

## ENGINEER PROFILE

**Name:** Katherine Hayden

**Organization:** Ross Valley Sanitary District

**Engineering Discipline (Check one below):**

- Civil
- Mechanical
- Electrical
- Environmental (including Process)
- Structural
- Information Technology
- SCADA
- Other

1. Please describe the work you do:

Engineering studies/planning, CIP program and project development, project design, engineering services during construction/construction management, and project management. CMMS implementation and management including software and database administration, mapping management, data management and reporting, QA/QC, and coordination with risk model as well as operations & maintenance staff/efforts. Asset management including asset inventory development and management, risk model projects implementation and reporting, coordination between District staff efforts and consultant/contractor efforts, and coordination with other agencies. Support for District O&M, inspections (including CCTV), and administrative functions, and customers.

2. What combination of education, experience, and skill was required in order for you to obtain your job?

B.S. and E.I.T. Preparing wastewater studies and master plans including hydraulic modeling. Performing condition assessments. Designing pipeline installation, replacement, and rehabilitation projects. High proficiency in GIS and databases.

3. What do you like best about your job?

Seeing things through the entire life cycle: condition assessment, risk assessment, project planning, engineering design, construction, and asset inventory updates.

4. Please tell us about the water or wastewater engineering project you enjoyed working on the most, and what made it rewarding.

Large Diameter Condition Assessment for City and County of Honolulu. 10-year update to one part of an I/I Study I worked on early in my career. Evaluated and selected a range of inspection technologies, planned and coordinated during field inspections, reviewed and analyzed data, prepared a condition assessment report including project recommendations. It was rewarding because of the continuity (in that it was the result of something I had worked on previously), because it reflected/demonstrated my expertise in wastewater

pipeline condition assessment and asset management, and because it allowed me to solidify and expand my skillset in ArcGIS/databases/CMMS (InfoNet).

5. What qualities and capabilities are needed in order for an engineer to be successful in the water/wastewater industry?

Qualities:

- Problem solver
- Detail-oriented
- Adaptable/flexible
- Ethical
- Dedicated (committed to the best interest of assets, agency/client, ratepayers/customers)

Capabilities:

- Perform complex calculations
- Spreadsheets and databases
- AutoCAD and/or ArcGIS
- Project scheduling and task management
- Oral and written communications
- Customer service
- Ability to understand and, where possible, integrate the needs of different stakeholders, internal and external.

6. Do you have any advice for an individual who is considering pursuing a career as an engineer in the water/wastewater industry?

As much as possible, given your work opportunity, pursue variety in your experience base (pipelines, pump stations, planning studies). Try to understand ahead of time or early on the culture of the company/agency you will be working for and be comfortable with your role in it. Learn how to listen and communicate with people who have different personalities, viewpoints, approaches, skills, and experience base. Keep current with changes in technology in the industry. Be detailed but don't get bogged down in the details, be able to step back and see the big picture and try to let some things go that are not 100% perfect. Learn how to delegate and share responsibility.