

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: PCB ENRC 08-18 Wastewater Disposal
SPONSOR(S): Environment & Natural Resources Council
TIED BILLS: **IDEN./SIM. BILLS:**

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR
Orig. Comm.: Environment & Natural Resources Council	13 Y, 0 N	Deslatte / Perkins	Dixon / Hamby
1) _____	_____	_____	_____
2) _____	_____	_____	_____
3) _____	_____	_____	_____
4) _____	_____	_____	_____
5) _____	_____	_____	_____

SUMMARY ANALYSIS

The bill directs the South Florida Water Management District (SFWMD) to include water resource and water supply development projects that promote the elimination of wastewater ocean outfalls within its regional water supply plan. It also provides that such projects should be given first consideration for state or water management district (WMD) funding assistance. Subject to specified conditions, the SFWMD must require the use of reclaimed water made available by the elimination of the wastewater ocean outfalls as part of their consumptive use permitting process.

The bill prohibits the new construction or expansion of wastewater ocean outfalls and limits the discharge of wastewater through ocean outfalls to the permitted capacity in effect on July 1, 2008. It requires that discharge of domestic wastewater through ocean outfalls meet advanced wastewater treatment and management requirements no later than December 31, 2018. Such requirements are defined to include those set forth in s. 403.086 (4), F.S.; a reduction in baseline loadings of total nitrogen and total phosphorus, 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 which 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, as determined by the Department of Environmental Protection (DEP) pursuant to specified criteria, by December 31, 2018. It provides an exemption to treatment standards for those facilities that meet 100 percent reuse for domestic wastewater discharge by the same date.

The bill requires all facilities that discharge wastewater through ocean outfalls to achieve, at a minimum, 60 percent reuse of the facilities actual annual flow by December 31, 2025, and prohibits discharge through ocean outfalls beyond that date, unless as a backup to the functioning reuse system.

The bill creates a reporting schedule for permit holders who discharge domestic wastewater through ocean outfalls. Permit holders are required to detail the plan to meet the requirements of the act and provide a summary of actions accomplished to date. The bill provides a reporting schedule for the DEP to summarize the progress to date, to be submitted to the Legislature.

The bill establishes the Leah Schad Memorial Ocean Outfall Program. As funds become available, the bill allows the state to assist local governments and agencies responsible for implementing the requirements for domestic wastewater disposal. Funds received from sources provided for in law and the General Appropriations Act; gifts designated for such disposal requirements from individuals, corporations, or other entities; or federal funds appropriated by the United States Congress for implementation of such disposal requirements may be deposited into a designated account within the Ecosystem Management and Restoration Trust Fund.

The bill does not appear to have a significant fiscal impact on state government. The bill may reduce future funding needs associated with the development of alternative water resources within ocean outfall areas by the utilization of reclaimed wastewater. The bill appears to have a significant impact on local governments that currently utilize ocean outfalls. These local governments will incur significant costs associated with the construction of upgraded treatment facilities.

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

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FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. HOUSE PRINCIPLES ANALYSIS:

Provide limited government—The bill prohibits utilities from constructing new wastewater ocean outfalls and expanding existing outfall capacity by July 1, 2008. The bill requires outfall discharges to meet specified treatment levels by 2018 and to be eliminated by 2025. In addition, the bill directs the SFWMD to include water resource and water supply development projects that promote the elimination of wastewater ocean outfalls within its regional water supply plan. It also provides that such projects should be given first consideration for state or WMD funding assistance. Subject to specified conditions, the SFWMD must require the use of reclaimed water made available by the elimination of the wastewater ocean outfalls as part of their consumptive use permitting process

Ensure lower taxes—It is estimated that there will be significant local government costs for the required treatment upgrade and development of alternative disposal options, including reuse of reclaimed water. These costs would be reflected in increases to utility rates.

B. EFFECT OF PROPOSED CHANGES:

Current Situation

There are six existing facilities in Palm Beach, Broward, and Miami-Dade Counties discharging approximately 300 million gallons of treated domestic wastewater directly into the Atlantic Ocean every day through ocean outfalls. At the same time, the demand for public water supply in these three counties is projected to grow by that same amount over the next 20 years, to a total of almost 1.15 billion gallons per day by 2028. The traditional sources of water supply in Southeast Florida, including groundwater and the “regional system” of the Everglades and Lake Okeechobee, are being used beyond sustainable levels. Continuing water restrictions associated with the current drought highlight the need to develop “drought-proof” alternative water supplies.

Reuse of reclaimed water is a proven, safe, and economically feasible substitute for potable water for urban and agricultural landscapes, industrial and commercial uses, and augmenting or recharging surface and groundwater supplies. Currently, approximately six percent of the wastewater at the six facilities is reused rather than discharged. Excluding the three counties using ocean outfalls, 61 percent of Florida’s domestic wastewater is reused every day. By contrast, the three counties discharging through ocean outfalls use ten percent of their domestic wastewater for beneficial reuse activities.

A growing line of evidence suggests that land-based sources of pollutants, especially nutrients, are affecting the health of the coral reefs off the Southeast coast of Florida. These reef habitats contribute significantly to tourism and the overall economy in South Florida. While ocean outfalls represent only one of many land-based sources of pollution contributing to the decline of our coastal environment, this wastewater can be effectively captured, treated, and reused to meet growing water supply demands.¹

Effect of Proposed Changes

The bill requires the SFWMD to include in its regional water supply plan water resource and water supply development projects that promote the elimination of wastewater ocean outfalls.

The bill requires water supply development projects be given first consideration for state or water management district funding assistance if they meet the criteria in s. 373.0831 (4)(a), F.S., and implement reuse that assists in the elimination of domestic wastewater ocean outfalls.

The bill requires WMDs governing boards to give significant weight to projects that implement reuse that assists in the elimination of domestic wastewater ocean outfalls when determining project funding.

¹ Department of Environmental Protection analysis

The SFWMD must require the use of reclaimed water made available by the elimination of wastewater ocean outfall discharges in lieu of surface water or ground water when the use of uncommitted reclaimed water is environmentally, economically, and technically feasible and of such quality and reliability as is necessary to the user. Such reclaimed water may also be required in lieu of other alternative sources. In determining whether or not to require such reclaimed water in lieu of other alternative sources, the WMD shall consider existing infrastructure investments in place or obligated to be constructed by an executed contract or similar binding agreement as of July 1, 2011, for the development of other alternative sources.

The bill deletes references to ocean outfalls discharges in s. 403.085, F.S., relating to sanitary sewage disposal units; advanced and secondary waste treatment; and industrial waste. The bill also updates DEP's name.

Sewage disposal facilities

The bill states Legislative findings that: the discharge of domestic wastewater through ocean outfalls wastes valuable water supplies that should be reclaimed for beneficial purposes to meet public and natural systems demands; discharge of domestic wastewater through ocean outfalls compromises the coastal environment, quality of life, and local economies that depend on those resources. The bill declares that more stringent treatment and management requirements for such domestic wastewater and the subsequent, timely elimination of ocean outfalls as a primary means of domestic wastewater discharge are in the public interest.

The bill prohibits the construction of new ocean outfalls for domestic wastewater discharge and the expansion of existing ocean outfalls. Existing ocean outfalls shall be limited to the discharge capacity specified in the DEP permit authorizing the outfall in effect on July 1, 2008, which discharge capacity shall not be increased.

The bill allows for maintenance of existing outfalls. It also directs the DEP to work with the Environmental Protection Agency (EPA) to ensure that the requirements are consistently implemented on all ocean discharges in the state.

The bill provides that by December 31, 2018, facilities with ocean outfall discharges shall implement advanced wastewater treatment and management requirements. "Advanced wastewater treatment and management requirements" means the advanced waste treatment requirements set forth in subsection (4) of s. 403.086, F.S., a reduction in outfall baseline loadings of total nitrogen and total phosphorus which is equivalent to that which would be achieved by the advanced waste treatment requirements in subsection (4) of s. 403.086, F.S., or a reduction in cumulative outfall loadings of total nitrogen and total phosphorus occurring between December 31, 2008, and December 31, 2025, which is equivalent to that which would be achieved if the advanced waste treatment requirements in subsection (4) of s. 403.086, F.S., were fully implemented beginning December 31, 2018, and continued through December 31, 2025. The DEP will establish the baseline loadings of pollutants (nitrogen and phosphorus) based on existing 5 year average loadings and will use the baseline loadings for the determination of required nutrient reductions. The baseline loadings and required loading reductions of total nitrogen and total phosphorus shall be expressed as an average annual daily loading value. The bill also provides that the advanced wastewater and management requirements shall be deemed to be met for a facility that has installed a fully functioning reuse system comprising 100 percent of the facility's average annual daily flow no later than 2018.

Each facility that discharges through an ocean outfall on July 1, 2008, shall install a functioning reuse system no later than December 31, 2025. A "functioning reuse system" means 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 DEP. The term "facility's actual flow on an annual basis" means the annual average flow of domestic wastewater discharging through a facility's ocean outfall, as determined by the

department, using monitoring data available for calendar years 2003 through 2007. The bill allows flows directed from the outfall facilities to other facilities that will provide 100 percent reuse of the redirected flows prior to December 31, 2025, to count towards meeting the 60 percent requirement. The bill addresses the situation when a utility operates multiple outfalls and allows the 60 percent reuse requirement to be met by averaging flows among these outfall facilities prior to December 31, 2025. In the event treatment in addition to the advanced wastewater treatment and management requirements is needed in order to support a functioning reuse system, such treatment shall be fully operational no later than December 31, 2025.

The discharge of wastewater through ocean outfalls is prohibited after December 31, 2025, except as a backup discharge that is part of a functioning reuse system authorized by the DEP. 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 shall comply with the advanced wastewater treatment and management requirements.

Facilities that hold a DEP permit authorizing the discharge of domestic wastewater through ocean outfalls as of July 1, 2008, shall submit to the Secretary of the DEP the following:

- A detailed plan to meet the requirements of this act, 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.
- The plan must be submitted no later than July 1, 2013.
- By July 1, 2016, all facilities shall submit 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.
- By December 31, 2009, and by each December 31 every five years thereafter, the permittee, as identified above, shall submit a report summarizing the actions accomplished to date and the actions remaining to meet the requirements of this act. These reports shall 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.
 - The initiation and continuation of operation and maintenance.

No later than July 1, 2010, and by July 1 every 5 years thereafter, the DEP shall submit a report to the Governor, the President of the Senate, and the Speaker of the House of Representatives on the implementation of this act. 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.

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 act.

The bill establishes that projects meeting the requirements for the elimination of ocean outfalls are eligible for water pollution control financial assistance.

The bill establishes the Leah Schad Memorial Ocean Outfall Program. As funds become available, the bill allows the state to assist local governments and agencies responsible for implementing the requirements for domestic wastewater disposal. Funds received from sources provided for in law and the General Appropriations Act; gifts designated for such disposal requirements from individuals, corporations, or other entities; or federal funds appropriated by the United States Congress for

implementation of such disposal requirements may be deposited into a designated account within the Ecosystem Management and Restoration Trust Fund.

C. SECTION DIRECTORY:

Section 1: Amends s. 373.0361, F.S., requiring the SFWMD to include water supply development projects that promote the elimination of ocean outfalls in its regional water supply plan.

Section 2: Amends s. 373.0831, F.S., providing for projects that implement reuse as a means of eliminating ocean outfalls to receive priority funding consideration.

Section 3: Amends s. 373.1961, F.S., providing priority funding for projects that implement reuse that assists with the elimination of ocean outfalls.

Section 4: Amends s. 373.250, F.S., directing the SFWMD to require the use of reclaimed water made available through the elimination of ocean outfalls under certain conditions.

Section 5: Amends s. 403.085, F.S., prohibiting the use of ocean outfalls as a method of sanitary sewage disposal.

Section 6: Amends s. 403.086, F.S., providing legislative intent; prohibiting the new construction of an expanded discharge of ocean outfalls; requiring that domestic wastewater discharges to ocean outfalls meet advanced wastewater treatment and management requirements by a date certain; providing an exemption from meeting advanced wastewater treatment and management requirements under specific conditions; providing wastewater reuse requirements for facilities that discharge through ocean outfalls by a date certain; providing prohibitions for the discharge of domestic wastewater through ocean outfalls under specific conditions by a date certain; providing reporting requirements for permitted ocean outfall facilities; providing reporting requirements for the DEP; providing a compliance schedule for facilities discharging through ocean outfalls in the award of water pollution control financial assistance.

Section 7: Creates s. 403.08601, F.S., establishing the Leah Schad Memorial Ocean Outfall Program; providing for financial assistance to local governments and agencies to implement specified wastewater disposal requirements.

Section 8: Amends s. 403.1651, F.S., creating a dedicated account within the Ecosystem Management and Restoration Trust Fund for the purposes of funding the Leah Schad Memorial Ocean Outfall Program.

Section 9: Amends s. 403.1835, F.S., providing priority funding consideration for specified projects relating to ocean outfalls.

Section 10: Amends s. 163.3177, F.S., conforming a cross-reference.

Section 11: Provides an effective date of July 1, 2008.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

See Fiscal Comments.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

See Fiscal Comments.

2. Expenditures:

See Fiscal Comments.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

Direct Private Sector Costs: Water utility customers that are supplied by an affected utility would see increases in water rates as reflected in the local government section below.

Direct Private Sector Benefits: Reduction of significant nutrient loadings along the coral reefs of Southeast Florida could assist in the restoration of their reefs. The reefs contribute significantly to the tourist business in South Florida and are estimated to provide more than 61,000 jobs and \$1.9 billion in yearly income for residents of Southeast Florida. The bill would provide a supply of reusable water that historically has been wasted to the ocean. This supply should reduce the need to develop expensive alternative water supplies for this region.

Effects on Competition, Private Enterprise and Employment Markets: The construction of upgraded treatment facilities and reuse systems associated with 300 million gallons per day of wastewater will provide private sector consultants and contractors with significant business opportunities.

D. FISCAL COMMENTS:

State Government: There is no direct fiscal impact to the state. The DEP indicates it can implement the bill within existing resources. However, the bill provides for outfall elimination projects to receive priority under state and WMD financial assistance programs.

The bill establishes the Leah Schad Memorial Ocean Outfall Program. As funds become available, the state may assist local governments and agencies responsible for implementing the requirements for domestic wastewater disposal. Funds received from sources provided for in law and the General Appropriations Act; gifts designated for such disposal requirements from individuals, corporations, or other entities; or federal funds appropriated by the United States Congress for implementation of such disposal requirements may be deposited into a designated account within the Ecosystem Management and Restoration Trust Fund.

Local Government Non-recurring Effects: There would be significant local government costs for the treatment upgrade and development of alternative disposal options including reuse of reclaimed water. These would be reflected in increases to utility rates. There are also savings associated with use of reclaimed water to offset the increasing water supply demands. A University of Florida study of the ocean outfall issue (2006) indicates the increased costs of treatment, reuse, and disposal to completely eliminate ocean outfalls under existing conditions would range from \$1.85 per 1,000 gallons to \$3.33 per 1,000 gallons, averaging about \$2.64 per 1,000 gallons. A household using 7,500 gallons per month would have an additional average cost of \$19.80 per month. Precise costs will not be known until the detailed plans are submitted in 2013.

Local Government Recurring Effects: There would be substantial costs associated with operation and maintenance of the upgraded wastewater treatment systems that would be reflected in changes to utility rates. The costs to a specific facility would depend on a variety of circumstances, including the specific suite of reuse alternatives selected, existing treatment processes, local physical circumstances, individual engineering choices, method of financing and other potentially unique situations. Precise costs will not be known until the detailed plans are submitted in 2013.

Local Government Long Run Effects Other Than Normal Growth: Savings would be realized from reusing reclaimed water in lieu of developing other costly water resource alternatives, such as desalination. Implementation of this bill would result in long term reduction in nutrients being discharged along the coral reefs of Southeast Florida's coast, which may have a long term positive effect on tourism and recreational use.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

This bill requires all utilities, including those owned and operated by cities and counties, that operate facilities that discharge through ocean outfalls to expend funds to upgrade such facilities, in order to meet the requirements of the act.

Section 18(a), Art. VII of the State Constitution provides that a city or county is not bound by any general law requiring the city or county to spend funds or to take an action to expend funds unless the Legislature has determined that the law fulfills an important state interest and unless, for purposes relevant to this bill, the expenditure is required to comply with a law that applies to all persons similarly situated or the law requiring the expenditure is approved by two-thirds of the membership of each house of the Legislature.

The bill applies to all similarly situated persons and fulfills an important state interest.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The bill authorizes the DEP to establish legally enforceable compliance schedules for treatment upgrades and ultimate outfall elimination. The bill does not grant or require additional rulemaking authority.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

D. STATEMENT OF THE SPONSOR

N/A

IV. AMENDMENTS/COUNCIL SUBSTITUTE CHANGES

On April 11, 2009, the Environment & Natural Resources Council amended and passed PCB ENRC 08-18. The filed bill includes several additions.

The filed bill defines the term "facility's actual flow on an annual basis" as the annual average flow of domestic wastewater discharging through a facility's ocean outfall, as determined by the department, using monitoring data available for calendar years 2003 through 2007. The bill also includes aquifer recharge in the definition of "functioning reuse system."

The filed bill also establishes the Leah Schad Memorial Ocean Outfall Program. As funds become available, the state may assist local governments and agencies responsible for implementing the requirements for domestic wastewater disposal. Funds received from sources provided for in law and the General Appropriations Act; gifts designated for such disposal requirements from individuals, corporations, or other entities; or federal funds appropriated by the United States Congress for implementation of such disposal requirements may be deposited into a designated account within the Ecosystem Management and Restoration Trust Fund.