LANCASTER COUNTY
GEOSPATIAL ANALYST

NATURE OF WORK

This is responsible, advanced-level technical work creating, maintaining, analyzing and supporting enterprise Geographic Information System (GIS) operations utilizing Esri's ArcGIS supporting technologies.

Work involves integrating, updating and maintaining enterprise-level GIS data processing systems and producing complex maps and applications. Work also involves performing advanced-level digital analysis, producing advanced-level maps, automation scripts and maintaining complex data management processes. General supervision is received from the Geospatial Administrator or their designee with work being reviewed in the form of accuracy and results achieved.

EXAMPLES OF WORK PERFORMED

Assist in defining, developing and maintaining data interface applications and Extract Transform and Load (ETL) processes between various technology platforms.

Assist in providing GIS training and coaching for departmental staff, assist in developing, establishing and implementing standards related to GPS, GIS and computer data entry to ensure data accuracy.

Perform complex data analysis using ArcGIS and related extensions/add-on, relational databases, and other computer software; apply the capabilities of GIS databases and other computer programs to solve complex spatial and relational problems.

Assist in developing detailed business user requirements, system documentation, workflow procedures and data modeling.

Develop, maintain and monitor native and custom GIS applications, custom programming scripts and automated processes in support of enterprise operations.

Provide GIS assistance to the Emergency Operations Center (EOC) during an activation event.

Investigate, determine and troubleshoot problems with GIS computer software applications; research, recommend and test computer programs for enterprise use. Ensure that current and future GIS software needs and standards are met.

Provide support services needed to maintain an effective enterprise Geographic Information System (GIS).

Assist in GIS system capacity planning.

Perform related work as required.

DESIRABLE KNOWLEDGE, ABILITIES AND SKILLS

Extensive knowledge of data principles and techniques used within enterprise-level Geographic Information Systems (GIS), including Esri's ArcGIS technology platform.

Extensive knowledge of coordinate geometry (COGO).

Thorough knowledge and understanding of the role of Geographic Information Systems (GIS) at the enterprise level, including large database maintenance activities that affect supporting applications.

Considerable knowledge of SQL Server and writing SQL queries to support ETL processes.

Knowledge of relational database design and administration, various programming languages, APIs, web development and geoprocessing tools.

Knowledge of ETL processes to organize and prepare data for geospatial related projects.

Knowledge of creative problem-solving abilities and personal initiative, including the ability to carry out assignments with minimal supervision.

Ability to write computer programs to automate routine and complex data processes.

Ability to perform mathematical and geometrical computations.

Ability to analyze legal descriptions, title abstracts and survey data.

Ability to establish and maintain effective working relationships with public officials, co-workers, and the general public.

Ability to communicate effectively both orally and in writing including the ability to train and instruct others.

Ability to effectively interact, cooperate and lead the team to complete GIS related projects.

DESIRABLE QUALIFICATION

Possession of Geographic Information Systems Professional (GISP) certification.

MINIMUM QUALIFICATIONS

Graduation from an accredited four-year college or university with major coursework in GIS, computer science, engineering, planning, geography, or related field, including four years of experience working with computer software, hardware, and operations of systems relating to Geographic Information Systems; or any equivalent combination of training and experience that provides the desirable knowledge, abilities and skills.