathering information related to water resources.

Skill in utilizing public relations and customer service techniques when responding to inquiries, requests and complaints.

Skill in accurately downloading and entering data into computer database programs.

Skill in establishing and maintaining effective working relationships.

PHYSICAL REQUIREMENTS AND WORK ENVIRONMENT: Work requires field investigations and data collection over rough terrain in all weather conditions.

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MINIMUM QUALIFICATIONS:

- A high school diploma or GED; and one (1) year of surface water data collection and analysis experience.

PREFERRED QUALIFICATIONS:

- Training in water quality, watersheds, surface water, ground water or related fields.

SPECIAL REQUIREMENTS:

- Possess a valid state driver's license.

Supplemental Requirements:

Incumbent must obtain a Navajo Nation Vehicle Operator's Permit within 90 days of date of hire.

Depending upon the needs of the Nation, some incumbents of the class may be required to demonstrate fluency in both the Navajo and English languages as a condition of employment.