



## Scientific, Technical Assessment and Reporting (STAR) Team Meeting

10:00AM – 12:30PM January 31<sup>st</sup>, 2013

<http://www.chesapeakebay.net/calendar/event/18394/>

### MINUTES

#### NEXT MEETING

Date: Thursday February 28<sup>th</sup>, 2013 10AM – 1PM

Location: Joe Macknis Memorial Conference Room (Fish Shack) CBPO Annapolis, MD

Event Calendar: <http://www.chesapeakebay.net/calendar/event/18395/>

Topic: Toxic Contaminants!

**Welcome Introduction and Updates – Bill Dennison (STAR Chair), Mark Bennett (STAR Vice Chair), Peter Tango (STAR Coordinator)**

- Bay Barometer Update
  - Bill Dennison contacted Nick DiPasquale.
  - STAR Leadership had a conference call with Margaret Enloe.
  - In the future, STAR would like to be more proactive and involved in this.
- Maintain Healthy Watersheds GIT – Completed a workplan for 2013.
  - The workplan has been sent to Amanda Pruzinsky and the GIT will contact STAR for help with particular items in the coming year.
  - Working with John Wolf on creating GIS maps for identified state healthy watersheds. This will be published in the near future.
- Water Quality GIT
  - Last Meeting: Approved methodology behind the water quality indicator.
  - The [next WQGIT meeting](#) is Feb. 11<sup>th</sup>, 2013
    - Review and discuss lower priority 2017 Midpoint Assessment workplans
    - Discuss the possibility of adding toxic contaminants and agriculture to water quality outcome and goals.
      - Greg Allen and Scott Phillips will work with Lucinda Power and the WQGIT with toxic contaminants.
- Habitat GIT
  - Priority: Establishment of a new indicator for Brook Trout.
    - Next steps will be discussed 02/01/2013.
    - Recommendation for revised goal statement using the patch level assessments and a related indicator has been drafted and is now going through the review and approval process.
  - Black Duck video
    - Black duck banding and wintering ducks in the Bay
    - Symbol of healthy coastal marsh habitat
    - Release in April

- Designing Sustainable Coastal Habitats – STAC Workshop
  - Date: April 16<sup>th</sup> and 17<sup>th</sup>, 2013
  - Location: Tide Water Inn Easton, MD

## **STAR Workgroup Work Plan Reviews – STAR WG Chairs and Coordinators**

### **Criteria Assessment Protocol Workgroup (CAP WG) Workplan**

#### [Attachment A](#)

- Develop and provide recommendations for the remaining short-duration dissolved oxygen (DO) criteria where assessment protocol gaps exist.
- Assess whether DO event duration is inherently captured by the CFD assessment and if not, suggest an alternative
- Reevaluate the benthic index of biotic integrity assessment protocol; subject to availability of funding.
- Address MD DO assessment concerns
- Develop a new indicator for tracking progress toward achieving water quality standards goals
- Develop protocol for incorporating nontraditional partner data
- Consider four issues associated with the water clarity/SAV assessment methodology for possible reevaluation pending prioritization decisions of the SAV WG.
- Organizing a spring workshop for evaluating considerations in separating shallow water and open water designated uses in dissolved oxygen criteria assessments.
- Organizing a fall workshop for discussing definition and monitoring of the instantaneous minimum dissolved oxygen criteria.

### **Nontidal Water Quality Workgroup (NTWG) Workplan**

#### [Attachment B](#)

- Enhance and Coordinate Water-Quality Monitoring and Data Management.
  - Enhance and maintain the CBP nontidal monitoring network.
  - Enhance the management of nontidal data.
  - Identify opportunities to conduct small watershed studies.
  - Enhance use and explanation of monitoring data for the TMDL Midpoint Assessment workplan ([Attachment C](#))
- Water-Quality Data Analysis and Information Delivery.

- Develop new indicators to support CBP Bay Barometer and Goal Teams.
  - Sustain existing indicators for Chesapeake Bay Program reports.
  - Assess and better explain water-quality conditions.
  - Improve communication of monitoring information to CBP Goal Teams and decision makers
- Support the needs of Chesapeake Bay Program Goal Implementation Teams.

## **Discussion**

- Lower Susquehanna River Watershed Assessment (LSRWA) is taking the lead on the Conowingo Reservoir workplan ([Attachment D](#)) with help from USACE, EPA-CBPO Modeling Team, USGS, Urban Stormwater WG, Agricultural WG, MDE, DNR, and other jurisdictions.
- MD DNR is working on a climate change indicator using temperature and conductivity data in nontidal areas and the information could be used to help with the specific goals at the CBP (ex. Brook Trout).
- USGS has long term nontidal temperature data that could be used for the proposed temperature/climate change indicator.
  - **ACTION:** USGS is currently working on an analysis of this data and will bring it to the STAR meeting to begin a discussion of the possible climate indicator.
  - **ACTION:** USGS and STAR will also work with Maintain Healthy Watersheds and Habitat GITs to assess how this indicator could help meet their goals.
- Appalachian Lab
  - Working with EPA on a Stream Health Indicator, found 3 factors for a climate indicator – precipitation, temperature, and conductivity.
- Nontidal benthic database has conductivity and temperature data in conjunction with all of the benthic sites that went into the Chessie BIBI.
- **ACTION:** Meeting with STAR Leadership, Gary Shenk, Rich Batiuk, and Scott Phillips to determine the scope of work that can be completed for the 2017 Midpoint Assessment.

## **Analytical Methods and Quality Assurance Workgroup (AMQAW) Workplan** [Attachment E](#)

- Complete the CBP Guidelines for Sampling and Analysis; publish on CBP website.
  - Lab methods revisions
  - NTN Sampling Guidance

- Implement the DUET QC data review and reporting requirements.
- Work with NTWG on:
  - Laboratory method changes for TN and NO
  - Documenting and implementing changes to NTN Sampling Procedures from 2012 recommendations.
- Conduct quarterly reviews of 8-10 laboratories' results on interlaboratory performance testing (CBP Coordinated Split Samples, Blind Audit samples and/or USGS Reference Samples).
  - Compare additional split-sample parameters to better represent Delaware and Pennsylvania NTN sampling scheme.
- Expand NTN participation in AMQAW – representatives from USGS Water Science Centers, SRBC, and the Delaware and Pennsylvania state laboratories have been invited to participate.

## **Discussion**

- **ACTION:** Some time in the next year AMQAW agreed to report out to STAR on comparison of nitrate wet chemistry vs. the sensors.
- **ACTION:** Office of Water Quality USGS conducted an internal study of sensors. Mark Bennett will contact Ken Heyer to determine if a report was written.

## **Modeling Workgroup Workplan**

### [Attachment F](#)

#### **2017 Midpoint Assessment Priorities**

*(Detailed workplans for each topic will be vetted through the Modeling Team, Modeling Workgroup, and WQGIT)*

#### **Major Work Plans:**

- Phase 6 Watershed Model
  - Revisit Watershed Model calibration methods with goal of improving local watershed results, including revisiting regional factors
  - (With CBP Modeling Team) Revise modeling system structure (i.e. transition to all PQUAL model) to enhance decision support and improve transparency, accuracy, and confidence
  - Incorporate revised Airshed Model into the watershed and water quality modeling framework

- Extend the Airshed, Watershed, and Water Quality, and Sediment Transport model simulation period
- Refinements to the Chesapeake Water Quality and Sediment Transport Model
  - Incorporate revised Airshed Model into the watershed and water quality modeling framework
  - Extend the Airshed, Watershed, and Water Quality, and Sediment Transport model simulation period
- Conowingo Reservoir Infill

#### **Minor Work Plans:**

- Climate Change
- Filter Feeders
- James Chlorophyll Model
- Shallow Water Simulation Refinements

#### **Other topics:**

- Engaging STAC
  - Workshop Proposals – Climate Change and Conowingo
- Aquaculture and sanctuaries
- Determining how to deal with evapotranspiration
- The Modeling WG will work with USGS to explain trends

#### **Data Management Workplan**

- Redesign of Chesapeake Bay Program Data Hub
- Movement to cloud computing
- Working with DUET to submit all 2012 nontidal data
- Last year launched the Chesapeake Bay Program MetaData catalogue, which will tie into the redesigned CBP Data Hub.

- If requested, Brian Burch agreed to meet with STAR to discuss any/all of these items in more detailed.

## **Geographic Information Systems (GIS) Workplan**

### [Attachment G](#)

- Develop and implement procedures, data storage organization and governance to support ChesapeakeStat and other web-based geospatial applications.
- Identify, document and support the development of decision support tools used by the Partnership.
- Provide geospatial analysis and support to the GITs and Workgroups.
- Enhance the Chesapeake Bay Land Change Model to simulate alternative future development scenarios.
- Create the land-cover component of the Chesapeake Monitoring Alliance.

## **Discussion**

- **ACTION:** GIS will report the 2012 land use change analysis when it is complete (possible STAR seminar).
- **ACTION:** Contact Dean Hively for a possible STAR seminar.
  - Winter satellite imagery to analyze cover crop.

## **Indicators Workgroup (IWG) Workplan**

### [Attachment H](#)

1. Assist CBP Goal Implementation Teams (GITs) as they identify assessment and accountability metrics that will be used by the GITs and reported to external audiences in 2013.
  2. Ensure scientific and technical integrity of assessment and accountability information being used by GITs and being communicated to external audiences. Refer to Chesapeake Bay Program Reporting Level Indicators Analysis and Methods Documentation Template ([Attachment I](#)) and Analysis and Methods Documentation Sample ([Attachment J](#)).
- Coordinate with the CBP Communications Workgroup (CWG) as they develop questions and guidance to help GITs identify indicators for public reporting in 2013. Please refer to “Guidance for GITs as They Identify Assessment and Accountability Metrics for Public Reporting” ([Attachment K](#)).

- Coordinate with CWG and GITs to update the timeline of information ([Attachment L](#)) that will be made available to the public in 2013, including how the information will be conveyed (e.g. press release, web story, etc.).

### **Tidal Monitoring and Analysis Workgroup (TMAW) Workplan**

#### [Attachment M](#)

- Priorities as they relate to Indicators:
  - Sustain the existing Bay Health water quality indicators annually reported by the Chesapeake Bay Program.
  - Sustain the existing water quality indicators annually reported by EcoCheck's Chesapeake Bay Report Card.
  - Sustain the EcoCheck Summer Review.
  - Coordinate with Goal Implementation Teams to identify priorities for new indicator development.
- Priorities as they relate to Criteria Assessment:
  - Support the Criteria Assessment Protocols (CAP) Workgroup efforts to develop and publish criteria assessment procedures for the remaining dissolved oxygen (DO) criteria currently without Partnership approved and state adopted assessment procedures.
  - Consider and identify options for next steps related to the completion of the baywide shallow-water monitoring program.
- Assess and improve methods to better explain water quality conditions:
  - Identify a strategy to improve our current approach to reporting the status and trends of tidal waters
  - Survey techniques used to calculate hypoxia in the Bay and evaluate the various factors affecting hypoxia
    - **ACTION:** Liza Hernandez will send DO Workshop details to Amanda Pruzinsky to send to the group.
      - Change date of meeting (not May 1-3<sup>rd</sup>)
- Further the understanding of water quality conditions across the watershed and tidal waters:
  - Complete the summary of the lessons learned from the implementation of best management practices (BMP) as they relate to observed water quality changes to the Chesapeake Bay Watershed.
  - Conduct assessments of factors affecting water quality change in key areas (Eastern Shore – Choptank River Basin) and Potomac.
  - CERF Storm Effects Session.

### **Communications Discussion – All**

- Bay Barometer Update
  - Released! Click [here](#) to view the full report.

- The timing of the report was a concern – Reporting 2011 data in 2013.
  - Bill Dennison contacted Nick DiPasquale.
  - STAR Leadership had a conference call with Margaret Enloe.
    - Included more additional information
- In the future, STAR would like to be more proactive and involved in this process.
- **ACTION:** Review the communications calendar ([Attachment L](#)) and brainstorm ideas for new topics and timing of topics.
- **ACTION:** Decide on STAR liaison for Communications WG. Working at the Communications Workgroup meetings would be most effective to brainstorm and work out a plan for communication.
- **ACTION:** Scott Phillips and Greg Allen agreed to give a Toxic Contaminants briefing to anyone.
  - Bill Dennison requested a briefing in Maryland.
- Communications Options
  - Videos
  - Photo Accompanied News Articles
  - Photo Essays
- Communications Update
  - Worked with Habitat GIT to release Brook Trout video
  - Poplar Island Photo Essay
  - Started a new series called Restoration Spotlight – News and video
    - New wastewater treatment plant in WV
    - Shell Collection
    - Ag BMP in WV
  - Bay 101 with NOAA – Striped Bass
  - Harris Creek oyster restoration effort video (next month)
  - Black Duck – Habitat video
  - Winter dredge with MDNR video
  - Working with Alliance for Forestry
  - Blackwater NWR – Photo Essay
- Discussion of possible communication ideas
  - Climate Indicator
  - 2012 land use update
  - Linking nontidal to tidal analysis
  - Report Card for EcoCheck.
    - Flow adjusted normalized scores.
      - Could use this as an opportunity to discuss the variability issue.
  - Conowingo Reservoir Lawsuit
    - Huge communication gap
    - Must emphasize the actual data



- MDNR and MDE have been briefing the eastern shore delegation and are working to put together a strategy to make sure local governments are aware that we are concerned about local impacts, not just the main part of the Bay. Help with communication would be much appreciated.
- Hurricane Sandy response
  - **ACTION:** Planning meeting with STAR and Communication WG to discuss actions that should be taken in regards to extreme events.
  - Senate Passed the Hurricane Sandy Relief Bill – Fish and Wildlife Refuge Systems and NPS, as well as other groups, are receiving funding to rebuild.
    - A communication topic could be the amount of funding necessary to rebuild and protect public access points and lands.
- Hurricanes – fall topic
- Toxic Contaminants
  - Negative Messages get a lot of attention (ex. Fish Kills Video)
  - Contact – Greg Allen
    - Many success stories as well negative stories (ex. Elizabeth River)
- **ACTION:** Steve Droter will bring the communications ideas discussed at this meeting to the Communication WG.
- **DECISION:** Standing agenda item to discuss communication suggestions STAR liaison will bring ideas to the Communications Workgroup meeting.

### **Lessons Learned Report Update – Katie Foreman and Liza Hernandez**

#### [Attachment N](#)

Katie Foreman and Liza Hernandez summarized the Lessons Learned Report and update STAR on the progress and next steps. Section one of the technical report will include lessons and recommendations of best management practices (BMP's) that will reduce the nutrient loads in the Bay. Section two of the technical report includes "How do we design and implement BMPs to be more effective and inform the Adaptive Management Cycle?"

Tentative release date suggested: Technical report in Spring 2013.

### **USGS Report: WRTDS – Mark Bennett**

#### [Attachment O](#)

Due to time constraints Mark Bennett was not able to present the detailed results of the WRTDS Model and report. This presentation will be moved to a future STAR Meeting. Please contact Mark Bennett with any questions. The [summary of the results](#) and [full report](#) are available on the web now.

## PARTICIPANTS

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