CASE STUDY

TACOMA

City of Tacoma, Washington Continues to Choose Polyblend® Dry Polymer Preparation Systems after 25 Years of Reliable, Consistent Performance

OVERVIEW

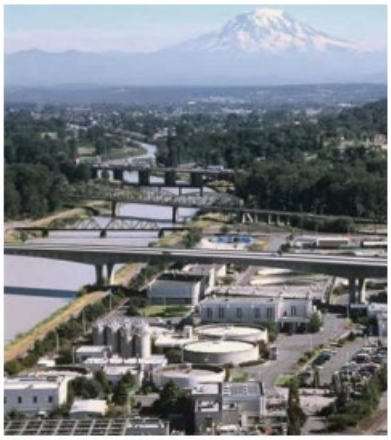
Serving over 200,000 ratepayers, the City of Tacoma operates two award-winning wastewater treatment plants. The Central Wastewater Treatment Plant and the North End Wastewater Treatment Plant are considered state-of-the-art but operate differently. Central uses an aerobic process - high purity oxygen and bacteria - to remove organics from wastewater. North End, a physical chemical plant, uses chemicals to remove the organics and a bacteria filter to treat the wastewater before it enters Puget Sound. Together, the plants treat 100 million gallons per day (MGD) with a combined capacity of 150 MGD during weather events. As the plants have grown over the years, the City of Tacoma continues to add Polyblend® units as the preferred polymer feed preparation system and currently has eight in service between the two facilities.

The Central Wastewater Treatment Plant has many innovative features, including a dual digestion process that produces Class A biosolids and a peak flow treatment facility that can ramp-up treatment during heavy storms to reduce the risk of sewage overflows. The biosolids material processed at the plant is recycled and turned into gardening products - mix and potting soil. There are six Polyblend® DP dry polymer preparation systems currently in service at Tacoma's Central facility. Five are used to add dry polymer for dewatering and dissolved air flotation applications, including two that were installed in 1985. A sixth Polyblend® DP system was purchased in 2008 as part of an upgrade that expanded the plant's treatment capacity from 100 MGD to 150 MGD during major storm events.

Tacoma's North End Wastewater Treatment Plant has been a platinum winner of the National Association of Clean Water Agencies' (NACWA) Peak Performance Award for 16 consecutive years. The award recognizes member agency facilities for outstanding compliance with their National Pollutant Discharge Elimination (NPDES) permit limits. The alternative treatment process used at North End is so efficient that it doesn't require additional large tanks and acreage like most conventional treatment plants. With the plant's confined location, the Polyblend® DP system's small footprint offered a distinct advantage and was installed at this physical chemical plant during a 1995 upgrade. Dry polymer coagulants are added to settle the sludge before transfer to a biological polishing filter. In 2011, a back-up system, Tacoma's latest Polyblend® addition, was added.

"Seeing is believing. We've been successfully using Polyblend® dry polymer preparation systems at our plants for over 25 years – and they're still going strong! We've continued to add systems over the years without problems. They're easy to operate and everyone here is happy with their performance. Really, there's nothing better on the market."

Michael L. Patrick Operations Supervisor, City of Tacoma, Washington



Central Wastewater Treatment Plant. Tacoma, Washington

The Polyblend® DP series dry polymer preparation system has been shown to reduce polymer consumption by 25% or more while improving polymer performance. The unique two-stage method of initial high-shear mixing followed by low-shear mixing has been proven to be the best choice for making down dry polymers. The mechanical activation of the dry polymer ensures polymer optimization and lowers operating costs. An innovative stainless steel "hollow wing" mixing impeller in the age/mix tank reduces polymer consumption by providing proper energy at low speed through impeller size and recirculation to prevent agglomerations while minimizing polymer fracture. With minimal maintenance and a small footprint, the fully automatic, easy-to-operate Polyblend® dry polymer preparation system has provided prompt and dependable parts and service for the City of Tacoma for over 25 years.

Polyblend® DP Dry Polymer Preparation System, Tacoma, Washington

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