Position Guide Date: June 6th, 2025 Hourly Position Company: Kent County Water Authority Type: Water Project Engineer Reporting To: Director of Technical Services

General Purpose

The Water Project Engineer supports the engineering and operational activities of the Kent County Water Authority through technical expertise, data analysis, GIS management, and field operations. Reporting to the Director of Technical Services, the role integrates office-based project planning with field-based execution to ensure system integrity, regulatory compliance, and project delivery. The Engineer contributes to the Authority's mission of delivering high-quality drinking water by supporting infrastructure development, asset management, GIS and IT platforms, and engineering design and construction oversight.

Distinguishing Characteristics

This professional-level position bridges field and office engineering functions, supporting both daily operations and long-term infrastructure projects. The role includes responsibility for drafting and design, GIS mapping, data reporting, hydraulic modeling, and construction inspection. The Water Project Engineer also plays a critical role in GIS integration, SCADA support, Utility Cloud asset management, and IT coordination. The position requires familiarity with physical security measures, cybersecurity awareness, and access control technologies as part of comprehensive infrastructure protection. The Engineer must be comfortable working independently while also collaborating across departments and engaging with contractors, regulators, and the public.

Essential Duties & Responsibilities

1. Engineering Design & Support

- - Prepare computer-aided design (CAD) drawings for water infrastructure projects, including plans for new installations and updates to as-built records.
- - Assist with design and design review for capital improvement projects and Authority-led infrastructure upgrades.
- - Provide technical support to senior engineering staff, contractors, and operations personnel.
- - Contribute to construction administration activities, including field layout, inspection, and compliance tracking.

2. GIS & Data Systems

• - Manage GIS data entry, map production, and data integration with hydraulic modeling tools (e.g., WaterCAD, WaterGEMS).

- - Operate GPS and ground-penetrating radar (GPR) tools to capture field data for GIS applications.
- - Maintain and update the Authority's mapping systems and infrastructure databases using ArcGIS Pro and associated technologies.
- - Collaborate on asset management strategies via Utility Cloud and SCADA integration.

3. Project Management & Field Oversight

- - Conduct site inspections to verify compliance with construction standards and regulatory expectations.
- - Maintain records for roadwork restoration, patching contracts, and other post-construction obligations.
- - Prepare and update project documentation including records, maps, work orders, and regulatory submittals.

4. Regulatory Compliance & Reporting

- - Assist in compiling reports and data to meet RIDOH, RIDEM, and EPA reporting requirements.
- - Monitor field and system data to ensure compliance with state and federal water quality and safety regulations.
- - Provide data and technical support for the Authority's Water Supply System Management Plan and other long-term planning documents.

5. Security & Infrastructure Protection

- - Support the monitoring and maintenance of physical security systems, access control mechanisms, and site surveillance tools.
- - Coordinate with senior staff on cybersecurity protocols related to SCADA, GIS, and enterprise systems.
- - Contribute to data integrity and secure documentation management practices.

6. Communication & Collaboration

- - Serve as a technical resource for internal staff and respond to customer inquiries related to water quality, infrastructure, and project work.
- - Maintain effective working relationships with other departments, public officials, utilities, and consultants.
- - Attend meetings and site visits as required to support project coordination and stakeholder engagement.

Minimum Qualifications

Education & Experience

Bachelor's degree in civil engineering, environmental engineering, or a related technical discipline.

At least five (5) years of relevant experience in water utility operations or infrastructure design.

Familiarity with ArcGIS Pro, AutoCAD, and hydraulic modeling software (WaterCAD/WaterGEMS).

Experience in construction inspection, drafting, GIS management, and utility-related data systems.

Certifications & Licensing

Must obtain Rhode Island Grade I Treatment and Grade I Distribution Licenses within 12 months of hire. Grade IV Treatment and Grade IV Distribution Licenses are required within 36 months of hire. Valid Rhode Island driver's license with the ability to maintain insurability under the organization's policy. EIT (Engineer-in-Training) certificate preferred but not required.

Knowledge, Skills & Abilities

- - Working knowledge of water treatment, pumping, and distribution system operations.
- - Proficiency in AutoCAD, GIS, GPS equipment, hydraulic modeling, and database management.
- - Familiarity with cybersecurity practices related to SCADA, GIS, and Utility Cloud systems.
- - Ability to read and interpret engineering drawings, field notes, and construction documentation.
- - Strong technical writing and analytical skills with attention to accuracy and compliance.
- - Ability to manage time effectively, meet deadlines, and adapt to changing priorities in a fast-paced utility environment.
- - Capacity to work independently and collaboratively with internal teams and external partners.

Work Environment & Physical Requirements

Combination of office and field work with exposure to all weather conditions. Ability to conduct site visits, climb, walk uneven terrain, and lift light-to-moderate equipment. May require participation in emergency response or off-hours project support as directed.