

CWG Review 1: Spring 2015

Tier 1 Information:

1. Management Action

N-97 Target, prioritize, and implement LBSP reduction activities at identified pollution hotspots within SEFCRI watersheds to improve coastal water quality.

- N-97: Target LBSP reduction activities at identified hotspots of nonpoint source pollution in watersheds along the SEFCRI reef tract to improve water quality and coral reef health.
- N-85: Partner with governmental entities to identify point-source inputs of pollutants into estuaries and retro-fit them, as needed, to reduce pollutant loadings and restore the functions of southeast Florida estuaries.

2. Intended Result (Output/Outcome)

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

- Improve water quality inflows from the watersheds, rivers and lagoons to the reefs. Improved water quality in priority watersheds leading to improved reef conditions.
- Reduce or eliminate point sources of pollution, and/or eliminate adverse impacts from point sources pollution (through retrofits), and improving the health of the estuaries.
- Help restore groundwater hydrology/storage by reducing runoff and discharges to southeast Florida estuaries.
- **March/April 2015 CWG Updates:** Don't lose N-85 language, but keep as a task/method.

3. Duration of Activity

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

- Recurring activity. Monitoring near the source of the pollution runoff should be a continuing process. 5-10 years.

4. Justification

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

- Locate sources of the stormwater pollution flowing into creeks, rivers, canals and lagoons that flow to southeast Florida coral reefs. Reduce stormwater runoff from private property. Given the pervasive impacts of land based sources of pollution on the Florida Reef Tract, the difficulty in pinpointing specific pollutant sources and the high costs of LBSP reduction activities this action would help management agencies and SEFCRI partners direct their time and resources at priority reef areas and pilot LBSP reduction approaches to be evaluated in terms of effectiveness in improving water quality and subsequently reef condition and considered for application along the entire reef system.
- Existing point source discharges are degrading the estuaries.
- See paper by Pickering and Baker 2015. *Watershed Scale Planning to Reduce the Land-Based Sources of Pollution (LBSP) for the Protection of Coral Reefs in Southeast Florida*. 2015

5. Potential Pros

What are the potential advantages associated with this management action?

- Reduce the use of insecticides, pesticides and fertilizers to improve water quality in watersheds and the southeast Florida coral reef ecosystem. Focus SEFCRI partner agency resources to enable targeted efforts to reduce LBSP and facilitate observation of management action effectiveness at reducing threat of LBSP and improving reef condition.
- Improved water quality; ameliorate salinity fluctuations; reduce siltation and erosion; potential improvement of shellfish habitat; potential reopen closed shellfish harvest area; improve recreational fishing, improve water quality for recreation (fewer water closures) and to promote water reuse.

6. Potential Cons

What are the potential disadvantages associated with this management action?

- Funding for the extra testing and monitoring. Developing proper and legal enforcement. A focus on specific areas will draw effort and attention away from some areas that are not determined to be priorities for this action.
- Being able to prove number of ppm is harmful to environment; the cost of retrofitting what is currently being utilized; there may be opposition from upsetting the status quo; if working on this county by county there will end up being variable standards; the source of pollution may be outside of SEFCRI region; technological hurdles in retrofitting, and there may be less ability in historic neighborhoods.
- Differences of opinion regarding which areas are priority may result in challenges in selecting areas. TMDL process can drive prioritization.

7. Location

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

- One watershed or inlet contributing area in each of the four counties within the SEFCRI Region.
- Watersheds upstream of the SEFCRI Region.

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

- Watershed. Entire coral reef ecosystem would be affected by this action but efforts would be focused in the watershed.
- Estuaries, coral reefs, seagrass, mangrove, oyster, inlet, hard bottom.

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

- Prioritize sites by those needing more immediate action

8. Extent

Area, number, etc.

- Watershed and ecosystem-scale.

9. Is this action spatial in nature?

- Yes

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. The marine planning tool does not have all the necessary data layers needed to assess watersheds. This activity should occur outside the marine planning tool.

Marine Planner 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](#).

- FDEP CRCP Coral Reef Ecosystem Conservation Objective 3:
 - Reduce the impacts of land- based sources of pollution on the Florida Reef Tract.
- FL Priorities Goal C1; FL Priorities Goal C4; FL Priorities Goal C4 Objective 4; FDEP CRCP Coral Reef Ecosystem Conservation Goal B; FDEP CRCP Coral Reef Ecosystem Conservation Objective 3; SEFCRI LAS LBSP Issue 4 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.

- Testing and monitoring is being done at general areas where the pollution flows into the estuaries. The testing does not go upstream to find the true source. The Martin County Commission just passed an ordinance on the use of fertilizers near the water.
- There already is legislation in place to eliminate ocean outfalls by 2025.

3. Intended Benefits (Outcomes)

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

- Testing and monitoring the estuaries and rivers will locate and help stop the source of the pollution. Reducing pollution at the source will clean up southeast Florida estuaries.

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

- -

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

- -

4. Indirect Costs (Outcomes)

What potential negative environmental impacts might this action have?

- Negative environmental impacts are not expected to result from this RMA. However, if point sources into aquatic environments are eliminated, the pollutants will need to be disposed of in a different manner, which may have negative effects in other areas.

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

- Costs to implement will be passed to taxpayers if sources are from utilities. Private industries will have to front costs also.

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

- A Short term negative impact will effect this industry until they go out of business or clean up their process.
- Short term negative impacts once the retrofits are completed.

5. Risk

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

- We will continue to pollute our rivers, lagoons and bays that will then continue to degrade our reefs.
- Finding new disposal areas for pollutants can cause environmental impacts elsewhere.

6. Relevant Supporting Data

What existing science supports this recommendation? (Provide citations)

- New constructed golf courses are being designed with holding ponds to capture surface water runoff and allow for reuse of the water and fertilizers back on to courses.

7. Information Gaps

What uncertainties or information gaps still exist?

- Concentrations of chemicals and fertilizers that are dangerous to public health or be considered pollution. Enforcement of water quality violations has to be based on scientific research.
- What to do with pollutants once point sources are identified.

WHEN?

8. Anticipated Timeframe for Implementation

How long will this recommendation take to implement?

- Ongoing and Long term

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?)

- Testing and monitoring the surface waters of the watershed are independent and not linked to other recommendations but the information received will assist other proposed recommendations.
- N-80 Ensure the timely closure of all sewer outfalls.
- N-79 Upgrade regional wastewater treatment outputs N-86 Regulate point-specific water quality discharge S-25 Close all outfall pipes.
- S-26 Amend sewage outfall legislation.

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

- No conflicts anticipated

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](#).

- FDEP, EPA, DOH

11. Other Agencies or Organizations

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

- Environmental Protection Agency Water Protection Division Issues permits for waste water discharges in Federal waters. Manages ocean disposal of dredged material in Federal waters.
- Waste management.

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.

- Businesses and utilities responsible for point sources may present opposition.

HOW?

13. Feasibility

Is there appropriate political will to support this? Explain.

- Political will should support testing and monitoring.
- Legislation is in place to eliminate ocean outfalls.
- Likely to be driven by community perception as well as data. Defacto prioritization by communities who view this as an issue they need to resolve and are willing to invest in.

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

- Testing and monitoring is presently being done that indicates water pollution is occurring. The testing does not extend closer to the source of the pollution. Testing at the source has been done within agriculture, industrial and marine industries.
- There will be associated costs and effort to retrofit all existing outfalls.

14. Legislative Considerations

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

- There are no known conflicts with any existing legislative laws or regulations.

15. Permitting Requirements

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

- Permits for construction and removal of existing outfalls will be required, along with permits for the disposal of pollutants.

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, though highly variable

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

- Testing and monitoring of the surface waters in the watersheds should be continuous and recurring.

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

Provide an explanation if available.

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18. Potential Funding Sources

Identify potential funding organizations/grant opportunities, etc.

- Taxpayers, utilities customers, private funds if point sources are industries.

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?

- Improved water quality in the vicinity of existing point sources and in surface waters of southeast Florida.

SEFCRI/TAC Targeted Questions:

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

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

- Yes

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

Tier 1 – #4 (Justification)

- No

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)

- N85, N86, N97-all identifying point sources, regulating and mitigating. Many point sources regulated.
- Sewage treatment plant has to reduce microbes.
- Existing laws for this.
- N85, N86, N97-all identifying point sources, regulating and mitigating. Many point sources regulated.
- Sewage treatment plant has to reduce microbes.

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)

- No
- We are currently digitizing FDOT plans, including outfall locations. This is similar to the identification process. I have also permitted the installation of treatment for an FDOT outfall. WHO SAID THIS?

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.

- No

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.

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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.
- Bill called for 60% reuse, but reuse was defined as recharge.
- What about advanced water treatment?
- 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)

- This action has many components and will be difficult to achieve:
 - 1: Determine criteria for what constitutes a point source input.
 - 2: What is spatial area in which point sources will be identified?

- 3: What is timeframe to eliminate inputs?

Comments from the Reviewers:

- JF: Would this not be part of the NPDES permit?
- BB: This type of pollution is covered by NPDES and monitored/enforced at the municipal level.
- Team: Combine with S-110, N-85, N-86, and other Stormwater Management actions proposed.
- This action is very broad, it would be helpful if it were more defined. NIC
- I am not sure just what point sources are being referred to here. Some point sources (wastewater outfalls) are being addressed in other projects. Some details would be helpful here. JS.
- I am not sure I understand this one, also as mentioned above I think an NPDES permit would deal with a lot of this via a TMDL. NIC
- BB: This issue seems to be more of an enforcement one than a new management action.
- JF: I know for example that there are a few FDOT outfalls out there that do not have treatment. These do allow nutrients and other pollutants into waterbodies. Maybe this could be narrowed down to identifying untreated stormwater outfalls in impaired waterbodies and provide treatment recommendations based on the pollutant for which the waterbody is impaired.
- JF: There are other programs in place to address this. It is often difficult to find outfalls that allow untreated water in Commercial and residential sources have different sets of issues. It might be appropriate to consider them separately. JS
- Looking at land use before defining actions is perhaps a place to start. NIC
- JF: Whenever FDOT designs an upgrade to a coastal road it includes new treatment.
- BB: Currently regulated through NPDES permits.
- JF: I have studied individual situations where untreated water is being discharged. I have documented what improvement might be expected to the waterbody based on certain types of treatment options. There is often a measurable reduction in pollutant loading.
- Monitoring on a "house by house" scale is difficult. JS
- JF: The gap is which outfalls are discharging untreated water. In some cases, one out of 20 along a seawall are untreated. You would need to look at each permit and plan set to find out.
- JF: I think that the identification could be done in 0-2 years.
- Local governments would need to be involved. JS
- BB: Municipalities
- JF: FDOT
- JF: The ID is feasible. We do similar work.
- JF: The ID process may be \$200,000. The retrofits could be significantly more expensive. A typical second generation baffle box is roughly \$20,000.
- Tax incentives. JS

Questions from the Reviewers:

Questions/Information Needs Highlighted by the Reviewers		Addressed by CWG:	Not Addressed by CWG Because:
1.	Would this not be part of the NPDES permit? No NPDES is non-point source.	<input checked="" type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
2.	I am not sure what point sources are being referred too here. High pollutant-loading land uses and activities (Agriculture, golf courses, industrial point source, municipal waste water)	<input checked="" type="checkbox"/>	<input type="checkbox"/> This does not apply. <input type="checkbox"/> Need help addressing it.
3.		<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:

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