This is your opportunity as responsible scientists to weigh in on an important issue.

Please see email below regarding the Tuesday Feb 19 Florida Senate hearing on Ocean Outfall Legislation. Comments are requested by Monday (Feb 18) and should be directed to Phil Coram at phil.coram@dep.state.fl.us.

Email from FDEP
As you may know the Department of Environmental Protection (DEP) has prepared draft legislative language that would reduce over time, and ultimately eliminate, reliance on ocean outfalls to dispose of hundreds of millions of gallons of domestic wastewater each day in Southeast Florida. Under this proposal, the treated wastewater would become a valuable resource to be reused to meet the area's future water supply demands.

We are soliciting your input on the proposed legislation as a stakeholder. The Senate Environmental Preservation and Conservation Committee has expressed an interest in considering this issue during the upcoming legislative session and likewise is seeking input. The Committee has offered to facilitate discussions of the various stakeholders.

Palm Beach, Broward and Miami-Dade Counties currently rely in large part on six ocean outfalls for disposal of secondarily treated domestic wastewater. About 300 million gallons of wastewater is discharged out these outfalls every day. Given the need for new water sources to meet growing water supply demands in the region—300 million gallons more every day by 2025—along with increasing evidence that these ocean discharges and other land based sources of pollution may be contributing to negative impacts on our offshore coral reefs, the time is right to reevaluate this practice.

Attached please find:

A fact sheet providing background on the issue
A summary of the DEP proposal, and
DEP initial draft of legislative language

We recognize eliminating ocean outfalls will be expensive and cannot be done overnight. Ensuring water for the future of Southeast Florida and protecting our valuable coastal resources makes it imperative that we begin moving in this direction now.

Therefore we would appreciate any comments you have on the proposed legislation. In order to make the upcoming stakeholder meeting productive by identifying the range of issues, Senate staff has asked that comments be provided to DEP by noon on Monday, February 18th. Please send your comments by e-mail to Phil Coram with the Department at:

phil.coram@dep.state.fl.us

Senate staff has scheduled a stakeholders meeting for Tuesday, February 19th from 2 to 4 PM in room 301 of the Senate Office Building.

We look forward to your participation.

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Domestic Wastewater Ocean Outfalls – Southeast Florida
January 2008

Background

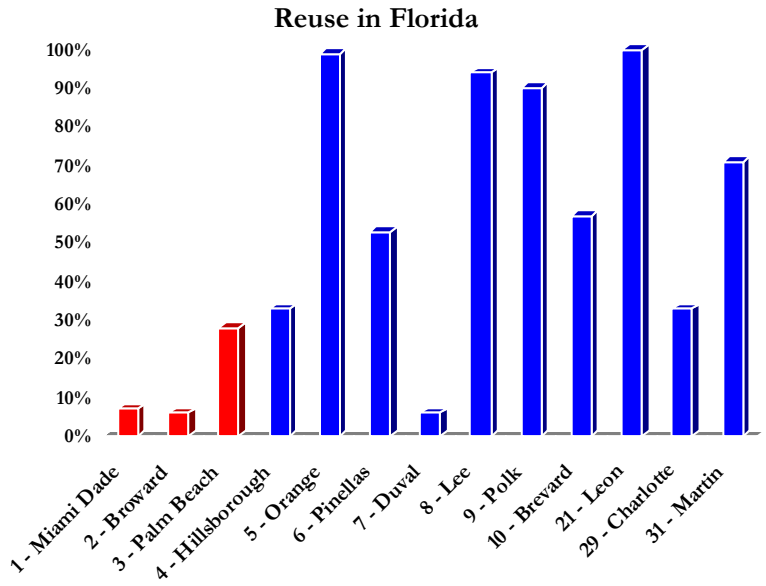
- 6 outfalls in Broward, Miami-Dade and Palm Beach Counties (see map)
  - 2 outfalls in each of the three Counties
    - Miami Dade: North and Central Plants – combined discharge 202 mgd
    - Broward: North County and City of Hollywood: combined discharge of 73 mgd
    - Palm Beach: Boynton-Delray and Boca Raton: combined discharge 25 mgd
  - Outfalls constructed in 1940s (Hollywood), 1950s (MD Central e.g. Virginia Key), and 1970s (Boynton-Delray, Boca Raton, Broward North, MD North)_
  - Length from shore: 1 mile (Delray and Boca) to 3.5 miles (MD Central), Depth: 90 – 110 feet, Pipe Diameters: 3 feet to 7.5 feet
- Permitted capacity = 415.5 million gallons per day
- Current flow = 300 million gallons per day (mgd)

	Boynton-Delray	Boca Raton	Broward North	Hollywood	Miami-Dade North	Miami-Dade Central
Daily Flow	13 mgd	12 mgd	41 mgd	32 mgd	88 mgd	114 mgd
% of Reuse	20%	21%	6%	8%	<3%	5%

- "Secondary treatment" – Poorest quality treatment allowed by Florida law
- Minimal nitrogen and phosphorus ("nutrient") removal
  - Nutrients are the #1 cause of surface water pollution throughout Florida
- Coral reef health declining, algal blooms increasing in severity
- Outfalls are one of several sources of nutrients to coastal environment; while no direct cause and effect relationship has been determined, growing evidence suggests outfalls contribute to cumulative impacts on the reefs.

What happens elsewhere in Florida?

- No ocean outfalls; fewer and fewer surface water discharges
- Higher levels of wastewater treatment
  - Readily available, well-understood technologies being used throughout most of Florida, especially in Southwest and Central Florida.
- Much more reuse
  - About 41% of Florida's domestic wastewater is reused every day—61% excluding Broward, Palm Beach and Miami-Dade counties. The average reuse percentage for the facilities discharging through the six ocean outfalls is only about 6%. The graph below reflects the percentage of reuse in Florida's 10 largest counties and selected others. The number by the county name indicates population ranking.



Water supply considerations

- 300 million gallons of water wasted every day
  - 110 billion gallons every year
- Outfall waste is equivalent to 100% of the new water demand in the area
  - 26% of projected total public water supply in 2025
- Traditional water sources—Everglades System, Biscayne Aquifer—are overtaxed

What will it cost?

- Several billion dollars
  - Rate increases of anywhere between $7.00 per month to perhaps $40.00 per month
- One size, one cost does not fit all
  - Site specific engineering evaluation. Depends on:
    - Alternative uses of water
    - Treatment levels
    - Local water quality requirements
- **Not just a cost – An investment in the future**

What will it cost not to do it?

- Cost to develop other new water supplies could equal or exceed the cost to eliminate outfalls
  - 5.5 million people in tri-county area
  - 29.7% of Florida's current population
  - 1.5 million more people expected by 2025 – 29% increase over 2005 population
  - Demand for 300 million gallons more water per day for public supplies – 35% increase over 2005 demand
  - Traditional sources are committed
  - Alternative sources must be developed
- Continuing vulnerability to drought
- Continuing decline of coral reefs, estimated to contribute 61,000 jobs and $1.9 billion in income

$2.5 billion in alternative water supply projects already in development statewide Expected to generate 725 million gallons per day 38% of 2025 statewide demand – much more to be done

Current progress

- Boca Raton
  - 85% reuse capacity by 2010, ocean outfall back-up for wet weather flows.
- Delray-Boynton Beach
  - 100% reuse capacity by 2009; deep well back-up for wet weather flows.
- Miami-Dade Consumptive Use Permit
  - 40% reuse and recharge per day by 2026. Majority of planned increase in reuse/recharge is from wastewater currently discharged down deep well, not wastewater discharged through ocean outfall.

The legislative proposal

- Prohibit new outfalls.
- Prohibit expansion of existing outfall capacity.
- Exchange 300 million gallons per day in wasted water for 300 million gallons per day of valuable reclaimed water to meet future water supply demand.
- Promote aggressive planning and design of new treatment, reuse and recharge facilities.
- Increase treatment levels so that reclaimed water can be used for multiples purposes, including:
  - Groundwater recharge
  - Irrigation
  - Wetland enhancement
  - Industrial process water
  - Saltwater intrusion barriers
- Enhance financial assistance opportunities.
- Increase consumptive use incentives.

Executive Summary: The Department's legislative proposal would bring about the elimination of domestic wastewater ocean outfall discharges in Southeast Florida through a gradual transition to reclaimed water reuse.

Six facilities in Palm Beach, Broward and Miami-Dade Counties (two in each county) discharge some 300 million gallons of treated domestic wastewater directly into the Atlantic Ocean every day. At the same time, the demand for public water supply in these three counties is projected to grow by that same amount—300 million gallons per day—over the next 20 years to a total of almost 1.15 billion gallons per day. The traditional sources of water supply in Southeast Florida—groundwater and the "Regional System" (Everglades, Lake Okeechobee)—are being taxed beyond sustainability. Continuing water restrictions associated with the current drought highlight the need to develop "drought proof" alternative water supplies.

Only a small fraction (6%) of the wastewater at the six facilities is being beneficially reused rather than discharged. 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. Outside of the three counties using ocean outfalls, 61% of Florida's domestic wastewater is reused every day—in these three counties, that figure is only 10%.

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. 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. Continuing ocean outfall discharges makes no sense, environmentally or otherwise.

The transition from ocean discharge to inland reuse will be costly, but the cost can be managed over time and the investment will generate an increasingly scarce and priceless commodity, high quality water, to meet future public demand and protect coastal resources.

Specifically the Department legislative proposal would:

- Immediately prohibit the construction of new ocean outfalls and expansion of existing outfall capacity.
- Require existing outfall discharges to meet advanced levels of treatment, including nutrient removal and high level disinfection, by December 31, 2018. Increasing the level of treatment will provide water suitable for most reuse applications, including groundwater recharge, lawn and agriculture irrigation, wetland enhancement, industrial process water, and saltwater intrusion barriers.
- Eliminate the current ocean outfall discharges by December 31, 2025. The outfalls could only be used as a back-up to a reuse system during periods of reduced reclaimed water demand, generally wet weather.

- Authorize the department to establish legally enforceable compliance schedules for treatment upgrades and ultimate outfall elimination.
- Provide accountability by requiring ocean outfall dischargers to submit detailed plans and progress reports related to meeting the treatment and elimination requirements; and requiring the Department to report to the Legislature and Governor on the progress of outfall elimination and the water supply benefits achieved.
- Enhance funding priority in the Department's State Revolving Fund loan program to help the affected local governments finance the costs of eliminating the outfalls.

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A bill to be entitled

An act relating to …

Section 1. Section 403.085, Florida Statutes, is amended to read:

403.085 Sanitary sewage disposal units; advanced and secondary waste treatment; industrial waste~~, ocean outfall, inland outfall, or disposal well waste~~ treatment.--

(1) Neither the Department of Health nor any other state agency, county, special district, or municipality shall approve construction of any ~~ocean outfall~~ disposal well for sanitary sewage disposal which does not provide for secondary waste treatment and, in addition thereto, advanced waste treatment as deemed necessary and ordered by the department.

(2) Sanitary sewage disposal treatment plants which discharge effluent through ~~ocean outfalls or~~ disposal wells shall provide for secondary waste treatment and, in addition thereto, advanced waste treatment as deemed necessary and ordered by the ~~former~~ Department of Environmental Protection ~~Regulation~~. Failure to conform shall be punishable by a fine of $500 for each 24-hour day or fraction thereof that such failure is allowed to continue thereafter.

(3) Neither the Department of Health nor any other state agency, county, special district, or municipality shall approve construction of any ~~ocean outfall,~~ inland outfall, or disposal well for the discharge of industrial waste of any kind which does not provide for secondary waste treatment or such other treatment as is deemed necessary and ordered by the department.

(4) Industrial plants or facilities which discharge industrial waste of any kind ~~through ocean outfalls, inland outfalls, or disposal wells~~ shall provide for secondary waste treatment or such other waste treatment as deemed necessary and ordered by the former Department of Environmental Regulation. Failure to conform shall be punishable as provided in s. 403.161(2).

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Section 2. New subsection (9) is added to section 403.086, Florida Statutes, and the section title is amended to read:

403.086 Sewage disposal facilities; advanced and secondary waste treatment; ocean outfall discharges.--

(9) The legislature finds 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; the legislature also finds that discharge of domestic wastewater through ocean outfalls potentially compromises the coastal environment and the quality of life and local economies that depend on those resources. The legislature declares that more stringent treatment 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.

(a) The construction of new ocean outfalls for domestic wastewater discharge and the expansion of existing ocean outfalls for this purpose, along with associated pumping and piping systems, are prohibited. Each domestic wastewater ocean outfall shall be limited to the discharge capacity specified in the department permit authorizing the outfall in effect on July 1, 2008, which discharge capacity shall not be increased. Maintenance of existing, department-authorized domestic wastewater ocean outfalls and associated pumping and piping systems is allowed, subject to the requirements of this section. The department is directed to work with the U.S. Environmental Protection Agency to assure that the requirements of this subsection are implemented consistently for all domestic wastewater facilities in Florida that discharge through ocean outfalls.

(b) The discharge of domestic wastewater through ocean outfalls shall meet the advanced waste treatment requirements set forth in subsection (4) no later than December 31, 2018.

(c) The discharge of domestic wastewater through ocean outfalls is prohibited after December 31, 2025, except as a backup discharge authorized by the department as provided for in paragraph (d).

(d) After December 31, 2025, the department may authorize an ocean outfall only for use as a backup discharge that is part of a functioning reuse system that has been permitted under department rules and that provides reclaimed water for irrigation of

public access areas, residential properties, or agricultural crops; ground water recharge; industrial cooling; or other acceptable reuse purposes authorized by the department. A backup discharge may only occur during periods of reduced demand for reclaimed water in the reuse system and shall be limited to 30 percent of the permitted reuse capacity on an annual basis. The backup discharge shall meet the advanced waste treatment requirements set forth in subsection (4).

(e) The holder of a department permit authorizing the discharge of domestic wastewater through an ocean outfall as of July 1, 2008 shall submit to the Secretary of the department, the following:

1. Detailed plans to meet the treatment requirements in paragraph (b) and eliminate the ocean outfall discharge in accordance with paragraphs (c) and (d), including an identification of all land acquisition and facilities necessary to provide for reuse of the domestic wastewater; an analysis of the costs to meet the requirements; and a financing plan for meeting the requirements, including identifying any actions necessary to implement the financing plan, such as bond issuance or other borrowing, assessments, rate increases, fees, other charges, or other financing mechanisms. The plans shall be accompanied by supporting data and other documentation. The plan to meet the treatment requirements of paragraph (b) shall be submitted no later than December 31, 2009; the plan to eliminate the ocean outfall discharge in accordance with paragraphs (c) and (d) shall be submitted no later than July 1, 2012.

2. No later than July 1, 2015, an update of the plan required in subparagraph (e)1. documenting any refinements or changes in the costs, actions or financing necessary to eliminate the ocean outfall discharge in accordance with paragraphs (c) and (d) or a written statement that the plan is current and accurate.

(f) By December 31, 2009, and by December 31 every five years thereafter, the holder of a department permit authorizing the discharge of domestic wastewater through an ocean outfall shall submit to the Secretary of the department a report summarizing the actions accomplished to date and the actions remaining and proposed to meet the requirements of this subsection, including progress toward meeting the specific deadlines set forth in paragraph (e). The report shall include the detailed schedule for and status of the evaluation of reuse and disposal options, preparation of preliminary design reports,

preparation and submittal of permit applications, construction initiation, construction progress milestones, construction completion, initiation of operation, and continuing operation and maintenance.

(g) No later than July 1, 2010, and by July 1 every five years thereafter, the department 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 subsection. 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.

(h) 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 paragraphs 403.088(2)(e) and (f) that establishes an enforceable compliance schedule consistent with the requirements of this subsection.

Section 3. Subsection (7) of section 403.1835, Florida Statutes, is amended to read:

(7) Eligible projects must be given priority according to the extent each project is intended to remove, mitigate, or prevent adverse effects on surface or ground water quality and public health. The relative costs of achieving environmental and public health benefits must be taken into consideration during the department's assignment of project priorities. The department shall adopt a priority system by rule. In developing the priority system, the department shall give priority to projects that:

(a) Eliminate public health hazards;

(b) Enable compliance with laws requiring the elimination of discharges to specific water bodies, including the requirements of s. 403.086(9) regarding domestic wastewater ocean outfalls;

(c) Assist in the implementation of total maximum daily loads adopted under s. 403.067;

(d) Enable compliance with other pollution control requirements, including, but not limited to, toxics control, wastewater residuals management, and reduction of nutrients and bacteria;

(e) Assist in the implementation of surface water improvement and management plans and pollutant load reduction goals developed under state water policy;

(f) Promote reclaimed water reuse;

(g) Eliminate failing onsite sewage treatment and disposal systems or those that are causing environmental damage

(h) Reduce pollutants to and otherwise promote the restoration of Florida's surface and ground waters.

Section 4. This act shall take effect July 1, 2008.