

# CWG Review 1: Spring 2015

## Tier 1 Information:

### 1. Management Action

**S-25 Discourage public officials from granting or requesting extensions to current ocean outfall legislation to ensure the timely closure (prior to 2025) of all treated wastewater outfall pipes and build/upgrade infrastructure for advanced water treatment and reuse to improve ocean water quality, reduce destructive algal blooms, and increase water reuse in the SEFCRI region.**

- N-79: Upgrade regional wastewater treatment outputs to prevent introduction of pollutants to improve water quality.
- N-80: Ensure the timely closure of all sewer outfalls in the SEFCRI region to end the direct release of wastewater onto the coral reefs.
- S-25: Close all outfall pipes and build infrastructure for advanced water treatment and reuse to improve ocean water quality, reduce destruction algal blooms, and increase water reuse.
- S-26: Revisit and amend sewage outfall legislation, work to get clean up in place before 2025 and without the 5% loophole to prevent sewage/nitrogen from reaching and killing southeast Florida coral reefs.

SEFCRI TEAM/TAC Review-2015: Reviewer would like CWG to Revisit and Amend Ocean Outfall Legislation. Also, to recall that we recommended **against proceeding with the MA** because the process of closing the ocean outfalls is well underway and there's no guarantee that the FL Legislature will do anything but extend the deadline or add loopholes if we request them to reconsider the statute

The SEFCRI TEAM/TAC and CWG members of group 10 do not recommend implementing this management action as there are potential consequences of an unintended consequence – bringing this statute to the attention of the Florida Legislature and having them postpone the implementation date or add other loopholes. The CWG members feel it is not worth the risk. One ocean outfall already is closed and SEFCRI counties have committed > \$3B in initial design and implementation costs. This was brought up amongst the entire CWG and it was voted to stay an active management action.

### 2. Intended Result (Output/Outcome)

*What is the end product/result of this management action?*

- The intended outcome of this action is to end direct release of wastewater onto coral reefs by closing outfall pipes and to create advanced water treatment systems in the /SEFCRI region for improved water quality and water reuse. This management action would ensure that clean up take place before 2025 and without a 5% loophole.
  - There is too much n/p to pump into everglades (10ppb), rainfall has 15ppb, it is possible to treat to remove n/p to 10 ppb to put to everglades instead of offshore.

### 3. Duration of Activity

*Is this a discrete action or a recurring activity? Explain.*

- This would be a discrete action to create better upgrades to current wastewater and should be recurring as technologies get better and better.

### 4. Justification

*What issue or problem will this management action address? Explain.*

- This management action is being put forth because water quality is affecting the health of coral reefs and coastal habitats; is causing issues with poor diving conditions; and causing potential health hazards for coastal residents. There is a problem of untreated wastewater being deposited directly in the ocean, potentially affect fish populations by promoting algal growth on reefs, and pharmaceuticals changing the sexes of fishes.

## 5. Potential Pros

*What are the potential advantages associated with this management action?*

- Some potential benefits to implementation of this management action are: (1) improved water quality; (2) elimination of known point sources of pollution; (3) insurances of compliance of sewer outfall operators; (4) improved human and fish health; (5) improved swimming areas along the beaches; and (6) decreased nutrient loading on coral reefs. With implementation of this management action there will be a decrease in algal bloom and a decrease in pharmaceutical loading, which will increase the functionality of the reef ecosystem.

## 6. Potential Cons

*What are the potential disadvantages associated with this management action?*

- Some possible issues that may arise with implementation of this management action would include: (1) the potential that sewer outfall operators will not comply; (2) the question of how to redirect sewage (alternative ways to treat and dispose of sewage) will need to be addressed; (3) funding for water quality surveys to be conducted; (4) there is a potential for job loss; (5) there may be an increase in utility costs and fees; (6) potentially the jurisdictions between municipalities may not overlap or take responsibility and/or difficulty coordinating and consistent with each other; (7) the political challenge to change the legislation to enact this sooner than the 2025 date; and (8) bringing this to the Legislature's attention may result in an action exactly opposite of the one desired; the Legislature may rescind or delay the existing statute.

## 7. Location

*County/Countries: Miami-Dade, Broward, Palm Beach, Martin, Other?*

- This management action relates to Miami-Dade, Broward, Palm Beach counties.

*Relevant Habitats: Coral reef, seagrass, watershed, etc.?*

- Coastal areas (coral reefs, nearshore hardbottom, offshore habitats, etc.).

*Specific Location: City, site name, coordinates, etc.?*

- Miami Dade has 2, Pompano and Hollywood, Boca Raton

## 8. Extent

*Area, number, etc.*

- Every operational sewer outfall
- 5 total outfall pipes in the SEFCRI Region. One is open for emergencies only.
- Target the outflow pipes that are still active in all counties.

## 9. Is this action spatial in nature?

- Yes – locations of the ocean outfalls are well known.

**Do you believe this management action could be informed by the Our Florida Reefs Marine Planner Decision Support Tool?**

*If yes, you will proceed to the next section on Marine Planner Information.*

- No

## Marine Planer Information:

N/A

## Tier 2 Information:

## *WHY?*

### 1. Strategic Goals & Objectives to be Achieved

Refer to the [SEFCRI Coral Reef Management Goals and Objectives Reference Guide](#).

- FL Priorities Goal C1; FL Priorities Goal C4; FL Priorities Goal C4 Obj 4; FDEP CRCP Coral Reef Ecosystem Conservation Goal B; FDEP CRCP Coral Reef Ecosystem Conservation Obj 3; SEFCRI LAS LBSP Issue 4 Goal; SEFCRI LAS LBSP Issue 4 Goal Obj 3; SEFCRI LAS MICCI Issue 2 Goal
- FL Priorities Goal C1; FL Priorities Goal C1 Obj 4; SEFCRI LAS LBSP Issue 4 Goal; SEFCRI LAS LBSP Issue 4 Goal Obj 2; SEFCRI LAS MICCI Issue 2 Goal;
- FL Priorities Goal C1; FL Priorities Goal C1 Obj 4; SEFCRI LAS LBSP Issue 4 Goal; SEFCRI LAS LBSP Issue 4 Goal Obj 2; SEFCRI LAS MICCI Issue 2 Goal;
- FL Priorities Goal C1; FL Priorities Goal C4; FL Priorities Goal C4 Obj 4; FDEP CRCP Coral Reef Ecosystem Conservation Goal B; FDEP CRCP Coral Reef Ecosystem Conservation Obj 3; SEFCRI LAS LBSP Issue 4 Goal; SEFCRI LAS LBSP Issue 4 Goal Obj 3; SEFCRI LAS MICCI Issue 2 Goal

## 2. Current Status

*Is this activity currently underway, or are there planned actions related to this recommendation in southeast Florida? If so, what are they, and what is their status.*

- Yes, plan to close all outfall by 2025 in place; No actions to change deadline of elimination of outfalls.
- Yes, Ocean outfalls need to comply with current water quality standards.

## 3. Intended Benefits (Outcomes)

*What potential environmental benefits or positive impacts might this management action have?*

- Some potential benefits to implementation of this management action are: (1) improved water quality; (2) elimination of known point sources of pollution; (3) insurances of compliance of sewer outfall operators; (4) improved human and fish health; (5) improved swimming areas along the beaches; and (6) decreased nutrient loading on coral reefs. With implementation of this management action there will be a decrease in algal bloom and a decrease in pharmaceutical loading, which will increase the functionality of the reef ecosystem.

*What potential social/economic benefits or positive impacts might this management action have?*

- Some possible issues that may arise with implementation of this management action would include: (1) the potential that sewer outfall operators will not comply; (2) the question of how to redirect sewage (alternative ways to treat and dispose of sewage) will need to be addressed; (3) funding for water quality surveys to be conducted; (4) there is a potential for job loss; (5) there may be an increase in utility costs and fees; (6) potentially the jurisdictions between municipalities may not overlap or take responsibility and/or difficulty coordinating and consistent with each other; (7) the political challenge to change the legislation to enact this sooner than the 2025 date; and (8) bringing this to the Legislature's attention may result in an action exactly opposite of the one desired; the Legislature may rescind or delay the existing statute.

*What is the likely duration of these benefits - short term or long-lasting? Explain.*

- Long-term. Reduction in ocean outfalls will reduce nutrient load on reefs.

## 4. Indirect Costs (Outcomes)

*What potential negative environmental impacts might this action have?*

- More costly to retrofit utilities at a faster rate.
- Alternative options for waste water disposal will need to be evaluated.
- Need to find new disposal site for wastewater that may impact another location.

*What potential negative social/economic impacts might this action have?*

- Increased cost passed to taxpayers
- Increase costs of wastewater treatment. Need to find alternative way of disposing of wastewater

*What is the likely duration of these negative impacts - short term or long-lasting? Explain.*

- These negative impacts could be long lasting, as cost to treat wastewater will be passed to residents. However, a market exists for re-using secondary treated wastewater for irrigation in South Florida. This is commonly done throughout Florida and will help offset long-term costs.
- Short term costs may occur until systems are retrofitted. Federal grants may be available to defray initial costs.

## 5. Risk

*What is the threat of adverse environmental, social, or economic effects arising from not implementing this action?*

- Since elimination of outfall pipes is already in place, if this management action were not to be implemented the process to improve water quality sooner will not occur, and there will be continued offshore disposal of wastewater which will increase the nutrient load on reefs, thus reducing the overall health of the reefs and potentially leading to a decrease in coastal tourism.

## 6. Relevant Supporting Data

*What existing science supports this recommendation? (Provide citations)*

- Supporting and relevant data includes current water quality standards and the need to be evaluated to determine if more stringent limits need to be implemented.

## 7. Information Gaps

*What uncertainties or information gaps still exist?*

- Some uncertainties or gaps with this management action include where will the wastewater that will no longer be disposed of in the ocean go to; and are the Maximum Daily Loads being calculated accurately in regards to waste water reaching reefs?

## WHEN?

### 8. Anticipated Timeframe for Implementation

*How long will this recommendation take to implement?*

- Since there were recommendations by the SEFCRI TEAM/TAC and CWG members of group 10 to not implement this management action there was no anticipated timeframe for implementation of this management action put forth.

### 9. Linkage to Other Proposed Management Actions

*Is this activity linked to other proposed management recommendations?*

- Yes

*If so, which ones, and how are they linked? (e.g., is this activity a necessary step for other management actions to be completed?)*

- This RMA is linked with N-79, N-80, N-85, N-86, and S-26.

*Does this activity conflict with other existing or proposed management actions?*

- There is already legislation in place with a 2025 deadline.

## WHO?

### 10. Lead Agency or Organization for Implementation

*What agency or organization currently has/would have authority? Refer to the [Agencies and Actions Reference Guide](#).*

- The Lead Agency for implementation of this management action would be the FDEP, EPA, SFWMD, and local health departments.

### 11. Other Agencies or Organizations

*Are there any other agencies or organizations that may also support implementation? Explain.*

- Other potential agencies or organizations who could be involved include NOAA, FWS, and DOH.

## 12. Key Stakeholders

*Identify those stakeholders most greatly impacted by this management action, including those from whom you might expect a high level of support or opposition. Explain.*

- The key stakeholders for this management action would be the utilities departments, residents, tourists and local municipalities who would have to cover the costs of retrofitting structures and find alternative areas to dispose of waste water.

## HOW?

## 13. Feasibility

*Is there appropriate political will to support this? Explain.*

- Currently there is an existing plan to eliminate ocean outfalls by 2025 already in place and therefore the political support for this management action may not occur as it is highly unlikely it will be revised.

*What are the potential technical challenges to implementing this action? Has it been done elsewhere?*

- Need to modify existing technology and evaluate other ways of disposing of wastewater.
- Trying to modify already approved legislature.
- Bringing all facilities into compliance and providing an alternative site to dispose of wastewater.
- Upgrading existing facilities is very costly.

## 14. Legislative Considerations

*Does the recommendation conflict with or actively support existing local, state, or federal laws or regulations? Explain.*

- There is existing legislation in place currently. If utilities are currently meeting water quality standards, requiring them to eliminate/reduce outfalls would require a change in the legislation.

## 15. Permitting Requirements

*Will any permits be required to implement this action? Explain.*

- Permitting requirements for this management action would be necessary since all outfalls would require permits for the removal them, as well as finding a suitable location/method for existing wastewater. Any physical modifications to the existing pipes such as their removal will require permits.

## 16. Estimated Direct Costs

*Approximately how much will this action likely cost? (Consider one-time direct costs, annual costs, and staff time, including enforcement.)*

- >\$250,000

*Will costs associated with this activity be one-time or recurring?*

- One time, to retrofit/close existing outfalls. But will be very expensive. Recurring to provide maintenance.
- One time. Retrofitting or removing pipes will require a major overhaul of wastewater treatment facilities.

*If recurring, approximately how long will staff time and annual costs be necessary to implement the management action?*

- Unknown.

## 17. Enforcement

*Does this require enforcement effort?*

- Yes possibly.

*Provide an explanation if available.*

- Utilities have to come into compliance with new legislature by 2025, or enforcement action will be taken.
- Enforcement may be necessary if regulations change and utilities do not come into compliance.
- All facilities must be brought into compliance
- Needed to bring facilities into compliance.

## 18. Potential Funding Sources

*Identify potential funding organizations/grant opportunities, etc.*

- Potential funding sources could be the residents who use utilities and tax payers who depend on the wastewater treatment facilities; FDEP, SFWMD, and DOH are other possible sources.

## 19. Measurable Outcomes/Success Criteria/Milestones

*How will the success of this recommendation be measured? How will you know when the intended result is achieved?*

- A way to provide a means to measure the success of this management action could include measuring the nutrient load within water quality parameters; measuring the levels of pollutants from outfall pipes, and determine if there is a decrease; and complete elimination of ocean outfalls would be considered a success.

### SEFCRI/TAC Targeted Questions:

#### 1. **TAC** - Is the recommendation likely to achieve the intended result? Explain.

*Tier 1 – #2 (Intended Result - Output/Outcome)*

- The impact of wastewater outfalls on the environment had been debated for many years. JS

#### 2. **TAC** - Is the recommendation sufficient to address the identified issue or problem? Explain.

*Tier 1 – #4 (Justification)*

- It will reduce nutrient loading to the coastal ocean. JS
- The wastewater outfalls are not the only source of LBP in the coastal ocean. Other sources of LBP will remain. JS

#### 3. **TAC** - Is the recommendation technically achievable from a science or management perspective? Explain.

*Tier 2 – #8 (Anticipated Timeframe for Implementation) and Tier 2 - #13 (Feasibility)*

- Yes. JS.
- I believe that the utilities wish to retain the ability to use outfalls for heavy rain events and emergency uses. This allow them to construct alternative wastewater disposal methods that are more desirable in typical usage but may not have the ability to handle extreme events. Advancing the deadline for outfall closures is probably not feasible. JS
- This effort is technically achievable however we must consider completely the fact that this does not eliminate wastewater, it just moves it to another location. JS
- Yes. Not easy or cheap but the technologies are being developed. JS
- Other than treatment, what about reuse of water (they are starting to emphasize this is CA)
- Outfalls should be shut down. If there is public will, it is more feasible.
- Wastewater can be treated through Everglades system, but there is currently no infrastructure to support this. There is aversion to doing this.
- With reuse, there is a perception that there is a threshold (can only use x%) but there might be the possibility of getting to 100% reuse.
- You can upgrade WWTP and allow pipes to stay in place, or develop new infrastructure to prevent offshore discharges entirely.
- Use treated wastewater for golf course irrigation.
- AM – Study shows outfall pipes are too close, moving them out a mile drops the # of particles hitting the beach exponentially.
- Is this the optimal solution? Without additional treatment there is no improvement to the system.

- Discussion of using Amendment 1 \$ for upgrades to wastewater (not just land acquisition).

**4. SEFCRI Team, PPT & Other Advisors - Has this been done (by SEFCRI, other agencies or organizations in the SEFCRI region)? Explain.**

*Tier 2 – #2 (Current Status)*

- IA: Yes, FDEP has already required closing outfalls by 2025
- IA: No
- IA: Legislation written to eliminate outfall pipes by 2025
- IA: No plans to change legislature exist.

**5. SEFCRI Team, PPT & Other Advisors - Is this recommendation a research or monitoring project? (Recommendations should be turn-dirt management actions, not the step you take before a management action). Explain.**

- IA: No
- IA: Turn dirt
- IA: No, unless the action requires a change in MDL, which would require research to determine new water quality standards.

**6. SEFCRI Team, PPT & Other Advisors - If either of the following applies to this management action, provide feedback on which information submitted by the Community Working Groups may be more appropriate, or if entries should be merged. Explain.**

- There are different viewpoints for an individual management action (i.e. two working group members provided separate information, as indicated by a '/' marking between them).**
- Information submitted for this and other draft management actions is sufficiently similar that they might be considered the same.**

- Should be merged with one or more of the following: N-79 Upgrade regional wastewater treatment outputs
- N-85 Require governmental entities to ID and retrofit point-source inputs into estuaries N-86 Regulate point-specific water quality discharge
- Close all outfall pipes
- Amend sewage outfall legislation
- IA: N-80
- IA: Merge with N-80 or N-79

**7. SEFCRI Team, PPT & Other Advisors - Non-agency Question: Is the recommendation technically achievable from your stakeholder perspective? If not, do you have suggestions that would allow this to become technically achievable from your stakeholder perspective? Explain.**

*Tier 1 - #5 (Potential Pros), Tier 1 - #6 (Potential Cons), Tier 2 - #3 (Intended Benefits), Tier 2 - #4 (Indirect Costs) and Tier 2 - #12 (Key Stakeholders)*

- Recommend combining all ocean outfall (N80, S25, S26) management actions and inland water treatment management actions (S110, N85, N86) under N79 (upgrade regional wastewater treatment outputs).
- Upgrade regional wastewater and stormwater treatment.
- For wastewater, legislation is already in place to cap by 2025 (no need to focus on this because it is in the works; this legislation is in place).
- DC: problem is not just the pipes itself but the infrastructure which is outdated (developed for smaller population) – this leads to sewage breaks etc.
- At high tide, saltwater runs into the infrastructure and at low tide it leaks out onto the beach.
- DC: Bill called for 60% reuse, but reuse was defined as recharge.
- JT: What about advanced water treatment?
- ET: This is equivalent to reducing nutrients by 90%

**8. SEFCRI Team, PPT & Other Advisors - Agency Question: Is the recommendation technically achievable from a**



**management perspective? If not, do you have suggestions that would allow this to become technically achievable from your agency's management perspective? Explain.**

*Tier 2 – #10 (Lead Agency or Organization for Implementation) and Tier 2 - #11 (Other Agencies or Organizations)*

- IA: It is already in place.
- IA: Unlikely that existing legislature will change to allow a shorter timeframe for retrofits.
- IA: Yes, but very costly and will take a long time (5+ years) to implement. There is a 2025 (10 years from now) deadline to eliminate ocean outfalls completely, so this would be a redundant effort.

#### **Comments from the Reviewers:**

- S-25 Comments:
  - JF: This is a little vague. All outfall pipes? It is not really possible.
  - BB: Is this action just referring to the offshore ocean outfalls? If so, then the management action could be amended to begin with "Build infrastructure..." since the outfalls are scheduled to be shut off by 2025.
  - Team: Already proposed to be shutoff, there is no need to propose as a MA.
  - This is similar to N-80. JS
  - N-79 Is the overreaching theme for this MA along with S-26 and N-80. There is value on improving treatment to tertiary and advanced processes (at a cost) but the key element is to find enough applications for water reuse. More reuse will translate in the reduction of ocean disposal. Water from the outfalls is treated to current standards. Movement of water through coastal inlets may be a larger contributor to the LBSP and will require additional monitoring. TAC3.
  - ONGOING,TAC3
  - Reclaimed water is a commodity. PRG
  - Note that the cost of replacing the outfalls with other disposal methods in Broward and Dade is very large (estimates for Dade county are 3-4 billion dollars). Alternative technologies for dealing with wastewater are not free of concerns either. The utilities must ALWAYS be able to dispose of the incoming wastewater. This is why the utilities would like to keep the outfalls in reserve for use in special circumstance. JS.
  - The Boca Raton outfall will be offline soon. This leaves the outfalls in Broward and Dade counties to consider and they are the largest. JS.
  - JF: Which outfall pipes are referenced in this Action?
  - BB: If all outfall pipes are scheduled to be shut off by 2025, then this management action is unnecessary.
  - BB: closing the outfall pipes permanently could be a problem during an emergency.
  - BB: 5-10 years is more reasonable given the 2025 deadline and the need to develop alternative disposal options.
- N-79 Comments:
  - IA: Outfalls must comply with current water quality standards. In order to decrease impacts to reefs, current standards must be made more stringent. If outfalls are in compliance, then they cannot be held accountable.
  - BB: Is this action specifically targeting the ocean outfalls, or all WWTP effluent? If it's just the outfalls then it seems like energy and funding would be better spent elsewhere since they are scheduled to be shut off.
  - Team: Recommend combining with N-80, S-25, S-26.
  - I contacted someone at the Dade utility regarding this. New technologies for wastewater treatment exist and there are some efforts being made to implement these techniques to reduce nutrient concentrations in the wastewater stream. However, as the outfalls are mandated to be turned off in 2025, the utilities cannot justify making major investments in new technology. The principal effort being made now is to reduce the flow to the outfalls by utilizing other disposal methods (deep well injection). Then, by virtue of the fact that there is less wastewater flowing into the outfalls, then there are less nutrients flowing into the ocean. JS.
  - Below are some provisions from Ocean Outfall Act :



- Requirement that by 2018 the existing outfall discharges meet advanced wastewater treatment and management requirements.
  - Requirement that by 2025, 60 percent of the facility flows be reused for beneficial purposes, and use of the outfalls for wastewater disposal be restricted to wet weather flows from permitted reuse systems. So some efforts appear to be already under way. NIC
  - Better treatment and increased reuse are the goal. Public need to be aware of the cost and willing to support the effort. PRG
- Plenty of examples in other cities and counties (Tallahassee, Orange County, FL) TAC3
- Sustained (TAC 3) *[comment found in Tier 1 Question 3]*
- IA: More stringent water quality standards would be required, and utilities made to comply with them.
- The wastewater reaching the ocean through the outfalls operated by the major utilities is treated. JS.
- Current regulations are based on past technologies. Many new chemicals have been recognized as potential contaminants. While the debate is still open on effects, ocean disposal of treated wastewater should be minimized through water reuse until additional technologies are put in place. There is a benefit of both reuse and better treatment. PRG
- Agreed. JS Yes. NIC
- Water reuse is a key component of water sustainability for human consumption, this will benefit everyone. PRG
- Treatment trains should be good enough to produce reusable water that will not alter the balance of receiving ecosystems (T3)
- SEFCRI T3 Consider this one also a priority.
- There are financial and technological obstacles. However, much research is being done. JS.
- Cost that needs to be passed to the consumer. PRG
- IA: If goal is to reduce impacts from ocean outfalls, water quality parameters need to be set to higher standards. Currently, utilities have to comply with water regulations (Maximum Daily Loads). They can't be required to upgrade if they are meeting water quality standards.
- JF - Yes - WQ is already regulated at federal and state level.
- South Florida utilizes are examining and assessing new technologies. JS.
- Is wastewater reaching the reefs? NIC
- IA: If MDL are changed, utilities need to be given a period of time to upgrade their facilities or change their disposal methods.
- BB: If this mgmt. action has a 5-10 year timeframe and the outfalls are scheduled to be turned off by 2025 then it seems like time and funding should be spent on other management actions.
- The law requiring wastewater outfalls to be turned off by 2025 reduce the motivation for utilities to invest in new technologies.
- FDEP, US-EPA. JS
- The requirement that outfall usage be discontinued by 2025 may hinder the implementation of new technologies. JS
- Yes. all discharges are regulated by FDEP and EPA. JS
- This is not cheap. JS.
- All discharges are monitored and regulated. JS
- New technology should be easily evaluated for effectiveness. JS
- N-80 Comments:
  - JF: Not sure how we can ensure the closure of outfalls. We may want to focus on research into negative effects.
  - Team: Recommend this Management Action be removed, as it is captured under S-25 and S-26.
  - Finding superior alternatives to oceanic outfalls is a desirable action. The 2025 deadline is only 10 years away. This presents significant challenges to the utilities and counties to develop technologies and secure funds. JS
  - Agreed. NIC
  - The solution is in implementing venues for water reuse. There is plenty of clean water left in Florida for now but it does not make much sense to flush a toilette with drinking water. Challenges for water reuse

- are many but the benefit is also huge. PRG
- IA: Waste water is treated to current standards.
  - Alternative methods of disposing of wastewater bring with them another set of environmental issues. We must understand the pros and cons of the current methods and of the proposed alternative methods very well. JS.
  - As the Boca Raton outfall is due to be turned off soon, this problem resides mostly in Broward and Dade counties. JS.
  - JF: If this is already in place, what would be our role?
  - Yes, the Florida legislature has mandated that all wastewater outfalls be essential turned off by 2025. JS.
  - Less nutrient loading from these particular sources. JS
  - Alternative methods of wastewater disposal may have associated environmental issues. The cost to implement alternatives is very high. JS.
  - BB: Given the 5-10 year timeframe and the 2025 shut off date for outfalls time and funding would be better spent on other management actions.
  - JF: Who is implementing the closure?
  - FDEP, Florida legislature, USEPA JS
  - The development of alternative methods for wastewater disposal, a system for the distribution of reuse water and the associated cost to implement these systems remain significant issues. JS
  - Yes, legislative action has been taken. JS
  - Very large cost! JS

#### Questions from the Reviewers:

Questions/Information Needs Highlighted by the Reviewers		Addressed by CWG:	Not Addressed by CWG Because:
1.	All outfall pipes? <b>Only ocean outfalls</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
2.	Is this action just referring to the offshore ocean outfalls? If so, then the management action could be amended to begin with "Build infrastructure..." since the outfalls are scheduled to be shut off by 2025 <b>Only ocean outfalls</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
3.	Is this action specifically targeting the ocean outfalls, or all WWTP effluent? <b>Only ocean outfalls</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
4.	If goal is to reduce impacts from ocean outfalls, water quality parameters need to be set to higher standards. Currently, utilities have to comply with water regulations (Maximum Daily Loads). They can't be required to upgrade if they are meeting water quality standards <b>No routine daily discharges so water quality parameters will not pertain to closed ocean outfalls.</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
5.	If this is already in place, what would be our role? <b>Already in place</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
6.	Who is implementing the closure? Municipalities and sewage treatment plants	<input checked="" type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
7.		<input type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.

#### Questions from the CWGs back to the Reviewers:

#### Additional information by SEFCRI Team and/or Technical Advisory Committee

Upon review of this RMA the SEFCRI Team and TAC reviewed the RMA and the intent references amending the

legislation. This RMA language to “amend” provides an opportunity for all language within the legislative action to be reviewed and edited not just the information at this RMAs request. Additionally, this RMA is already being completed and when it was enacted there was a unanimous vote to pass this action. Miami-Dade County already is soliciting bids to upgrade their wastewater treatment system with a price tag for a \$3.3 billion contract. Alternatively an idea may be for efforts to be made to promote a friendly competition to see which county can close their outfalls the fastest and using the best methods

Concern regarding put this RMA on the shelf. Consideration for not allowing additional time extensions instead of revisiting and amending the legislation.

Consider removing “Revisit and Amend”

DRAFT