

Project Overview

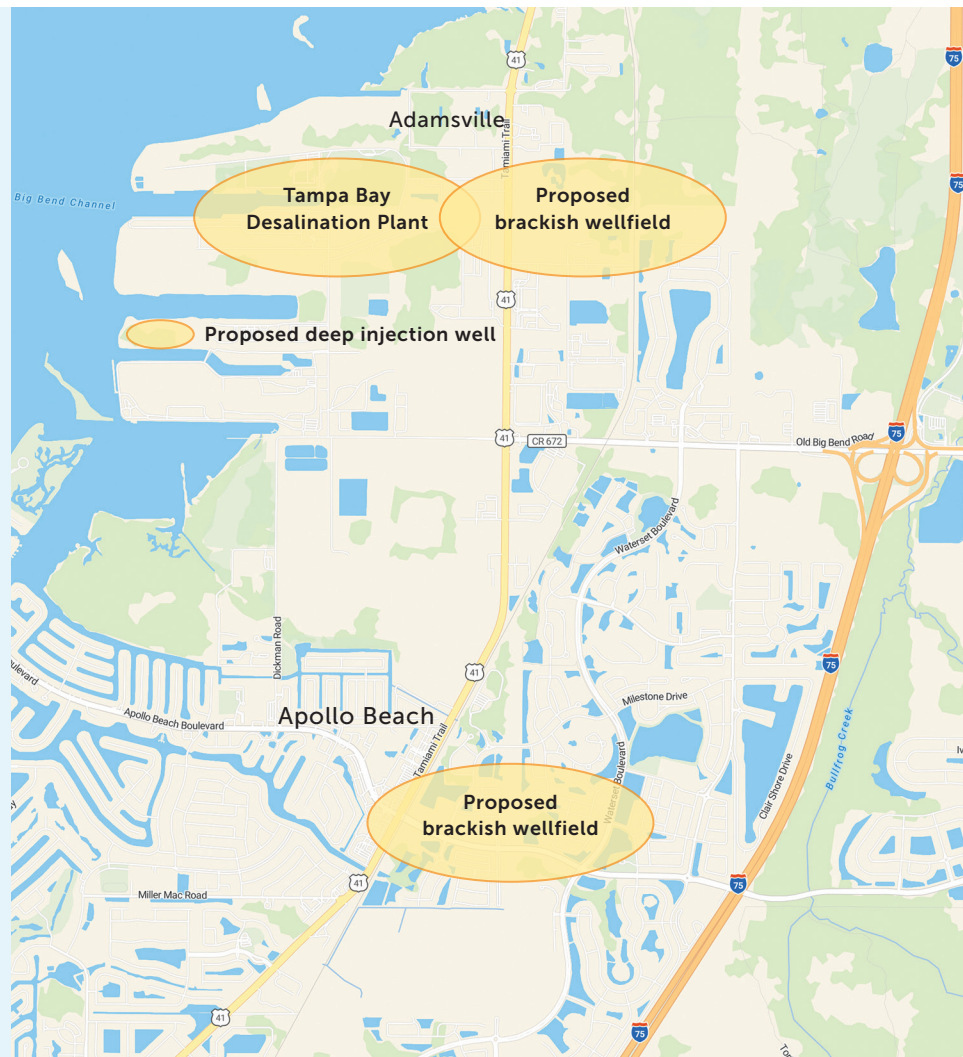
The Tampa Bay region will need 10-20 million gallons per day of additional drinking water by 2033, and this project is one of several being studied to meet that need.

The existing Tampa Bay Seawater Desalination Plant could be expanded with either additional seawater or brackish groundwater. Seawater expansion feasibility studies were completed in 2021. Those studies showed that expansion with seawater is a viable supply option that could yield 10 million gallons per day (mgd). This feasibility study will focus on expansion using brackish water and treated through the existing desalination plant.

Brackish water, which is saltier than freshwater but less salty than seawater, could be withdrawn from new wells along coastal Hillsborough County. The brackish water would be piped to the desalination plant, where it would be blended with the existing seawater supply, then cleaned through the reverse osmosis process.

Desalination plant expansion with brackish water has an estimated annual yield of 11.5 mgd*.

Expanding the existing Tampa Bay Seawater Desalination Plant with brackish water could improve the plant's reliability, reduce power consumption and bring additional water supply to a fast-growing area.



Desalination Plant Expansion

Project Components

- Brackish groundwater wellfield with 24 wells and an 11-mile, 36-inch pipeline to the existing desalination plant
- Expansion/modifications to the existing pretreatment, residuals handling and chemical facilities
- Additional reverse osmosis (RO) treatment trains
- Booster pump station to transmit finished water to the regional system
- Deep injection well for concentrate disposal

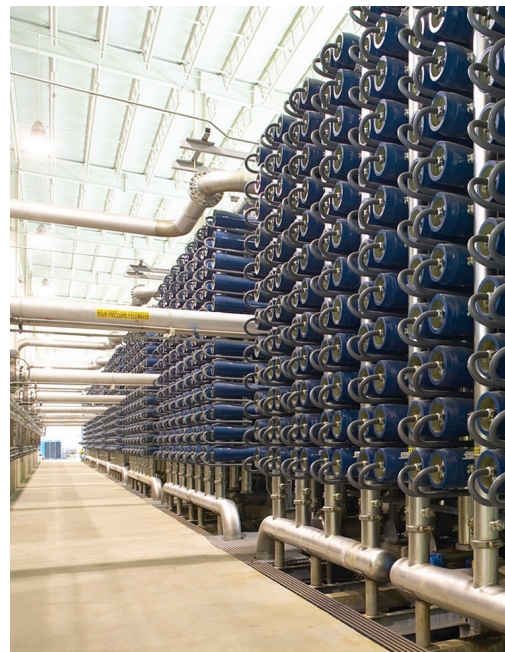
Feasibility Studies

- Evaluation of RO system design parameters required to treat the change in influent water quality from brackish water to brackish blended with seawater
- Evaluation of space considerations at existing facility
- Evaluation of operational flexibility and reliance on Tampa Electric Company's (TECO) cooling water tunnel operations for raw water supply (due to TECO's transition from coal to natural gas)
- Investigation of specific well locations, withdrawal aquifers and production volumes, as well as potential interaction with the existing South Hillsborough Aquifer Recharge Program (SHARP) wells
- Evaluation of the brackish groundwater and seawater blending location within the treatment process, including investigation of an off-site brackish groundwater treatment facility

Anticipated Regulatory Requirements

- Multiple federal and state permits
- Southwest Florida Water Management District Water Use Permit

* Estimated annual average yields are for planning purposes only and will be updated as feasibility studies are completed.



Benefits

- **Reliability** – Adding a second water source could increase the desalination plant's yield and improve reliability.
- **Co-funding** – This project may be eligible for Southwest Florida Water Management District co-funding.
- **Efficiency** – Project has a high annual average yield relative to design capacity because it includes additional reliability and redundancy improvements to alleviate operational bottlenecks at the existing desalination plant.

Get in Touch

Tampa Bay Water provides wholesale water to the public utility systems of Hillsborough, Pasco and Pinellas counties, as well as the cities of New Port Richey, St. Petersburg and Tampa. Visit tampabaywater.org and futurewater.org to learn more about the region's drinking water and options to meeting future needs.

TampaBayWater.org

(727) 796-2355

