

Staff Report

TO: Board of Directors

FROM: Naomi Schmitt, Director of Human Resources
Doug Roderick, P.E. Director of Engineering

DATE: January 11, 2023

SUBJECT: New Job Description – GIS Analyst I/II

HUMAN RESOURCES

RECOMMENDATION:

Provide input on the attached job description for a GIS Analyst I/II.

BACKGROUND:

The District's use and needs for the GIS (Geographic Information System) have grown beyond the essential functions of the GIS Technician position. The technician position does not cover the duties required for operating, maintaining, and expanding the GIS at a planning and implementation level. Specifically the primary duties for implementation of applications; versioning; managing portal services; technically support the implementation and management of databases between the GIS and the District's CMMS; and troubleshooting. As such, staff is recommending that a new GIS Analyst job description be implemented to more clearly reflect the duties required of the position. This elevated level of skills is reflected in other organizations as noted below.

In order to develop the proposed job descriptions and associated salary schedule, staff reviewed job descriptions and salary schedules for like classifications from the following agencies: County of Nevada, County of Placer, City of Lincoln, and Placer County Water Agency. The proposed job description is included in attachment A.

Attachment B includes the salary survey for the proposed position. At this time it is recommended that Step 5 of the salary schedule be placed at the average of the agencies surveyed. This will allow Step 5 of the new GIS Analyst I position to be \$95,820.31, and Step 5 of the new GIS Analyst II position to be \$107,695.75.

The addition of this position will also give the District the ability to allow for internal growth.

The GIS Analyst I/II position will be designated in the Non-Exempt Office Employee Benefits and Compensation Plan.

If approved, this newly created position would be filled through an internal recruitment process.

BUDGETARY IMPACT:

Staff does not anticipate a need to increase the already approved 2023 staffing budget for Engineering. There are several budgeted positions that are currently vacant that will be filled this year but not for the entire 2023 FY. This position would be included in the 2024 budget.

Attachments: (2)

- Attachment A: GIS Analyst I/II Job Description
- Attachment B: Salary Survey

NEVADA IRRIGATION DISTRICT

Job Description

Job Title:	GIS Analyst I/II	Reports To:	Assigned Supervisor
Salary Range:	<u>xx/xx</u>	Approved by Board of Directors:	xx/xx/xxxx
FLSA Status:	Non-Exempt	Unit:	Office
<p><i>Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.</i></p>			

Definition

Performs professional duties to operate, maintain, and expand the District's Geographical Information Systems (GIS) functions and functionality. Including designing, developing, and modifying geodatabases; generating and analyzing spatial data; and generating reports, maps, and filing. Provide technical support to consultants and users of the GIS system. Create and manage databases to support integration with the District's Computerized Maintenance Management System.

Distinguishing Characteristics

GIS Analyst I: This is the learning level class in the GIS Analyst series. The GIS Analyst I class is distinguished from the II level by the performance of less than the full range of duties assigned to the II level. Incumbents work under immediate supervision while learning job tasks, progressing to general supervision as procedures and processes of assigned area of responsibility are learned.

GIS Analyst II: This level is distinguished from GIS Analyst I by the assignment of the full range of duties. Employees receive only occasional instruction or assistance of new, unusual, or unique situations.

Supervision Received and Exercised

Receives general supervision from an assigned supervisor; may receive technical and functional supervision from a designated supervisor as indicated by the Director of Engineering. Provides training and guidance to lower-level staff.

Essential Functions Statements

Essential and other important responsibilities and duties may include, but are not limited to, the following:

1. Analyzes GIS needs and implements projects and applications, including databases and related products or platforms. Makes strategic recommendations about the GIS program direction and project priorities.
2. Develop requirements for design and maintenance of GIS (Geographic Information System) mapping layers. Including assisting in developing requirements for CAD mapping layers.
3. Develop operating standards and procedures to be available and utilized by other District staff.
4. Create and manage Portal services.
5. Design, create and manage Portal maps and layers.

6. Design, create and manage maps and layers for ArcGIS online.
7. Use programming languages such as python, Javascript, and SQL.
8. Perform GIS database management and administration tasks; including troubleshooting and resolving database problems; and verifying data integrity.
9. Participate and technically support the implementation and management of databases between the GIS and the District's CMMS.
10. Create and analyze GIS layers; produce maps for public and District departments; including providing analytic data.
11. Build, program, and maintain web-based applications for District's internal and external websites and internet applications.
12. Create and edit geospatial data in GIS layers using digital techniques.
13. Perform GIS versioned editing and quality control.
14. Update and maintain GIS per as-built drawings of projects; identify and resolve errors in GIS and other engineering-related databases.
15. File and retrieve engineering and related plans, maps, exhibits, and various documents; update files and maintain document reference and retrieval systems.
16. Attends training to enhance knowledge of GIS system use and platforms, applying and documenting new techniques as they are implemented.
17. Work with District IT Department to make sure that the GIS server is working optimally.
18. Provides technical and functional supervision of consultants/vendors.
19. Provide support to District users.
20. Coordinate efforts with other departments as directed.
21. Build and maintain positive working relationships with co-workers, other District employees, and the public using principles of good customer service.
22. Perform related duties as assigned.

Qualifications

Knowledge of:

- ESRI-based GIS software, ArcGIS Portal Map Services, and its applications.
- Principles and practices of GIS.
- Geodatabase management concepts and protocols.
- Programming languages such as python, Javascript, and SQL.
- Data management and quality control techniques.
- Principles of cartography, basic design, and engineering design standards.
- Knowledge of drafting and mapping tools and programs such as AutoCAD software.
- Principles of algebra, geometry, and trigonometry related to the computation of distances, angles, and areas.
- Records storage and handling techniques.

- Principles and practices of project management and workflow analysis.
- Principles and practices of effective customer service.

Ability to:

- Read and understand maps, right-of-way documents, and design drawings.
- Perform a variety of field and office engineering work including surveying, drafting, and mapping.
- Plan, organize, prioritize work and manage multiple priorities.
- Maintain GIS standards and accurate records.
- Perform complex analytical analysis and spatial queries.
- Research, design, implement and maintain GIS databases including versioned and replicated data.
- Recognize revisions impacts to the GIS databases and versions.
- Perform GIS versioned editing and quality control.
- Learn to use CAD (Computer Aided Drafting) and GPS (Global Positioning System) and other tools, methods, and techniques.
- Compile and analyze technical information and prepare technical documents and reports related to area of assignment.
- Perform technical research related to maps, deeds, and property rights.
- Operate and use modern office equipment including a computer and applicable software.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Communicate clearly and concisely, both orally and in writing.

Responsibility to:

- Obey safe work practices, procedures, and regulations including wearing protective equipment and safety devices.
- Operate equipment in a careful and safe manner.
- Acknowledge the use of safeguards by other employees.
- Report any removal, displacement, damage, destruction, or tampering of safety devices, safeguards, notices, or warnings.
- Report any safety risks or hazards to your supervisor or other management personnel.
- Report to your supervisor or other management personnel any work assignment that you feel would require you to perform the work in an unsafe manner.

Experience and Education Guidelines

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education and Experience:

GIS Analyst I: Bachelor's Degree in GIS, engineering, cartography, geographic studies, computer science, or closely related field is preferred **OR** Equivalent experience of four (4) years of work experience equivalent to the District's GIS Technician **OR** Associate's degree in the areas GIS, engineering, geographic studies, computer science, or closely related field **AND** two (2) years of work experience equivalent to District's GIS Technician.

GIS Analyst II: The requirements of the GIS Analyst I **AND** an additional one (1) year work experience as GIS Analyst I.

A GIS Certificate from an accredited college cannot be used as a substitute for the Associate Degree requirement for the GIS Analyst classification.

License and Certificate:

Possession of a valid California driver's license.

Working Conditions

Environmental Conditions:

Work is generally performed in a temperature-controlled office environment subject to typical office noise, with some work done outdoors with exposure to traffic, outdoor weather conditions including extreme heat and cold and to wet, and humid conditions.

Physical Conditions:

Essential functions may require maintaining physical condition necessary to sit while studying or preparing reports; bend, squat, climb, kneel and twist when performing installation/repair of equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 25 pounds or less.

Vision:

See in the normal visual range with or without correction. Specific vision abilities required by this job include close vision and the ability to adjust focus.

Hearing:

Hear in the normal audio range with or without correction.

Mental Conditions:

Essential functions may require maintaining mental condition necessary to know and understand operations and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; explain jobs to others; handle conflict.

Attachment B

GIS Analyst Salary Survey

Job Title	Average	Placer County Water Agency	County of Placer	County of Nevada	City of Lincoln
GIS Analyst I	95,820.31	101,454.08	96,886.40	93,255.76	91,684.98
GIS Analyst II	107,695.75	109,189.00	106,849.60	103,037.87	111,706.54

Current Salaries

	Step 5	Difference
GIS Tech I	77,937.60	-
GIS Tech II	86,112.00	10%
GIS Analyst I	95,820.31	11%
GIS Analyst II	107,695.75	12%

	Step	Hourly	Bi-Weekly	Monthly	Annual
GIS Analyst I	1	37.90	3,031.99	6,569.30	78,831.61
	2	39.79	3,183.58	6,897.77	82,773.19
	3	41.78	3,342.76	7,242.65	86,911.85
	4	43.87	3,509.90	7,604.79	91,257.44
	5	46.07	3,685.40	7,985.03	95,820.31

GIS Analyst II	1	42.60	3,407.75	7,383.46	88,601.56
	2	44.73	3,578.14	7,752.64	93,031.64
	3	46.96	3,757.05	8,140.27	97,683.22
	4	49.31	3,944.90	8,547.28	102,567.38
	5	51.78	4,142.14	8,974.65	107,695.75