King County
Brightwater
TREATMENT SYSTEM

Project overview

Total cost of project: $1.8 billion
Total square footage: A 114-acre plant site, one 13-mile deep-bore conveyance tunnel with three construction portals, one influent pump station , and one 600-foot-deep, mile-long marine outfall in Puget Sound off of Point Wells.

Owner: King County Wastewater Treatment Division

Date of groundbreaking: April 2006
Completion: The treatment plant is scheduled to begin operating in September 2011. Mining on the conveyance tunnel was completed in August 2011. After final lining and pipe installation, the tunnel will be operating in September 2012.

General contractor/s:

Treatment Plant:
The GC/CM contractor for the Brightwater Treatment Plant is Hoffman Construction. Kiewit was later brought in to build the solids facility under a traditional design-bid-build contract.

CH2MHill led the treatment plant pre-design with sub-consultants Brown & Caldwell and Mithun Architects, Hargreaves and Associates and more.

Conveyance System
Engineering firm HDR led the pre-design on the tunnels. Design was carried out by a joint venture of MWH/Jacobs Associates. Jacobs Civil was brought on as the construction management firm.

The county divided the conveyance tunneling into three separate contracts that were bid out (Design-Bid-Build) in 2006-2007:

- Kenny/Shea/Traylor was awarded the East Tunnel contract in 2006. Mining on the 2.7 mile BT-1 tunnel was completed in 2008.
- Vinci/Parsons/Frontier-Kemper was awarded the Central Tunnel contract in 2006. Mining on the eastbound segment, BT-2, was completed in 2010. The contractor completed about half of the mining on the westbound BT-3 segment when its machine stalled. King County removed the mining from the scope of the contractor's work in 2010. VPFK remains under contract to complete piping installation, which is scheduled to be done in early 2012.

- In 2010, King County hired joint venture contractor Jay Dee Coluccio (JDC) to complete the remaining 1.9 miles of the four-mile BT-3 tunnel, known as BT-3c. Mining was complete in August 2011.
- Jay Dee/Colluccio/Taisei was awarded the West Tunnel Contract in 2007. BT-4 mining was complete in 2010.
- Kiewit was awarded the Influent Pump Station contract in 2007.

Marine Outfall

King County awarded the design-build outfall contract to Triton Marine Construction Corporation in 2007. Other firms on the Brightwater outfall design-build team included Dayton & Knight, manager of outfall design; Anchor Environmental, the lead firm on environmental permitting; and Art Anderson Associates for structural engineering services. American Construction was a key subcontractor managing the pile driving and dredging.

Brightwater Project Map with Contracts

