

IGC 2005

International Geoengineering Conference

Maximize Productivity

Boost Customer Satisfaction

Improve Security

Increase Competitiveness



Advances in Geospatial Infrastructure Modeling & Management Technology

The Single Most Important Infrastructure Modeling and Management Event in the Drinking Water and Wastewater Industries

Discover. Learn. Network. Succeed.

Major Event Sponsored by the USEPA and 24 Leading Engineering and Technology Firms Will Explore the Power of Tomorrow's Technology Today
A Powerful Two-Day Program Featuring Presentations and Case Studies from Leading Experts to Help Water and Wastewater Industry Executives Understand

How To:

- Conduct vulnerability assessment and consequence management
- Protect and secure infrastructure systems
- Efficiently operate and manage water distribution and sewer collection systems
- Maintain and improve water quality in the distribution system
- Use network modeling for CMOM planning and IDSE compliance
- Conduct surge analysis for water quality management
- Use surge analysis for optimum system design and protection
- Interface network models with GIS and SCADA system
- Optimize Capital Improvement Programs
- Maximize energy cost savings
- Effectively plan system design, rehabilitation and expansion
- Implement asset management to optimize efficiency
- Deploy enterprise-wide GIS
- Improve overflow management

August 8-9, 2005
Renaissance Suites, Broomfield, Colorado

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Day 1

Sunday August 7, 2005

05:00 pm-07:00 pm Networking Reception

Day 2

Monday August 8, 2005

- 07:00 am **Coffee and Registration**
- 07:30 am **Chair's Welcome and Opening Address**
- 07:35 am **Keynote Speaker: The History of London's Water Supply**
Robert Casey, Network Analysis Manager
[Thames Water \(UK\)](#)

Advanced Technologies

- 07:50 am **Keynote Speaker: Seamless Surge Modeling of Large Drinking Water Systems**
Don J. Wood, Ph.D., Professor and Director of Civil Engineering Software Center
[University of Kentucky \(KY\)](#)
- 08:15 am **Application of Artificial Neural Network Modeling to Water and Wastewater Utility Planning and Operations**
Christopher W. Baxter, Ph.D., President
[HYDRANNT Consulting, Inc. \(Canada\)](#)
- 08:45 am **UDF Analysis Using Hydraulic Modeling**
Werner de Schaetzen, Ph.D., Hydraulic Modeling and Asset Management Technical Lead - Pacific Region
[Earth Tech \(Canada\)](#)
- 09:15 am **Identifying the Potential for Low/Negative Pressure Transient Events in Drinking Water Distribution Systems**
Kala K. Fleming, Ph.D., Water Environmental Scientist, Innovation and Technology
[American Water \(NJ\)](#)
- 09:45 am **The Design of Mixing Systems for Water Storage Reservoirs**
Li Ding, Ph.D., Senior Scientist
[Flow Science Incorporated \(VA\)](#)

10:15 am **Networking Break**

Water and Sewer Modeling: State-of-the-Art

- 10:30 am **Sewer Design Criteria: Are Your Planning Decisions Reducing the Risk of SSOs?**
Thomas Eugene Dumm, PE, Technical Director
[O'Brien & Gere \(MD\)](#)
- 11:00 am **From Ink and Paper to Dynamic Model: A Master Plan Case Study Incorporating Integrated GIS Creation/Hydraulic Modeling**
Jon M. Wells, PE, Project Engineer
[Kennedy/Jenks Consultants \(CA\)](#)
- 11:30 am **How are Rockwells Impacting our Sewer Flows?**
Tony A. Akel, PE, Associate, Manager - Infrastructure Master Planning
[Carollo Engineers \(CA\)](#)
Jose Gutierrez, PE, Project Engineer
[Carollo Engineers \(CA\)](#)

12:00 pm **Networking Lunch Break**

Regulatory Compliance and Water Quality Modeling Studies

- 01:15 pm **Water Quality Modeling for Changing Requirements**
Mao Fang, PE, Senior Civil Engineer, Planning Division
[Las Vegas Valley Water District \(NV\)](#)
- 01:45 pm **EPS Water Quality Modeling for Evaluating Colored Water Complaints - A Dallas Water Utilities Case Study**
Scott A. Cole, EIT, Project Engineer
[Black & Veatch \(MO\)](#)
- 02:15 pm **Developing a Water System Operations Plan for Integration of a New Surface Water Treatment Plant Using Hydraulic Modeling**
Patrick B. Moore, PE, Project Engineer
[Bohannon Huston, Inc. \(NM\)](#)
- 02:45 pm **Impacts of Operation on Water Age**
Jerry A. Edwards, PE, Senior Planning Engineer
[Black & Veatch \(MO\)](#)

03:15 pm **Networking Break**

Network Optimization Studies

- 03:30 pm **Blackout!! Optimizing Standby Power Generation Requirements for a Complex Water System Using a Calibrated Hydraulic Model**
Devan G. Thomas, P.Eng., Program Manager
[Earth Tech \(Canada\)](#)
Anthony Parente, P. Eng., Manager, Capital Works
[Region of Peel \(Canada\)](#)

International Perspectives

- 04:00 pm **Maintaining Hydraulic Models in a 2-Tier Delivery and Collection Environment**
Jeffrey Cowburn, ASCT CET, Design Technologist - Hydrotechnical Specialist
[Regional Municipality of Niagara \(Canada\)](#)
- 04:30 pm **Reduction of Energy Consumption Through the Application of Energy Management Tools**
Joseph A. Hartley, Ph. D., Principal Engineer
[MWH Europe \(UK\)](#)
- 05:00 pm **Optimizing Capital Expenditure in a Large UK Water Utility**
Christopher M. Bros, Principal Civil Engineer
[MWH Europe \(UK\)](#)

05:30 pm **Close of Day One**

05:45 pm-07:45 pm Networking Reception

Day 3

Tuesday August 9, 2005

07:00 am Coffee and Registration

07:30 am Keynote Speaker: The Latest Advances in Geocentric Dynamic Sewer Modeling Technology: State-of-the-Art
Trent Schade, PE, National Stormwater Technology Leader
MWH Soft (CO)

Case Studies

08:00 am All-Pipes Model Development at the Las Vegas Valley Water District

Laura B. Jacobsen, PE, Manager, Planning Division
Las Vegas Valley Water District (NV)
Sri Kamojjala, PE, Senior Civil Engineer
Las Vegas Valley Water District (NV)

08:30 am Just Because the System is Small, Doesn't Make the Modeling Any Easier

Douglas C. Howie, PE, Senior Project Manager
HDR (WA)

09:00 am Prescott/Prescott Valley - Water System Management for Existing Needs & Growth to Build-Out

Richard A. Humpherys, PE, Project Engineer
Carollo Engineers (AZ)

09:30 am Colorado Springs Utilities - At a Critical Juncture in the Planning, Design, and Operation of Its Finished Water Delivery System

Lisa M. Barbato, PE, Managing Engineer
Colorado Springs Utilities (CO)
Edward J. Koval, PE, Project Engineer
Black & Veatch (CO)

10:00 am Denver Water's Experiences Using All-Pipes Modeling

Arnold Strasser, PE, Hydraulic Engineer
Denver Water (CO)

10:30 am Networking Break

GIS Applications

10:45 am From Hydraulic Model to Real World Solutions

James J. Strayer, PE, Associate Vice President - Division Manager
PBS&J (CA)

11:15 am Developing a Fully Integrated Hydraulic Model Using Advanced Modeling and Calibration Techniques

Charles T. Duncan, PE, Principal Engineer
West Yost & Associates (CA)
Felix Riesenberg, PE, Senior Civil Engineer
City of Napa (CA)

11:45 am Integrating All-Pipes Systems in a Geodatabase Environment

Nathan O. Walker, PE, Water Engineer
HDR (CO)

12:15 pm Networking Lunch Break

01:30 pm Beauty is in the Eye of the Client

Paul M. Hauffen, President and CEO
IDModeling, Inc. (CA)

02:00 pm Operations, Billing, Hydraulic Models and GIS - Where the Rubber Meets the Road

David Stangel, PE, Northwest Drinking Water Technology Lead
CH2M HILL (ID)

02:30 pm GIS Integration for a Cost Effective Modeling Solution

Scott F. Humphrey, PE, Planning and IS Division Leader
Infrastructure Engineering Corporation (CA)

03:00 pm Creating the Maintainable Model

Scott P. Cattran, Associate, GIS Group Manager
Woolpert, Inc. (CO)

03:30 pm Networking Break

The Asset Management Technology Puzzle: What Systems Will You Need?

03:45 pm Predicting the Life Cycle Financing Requirements for Water and Wastewater Infrastructure

Devan G. Thomas, P.Eng., Program Manager
Earth Tech (Canada)

04:15 pm An Integrated Approach to Managing Asset Data

Jerry J. Colwell, Senior Solutions Architect
TAG The | Asset | Group (CO)

04:45 pm Award Presentation

05:00 pm Chair Concluding Summary and Close of Conference

Chair Committee

Paul F. Boulos, Ph.D. (Chairman)
MWH Soft (CO)
Arnold Strasser, PE
Denver Water (CO)
Jeffrey Cowburn, ASCT CET
Regional Municipality of Niagara (Canada)

Learn Best Practices



Uncover New Solutions

Gain Maximum Exposure

Prepare For The Future



Testimonials

"It was certainly one of the best and most enjoyable conferences I have attended in the past 40 years. It was well structured and focused on practical aspects of water network modeling and kept my attention. Thanks."

Montana State University

"The conference was terrific. The presentations were outstanding, and all the MWH Soft groups were fantastic administrators. Well done. Thanks for the privilege of being involved!"

University of Toronto

"A very, very educational session. I was very impressed with all the speakers. I am looking forward to next year's conference already."

City of Westminster

"I would like to take this opportunity to congratulate the entire MWH Soft staff for putting together such a great event. Once again you have done the hydraulic modeling community a great service by providing an open and cooperative platform in which to share ideas and advanced methods of approaching water and wastewater modeling. Both the organization of the conference and the presentations were first rate. There are some very talented people in this community and these conferences seem to bring out their very best. Keep up the exceptional work!"

Regional Municipality of Niagara

"It was an excellent conference. All of the speakers were very good. Thank you."

Goleta Water District

"MWH Soft has the most well mannered, good natured, well cultured, most diverse, ambitious, and well educated staff... I look forward to the 2nd annual conference."

City of Arlington Water Utilities

"Wonderful conference. What a pleasure and an education, I meant it when I say that you did the hydraulic modeling community a service with your open and collaborative message and style. Thank you again for your kindness and leadership."

CH2M Hill

"Everyone I've talked to was very complimentary regarding the conference. Very high quality, useful presentations and effective technology transfer. You and your staff should be very proud of the job you did. It was truly a privilege to be a participant."

Black & Veatch

"I would like to congratulate you for such a great event. Besides the technical expertise and the enrichment of the presentations at the conference, the key difference of this event was the friendly atmosphere. It made the interaction among attendees feel like we all were colleagues. At times, I felt that I was in a true workshop sharing knowledge openly with a genuine spirit of collaboration... All of this is because of your consideration to each individual, and the personal approach you put in your communications. GREAT JOB!!"

HDR

"I wanted to thank you again for the conference. I really enjoyed meeting with colleagues, sharing our approaches, and having some of the work that we are doing validated. I think the spirit of cooperation that you are promoting is greatly needed - and greatly appreciated. I look forward to attending next year's conference... Thanks so much again."

Earth Tech

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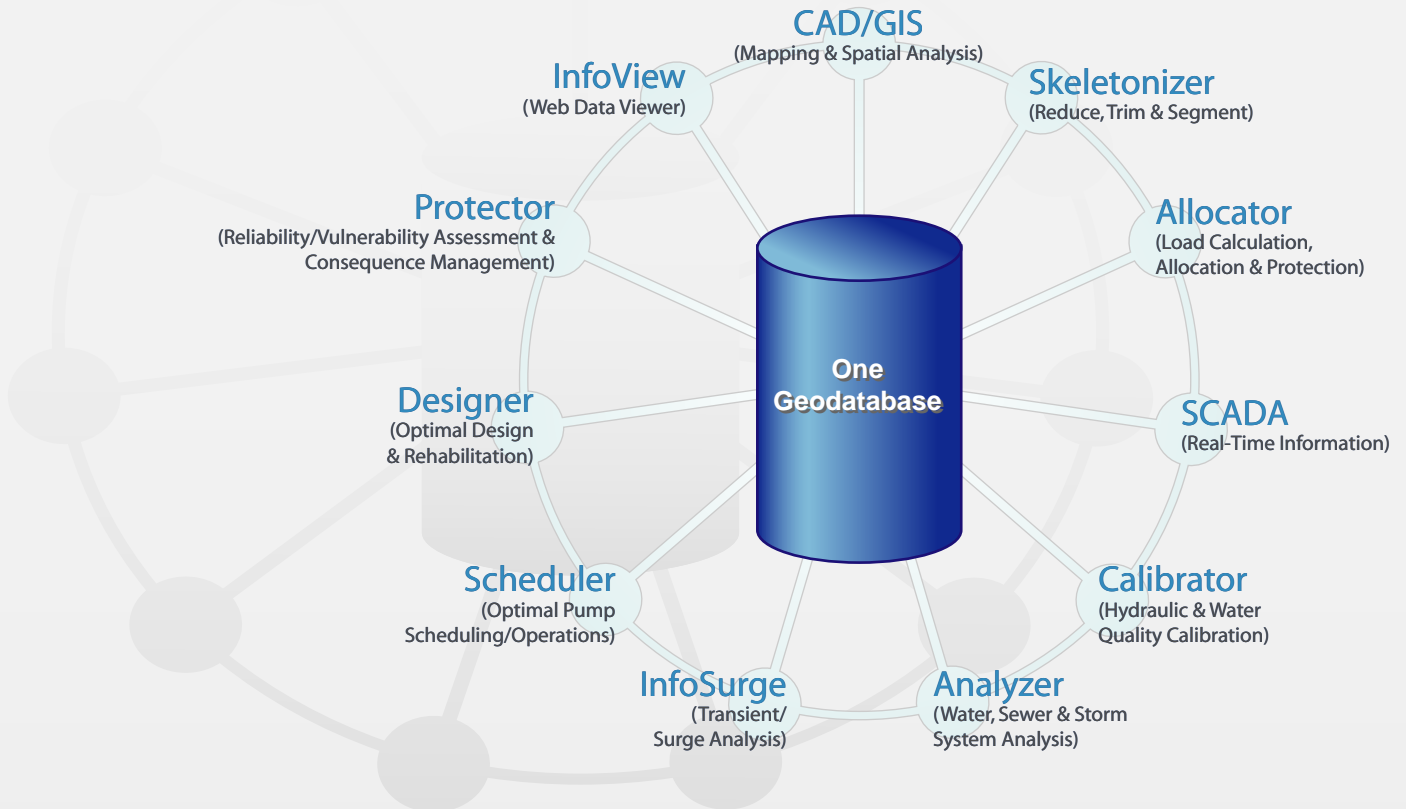
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- Hear compelling presentations from industry leaders
- Learn from an experienced platform of international and innovative speakers on cutting edge issues
- Discover proven tools and technologies
- Network on a global scale and create valuable relationships with your peers



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Corporate Headquarters: 380 Interlocken Crescent, Suite 200, Broomfield, CO 80021 U.S.A.

Operations Headquarters: 300 North Lake Avenue, Suite 1200, Pasadena, CA 91101 U.S.A.

Sales: 626.568.6868 **Support:** 626.568.6869 **Fax:** 626.568.6870 **E-mail:** mwhsoft@mwhsoft.com