

**DEPARTMENT OF NATURAL RESOURCES
POSITION DESCRIPTION**

Working Title: Remediation and Redevelopment (RR) Program GIS Specialist

Classification: IS Systems Development Services – Senior

Location: Central Office – Remediation and Redevelopment Program, Fiscal and Information Technology Section

Purpose of the Position:

This position is responsible for planning, implementing, upgrading, and supporting the development of the RR Program’s GIS mapping applications, in addition to supporting program database and records management needs. Primary responsibilities include developing and managing the RR Program’s web map application and feature services; performing advanced technical data and database design; analyzing data requirements; performing spatial data analyses; and assisting with QA/QC to support RR Program IT operations and business needs.

As such, the position is responsible for meeting the information business needs of department staff, responsible parties, consultants, government and non-government agencies and the general public when supporting these information systems. The RR Program’s customers rely heavily on these public information sources in order to semi-autonomously implement the NR 700 process at contaminated sites.

Location, Geographic Scope and Travel Requirements: This position works primarily in the Madison Central Office (GEF 2), but may occasionally travel in support of projects, for learning and training, and for assignments by program management.

Scope of Authority: This position works under the general supervision of the Fiscal and Information Technology Section Chief. This position works on enterprise geospatial data, databases, and web services that support systems and applications across the agency. This position provides consultation, guidance and support to agency business program managers and staff, as well as other DNR IT and GIS professional, specialist, and consultant positions. This position also independently manages projects involving customized geospatial data activities, map production, document management or similar activities for the RR Program. The position is a member of the RR Program’s Automation Team and leads the GIS Subgroup.

Responsibilities & Outcomes:

40% A: RR Sites Map Project Management and Systems Maintenance

- A1. Design, develop, test, and maintain ArcGIS for Server (AGS) web services using ArcGIS Desktop and AGS tools.
- A2. Serve as data custodian/steward of RR’s statewide GIS data layers by performing the following tasks: update, maintain, create, organize and grant access to statewide vector and raster datasets and metadata consistent with DNR’s GIS standards.
- A3. Assist with program ArcSDE and GIS data management and administration.
- A3. Draft project timelines develop project plans and track project development progress.

- A4. Communicate progress, problems and/or shortfalls to Automation Team Leader and Fiscal and Information Technology Section Chief.
- A5. Design, develop, implement, and document application architectures, which includes the interrelations between individual applications and the infrastructure required to support them.
- A6. Create detailed technical documentation of application architecture and processes to aide in application maintenance and support.
- A7. Create, document, and maintain project plans and processes, and prepare project status information to report progress, as appropriate.
- A8. Utilize standards, procedures, and system development framework guidelines to ensure the success and quality of GIS projects.
- A9. As a member of the Automation Team, bring recommendations on issues related to IT/GIS technologies, techniques, standards, and systems to team meetings.
- A10. Assist developers to design user interfaces and software components for applications.
- A11. Lead and participate in application user design and post-implementation reviews.
- A12. Create and/or modify software and application designs as business needs or technologies change. This may include the need to improve performance, security, and reliability of applications when in use.
- A14. Develop test data and plans for program systems development.
- A15. Assist in the testing and debugging of programs, using a variety of professional tools, to meet needs and specifications.
- A16. Assist with Geographic Information Systems (GIS) data collection, assessment and integration of GIS layers with data in Oracle tables.
- A17. Present at meetings, workshops, conferences, and Departmental briefings as requested.

25% B: Geospatial Data Development, Analysis, & Maintenance

- B1. Acquire/develop, QA/QC, enhance, and maintain RR Program geospatial data.
- B2. Evaluate and document geospatial data structure and content using appropriate GIS software and tools, and applying relevant data standards, best practices, standard operating procedures, etc.
- B3. Develop workflow models and automate routine operational geospatial data and repository maintenance and management activities, as applicable.
- B4. Perform geospatial analyses as needed using applicable software, tools, and techniques.
- B5. Create and verify integrated data topologies for use within geospatial applications and systems.
- B6. Provide geospatial data guidance and support to program managers and staff, and customers.
- B7. Design detailed map products for use by RR Program staff, partners and the public as needed.

15% C: Assist in Data Analysis

- C1. Assist IT Data Coordinator in identifying and implementing QA/QC needs within program databases to help ensure data accuracy.

- C2. Coordinate ongoing database cleanup with direction from the Automation Team Leader and IT Data Coordinator to ensure file information is accurately reflected on public facing database.
- C3. Assist IT Data Coordinator with developing guidance, user documentation and conduct training as needed.
- C4. Assist with identifying potential database enhancements and relationships.
- C5. Help identify new information technology approaches to increase work efficiencies and improve usability.
- C6. Analyze data, provide summaries and make recommendations regarding programmatic trends as requested.
- C7. Analyze tracking data to ensure it is accurate and up-to-date for reporting purposes.
- C8. Analyze reports to ensure accuracy of data in system.
- C9. Participate in and bring ideas to the Automation and Database teams.
- C10. Provide training and assistance to Central Office staff regarding proper use of database.

15% D: Records Management

- D1. Identify and implement QA/QC needs to help ensure records accuracy.
- D2. Assist in efforts to QA/QC existing digital documents.
- D3. Assist Central Office staff with upload and tracking of site-specific records.
- D4. Assist staff with records management implementation questions.
- D5. Support the program's digitizing efforts following all protocols and procedures to ensure all documents are consistently and accurately digitized.
- D6. Attend and participate in all routine records management meetings, conference calls and assist in the development of ongoing process enhancements and improvements.

5% E. Organizational Responsiveness

- E1. Review and keep abreast of changes in knowledge and practices of position-related activities in responsibilities.
- E2. Participate in job-related training and organizational meetings as assigned by supervisor.
- E3. Participate in team meetings.
- E3. Perform other position-related duties as assigned.
- E4. Follow all general and position-related safety requirements.

Knowledge: Technical Competencies

- Skill in interpersonal relations, especially related to working on inter-disciplinary teams
- Ability to communicate highly technical information effectively to a range of audiences (e.g., managers, other IT staff, program customers)
- Ability to be detail oriented and perform tasks with a high level of accuracy, while keeping an eye on the big picture.

- Ability to demonstrate good prioritization and organizational skills, and to work independently on multiple tasks/projects at one time.
- Skilled at being proficient with Microsoft office products including Access, Excel, Word, Skype, Power Point, and SharePoint.
- Skill in business analysis and project management.
- Ability to communicate effectively to both technical staff and non-technical staff, including managers, both verbally and in writing.
- Knowledge of Environmental Systems Research Institute (ESRI) ArcGIS Desktop software, including extensions and tools (e.g., Spatial Analyst, 3D Analyst, Model Builder), and knowledge of ESRI ArcSDE database structure and management
- Knowledge of ESRI ArcGIS for Server (AGS) web map and feature services
- Knowledge and experience using GeoCortex Essentials for developing web applications
- Knowledge of fundamental methodologies to perform technical geospatial data collection, processing, coordinate conversion, QA/QC, distribution, management, etc.
- Knowledge of fundamental methodologies of mapping sciences and cartographic design
- Knowledge of SQL and Python scripting languages a plus
- Knowledge of electronic document capture, storage and management.
- Knowledge of application testing protocols and best practices.
- Knowledge and skill working with developers to create technical specifications for use by programmers for coding.
- Skill determining the data analysis needed to support decisions and aid in designs; also doing data analysis, including analyzing database structures, writing queries, and developing reports, documents, and/or communications.
- Skill working with subject matter experts, business analysts and other IT professionals in the development of technical specifications for use by programmers developing complex applications.
- Ability to analyze changes to IT architecture, assess the impacts on business systems, develop options to resolve resulting issues, and prepare and present information to management.
- Ability to implement quality assurance/quality control practices with other IT professionals.
- Ability to develop relational databases with spatial components.

Physical Requirements and Environmental Factors:

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

Equipment Used: Computers, tablets, smartphones, projectors, virtual meeting hardware, fax machine, calculator, copy machine, and telephone.

Telework Evaluation: Because this position must be available for regular in-office contacts and works closely with developers and business experts/managers, telework could be available only on an occasional basis.

ADDENDUM

Departmental Competencies

Service Excellence for Customers & Partners: Makes customer service a top priority and constantly seeks to improve customer service. Is responsive to changes in what customers want and need. Delivers on promises made to customers and follows up appropriately. The desired outcome for this competency is a strong connection to our customers.

Effective and Fair Decision Making: Able to analyze situations fully and accurately to reach productive decisions. Consults appropriate parties when necessary and identifies the key concerns and/or issues that need to be addressed in order to make the best decision possible, at the correct level of decision hierarchy. The desired outcomes for this competency include excellence and credibility in decision making.

Effective Communication: Able to express ideas in a clear, concise and effective manner, whether speaking or in writing. Uses correct grammar and sentence structure in communications. Is a good listener, even when differing viewpoints are being expressed. Openly shares information and keeps all relevant parties updated. The desired outcome for this competency is strategic unity built on trust.

Interpersonal Relationships & Partnership Building: Builds and maintains effective working relationships with others both internally and outside the organization; takes a positive and productive approach to resolving any conflicts which may arise. Exemplifies the commitment to the DNR's core value of respect; to work with people, to understand each other's views and to carry out the public will, maintain integrity, and treat everyone with fairness, compassion and dignity. The desired outcome of this competency is a shared mind set and pool of meaning.

Demonstrates Leadership: Fosters and encourages support from his/her team to accomplish objectives, follow procedures, and accepts suggestions; inspires confidence and respect; motivates people to achieve agency goals and objectives; promotes respect, honesty, integrity, and fairness to all. Enforces standards/rules fairly and consistently and leads with courage. The desired outcomes for this competency are accountability through ownership of the work, staff alignment with agency direction, and full engagement of all employees.

Safety/Risk Management - Demonstrated commitment to safety through incident/accident prevention and control of risks in the working environment.

Additional Competencies Needed for this Position

Strategic Thinker / Systems Thinking

- Anticipates future needs and identifies potential options and constraints; critically evaluates information to promote the most effective position.
- Thinks through the implications of decisions and actions on people, organizational components, partners and customers.

Process Oriented

- Increases overall learning and performances by designing, implementing, and/or connecting critical work processes.
- Takes steps to make sure that new ideas are integrated with established procedures and processes. Assures successful implementation by connecting processes and seeing that key staff are involved.

Builds Teams and/or Is a Team Player

- Builds constructive and effective relationships with colleagues at all levels.
- Advises and collaborates with others to develop a stronger team and enhance team spirit. Sees team as a vehicle to achieve agency goals.