Summary
Research, design, implement, and maintain Geographic Information Systems (GIS) applications and databases, utilizing software and data standards developed by the Geographic Information Systems Division.

Class Characteristics
General Supervision is provided by the GIS Manager; responsibilities may include direct or indirect supervision of lower level professional, technical, and clerical personal.

Essential Duties, Skills and Demands of the Position
The duties, skills, and demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with a disability to perform the essential duties, skills, and demands.

Duties:
Research of GIS use within the industry of the specific departmental or divisional discipline.

Design of GIS applications, including database design, user interface, and output specific to the departmental or divisional need.

Implementation of new GIS and related software applications, including interfacing with the Information Technology (IT) Division for hardware and network coordination.

Conduct GIS queries and analysis of departmental data sources in order to develop decision-making tools critical to departmental and divisional needs.

Creation of graphical and tabular output such as maps, charts, and reports for use in project analysis, council presentations, public reference, etc.

This position may also be responsible for other systems and data related to the department or division’s function, such as Computer Aided Design (CAD), desktop publishing, multi-media presentations, and/or web page development.

Perform related duties as assigned.

Skills/Abilities:
Read, analyze, and interpret technical information.

Write reports, define problems, collect data, establish facts, and draw valid conclusions.

Present information and respond to questions from elected officials, fellow employees, clients, customers, and the general public.
Define problems, collect data, establish facts, and draw valid conclusions; identify, analyze, evaluate, diagnose, and solve system problems.

Interpret an extensive variety of technical instructions, and deal with abstract and concrete variables; think logically and in abstract terms. Analyze situations quickly and objectively to determine the proper course of action.

Explain technical concepts in non-technical terminology and train others in the use of systems.

Communicate effectively both verbally and in writing.

Establish and maintain effective working relationships with those contacted in the course of the work.

**Physical Demands and Work Environment:**
While performing the duties of this job, the employee is regularly required to sit, use the computer keyboard and mouse, use hands to finger, handle, or feel, reach with hands and arms, talk or hear, stand, walk, and stoop, or crouch. Occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus. Requires the ability to work in an office environment where the noise level is usually moderate.

**Qualifications**

Knowledge of:
GIS software, including Environmental Systems Research Institute (ESRI) Arc suite of products.

Microsoft suite of products, AutoCAD, Photoshop, Illustrator, or similar graphic design software and web page development software.

Relational database technology and metadata creation.

Common GIS programming languages such as Avenue, C, Visual Basic, Arc Macro Language, Oracle and SQL Server, or their current equivalent as identified.

**Education and Experience**

Any combination equivalent to education and experience likely to provide the required knowledge and abilities would be qualifying. A typical way to gain such knowledge and abilities would be:

**Education:**
A Bachelor's degree in geography, GIS, computer science, or a related field.

**Experience:**
Two years of technical professional experience involving GIS analysis, programming, systems engineering, or similar field in an information systems environment.

**Certifications/Licenses:**
Possession of a valid California Class C driver’s license.
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