

# NOAA HAB Socio-Economic Workshop

## PROCESS AGENDA

July 20 - August 4

Virtual Meeting

### Attendees: 30-40 attendees

Meeting conducted via Adobe Connect?

### Week 1:

Monday, July 27 (Plenary) - 12:00-4:00pm EST

- Introduction and explanation of meeting goals (30min)
- Natural Science presentations/discussions (60min)
  - Economic and Social Impacts of Marine HABs (20min + 10 Discussion)
    - Quay Dortch? (20min + 10 Discussion)
  - Economic and Social Impacts of HABs in Great Lakes (20min + 10 Discussion)
    - Tim Davis? (20min + 10 Discussion)
- Social Science presentations/discussions (60min)
  - Economics (20min + 10 Discussion)
    - Sunny Jardine?
  - Social Science (20min + 10 Discussion)
    - TBD?
- Follow-up questions and charge to case study groups (30min)

Wednesday, July 29 (Concurrent Meetings) - 12:00-3:00pm EST

- Case Study Breakout group meetings (3 hrs)
  - a. Great Lakes - Cyanobacteria
  - b. Gulf of Maine - Alexandrium spp.
  - c. Gulf of Mexico - Karenia brevis
  - d. US West Coast - Pseudo-nitzschia spp.
  - e. US Tropical Jurisdictions - Ciguatera spp.

### Week 2:

Monday, August 3 (Plenary) - 12:00-3:00pm EST

- Case Study presentations/discussions (3 hrs)

Wednesday, August 5 (Plenary) - 12:00-3:00pm EST

- Identify and discuss recommendations and priorities (3 hrs)

### Actions:

- send out save the date
- check in with Shannan Lewinski on hosting Adobe Connect
- reach out to NOAA Facilitators Forum for breakout facilitators/case studies

## WEEK 1

Time	Day 1 - July 27	Setup and Materials
<p><b>12:00 - 12:20 pm</b></p> <p>Marc, Porter, Chris, Shannan</p>	<p><b>Session 1: Overview</b></p> <p><u>Objective:</u> Introduction and explanation of meeting goals.</p> <p>Activities/Interactions:</p> <ul style="list-style-type: none"> <li>● Marc and Porter welcome group (5 min.)</li> <li>● Marc? offers a brief description of meeting goals (5 min.)</li> <li>● Introduce facilitator; walk through agenda; housekeeping (10 min.)</li> <li>● Introductions (35 minutes)</li> </ul> <p>Total: 20 minutes</p>	<p>Materials:</p> <p>Documents to reference?</p> <p>Ideas for intros: Speed dating template?</p>
Time	Day 1 - July 27	Setup and Materials
<p><b>12:20 - 1:30 pm</b></p> <p>Shannan Chris</p>	<p><b>Session 2: Natural Science Presentations/Discussions</b></p> <p><u>Objective:</u> Share HAB challenges and needs from a natural scientific perspective</p> <p>Activities/Interactions:</p> <ul style="list-style-type: none"> <li>● Freshwater Presentation - Tim Davis? (30 minutes) Discussion - Need to develop a few guiding questions (10 minutes)</li> <li>● Marine Presentation - Quay Dortch? (30 minutes) Discussion - Need to develop a few guiding questions (10 minutes)</li> </ul> <p>Total: 1.3 hour</p>	<p>Materials:</p> <p>Session Organizer: find out who will be presenting</p> <p>Handouts to reference?</p>
Time	Day1 - July 27	Setup and Materials
<p><b>1:30 -2:30pm</b></p> <p>Shannan Chris</p>	<p><b>Session 3: Social Science Presentations/Discussions</b></p> <p><u>Objective:</u> Share HAB challenges and needs from a social scientific perspective</p> <p>Activities/Interactions:</p> <ul style="list-style-type: none"> <li>● Economic Presentation - Sunny Jardine? (20 minutes) Discussion - Need to develop a few guiding questions (10 minutes)</li> </ul>	<p>Materials:</p> <p>Session Organizer: find out who will be presenting</p> <p>Handouts to reference?</p>

	<ul style="list-style-type: none"> <li>Social Science Presentation - Speaker? (300 minutes)</li> <li>Discussion - Need to develop a few guiding questions (10 minutes)</li> </ul> <p>Total: 1.0 hour</p>	
<b>Time</b>	<b>Day 1 - July 29</b>	<b>Setup and Materials</b>
<p><b>2:30-3:00 pm</b></p> <p>Marc\Porter Shannan Chris</p>	<p><b>Session 4: Charge to Case Study Groups and Open Discussion</b></p> <p>Activities/Interactions:</p> <ul style="list-style-type: none"> <li>Charge to case study groups and Week 2 overview (10 minutes)</li> <li>Open discussion/Q&amp;A on previous presentations or process (20 minutes)</li> </ul> <p>Total: 0.5 hour</p>	<p>Materials:</p> <p>Case Study Template</p>

<b>WEEK 1</b>		
<b>DAY 2 - July 27</b>		
<p><b>12:00 - 3:00pm</b></p> <p>Identify Planning Team Leads?</p> <p>Breakout Facilitators?</p> <p>Cost of control vs. benefits of control?</p>	<p><b>Session 5: Case Studies (Concurrent Meetings)</b></p> <ul style="list-style-type: none"> <li>Great Lakes - Cyanobacteria</li> <li>Gulf of Maine - Alexandrium spp.</li> <li>Gulf of Mexico - Karenia brevis</li> <li>US West Coast - Pseudo-nitzschia spp.</li> <li>Tropical - Ciguatera</li> </ul> <p><u>Objective:</u> Identify information gaps and recommend social science and economic research priorities to improve documentation and quantification of the impacts of HABs on society and societal responses.</p> <p>Activities/Interactions: Discuss each case study using the following template and prepare to a plenary report out:</p> <ul style="list-style-type: none"> <li>Physical characteristics of the relevant HAB (species; spatial and temporal extents; movements; densities; toxicity levels; recurrence frequency; causes)</li> <li>Physical drivers and effects of the HAB (impacts on other non-human components of the ecosystem;</li> <li>Social and economic consequences of the HAB (impacts to human communities, firms, or individuals; quantitative or qualitative measures of impacts; accounting stance)</li> </ul>	<p>Materials:</p> <p>Google Doc - case study template?</p>

	<ul style="list-style-type: none"> <li>● Potential human responses to prevent, control, or mitigate the HAB (costs of responses, including implications for communities, firms, or individuals)</li> <li>● Identify gaps in information about the above elements</li> <li>● Recommend priorities for social science and economic research (including the identification of complementarities and potential relationships to natural science research programs)</li> </ul>	
<b>WEEK 2</b>		
<b>DAY 1 - August 03</b>		
<b>12:00 - 3:00 pm</b>  Case Study leads? Chris? Marc?	<b>Session 7: Case Study Presentation/Discussions</b>  <u>Objective:</u> Activities/Interactions: <ul style="list-style-type: none"> <li>● Need to develop a format/process for this</li> </ul> Total: 3 hours	Materials:  Google Doc?
<b>DAY 2 - August 05</b>		
<b>12:00 - 3:00 pm</b>  Chris? Marc?	<b>Session 8: Identify and discuss recommendations and priorities</b>  Activities/Interactions: <ul style="list-style-type: none"> <li>● Need to develop a format/process for this</li> <li>● Leadership thoughts and feedback/wrap-up</li> <li>● Bring meeting to a close</li> </ul> Total: 3 hours	Materials:  Google Doc?

## 3 Week Workshop Structure

### Week 1 (Plenary)

- Day 1: Introduction and explanation of meeting goals (12:00-1:00PM EST)
- Day 2: Natural Science presentations/discussions (2 talks: one freshwater, one marine): (12:00-2:00PM EST)
- Day 3: Social Science presentations/discussions (2 talks: one social science, one economics) (12:00-2:00PM EST)
- Day 4: Follow-up questions and charge to case study groups (12:00-1:00PM EST)

### Week 2 (Breakout Groups)

- 4 to 5 Case Studies\* are undertaken in parallel (~5 hours during the week; up to each Group to determine the timing of virtual meetings or other interactions over the week)

### Week 3 (Plenary)

- Day 1: Case Study presentations/discussions (12:00-3:00pm EST)
- Day 2: Identify and discuss recommendations and priorities (12:00-3:00PM EST)

\*Charge to Case Study Groups:

Characterize the following (to the extent feasible) and report back to the Plenary:

- **Physical characteristics** of the relevant HAB (species; spatial and temporal extents; movements; densities; toxicity levels; recurrence frequency; causes)
- **Physical effects** of the HAB (impacts on other non-human components of the ecosystem;
- **Social and economic consequences** of the HAB (impacts to human communities, firms, or individuals; quantitative or qualitative measures of impacts; accounting stance)
- Potential **human responses** to prevent, control, or mitigate the HAB (costs of responses, including implications for communities, firms, or individuals)
- **Identify gaps** in information about the above elements
- **Recommend priorities** for social science and economic research (including the identification of complementarities and potential relationships to natural science research programs)

## DRAFT AGENDA

- **Introductions:** Welcome, introduce participants, review purposes of workshop, let attendees know how their input will be used, review the agenda.
- **Scientific background on HABs for social scientists and economists:** Presentation(s) from natural scientists on basic science information about HABs as background, and share information about relevant biological, social, and economic impacts of different species of HABs
- **Overview of social science methods for assessing HAB effects and responses:** Presentation(s) on approaches and methods used to assess societal HAB impacts, highlighting the strengths and weaknesses of these approaches and identifying gaps in understanding and knowledge.
- **Overview of economic methods for evaluating HAB effects and responses:** Presentation(s) on approaches and methods used to evaluate the cost of HABs, highlighting the strengths and weaknesses of these approaches and identifying gaps in understanding/knowledge.
- **Regional case studies:** Breakout sessions that focus on selected HAB examples, characterization of social and economic effects, and identification of responses.
- **Presentation of regional case studies to the plenary.** Presentation and discussion of case studies, including the identification of commonalities and differences. Discuss transferability of approaches, issues of scaling up or down, cumulative effects. Identify gaps in information, and characterize social science and economic research needs
- **Lessons learned from other social science or economic assessments of HAB effects and responses:** Plenary discussion to share examples of social science and economic analyses being applied to other scientific areas (e.g., disease outbreaks, oil spill impacts, fisheries disaster declarations, etc.) that may yield useful lessons learned for the HABs topic
- **Initial ideas about information needs, challenges, and constraints in assessing the socio-economic effects and responses in the United States:** Brainstorm gaps, needs, or constraints related to quantifying the comprehensive economic effects of HABs locally, regionally, and nationally.
- **Prioritization of approaches to fill knowledge gaps:** Identify priority approaches.
- **Discussion of an NCCOS social science and economic research agenda:** Refine priority approaches into a draft research agenda.
- **Wrap up, next steps:** Recap results of workshop; enumerate next steps for the planning team and NCCOS.