

Proposed additions to the Florida Statutes or Administrative Code dealing with the elimination of surface water discharges and reuse of reclaimed water

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Southwest Florida Water Management District

Currently a member of a citizens stakeholders group
facilitated by the City of Tampa Water Department
concerning their options and plans for reclaimed water use

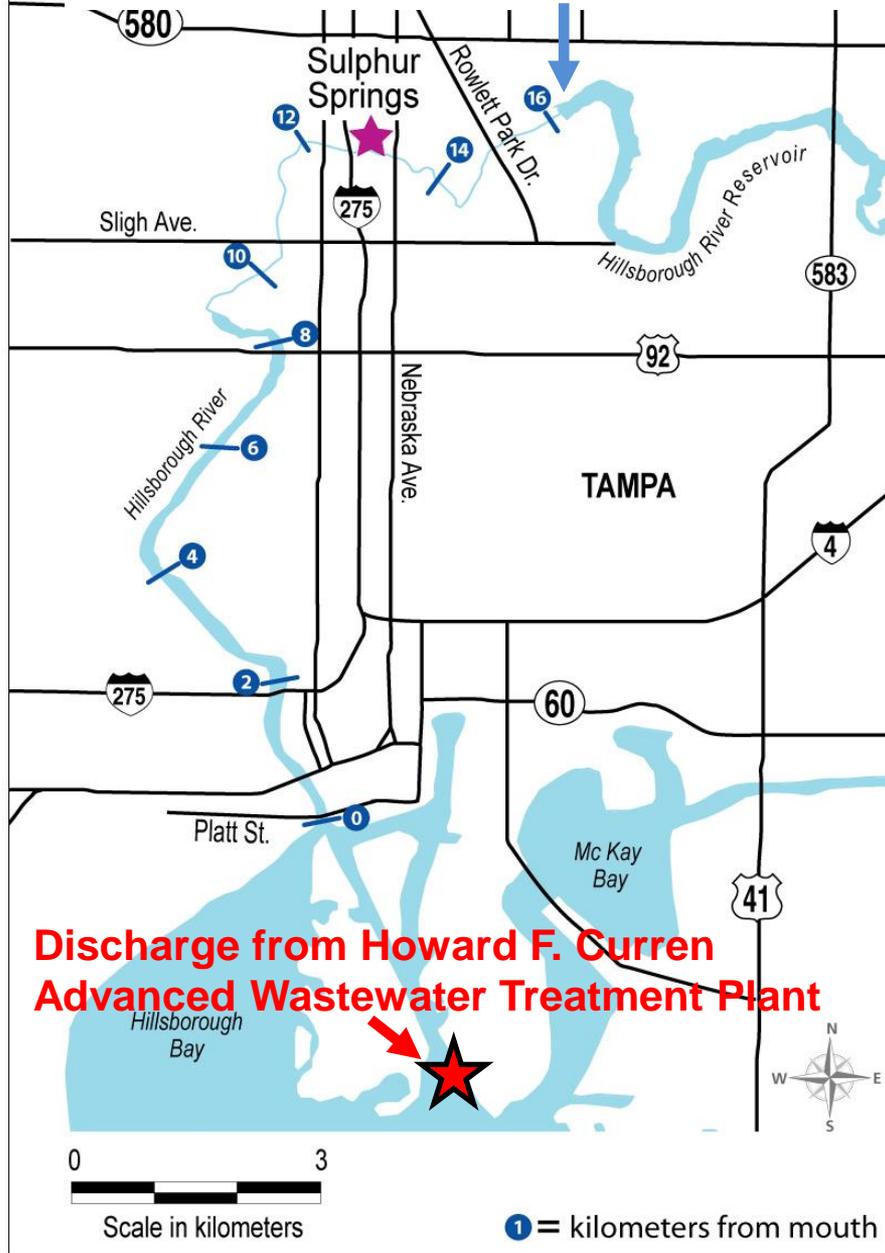
In 2021 the Florida Legislature passed Senate Bill 64 x which resulted in Florida Statute 403.064(17&18)

Requires utilities to eliminate nonbeneficial surface water discharges of effluent, reclaimed water, or reuse water, identifying the average gallons per day to be eliminated and the average gallons per day that will continue to discharge to surface water and the level of treatment it will receive

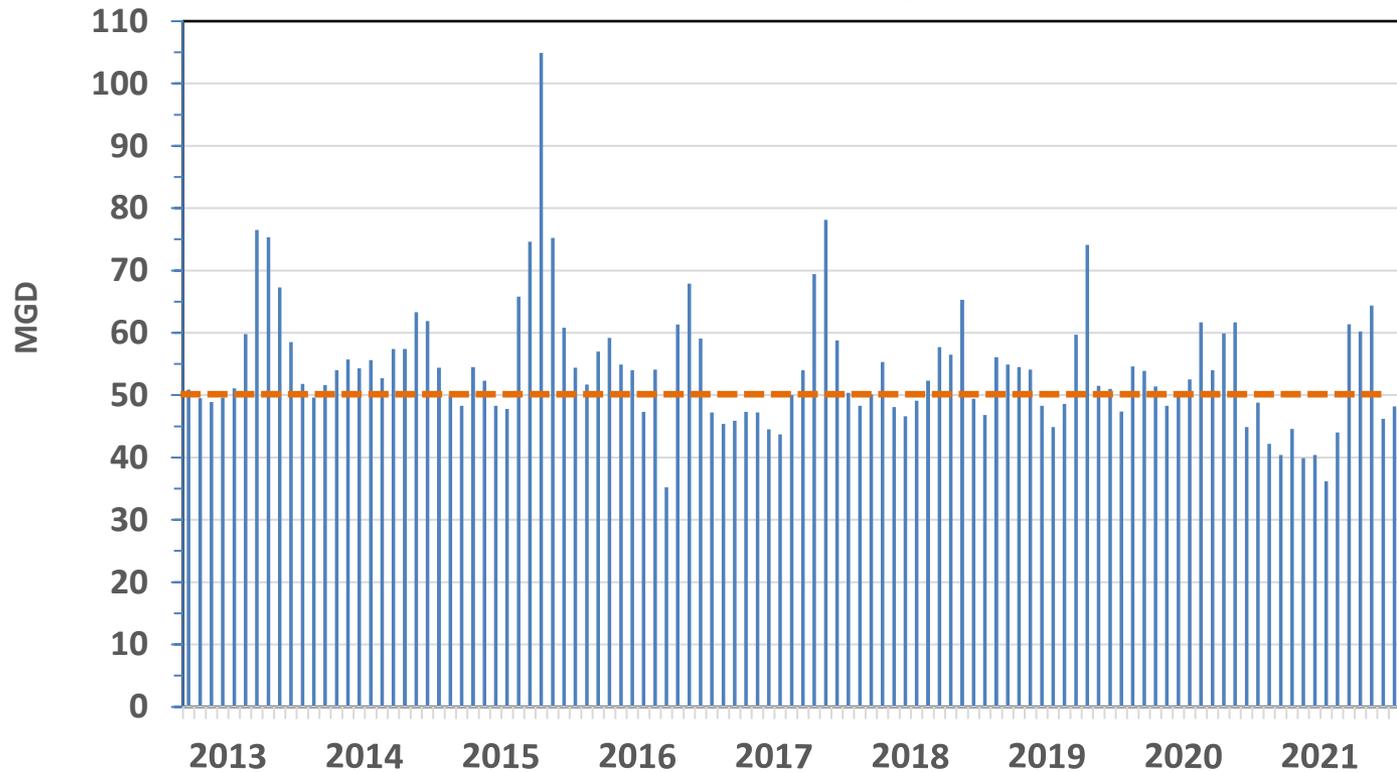
Utilities must submit plans to FDEP that identify their plans to meet the requirements of the statute by January 1, 2032

To meet the requirements of this statute, the City of Tampa plans to eliminate and reroute an average of 50 million gallons per day (mgd) of discharge of highly treated wastewater from their Howard F. Curren Advanced Wastewater Treatment Plant on Seddon Channel

City of Tampa Dam and Reservoir



Monthly discharges 2013 - 2021
H. F. Curren Advanced Wastewater Treatment Plant
with 50 mgd average highlighted (77 cfs)



Possible uses of the rerouted reclaimed water under consideration by the City of Tampa

- ★ Provide minimum flows to the Lower Hillsborough River
- ★ Supplement potable supplies by drought-proofing the City's reservoir

Direct potable reuse

Provide reclaimed water to Tampa Bay Water

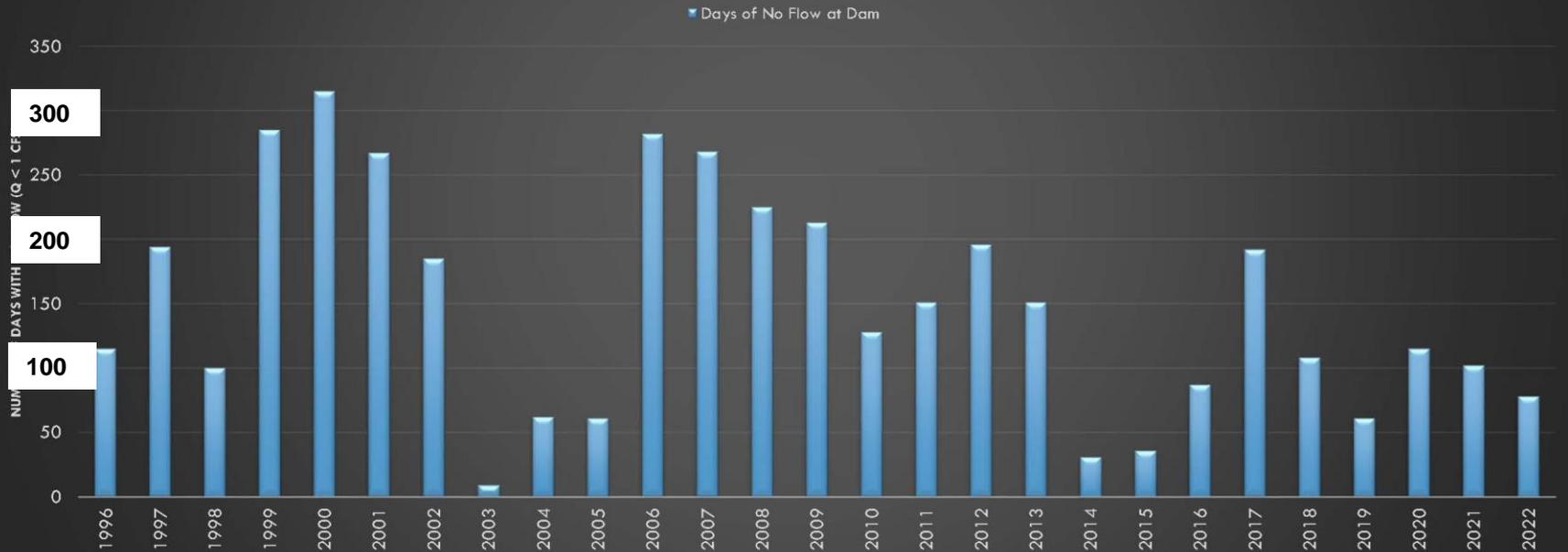
Increase residential irrigation use within the City (purple pipes)

How often will reclaimed water be needed for minimum flows or to supplement water supplies in the reservoir

No Flow Days at Dam

Number of Days of No-Flow
(Daily Average Flow < 1 cfs)
Hillsborough River Dam from 1996 through 2022
U.S. Geological Survey Hillsborough River near Tampa, FL, Gage Number 02304500
Includes provisional data

Number of Days



Where will the reclaimed water be stored or disposed of when there is no immediate need for minimum flows or drought proofing the reservoir?

Two planning options

Aquifer Storage and Recovery - Water stored in aquifer for later retrieval and reuse

Deep Well Injection

- Disposes of water in very deep groundwater zones with no reuse

Figure below may be outdated



Citizens stakeholders group in Tampa is proposing additions to the Florida Statutes or the Florida Administrative Code that can improve how utilities meet the requirements of Senate Bill 64

Purpose is to give utilities greater operational flexibility to develop reclaimed water projects that account for the hydrologic characteristics of their water supply source, seasonal changes in the demand for reclaimed water, costs, and better protection of surface and groundwater water resources and natural systems

Proposed First Addition

A utility may apply to the department for yearly variances from the average gallons per day of effluent, reclaimed water or reuse water that was not discharged to surface water and the average gallons of discharge that continued at the surface water site. Such variances may be based on short-term or seasonal variations in hydrologic conditions, water quality, environmental factors, reductions in the demand for the reclaimed water, a lack of capacity in natural or constructed storage areas or disposal zones, or other site specific factors.

Such variances can extend for multi-year periods, but at the end of each calendar year the utility shall describe the conditions that contributed to the average value of surface water discharge that was eliminated and the average value for surface discharge that continued being less or greater than the corresponding average value in the plan.

The statute states that surface water discharges may continue if: (five examples)

- Are to a stormwater management system that is used for irrigation purposes
- Are associated with an indirect potable reuse project
- Are a wet weather discharge allowed by permit
- Are part of a facility that uses a minimum of 90 percent of that facility's annual average flow
- The discharge provides direct ecological or public supply benefits, such as rehydrating wetlands or meeting minimum flows and levels or recovery or prevention strategies for a water body

Report submitted to the Florida Department of Environmental Protection by the City of Tampa on November 8, 2022 to request a determination if there are ecological benefits of discharge from the City's AWWT plant to Tampa Bay

November 6, 2022

Ecological benefits of discharge from the Howard F. Curren Advanced Wastewater Treatment Plant to Tampa Bay

Prepared by Sid Flannery, Retired, formerly Chief Environmental Scientist with the Southwest Florida Water Management District, Natural Systems and Restoration Bureau/Environmental

Purpose

This document presents a request to the Florida Department of Environmental Protection to recognize there are ecological benefits to Tampa Bay provided by surface water discharges from the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Plant (HFCAWTP) as it applies to implementation of Senate Bill 64 passed by the Florida Legislature in 2021. There has been extensive analytical work performed on the relationships of freshwater flow to Tampa Bay and the estuarine zones of the four major rivers that flow to the bay. In determining regulatory minimum flows for these tidal rivers, the Southwest Florida Water Management District has established that freshwater flow provides ecological benefits to these natural systems, but then determines the quantity of water that can be removed without causing significant environmental harm.

The principles of this water management approach could be generally applied to discharge from the HFCAWTP to Tampa Bay. Discharge from the HFCAWTP has valuable ecological benefits to the bay, but if supported by appropriate technical assessments, it is very likely that various quantities of this discharge could be rerouted and reused for other purposes without causing adverse environmental impacts. Water resource management strategies that could benefit from recognizing the ecological benefits that discharge from the HFCAWTP provides to Tampa Bay are presented on pages 16 to 18, but first the nature of these benefits to the bay are described on the following pages.

FDEP declines recognition of ecological benefits of discharges from H.F. Curren AWWT plant to Tampa Bay

Response from Domestic Wastewater Program at the FDEP Southwest District office in Temple Terrace, Nov. 15, 2022

“For clarification, the ecological benefit provision in Senate Bill 64 addresses water quantity, through implementation of the minimum flow and minimum water level (MFL) requirements. Marine discharges do not have an MFL classification. Therefore, the discharge of the Howard F. Curren AWWTF, as it currently exists, does not qualify for the ecological benefit provision in Senate Bill 64. Please feel free to reach out anytime should you need further clarification, or wish to discuss.”

Proposed second addition

(existing statute language in white)

(17)3. The plan does not provide for a complete elimination of the surface water discharge but does provide an affirmative demonstration that any of the following conditions apply to the remaining discharge:

(17)(3)e. The discharge provides direct ecological or public water supply benefits, such as rehydrating wetlands or implementing the requirements of minimum flows and minimum water levels or recovery or prevention strategies for a water body. For water bodies that do not currently have such management plans or regulations, including estuarine waters, the department may recognize the ecological benefits of a surface water discharge to a water body based on data or other information for that system.

The proposed additions will not prohibit the pursuit of reclaimed water projects using discharge from the H.F. Curren AWWTP plant

Utilities can still evaluate and develop reclaimed water projects that are designed to fit the characteristics of their water supply resource and seasonal demands for reclaimed water, allowing for temporal changes in the amount of surface water discharge that must be eliminated and rerouted for reuse based on changes in site-specific conditions

The proposed additions will not prohibit the pursuit of natural resource management strategies such as nutrient load reductions or habitat restoration projects involving the reclaimed water

If required or recommended by natural resource management agencies, further reductions in surface water discharges can occur beyond the discharges that are rerouted for reclaimed water use. Possibly, this could involve deep well injection in quantities that are necessary to achieve the management objective.

Conclusion

Rather than consistently meeting an average value of surface water discharge to be rerouted every year, the proposed additions will give utilities much needed operational flexibility to develop reclaimed water projects that are designed to the characteristics of their water supply source, with reuse quantities and schedules are truly needed, cost effective, and more protective of the water resources and natural systems.

The proposed additions also provide for the protection of important zones of estuarine systems that are ecologically dependent on freshwater flow and not covered by the existing statute if they occur outside the mouths of rivers.