Columbia Water

Infrastructure Investments

Columbia Resilient Water Supply Project

Project Duration: 2020 – 2024

Project Status: Design

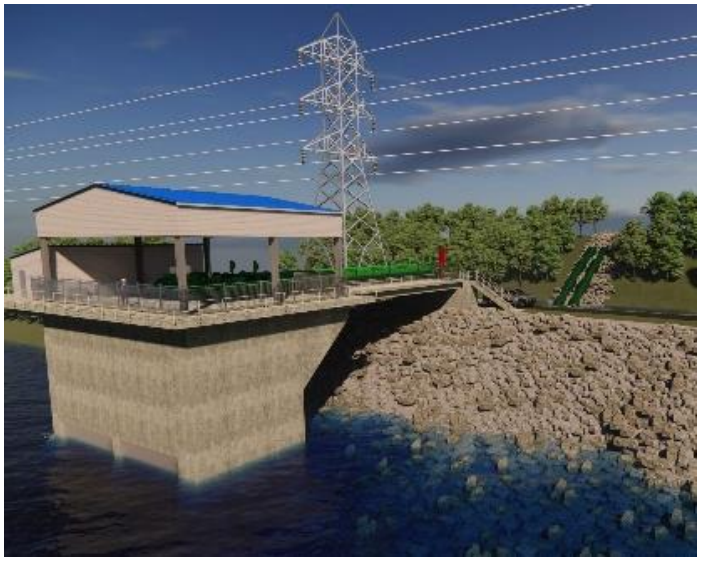
Project Need:

- Increase flooding resiliency
- Secure Columbia's drinking water source into the future.

Project Costs: $45,000,000

The City of Columbia is proposing a water resiliency infrastructure project to develop a new raw water intake facility within the limits of the Congaree River to service the Columbia Canal Water Treatment Plant (WTP). The Columbia Canal WTP serves as the primary water supply to approximately 233,000 residents in the City of Columbia, Fort Jackson, McEntire and the Town of Blythewood. The Columbia Canal WTP serves five major hospitals, sixteen police stations, thirty fire stations, six universities, numerous government facilities (including County, State and Federal), and two military bases.

The existing source water for the Columbia Canal WTP is provided by the Columbia Canal which is an approximately 3- mile-long earthen embankment canal fed by the Broad River. On October 5, 2015, during the historic flooding caused by Hurricane Joaquin, the Columbia Canal overtopped causing a breach in the embankment. This breach prevented the canal from retaining water and jeopardized the water supply to the Columbia Canal WTP.



The City undertook the emergency measure of constructing a temporary rock dam upstream of the breach, and the City installed bypass pumping and piping to pump water directly from the Broad River to the Canal WTP as a temporary, emergency solution. The emergency pumping system remained in place for approximately 63 days.

The proposed facility will increase the resiliency of Columbia's drinking water facilities against future flooding events by locating the new intake outside the limits of the canal and eliminating the potential for future canal breaches that may cut off the raw water supply to Columbia Water's primary Water Treatment Plant.

Images show a mock-up of the intake structure.