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State Water Resources Control Board

**NOTICE OF PUBLIC MEETING**

**Public Stakeholder Workgroup Meeting to  
Support the Development of Water Loss Performance Standards**

**Friday, June 1, 2018 – 9:30 a.m. to 4:00 p.m.**

**East Bay Municipal Utility District  
Board Room, 2<sup>nd</sup> Floor  
375 11th St  
Oakland, CA 94607**

**NOTICE IS HEREBY GIVEN** that the State Water Resources Control Board (State Water Board) will hold a public stakeholder workgroup meeting to receive input prior to the formal rulemaking process for the development of water loss performance standards. Interested persons can provide input at the workshop or via email to the contact specified in this notice. This is an informal stakeholder meeting, where a quorum of the State Water Board may be present but the State Water Board will take no formal action.

**BACKGROUND**

California Code of Regulations Title 23, Division 6, Chapter 3, [Section 10608.34](#) (i) (Senate Bill 555, 2015) requires the State Water Board to develop volumetric performance standards for water loss for urban retail water suppliers by July 2020. Pursuant to this law, urban retail water suppliers are required to submit annual water loss audit reports to the Department of Water Resources.

The State Water Board will use data including water loss estimates from water loss audit reports, data on water systems from Electronic Annual Reports, along with available literature and input from stakeholders and experts to develop performance standards. The State Water Board is conducting four public stakeholder workgroup meetings during 2018 to obtain input and provide information on the performance standards. The first public stakeholder workgroup meeting was held at the California EPA Headquarters in Sacramento on March 9, 2018 and included discussions and presentations on interpretation of water loss audit data, an overview of the rulemaking timeline and the sections pertaining to Senate Bill 555 in the Electronic Annual Reports.

**MEETING PURPOSE**

This stakeholder meeting is being conducted to provide information and obtain input on water loss detection technologies and operational practices currently available to urban water retailers. The purpose of this meeting is to discuss the feasibility of available technologies and practices for water distribution systems with different characteristics and constraints. Please refer to the meeting overview for more information on the topics of discussion listed in the agenda.

## **MEETING OVERVIEW AND TOPICS**

The meeting will include presentations to overview water loss detection and pressure management practices, and examples of currently implemented programs. Discussions will also focus on implementing pressure management in water distribution systems while complying with water quality and fire safety requirements. The meeting will have a focused discussion categorizing leak detection and repair, and pressure management technologies and feasibility of water system use of those technologies.

Participants are encouraged to consider the following questions for effective participation in the stakeholder workgroup meeting. If remote participants wish to comment on these topics during or after the meeting, please email the contact provided in this notice.

### **Real loss detection and monitoring: Ongoing efforts and planning**

Real loss is physical water loss from a distribution system due to leaks and bursts in the infrastructure.

#### Questions for discussion

Has your agency identified priorities for your distribution system to address water loss control? (For instance, reducing high consequence breaks, reducing unreported leakage, or improving pressure management)

Has your agency planned or implemented an approach for reducing water loss? If yes, what are the steps involved and technologies used in your agency's approach?

Which distribution system characteristics and operational requirements did your agency need to consider while selecting or implementing these technologies?

Did your agency need to amend your approach based on lessons learned or new findings?

Are there technologies and practices that your agency is unable to implement in its water distribution system, and why?

### **Implementing pressure monitoring and reduction programs**

#### Questions for discussion

To what extent does your agency monitor pressure for individual pressure zones in your distribution system?

Has your agency identified opportunities for decreasing operational pressure or implemented pressure reduction programs to reduce water loss and pipe failures in the distribution system?

Has your agency encountered conflicts with fire flow requirements while practicing pressure reduction? If yes, in which scenarios do these conflicts typically occur?

Has your agency identified solutions for balancing pressure reduction programs with fire flow requirements?

Are there technologies and measures that your agency is unable to implement in its water distribution system for pressure monitoring and reduction, and why?

## Implementing pressure transient (surge) management

### Background

Pressure transients or surges are sudden changes in local pressure of a distribution system typically caused by rapid closing or opening of valves or rapid start or shut down of pumps, large variations in demand (hydrant flushing), main breaks, or faulty level controls. A change in flow velocity of one foot per second can cause a pressure surge of up to forty<sup>1</sup> pounds per square inch (psi). These sharp increases in pressure can increase the number of pipe failures.

Pressure transients can be monitored through high frequency pressure loggers that record pressure at a higher speed, typically, a hundred to a thousand readings per second. Methods to control transients in distribution systems include operational practices and infrastructure retrofits such as:

- Improving valve and pump procedures for smoother responses to changes in flow
  - Employing surge protection devices
- Examples<sup>2</sup> of protection devices include surge tanks, water towers, reservoirs, compressor or bladder vessels, rupture discs in combination with safety valves, relief valves, pressure regulators, air release valves. Software with field calibration can also be used to monitor and predict pressure transients.

### Questions for discussion

Has your agency attempted to monitor pressure surges in its distribution system?

What is your agency's approach for pressure surge monitoring?

Did your agency find that currently available technology and software were effective in detecting pressure surges?

Are there technologies and practices that your agency is unable to implement in its water distribution system for pressure surge control, and why?

## **PARKING AND ACCESSIBILITY**

- Map to the building and driving directions: <https://www.ebmud.com/contact-us/directions-ebmud-administrative-offices/>
- For street parking rates please refer to: <https://www.oaklandca.gov/services/dot/parking/parking-meters>
- For parking garage locations, please refer to: <https://www.oaklandca.gov/services/dot/parking/find-a-city-owned-parking-garage>
- Please also consider using public transit. EBMUD is located near the 12<sup>th</sup> street BART station and multiple bus lines.

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<sup>1</sup> Rathnayaka, S., Shannon, B., Rajeev, P. and Kodikara, J., (2016), Monitoring of Pressure Transients in Water Supply Networks, Water Resources Management, 30:471-485

<sup>2</sup> Boulos, P., Karney, B. W., Wood, D. J., and Lingireddy, S. (2005), Hydraulic Transient Guidelines for Protecting Water Distribution Systems, Journal - American Water Works Association 97(5): 111-124

The Board room at the East Bay Municipal Utility District is accessible to persons with disabilities.

**NOTICE AND AGENDA**

The notice and the agenda are available at the State Water Board's water loss webpage at: [https://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/water\\_loss\\_control.html#meetings](https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/water_loss_control.html#meetings).

**WEBCAST**

Please use the link, access code and password below to access the meeting via webcast.

[Join WebEx meeting](#)

Meeting number (access code): 809 333 281

Meeting password: AJCHsCw2

For audio, please dial the following number:

Join by phone: 1-650-479-3208 Call-in toll number (US/Canada)

Please click on this [link](#) to troubleshoot if you are unable to join the meeting.

Notice from webcast client WebEx: Please note that this WebEx service allows audio and other information sent during the session to be recorded, which may be discoverable in a legal matter. By joining this session, you automatically consent to such recordings. If you do not consent to being recorded, discuss your concerns with the host or do not join the session.

**CONTACT**

Please direct questions about this notice to:

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May 18, 2018

Date



Jeanine Townsend  
Clerk to the Board