



Scientific and Technical Advisory Committee

September 11-12, 2012

Quarterly Meeting Agenda

**Location: O'Callaghan Annapolis Hotel
Annapolis, MD**

Meeting Website: http://www.chesapeake.org/stac/meeting.php?activity_id=206

September 11

Webinar Website:

<https://chesapeakeresearch.webex.com/chesapeakeresearch/j.php?ED=197223187&UID=1106946602&PW=NMmZIZjFjYmUI&RT=MiMxMQ%3D%3D>

Password: ocallaghan

Toll-Free Number: 1-877-668-4493

Access Code: 730 374 345

9:30 am Breakfast (Provided)

10:00 am Call to Order - Chris Pyke (USGBS)

- Introductions
- Announcements
- Consent Agenda

10:15 am Review Request: The Potential for Nutrient Removal by Aquaculture – Kirk Havens (VIMS)

The Commonwealth of Virginia with support of the Management Board is interested in STAC undertaking a technical review of the State-of-the-Science regarding the removal of nitrogen by oyster aquaculture and oyster reefs. They are interested in three questions:

1. What is the current state-of-the-science regarding nutrient removal efficiencies of nitrogen by oyster aquaculture and oyster reefs?
2. Does current science support using oyster aquaculture or oyster reefs as a best management practice in the Chesapeake Bay model?
3. If so, what would be the most appropriate nitrogen removal efficiency based upon the current science?

10:30 am James River Chlorophyll Project – Arthur (Rusty) Butt (Virginia Department of Environmental Quality)

In accordance with the Chesapeake Bay TMDL and Virginia's Watershed Implementation Plan (WIP) I (Appendix 2), Virginia as implemented a monitoring and modeling study of the tidal James River. A team of scientists are revisiting the James River TDML allocations and conduct a comprehensive review of the existing James River Site-Specific Numeric Chlorophyll a Criteria in preparation for WIP III due in 2017.

12:00 pm Lunch (Provided)

1:00 pm CRC Presentations

The CRC Career Development Program is a three-year program in which participants work to support the activities of the CBP. During the program, staffers expand on their experiences within the field by engaging in a variety of professional opportunities from workshops and conferences to independent projects. The following CRC staffers will present updates of their career development:

- Sarah Brzezinski - Staffer, Foster Chesapeake Stewardship GIT 5
- Adam Davis - Staffer, Sustainable Fisheries GIT 1

1:30 pm STAC Workshop Draft Report on Nutrient and Sediment Processing Rates of Natural Landscape Features– Mike Fritz (EPA-CBPO) and Stephen Faulkner (USGS)

In response to a request from the CBP's Maintain Healthy Watersheds Goal Implementation Team, STAC sponsored a workshop in March, 2012 to consider whether there is a scientific basis for changing Chesapeake Bay Watershed Model nutrient and/or sediment processing rates that are assigned to natural landscape features based on their ecological health/condition, management status, and/or landscape position. Presenters will summarize the workshop's findings and recommendations and request STAC review of the draft workshop report and, ultimately, STAC endorsement and forwarding of a final report for action.

2:00 pm Analysis Northeastern US Fishery Management Decision Networks – Troy Hartley (Virginia Sea Grant)

2:30 pm Climate-Change Simulations with HSPF Phase 5.3.0 Model of the Chesapeake Bay Watershed - Maria Herrmann (Sigma Space Corporation)

To assess the impacts of future climate change on streamflow, nutrients, and sediment in the Chesapeake Bay watershed, we conducted six 10-year simulations of the Chesapeake Bay watershed model for the last decade of the 21st century, where mean annual cycles in air temperature and precipitation forcing were altered according to the projections of six General Circulation Models (GCMs). All climate change simulations produced a substantial decrease in streamflow by the end of the 21st century. The projected impacts on nutrients and sediment were highly variable, likely because of large disagreement among the GCMs in projected precipitation changes for the watershed area.

3:15 pm Break

3:30 pm Ecological Production Function for Chesapeake Bay Benefits Study – Howard Townsend (NOAA – CBPO)

The purpose of this analysis is to assess the impacts of eutrophication on the major fisheries of the Chesapeake Bay and estimate the potential economic benefits to the fisheries associated with reduced nutrient loading prescribed in the Total Maximum Daily Load (TMDL) regulations for the Bay. This presentation will focus on the ecosystem modeling approach and scenarios applied to assess the potential range of impacts that TMDL implementation might have on fisheries production.

4:00 pm Stated Preference Analysis for Chesapeake Bay Benefits Study – Chris Moore (EPA)

4:30 pm Recess

September 12

Webinar Website:

<https://chesapeakeresearch.webex.com/chesapeakeresearch/j.php?ED=197223417&UID=1106946832&PW=NNzhjZGMxMTcw&RT=MIMxMQ%3D%3D>

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8:00 am Breakfast (Provided)

8:30 am Event Response in the Chesapeake Bay – Peter Tango (USGS)

This presentation highlights examples of recent Chesapeake Bay region environmental health events and their coincident responses. The issue of formal event response is reviewed regarding its priority level in the functioning of the Chesapeake Bay Partnership's monitoring programs.

9:00 am **Status of CBP Decision Options for Model Analysis Supporting the 2017 Midpoint Assessment - Lewis Linker (EPA-CBPO)**

9:30 am **Goal Line Workshop Report Update – Jack Meisinger (USDA)**

9:45 am **Marcellus shale Workshop Report Findings – Kurt Gottschalk (USDA Forest Service)**

10:15 am **Break**

10:30 am **Continued Collaboration with STAC - EPA Regional Administrator Shawn Garvin**

EPA Regional Administrator Shawn Garvin will provide a brief update on EPA activities and lead a discussion on current Bay Restoration implementation and opportunities for continued collaboration with STAC.

10:50 am **Setting water quality trading goals and STAC's role in program development – Lisa Wainger (CBL)**

Update and discussion on two recent conversations with Nick DiPasquale and CBP staff: 1) Setting goals and expectations for nutrient and sediment trading, particularly in terms of transparency and accountability (led by Carl Hershner), and 2) Establishing a constructive role for STAC in advising on trading program design and promoting cost-effective compliance with TMDLs

11:30 am **Proactive STAC Workgroup Discussions**

The Committee will break out into three (or more) groups for a proactive workgroup discussion. The three groups are: models; lag times; and markets/nutrient trading. Members can participate in the group of their choice. This is also an opportunity for workshop steering committee members to discuss FY 2012 workshops.

12:30 pm **Lunch (Provided)**

1:00 pm **Adjourn**