



CAREER PROFILE QUESTIONNAIRE

Name: Stephen Lowes

**Job Category: Sanitary (Environmental)
Engineer**



1. Please describe the work you do:

I write many of the discharge permits issued to industrial users describing the requirements they must follow in order to be in compliance with local and federal regulations. These requirements include items such as allowable concentrations of toxic pollutants in the discharged wastewater, equipment installation and maintenance, and the submittal of reports. In addition, I review construction plans for industrial and food service establishments to determine the equipment required to prevent the discharge of fats, oils, and grease or other pollutants to the sanitary sewer system.

My work helps to ensure the wastewater discharged from commercial and industrial facilities does not:

- overflow from the sewer, endangering public health and our local waterways;
- injure people working in the collection system;
- damage our valuable infrastructure, including the sewer system and the wastewater treatment facility; or
- interfere with the operation of the wastewater treatment facility, allowing pollutants to reach San Francisco Bay and harm wildlife.

2. What combination of education, vocational training, apprenticeship, experience, and/or skill did you obtain in order to be qualified and selected for your job?

I have a Bachelor of Science degree in chemical engineering. I am a California Registered Chemical Engineer. I worked as an environmental inspector with the City of San José for nine years and gained experience with the pretreatment program, including the federal and local regulations, the discharge permits, and the plan check process. Eventually I was promoted to a sanitary engineering position with environmental engineering.

3. What do you like best about your job?

I enjoy the tremendous variety of businesses I review and inspect, from small restaurants to some of the largest high-technology companies in the world. This area is home to everything from businesses making the same products for over 50 years to companies on the cutting edge of technology. This job has a mixture of field and office work, and I'm able to interact with city staff from other work groups, divisions, and departments.

4. Please tell us about the projects and activities you have enjoyed most in your work in the water/wastewater field, and what made them rewarding,

The projects I enjoy the most are ones where the City staff and our customers have to work together beyond the normal regulator/regulated relationship. For instance, I have worked with many restaurant owners to identify the most appropriate alternatives for removing fats, oils, and grease from their wastewater when their location prevents the installation of a grease interceptor.

My greatest reward has been the opportunities I had going from an inspector with very little experience and knowledge of industrial wastewater pretreatment to becoming a peer with all the other inspectors, comparing stories from the field and making sure we consistently and correctly applied our regulations, to finally being one of the most experienced staff in the program. I enjoy the opportunity to train and mentor young and enthusiastic new hires.

5. What qualities and capabilities are needed in order for a person in your area of expertise to be successful in the water/wastewater industry?

Curiosity - Always look for opportunities to learn something new, take advantage of available training, and ask lots of questions.

Confidence - You are the expert and the more your customers believe that the easier it will be to succeed. Do your research, make your decision, document your position, and be willing to make the final call.

Personality – You will interact a lot with others, be a people person but also know you have a regulatory role and that sometimes people will not agree or be happy with your decisions.

Detail oriented – Be willing to dig through federal and local regulations written years ago including legal terms, interpret them, and apply them to our local program in a way that can be explained to customers with a wide variety of backgrounds.

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

There are great opportunities in the wastewater industry both today and coming in the future. Take advantage of any opportunity to learn. Join local, regional, and national trade associations in your industry to broaden your perspective. Take pride that you will be helping make our local environment cleaner, healthier, and safer than it might otherwise be.