



Karen Kubick

Regulatory Rundown

Forward thinking combats the challenges of staying compliant

Urban storm water management continues to be an issue for many American cities. Storm Water Solutions Editorial Intern Raissa Rocha checked in with Karen Kubick of the San Francisco Public Utilities Commission to discuss the city's plans for complying with changing regulations and instituting more sustainability initiatives.

Raissa Rocha: What issues does San Francisco face regarding regulatory compliance?

Karen Kubick: Right now we are in the beginning phase of planning a multibillion-dollar capital improvement program for the city and county of San Francisco's wastewater system. One of our primary focuses is storm water management because of the potential for additional regulatory scrutiny in the future relating to the amount and frequency of combined sewer discharges (CSDs). We are being proactive to stay ahead of future issues.

In San Francisco, we have a robust combined system, as we built a lot of storage back in the 1970s, 1980s and 1990s. However, we are seeing that land use has changed. There is more concern with impervious areas and runoff volume, so we are going to be looking at our sensitive areas and seeing what we may be able to do to reduce the occurrence and volume of CSD events.

We are also on a five-year Regional Water Quality Control Board permit cycle for operating our system and will soon begin negotiations for the next permit cycle.

Rocha: What region-specific challenges does the city have concerning storm water management?

Kubick: San Francisco is a peninsula that is 49 sq miles in size and surrounded by the San Francisco Bay and Pacific Ocean on three sides. We have a ridgeline that separates the city, running from south to north.

If a drop of water falls on the western half, it ends up in our collection system—where it is treated and ultimately discharged into the ocean. If a drop of water falls on the east side of the city, which is pretty much two-thirds of the flows, it is going to end up in the bay.

For the bay side of the city, we may face potential changes and more emphasis on nutrient reduction. We are currently evaluating the condition and performance of our collection and treatment systems.

Rocha: What are some sustainability initiatives that your utility is pursuing?

Kubick: We are looking at what the end use will be for biosolids and the methane produced as part of the solids treatment process, and mapping out our energy footprint. We also have conducted energy-efficiency audits of our treatment plants, looking at lighting and mechanical in addition to power and natural gas consumption.

Furthermore, we have a local program called the Better Streets Plan, where all of the different city departments work together to redo

streets: paving, building bike lines, increasing pedestrian safety and, where appropriate, putting in more green space and trees. We work to replace the collection system assets and try to incorporate green infrastructure into those streetways so that storm water can be captured and held locally. The plan also looks at pervious pavement, swale systems and bioretention.

San Francisco has eight different watersheds, and basically a drop of water will end up being managed within its defined geographic area. We are starting a watershed assessment effort to characterize the soil, runoff and volume in each watershed, employing a triple-bottom-line approach to factor in community values as to how we can solve localized flooding and runoff issues. We will be looking at each watershed function, how much water comes off of it, how much area is impervious, what the soil types are, and what kind of green design would be effective. **[SWS]**

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