



King County Subsection  
**AWWA**  
American Water Works Association



## USEPA Asset Management Workshop The Fundamentals of Asset Management A Hands-On Approach



**December 8-9, 2009**

**Training Center:**

Doubletree Hotel  
18740 International Boulevard, Seattle, Washington

**Sponsored by:**

**USEPA**

Region X  
Office of Wastewater Management

**Idaho/ Oregon/Washington**

King County – American Water Works Association (KC-AWWA)  
PNWS-AWWA Distribution Committee  
Pacific NW – American Water Works Association (PNWS-AWWA)

**Registration Deadline: November 30, 2009 (Register Early – Space is Limited)**

*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 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 management of 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 core AM 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.**



## Agenda Highlights

### Day One

7:30 a.m. – 8:00 a.m. Name Badge Pick-up

8:00 a.m. – 4:30 p.m. Duration of Workshop

#### 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

### Day Two

8:00 a.m.-3:45 p.m. Duration of Workshop

#### 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 AAM 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 AAM For Rate Setting & Budgeting
- Building Your First Asset Management Plan (“AMP”)

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

- The Four Fundamental Deployment Strategies
- “Gap Analysis” Benchmarking & Developing The AAM Improvement Program
- The Human Side
- The Political Side
- Implementation Work Plans – Lessons Learned

#### Closing Summary, Questions, Comments

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### About Our Trainers:

**Mr. Steve Allbee** – USEPA Project Director, Gap Analysis; primary author, USEPA’s The Clean Water and Drinking Water Infrastructure Gap Analysis; 25 years EPA – development of financing programs; BA, MA, MPA.

**Mr. Doug Stewart** – Technical Director and Principal Consultant, GHD; responsible for establishing an agency-wide asset management program for Orange County Sanitation District (OCSD). An instructor for the EPA sponsored asset management workshops sponsored by the U.S. Environmental Protection Agency (USEPA) since inception of the program in 2003, personally conducting over twenty two-day workshops across the United States; MS, BA.

### Overnight Hotel Accommodations

A limited number of rooms are available at the SeaTac Doubletree Hotel, with a rate of \$129 per night (single occupancy) and \$139 per night (double occupancy) plus tax. To receive this rate, reservations must be made up to two weeks in advance by calling 800.222.8733 or online at [www.seattleairport.doubletree.com](http://www.seattleairport.doubletree.com) and asking for group code AMW.

More information about the workshop and asset management is available at [www.epa.gov/owm/assetmanage/assets\\_training.htm](http://www.epa.gov/owm/assetmanage/assets_training.htm)



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Register online at <http://www.kcawwa.org/classes.htm>. Pre-registration is required, no on-site registration is available.

Registration fee for workshop is \$275.00, which includes workshop, workshop materials, and lunch daily. No refunds if registration is cancelled after November 28, 2009. Seats are limited, so please register early.

Registration Questions? Contact - [registrationcontact@kcawwa.org](mailto:registrationcontact@kcawwa.org)