
DEPARTMENT: Treatment	SUPERVISED BY: Principal Engineer	FLSA STATUS: Exempt
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JOB SUMMARY:

The Project Engineer (Engineer) provides professional support and performs a variety of project management and engineering duties requiring specialized knowledge in the analysis, planning, design and construction of wastewater systems under general direction. This position performs life-cycle project management to facilitate the timely, accurate and cost-effective completion of all projects within established guidelines. This position develops and delivers large, multi-disciplinary, complex capital and repair and replacement (R&R) projects associated with regional wastewater treatment and transmission systems and facilities. This position requires understanding and ability to interpret and apply pertinent laws, regulations, policies and standards.

DISTINGUISHING FEATURES:

This is the fourth advanced level in the Project Engineer classification series. The employee in this position applies advanced, professional project management and engineering knowledge and principles. Serves as project engineer and manager on large, complex, multi-disciplinary designs and projects. This position exercises a high degree of initiative and judgment in independently carrying out assignments with high degrees of complexity. Work is frequently new and varied.

MINIMUM QUALIFICATIONS:

Demonstrated knowledge of:

- Current principles, standards, methods and practices of civil engineering, including:
 - Wastewater treatment process, theories, and technologies
 - Hydraulics, pipe flow and pumping systems
- Current principles and practices of project management and asset management.
- The methods, equipment, techniques and materials used in constructing, maintaining, rehabilitating and repairing wastewater systems and facilities.
- Occupational health and safety hazards associated with the operations, maintenance, and construction of wastewater facilities.
- Pertinent Federal, State and local laws, codes, standards, and regulations.

Skill in:

- Managing multiple, large and complex projects on time, on schedule, and on budget while satisfying project goals and objectives
- Critical and analytical thinking and decision-making.
- Application and use of advanced mathematics and scientific rules and principles to express ideas and solve complex problems.
- Researching and analyzing complex data and information accurately.
- Read, interpret, understand and explain engineering data, maps, plans, reports, surveys, and specifications.

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- Preparing and maintaining detailed, accurate, and organized project documents, reports and studies.
- Effective, professional interpersonal and public communication, including writing, speaking and presentation.
- Translating and communicating technical information into formats (e.g. data, graphic and narrative) understandable to groups and individuals with varying levels of knowledge and expertise.
- Proficient use of computers, mobile devices, computer software and applications, including Microsoft Office Suite, Microsoft Project, Esri GIS, project management applications, document collaboration, Bluebeam Revu preferred, and AutoCAD.

Demonstrated ability to:

- Analyze problems, project consequences, draw logical conclusions, identify alternatives, make recommendations and implement an effective course of action.
- Perform and or review advanced engineering computations, research, analysis and computer modeling.
- Coordinate, plan and effectively facilitate meetings.
- Apply leadership, strategic and business management skills to the course of work.
- Coordinate and direct the work of professional and technical staff and consultants.
- Read, interpret, apply and explain Federal, State, and local policies, procedures, laws and regulations and permits.
- Prepare and present clear and concise written reports and presentations.
- Collaborate with diverse individuals, manage conflict in a professional manner, gain cooperation and build consensus.
- Demonstrate effective, professional interpersonal and public communication skills, including writing, speaking and presentation.
- Establish and maintain effective working relationships with those contacted in the course of work, including a variety of District staff, regulatory officials, community groups and the general public.
- Effectively use standard business English.
- Work independently and effectively as part of a team to deliver the work.
- Pass all required safety training and apply the procedures and concepts to the work environment.
- Wear and properly use personal protective equipment and perform all work in a safe manner.
- Safely operate a motor vehicle.
- Maintain sustained attention to detail and work under the pressure of deadlines.
- Be dependable and punctual in reporting to work as scheduled.

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CERTIFICATION AND LICENSURE:

- Active licensure as a Professional Engineer (PE) by the State of Washington or licensure from another board-approved licensing jurisdiction and obtain WA licensure via comity within six months of date of hire.
- Possess and maintain a valid state-issued driver’s license with a good driving record.
- Certification as a Project Management Professional (PMP) preferred.

EDUCATION AND EXPERIENCE:

Any combination of education, training, and experience that provides the knowledge, skills, and abilities to effectively perform the work. A typical way to acquire this includes:

- Bachelor of Science degree from an EAC/ABET-certified program in Environmental Engineering or Civil Engineering with coursework in physical, chemical and biological processes or closely related fields.
- Seven (7) years of responsible experience in the planning, analysis, design or construction of wastewater projects, including treatment systems.

WORKING CONDITIONS:

Work is performed in both office and field environments across all areas of the wastewater treatment plant and facilities, including frequent travel to remote facilities and field locations and occasionally working in inclement weather conditions. This setting requires strength, agility, mobility and the ability and willingness to move about various sites, including walk, climb, crawl, access facilities and field construction sites, safely navigate uneven terrain and slippery surfaces and occasionally lift up to 25 pounds. Includes prolonged sitting and computer use. May include exposure to a variety of health and safety conditions associated with a wastewater treatment plant and facilities, including toxic, corrosive, and combustible fumes and chemicals, high voltage equipment, and raw sewage. Requires corrected vision sufficient for use of computers, reading plans and detailed documents, gauges and equipment.

TYPICAL DUTIES & RESPONSIBILITIES:

The duties listed below, while not all-inclusive, are characteristic of the type and level of work associated with this position. The individual in this position 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.

- Utilize functional area technical expertise to meet the needs of assigned projects.
- Apply advanced project management competencies (e.g. scope, time, cost, quality) to and support all phases of project delivery.

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- Prepare wastewater project work plans, schedules, cost estimates and budgets.
- Perform Business Case Evaluations and life-cycle cost analyses.
- Serve as the design engineer on assigned projects.
- Organize and coordinate projects with multi-disciplinary teams; use soft skills and leadership competencies to achieve established project outcomes.
- Coordinate and direct all activities to obtain local, state and federal project-related permits and clearances.
- Coordinate and direct the acquisition of real property rights, easements and right-of-way, including direct contact with private property owners.
- Coordinate and direct the procurement of consulting resources, negotiating contract terms and administering professional services contracts.
- Perform and or review advanced engineering calculations, modeling and analysis.
- Coordinate, direct and review project feasibility, engineering and environmental studies; validate technical and economic analyses.
- Coordinate and direct the development of an application for state and federal public works funding; administer awards to comply with funding requirements.
- Direct and perform engineering planning for capital construction and/or maintenance programs.
- Coordinate, direct and review the preparation of multi-disciplinary preliminary and final engineering plans, drawings, process diagrams, details, and specifications for compliance with pertinent codes, standards, regulations and permits.
- Coordinate, direct and review contract documents, including specifications and special provisions.
- Coordinate and direct the bid and award of large, complex public works projects.
- Assess the condition of wastewater facilities and equipment, manage asset data and perform risk analysis.
- Establish and review system and equipment specifications and requirements.
- Coordinate, plan and conduct engineering tests and studies; analyze test results to determine suitability of new or existing equipment, processes and systems.
- Direct and maintain technical communications, project records, documents, reports and databases.
- Prepare and deliver technical presentations to committees, staff, regulators and others.
- Coordinate and direct the procurement of goods, materials and equipment.
- Identify and resolve potential design conflicts between disciplines.
- Facilitate and direct project and design review meetings.
- Coordinate design efforts with operations and maintenance staff.
- Understand, monitor and analyze advanced operations of the wastewater system and equipment; identify deficiencies and make recommendations for improvements in design and operation.
- Serves as a contact and liaison to stakeholders, consultants, contractors, and vendors.

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Other Duties.

- Respond to and provide technical support for routine and emergency equipment/system maintenance and failures.
- Routinely visit all wastewater facilities.
- Maintain current knowledge of the principles, practices and technologies in civil, process, mechanical, and environmental engineering.
- Maintain current knowledge of the principles and practices of project management and asset management.
- Provide technical guidance, assistance and training to technical staff.
- May provide engineering services during construction, including field inspections, submittal reviews and responding to requests for information.
- Follow and comply with District policies, practices, procedures and management directives.
- Follow occupational health and safety policies and procedures.
- Demonstrate regular and reliable attendance.
- Perform other duties as assigned.

RELATIONSHIP WITH OTHERS:

The individual in this position has daily in-person, telephone, and written engagement with a wide variety of contacts for the purpose of information sharing, work coordination, and problem-solving. Contacts include District management and staff, consultants, contractors, municipal staff, regulatory authorities and other external project stakeholders involved in or associated with the wastewater system and projects.

SUPERVISION:

Exercised: No direct supervision, provides technical direction and oversight of assigned professional, technical, and administrative staff, prioritizing, coordinating and assigning project work tasks and activities. Provides feedback and input to the Principal Engineer for evaluating performance and recommending training.

Received: This position receives general direction on work assignments, working with high degrees of independence under limited supervision. Work is reviewed regularly for accuracy, quality and compliance with applicable laws, regulations, permits and standards. Direction is received through formal and informal communications, conferences, and meetings. A formal evaluation of the employee’s performance and work is conducted at least annually through the performance appraisal process.

SPECIAL REQUIREMENTS:

- Pass all required safety training classes and apply those procedures to the work environment.
- Maintain appropriate physical fitness to perform essential job functions.

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- Required to work the normal working hours as defined for the position and facility assigned, including occasional evening and weekend work.
- Final offer of employment is contingent upon successful completion of a reference check.