

DEPARTMENT OF NATURAL RESOURCES
POSITION DESCRIPTION

Working Title: EX Floodplain Mapping GIS Analyst
Classification Title: IS Data Services Senior
Work Location: Madison, Natural Resources Building (Central Office)

Purpose of the Position

The position will provide critical support for the floodplain mapping program contract to create new Digital Flood Insurance Rate Maps (DFIRMs) and other flood risk projects associated with the Federal Emergency Management Agency (FEMA) Floodplain Risk MAP Initiative. The position will be assigned specific projects.

Geographic Scope and Travel Requirements

This position is based in the Madison Central Office. The position is responsible for implementing floodplain mapping projects throughout the state. Occasional travel throughout the state will be required for meetings with local DNR staff, community staff and officials, and the public.

Scope of Authority

This position reports to the GIS Data, Analysis and Integration Section Chief in the GIS Section of the DNR IT Executive Program.

Responsibilities and Accountabilities

- 40% A. **Perform - mapping projects, community engagement projects and pilot projects as assigned by the FEMA Cooperating Technical Partners (CTP) Coordinator.**
 - A1. Analyze project scope and research applicable FEMA standards to determine required products and establish project timeline in coordination with the Cooperating Technical Partners (CTP) Coordinator and Program Supervisor.
 - A2. Implement required FEMA standards and procedures to complete project utilizing the skills of other team members as necessary.
 - A3. Organize and present required community information and engagement activities.
 - A4. Maintain project schedule and data, assuring timely completion of project deliverables and reporting to FEMA's Mapping Information Platform (MIP).

- 40% B. **Produce Flood Insurance Rate Maps (FIRMs)**
 - B1. Edit spatial and tabular data layers using applicable cartographic standards.
 - B2. Create and maintain projects in required geodatabase format, apply cartography standards, check topology, run quality control checks and make edits to data.
 - B3. Gather base data layers from community partners and load them into feature classes while ensuring FEMA mapping standards are followed.
 - B4. Upload data to FEMA's MIP and export data for local use.
 - B5. Utilize spatial and 3D analyst extensions to create datasets for regulatory and non-regulatory products.

- 15% C. **Assist with the management of the floodplain mapping program**
- C1. Identify process or procedural changes that could be made to make the mapping process more efficient or improve the quality of program work and document need changes to the master document for the floodplain mapping program.
 - C2. Assist with effort to update the annual business plan and develop grant proposal.
 - C3. Assist with monthly and quarterly MIP reporting requirements for assigned grant years.
 - C4. Assist with assigned management activities related to the organization and archiving of spatial data, geodatabases and other project data.
- 5% D. **Organizational Responsiveness**
- D1. Review and keep abreast of changes in knowledge and practices of position-related activities in responsibilities.
 - D2. Participate in job-related training and organizational meetings as assigned by supervisor.
 - D3. Prepare forms and reports as necessary for personnel and budget accounting purposes in a timely manner.
 - D4. Perform other position-related duties as assigned.
 - D5. Follow all general and position-related safety requirements.

Knowledge, Skills and Abilities

- Detailed Knowledge of Environmental Systems Research Institute (ESRI) ArcGIS Desktop software (ArcMap, ArcGIS Pro), including extensions and tools (e.g., Spatial Analyst, 3D Analyst, Model Builder). Detailed knowledge of these data applications as they apply to the development of digital floodplain maps.
- Detailed knowledge and experience in the use of FEMA tools for development and management of Flood Insurance Rate Maps including the Flood Map Desktop (FMD) extension to ArcGIS and the Mapping Information Platform (MIP) for tracking project specifics.
- Knowledge of FEMA’s Risk MAP deliverables and products.
- Knowledge of FEMA’s current digital floodplain mapping standards and the data quality assurance/quality checking requirements for flood studies and mapping. Experience working with FEMA’s digital floodplain program and its quality assurance standards.
- Knowledge of geodatabase data models and how they are applied to meet FEMA’s standards for floodplain mapping.
- Knowledge of feature datasets and data layers, topology, layer and style files.
- Knowledge of written and oral communication techniques and experience planning and conducting public meetings.
- Some knowledge of project planning and experience in management of mapping projects.
- Knowledge of fundamental methodologies of mapping sciences and cartographic design.

- Knowledge of water resources and/or water resources engineering.
- Ability to stay on task with close attention to detail, maintain deadlines, and complete work with minimal errors.

Physical Requirements and Environmental Factors

Physical requirements include talking in front of groups, sitting for long periods of time, lifting and carrying 5 to 30 lbs. Environmental factors include working indoors in an office setting and independently traveling to locations around the state to host meetings and presentations.

Equipment Used

Computers, smartphones, projectors, virtual meeting software/hardware, GPS devices, calculator, copy machine.

Telework Evaluation

Telework may be an option, following DNR policies. Regular travel to DNR central office in Madison is expected.