

Three Water Reuse Case Studies

Case One Abstract: Reclaimed Water: Harrison Medical Center. Silverdale Water District has implemented a program to optimize reclaimed water. The reclaimed Class A water will be generated from a regional wastewater facility owned and operated by Kitsap County. Silverdale Water District will receive the reclaimed water from the County wastewater facility and convey it 5 miles to users including purple piping within the YMCA and Harrison Medical Center.

Case Two Abstract: Demonstration Projects—A reuse link to your community. This presentation will follow and discuss the path taken to provide reclaimed water for toilet flushing in a new children’s museum in Olympia. The discussion will include working with the museum staff, permitting, cross connection control, and a backup system that uses potable water.

Case Three Abstract: City of Walla Walla Reclamation Experience. The challenges in meeting the compliance schedule and budget, but reliably meeting the Class A requirements and water rights will be presented. In 1996 the City of Walla Walla initiated a ten-year phased program to upgrade the Wastewater Treatment Plant to Class A to satisfy a Department of Ecology (DOE) compliance order. The City was caught in a paradox in that the Irrigation Districts established a water right on the effluent dating back to the 1930s for 7.05 cfs. Because they were discharging to the Irrigation Districts from April 1 through November 31, they could not get a loading allocated to go back to Mill Creek.

They hired the team of Kimball Engineering/J-U-B ENGINEERS, Inc. (J-U-B) and Esvelt Environmental Engineering, LLC to design the upgrade of an existing trickling treatment plant with components dating back to the 1940s. The upgrade was completed in four phases within the original budget of \$30 million. Challenges included deciphering DOE interim rules guidelines for establishing Class A reclamation point of compliance and trigger points for diversion to a 20 mg emergency storage lagoon. Also pilot studies for UV and prequalification/purchase of UV equipment were utilized. Detailed cost effective studies of new filters versus upgrading the existing traveling bridge filters were conducted. A new Washington NPDES Permit was negotiated that met Class A discharge effluent criteria to the Irrigation Districts. DOE had to consider the court decree granted the water rights to the Irrigation Districts. A consideration in the Class A Permit was the fact the City was meeting the drinking water standards of less than 10 ppm nitrates.

Drinking Water and Wastewater Professional CEUs are available from Idaho Bureau of Occupational Licensing for this session.

Presenter: John Poppe
Title: Water District Commissioner
Organization: Silverdale Water District
Address: 5300 NW Newberry Hill Road, Silverdale, WA 98383

Professional Background: John Poppe will present on the Reclaimed Water: Harrison Medical Center. John has 40 years’ experience in the wastewater industry as a consultant, wastewater treatment plant manager with a variety of administrative functions. He served on the first Washington State Department of Ecology water reuse committee that developed the guidelines for the “ORANGE BOOK” and is currently a member of the Department of Ecology Rule Making Committee for water reuse.

In addition, he is a Water District Commissioner for Silverdale Water District that is currently installing thousands of feet of “purple pipe” to serve area school districts, hospital, and commercial entities.

2015 Water Reuse Conference

Presenter: **Ben McConkey**
Title: Community Support Project Manager
Organization: LOTT Clean Water Alliance
Address: 500 Adams Street NE, Olympia, WA 98501

Professional Background: Ben McConkey Demonstration Projects will present on the LOTT reuse demonstration projects. Ben is the Community Support Project Manager for the LOTT Clean Water Alliance, serving the urban growth area of north Thurston County. Ben was the Operations Supervisor for LOTT from 2005–2011 and managed the startup and operation of the Martin Way Reclaimed Water Plant in 2006 and the Budd Inlet Reclaimed Water Plant in 2005. In his current position(s) he provides educational presentations, tours, and works on environmental policy issues. He is currently the project manager for the Reclaimed Water Infiltration Study and other environmental projects. Before he joined the LOTT team Ben was the Water Resources Sustainability Team Leader and Utility Systems Supervisor for Fort Lewis. He is a member of the Water Environment Federation, Pacific Northwest Clean Water Association (PNCWA) and WateReuse Northwest. Ben has presented numerous times concerning Fort Lewis' Sustainability program and LOTT's wastewater treatment and reclaimed water operations and programs.

Presenter: **Jim Kimball, P. E.**
Title: Senior Project Manager
Organization: J-U-B ENGINEERS, Inc.
Address: 7825 Meadowlark Way, Coeur d'Alene, ID 83815

Professional Background: Jim has engineered all aspects of wastewater management in the Northwest. Some of these included Spokane River phosphorus-DO-PCB TMDLs, Spokane River Regional Toxics Task Force and QAPP Plans, treatment plant technologies including biological phosphorous removal, phosphorous removal, disinfection, sludge thickening, dewatering, aerobic and anaerobic digestion, and Class A Reuse in Idaho and Washington including participation in rulemaking and guidance manuals.

Presenter: **Frank Nicholson**
Title: Public Works Engineering
Address: 55 E. Moore Street
 Walla Walla, WA 99362

Professional Background: Frank Nicholson, P.E. will present on the Walla Walla reuse. For ten years Frank worked for C.T. Male Associates, an engineering consulting firm in Albany, New York on water and sewer projects. Frank has worked for the City of Walla Walla as a utility engineer for 17 years. Upgrading the wastewater treatment plant to Class A reclamation was a major project he oversaw for Walla Walla