

Advancing Asset Management in Your Utility: A “Hands-On” Workshop

Managing Your Facility for Long-Term Sustainability

October 7–9, 2008
The Hotel Roanoke and Conference Center
Roanoke, Virginia

sponsored by:



www.cpe.vt.edu/epaaam/

The Challenge: Over the past half century, America has spent trillions of dollars building some of the finest infrastructure that history has ever seen. This investment has played a substantial role in the sustained prosperity and quality of life of our country. But in many communities, this infrastructure is severely stressed from overuse, under-funding of maintenance and renewal, and aging.

A comprehensive approach to managing our capital assets is overdue – one that brings “state of the practice” advanced asset management (AM) concepts, tools, techniques, and technologies to bear on managing for cost-effective performance. This approach is one that focuses relentlessly on providing **sustained performance to the customer at the lowest life-cycle cost and at an acceptable level of risk to the organization.**

The Focus: Public sector managers have been managing assets for decades. However, it is clear that what we have been doing in the past will not be sufficient to address the growing and increasingly complex challenges that lie ahead. Practical, advanced techniques for better managing assets have been developed and refined in both the private sector in the US and in water and wastewater agencies around the world. Management thinking is centered on long-term effectiveness, service sustainability, and effective environmental management. *How can these advanced asset management concepts, tools and techniques be most effectively transferred into the water and wastewater industry, more specifically, into your agency? Where to start? How to proceed? How to select appropriate tools?*

The Workshops: The AM challenge for US agency officials is one of “knowledge transfer.” **For that reason, these workshops have been designed as an extensive hands-on experience.** Each workshop:

- ◆ **Incorporates a real-world storyline** to realistically demonstrate an advanced asset management way of approaching difficult asset-driven problems.
- ◆ Is built around **participant exercises** that demonstrate the concepts, techniques and tools of advanced asset management.
- ◆ Is centered on **case-based mentoring** by expert asset management practitioners. The agenda is built around five AM core questions. **The workshops focus on demonstrating, step-by-step, how an agency would select and deploy “Best Appropriate AM Practices”** that are best suited to that agency.

Tuesday, October 7

5:30 – 6:30PM Registration
6:00 – 8:00PM Opening Reception
Hosted by Sustainable Water Infrastructure Management (SWIM) an ICTAS Center of Excellence at Virginia Tech

SWIM's mission is to make America's water infrastructure systems more integrated, effective, resilient and sustainable through multidisciplinary research and to disseminate results through development and training programs designed to maximize the value of these long-lived assets.

Wednesday, October 8

7:30 – 8:00AM Registration and Continental Breakfast

Introductions

Background and Context

- ◆ The Changing Utility Industry
- ◆ The Emerging Utility of Tomorrow

Introduction of Storyline, Overview of Fundamental Concepts and Core Practices

- ◆ Introduction of Storyline
- ◆ A Definition of AM
- ◆ A "Meta View" of the AM Paradigm
- ◆ Managing the Asset Base's "Potential to Fail"
- ◆ Payoffs and Benefits, Downsides
- ◆ The "Five Core Questions" and the "10-Step AM Process"

Storyline and Worksheets – Tom's Bad Day

Core Question 1: What is the Current State of My Assets?

- ◆ What is an Asset?
- ◆ Building a "Process Layout" Schematic
- ◆ Creating the "Asset Hierarchy"
- ◆ Defining the "Data Standard"
- ◆ Initial Condition Analysis, Remaining Physical Life
- ◆ The Four Major Failure Modes
- ◆ Determining Replacement Value
- ◆ Financial Accounting versus Managerial Accounting

Core Question 2: What is My Required "Sustainable" Level of Service (LOS)?

- ◆ What Is "LOS?" Why Do It?
- ◆ How It Works (Strategic Level versus Operations Level)

Core Question 3: Which Assets Are Critical to Sustained Performance?

- ◆ Understanding How My Assets Can Fail – the Four Major Failure Modes
- ◆ Determining the "Likelihood of Failure"
- ◆ Determining the "Consequences of Failure"
- ◆ How to Measure Our Agency's "Business Risk Exposure"

Discussion, Q & A and Feedback

7:00 – 8:30PM Documentary:

Liquid Assets: The Story of Our Water Infrastructure

Thursday, October 9 (8:00AM – 3:45PM)

Summary of Day 1, Outline of Day 2

Core Question 4: What are My Best Minimum Life-Cycle Cost CIP and O&M Strategies

- ◆ What Alternative "Treatment" (Management) Options are Feasible?
- ◆ Which is the best option? – The Basics of "Optimized Renewal Decision Making"

Core Question 4: O&M (Continued)

- ◆ Using AM to Drive Operations and Maintenance
- ◆ Moving Systematically into Reliability Centered and Condition-Based Maintenance

Core Question 4: CIP (Continued)

- ◆ Using AM to Drive CIP
- ◆ Strategic CIP Validation

Core Question 5: What Is My Best Long-Term Funding Strategy?

- ◆ So, Valuation Really Does Matter?
- ◆ Determining a Sustainable Renewal Funding Level
- ◆ Effectively Telling the Funding Story
- ◆ The "Whole of Business" Perspective – Using AM for Rate Setting & Budgeting
- ◆ Building Your First Asset Management Plan ("AMP")

Focus Topic 1: Deploying an AM Program (As time permits)

- ◆ The Four Fundamental Deployment Strategies
- ◆ "Gap Analysis" Benchmarking & Developing the AM Improvement Program
- ◆ The Human Side
- ◆ The Political Side
- ◆ Implementation Work Plans – Lessons Learned

Closing Summary, Questions, Comments

About Our Trainers

Mr. Steve Allbee, USEPA Project Director, Gap Analysis; primary author, USEPA's **The Clean Water and Drinking Water Infrastructure Gap Analysis**; 30 years EPA – development of financing programs; BA, MA, MPA.

Mr. Duncan Rose, Technical Director and Principal Consultant, GHD; former city/county manager; co-author of WEF's textbook, **Managing the Water and Wastewater Utility**; 30 years state & local government management; Adjunct Faculty, Florida State University, Askew School of Public Policy; BA, MSP, MAPA.

Location and Lodging

The workshop will be at the Hotel Roanoke and Conference Center at 110 Shenandoah Avenue in Roanoke, Virginia. A block of rooms has been reserved at the Hotel Roanoke. Participants are responsible for making their own lodging arrangements by calling 540.985.5900. Please be sure to mention the "EPA Asset Management Workshop" to receive the special rate of \$129/night plus tax. Reservations must be made by Thursday, September 4, to receive the block rate.

Registration

The registration fee is \$325 on or before **September 7**. After September 7, the fee will be \$350. Course materials, instruction, daily breaks, lunches, and the Tuesday reception are included in the registration fee. The registration deadline is **September 30, 2008**. You may register online at www.cpe.vt.edu/epaaam/ or return the attached form.

On-site check-in will be held on Tuesday, October 7 from 5:30–6:30 pm and will reopen Wednesday from 7:30–8:30am.

At the conclusion of the workshop, Virginia Tech will provide a CEU certificate for 1.6 CEUs (16 contact hours).

More information about the workshop and asset management is available at: www.cpe.vt.edu/epaaam/

Questions about the workshop:

Sunil Sinha
Workshop Coordinator
ssinha@vt.edu
540.231.9420

REFUND POLICY: Requests for refunds will be honored when received seven calendar days prior to the program. However, another person may be substituted at any time for this program. A \$50 administrative fee will be deducted for cancellations. In the unlikely event that this program is cancelled or postponed due to insufficient enrollment or unforeseen circumstances, the university will fully refund registration fees but cannot be held responsible for any other expenses, including cancellation or change charges assessed by airlines, hotels, travel agencies, or other organizations.

Virginia Tech does not discriminate against employees, students, or applicants for admission or employment on the basis of race, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation. Anyone having questions concerning discrimination should contact the Office for Equal Opportunity.

If you are a person with a disability and require auxiliary aids, services, or other accommodations for this course, discuss your accommodation needs by calling Sam Linkous at 540-231-8569 or TDD 800-828-1120 at least two weeks prior to the course.

VT/170/0708/XM/#####

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Please print or type—complete a separate form for each participant.
Or register online at: www.cpe.vt.edu/epaaam/

Name _____

Position/Title _____

Organization _____

Organization's FID Number* _____

Address _____

City _____

State _____

Zip _____

Daytime Phone _____

Fax _____

Signature _____

Registration Fee (*Registration will be processed when payment is received.*):

- \$325 on or before September 7
 \$350 after September 7

Method of Payment

- Check enclosed (*Make payable to: Treasurer, Virginia Tech CE*)
 MasterCard VISA American Express

Card Number _____

Exp. Date _____

Cardholder Name _____

Signature _____

Date _____

*FID Number necessary to process a refund payable to any company, agency, or government.
The information you provide is subject to the Freedom of Information Act guidelines.

Return with payment by **September 30, 2008** to:

(*No staples, tape or paper clips please*)

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Virginia Tech
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