

Be Sewer Smart Summit 2011

BRAVE NEW WORLD: THE NEW SEWER SYSTEM REALITY

New Regs . New Tech/Clean Tech . Catastrophic Event Planning & Response

"The Sewer Smart Summit has gone from brown to green," commented Michael Mejia, a six-year summit attendee. On October 25, 2011, over 140 engineers, sewer system maintenance crews, public works directors and sanitary district operators attended ABAG's 2011 Sewer Smart Summit to engage with 15 speakers who shared best practices and expertise for preventing Sanitary Sewer Overflows (SSOs), understanding new regulations, preparing for catastrophic events, converting wastewater to biofuel and learning to prepare for Climate Change regulations. These Sewer Smart Summit attendees are the people in the forefront, protecting our waterways and addressing pollution as well as greenhouse gas emissions to reduce their footprint and contribution to global warming – and that is why this summit is green.

Launching the 2011 Summit, [ABAG PLAN's Risk Management Officer, Jim Hill](#), introduced [City of Oakland's Vice Mayor, Desley Brooks](#), who delivered her welcoming remarks and talked about the Oakland Watershed and Stormwater Management Rain Barrel Program, the City's Creek to Bay Protection Program and the Regional Private Sewer Lateral Program that is being phased-in in some East Bay communities. [Ezra Rapport, ABAG's Executive Director](#), then updated the audience on the Sewer Smart program's trends and progress to date in reducing SSOs for ABAG PLAN members. He touched upon aging infrastructure, the SSO General Order and the Sewer Smart program accomplishments. After a broad overview of the day's agenda, Jim Hill thanked our sponsors – CSRMA, Restoration Management Company and ServiceMaster Clean Restoration Company – and introduced the first speaker.

[Victor Lopez, Water Resources Control Engineer from the State Water Resources Control Board](#), demystified the proposed changes to the Wastewater Discharge Regulations (WDRs) and encouraged attendees to attend a January 2012 workshop to comment on these proposed changes. The number one key issue cited in previous public comment sessions is the proposed mandatory Private Lateral Sewer Discharge reporting regulation. Victor then explained the trends with Sanitary System Overflows (SSOs). One of the prominent SSO trends as of February 2011 is that less than 5% of the 1081 enrolled California public sanitary sewer systems are responsible for 90% of the volume spilled since the inception of the program.

[Jim Fischer, State Water Resources Control Board, Office of Enforcement](#), explained how the new WDRs affect Sewer System Management Plan (SSMP) audits. He informed attendees as to who is conducting inspections along with his department (Regional Water Boards, USEPA and contractors) and why. The overall purpose of the audits is to help enrollees reduce SSOs as well as establish a compliance baseline, since most systems have not ever been inspected. Inspections are also being conducted to check the accuracy of SSO

reporting and help reveal SSSWDR enforceability issues. Jim continued to explain in detail what areas of the system will be inspected. He commented that the biggest issue so far with the compliance audits was the failure of enrollees to have accurate records.

[David Patzer, Risk Control Advisor for CSRMA, the California Sanitation Risk Management Authority](#), moved us on to where the rubber meets the road in our attempt to achieve ZERO SSOs. The truth is – there will never be zero SSOs. Compliance with the WDRs is not the Gold Standard, it is the Minimum Standard. The goal of risk management is to help sewer system operators prevent costly claims due to preventable sewer backflows and backups. According to David, it makes sense to look at creating an ordinance that addresses ownership and responsibility for installing a backup prevention device to protect yourself. When writing your SSMP, you need to pay attention to all your target audiences who will be responsible for different aspects of the plan and provide training for implementation. CSRMA is creating some model language for ordinances that should be available in December 2011.

[Aida Fairman, Associate Engineer with the City of Los Altos](#), shared best practices for their successful sewer main corrosion rehabilitation project. She explained how they prioritized the pipes in their system for the "Cure-in-Place-Pipe (CIPP) and showed diagrams from the different parts of the city where work was done. The City of Los Altos produced detailed Bypass Planning and Traffic Control Maps to mitigate congestion when work was being performed. Summit attendees had so many specific questions for Aida about the project, that Aida provided us post summit with a downloadable cost/estimate spec sheet, which is listed next to her PowerPoint presentation here.

Next [Rosey Jencks from the San Francisco Public Utilities Commission](#), [Gary Batis , Public Works Superintendent, City of South San Francisco](#) and [Jerry Bradshaw, Public Works Director for the City of El Cerrito](#), gave our audience a broad overview of urban watershed/stormwater management practices in the Bay Area. They addressed how we got to this point where we have to plan for stormwater management and how to deal with the regulations and permitting regarding stormwater treatment. Jerry shared El Cerrito's best practices of sidewalk rain gardens – their Green Streets project, and Rosey shared insights into SF's rainwater harvesting program. Besides explaining the National Pollutant Discharge Elimination System (NPDES) permitting for municipal separate storm sewer systems (MS4s), Gary stressed the importance of trash capture devices and monitoring and reducing consequent pollution.

We launched the afternoon session with [Danielle Hutchings, ABAG's Earthquake & Hazards Program Coordinator](#), [Steve Dennis, Alameda County Water District Emergency Services Director/CalWARN Chair](#) and [East Bay Municipal Utility District's Julia Halsne, Manager of Business Continuity](#) addressing Bay Area earthquake risk, preparation, resilience and business continuity during a catastrophic event. Danielle's research showed that earthquakes routinely ignore all the models we develop for them – occurring in unexpected locations and at different than expected magnitudes. Significant earthquakes have the

cascading effect of failures in the infrastructure, including sewer and water systems. She is currently working on a regional disaster resilience action plan with Bay Area government and agency stakeholders. CalWARN, according to Steve, is an organization of water and wastewater agencies throughout California who have signed an agreement to share emergency resources following a disaster. He walked us through the steps of joining CalWARN now so that you already have the agreement and relationships in place to share resources. Prior to needing assistance, it is also important to inventory your existing systems to ensure that you can meet FEMA requirements once disaster strikes. Julia then explained how the Business Continuity Program evolved at EBMUD after the Loma Prieta Earthquake in 1989, the Oakland Hills fire in 1991. Once Katrina hit, they saw what was key – they needed to be able to keep track of their people and needed to communicate with customers. Julia reviewed EBMUD's Emergency Operations Plan and their plan for business continuity and recovery of services critical to the organization. They looked for all the gaps and disconnects and made recommendations to ensure that the plan is effective and meets their district's goals for business recovery. If you lose your customer base, you have no revenue – so how are you going to manage that? They now have servers in Sacramento (alternative data center), backup email system, emergency notification with employees via mobile and computers, phone, text, etc. They have a system in place to communicate with customers and every employee gets trained in emergency procedures.

Our next dynamic speaker, [Karri Ving, BioFuels Coordinator for the San Francisco PUC](#), alerted the audience to the fact that FOG (fats, oils and greases) in San Francisco Sewers is a \$3.5 million problem. Besides this alarming fact, there were many regulatory drivers behind their Wastewater to Biofuel program – Clean Water Act, Statewide WDRs, AB 32, and so forth. They started a pilot project employing technology to harvest sewer grease to create Biofuel. Another objective was to create a model that would enable other cities and towns to replicate their program. Besides being environmentally correct, there are also some revenue builders within the model. SFPUC along with technology partners BlackGold Biofuels and Pacific Biodiesel are demonstrating that brown grease can be recovered and converted to an ASTM quality biodiesel. You can find out more at sfwater.org and even take a tour of the demonstration project.

Continuing on our green theme, [Dr. Jennifer Stokes, Research Scientist & Inventor, UC Berkeley](#), provided a demonstration of WWEST (WasteWater to Energy Sustainability Tool) – a tool that can help cities and towns prepare for Climate Change regulations coming down the pipeline. You can enter data into the Excel program about your facility, equipment, pipes, concrete, etc., to estimate Life-Cycle GHG (Greenhouse Gas) emissions for your facility and for processing. The results are case-specific depending on which data you are tracking. You can take a look at the tool at <http://west.berkeley.edu/tool.php>. Some findings so far indicate that operation is key for water and wastewater programs and that electricity produces the most effects, followed by materials production.