Scientific, Technical Assessment, & Reporting Team Meeting
TOPIC: Sustainable Fisheries Science Support Needs
July 29, 2015
10:00AM – 1:30PM
Event webpage: http://www.chesapeakebay.net/calendar/event/21561/

MINUTES

Communications – *All*

- The SAV numbers from 2014 came in, moving the overall Bay Report Card grade up from a C- to a C. The full report card will be published in a couple of weeks. Almost every region showed improvement, and the data has been updated online.
    - Benthic IBI-related data are currently provisional, and results are posted from the previous year. These provisional data are also accessible online.
- The Citizen's Monitoring Conference is approaching and will be held in the first week of August. There will be breakout sessions and a plenary session focused on a discussion of efforts to incorporate more citizen science data into the Bay Program.
- The Chesapeake Bay Program Office is directly supporting some concerted work to integrate the products and work of both the North Atlantic and Appalachian Landscape Conservation Cooperatives within the context of the partnership's work. In this way, the North Atlantic LCC's communications office intends to capitalize on their communications and information work and integrate some of their regular communication vehicles with those at the Chesapeake Bay Program.
- Regarding progress on the Lower Susquehanna River Watershed Assessment (LSWRA) Report, two high flow events were recorded in April between 130,000-175,000 cfs.
    - The STAC workshop concerning how this new information can be incorporated into the sediment transport model and the 2017 MPA is scheduled for early 2016.
    - A workshop with Exelon is scheduled for August. Results of the workshop will be presented at the October modeling quarterly meeting.
        - ACTION: Request that the UMCES analysis team working with Exelon is also present at a STAR meeting later this year
    - The LSRWA report is being reviewed by USACE, and may potentially be ready by late fall.
- The GIS Team's Data Visualization tool is to be presented at the CBP leadership meeting on August 11, and is expected to be ready for live use after that meeting.
- A draft of STAR's Building Environmental Intelligence report is complete. The report is currently undergoing technical review.
- Two journal publications for the journal Regional Studies in Marine Science are anticipated to be released in the fall. The papers have been reviewed and accepted with revisions. One takes a sort of Bay 101 approach and another is more like the BEI report in its focus on Bay Monitoring.
- A USGS article to be published soon concerning brook trout and the effects of groundwater in sustaining brook trout populations in light of increasing stream temperatures in the region.

- The Coastal Storms Program Report is to be presented at a brown bag lunch on August 4. A coordinator is to be hired and announced, and will be based out of George Mason University.
- Under the National Coastal Assessment, the results of a five year research project funded by NOAA regarding cumulative impacts of shoreline hardening are set to be released. There is also potential to complete a feature story regarding collaborative research. It may benefit several GITs to have a presentation on the findings by some of the PIs heading the project as it pertains to several management strategies.
- The report issued by STAC concerning Forage Fish is set to come out soon.
- Bill Dennison and Scott Phillips still have room for talks at the upcoming Geological Society of America meeting being held in Baltimore this November.

STAR Business Items
Attachment A

- STAC helps to provide guidance on adaptive management network, and STAR then works with GITs to coordinate with other science providers to prioritize needs and determine ways to best address those needs.
    - Part of this process will begin by determining how to meet wetlands goals through the STAC workshop that will address aligning resources.
- It is important to assess how science needs stack up against other unfunded science needs, e.g. SAV aerial survey stacking up against other needs.
    - ACTION: A two page document describing respective roles for STAR and STAC as the workgroups develop management goals will be circulated.
- Citizen monitoring is working on developing an inventory of groups, beginning a six year project through the Alliance for the Chesapeake Bay and several other partners, funded by EPA.

USACE BMP Prioritization Scope of Work – *Dave Robbins, Army Corps of Engineers*

- Amy Guise spoke with the CBP Management Board in March discussing the comprehensive study to better identify restoration opportunities that would complement ongoing partnership work. Dave elaborated further upon efforts of the Corps to assist efforts and identify next steps.
- National Fish and Wildlife Foundation (NFWF) is the non-federal partner identified to help cost share a study that will essentially be a watershed assessment that generates an informational report to be sent to Congress.
    - We are looking to identify points of contact with the states, which has been done. A draft scope and cost estimate is also being developed
    - Interim analyses will also be completed that determine objectives, where the work is taking place, and its impacts. These steps will help better focus efforts of the prioritization tool.
    - Design and Deconstruct actions may not be within the specific authorization language, environmental infrastructure is emphasized to a greater extent.

- Determining geographic priorities for any number of goal teams would serve to greatly benefit restoration efforts. Points to determine include:
    - Where is the work currently in place?
    - Where is the planned work as part of the management strategy for various outcomes?
    - Where do gaps in this work exist?
    - How can the work of the USACE be aligned with efforts already in place?
- Future input and discussions of interim products with STAR would also help to benefit the efforts.
- Is the scope of work limited to things currently credited as BMPs within the model or could it include other restoration projects like living shorelines?
    - The work is intended to be centered upon restoration activities, but those that are aligned with USACE activities can be undertaken regardless of whether or not they are accredited by the model.
    - ACTION: It may be helpful to further discuss prioritization efforts among all GITs in order to acquire their indices of current projects and priorities, to try and begin pinpointing some of these areas that should be of focus for a larger tool.
    - There was discussion regarding whether or not this should be made part of the workplan development.

Fisheries Goal Team Science Support Needs and Related Indicators – *Bruce Vogt (NOAA) and Emilie Franke (Earth Resources Technology, Inc.*)
Attachment B, *Attachment C*

Oyster Outcome

- In looking at the efficacy of projects (for example Harris Creek), the GIT determines whether or not there was achievement of a restorable bottom, and an examination of the abundance (10-15 oysters per square meter) over 30% of reef area.
    - Ecological parameters have not yet developed as specific targets, but research is currently underway to better quantify those metrics that can be monitored.
- Questions are being asked about the possibility of correlating increases in rugosity and habitat diversity with reef development, the hypothesis being that we will see increases in fish utilization with restoration of oyster habitat.
- A report is available on the results from the Harris Creek water quality monitoring buoy on the Maryland Department of Natural Resources website.
- Has there been monitoring for the Fisheries GIT related to long term trends affected by climate parameters?
    - To date this has been considered, but not implemented, and there may be potential put in CO_2 sensors.
- The Chesapeake Bay Program Office funded the Alliance for the Chesapeake Bay and the Izaak Walton League to develop a six year project on non-traditional volunteer monitoring throughout all states in the watershed which can also be relevant in providing monitoring data for the GITs.
    - The project will delve into what is being monitored, what quality assurance exists in those programs, what integration opportunities there are for monitoring, etc.

- ACTION: Mindy will help identify state, federal, and academic monitoring efforts to complement citizen science efforts.
- STAC will help with efforts of self-sustaining monitoring projects and restoration.

Forage Fish and Fish Habitat

- There is an identified list of 20 key fish species that supports most of the Bay system, at the very least, in reference to managed species, but also covers much of the ground for unmanaged species.
  - 10 of these species were characterized as the most important forage fish for supporting the system.
- Andre described a project that UMCES has been working on to develop indicators for forage fish. The central objectives include developing a suite of forage indicators of key prey species in the Bay, and a nutritional profile for five dominant predatory fishes.
- The Bay is quite dynamic and has resulted in changes in the food web. How do these analyses change through time? Do long term datasets help infer changes in diet?
  - One of the challenges is that the ChesMap survey provides some of the best data from 2002 onwards, but there were also many changes in the decades prior. Changes can be evaluated for the observed time period, extrapolating changes to earlier time frames is difficult.
- One of the best tools that may be available for understanding and managing the invasive blue catfish are models in order to evaluate population changes and biomass, everything from Ecopath to EcoSim and more.
- A current glaring gap includes the dearth of shallow water sampling. A potential future method may involve randomized shallow sampling at very shallow depths.
- Results from the fish stock monitoring workshop are to be forwarded to the STAR leadership and can be sent out to the STAR membership.
- Another big gap includes the lack of zooplankton monitoring
- Mycids and worms degrade in fish guts much faster than vertebrates, are important food resources, and also lack a significant degree of monitoring.
- Datasets are available on gut contents and Jennifer Greiner also has contacts for data of predatory waterfowl that could help to complement this analysis.
- The development of systems architecture for needs as a whole will be addressed in the integrated monitoring networks meeting, to be held on August 19 from 1-3, and will focus on water quality issues. Meetings will be held the third Wednesday of every month.

STAR Seminar Presentation – *Don Outen, AICP, Natural Resource Manager for Forest Management with the Baltimore County Dept. of Environmental Protection & Sustainability*

- Don discussed the Prettyboy Resource Collaborative, proposed last year as a means to incentivize rural landowners to implement eco-smart practices across the multi-jurisdictional Prettyboy Reservoir Watershed in a way that can help agencies meet TMDLs and other environmental objectives.
  - There were questions addressed as to how to convince landowners to practice benefits and pay them economically.

- The central idea behind the resource collaborative is to build a new sort of store within the community that addresses the possibility of collaboration and allows farmers and landowners in general to better take advantage of opportunities to better manage land in a systems framework.
- Quantitative health assessments of parks are also being undertaken as part of the forest management process.
- The initiative is different from a forestry cooperative in that there is a larger set of people looking to manage a larger set of resources.

Meeting Attendance

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