

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 located at the confluence of the Beaver River and Connoquenessing Creek. The facilities include:

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

## 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

