GIS ANALYST III JOB DESCRIPTION

LEWIS COUNTY
— *est. 1845* —

Job Title: **GIS Analyst III**   Job Code: **GS112**

Pay Grade: **123**   Effective Date: **October 2007**

FLSA: **Non-Exempt**   Revision Date: **April 2023**

NATURE OF WORK

Under general supervision, updates, compiles, and analyzes large, complex multi-layered digital spatial data sets on the Lewis County Geographic Information System (GIS) database.

ESSENTIAL FUNCTIONS:

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

- Analyzes component layers and structure of multi-layered digital spatial GIS data sets; programs application modifications and enhancements to manipulate, integrate, and compile data to address new project needs.
- Updates and maintains the County's GIS database according to department policies and procedures; assists in cleaning up data and making corrections in response to changes and additional data sets integrated into GIS.
- Develops special software mapping applications and analytical models using Visual Basic and other programming languages; manages the website and maintains the specialized application programming.
- Develops and maintains GIS metadata; updates the digital data layers and creates corresponding maps; compiles geographic data from a variety of sources; scans, rectifies, and digitizes data; builds topology, enters data attributes, checks for errors, and verifies accuracy; makes required corrections; edits and refines GIS data, and updates database; performs quality control checks to ensure integrity of GIS data and applications.
- Reviews survey data, source maps, photographs, automated mapping products, and other records to determine data quality and documentation, location and names of features, and application of coordinate geometry; creates specialized cartographic products and best-quality data outputs.
- Analyzes spatial relationships, including adjacency, containment and proximity; adjusts database layers to assure spatial conformity and coincidence.
- Manages special application programming and website projects; assists with testing of new hardware and software products and procedures; assists with project planning and needs analysis as assigned.
- Trains County staff and assists others with special projects; provides assistance to departments, clients, and the general public in obtaining information; researches and compiles materials and maps.
- Produces digital copies of County data as requested; responds to requests for information; provides technical information to citizens and County staff as authorized.

WORKING ENVIRONMENT / PHYSICAL DEMANDS:

Work is performed in a standard office environment and involves light physical demands and frequent use of a personal computer.

DISTINGUISHING CHARACTERISTICS:

This is the senior level in the GIS Analyst job series; work includes greater independence of action and judgment within established guidelines, and work assignments that are more complex and specialized in nature. This class differs from GIS Analyst I & II in the ability to perform all technical database management tasks, and ensure the accurate consolidation of data sets.

EMPLOYMENT STANDARDS:

Bachelor's Degree in Geography, Engineering, Computer Science, or a closely related field; AND four (4) year's experience as a GIS Analyst with Lewis County.

A valid Driver's License is required. Environmental Systems Research Institute, Inc. (ESRI) professional certifications are preferred; additional technical training and certifications may be required.

KNOWLEDGE AND SKILLS:
Knowledge of:

- County policies and procedures.
- Principles of land planning, surveying, mapping, global positioning systems, and usage of aerial photography and remote imaging sensor technologies and data products.
- Theory, principles and practices of geographic information system software, including multifaceted computerized data compilation techniques, ESRI database management systems, graphics applications and overlays, and complex spatial models for computer analysis.
- U.S. Geological Survey (USGS) topographic maps and other cartographic data products, and County geospatial integration practices and standards.
- Capabilities of computer systems, including networked environments and peripheral devices.
- Administration and maintenance principles of network operating domains, relational databases, and specialized software applications.
- Database systems integration, quality assurance procedures, and documentation of data sets.
- Hardware and software troubleshooting techniques.

Skills in:

- Using GIS - ESRI software suite programs and application programming languages.
- Developing and manipulating large, complex data sets.
- Performing accurate data entry and mathematical calculations.
- Maintaining accurate and interrelated database records, and identifying and reconciling errors.
- Reading, understanding, developing, manipulating, and analyzing geographic information in a variety of data formats and projections.
- Designing and producing elegant maps and complex cartographic products.
- Understanding and working with data from multiple public and private sources.
- Compilation, analysis, and presentation of technical and statistical information in reports and maps.
- Interpreting technical instructions and analyzing complex variables.
- Operating a personal computer utilizing standard and specialized software.
- Maintaining technical records and files.
- Establishing and maintaining effective working relationships with co-workers.
- Communicating effectively verbally and in writing.