



2007 Sewer Smart Summit

**ABAG PLAN Corporation
September 25th, 2007**

**Joseph P. Bort MetroCenter Auditorium
101 Eighth Street
Oakland, CA**

On September 25, 2007, the Association of Bay Area Governments' Pooled Liability Assurance Network Corporation (ABAG PLAN) hosted its third Sewer Smart Summit.

The purpose of the Summit was to create a forum where local governments and sanitary districts come together sharing best practices to prevent backflows and backups and to promote alertness and preparedness for the rainy season throughout the Bay Area.

Over 65 attendees participated in the ABAG PLAN Sewer Smart Summit, representing government regulators, plumbing professionals, industry, and many of the communities around the San Francisco Bay Area. A list of participating communities and organizations is attached as Appendix A.

The Summit consisted of an afternoon of presentations focusing on the new regulations and best practices to sanitary sewer backup prevention. After opening and welcoming remarks by Marcus Beverly, ABAG PLAN Corporation, and Julie Carter, Dublin, presentations commenced.

NEW STATEWIDE COLLECTION SYSTEM REGULATION - REDUCING SSOs

Eric Maag, Director, State Water Resources Control Board (SWRCB)

Eric Maag provided an overview of the new Statewide Waste Discharge Requirements for Sanitary Sewer Systems (General Order) adopted in 2006. The objective of the General Order is the proper operation and maintenance of sanitary sewer systems (collection systems) to reduce numbers and volumes of sanitary sewer overflows. Maag focused on the major requirements, i.e. the implementation of a Sewer System Management Plan (SSMP) and the reporting of sanitary sewer overflows (SSOs).

The new regulation requires agencies to develop and implement a SSMP for their sanitary sewer systems. The SSMP does not have to be submitted to State/Regional Water Boards for review or approval but must be made available for review upon request. Each element of the SSMP must be certified as complete by an agency electronically in the SSO Database of

the SWRCB. An agency's governing board must approve the SSMP development plan and final SSMP. Maag described content and mandatory elements of the SSMP and associated completion dates which are based on population.

Under the General Order Reporting Requirements, collections systems must submit all SSMP information, submit a collection system questionnaire and report all SSOs electronically to the SSO Database. Maag explained data submission procedures, SSO classifications and associated reporting requirements.

Summary data on reported SSOs is available to the public on the SWRCB website. Access to SSMP information is in development. Additional information can be found at www.waterboards.ca.gov

THE ROLE OF FIRST RESPONDERS IN MANAGING SEWER BACKUP CLAIMS AND THE NEW CSRMA SEWER BACKUP RESPONSE AND CLAIMS HANDLING POLICY

David Patzer, Risk Control Advisor, California Sanitation Risk Management Authority (CSRMA)

David Patzer presented examples of media coverage of sewer backups or backflows and the negative perception outcome for public agencies. Not only is reputation of the agency at risk, but claim costs are greatly affected as well. Costs have skyrocketed in the past years due to mold fear, construction costs, media attention, and increased filing of lawsuits.

Three factors, which can influence costs substantially, are initial response, restoration firms and claims management. Patzer underscored the importance of the initial response by the field crew. Field crew must behave in a professional and empathetic manner in their dealings with angry, frustrated or difficult homeowners. Additionally, proper documentation and photographs will preserve important information for claims examiners. To that effect, Patzer recommended all agencies having a SSMP handbook and equipping field crew vehicles with Response Kits. This will provide uniform guidelines for field crews when responding to spills.

Patzer stressed the need for agencies to be prepared to handle sewer spills appropriately and thus control claim costs. Another tool for municipalities to reduce or defend against claims is a sewer ordinance that requires the use of backflow prevention devices.

INSIDE STORY: LEAST COST APPROACH TO SSMP COMPLIANCE

Steve Line, President, ICOMMM, Inc.

Steve Line provided an overview on cost efficiency to sewer systems management. Cost efficiency can be gained through proactive maintenance activities; identifying critical sewers; deferring projects that are of low risk; fixing projects of highest risk; integrating information management processes in daily routines; and developing a defensible and sustainable methodology for prioritizing sewer inspections and refurbishments.

These efforts will be greatly enhanced by having a systematic method for assessing critical sewer lines in place. GIS systems are invaluable tools hereby and should be integrated into the sewer system's information management. With a managed Risk SSMP Program, sewer systems can make assessments based on condition, capacity and risk. Condition

assessment incorporates CCTV and routine inspection of assets. Capacity assessment incorporates hydraulic modeling to assess system capacity based on normal and wet weather and future growth scenarios. Risk assessment assesses failure modes, probability and consequence of failures.

In concluding, Line emphasized that defensible decision making methodology for prioritizing capital, maintenance and operational resources is essential. A criticality based approach identifies the likelihood and impact of the most consequential system failures and facilitates balancing budget constraints and exposure.

THE GOOD, THE BAD AND THE UGLY: 2006-7 CRAZIEST SEWER CLAIMS

Marcus Beverly, Risk Manager, ABAG PLAN

Marcus Beverly talked briefly about the “Good, Bad and Ugly” of sewer claims. The “Good” being that our claims have decreased thanks to good practices by members and good claims management, in particular by ABAG PLAN's sewer claims expert, Bruce Carey. Since inception of the Be Sewer Smart campaign in 2003, ABAG PLAN's claims have decreased by 75% for the 31 member cities. The “Bad” being hillside locations, aging sewer infrastructure, a disconnect between public agencies and homeowners, and lack of awareness of FOGs (fats, oils, greases). Finally, the “Ugly” in sewer claims are issues, such as illegal hook-ups or defective backup prevention devices.

Beverly opened the forum to brief presentations by various member communities on challenges and examples of Sewer Smart Best Practices in the Bay Area.

ANATOMY OF A "MODEL FACILITY"

City of Foster City / Estero Municipal Improvement District

Ray Towne, Public Works Director, Foster City

Foster City' gave an overview of its system management methodology. This entails daily morning briefings; a Work Order system; GIS data; staff training and certifications; broad banding and cross training; financial resources; involvement of management and the District Board; and a defined Wastewater Collection System program.

Foster City went over things that work for the City, such as constant monitoring, CIP projects to rehabilitate and standardize lift station and the collection system; installing parallel Force Mains and/or Overflow Pipes when practical; an equipment replacement fund; 24 hour SCADA monitoring of all lift stations; preventative maintenance program; and ownership and accountability for all staff.

Going forward, Foster City will continue to strive for compliance with the Sewer System Management Plan; formalize much of what already is being done; evaluate its operations and maintenance programs; communicate with the public; and keep constant vigilance of Foster City's public health, environment and cleanliness.

SIGNIFICANTLY REDUCING HOMEOWNER BACKFLOW CLAIMS IN HILLSBOROUGH -

Martha DeBry, Public Works Director, Town of Hillsborough

After experiencing an increase in claims frequency and severity in the 1990s, Hillsborough started implementing steps to prevent and reduce claims. This included amendments to its municipal code in 2000 and 2005 regarding backwater device requirements. It also made equipment and staff changes to its maintenance program and acquired ICOMMM software to automatically track maintenance progress and generate work orders. It implemented a Reimbursement Program which entails a 50% reimbursement of residential backwater valve installations tied in with proper documentation and building permit process. The Reimbursement Program is promoted with an ongoing public outreach program and so far resulted in many residences replacing entire laterals.

Root intrusion was determined to be a main cause for sewer backups, and Hillsborough addressed it vigorously with a designed root foaming program of injecting herbicide foam into sewer pipes. Although Hillsborough efforts increased number of sewer lines maintained, a high percentage of sewer lines remain in unknown condition. To that effect, Hillsborough contracted with Burlingame for sewer line video inspection.

In summary, Hillsborough reduced backups into homes; the outreach program encouraged residents to replace whole laterals; liability was transferred in the absence of backwater protection devices; and compliance under General Order's SSO Plan has been achieved.

LATERAL TESTING AND BACKFLOW PREVENTION ORDINANCES

Larry Anderson, City Attorney, City of Burlingame

Larry Anderson recounted Burlingame's past efforts in working with the Building Department to have a point of sale ordinance regarding laterals passed. This required homeowners to inspect and repair their laterals before their homes can be sold. However, after the ordinance was passed, the realtor community appealed to City Council and succeeded in having the ordinance revoked. This also reflects how house values influence how much homeowners are willing to take on.

Currently, Burlingame's ordinance requires that property owners must have their sewer systems certified by licensed professionals prior to sale of or additions to property

UPDATE: CITY OF OAKLAND SEWER INFRASTRUCTURE AND SEWER REHABILITATION PROGRAM

Gus Amirzehni, Acting Principal Civil Engineer, PE Community & Economic Development Agency Oakland

Gus Amirzehni illustrated Oakland's Sewer Infrastructure and Sewer Rehabilitation Program which is a continuing effort to improve Oakland's aging sewer infrastructure. Oakland maintains over 1,000 miles of sanitary sewer pipes, 31,000 structures and 7 pump stations. Most of the system is more than 50 years old. It provides routine inspection and maintenance of pipes to prevent spills.

Under the Program, the City was charged with rehabilitating 30% of its sewer lines. 230 miles of lines have been rehabilitated, capital improvement average about \$ 2MM/year. The program is in its 17th year and has 6 more years for completion. The Program is being funded by bond and sewer service fees which are charged on homeowners' monthly water bills. So far, the program is very successful.

HOW EARTHQUAKES & GLOBAL WARMING WILL IMPACT YOUR SEWER LINES

Jeanne Perkins, Earthquake Hazards Program Manager, ABAG

Jeanne Perkins addressed our earthquake exposures (urban, commercial, residential areas) and hazards (ground shaking, fault rupture, liquefaction, landslides, tsunamis) in the Bay Area. With a 62% chance of having an earthquake of 6.7 or greater magnitude in the next 30 year, Bay Area communities need to consider potential effects on sewer, water or natural gas pipes, with sewer pipes being the most at risk.

Recent disasters, such as Kathrina or the Loma Prieta earthquake, have made it clear that cascading problems will aggravate natural disasters. Ruptured pipelines, sinkholes, road closures are just some examples. It is estimated that in a mayor Hayward Fault event, more than 5000 pipes would rupture.

In essence, communities must develop a disaster-resistant region by reducing the potential loss of life, property damage, and environmental degradation from natural disasters, while speeding economic recovery from those disasters with coordinated efforts between wastewater and water systems. Perkins ended by advising the audience of the Local Hazard Mitigation Plan. Additional information can be found at <http://quake.abag.ca.gov/>

SEWER SUMMIT WRAP-UP

Marcus Beverly, Risk Manager, ABAG PLAN

Marcus Beverly concluded the Summit by reiterating ABAG PLAN's commitment to continue its efforts to help communities and homeowners protect themselves from the costs, damage, and inconvenience of sewer backups. He complemented the good efforts undertaken by many cities and pointed out that resources saved from decreased claims frees those resources for other services in the community. Additionally, ABAG PLAN will persevere in hosting forums to further the work of this Summit and requests those interested in participating to continue to share information and resources in an effort to achieve our goals.

Beverly thanked CSRMA, ICOMMM, INC. and CSG CONSULTING, INC. for their sponsorship of the Summit and invited guest to the reception.

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APPENDIX A:

**SEWER SMART SUMMIT 2007
COMMUNITIES & ORGANIZATIONS REPRESENTED**

ABAG
ABAG PLAN
BERKERLEY BUILDING EDUCATION CENTER
BYRON SANITARY DISTRICT
CALIFORNIA SANITATION RISK MANAGEMENT AUTHORITY
CENTRAL CONTRA COSTA SANITARY DISTRICT
CITY OF BELMONT
CITY OF CUPERTINO
CITY OF DALY CITY
CITY OF EAST PALO ALTO
CITY OF FAIRFIELD
CITY OF FOSTER CITY
CITY OF LOS ALTOS
CITY OF MOUNTAIN VIEW
CITY OF OAKLAND
CITY OF SAN CARLOS
CITY OF SAN JOSE
CITY OF SOUTH SAN FRANCISCO
CITY OF SUNNYVALE
COUNTY SANITATION DISTRICT NO. 2-3
CSG CONSULTANTS, INC
ICOMMM, INC.
NAPA SANITATION DISTRICT
NOVATO SANITARY DISTRICT
PORT OF OAKLAND
SAN MATEO COUNTY
SEWER AUTHORITY MID-COASTSIDE
SILICON VALLEY ASSN. REALTORS
STATE WATER RESOURCES CONTROL BOARD
TOWN OF CORTY MADERA
TOWN OF HILLSBOROUGH
UNION SANITARY DISTRICT
VALLEJO SANITATION & FLOOD CONTROL DISTRICT
WEST COUNTY WASTEWATER DISTRICT

APPENDIX B:

**SEWER SMART SUMMIT 2007
Agenda**

- 12:00 pm** **Registration and Lunch**
- 1:00 pm** **Marcus Beverly Introduction: Welcome to Sewer Smart Summit 2007**
- 1:05 pm** **Julie Carter**, ABAG PLAN Loss Prevention Committee Chair and Assistant to Dublin City Manager, Welcoming Remarks
- 1:10 pm** **New Statewide Collection System Regulation - Reducing SSOs**
- Eric Maag, director, State Water Resources Control Board
 - Q&A
- 2:00 pm** **The Role of First Responders in Managing Sewer Backup Claims and the New CSRMA Sewer Backup Response and Claims Handling Policy**
- David Patzer, CSRMA
- 2:30 pm** **Break**
- 2:40 pm** **Inside Story: Least Cost Approach to SSMP compliance**
- Steve Line, President, Icomm, Inc.
- 2:50 pm** **The Good, The Bad And the Ugly: 2006-7 Craziest Sewer Claims**
- Marcus Beverly, Risk Manager, ABAG PLAN
 - “Don’t Let This Happen To You” video –
- 3:00 pm** **What’s Working: Sewer Smart Best Practices in the Bay Area**
- Foster City –**Anatomy of a ” Model Facility”**- Ray Towne, Public Works Director
 - Hillsborough – **Significantly Reducing Homeowner Backflow Claims in Hillsborough** - Martha DeBry - Public Works Director
 - Burlingame - **City of Burlingame: Lateral Testing and Backflow Prevention Ordinances.** Larry Anderson, City Attorney for Burlingame
 - Oakland – Gus Amirzehni, PE Community & Economic Development Agency Oakland
- 4:00 pm** **How Earthquakes & Global Warming Will Impact Your Sewer Lines**
- Jeanne Perkins, Earthquake Hazards Program Manager, ABAG
- 4:30 pm** **Marcus Beverly:**
- 2007 Wrap up of summit
 - What’s new with the Be Sewer Smart Education campaign
- 5:00 pm** **Reception in the Patio, sponsored by ICOMMM, Exhibits open**