

General Overview of PURE (Purify Usable Resources for the Environment)

What is “PURE?”

A proposed water program of the City of Tampa plans to recycle treated reclaimed water that originates from residential and industrial users such as hospitals, dry cleaners and manufacturers. Under one proposed alternative it would, after treatment to drinking water standards, be pumped into the aquifer, be used to supplement drinking water as well as the minimum flow of the Hillsborough River. Under another alternative, some reclaimed water would be used to meet the river minimum flows and the rest sold or injected into wells.

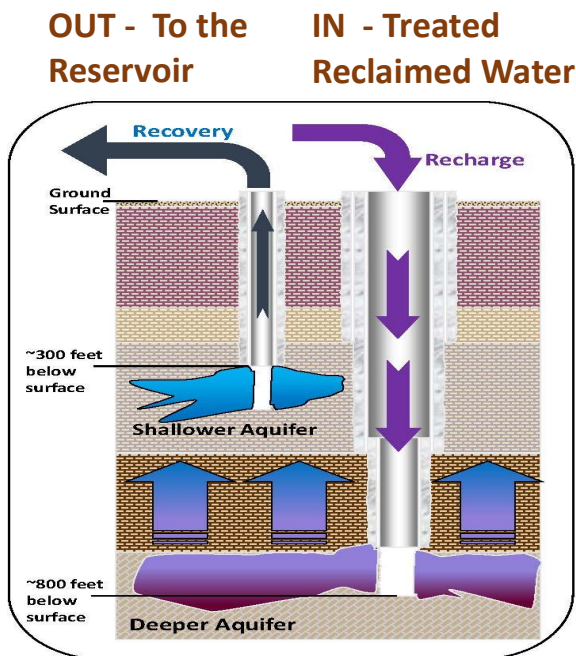
Why does the City want to do this?

The City gets most of its water, 82 million gallons per day (mgd), from a reservoir located on the Hillsborough River. Tampa produces an average of 50 mgd wastewater that is currently treated and pumped into Tampa Bay. A 2021 state law requires that wastewater be re-used and not disposed for “non-beneficial” uses. The City (and all other municipalities throughout the state) must submit a plan by November 1, 2021, as to how they will deal with their wastewater under this new law. The City of Tampa proposed the Tampa Augmentation Program (TAP), also known as “Toilet to TAP”, before the passage of this new statute, but it was not supported by citizens and therefore was not pursued by the City.

In addition to providing drinking water to the public, the City is required to supply up to 15.5 mgd of fresh water to provide minimum flows to the Lower Hillsborough River to improve the water quality and ecology of the river below the dam. The City has been looking for alternative sources to provide the minimum flows, including treated wastewater.

How would PURE work?

The reclaimed water would be treated at a minimum to current “drinking water standards.” Note that reclaimed water contains contaminants not currently in our water supply and for which US drinking water standards have not been established (e.g., pharmaceuticals, hormones, and other organic compounds) and which may remain in the water, depending on how well the city plans to treat it. At this time, the City plans to add treating the wastewater with UV light which does not remove all contaminants. It is important the City uses additional, more rigorous treatment methods, such as Reverse Osmosis, which are effectively being used elsewhere that will remove such contaminants.



Under **one proposed alternative**, 50 mgd of highly treated reclaimed water would be injected 600-800 feet deep in the Floridan aquifer and pumped back up from shallower wells at 300 feet (see figure at left). 47 wells are projected to be used in the Seminole Heights area.

Water from the recovery wells will then be put into the Hillsborough River Reservoir where it would mix with the other water in the reservoir.

The **other proposed alternative** is to use the wastewater to provide minimum flows directly to the lower river at a location below the dam, sell reclaimed water to other utilities, and dispose the remaining reclaimed water through deep well injection.

What are some questions and concerns that citizens have about PURE?

CONTAMINANTS and SAFETY

Will this reclaimed water be treated enough to be safe for human consumption?

What methods of treatment will be used by the City to ensure safety? Will the best available treatment methods will be used, or will there be cost-containment shortcuts used for budgetary reasons?

Will this reclaimed water harm fish and other wildlife in the Hillsborough River?

What chemicals, hormones, pathogens, nutrients, and other contaminants will be in the reclaimed water, and what types of treatment is required to remove them safely?

Will the reclaimed water injected into the aquifer mix with other water underground that is being withdrawn by residents who have private wells for potable water in neighborhoods such as Seminole Heights?

What contaminants will be added to the aquifer, reservoir and river that are not there, or at very low levels, now?

AQUIFER EFFECTS

Will injecting this reclaimed water into the aquifer damage the aquifer (the primary source of drinking water for the State of Florida)?

Will injecting 50 mgd into the aquifer inflict damage on our neighborhoods, such as causing sinkholes?

What will happen in times of heavy rains? Will flooding be more likely?

COSTS

Why is the State mandating this without providing any funding? Who will end up paying for it?

How much is this going to cost the residents of Tampa? How much will this increase water bills?

Should the City challenge the new State law in court as an unfunded mandate, or should the City seek amendments in next year's legislative session to allow for the use of site specific, science-based information to allow full or partial exemptions which are not allowed under the statute that was just passed?

PLANS

Will the City build a prototype facility to run and test the system before this is implemented city-wide?

What kind of monitoring will occur to measure the impacts on the aquifer and the river?

Are there independent experts who will further review the City's final plan before implementation?

Are there other places in the United States where wastewater is treated to be resold as drinking water, and if so, what best practices methods are they using to ensure safety?

Are there alternatives that should be pursued other than PURE/TAP?

What are the relative risks of the PURE alternatives and other water solutions?