HOUSE OF REPRESENTATIVES LOCAL BILL STAFF ANALYSIS

BILL #: CS/HB 1025 Pasco County/Sewage Treatment Facility Discharges
SPONSOR(S): Murphy
TIED BILLS: **IDEN./SIM. BILLS:**

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Local & Federal Affairs Committee	15 Y, 0 N	Dougherty	Rojas
2) State Affairs Committee	14 Y, 0 N, As CS	Moore	Camechis

SUMMARY ANALYSIS

Pasco County is interested in using reclaimed water to restore, recover, and enhance the impacted ecosystem of Crews Lake. Currently, the county uses reclaimed water to recharge the groundwater system through irrigation of lands, parks, and golf courses; industrial uses; and rapid infiltration basins.

As water is used within a community, inevitably a significant portion of that water is dirtied and is discharged to the municipal sewer system for treatment in a domestic wastewater treatment facility. A large portion of this water can be treated and distributed back into the community for a variety of uses. There are many uses for reclaimed water, including irrigation, power generation, fire protection, and natural system restoration.

Current law prohibits an existing sewage treatment facility in Pasco County from creating a new discharge into coastal waters. The law provides two exceptions that may be granted by the Department of Environmental Protection (DEP). First, DEP may grant an exception if there is no other practical alternative and the wastewater will undergo treatment before being discharged. Second, DEP may grant an exception if the discharge is a limited wet weather surface discharge. For both existing exceptions, the discharge must not result in violating water quality standards.

The bill clarifies that DEP may permit rehydration projects, like the one for Crews Lake, under the current exception to the prohibition for limited wet weather surface discharges.

According to a DEP analysis of the bill, “if the legislation is simply to promote permitting and implementation of the Crew’s Lake project, it is unnecessary. Existing law includes all of the provisions necessary to allow the project to be permitted.”

This bill has no fiscal impact.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Present Situation

Reclaimed Water

Importance of Reclaimed Water

As water is used within a community, inevitably a significant portion of that water is dirtied and discharged to the municipal sewer system for treatment in a domestic wastewater treatment facility. A large portion of this water can be treated and distributed back into the community for a variety of uses.

Water reuse is an important component of both wastewater management and water resource management in Florida. Reuse offers a means for managing wastewater that dramatically reduces environmental impacts associated with discharge of wastewater effluent to surface waters. In addition, use of reclaimed water provides an alternative water supply for many activities that do not require potable-quality water (such as irrigation and toilet flushing), which serves to conserve available supplies of potable-quality water. Some types of reuse offer the ability to recharge and augment available water supplies with reclaimed water.

Sanitation Process

Strict requirements for the design, operation, and monitoring of reclaimed water system facilities ensure that reclaimed water is not a threat to humans when used for landscape irrigation and other purposes. Municipal reuse facilities treat the water with a six-step process before delivering it to consumers through a reclaimed water distribution system. Reclaimed water that has been treated to this level is essentially pathogen-free and can be used for irrigation, cooling, and other industrial purposes.

The wastewater-to-reclaimed water process[1] involves the following steps:

1. Screening and other processes to remove sand and debris;
2. Sedimentation for removing large solids;
3. Aeration to allow microorganisms to break down organic materials;
4. Clarification to remove those microorganisms and any remaining solids;
5. Filtration to make water clear; and
6. Disinfection, with chlorine or UV radiation, to kill pathogens and bacteria.

Human Safety

Data demonstrates that use of reclaimed water in both urban and agricultural irrigation is safe and effective. Existing literature addresses quality and safety questions about the use of reclaimed water. For example, a WateReuse Foundation study in 2009 stated that "reclaimed, surface, and ground water are more similar than dissimilar."[2] A 2005 study by the same researchers found no incidences of illness or disease from either microbial pathogens or chemicals, and concluded that risks of using reclaimed water are not measurably different from risks associated with irrigation using potable water.[3] The Florida Department of Environmental Protection (DEP) found that there is no evidence or documentation of any disease associated with water reuse systems in the United States or in other countries that have reasonable standards for reuse.[4]

[1] This is one process and is used by the Southwest Florida Water Management District, which oversees these efforts in Pasco County.
[2] WateReuse Foundation, "A Reconnaissance-Level Quantitative Comparison of Reclaimed Water, Surface Water and Groundwater," Alexandria, Virginia, 2009.
[3] WateReuse Foundation, "Irrigation of Parks, Playgrounds, and Schoolyards with Reclaimed Water: Extent and Safety," Alexandria, Virginia, 2005.
[4] York, D. W., L. Walker-Coleman, L. Williams, and P. Menendez, "Monitoring for Protozoan Pathogens in Reclaimed

Uses and Benefits of Reclaimed Water

Reclaimed water has many uses, including:

- Irrigation
- Street-sweeping operations
- Power generation
- Decorative fountains
- Fire protection
- Dust control
- Aquifer recharge
- Cooling or makeup water for a variety of industrial processes
- Natural system restoration

However, reclaimed water is not suitable for body-contact recreation (including swimming pools), cooking, drinking, or edible garden irrigation (without special equipment).

Benefits of reclaimed water use include lower costs than drinking water; reduction of fertilizer use (as some nutrients like nitrogen and phosphorus remain); lessening stress on drinking water supplies; and reduction of disposal into waterways, which can help reduce nutrient loads in bays and rivers.

State Objectives for Water Reuse

Reclaimed water has been promoted, developed, and used in Florida for over 40 years with no reclaimed water-related illnesses.[5] As of 2011, over 650 million gallons per day of reuse were utilized by 280,000 residential irrigation customers, 525 golf courses, 875 parks, and 320 schools in Florida.[6]

In 1989, the Legislature established "the encouragement and promotion of water conservation and reuse of reclaimed water" as formal state objectives.[7] Water reuse programs designed and operated in compliance with Florida's rules governing reuse are deemed protective of public health and environmental quality. The Legislature also concluded that "reuse is a critical component of meeting the state's existing and future water supply needs while sustaining natural systems,"[8] and that reuse benefits water, wastewater, and reuse customers.[9] DEP has adopted extensive rules to reflect this legislative intent and regulate the use of reclaimed water in the state.[10]

In 2001, the Florida Reclaimed Water Statement of Support was signed to encourage and promote water reuse, to work to overcome institutional and regulatory disincentives and funding constraints, to ensure protection of public health and environmental quality, and to promote public acceptance of water reuse in Florida. Participating agencies that signed the Statement include DEP, the Department of Agriculture and Consumer Services, the Department of Health, the Public Service Commission, the Department of Community Affairs, the U.S. Environmental Protection Agency, and all five water management districts.[11]

<u>Pasco County</u>

Pasco County Reclaimed Water System

Water: Florida's Requirements and Experience," Proceedings of the 19th Annual WateReuse Symposium, WateReuse Association, Phoenix, AZ, 2004.

[5] York, D. W., "Water Reuse: Regulatory and Safety Perspectives," FWEA, 2006.

[6] Water Reuse Flyer, Southwest Florida Water Management District, available at http://www.swfwmd.state.fl.us/files/database/site_file_sets/118/Water_Reuse_flyer_PRINT_file.pdf.

[7] Sections 403.064(1) and 373.250, F.S.

[8] Section 403.064(1), F.S.

[9] Section 367.0817(3), F.S.

[10] Chapter 62-610.100, Florida Administrative Code, 1989. Reuse of Reclaimed Water and Land Application.

[11] Statement of Support for Water Reuse, available at http://www.dep.state.fl.us/water/reuse/docs/statement_of_support.pdf.

The Pasco County Reclaimed Water System is permitted by DEP as a stand-alone reclaimed distribution and disposal system for treated wastewater effluent produced by county treatment facilities. All of the county's sewage flow is converted to reclaimed water by these sewage treatment facilities – there is no other disposal method for the county's wastewater. Therefore, the amount of reclaimed water cannot be meaningfully reduced as the amount is dependent on the county's water usage.

Currently, the county uses its reclaimed water for irrigation of lands, parks, and golf courses; industrial uses; and rapid infiltration basins. These uses recharge the groundwater system with no surface water discharge. However, demand for these authorized irrigation uses decreases in the rainy season, creating a surplus of reclaimed water. Therefore, the county would like to add additional uses for the reuse system to effectively use the approximately five million gallon surplus. Alternatively, the county will have to build an additional rapid rate infiltration basin system for the five million gallon surplus. This additional storage capacity for use in the rainy season would require property acquisition, engineering, and construction at a cost to taxpayers of approximately $23,364,870.

Natural Rehydration System

Specifically, the county is interested in natural system rehydration and treatment to enhance wetland ecosystems that have been impacted or altered due to drainage, pumping, or other factors. The county intends to implement a plan to rehydrate certain surface water bodies that are not meeting minimum water levels, such as Crews Lake, or that are otherwise adversely impacted, and whose natural aquatic ecosystems might be restored, recovered, or enhanced by reclaimed water.

Law Limiting Discharges

Implementing an environmental restoration process using reclaimed water via natural system rehydration and recharge requires discharge into coastal waters. Chapter 99-166, L.O.F., forbids new discharges from existing sewage treatment facilities into Pasco County coastal waters with two exceptions. First, DEP may grant an exception if there is no other practical alternative and the wastewater will undergo treatment before being discharged. Second, DEP may grant an exception if the discharge is a limited wet weather surface discharge. For both existing exceptions, the discharge must not result in violating water quality standards.

Additional Exemption Sought

Proponents argue that this exemption will allow Pasco County Utilities to forego acquiring property to construct additional facilities to manage the reclaimed water supply. That cost avoidance will allow the utility to maintain its current level of service without raising rates. Additionally, proponents point to the economic stimulus of similar wetland projects[12] around Florida, which have become tourist attractions for birders, wildlife enthusiasts, and photographers.

Advantages to the local government, besides the cost-avoidance advantage for Pasco County Utilities, include the Pasco County Environmental Lands Acquisition and Management Program (ELAMP) not having to maintain the dry lake beds and other depleted aquatic lands as terrestrial properties. Mowing, spraying, and routine maintenance of those areas would become unnecessary if the impacted wetlands and lakes recover and rehydrate. Additionally, the Pasco County Parks Department will benefit with the recovery of Crews Lake as the amenities (fishing pier, boat ramp, and canoe/kayak launch) at Crews Lake Park will once again be usable. Those features will increase patronage of the park and will generate increased revenues for the county's parks system.

Effect of Proposed Changes

The bill amends ch. 99-166, L.O.F., to clarify that DEP may permit rehydration projects, like the one for Crews Lake, under a current exception to the prohibition on existing sewage treatment facilities

[12] Wakodahatchee Wetlands and the Green Cay Wetlands in Palm Beach County welcome more than a million visitors annually.

creating new discharges into Pasco County coastal waters. The bill specifies that such rehydration projects are included in the exception for limited wet weather surface water discharges serving as a backup to a reuse system. The potential water quality implications of such rehydration projects will be reviewed as part of the permitting process.

According to a DEP analysis of the bill, "if the legislation is simply to promote permitting and implementation of the Crew's Lake project, it is unnecessary. Existing law includes all of the provisions necessary to allow the project to be permitted."[13]

B. SECTION DIRECTORY:

Section 1: Amends ch. 99-166, L.O.F., authorizing an exception for rehydration projects to the rules prohibiting new discharges into Pasco County coastal waters.

Section 2: Provides an effective date.

II. NOTICE/REFERENDUM AND OTHER REQUIREMENTS

A. NOTICE PUBLISHED? Yes [X] No []

IF YES, WHEN? December 18, 2013

WHERE? The *Tampa Bay Times* and *Pasco Times*, daily newspapers published in Pasco County.

B. REFERENDUM(S) REQUIRED? Yes [] No [X]

IF YES, WHEN?

C. LOCAL BILL CERTIFICATION FILED? Yes, attached [X] No []

D. ECONOMIC IMPACT STATEMENT FILED? Yes, attached [X] No []

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

The current language creating a new exemption to the prohibition on new discharges may be construed to bypass consideration of water quality standards, including numeric nutrient criteria, in the receiving and downstream waterbodies. This has implications at both the state and federal levels. The bill sponsor is expected to offer an amendment in the State Affairs Committee to clarify that water quality standards continue to apply in the recovery and downstream waterbodies if the district discharges water pursuant to the exemption.

[13] DEP Agency Bill Analysis for HB 1025. On file with State Affairs Committee staff.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On April 11, 2014, the State Affairs Committee adopted an amendment and reported the bill favorably with committee substitute. The amendment clarifies that DEP may permit rehydration projects, like the one for Crews Lake, under the current exception for limited wet weather surface discharges.

This analysis is drafted to the committee substitute as passed by the State Affairs Committee.