

GIS ANALYST – PUBLIC UTILITIES

SUMMARY: Under limited direction of the Director of Public Utilities, provides technical expertise for advanced modeling, analysis, web publishing, and geo-processing to support a comprehensive Geographic Information System for the Public Utilities Department. Work involves data conversions, cartography (map production), cartographic design, data loading & conversion, monitoring database for consistency and QA/QC, solution deployment, web services configuration and support, GIS infrastructure monitoring and tuning, and strategy, design, and implementation. The primary focus of this job is GIS Data Acquisition, User Support, Data Management, Application Support, Infrastructure Support, with experience in MHS modeling software. The incumbent will solve complex problems, provide GIS application development of ArcGIS extensions, and ArcServer development, deployment and maintenance to meet end user requirements, create reports, and provide ArcPAD support of data acquisition, maintain the hydraulic model may perform other duties as assigned.

ESSENTIAL FUNCTIONS: *(Essential functions, as defined under the Americans with Disabilities Act, may include the following tasks, knowledge skills, and other characteristics. This list is ILLUSTRATIVE ONLY, and is not a comprehensive listing of all functions and tasks performed by incumbents of this class.)*

DUTIES AND RESPONSIBILITIES: *(Which are **not** in any hierarchical order)*

1. Designs and maintains the structure and integrity of the functional Public Utilities GIS database in the ArcGIS server environment and supports enterprise asset management systems and computerized maintenance management systems, such as DataStream, and Hiperweb and updates a hydraulic model using MHS Infowater.
2. Operates in the ArcGIS environment using specialized tools to filter, format, process and upload geospatial data to enterprise asset management and computerized maintenance management (i.e. DataStream, Hiperweb) systems.
3. Researches, tests, and recommends modifications or customization of GIS software or business process to maintain data integrity.
4. Implements Geodetic Positioning Survey (GPS) technology providing direction for field data collection and postprocessing operations, including hand held and stationary units. Supports staff by providing technical support and performing occasional field work.
5. Compiles, analyzes, plans, programs, integrates, implements, and presents GIS spatial relational database projects. Responsible for complex geospatial analysis and representation of data in server maps and develops methods and procedures to automate routine spatial analysis.
6. Evaluates requests from internal customers for new GIS interface, application or functionality. Prepares feasibility analysis, performs project planning and tracking, writes technical specification and recommends options to stakeholders: compiles programs or scripts to automate such GIS tasks using Visual Basic, NET or other programs necessary to meet specialized GIS needs of the department. Provides guidance and customer support to GIS users and provides training for custom GIS applications.
7. Automates GIS data: creation, conversion, geo-processing, and advanced cartographic map design and production.
8. Produces various maps, including thematic mapping.
9. Takes a lead role in constructing SDE tables, for normalized data of application-independent relationships.
10. Prepares applications documentation, user-training materials and quality control procedures, monthly status reports and other written correspondence.
11. Assists in setting and in the accomplishment of organizational and departmental GIS teams' goals and objectives. Participates in the GIS technical advisory and team meetings for planning of the GIS system, prioritizing projects and tasks in accordance with the city's GIS Strategic Plan.
12. Performs advanced GIS analysis on raster and vector data sets. (Drive-time analysis, proximity analysis, network analysis, reclassification, overlay & spatial statistics.)
13. Perform technical research and analyze complex GIS related problems, evaluate alternatives and recommend or adopt effective courses of action.

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14. Perform moderately complex technical computations, compile or analyze GIS data and statistics, and develop mapping products.
15. Provides technical support and trains Public Utilities users in system use and applications.
16. Coordinates the release of Public Utilities GIS data to outside agencies.
17. Updates field verified infrastructure data in GIS; construction as-built data in to Public Utilities GIS database, and the Public Utilities GIS database, as required.
18. Assists in developing specifications for the procurement of GIS software and hardware.
19. Monitors project and labor costs through computerized maintenance management system GIS integration as part of budgetary expenditures.
20. Attends and participates in GIS User Group meetings and conferences. Coordinates with City's GIS Coordinator.
21. Supervises, directs, and evaluates assigned staff, processing employee concerns and problems, directing work, counseling, disciplining and completing employee performance appraisals; interviews and selects new employees.
22. Prepares monthly GIS project activity reports.

KNOWLEDGE, SKILLS AND ABILITIES:

- Familiarity with Enterprise GIS database support, maintenance, and management
- Knowledge of modern GIS systems methodologies, techniques, and tools.
- Knowledge of relational database design technology.
- Knowledge of GIS data and process modeling techniques.
- Knowledge of ArcSDE, ArcGIS Server, SQL Server, Oracle, Model Builder, Python, or similar
- Ability to produce geofiles, maps and other representations of spatial data
- Familiarity with GIS components of hydraulic modeling tools (such as InfoWater, InfoWorks, InfoNet, WaterGEMS, H2OMAP, etc).
- Familiarity with Asset Management / Work Order applications (such as DataStream, Hiperweb, CityWorks, Hansen, Cartegraph, etc.).
- Familiarity of AutoCAD or MicroStation and conversion to/from GIS
- Operate word-processing, spreadsheet programs and/or other application software typical to office work environments.
- Excellent time / data management, communication, and interpersonal skills required.
- Ability to establish and maintain effective working relationships with co-workers, supervisors and the public.

PHYSICAL REQUIREMENTS AND WORK ENVIRONMENT: Work involves light to moderate work in an office setting. There is frequent need to stand, stoop, crawl, walk, sit, lift objects (up to 50 pounds) and perform other similar actions during the course of the workday. The City of West Palm Beach promotes and maintains a drug/alcohol free work environment through the use of mandatory pre-employment and random drug testing for certain employees.

MINIMUM QUALIFICATIONS: Bachelor's degree from an accredited college or university with a major in Computer Science, Geosciences, Geography, or related field and three (3) years of experience in performing GIS analysis related activities, or any equivalent combination of training and experience. One (1) year lead/supervisory experience, required.

Must have technical experience in: 1) GIS support of water distribution or wastewater collection system modeling (including building geometric networks) or 2) GIS integration with Asset Management, Computerized Maintenance Management System, Customer Information Systems, and SCADA etc. Must be proficient with ESRI ArcGIS suite of applications and extensions, database management (including geodatabase), and Microsoft Office applications.

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A valid driver's license from any state (equivalent to a State of Florida Class E) may be utilized upon application; with the ability to obtain the State of Florida driver's license within 30 days from day of appointment.