

SOUTH COLUMBIA BASIN IRRIGATION DISTRICT  
Job Description

Job Title: District Assistant Engineer  
Department: Engineering  
Reports To: Chief Engineer  
Pay Range: GS 8  
FLSA Status: Non-exempt  
Prepared By: Mylan Muhlestein  
Prepared Date: May 2010  
Approved By: Tony Walsh  
Approved Date: May 2010

**SUMMARY**

Provides general engineering support for operation and maintenance activities and modifications of irrigation facilities. Offers authoritative engineering decisions and interpretations of specifications.

**ESSENTIAL DUTIES AND RESPONSIBILITIES** include the following. Other duties may be assigned.

Surveys, investigates, designs, and provides construction coordination, inspection, and recording of capital improvement projects. Supplies technical specification for alterations of facilities by permit. Prepares specifications and drawings for improvements to facilities by contractors. Prepares engineering estimates of costs for projects. Provides special studies relating to claims. Conducts ponding tests and calculates seepage rates.

Provides direct support to the Watermaster sections during operation and maintenance construction activities. Performs pre-surveys, construction staking, post surveys, and generation of record drawings.

Provides construction inspection on third party projects. Keeps detailed inspection logs, tracts inventory, and collects data to generate record drawings at end of projects.

Works closely with Engineering Tech to provide required inspection reports, project status updates, construction photographs, and all other information required for billing purposes.

Participates in the initial planning of proposed projects including but not limited to preparation of grant applications, field surveys, and computer-aided drawings.

Inputs, updates, and maintains database of engineering information related to capital improvements, flow measurements, canal system maintenance, and geographical information system.

Utilizes engineering database to produce drawings, maps, and calculations.

Utilizes engineering database to provide information used to coordinate canal improvements and other engineering projects.

Works on survey crew to obtain and analyze topographical details of sites.

May serve as utility locate coordinator for the District. Locates requested utilities utilizing GPS database and/or field personnel, and attends area utility coordination meetings.

Provides technical support to assure on-farm activities and needs parallel district requirements. Consistently applies requirements to all landowners during permitting process, cost sharing capital improvements, and water consumption calculations.

Provides technical support to Pump and Electrical Division.

#### SUPERVISORY RESPONSIBILITIES

May be assigned to supervise Engineering Technician(s).

#### QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

#### EDUCATION and/or EXPERIENCE

Bachelor's degree (B. S.) from four-year college or university in Agriculture or Civil Engineering required. Knowledge of AutoCAD, Microstation, or equivalent drafting software. Ability to generate plans, charts, and graphs using word processing, spreadsheet, and database software. Ability to prepare plans from legal descriptions and perform calculations to complete reclassification worksheets. Ability to create, interpret, and communicate engineering plans and specifications. Understanding of GIS and GPS a plus.

#### LANGUAGE SKILLS

Ability to read, analyze, and interpret common scientific and technical journals, financial reports, and legal documents. Ability to respond to common inquiries or complaints from customers, regulatory agencies, or members of the business community. Ability to write speeches and articles for publication that conform to prescribed style and format. Ability to effectively present information to top management, public groups, and/or boards of directors.

#### MATHEMATICAL SKILLS

Ability to apply advanced mathematical concepts such as exponents, logarithms, quadratic equations, and permutations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis.

#### REASONING ABILITY

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

#### CERTIFICATES, LICENSES, REGISTRATIONS

Engineer In Training (EIT) preferred. Washington State Driver's License required.

#### PHYSICAL DEMANDS

The physical 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 disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently required to stand; walk; sit; use hands to finger, handle, or feel; and reach with hands and arms. The employee is occasionally required to climb or balance; stoop, kneel, crouch, or crawl; and talk or hear. The employee must regularly lift and/or move up to 10 pounds and frequently 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.

#### WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently exposed to outside weather conditions. The employee is occasionally exposed to moving mechanical parts and vibration. The noise level in the work environment is usually moderate. Employee is exposed to irrigation ditches and structures with rapidly moving water. Employee must access open laterals and canals with steep slippery side slopes.