



**Sustainable Water Infrastructure Management (SWIM) Center
UIM/SWIM Center Conference and PIPEiD Workshop
Denver, Colorado, July 23-24, 2015
Denver Metro Chamber of Commerce, 1445 Market St., Denver, Colorado**

The Sustainable Water Infrastructure Management (SWIM) Center, UIM, Water Environment Research Foundation (WERF), Denver Water and Aurora Water are jointly hosting a two-day conference and workshop in Denver, Colorado, Thursday, July 23rd and Friday, July 24th.

The event brings together drinking water, wastewater, and storm water professionals to address issues related to pipelines, buried infrastructure and infrastructure management, as well as water quality and water supply. The first day features a slate of presentations by leading experts in the field of water infrastructure asset management. The second day will be PIPEiD workshop. This workshop is the second in a continuation of an interactive series of WERF research projects on Infrastructure Asset Management. The goal of this workshop is to enhance the practice of water pipeline asset management to align fundamental and applied research with long-term needs, which require development of a standard data structure with a new web-based centralized database platform called PIPEiD.

Anyone interested in learning the latest management techniques and strategies for sustainable and resilient water infrastructure systems should plan to attend.

The registration fee for the workshop is \$250 per person, which includes all workshop materials, lunch both days, refreshment breaks, network reception, and a CEU certificate for 1.6 CEUs upon completion of the conference and workshop. **To register visit:** <http://www.cpe.vt.edu/swim/pipeid/index.html>

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Conference and Workshop Partners



Conference and Workshop Sponsors



Scope of the Conference and Workshop

The event brings together drinking water, wastewater, and storm water professionals to address issues related to water infrastructure management, as well as water quality and water supply. **The First Day** (Thursday, July 23rd) features a slate of presentations by leading experts in the field of water infrastructure asset management. Discover innovative strategies for drinking water, wastewater and storm water infrastructure asset management and learn how to manage risk. **The Second Day** (Friday, July 24th) will be Pipeline Infrastructure Database (PIPEiD) Workshop. This workshop is the second in a continuation of an interactive series of WERF research projects on Infrastructure Asset Management. The goal of this workshop is to enhance the practice of water pipeline asset management to align fundamental and applied research with long-term needs, which require development of a standard data structure with a new web-based centralized database platform called PIPEiD.

CONFERENCE AND WORKSHOP AGENDA

THURSDAY JULY 23rd CONFERENCE AGENDA

7:00 am – 8:00 am: Continental Breakfast

8:00 am: Welcome and Overview of the Conference and Workshop

Sunil Sinha, Professor, Virginia Tech and Walter Graf, Program Director, WERF, Alexandria, Virginia

8:30 am: Denver Water Infrastructure Asset Management Program

Peter Kraft, Asset Management Coordinator, Operations & Maintenance, Denver Water, Colorado

9:00 am: Aurora Water Infrastructure Asset Management Program

Gregory R. Chol, Aurora Water Asset Manager, City of Aurora, Colorado

9:30 am: Metro Wastewater Reclamation District Asset Management Program

Amy Atwater and Marc Flatt, MWRD, Denver, Colorado

10:00 am: WATERiD and PIPEiD National Water Infrastructure Databases

Sunil Sinha, Professor and Director, SWIM Center, Virginia Tech, Blacksburg, Virginia

10:30 am – 10:45 am: Coffee Break

10:45 am: NIST Pipeline Failure Analysis and Structural Reliability Program

James Fekete, Nick Barbosa, and Chris McCowan Structural Materials Division, Boulder, Colorado

11:15 am: U.S. Bureau of Reclamation Pipeline Infrastructure Management Program

Lee Sears, Materials Engineering and Research Laboratory, Bureau of Reclamation, Denver, Colorado

11:45 am: Benefits from Standardizing a Buried Piping Data Model – the Nuclear Industry Perspective

Steve Biagiotti, Sr. Associate, Structural Integrity Associates, Inc., Centennial, Colorado

12:15 pm – 1:00 pm: Lunch Break

1:00 pm: Asset Management Program for Las Vegas Valley Water District

Charles Scott, Asset Management, Las Vegas Valley Water District, Nevada

1:30 pm: How to Convince your Mayor, Board, and Public Need for Rate Increase

Mark Winslow, Asset Management Coordinator, Albuquerque-Bernalillo County Water, New Mexico

2:00 pm: I Have my Manhole and Pipeline Condition Data, Now What?

Rick Nelson, Vice President, Global Conveyance & Storage Infrastructure Service Leader, CH2M HILL

2:30 pm: Storm water Asset Management Program for Colorado Springs

Andy Richter, Asset Management Supervisor, City of Colorado Springs, Colorado

3:00 pm – 3:30 pm: Coffee Break

3:30 pm: Pre-stressed Concrete Cylinder Pipe Condition Assessment and Asset Management

Devin Shable, Denver Water and Andy Dettmer, Pure Technologies

4:00 pm: Asset Management Program for the City of Fort Collins Utilities

Chris Parton, Asset Manager, City of Fort Collins Utilities, Colorado

4:30 pm: Funding Water Infrastructure and Maintaining Affordability

Lance Smith, City of Fort Collins Utility and Gregory Baird, Utility Financial Management, MWH Global

5:00 pm: Smart Water Infrastructure Asset Management with Data and Models

Neil Grigg, Professor, Civil and Environmental Engineering, Colorado State University, Fort Collins

5:30 pm – 7:30 pm: Network Reception

FRIDAY JULY 24th WORKSHOP AGENDA

8:00 am – 8:30 am: Continental Breakfast

8:30 am: Welcome and Overview of the PIPEiD Workshop

Walter Graf, Program Director – Infrastructure Management, WERF, Alexandria, VA

9:00 am: Denver Water Pipeline Infrastructure Asset Management Program

Peter Kraft, Asset Management Coordinator, Operations & Maintenance, Denver Water

9:30 am: Aurora Water Pipeline Infrastructure Asset Management Program

Gregory R. Chol, Aurora Water Asset Manager, City of Aurora, Colorado

10:00 am: Pipeline Failure Analysis and Structural Reliability for Risk Management

James Fekete, Nick Barbosa, and Chris McCowan Structural Materials Division, Boulder, Colorado

10:30 am – 10:45 am: Coffee Break

10:45 am: WATERiD and PIPEiD National Water Infrastructure Databases

Sunil Sinha, Professor and Director, SWIM Center, Virginia Tech, Blacksburg, VA

11:15 am: Data Analytics and Modeling Platform for Advanced Asset Management

SWIM Center Data Standard Committee Members

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SWIM Center Data Standard Committee Members

12:15 pm – 1:00 pm: Lunch Break

1:00 pm: Standardizing a Buried Piping Data Model – Lesson from the Nuclear Industry

Steve Biagiotti, Sr. Associate, Structural Integrity Associates, Inc., Centennial, Colorado

1:30 pm: Data Collection, Storage, Update, Security, and Management - Session

Session Moderator: SWIM Center Data Standard Committee Members

2:00 pm: Data Platform, Models, and Visualization for Decision-support - Session

Session Moderator: SWIM Center Data Standard Committee Members

2:30 pm – 2:45 pm: Coffee Break

2:45 pm: Key-Issues, Major-Gaps and Plans for Research and Outreach – Discussion Session

Session Moderators: Walter Graf, WERF and Sunil Sinha, Virginia Tech

3:15 pm: Next Step to get PIPEiD Project Funded – WERF TCR Mechanism

Allison Deines, Director, Special Projects, Water Environment Research Foundation

3:45 pm – 4:00 pm: Concluding Remarks

SCOPE OF THE PIPEiD WORKSHOP

INTRODUCTION

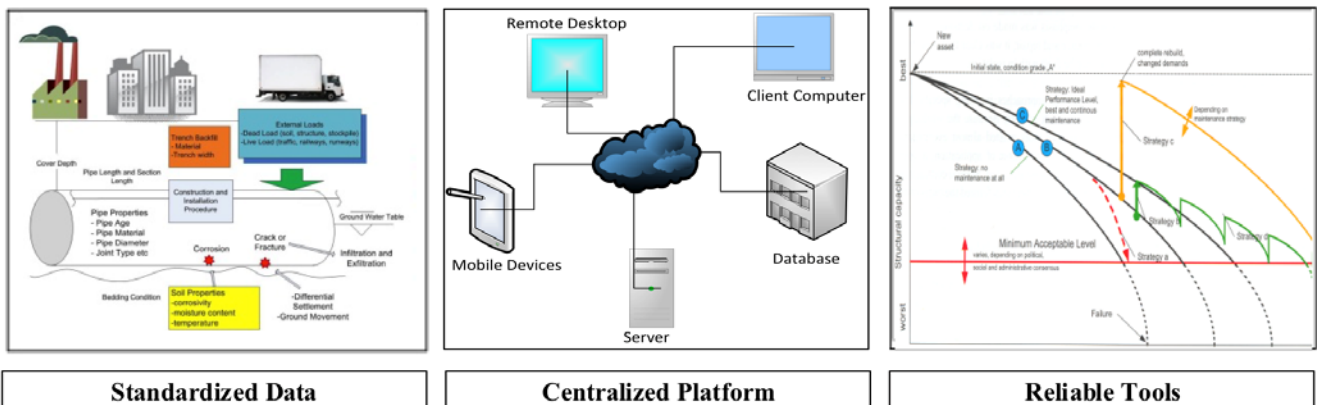
WERF, Virginia Tech, Denver Water, and Aurora Water are jointly sponsoring a one-day workshop to sharpen the PIPEiD (Pipeline Infrastructure Database) vision and mission, both of which are focused on enhancing the practice of drinking water, wastewater, and storm water pipeline asset management. With invited practitioners from utilities and water industry the workshop will identify opportunities and knowledge gaps relative to critical areas of sustainable and resilient pipeline infrastructure management. The goal of the workshop is to develop a prioritization to guide fundamental and applied research at institutions and entities funding research in drinking water, wastewater, and storm water pipeline infrastructure asset management.

OBJECTIVES

The objectives of the proposed PIPEiD is to provide a unified platform for the nation's water pipeline infrastructure data and information, to make it universally accessible and useful, and to provide access to the data sources, tools, and models that enable the analysis, simulation, visualization, and evaluation of the behavior of water pipeline infrastructure systems for more effective management of these assets. PIPEiD is envisioned to be "a Living Database Platform for Advanced Asset Management" addressing all three major management levels including strategic, tactical, and operational that will assist water utilities of all sizes to sustain targeted levels of service with acceptable risk.

PIPEiD will:

- ◆ Provide the required uniform national standards for pipeline infrastructure data;
- ◆ Establish a centralized platform which utilizes a GIS-driven web-based interface;
- ◆ Develop and provide access to open-source applications, including models and tools, that leverage the standardized and centralized platform for decision support;
- ◆ Provide dynamic aggregation and centralized storage of pipeline inventory and inspection data from utilities, including detailed environmental conditions;
- ◆ Leverage the centralized data to benchmark the performance of models and tools;
- ◆ Provide registered users with secure access to analyze their own utility data, as well as the ability to securely analyze aggregated data that cannot be identified; and
- ◆ Provide educational and professional outreach for a structured and integrated procedure to implement advanced pipeline infrastructure asset management.



"Better DATA + Better PLATFORM + Better PROCESSES = Better WATER INFRASTRUCTURE ASSET MANAGEMENT"

LOCATION, HOTEL & PARKING INFORMATION

Conference and Workshop Location:

Denver Metro Chamber of Commerce, 1445 Market Street,
Denver, Colorado

Hotels Option:

1. [The Westin Denver Downtown](#)

www.westindenverdowntown.com
[1672 Lawrence St, Denver, CO 80202](#)
(303) 572-9100

2. [Courtyard-Denver Downtown](#)

www.marriott.com
[934 16th St, Denver, CO 80202](#)
(303) 571-1114

3. [Hyatt Regency Denver at Colorado Convention Center](#)

www.denverregency.hyatt.com
[650 15th St, Denver, CO 80202](#)
(303) 436-1234

Parking Option:

Larimer Square Parking Garage

1416 Market St, Denver, CO 80202 · Lower Downtown, Phone: (303) 893-9402

Additional Notes:

**Most hotels will offer free parking as part of stay

** AF Bus route runs directly from DIA to Market Street Station located: [1601 Market St, Denver, CO 80202](#)
<http://www.rtd-denver.com/skyride.shtml>

**16th street mall bus in downtown provides free service and supports transport through the downtown
<http://www.rtd-denver.com/FREEMallRide.shtml>