

ABAG PLAN Corp. Sewer Smart Summit

May 17th, 2006

**Joseph P. Bort MetroCenter Auditorium
101 Eighth Street
Oakland, CA 94607-4756**

SUMMARY

On May 17th, 2006 the Association of Bay Area Governments' Pooled Liability Assurance Network Corporation (ABAG PLAN) hosted its second Sewer Smart Summit.

The purpose of the Summit was to (1) reduce the frequency and severity of sewer backups, (2) establish partnerships within Bay area communities for support of the Be Sewer Smart Public Education program and (3) dispel myths about the State Water Resources Control Board Order No. 2006-0003, Statewide General WDR for Wastewater Collection Agencies, which was adopted on May 2, 2006.

Over 90 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. The latter group was made up of both building inspection and public works department representatives. A list of communities and organizations that participated is attached as Appendix A.

The Sewer Smart Summit consisted of an afternoon of presentations focusing on the new regulations and various approaches to sanitary sewer backup prevention. Individual presentations included the State Water Resource Control Board's overview of the new Wastewater Discharge Requirements (WDRs) adoption process, as well as an outline of agency enrollment, training, and reporting.

The EPA touched upon the benefits and challenges of the new WDR, while CSMRA informed attendees on effective emergency response to sewage spills, including appropriate documentation and response to customers. A member of IAPMO gave a summary as to the status of code upgrades regarding backwater overflow devices. In addition, various agencies shared their success stories regarding financing of sewer programs, implementation of ordinances, and sanitary sewer management plans

(SSMPs). Complete meeting notes from the Summit, including overviews of each presentation are attached as Appendix B.

Based on the tremendous interest in this second Sewer Smart Summit and the outpouring of ideas regarding better prevention of sewer backups and backflows that resulted from it, ABAG PLAN believes there is great potential for further improving efforts to prevent these events in our Bay area communities.

Lessons learned from this Summit confirmed ABAG PLAN's commitment to continue its efforts to help communities and homeowners protect themselves from the costs, damage, and inconvenience of sewer backups and is committed to the reduction of frequency and severity of these occurrences. Throughout the summit, the need for a comprehensive public education campaign was identified.

Additionally, ABAG PLAN will persevere in hosting forums to further the work begun at this Summit and requests those interested in participating to continue to share information and resources in an effort to achieve our goals.

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APPENDIX A:

**COMMUNITIES & ORGANIZATIONS REPRESENTED AT THE
2006 BE SEWER SMART SUMMIT**

ABAG
ABAG PLAN
Bayshore Sanitary District
Berkeley Building Education Center
Byron Sanitary District
Central Marin Sanitary Agency
City of Los Altos
City of Berkeley
City of Foster City
City of Hercules
City of Millbrae
City of Palo Alto
City of Pleasanton
City of San Bruno
City of San Carlos
City of San Jose
City of San Leandro WPCP
City of Vacaville
Crockett-Valona Sanitary District
CSRMA
ICOMMM, Inc,
Las Gallinas Valley Sanitary District
Mt. View Sanitary District
Novato Sanitary District
Port of Oakland
Richardson Bay Sanitary District
Ross Valley Sanitary District
San Mateo County Public Works Department
Sewer Authority Mid-Coastside
Sewerage Agency of Southern Marin
SF Reg Water Quality Control Board
State Water Resources Control Board
STEGE Sanitary District
Town of Colma
Town of Hillsborough
Town of Los Altos Hills
Town of Windsor
Town of Yountville
Tomales Village CSD
USEPA
Vallejo Sanitation and Flood Control District
Ventura Regional Sanitation District
Victor Valley Wastewater Reclamation Aut
West Valley Sanitation District
West County Wastewater District

Appendix B

Sewer Smart Summit Meeting Notes May 17, 2006

WELCOME AND OPENING REMARKS

Marcus Beverly, Association of Bay Area Governments Pooled Liability Assurance Network Corporation (ABAG PLAN) Risk Manager

The second annual Sewer Smart Summit opened its doors for registration, networking and bag lunches at noon on May 17, 2006. Marcus Beverly, ABAG PLAN's Risk Manager, opened the meeting at 1:00 pm and welcomed attendees who were comprised of public work directors, building inspectors, representatives from local communities and business owners. Beverly said that ABAG's sewer backup prevention program has expanded through the Summit to comprise a wider audience, including regulators, system operators, districts, plumbers and the public. Beverly stressed that the program emphasizes educating its audiences on:

- How sewer systems work
- Risks of backups
- How to prevent backups

The focus of this year's Summit is the big picture from the regulatory perspective, including the State Water Resources Control Board and the Environmental Protection Agency (EPA). Beverly introduced and welcomed Bryan Brock, Senior Engineer of the State Water Resources Control Board.

UNRAVELING THE MYTHS ABOUT THE NEW REGS (SWRCB)

[Bryan Brock, Senior Engineer, State Water Resources Control Board](#)

Bryan Brock, reviewed the statewide general Wastewater Discharge Requirements (WDRs) for sanitary sewer systems. On May 2, 2006, the State Water Board adopted new requirements for sanitary sewer systems and the associated monitoring and reporting program by issuing Order No. 2006-0003.

Brock mentioned that sanitary sewer overflows (SSOs) are not just an environmental or public health problem but also an infrastructure problem. Regulations are now in place to help manage sanitary sewer systems effectively. Southern California adopted their regulations in 2001 and as a result has noticed a dramatic reduction in SSOs and overflows that have occurred, have been remediated more quickly and with less volume.

Brock said that Southern California's WDR was used as a model for creating the new regulations in an effort to achieve similar results. He defined five key elements contained in the Statewide WDR:

- Uniform reporting and data management (San Francisco sanitary sewer overflow reporting system was used as a model)
- Outreach for system owners, managers and other interested parties
- Performance standards for both collection system O&M, management and capital improvement (build infrastructure to accommodate design storms)
- Training statewide with partners (i.e. CWEA, ABAG, League of Cities)
- Economic effectiveness and funding mechanisms

Brock also covered major events and the time schedule of the adoption process leading up to the WDR, as well as future milestones, including:

- July 2, '06** Mailers go out to known collection system agencies requesting notice of intent (NOI) and verification of authorized representative
- Sept., '06** Begin training sponsored by CWEA
- Nov. 2, '06** All collection system agencies enrolled in WDR and LROs register with Online Database
- Jan. 2, '07** Phased use of online database
- Sept., '07** End training sponsored by CWEA
- 2007 – 2010** Implement SSMP given milestone timeframes

Brock indicated that all publicly-owned wastewater collection system agencies that possess more than one mile of sanitary sewer line (including laterals) have to apply for WDR within six months. The State Water Board currently has a list of approximately 1,300 publicly-owned wastewater collection agencies statewide that will be receiving an NOI package to apply for the WDR.

Based on successful execution of a memorandum of agreement (MOA) with CWEA, the reporting schedule will be as follows:

- Regional Boards 4, 8, and 9 will begin reporting 8 months after WDR adoption
- Regional Boards 1, 2, and 3 will begin reporting 12 months after WDR adoption
- Regional Boards 5, 6, and 7 will begin reporting 16 months after WDR adoption

Brock explained the reporting program for the WDR. He emphasized that all spills must be reported to the online database (limit reporting to facts associated with spill incident).

- Major Spills - (\geq 1,000 gallons and reaches waters of the US, or creates public nuisance) must be reported immediately, within 3 business days of spill conclusion and must be finalized by LRO within 15 calendar days of spill conclusion.
- Minor Spills - (All other spills) must be reported 30 days after the month in which spill occurs.
- Private Lateral – Spills resulting from a failure or a privately-owned sewer, reporting is discretionary.

- Communities that have no spills must certify 30 days after the end of the calendar month.

Brock covered elements of the emergency response plan:

- Proper notification procedures
- Appropriate response to all overflows
- Prompt notification to appropriate regulatory agencies
- Ensure that appropriate staff and contractor personnel are appropriately trained

Brock summarized the FOG program stressing that a public education outreach program promoting proper substance disposal is necessary in order to reduce the amount of discharge. Finally, Brock reviewed the System Evaluation and Capacity Assurance Plan (SECAP). He indicated that all enrollees are responsible for preparing and implementing a capital improvement plan (CIP) that will provide hydraulic capacity of key sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. Elements of the plan include evaluation, design criteria, capacity enhancement measures, and scheduling.

For additional information, the State Water Board's web site is www.swrcb.ca.gov/sso.

UNRAVELING THE MYTHS ABOUT THE NEW REGS (an EPA perspective)

[Ken Greenberg, Environmental Engineer, EPA](#)

Ken Greenberg, Environmental Engineer of the U.S. Environmental Protection Agency (EPA) discussed the EPA's perspective on California's general WDR for sewage collection systems.

Greenberg stated that the EPA supports the WDR and that they recognize the benefits of SSMPs and reporting. He also indicated that the WDR is similar to the EPA's CMOM rule, however the EPA cannot enforce a Non-National Pollutant Discharge Elimination System (NPDES) WDR. Greenberg indicated that publicly owned treatment works (POTW) NPDES permits must continue to cover permittee's collection systems with standard NPDES provisions. Some of the benefits of the general WDR include:

- SSMPs will help systems improve
- Proliferation of "Best Practices"
- Help in securing necessary funding and resources
- Spills database – "The power of information"
 - Public's right to know
 - Recognition of best performers
 - Motivation to improve

Greenberg said that California's wastewater collection systems are aging and that we need to proactively manage these important assets as older pipes spill more frequently. Some of the challenges that the EPA notes regarding the WDR include:

- Overlapping permit requirements (WDR and POTW NPDES permits)
- Reporting to the spills database

- Funding for system improvements
- Lack of expertise in small systems

In terms of the EPA audit/evaluation process, SSO data will help in identifying:

- Spill cause
- Large volume spills
- Repeat locations
- Spill rate (SSOs/100 mi/yr) shows how your agency compares to other systems

How to Pass an EPA Audit: Success Stories in the Greater SF Bay Area

[Doug Humphrey, P.E., District Manager, STEGE Sanitary District](#)

Doug Humphrey, P.E., District Manager, STEGE Sanitary District focused on how to pass an EPA collection system audit. Humphrey indicated that STEGE is a satellite collection system for EBMUD, servicing El Cerrito, Kensington, and part of Richmond Annex. The STEGE District is unique in that they have a NPDES permit for the collection system. Based on the permit STEGE was held responsible for all aspects of SSO reporting. Humphrey commented that no element of the audit was unexpected or unreasonable. EPA initiated the audit in January 2006 and their contractor conducted the inspection within one week.

Humphrey indicated that good record keeping was key to their successful outcome. Items that were requested during STEGE's audit included:

- Permit (or WDR)
- SSO emergency response plan
- Training records (proof that people were trained)
- SSO records (last 3 years, however, can ask for up to 5 years)
- Records of SSO reports to Regional Board or State
- Contingency plan for emergency overflows

Additional information that is likely to be requested in the future includes annual reports. In terms of preparation, Humphrey said that there may not be much advance notice of an audit, so be prepared. He advised checking records regularly for accuracy. Make sure your records match up with what you reported to the State. Humphrey suggested keeping documentation up-to-date routinely; don't wait until you've been notified of an audit.

Humphrey said that you need to be able to produce whatever you're required to produce. Humphrey also advised that it's good to interact with other collection system agencies for info sharing purposes, BACWA being a good resource. They generally meet on the third Thursday of each month.

Effective Emergency Response to Sewage Spills

[David Patzer, Risk Control Advisor for the California Sanitation Risk Management Authority \(CSRMA\)](#)

David Patzer, Risk Control Advisor for CSRMA, discussed effective response to sewage spills. During the presentation he circulated informational handouts regarding sewer backups and sewer use ordinance considerations. Patzer stated that CSRMA is a risk-sharing pool of 58 different sanitary districts located in California. Patzer also noted that CSRMA's primary liability claim in terms of frequency is sewer backup events.

Patzer distinguished that the difference between SSOs and sewer backup events, is primarily one of costs, with backups typically being more expensive. He said that a sewer backup in a business, versus a residence, is typically more expensive to the district because of business interruption costs.

Patzer felt the media liked reporting on sewer backup events because they make good human-interest stories; while at the same time creating bad press for the agency involved. Media coverage of sewer backup events typically negates facts and stress hype. Because of this, public education is vital and necessary. Patzer said that the risks agencies face in cases of sewer backups include:

- Insurance claims/private citizen suits
- Huge settlements (\$\$\$\$\$)
- Bad PR
- Personal safety risks to field crew
- Unhappy Boards

Patzer talked about the importance of including appropriate language in sewer use ordinances requiring the use of backflow prevention devices. Patzer referenced various sewer backup events where the costs to districts was excessive mainly because of:

- Fear of mold (referred to by media as toxic mold)
- Increased construction costs
- Increased sophistication of remediation firms
- Increased use of industrial hygienists
- Media attention and hype
- Lawyers smell blood and come after anyone with deep pockets. They are known to come up with innovative ways to squeeze as much money as possible out of sewer backup events.

Patzer commented that CSRMA and ABAG have a strong history of successfully defending their members in cases of sewer backup claims. Patzer also spoke about a sewer backup case where the California State Automobile Association is appealing a judgment in favor of the City of Palo Alto, based on the theory of reverse condemnation.

Patzer suggested that all districts make their general counsel aware of this case, so they can contact Marcus Beverly of ABAG or a CSMRA board member about filing an amicus brief. Patzer noted that the Appeals Court needs to know that this was a bad decision. The outcome of this case has potential to change the playing field in California.

Patzer indicated that in 2003 the U.S. insurance industry paid out about \$3 billion in water damage related claims, as compared to \$150 million in 2002. Mold is a hot topic among attorneys, some hold seminars on how to make a killing with such cases. A recent search on Google for attorneys + mold resulted in 1,730,000 hits.

Patzer said that despite all the hype, scientists have indicated that a small percentage of the population is allergic to mold and their spores, to the extent of causing serious illness. He said that the California Department of Health has put out a circular educating people on the health effects of mold exposure. The districts' customers need to know this information, especially following a sewer backup event.

Patzer stressed that agencies need to be prepared in terms of what to do after a sewer backup. He highlighted particular areas where dollars can either be controlled or lost.

- Initial response
 - Response crews
 - Mitigation efforts
 - Claims information gathering
- Restoration firm
 - Response time
 - Remediation protocols
 - Pricing Structure
 - Insurance
- Claims management
 - Expertise
 - Incident knowledge
 - Project management
 - Length of claim

Patzer noted that customers want to know that they are dealing with professionals in terms of response crews. Field crews should strive to be viewed as:

- Professional
 - Prepared response
 - Uniform response
 - Consistent response
- Empathetic

Patzer said that field crews can't provide empathy if they are desensitized to sewer backup situations. He stressed that empathy absorbs frustration. He recommends that field crews mitigate the losses until the experts arrive. He also mentioned that CMRSA offers training in verbal judo, a tactical style of communication that field crew can use to effectively deal with difficult people.

He stressed the importance of proper documentation and photography when responding to a backup event, preserving important information for claims examiners. He noted that field crews should ask customers what insurance coverage they carry. He also urged agencies to make sure remediation firms are following established protocols. In addition, Patzer suggests having more than one remediation vendor in the event that your primary vendor is unavailable.

Patzer recommends putting together a sewer overflow response plan and a backup response plan, as well as using a two envelope system (one for overflows, one for backups). These are uniform models that field crews can adhere to when responding to overflow and backup events. He indicated that ABAG PLAN supports this approach, as well as many municipalities and agencies that are already using it. Patzer urged attendees to contact him if they wanted a copy of the IICRC Standard and Reference

Guide for Professional Water Damage Restoration.

Status of Code Upgrades

[Peter Langes of IAPMO, Central Valley chapter](#)

Peter Langes of IAPMO, Central Valley chapter gave a presentation on backwater prevention devices. Langes expressed concern for people who respond to sewage problems, in that they aren't certified to perform sewage remediation. Langes explained how a new prototype backflow device works and how it can alert homeowners in advance of an overflow problem. Langes said that he has written a standard to the American Society of Sanitary Engineering (ASSE) regarding alert sewer relief devices. IAPMO indicated that they liked the alarm feature of the device, however they are suggesting some changes in functionality. After modifications, Langes will present the device to IAPMO's technical committee in August 2006. Final results are pending.

Bay Area Success Stories: Implementing Ordinances & Sanitary Sewer Management Plans (SSMPs)

[SPEAKER: Peter Sevcik, P.E., Director of Engineering Operations for the West Valley Sanitation District \(WVSD\)](#)

Peter Sevcik, P.E., Director of Engineering Operations for WVSD delivered a presentation on the rehabilitation program for the WVSD. He described various aspects of the system, including the fact that most of the pipe in the system is 6 inch diameter vitrified clay. Sevcik said that the district is in the process of digitally televising the entire system, which consists 2.2 million feet of pipe. Sevcik estimated that it will take roughly 10 years to accomplish this. They've televised 930,000 feet since 2001.

He noted that they are doing most design/construction in-house and hiring contractors to do surveying and geotechnical reports. Sevcik said one of their goals is to optimize the entire system. He said they are aiming at \$2.5 million per year for rehabilitation. Costs are built into the district's rate structure. Sevcik mentioned that open cut is not always an option and explained rehabilitation methods currently used by the district:

- Cured-in-place pipe (no appreciable change of pipe capacity)
- Pipe bursting (allows use of larger pipe)
- Pipe reaming
- Horizontal directional drilling

Sevcik stated the benefits of rehabilitation from a collection system viewpoint.

- Reduced potential for SSOs
- Reduced O&M costs
- Potential to increase capacity
- Improved customer service
- Continued protection of water quality

[SPEAKER: Clarke Howatt, ABAG Public Finance Director](#)

Clarke Howatt, ABAG Public Finance Director, gave a presentation on ABAG's Competitive Bond Pool. Howatt indicated that the low-cost bond financing program is for water and wastewater capital projects. It is available to all California cities, counties, and wastewater agencies. He said that sewer bonds have become an established building commodity in the California municipal market. ABAG has done 4 pools and raised over \$170,000,000. Howatt talked about the advantages of the bond pool, including:

- Low cost of insurance
- Bonds are AAA-rated and insured
- ABAG municipal market recognition
- Flexible legal covenants and prepayment options

ABAG works closely with participants to obtain the lowest cost financing possible and advises participants throughout the process. Howatt also mentioned that the financing team contacts are ABAG, Bartle Wells Associates and Jones Hall, Professional Law Corporation (contact information on his PowerPoint presentation at www.sewersmart.org).

SPEAKER: E. J. Shalaby, District Manager of the West County Wastewater District

E. J. Shalaby, District Manager of the West County Wastewater District gave a presentation on the Building Sewer Replacement Grant Program and lateral program that the District is implementing. Shalaby described elements of the West County Wastewater District, including 235 miles of gravity sewer main lines located within 17 square miles. He said that the District treats anywhere from 8.0 MGD to 70.0 MGD, depending on weather conditions. Shalaby reported that a capacity assessment study revealed 7 main capacity concerns within the collection system that will cost \$20 million to upgrade. He also added that private building laterals were excluded from the study, because they are not under the District's control. Facts regarding building laterals include:

- Laterals are privately owned
- Total building lateral footage – 230 miles
- Building laterals made of VCP with illegal or improper connections
- High source of inflow/infiltration (I/I)
- Less than 50% of building laterals have backwater overflow device (BOD)

Shalaby added that building sewer defects include leaks and root infestation, causing backups. To address these problems, the District approached the Board and started a Building Sewer Replacement Grant Program, which funds homeowners up to \$2,000 for replacing their entire building sewer lateral.

Shalaby said the ROI for the District is a reduction of I/I and an opportunity to regain/retain the capacity of the sewer collection system. He described the grant process and stated that the program also requires that a backwater overflow device (BOD) be installed on the new building sewer. Shalaby spoke about the District's Lateral Inspection Ordinance and commented that realtors have shown support of the ordinance. He indicated that the District is looking into implementing a lateral

replacement program upon sale or transfer of property. Shalaby noted that initial responses from realtors have been good.

Concluding Remarks

Beverly concluded with a plea for support of the public education campaign reminding participants that November is "*Be Sewer Smart – Prevent Sewer Backups this Rainy Season*" month in the Bay Area. He shared statistics that since the Be Sewer Smart campaign was initiated in 2003, ABAG PLAN's claims have decreased by 74%. On this positive note, guests were invited to a reception on the patio sponsored by ICOMMM, Inc.