

## Engineering Committee Report Spring 2010

TO: PNWS-AWWA Trustees  
FROM: Tyler Clary/City of Vancouver  
DATE: April 13<sup>th</sup> 2010

The Engineering Committee has been actively finalizing its plans for the upcoming AWWA-PNWS Annual Conference in Tacoma.

The Engineering Committee has teamed with the Water Resources Committee in developing a full day Preconference Seminar on Aquifer Storage and Recovery for the AWWA-PNWS Annual Conference. This pre-conference will provide water system managers, planners and operators with the latest information on new and innovative applications for ASR, practical and regulatory hurdles in developing ASR systems in Washington, Oregon and Idaho, as well as information from recent experiences in Oregon and Washington in ASR system engineering, how ASR integrates into the existing municipal water system operations, and operations and maintenance considerations.

The Engineering Committee has also developed the following technical sessions for the AWWA-PNWS Annual Conference:

- Methods to reduce costs, mitigate risks and improve schedule performance on waterworks-type capital improvement projects
- Retrofit of Existing Water Facilities
- Water system modeling, GIS and SCADA integration , GIS and asset management
- One early bird session on Asbestos Cement Water Main
- One early bird session on Technology in Engineering
- An additional early bird has recently been added that will address water utility issues associated with the recent earthquakes in Chile and Haiti.

**The methods to reduce costs, mitigate risks and improve schedule performance on waterworks-type capital improvement projects session** will describe the methodologies used by Managers, Engineers, and Operators during the planning and design phases of waterworks-type capital improvement projects to reduce costs, mitigate risk, and improve schedule performance. Topics of the session include value engineering, constructability reviews, QA/QC procedures, startup and commissioning, geotechnical baseline reports, and trenchless construction.

**The Retrofit of Existing Water Facilities Session** will discuss the retrofit of existing facilities and the challenges that are often difficult to evaluate and plan for. Increased attention to project costs and asset management considerations will likely increase interest in retrofitting facilities wherever possible. This session looks at the planning and execution

of retrofit projects for potable water supply, treatment, and distribution systems typically found in the Pacific Northwest.

**The water system modeling, GIS and SCADA integration, GIS and asset management session** will discuss the development and maintenance of water system models for master planning and operations, and the use of GIS in modeling and asset management. Using modeling and GIS has become an important tool in developing and maintaining Master Plans and asset management for water municipalities. This technical session focuses on developing, using, and maintaining these tools to improve the efficiencies of water systems now and into the future.

**Asbestos Cement Water Main Early Bird Session** will cover the risks and safety requirements associated with work on AC pipe. It will also cover a prioritization approach for the replacement of AC water mains within a water system.

**The Technology in Engineering Early Bird Session** will discuss new technologies available to engineers for design such as 3D laser scanning and 3D design.

**Haitian and Chilean Earthquake Impacts on Water Systems** will discuss a trip to Haiti and Chile investigating the impacts of recent earthquakes on their water infrastructure.

#### **Engineers Week High School Banquet Sponsorship**

The engineering committee teamed with the NW Oregon Subsection to sponsor the 46<sup>th</sup> Annual Engineers Week High School Program, which took place in Portland on February 18<sup>th</sup>. AWWA sponsored at the Project Management level, which included a table in the information hall, a table at the banquet, as well as special acknowledgment in the advertising and at the banquet. Four members of the committee attended and answered questions from high school age students. This was a rewarding, worthwhile experience that allowed members of the engineering committee the opportunity to inform high school age students about AWWA and the field of engineering.

#### **Engineering Excellence Award**

The Engineering Committee has evaluated submittals for the 2010 Engineering Excellence Award. We will be presenting the awards to the following winners during the annual conference opening ceremony.

- *Small Project Category:*  
Oak Lodge Water District and Murray Smith and Associates Inc. for the “Valley View Pump Station Modifications and Improvements”
- *Medium Project Category.* Two projects were awarded this year:  
City of Vancouver, Washington and Kennedy/Jenks Consultants for the “Ellsworth Springs Water Station Improvements”

Northeast Sammamish Sewer and Water District and RH2 Engineering, Inc. for the “Crest Reservoir, Booster Pump Station and Treatment Facility”

- *Large Project Category:*  
City of Sherwood, Oregon and Murray Smith and Associates Inc. for the “4.0 MG Sunset Reservoir No. 2 and 2,200 GPM Booster Pump Station”

The Engineering Excellence Award is intended to recognize the owner and design team for water engineering design that exemplifies “Excellence in Engineering”. The committee is thankful for all those that submitted applications. It is a very rewarding experience to learn about all the outstanding projects that our industry is delivering.

The next meeting scheduled for the Engineering Committee will be conducted on Thursday, May 13<sup>th</sup> in Tacoma at the PNWS-AWWA Annual Conference. Individuals interested in joining the committee or attending our meeting at the conference should contact:

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