
DEPARTMENT: Operations (Collections)	SUPERVISED BY: Operations Manager (Collections)	FLSA STATUS: Exempt
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JOB SUMMARY:

The GIS Analyst develops, implements, maintains, and manages enterprise Geographic Information Systems (GIS) and related technology programs to maintain and enhance the value and reliability of complex spatial data, system integrations, and applications. The Analyst utilizes GIS and related systems to generate detailed reports and information in support of District operations and provides critical, professional-level GIS services and support to a variety of District stakeholders. The position performs routine and advanced data management and data transformation tasks, complex spatial analysis, and plans, analyzes, and implements changes to GIS for the creation of maps, graphs, charts, web maps and apps, and geographic data. Applies expertise to other related systems as needed to ensure resiliency and service delivery across the enterprise.

DISTINGUISHING FEATURES:

This is an exempt-level position in the Operations Department and not part of a series. The position maintains overall responsibility for the GIS system and works with a high degree of independence under the general supervision of the Operations Manager (Collections). Work activities have a moderate to high degree of complexity, requiring advanced knowledge, specialized expertise, and independent decision-making.

MINIMUM QUALIFICATIONS:

Demonstrated knowledge of:

- ESRI ArcGIS Pro, ArcGIS Enterprise, ArcGIS Online, and ESRI Utility Network.
- Arcade, Python, and SQL scripting.
- Principles of geodatabase design, mapping, and cartography.
- Principles of database administration and data management, control, and integrity.
- Principles and practices of project management.
- GPS setup, troubleshooting, and use (EOS Tools, Field Maps, Arrow), including desktop and web applications.
- Enterprise Asset Management systems (Flowfinity, CentralSquare preferred).
- Mathematics, including fractions, percentages, algebra, and statistics.
- Application development, including mobile and web applications.

Skill in:

- Tested proficiency in GIS analysis and map production.
- Critical thinking and problem-solving.
- Gathering, analyzing, and interpreting data and information with close attention to detail to form accurate and logical conclusions.

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- Analysis, organization, and synthesis of large quantities of detailed information and data from multiple sources.
- Effective presentation of accurate, clear, and concise technical, narrative and statistical information in various formats (e.g. maps, charts, figures). Development and implementation of standardized processes, tools, and formats.
- Prioritizing, organizing, and completing multiple assignments on time, accurately, and with minimal supervision.
- Quickly learning, adapting, and adopting new technologies, systems, and software.
- Establishing and maintaining accurate, clear, and organized records.
- Performing highly detailed work.
- Proficient use of computer systems and software, including Word, Excel, Outlook, and other database design and management tools.

Ability to:

- Effectively utilize the ESRI suite of desktop, mobile, and web applications as well as analytical tools and applications.
- Understand and interpret civil engineering plans and specifications, record drawings and apply that information to GIS.
- Read and interpret land surveys and legal descriptions.
- Prepare clear and effective maps and reports according to District standards.
- Accurately collect, enter, and verify spatial and tabular data.
- Perform spatial or tabular analysis and make recommendations based on results.
- Analyze problems, identify alternative solutions, assess impacts of proposed actions, and implement recommendations.
- Automate routines using models, scripts, or programs.
- Document programs and procedures.
- Plan, implement and manage projects.
- Provide effective motivation, coordination, and evaluation of others.
- Provide effective training and technical support to District GIS users for desktop and mobile products.
- Communicate technical information clearly and concisely in oral and written form to diverse audiences with varying degrees of understanding.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.
- Maintain a professional and respectful working environment.
- Represent the District in a positive and professional manner.
- Understand and interpret pertinent policies, procedures, laws, and regulations.

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EDUCATION & EXPERIENCE:

Any combination of education, training, and experience that provides the requisite knowledge, skill, and abilities to successfully perform the duties and fulfill the responsibilities of the position. A typical way to achieve that would be:

- Associate's degree in GIS, Geography, Computer Science, Surveying, Engineering, or related field.
- Three (3) to six (6) years of progressively responsible experience in enterprise GIS, application development, data analysis, geodatabase management, computer technology, engineering, information systems or a related field; experience in water/wastewater industry preferred.
- GISP Certified Professional or other related professional or technical certification preferred.

WORKING CONDITIONS:

Employee in this position typically works in an office environment requiring strength and mobility for this setting, including prolonged sitting, prolonged use of a computer, typing, and occasionally driving to and working outdoors at remote locations and wastewater facilities. Specific vision abilities include close vision, distance vision, depth perception, and the ability to adjust focus with corrected vision sufficient for reading maps and use of computers. Must be able to occasionally lift, carry and/or move objects safely up to 25 lbs.

TYPICAL DUTIES & RESPONSIBILITIES:

The duties listed below, while not all-inclusive, are characteristic of the type and level of work associated with this position. Individual positions may perform all or some combination of the duties listed below, as well as other related duties. The District reserves the right to add, modify or remove duties as appropriate to meet business needs.

- Develop and maintain standardized feature services, web maps, and map templates.
- Prepare custom maps in accordance with District cartographic standards.
- Prepare custom charts, reports, visual presentation materials, and similar documents for internal and external customers. Analyze best methods of production and seek clarification regarding requests as needed.
- Develop, test, and implement custom geoprocessing models and script-based tools.
- Review and prepare a range of information and data for entry into District systems, including geographic information related to wastewater systems and external data. Enters appropriate data into GIS database and continually verifies accuracy of resident information to maintain system integrity, including data entered by others.
- Implement and manage a program to maintain accurate facility-wide as-built record drawings.

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- Work with operations and maintenance staff to combine existing record drawings with institutional knowledge and field research to create master drawings tailored to improve operational efficiency.
- Manage the transfer of existing old record drawings from paper and outdated electronic formats to updated electronic formats and assist with initiatives to improve the accuracy and usefulness of District record drawings.
- Perform aggregation, quality control, transformation, and import of external data into the enterprise geodatabase using spatial tools and custom scripts. Perform spatial analyses using ArcGIS and related applications and provide recommendations based on results.
- Coordinate with Engineering to integrate asset data into drawings and engineering and operations data resources.
- Develop, analyze, and document GIS workflows and processes and work with users to increase functionality and efficiency.
- Maintain and document the integration of GIS with CMMS and other databases and systems and troubleshoot issues.
- Serve as project manager for major GIS and data projects.
- Responsible for system administration of GIS and other assigned programs (e.g. Flowfinity), including managing and monitoring user accounts, database management, and upgrades.
- Test and troubleshoot GIS software and patches; maintain departmental GIS test plans; coordinate with IT Services.
- Manage vendors, consultants, licensing, and ongoing service agreements
- Coordinate with staff in other departments to develop custom GIS solutions using script-based querying and other toolsets, software, and scripting
- Work with manager to assess GIS, database administration and data management needs.
- Maintain up-to-date knowledge of new technological developments and perform and coordinate development, testing, and implementation of new and updated technologies and workflows.
- Serve as the primary point of contact and technical resource for staff regarding District's GIS data and desktop and mobile, web-based applications, providing accurate information in a timely manner as well as effective training and technical support.
- Provide technical oversight and task management support to outside consultants and asset management staff.
- Be dependable and punctual in reporting to work as scheduled.
- Comply with District policies and procedures.
- Perform other duties as assigned.

RELATIONSHIP WITH OTHERS:

Employees in this class have regular contact via phone and email with other agencies or governmental subdivisions to gather and exchange GIS data and mapping information. Daily

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contact with operations, engineering and other staff, in-person, phone and email. May receive and respond to direct work requests from management.

SUPERVISION:

Exercised: No direct supervisory duties. May provide technical or functional direction and monitor and review work of others related to assigned duties.

Received: The GIS Analyst primarily works independently under the general supervision of the Operations Manager (Collections) who assigns and reviews work through formal and informal discussions, review of created reports and other documentation, or discussion of problems as they occur. Work may be assigned in the form of objectives, priorities, and deadlines. The employee works with a high degree of independence and is expected to exercise judgment and initiative in managing assigned tasks, quality control, and meeting deadlines. Completed work is reviewed as needed for accuracy, adherence to deadlines, and conformance to District policies, codes, and procedures.

SPECIAL REQUIREMENTS:

- Availability to work nights and or weekends on an as-needed or emergency basis for scheduled upgrades or due to system outages.
- Possess and maintain a valid state-issued driver's license and be qualified to obtain and maintain coverage through the District's vehicle insurance program.
- Must pass pre-employment job-related skills testing.
- Final offer of employment is contingent upon the successful completion of a reference check.