

Completion of new water plant is reflective of strong community pride and local commitment

Michael J. Adams
Public Works Director
City of Sweet Home, Oregon



During the 1980s, Sweet Home, Oregon, experienced a major decline in population and industry as environmental issues forced the closure of sawmills and logging operations. During these tough times, the community banded together and rode out the changes, eventually turning the tide of recession into a wave of progression. It is through these opportunities that the community of Sweet Home was able to once again prove its ability to step up to its responsibility of doing what is necessary for the community as well as the environment.

In spite of economic hardships and ongoing, costly environmental compliance corrections in the water and wastewater utilities, the City of Sweet Home with its population base of 9,045 has reason to be proud as it has recently completed construction of its six million gallons per day (MGD) water treatment plant.

In late 1998, the City of Sweet Home received a Notice of Violation and Remedial Order from the Oregon Health Division (OHD) indicating the need for compliance of the treatment technique requirements such as minimum Contact Time (CT) values after filtration. Given that the original water treatment plant was built in the early 1930s, with its last update coming in the 1960s, it was not surprising the new regulations were unable to be met. Based upon engineering analysis it was determined that the best solution to meet this newly-revised treatment requirement was to build a new treatment facility at a new location.

After many years of discussions and project planning between the City, State, and the United States Army Corps of Engineers followed by negotiations with private property owners, construction of a raw water transmission line and fish screen was able to begin in early/mid-2006 and was completed in early 2007. This portion of the overall project included the installation of a 42" high-capacity raw water intake screen and air wash system as well as the installation of approximately 4,600 linear feet of buried 30" HDPE and 600 linear feet of above-ground 24" ductile iron raw water transmission line.

The construction of the water treatment facility began in mid-2008 on a five-acre parcel of property generously donated to the City by a local property developer. Capable of meeting the municipal water needs for Sweet Home for many years to come, this state-of-the-art facility is capable

of producing six MGD of high-quality domestic water (approximately three times current demand) by incorporating three 1,400 gallon per minute (gpm) mixed media filter units. Should it become necessary in the future, provisions have been incorporated that make the facility easily expandable to 10 MGD by adding two additional filter units and minimal building modifications.



New fish screen being lowered to install point on Foster Dam

In addition to the three filter units, the 17,280-square-foot split-faced block and metal building houses an observation deck, office, conference room, shower and locker room, electrical room and control room. Other components of the project include a raw water holding pond and pump stations; 2,000 linear feet raw water lines; 3,150 linear feet finished water lines; concrete backwash ponds; and an onsite chlorine generation system.

A process that began many years ago, the new municipal water treatment plant project has culminated with a facility all Sweet Home citizens and water customers can be proud of. The total estimated cost of the entire project is approximately \$12.450 million and is primarily funded by low-interest state loans to be paid back entirely through user rates. The ability to pay for this important and necessary project is quite an accomplishment for a town in which over 51% of its entire population base is considered to be at the "low-moderate" income level.



New water treatment plant – main building

Making this project more impressive is the fact that this small, financially-strapped community has been required to incur an additional \$9.8 million in low-interest loans to correct and eliminate the inflow and infiltration (I&I) of stormwater into its sanitary sewer collection system since 1999/2000 as required by OR-DEQ. It is currently anticipated that it will cost an additional \$22 million to finally correct the sanitary sewer overflow issues.

Although there are many people and groups responsible for the completion of this important project, there are none more deserving of special thanks than the citizens and rate-payers of Sweet Home. This project is a symbol of their ability to do what is necessary for the present population as well as future generations, and would not have happened without their willingness to financially support this project.

Erwin Consulting Engineering (Lebanon, Oregon) is the design and project engineer for this project. Pacific Excavation, Inc. (Eugene, Oregon) is the general contractor. The water treatment plant is operated and maintained by our contracting partner, CH2M HILL/OMI, Inc.

Michael J. Adams, Sweet Home's Public Works Director and member of APWA's Oregon Chapter, can be reached at (541) 367-6243 or madams@ci.sweet-home.or.us.



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