CWG Review 1: Spring 2015

Tier 1 Information:

1. Management Action

S-106 Establish an educational turbidity monitoring certification to improve the quality of turbidity data that are used to evaluate project-related threats to resources.

2. Intended Result (Output/Outcome)

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

- Increase the number of trained and certified individuals that will conduct turbidity monitoring for coastal construction projects, resulting in more accurate data on project-related turbidity. After careful analysis the TMWG decided that, since the problem was primarily the lack of understanding/guidance about how to monitor correctly, a training (without professional certification) program could be the solution. Consequently, DEP got the buy-in from the major players in the turbidity monitoring industry with regards to a voluntary certification (training) program and discussions are currently underway. This training would be preferred but not mandatory, initially, and the benefits received during the permitting process would encourage the applicant to choose 'DEP-certified' turbidity monitors over non-certified. Some of the benefits being discussed include:
- Prequalified Monitoring Personnel would not need to submit qualifications during the permitting process.
- BMPs for the process/technique of collecting samples in the plume.
- Both Federal and non-Federal projects will be able to require that turbidity monitoring personnel are DEP-certified, even though this will not be a mandatory DEP requirement. USACE will be able to incorporate this in their contracts similar to the current 'NMFS observer certification' requirement as long as there is physical proof of the training.
- This approach does not require legislative approval initially, it avoids legal challenges, it solves the underlying problem and can be a stepping stone for a certification program if required in the future.
- Initially create and Implement a voluntary program as soon as possible with the intent to make this required certified in the future.

3. Duration of Activity

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

- This management action will require recurring activities. First, the certificate program will have to be created; then courses will need to be offered continuously. Additionally, enforcement will still be required to ensure that turbidity data are collected by certified individuals according to standard methods and in accordance with permit conditions.

4. Justification

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

- Currently turbidity data are being collected by many individuals with various levels of experience and expertise. Collection of data by inexperienced, untrained individuals results in uncertainty regarding the quality of such data and its usefulness for evaluating project-related impacts on resources.

5. Potential Pros

What are the potential advantages associated with this management action?

- This management action will provide more accurate data on project-related turbidity and a better understanding of potential project-related impacts resulting from turbidity.
- Revisions of the certification program, on an as needed basis, will allow for changes in equipment and method to be incorporated in the program.
- The program can be offered online with minimal contact (for fieldwork) required; reducing cost to the turbidity monitoring companies.

6. **Potential Cons**

   What are the potential disadvantages associated with this management action?

   - Regulatory agencies will need to invest time and money in order to establish the certificate program and to continually offer courses.
   - Monitoring firms will need to spend time and money to remain competitive by ensuring that their employees receive the training and are certified for turbidity monitoring.
   - Will initially rely on federal and local agencies to require, in their contract documents, that the monitors are 'DEP-Trained', until FDEP is able to require

7. **Location**

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

   - The SEFCRI region, due to the significance and proximity of its ecological resources, would be of heightened sensitivity and thus the more stringent practices taught in the program would be applied here. However, this would be applied statewide

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

   - This management action would be relevant to all habitat types, but it is most applicable to habitats that are sensitive to sedimentation, i.e., hardbottom and coral reefs.

8. **Extent**

   Area, number, etc.

   - This management action is large-scale and long-term.

9. **Is this action spatial in nature?**

   - -No -

Tier 2 Information:

WHY?

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

   Refer to the SEFCRI Coral Reef Management Goals and Objectives Reference Guide.

   - Goal C1 Obj 1 – Minimize the impacts of degraded water quality associated with coastal construction activities.
   - Goal C4 Obj 4 – Improve consistency and level of enforcement of current rules and regulations.
   - MICCI Conservation Goal C – Minimize and where possible eliminate habitat destruction from maritime industry and coastal construction activities.
   - MICCI Issue 1 Goal – Protect coral systems from impacts associated with projects in and around the reef tracts of southeast Florida.
   - MICCI Issue 1 Goal Obj 1 – Review, revise, implement and enforce existing regulations. Increase effectiveness of permit conditions to protect coral communities and increase efficiency of regulatory review.
   - MICCI Issue 1 Goal – Protect coral systems from impacts associated with projects in and around the reef tracts of southeast Florida.
   - MICCI Issue 1 Goal Obj 1 – Review, revise, implement and enforce existing regulations. Increase effectiveness of permit conditions to protect coral communities and increase efficiency of regulatory review.
   - MICCI Issue 1 Goal Obj 2 – Avoid and minimize impacts to coral reef ecosystems from dredge and fill activities. Reduce the areal extent of project-related impacts.
   - MICCI Issue 2 Goal – Change coastal construction practices in ways that protect marine and estuarine habitats.
   - MICCI Issue 4 Goal – Ensure compliance with regulatory requirements (including specific conditions) by increasing compliance review and enforcement actions.

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.

- The Florida Department of Environmental Protection has begun planning for a Turbidity monitoring certification program; however, no such program is currently in-place.

3. Intended Benefits (Outcomes)

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

- Trained and certified individuals will conduct turbidity monitoring for coastal construction projects, which will result in more accurate data on project-related turbidity. Accurate data on project-related turbidity will result in a better understanding of potential project-related impacts resulting from turbidity, which will result in better protection for water resources.

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

- Training may result in more effective turbidity monitoring, which could save monitoring crews time in the field and result in cost-savings to permittees and taxpayers.

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

- The benefits of instituting an educational turbidity monitoring program are expected to be long-term. Over time, technology improves, and individuals conducting monitoring will have opportunity to keep-up with the BMPs and standard protocols for monitoring turbidity.

4. Indirect Costs (Outcomes)

What potential negative environmental impacts might this action have?

- none

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

- Regulatory agencies will need to invest time and money in order to establish the certificate program and to continually offer courses. Monitoring firms may need to spend time and money to ensure their employees receive the training and are certified for turbidity monitoring so that they remain competitive.

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

- Any negative impacts (e.g., start-up costs, training fees) are expected to be short-term. Costs will likely be offset by more efficient monitoring.

5. Risk

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

- Currently turbidity data are being collected by many individuals with various levels of experience and expertise. Collection of data by inexperienced, untrained individuals results in uncertainty regarding the quality of such data and its usefulness for evaluating the potential project-related impacts on resources. If an educational certificate program for turbidity monitoring were not created, then the quality of turbidity data would remain questionable and impacts to resources may result.

6. Relevant Supporting Data

What existing science supports this recommendation? (Provide citations)

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7. Information Gaps

What uncertainties or information gaps still exist?

- The best format for providing training and the certification process will have to be developed by regulatory agencies.
    - DEP led turbidity monitoring workgroup currently discussing an online training course supplemented

with a field check-out session (DEP travels to site). The ultimate goal is to have trained district staff "field-check" monitoring firms as they take and pass the online program. This is mutually beneficial for the Department and monitoring firms.

- **March/April 2015 South CWG Update:** People should contact Marty Seeling about this one. Plume is moving so in situ measurements of the turbidity plume (from fixed points) may not be suitable.
    - The course should educate participants on how to identify the correct spot to sample, since the plume is mobile, as well as the most suitable equipment based on the location.

WHEN?

8. Anticipated Timeframe for Implementation

How long will this recommendation take to implement?

- 0-2 years

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 action is linked to the management actions regarding coastal construction, especially the management action regarding the application of a lessons-learned approach to projects.

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

- Many of the recommended actions were targeted at reducing potential impacts to resources resulting from coastal construction activities, including turbidity and sedimentation.

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 has the authority to implement this action; the collection of turbidity monitoring data by qualified / certified individuals could be incorporated into coastal construction permits in order to provide reasonable assurance that the project-related turbidity was accurate and did not exceed the authorized / permitted limits.

11. Other Agencies or Organizations

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

- Yes, other agencies / organization with experience regarding turbidity monitoring would be encouraged to work with DEP to implement a successful, educational, certificate program. Other agencies who review and comment on DEP permits (both federal and state) would be supportive of this.

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.

- Any stakeholders involved in coastal construction activities (including permittees, monitoring companies and regulatory agencies) will be most greatly impacted by this management action.-

HOW?

13. Feasibility

Is there appropriate political will to support this? Explain.

- Yes, discussions regarding such a program have already been initiated at the DEP.

- A mandatory certification process will have to be authorized by the rule making process (see steps required in comments from reviewers below). While in the future mandatory certification is possible, at this time due to the small size of the turbidity monitoring industry, the maintenance required to manage the certification program and the time/steps required to authorize the program via the rule making process, it was not recommended. Instead DEP has sought the buy in from the turbidity monitoring industry for a 'voluntary' certification program. The benefits of reduced requirements (for DEP-trained monitors) during the permit application process and the heightened competition within the turbidity monitoring industry will encourage everyone in the industry to become DEP-trained (so companies can maintain a competitive advantage or be at a disadvantage). This will undoubtedly make the mandatory certification process more defensible and will also make future implementation run more smoothly.
    - Suggestions were made to incorporate other training needs (eg. sea grass or benthic habitat monitoring) into one training program in order to increase the feasibility of moving forward with mandatory certification at this time. While it is a good endeavor to have DEP-certification for all monitoring activities, there is a danger in increasing the scope of this training program such that the more charismatic issues may eclipse the turbidity monitoring issues, or such that the roll out of this training program is pushed further into the future. The industry is also highly specialized, in that most turbidity monitoring personnel rarely monitor benthic habitat and vice versa, so a combined program geared towards turbidity monitors may be counter intuitive if training for other monitoring disciplines are included.

  To require certification DEP will need legislative approval; consequently, while this has been undertaken for larger industries, like landscape pesticide application (n=~100s of companies), it is unlikely that it will be done anytime in the near future for the turbidity monitoring industry (n=~ 15 companies). The concerns of the mandatory certification program that the turbidity monitoring working group (TMWG) discussed include:
  - The cost to develop the course;
  - The inability of the course to pay for itself - the small size of the turbidity monitoring industry means that not enough people would be getting certified or paying for certification for the course to be sustainable;
  - The legal liabilities for both the entity/person being certified and the entity doing the certification;
  - Certifications need to be tracked;
    - Who would be tracking the certifications?
    - How would certifications would need to be tracked?
  - Periodic testing would be required to maintain the certification;
    - Who would be conducting the testing?
    - What would it entail?
  - Policing would be required to ensure that they continue to meet certification standards;
    - Who would set those standards?
    - Who would monitor compliance with those standards?
    - Who would have the authority to enforce those standards?
  - Non-compliance would require decertification, which would bring legal challenges for the enforcing entity;
  - Certification is normally done by the Board of Professional Regulation (Florida Department of Business & Professional Regulation) or a Professional Society.

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

- Implementing a training and the certification process will require collaboration between regulatory agencies and those conducting turbidity monitoring. A format for providing training and details regarding the certification process will have to be developed by regulatory agencies.

14. Legislative Considerations

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

- Creating a voluntary program does not require legislative approval, it avoids legal challenges, it solves the underlying problem and can be a stepping stone for a certification program if required in the future.

15. Permitting Requirements

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

- No, but permit requirements can be used to implement this action.

16. **Estimated Direct Costs**

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

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

- Recurring see below

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

- Regulatory agencies will need to invest time and money in order to establish the certificate program and to continually offer training courses. Monitoring firms will need to spend time and money to ensure their employees receive the training and are certified for turbidity monitoring.

17. **Enforcement**

Does this require enforcement effort?

- Yes. Same as currently required.

Provide an explanation if available.

- Regulatory agencies will need to evaluate turbidity monitoring to ensure compliance; if turbidity monitoring is not done in accordance with permit conditions (e.g., by only certified individuals) then the Department may assistant the permittee by providing information on training and may have to take enforcement actions, if the incompliance issues are not resolved via compliance assistance measures.

18. **Potential Funding Sources**

Identify potential funding organizations/grant opportunities, etc.

- DEP will likely fund such training, but other regulatory agencies may contribute.

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?

- The number of individuals certified can be tracked. Participants could be given a pre-test to determine their knowledge of turbidity monitoring prior to the training and could be reassessed after the training to determine the effectiveness of the course. The number of compliance issues regarding improper turbidity monitoring could also be tracked over time.

SEFCRI/TAC Targeted Questions:

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

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

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

Tier 1 – #4 (Justification)

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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)

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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)
   - -

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.**
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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.**
   a. **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).**
   b. **Information submitted for this and other draft management actions is sufficiently similar that they might be considered the same.**
   - -

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)
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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)