

City of
EDMONDS
Washington

GIS ANALYST

Department:	Information Technology	Pay Grade:	NE-14
Bargaining Unit:	SEIU	FLSA Status:	Non Exempt
Revised Date:	October 2012	Reports To:	Information Systems Supervisor

POSITION PURPOSE: Under general direction of Chief Information Officer, defines, develops, modifies and maintains a variety of databases for use with the GIS system; integrates a variety of databases for use with the GIS; coordinates the City's geographic information system (GIS) system, including the development and maintenance of data and infrastructure to support GIS applications in order to meet the needs of City departments and ensure data quality and integrity; evaluates current and future GIS technology needs and makes recommendations; serves as principal liaison between GIS functions and City users; facilitates the design and production of complex cartographics for displays and exhibits for meetings and events; and is responsible for asset management software and mapping that includes Utilities and As-Builts, customer requests and work orders integrated with GIS database.

ESSENTIAL FUNCTIONS AND RESPONSIBILITIES:

*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.*

- Develops and maintains data and infrastructure for the City's geographic information system (GIS) system. Coordinates with and supports GIS applications in order to meet the needs of City departments, including ensuring data quality and integrity.
- Evaluates current and future GIS technology needs and makes recommendations.
- Serves as principal liaison between GIS functions and City users, integrating a variety of database for use with the GIS system and defines, develops, modifies and maintains those databases and files.
- Coordinates GPS and data collection as well as maintains the various utility networks.
- Creates and maintains maps of various assets; also prints maps and updates mobile mapping solutions.
- Administers and coordinates GIS, including: maintaining data and quality control for geographic relational database management system (RDBMS) within SQL, hardware maintenance, and GIS software management.
- Responsible for asset management and mapping that includes: Utilities and As-Builts, customer requests and work orders all integrated with GIS database.
- Provides for asset management of Cartegraph software suite and manages the various City assets by keeping historical maintenance records, inspections, events, and other ratings as appropriate.
- Analyzes and interprets GIS data, produces maps as requested or required and performs work on special GIS projects for departments including: electronic document systems, Planning and Engineering department requests, orthophoto acquisition, GIS user group management, As-Built system management and Website maintenance and support.

JOB DESCRIPTION

GIS Analyst

- Assists in the development of programs to automate routine processes and repetitive quality assurance/quality control (AQ/AC) tasks; verifies attribute data through consistent quality control checks.
- Assists in the development of GIS application procedures and programs as required.
- Tests procedures and programs and correct deficiencies to ensure that desired results are achieved.
- Designs, prepares and coordinates logical data models, definition structures, standards, procedures and documentation for the database system.
- Researches and makes recommendations on application development software and components that support GIS.
- Performs advanced IS analytical and geo-processing functions including input, editing, manipulation, management, analysis and output of spatial and tabular data sets.
- Generates and maintains metadata for spatial data including attribute definitions and spatial reference systems.
- Facilitates preparation of displays and exhibits for meetings and events.
- Designs and produces complex cartographics using GIS data and graphic design tools. Review and update existing maps according to established procedures.
- Distributes updated maps and GIS datasets to outside agencies as requested.
- Explores new computer cartography techniques for improved representation of information including advances in computer graphics technology for 3D display and interactive cartography on the Web.
- Provides support to the Department on matters as directed and may serve as staff on a variety of committees.
- Attends and participates in professional group meetings, maintains awareness of new trends and developments in the fields related to area of assignment and incorporates new developments as assigned.

Required Knowledge of:

- Advanced GIS concepts, geo-processing functions and techniques, spatial database management procedures and graphic display of spatial information.
- Principles and practices of geography including: coordination of systems, spheroids, projections and units of conversion for the integration of data of various types.
- GIS hardware, software, and related peripheral equipment including: GIS database development and maintenance and use of geodatabase model and relational database management systems including SQL and Geodatabase.
- GIS application design concepts, procedures and techniques; working knowledge of GIS design tools such as CASE tools, Visual Basic and Map Objects.
- Use of reference manuals and other documentation.
- Current GIS information technology trends and best practices.
- Metadata generation and maintenance.
- Project management principles and practices.
- Organization, functions and IT needs of City departments.
- Trouble shooting and problem solving.
- Research and data collection methods and statistical analysis.
- Report preparation, presentation and records management.
- Federal, state, and local laws, rules, and regulations related to assigned activities and programs relevant to assigned functions.
- Effective oral and written communication principles and practices.

JOB DESCRIPTION

GIS Analyst

Required Skill in:

- Using ESRI GIS software including Arc Info, Arc View, ArcSDE for analysis, and Cartegraph and its GIS integration for analysis and mapping.
- Using Cartegraph Software and its GIS integration for Asset Management, Cartegraph Mobile, and Work Flow Management.
- Independently assessing and solving software management problems.
- Reading, understanding and applying information from technical manuals and procedures.
- Application development and design as well as scripting and other computer language skills.
- Understanding various government functions in order to support a high demand for geographic information.
- Providing technical support to users in assigned area.
- Analyzing problems and recommending appropriate solutions.
- Meeting schedules and timelines by planning and organizing work, prioritizing tasks and using time effectively.
- Adapting to changes in technology.
- Interacting with users and office staff in non-technical, clear terms.
- Handling complex multiple tasks and prioritizing effectively.
- Interpreting and applying federal, state and local policies, laws and regulations related to assigned work.
- Utilizing personal computer software programs and other relevant software affecting assigned work.
- Establishing and maintaining effective working relationships with staff, management, vendors, outside agencies, community groups and the general public.
- Applying program/project management techniques and principles.
- Communicating effectively verbally and in writing.

MINIMUM QUALIFICATIONS:

Education and Experience:

Bachelor's Degree in GIS, Cartography, Geography, Information Technology or related field and two years of experience working with GIS systems that includes use of ArcGIS software and relational databases, scripting and application development; experience in municipal GIS preferred; OR an equivalent combination of education, training and experience. Current experience and proven proficiency in the use of Cartegraph software and its integration with ESRI and relational databases. Proficiency in scripting or programming language in support of GIS. Experience in XML, Java, and HTML preferred. Experience in managing and building geodatabases preferred.

Required Licenses or Certifications:

Valid State of Washington Driver's License.

Must be able to successfully complete and pass a background check.

WORKING CONDITIONS:

Environment:

- Work is performed in an office environment with extensive time spent at a desktop computer.

Physical Abilities:

- Hearing, speaking or otherwise communicating to exchange information in person or on the phone.
- Operating a computer keyboard and other office equipment.
- Reading and understanding a variety of materials.

JOB DESCRIPTION

GIS Analyst

- Sitting or otherwise remaining stationary for extended periods of time.
- Reaching overhead, above the shoulders and horizontally, bending at the waist or otherwise positioning oneself to accomplish tasks.

Hazards:

- Prolonged exposure to glare from computer monitors.

Incumbent Signature: _____

Date: _____

Department Head: _____

Date: _____