

HYDROELECTRIC CONSTRUCTION

TACOMA PUBLIC UTILITIES
WYNOOCHEE HYDROELECTRIC PROJECT
MONTESANO, WA



DESCRIPTION

Several construction projects on this 11 MW hydroelectric facility and accompanying powerhouse.

SERVICES PROVIDED

NAES Power Contractors was responsible for the planning, supervision, labor, equipment and materials for several key projects at this facility. The dam was originally built by the U.S. Army Corps of Engineers in 1972 to provide flood control, industrial water storage, water irrigation, and to support the river's fishery. In 1994, the powerhouse built by Tacoma Power began producing 30-million kilowatt-hours of electricity per year—enough to serve 2,100 Northwest homes. All work is done under the maintenance agreement with Tacoma Public Utilities (TPU).

- Unit overhaul: tear down machine to thrust bearing; remove shoes for machine work for RTDS; replace slip rings for generator brushes
- Removal of draft tube gate for repair of rotor drive and lead screws; repair gate lifting mechanisms
- Fabrication of 140 foot flume and all support structure for river diversion (in order to complete repair at weir base near fish trap)
- Removal of temperature panels from intake structure
- Installation of Teflon guide wheels to assist hoist and cut down drag from intake flows
- Structural reinforcement to the gate arm, per FERC directive to all hydro projects after frictional load tests revealed loads were above normal

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