

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 707 Domestic Wastewater Discharged through Ocean Outfalls
SPONSOR(S): Agriculture & Natural Resources Appropriations Subcommittee; Agriculture & Natural Resources Subcommittee; Diaz, Jr. and others
TIED BILLS: None **IDEN./SIM. BILLS:** CS/SB 444

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Agriculture & Natural Resources Subcommittee	11 Y, 0 N, As CS	Renner	Blalock
2) Agriculture & Natural Resources Appropriations Subcommittee	12 Y, 0 N, As CS	Helping	Massengale
3) State Affairs Committee			

SUMMARY ANALYSIS

In 2008, SB 1302 was passed by the Legislature and signed by the governor to protect Florida's coastal waters, including coral reefs, by decreasing the amount of wastewater discharged through ocean outfalls and into coastal waters.

The bill specifies that each utility that had a permit for a domestic wastewater facility that discharged through an ocean outfall on July 1, 2008, must install, or cause to be installed, a functioning reuse system within the utility's service area or, by contract with another utility, within Miami-Dade, Broward, or Palm Beach counties by December 31, 2025. For utilities operating more than one outfall, the reuse requirement may be apportioned between the facilities, including flows diverted to other facilities for 100 percent reuse before December 31, 2025. Utilities that shared a common ocean outfall for the discharge of domestic wastewater on July 1, 2008, regardless of which utility operates the ocean outfall, are individually responsible for meeting the reuse requirement and may enter into binding agreements to share or transfer such responsibility among the utilities.

The bill also specifies that a backup discharge can occur as the result of peak flows from other wastewater management systems. Peak flow backup discharges from other wastewater management systems cannot cumulatively exceed 5 percent of a facility's baseline flow, measured as a 5-year rolling average, and are subject to applicable secondary waste treatment and water-quality-based effluent limitations specified in Department of Environmental Protection (DEP) rules. If peak flow backup discharges are in compliance with the effluent limitations, the discharges are deemed to meet the advanced wastewater treatment and management requirements.

In addition, the bill expands what is required to be in the detailed plan to meet the outfalls and reuse requirements that facilities authorized to discharge domestic wastewater must submit under current law to include:

- The identification of the technical, environmental, and economic feasibility of various reuse options; and
- The level of treatment necessary to satisfy state water quality requirements and local water quality considerations and a cost comparison of reuse using flows from ocean outfalls and flows from other domestic wastewater sources.

The plan must also evaluate reuse demand in the context of future regional water supply demands, the availability of traditional water supplies, the need for development of alternative water supplies, the degree to which various reuse options offset potable water supplies, and other factors considered in the Lower East Coast Regional Water Supply Plan of the South Florida Water Management District (WMD).

Lastly, the bill specifies that DEP, the South Florida WMD, and the affected utilities must consider the information in the detailed plan for the purposes of adjusting, as necessary, the reuse requirements. DEP must submit a report to the Legislature by February 15, 2015, containing recommendations for any changes necessary to the reuse and discharge requirements.

The bill does not have a fiscal impact on state government. The bill appears to have a significant positive fiscal impact on local governments in the three affected counties, as well as the private sector. See Fiscal Analysis and Economic Impact Statement Section.

FULL ANALYSIS

This document does not reflect the intent or official position of the bill sponsor or House of Representatives.

STORAGE NAME: h0707d.ANRAS

DATE: 3/20/2013

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Current Situation

In 2008, SB 1302 was passed by the Legislature and signed by the governor to protect Florida's coastal waters, including coral reefs, by decreasing the amount of wastewater discharged through ocean outfalls and into coastal waters.

Section 403.086(9)(a), F.S., prohibits the construction of new ocean outfalls for domestic wastewater discharge and the expansion of existing ocean outfalls for this purpose. Each domestic wastewater ocean outfall must be limited to the discharge capacity specified in the permit authorizing the outfall in effect on July 1, 2008.

Section 403.086(9)(b), F.S., specifies that the discharge of domestic wastewater through ocean outfalls must meet advanced wastewater treatment and management requirements no later than December 31, 2018. The term "advanced wastewater treatment and management requirements" means:

- The advanced waste treatment requirements established in s. 403.086(4), F.S.;¹
- A reduction in outfall baseline loadings of total nitrogen and total phosphorus that is, equivalent to advanced wastewater treatment requirements in s. 403.086 (4), F.S.; or
- A reduction in cumulative outfall loadings of total nitrogen and total phosphorus occurring between December 31, 2008, and December 31, 2025, that is equivalent to that which would be achieved if the requirements of s. 403.086 (4), F.S., were fully implemented December 31, 2018, and continued through December 31, 2025.

These advanced wastewater treatment and management requirements are deemed met for any domestic wastewater facility discharging through an ocean outfall on July 1, 2008, which has installed no later than December 31, 2018, a fully operational reuse system comprising 100 percent of the facility's annual average daily flow.

Section 403.086(9)(c), F.S., specifies that each domestic wastewater facility that discharges through an ocean outfall on July 1, 2008, must install a functioning reuse system no later than December 31, 2025. A "functioning reuse system" is defined as an environmentally, economically, and technically feasible system that provides a minimum of 60 percent of the facility's actual flow on an annual basis for irrigation of public access areas, residential properties, or agricultural crops; aquifer recharge; groundwater recharge; industrial cooling; or other acceptable reuse purposes authorized by the Department of Environmental Protection (DEP). A "facility's actual flow on an annual basis" is defined as the annual average flow of domestic wastewater discharging through the facility's ocean outfall using monitoring data available for calendar years 2003 through 2007. Flows diverted from facilities to other facilities that provide 100 percent reuse of the diverted flows prior to December 31, 2025, are considered to contribute to meeting the 60 percent reuse requirement. For utilities operating more than one outfall, the reuse requirement can be met if the combined actual reuse flows from facilities served by the outfalls is at least 60 percent of the sum of the total actual flows from the facilities, including flows diverted to other facilities for 100 percent reuse prior to December 31, 2025. In the event that treatment, in addition to the advanced wastewater treatment and management requirements, is needed to support a functioning reuse system, such treatment must be fully operational no later than December 31, 2025.

Section 403.086(9)(d), F.S., specifies that the discharge of domestic wastewater through ocean outfalls is prohibited after December 31, 2025, except as a backup discharge that is part of a functioning reuse

¹ Section 403.086(4), F.S., sets the standards for the following concentrations:

1. Biochemical Oxygen Demand-5mg/l;
2. Suspended Solids-5 mg/l;
3. Total Nitrogen-3 mg/l;
4. Total Phosphorus-1 mg/l.

system. A backup discharge may occur only during periods of reduced demand for reclaimed water in the reuse system, such as periods of wet weather, and must comply with the advanced wastewater treatment and management requirements described above.

Section 403.086(9)(e), F.S., specifies that facilities that hold a DEP permit authorizing the discharge of domestic wastewater through ocean outfalls as of July 1, 2008, must submit to the Secretary of the DEP the following:

- A detailed plan to meet the wastewater treatment and management requirements discussed above, which includes:
 - Identification of all land acquisition needs to provide for reuse.
 - An analysis of the costs to meet the requirements of this act.
 - A financing plan to meet the requirements of this act.
 - A detailed schedule for the completion of all actions required under this act.
- By July 1, 2016, an update of the above required plan documenting any refinements or changes to the original plan or a written statement that the plan is current and accurate.

Section 403.086(9)(f), F.S., specifies that by December 31, 2009, and by December 31 every 5 years thereafter, the permittee authorized to discharge domestic wastewater through an ocean outfall must submit a report summarizing the actions accomplished to date and the actions remaining to meet the advanced wastewater treatment and management requirements outlined above. These reports must include:

- The detailed schedule for and status of the evaluation of the reuse and disposal options;
- The preparation of preliminary design reports;
- The preparation and submittal of permit applications;
- Construction initiation, progress, and completion milestones; and
- The initiation and continuation of operation and maintenance.

Section 403.086(9)(g), F.S., specifies that no later than July 1, 2010, and by July 1 every 5 years thereafter, DEP must submit a report to the Governor, the President of the Senate, and the Speaker of the House of Representatives on the implementation of the advanced wastewater treatment and management requirements described above. The report shall summarize progress to date, including the increased amount of reclaimed water provided and potable water offsets achieved, and identify any obstacles to continued progress, including all instances of substantial noncompliance.

Section 403.086(9)(h), F.S., specifies that by February 1, 2012, DEP must submit a report to the Governor and Legislature detailing the results and recommendations from phases 1 through 3 of its ongoing study on reclaimed water use.

Section 403.086(9)(i), F.S., specifies that the renewal of each permit that authorizes the discharge of domestic wastewater through an ocean outfall as of July 1, 2008, shall be accompanied by an order in accordance with s. 403.988(2)(e) and (f), F.S., which establishes an enforceable compliance schedule consistent with the requirements of this section.

Section 403.086(9)(j), F.S., specifies that an entity that diverts wastewater flow from a receiving facility that discharges domestic wastewater through an ocean outfall must meet the 60 percent reuse requirements discussed above. Reuse by the diverting entity of the diverted flows must be credited to the diverting entity. The diverted flow must also be correspondingly deducted from the receiving facility's actual flow on an annual basis from which the required reuse is calculated as discussed above, and the receiving facility's reuse requirement must be recalculated accordingly.

Effect of Proposed Changes

The bill amends s. 403.086(9)(c), F.S., to specify that each utility that had a permit for a domestic wastewater facility that discharged through an ocean outfall on July 1, 2008, must install, or cause to be

installed, a functioning reuse system within the utility's service area or, by contract with another utility, within Miami-Dade, Broward, or Palm Beach counties by December 31, 2025.

The bill also amends s. 403.086(9)(c), F.S., to specify that for utilities operating more than one outfall, the reuse requirement may be apportioned between the facilities served by the outfalls, including flows diverted to other facilities for 100 percent reuse before December 31, 2025. Utilities that shared a common ocean outfall for the discharge of domestic wastewater on July 1, 2008, regardless of which utility operates the ocean outfall, are individually responsible for meeting the reuse requirement and may enter into binding agreements to share or transfer such responsibility among the utilities.

The bill creates s. 403.086(9)(c)3, F.S., to specify that if a facility that discharges through an ocean outfall contracts with another utility to install a functioning reuse system, the DEP must approve any apportionment of the reuse generated from the new or expanded reuse system that is intended to satisfy all or a portion of the reuse requirements. If a contract is between two utilities that have reuse requirements, the reuse apportioned to each utility's requirement cannot exceed the total reuse generated by the new or expanded reuse system. The DEP is to be provided a copy of the contract reflecting such transaction between the utilities.

The bill amends s. 403.086(9)(d), F.S., to specify that the discharge of domestic wastewater through ocean outfalls can occur as a backup discharge that is part of a wastewater management system authorized by the DEP. The bill also specifies that a backup discharge can occur only as a result of peak flows from other wastewater management systems, in addition to the periods of reduced demand for reclaimed water in the reuse system that is allowed under current law. Peak flow backup discharges from other wastewater management systems cannot cumulatively exceed 5 percent of a facility's baseline flow, measured as a 5-year rolling average, and are subject to applicable secondary waste treatment and water-quality-based effluent limitations specified in DEP rules. If peak flow backup discharges are in compliance with the effluent limitations, the discharges are deemed to meet the advanced wastewater treatment and management requirements described above.

The bill also amends s. 403.086(9)(e), F.S., to revise what is required to be in the detailed plan that facilities authorized to discharge domestic wastewater must submit, to include:

- The identification of the technical, environmental, and economic feasibility of various reuse options; and
- The level of treatment necessary to satisfy state water quality requirements and local water quality considerations and a cost comparison of reuse using flows from ocean outfalls and flows from other domestic wastewater sources.

The plan identified above must evaluate reuse demand in the context of future regional water supply demands, the availability of traditional water supplies, the need for development of alternative water supplies, the degree to which various reuse options offset potable water supplies, and other factors considered in the Lower East Coast Regional Water Supply Plan of the South Florida WMD.

The bill repeals s. 403.086(9)(h), F.S., because DEP has already submitted the required report discussed above.

Lastly, the bill amends s. 403.086(9)(j), F.S., to specify that DEP, the South Florida WMD, and the affected utilities must consider the information in the detailed plan discussed above for the purposes of adjusting, as necessary, the reuse requirements. DEP must submit a report to the Legislature by February 15, 2015, containing recommendations for any changes necessary to the reuse and discharge requirements.

B. SECTION DIRECTORY:

Section 1. Amends s. 403.086, F.S., relating to the discharge of domestic wastewater through ocean outfalls.

Section 2. Provides an effective date of July 1, 2013.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

See Fiscal Comments Section.

2. Expenditures:

See Fiscal Comments Section

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

According to DEP,² affected local governments will see a significant negative fiscal impact for the treatment plant upgrades needed to comply with the advanced wastewater and reuse requirements. The costs for the utilities would likely be passed on to customers that are served by the utility and would be reflected in the rates and fees charged for such services. However, the allowance for peak flow discharges and greater flexibility in meeting reuse requirements would reduce the costs, which would also be passed on to customers served by the utilities.

The construction of treatment facilities and reuse systems to treat wastewater will generate private sector jobs.

D. FISCAL COMMENTS:

DEP provided the following comments regarding the fiscal impact on local governments in the three affected Southeast Florida counties:

The bill's provisions providing additional flexibilities in meeting the 60 percent reuse requirement, along with a provision that would allow 5 percent of peak flows from the wastewater treatment facilities to continue to be discharged through the outfalls, are expected to substantially reduce the costs of wastewater investments necessary to make the transition from ocean outfalls to more environmentally sound practices, including beneficial reuse.

Facilities discharging through the ocean outfalls are located near the coastline and have aging sewer collection systems, which results in their wastewaters containing elevated levels of chlorides (salt water). These elevated levels of chlorides require more complex, expensive, and energy intensive treatment technologies, such as reverse osmosis, to make the wastewater suitable for most reuse practices. The bill would allow an ocean outfall utility to install, or have installed, new or expanded reuse systems anywhere within the utility's service area or by contract with another utility within Miami-Dade, Broward and Palm Beach counties. New or expanded reuse systems associated with wastewater treatment facilities located further inland would not have elevated chloride levels, and therefore, the costs to make this wastewater suitable for reuse would be substantially less.

The allowance for discharging limited peak flows after 2025 would allow the construction of smaller, less expensive wastewater management facilities.

² DEP 2013 staff analysis. On file with staff.

- Hollywood estimates savings of \$174 million in capital costs for peak flows of 10 percent of annual flows, \$162 million for peak flows of 5 percent, and \$142 million for peak flows of 3 percent.
- Broward County savings of \$620 million in capital costs for peak flows of 10 percent of annual flows, \$600 million for peak flows of 5 percent, and \$560 million for peak flows of 3 percent.
- Miami-Dade County estimates savings for their central, north, and south wastewater treatment plants of \$867 million in capital costs for peak flows of 5 percent of annual flows.

Engineering cost curves used for estimating purposes show the majority of the costs savings for each of three county utilities occurs in the 1-3 percent peak flow range with significantly diminishing cost savings above 5 percent of peak flows, lending support for the 5 percent figure used in the bill.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to require counties or municipalities to spend funds or take action requiring the expenditure of funds, reduce the authority that counties or municipalities have to raise revenues in the aggregate, or reduce the percentage of state tax with counties or municipalities.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On March 7, 2013, the Agriculture & Natural Resources Subcommittee amended and reported HB 707 favorably as a committee substitute (CS). The amendment deletes the requirement for the DEP to submit a report to the Governor and Legislature by February 1, 2012 , because the DEP has already submitted this report.

On March 18, 2013, the Agriculture and Natural Resources Appropriations Subcommittee amended and reported CS/HB 707 favorably as a committee substitute. The amendment requires facilities that contract with other facilities to build functioning reuse systems, provide the DEP a copy of contracts reflecting such transactions between the utilities.