



**Date Last Updated: 31 May 2008**

## **Activities**

The project schedule (see TIMELINE.PDF) identifies 14 specific tasks that, upon completion, will result in all objectives being met. Using that schedule as an outline, progress towards each task is summarized below.

### **1. Assemble C&M (control and mitigation) characteristics.**

M. Sengco summarized basic information about *Karenia brevis* blooms and management strategies in Florida and elsewhere from the published literature and from a series of technical reports (Working Paper: "Risk Assessment of Strategies for the Prevention and Control of *Karenia brevis* Blooms", pp.25): The list of published literature referenced in the working paper is presented in Attachment A at the end of this report. The additional technical reports that were used include the following:

- (1) Zimmerman, L., Sengco, M. and Dortch, Q. In press. State of the Research on Red Tide in the Gulf of Mexico Workshop and Public Forum. NOAA/FWRI Technical Report.
- (2) Sengco, M.R. In press. Chapter 13 – Mitigation of Effect of Harmful Algal Blooms. In Shellfish Safety and Quality, Shumway S. and Rodrick, G., editors. Woodhead Publishing Ltd., Cambridge England
- (3) Sengco M.R. In review. Prevention and Control of *Karenia brevis* blooms. Harmful Algae.
- (4) Alcock, F. 2007. An Assessment of Florida Red Tide: Causes, Consequences and Management Options. Technical Report 1190, Marine Policy Institute, Mote Marine Laboratory.
- (5) Boesch, D.F., D.M. Anderson, R.A. Horner, S.E. Shumway, P.A. Tester, and T.E. Whitledge, 1997. Harmful Algal Blooms in Coastal Waters: Options for Prevention, Control and Mitigation. Silver Spring, MD: NOAA Coastal Ocean Program. Decision Analysis Series No. 10. 46 p.

The summary report was then given to Don Anderson (Woods Hole Oceanographic Institution, MA), Sandra Shumway (University of Connecticut), Richard Pierce (Mote Marine Laboratory, FL) and Kevin Sellner (Chesapeake Research Consortium, MD) for comment. Finally, M. Sengco and C. Scherer worked to distill the information to a version suitable for the focus groups. This effort continues to the present. Time-permitting, the distilled version will again be circulated to the same individuals for comment before being presented to the focus groups at the end of June.



## **2. Develop dialogical messages.**

C. Scherer used the working paper drafted by M. Sengco from (1) to develop a draft list of dialogical messages for pretesting. This list is included in a comprehensive questionnaire to be completed by attendees of the focus groups and stakeholder conferences, which are scheduled for late June, 2008. This questionnaire was discussed in length at the project team meeting that was held in Clearwater, Florida, May 19-21, 2008. This draft document is being edited by C. Scherer for re-circulation and revision by the project team prior to the focus groups and stakeholder conference where the messages will be pre-tested.

## **3. Develop protocols for residents and visitors surveys.**

The survey of Florida residents will be conducted using two methodologies: mail and Internet. The reasoning behind using these two modes is to increase representation among a variety of diverse demographic groups. The mail survey will be sent to randomly selected households that are stratified by population in coastal areas that are known affected by red tide (e.g., Northeast, Southwest, and Northeast, similar to the focus groups discussed in #5 below). In addition, the mail survey respondents will be provided the opportunity to reply online since the Internet-based questionnaire will be identical to the paper copy. The website with the questionnaire will be developed by the PI. The Internet survey will be implemented by hiring a company to send an email invitation to adults in Florida in the geographic areas of interest. We believe the Internet survey will capture a different demographic and, thus, will improve the robustness of the results.

The survey of Florida visitors will be conducted in Southwest Florida since it is the region of Florida with the history of the most red tide events, it has a high concentration of beaches (which is where the most immediate effects are noticed), and it will be cost effective. The survey will be conducted by personal interview. Potential respondents will be randomly selected as they are leaving the beach (e.g., every 5th individual). The surveys will be conducted within a compressed time period in order to avoid the need to control for any exogenous events.

The surveys will be implemented simultaneously and are scheduled for early 2009. This time of year was considered ideal since it coincides with the timing of peak visitation to this area and it allows more time to analyze the results of the focus groups and stakeholder conference. Additional details will be decided in Fall 2008.

## **4. Create draft survey instruments.**

The document containing the dialogical messages is the draft of the response questionnaire that will be completed by attendees to the focus groups and the stakeholder conference. This document was created by C. Scherer and is included in Attachment B.

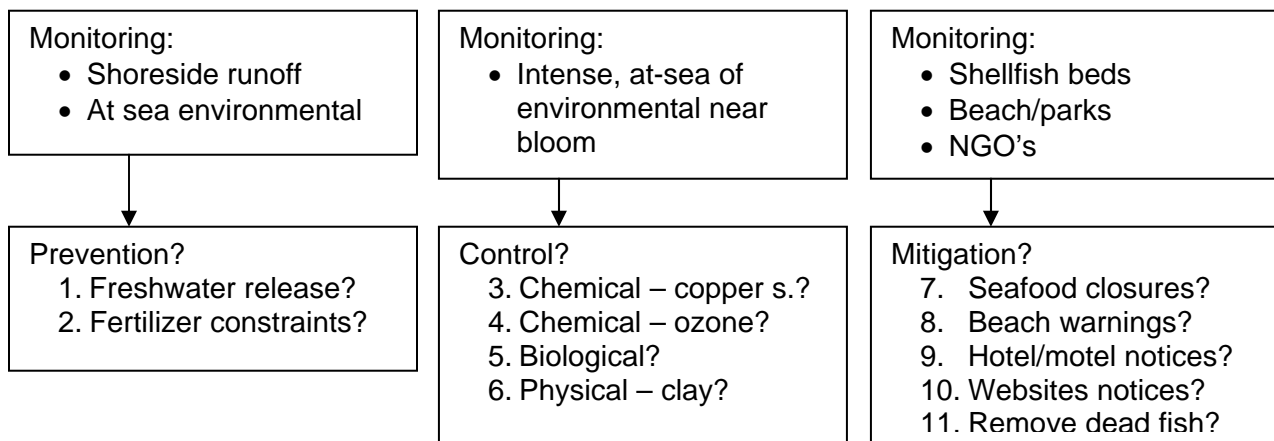


## 5. Pre-test survey instruments and finalize.

One proposed mechanism for testing the survey instruments was to use viewers of the “Guardians of the Gulf” documentary, which was produced by the Essential Image Source Foundation with support funding from START (<http://home.eisf.org/node/1116>). This documentary was premiered at the Sarasota Film Festival in April 2008 but could not be used for pretesting since the Festival would retain rights to all information collected.

The primary mechanism to pretest messages remains the feedback from attendees to the focus groups and workshop, which will be held in late June 2008. It was decided that the focus groups would target the general public (i.e., residents of coastal areas that have been affected by red tide events) and the conference would target representatives of agencies that are charged with addressing red tide related issues.

Both groups would be presented with identical information and asked for identical types of feedback. Specifically, both would be asked some questions to ascertain their level of knowledge and preferences up front. Then they would listen to an overview of the state of the science for each C&M strategy, including information on the inherent risks and uncertainty associated with each as was the consensus of the scholars consulted as part of task 1. One proposed framework for the presentation is as follows:



Note that the scientific information to present (including the different degrees of risk and uncertainty) are the focus of options #1-6). A more detailed color-coded depiction was presented by M. Sengco and discussed by the project team at the May meeting.

The protocol for selecting the number and location of the focus groups and conferences, as well as, the specific attendees was also discussed by the project team at the meeting in May. At a minimum, focus groups are needed to cover the following broad geographic regions: Northwest Florida, Northeast Florida, and Southwest Florida. These regions were selected due to their frequency of exposure to red tide events that were reported to have caused damage (either economic or environmental) in either the local media or as identified by local Florida Sea Grant agents. The conference will



consist of invited representatives of every group that has previously been invited to participate in a red tide event held at Mote Marine Lab. The draft list of potential participants provided by Mote (via F. Alcock) contained 86 individuals from 38 agencies/organizations. The selection of individuals to participate in the focus groups will either be from (1) a random selection of households that are called and asked to send an adult (possible with monetary compensation for their time), (2) a general call for participants through ads placed in local newspapers, and/or (3) from individuals identified by local community leaders as being interested (e.g., Florida Sea Grant agents, media reporters, environmental organization leaders, etc.). While the use of a protocol that involves targeted and interested individuals (e.g., #3) will not provide results that represent the general public, it will produce more meaningful dialog that would be valuable given that these individuals are likely to have an impact in their local communities specifically because of their interest in the subject. Such individuals are also more likely to attend.

**6. Conduct surveys:**

6a. Mail survey of residents

6a. Intercept survey of visitors

No progress to date; activity is scheduled for second fiscal year.

**7. Code and quality check data.**

No progress to date; activity is scheduled for second fiscal year.

**8. Summarize quantitative and qualitative results.**

No progress to date; activity is scheduled for second fiscal year.

**9. Conduct economic valuation analysis.**

No progress to date; activity is scheduled for second fiscal year.

**10. Estimate economic models.**

No progress to date; activity is scheduled for second fiscal year.

**11. Structured interviews to test results. (Step 4)**

No progress to date; activity is scheduled for third fiscal year.

**12. Revise materials for communities. (Steps 5,6)**

No progress to date; activity is scheduled for third fiscal year.

**13. Conduct survey of scientists and managers. (Step 7)**

No progress to date; activity is scheduled for third fiscal year.

**14. Develop case study to support HD research.**

No progress to date; activity is scheduled for third fiscal year.