



**GUAM WATERWORKS AUTHORITY**  
**WATER-WASTEWATER OPERATIONS ENGINEER**

**NATURE OF WORK IN THE CLASS:**

Under the direction of the Assistant General Manager of Operations. The employee in this class will perform a variety of technical guidance and analyses and ensure compliance with regulatory requirements. Assignments include Managing engineering projects from inception to completion in the Operations Division of the Authority.

**ILLUSTRATIVE EXAMPLES OF WORK:**

*(Classification 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 position, as illustrated in the position description questionnaire).*

Leads and performs major planning and program studies and makes recommendations for water and wastewater system infrastructure in support of capital improvements to the Assistant General Manager - Operations (AGMO) and/or the Assistant General Manager - Engineering (AGME)

Manages assigned activities within the Capital Improvements Program, such as storm, sewer and water management, transportation planning, and pavement management programs.

Responsible for conducting comprehensive studies and assessments to determine the water needs of a specific area or project.

Analyzes data on population, water demand, and available water resources to develop appropriate water supply and treatment systems, including designing infrastructure such as dams, reservoirs, pumping stations, water treatment plants, and distribution networks.

Assists in the scope of engineering projects; prepares Request for Proposal (RFP); coordinates the bidding process for assigned projects; oversees and participates in the assembly and preparation of bid documents including drawings, calculations, specifications, plans and support materials; assures bid documents, notifications, awards and related materials are distributed to appropriate contractors, outside agencies, and personnel according to established time lines; evaluates and recommends professional engineering consultants and contracts awards.

Develops schedules and methods to accomplish assignments, ensuring work is completed in a timely and efficient manner

Manages the planning, design, and construction of water systems for new development and capital improvement projects, including securing funding and managing project budgets and schedules.

Performs various professional-level engineering work in the research, planning, design, and construction of capital infrastructure improvement and maintenance projects.

Completes a variety of engineering calculations and analyses including, but not limited to, hydraulics, pump and equipment capacities, equipment and system controls, and related matters in support of projects and technical studies.



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Prepares engineering designs for presentation to groups involved in the project; prepares specifications and cost estimates, sketches or project options, and results of research requirements; prepares final designs for capital improvement projects.

Prepares contract documents, specifications, and plans; Conducts field inspections of work done by contractors to ensure compliance with plans and specifications; Drafts and recommends approval of contract change orders.

Assists in identifying, evaluating, and providing improvement recommendations with preliminary and final designs and design criteria for assigned programs and/or projects.

Provides assistance in the preparation of short and long-range plans, schedules, estimates, budgets, detailed final plans, specifications, special conditions, and agreements.

Assist engineers with planning, design, and construction management of projects to construct, enlarge, and modify water and wastewater facilities.

Reviews and processes necessary permits, right-of-way agreements, and other documents related to the use of GWA property or right-of-way, or other government lands and right-of-way that are GWA's responsibility.

Design and oversee the implementation of water treatment systems, including processes such as coagulation, sedimentation, filtration, disinfection, and desalination.

Provides direct technical support to operations teams, including real-time troubleshooting and analysis of equipment and process issues, to minimize operational disruptions.

Evaluates current operational procedures and recommends technical or process changes to improve efficiency, quality, and performance optimization to meet regulatory compliance and performance standards.

Work closely with operations staff, engineers, and management to ensure alignment on maintenance, repair, and operational strategies. Facilitate effective communication across teams to drive coordinated responses to technical challenges.

Assesses equipment performance, recommending upgrades or replacements, and assisting in the prioritization of maintenance activities to extend asset life and reduce operational costs.

Provides presentations to management, government entities, the Consolidated Commissioners on Utilities, and customers.

Perform other duties as assigned or required.



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**KNOWLEDGE, ABILITIES, AND SKILLS:**

Knowledge of one or more of the following disciplines: Civil, Environmental, Structural, Architectural, Mechanical, and/or Electrical engineering terminology and techniques.

Knowledge of modern methods, materials, and techniques used in the construction of water and wastewater systems and facilities.

Knowledge of basic surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding engineering.

Knowledge of computer software applications, including word processing, spreadsheets, graphics, and databases.

Knowledge of U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water and Clean Water (Wastewater) Regulations.

Knowledge of National Pollutant Discharge Elimination System (NPDES) permit program rules and regulations.

Knowledge of Guam Waterworks Authority (GWA) rules and regulations, and other operational guidelines and directives.

Knowledge of engineering designs, construction and maintenance principles and practices of engineering science and technology.

Knowledge of the principles and practices as applied to the field of municipal public works, including planning, development, design, and construction.

Ability to plan, supervise, direct and coordinate the work of professional, technical, and contract staff.

Ability to manage projects of varying sizes and budgets.

Ability to evaluate complex designs and consulting work.

Ability to perform feasibility and cost analyst studies.

Ability to prepare presentations to management, government entities, the Consolidated Commissioners on Utilities and customers.

Ability to interpret and apply complex, rules, regulations, laws, and ordinances.

Ability to perform complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.



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**MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:**

- A. Master's degree in Construction Administration/Management or Engineering from an accredited college or university and three (3) years of experience in capital improvement program management in water or wastewater experience or treatment facility design, pump and lift station design in municipal engineering; *or*
- B. Bachelor's degree in Construction Administration/Management or Engineering from an accredited college or university and five (5) years of experience in capital improvement program management in water or wastewater experience or treatment facility design, pump and lift station design in municipal engineering.

**LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:**

Must possess and maintain a valid Operator Level III or higher Certification in one or more of the water/wastewater certifications, but not limited to the following:

- Water Collection
- Water Distribution
- Wastewater Treatment
- Wastewater Collection

**NECESSARY SPECIAL QUALIFICATIONS**

Possession and maintain a valid driver's license

**ESTABLISHED:                    SEPTEMBER 2024**

**JE POINTS:                      1020**

**FLSA STATUS:                  EXEMPT**



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JOSEPH T. DUENAS, Chairman  
Consolidated Commission on Utilities