



Central Waste Water Treatment Plant Tacoma, WA

Owner: City of Tacoma

Engineer: Montgomery Watson Harza (MWH)

Contractor: Montgomery Watson Harza (MWH)

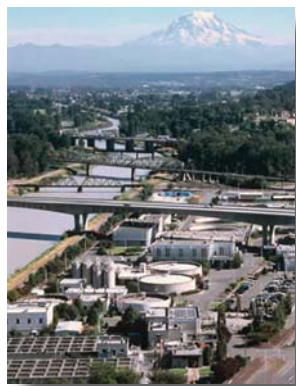
Overview

Tacoma is a mid-sized urban port city on Washington's Puget Sound, 32 miles southwest of Seattle, 31 miles northeast of the state capital, Olympia, and 58 miles northwest of Mount Rainier National Park. In 2008, the Washington State Office of Financial Management estimated Tacoma's population at 202,700. Tacoma adopted its name after the nearby Mount Rainier, originally called Mount Tacoma or Mount Tahoma. It is known as the "City of Destiny" because the area was chosen to be the western terminus of the Northern Pacific Railroad in the late 1800s. The decision of the railroad was influenced by Tacoma's neighboring Commencement Bay. By connecting the bay with the railroad Tacoma's motto became "When rails meet sails." Today Commencement Bay serves the Port of Tacoma, a center of international trade on the Pacific Coast.



Central Treatment Plant

The Tacoma Public Works Department, Environmental Services Division is responsible for providing wastewater, surface water, and solid waste services to the residents of Tacoma, as well as to several areas outside Tacoma's city limits. The Wastewater Utility conveys flows from the greater Tacoma area through a separate system of approximately 700 miles of sewer pipe and 45 pump stations (the surface water collection system has a separate



400 mile network of pipes). Wastewater flow is conveyed to two separate wastewater treatment facilities, the Central Treatment Plant (CTP) and the North End Treatment Plant (NETP). The larger of the two is the CTP, which treats over 80 percent of the average dry weather flow generated within the Utility's service area.

The Wastewater Utility serves a total equivalent population (residential and commercial) of approximately 258,000. Projections estimate the Utility's current service area will increase to a population of approximately 330,000 by the year 2020.

In March 2002 the City of Tacoma submitted a facility plan for improvements to the Central Treatment Plant to



provide capacity for a re-rated design maximum monthly flow of 60 mgd and a design peak flow of 150 mgd. The proposed upgrades would result in the influent screens, influent pump station, and grit tanks being

upgraded to a minimum peak hourly capacity of 150 mgd, and a new peak wet weather flow process installed to treat wet weather related peak flows in excess of approximately 75 mgd.

The design and construction engineers, Montgomery Watson Harza (MWH) selected Morris Pumps to design and manufacture the three (3) main pumps for the influent pumping station. Morris Pumps are renowned for



their rugged design, superior performance, longevity and low lifetime operating and maintenance costs.



Pump Details Influent Pumps

S.O. 9810485
Qty-3 Morris Series 7100 MF, VPM, Model 30x30-32 4V5
Rated: 27,779 USGPM at 42 ft. TDH.

Motor: 400 HP, 500 RPM,
Vertical, Inverter Duty, WPII,
3/60/460



Pump Construction – 3% Nickel Cast iron casing, 316 SS impeller, 420SS wear rings, 4130 QT alloy steel shaft, 316SS sleeve, Flowserve PSS III mechanical seal, grease lube bearings, Minco bearing RTD's, Metrix vibration transmitter, Dodge Paraflex coupling