

PENNSYLVANIA AMERICAN WATER ELLWOOD WTP AND RAW WATER FACILITIES WAMPUM, PENNSYLVANIA



Project Description

Reynolds constructed a new 8MGD (expandable to 16MGD) water treatment plant and raw water intake facilities for Pennsylvania American Water's service area in western Pennsylvania located at the confluence of the Beaver River and Connoquenessing Creek, in New Beaver Borough and Wayne Township, Lawrence County, PA.

The facilities include:

- New 8 MGD raw water pump station (RWPS), expandable to 16 MGD on the west bank of the Beaver River.
- New 16 MGD capacity raw water intakes, one each located in the Beaver River and Connoquenessing Creek
- Two sets of dual, 24-inch raw water intake mains extending from the diversion chamber to the intake screen configurations located in the Beaver River and the Connoquenessing Creek.



At a Glance

Contract Amount:
\$80.2 M

Notice to Proceed:
January 2, 2017

Completion Date:
March 31, 2020

MGD:
8

Owner:
Pennsylvania American Water

Engineer:
Gannett Fleming

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- Dual 24-inch raw water discharge mains extending from the RWPS to the limit of the WTP property
- Design of an air burst intake screen system and a sodium permanganate chemical system housed in the RWPS and distributed to the intake locations in the Beaver River and Connoquenessing Creek.
- Permitting and approvals for intakes and temporary construction impacts with U.S. Army Corps of Engineers and PADEP. Developed a HEC-RAS hydrology/hydraulics model to predict stream bed/bank scour.
- 35' diameter, 165' deep shaft including rock excavation for Raw Water Intake
- 3-500' microtunnels
- Open-Cut River Crossing
- Two River Intakes