Scientific, Technical Assessment and Reporting (STAR) Meeting Minutes
July 26th, 2012 10am – 2pm
Chesapeake Bay Program Office, Joe Macknis Memorial
Conference Room (Fish Shack)
Annapolis, MD
http://www.chesapeakebay.net/calendar/event/18389/

Participants:

Bill Dennison – UMCES	Mark Bennett – USGS	Peter Tango – USGS/CBPO	Mike Fritz – Healthy Watersheds GITs
Nita Sylvester – Indicators Workgroup	Scott Phillips – USGS/NTWG	John Wolf – USGS/CBPO	Lewis Linker – EPA/CBPO
Jacqueline Johnson – ICPRB/CPBO	Beth Zincker – USGS/CSTAT	Liza Hernandez – UMCES/CBPO	Anna Burnett – CRC/Water quality GIT
Adam Davis – CRC/Fisheries GIT	Bruce Vogt – NOAA/Fisheries GIT	Pat Buckley – PA DEP	Jeff Horan – USFWS/MD DNR/Habitat GIT
Kevin Sellner – CRC/STAC	Bruce Michael – MD DNR	Amanda Pruzinsky – CRC/CBPO	

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

Updates:

- There will be no regular STAR meeting in August. Instead, there will be a **joint STAR/Staffers/Coordinators meeting for Thursday August 23rd, 2012 11am – 12:30pm** in 305a Chesapeake Bay Program Office Annapolis, MD. During this meeting Carl Hershner will lead a discussion on how and where STAR fits into the Decision Framework process. Since the meeting is in 305a, STAR members may call in, but space is limited to Staffers, Coordinators, and STAR Leadership. Call-in and adobe connect information will be forthcoming.

- The next regular STAR meeting is Thursday September 27th, 2012 10:00am – 1:00pm in the Joe Macknis Memorial Conference Room (Fish Shack) Chesapeake Bay Program Office Annapolis, MD.

- Peter Tango – As a follow-up from the June STAR Meeting where Nita Sylvester led the decision in understanding STARs role in addressing several CBP indicator questions, 3-4 of these questions were directed to the Non-Tidal Water Quality Workgroup (NTWG) and Tidal Monitoring and Analysis Workgroup (TMAW). There will be a joint NTWG/TMAW Meeting August 15th, 2012 to discuss answers to those indicator questions.

- Scott Phillips – (1) USGS has published a trends report and a summary was sent out July 26th, 2012. (2) Robert Hirsch (USGS) will release a report covering the sediment filling the Susquehanna reservoirs in mid- August. The Susquehanna Task Force and Water Quality GIT will be briefed August 7th and August 13th respectfully. (3) USGS will release a summary of "Indicators of Reproductive Endocrine Disruption in Fish in the Chesapeake Bay Watershed."

The WWW-based summary provides a brief overview of the most recent published work by the USGS and collaborators on indicators of reproductive endocrine disruption in fish in the Chesapeake Bay watershed, an understanding of how this information can be used to develop effective management policies and practices, and a list of references for additional information. The summary will be posted the week of August 6th on the USGS Chesapeake Bay WWW site http://chesapeake.usgs.gov/ (4) A draft of the Toxic Contaminants Report will be sent to the GITs in August. The final version of the report will be released in November.

- Nita Sylvester – The Indicators Workgroup will be meeting August 9th, 2012. The objective of the meeting is to discuss the status, updates, changes, goals, and outcomes of the indicators.

- Bill Dennison – STAR will follow-up on the 2011 SAV press release and 2012 SAV status and press release.

Brook trout restoration tracking indicator – Jeff Horan, USFWS

At the June 28th STAR meeting a task group was developed to generate recommendations on tracking and reporting recovery indicators for the Eastern Brook Trout Joint Venture (EBTJV) – a recognized Fish Habitat Partnership – by December 2012. Jeff Horan gave updates on the status of the task group.

Patch Metrics: A cost effective method for short and long term monitoring of Chesapeake Bay wild brook trout populations?

This presentation covers the history of the Eastern Brook Trout Joint Venture, brook trout range, threats, fine scale occupancy assessment, current population estimates, and patch metrics.

EBTJV has a plan for tracking and monitoring the brook trout, but needs help in determining how to change the outcome of the sub watersheds. Mark Hudy completed most of the work on this project when he worked with the USDA Forest Service, but he has moved on to the USGS.

Slide 14: Each color represents a different patch where brook trout are present. Many of these patches are adjacent, but there is something that is impeding flow into the neighboring watersheds. Physically and genetically these brook trout populations are very isolated. The Eastern Brook Trout Joint Venture does not necessarily want to work towards more patches, but rather larger patches with more connectivity.

For more information the presentation is available at:

http://www.chesapeakebay.net/channel_files/18389/chesapeake_brook_trout_catchment_scale.pdf

http://www.chesapeakebay.net/channel_files/18389/brook_trout_and_streams_workshop.pdf

Questions and Discussion:

- Peter Tango – Is occupancy based on a set minimum number of fish?
    - Jeff Horan – No, and it is not well standardized data either. Since the partnership is working towards developing one scale, hopefully that will enable EBTJV to provide much better parameters and criteria.
- Mike Land – Currently there seems to be no analysis of the minimum viability of the population.
    - Jeff Horan – That is correct. EBTJV has some genetic and other related data, but not for the entire watershed. For ~100k EBTJV could probably cover the entire watershed and learn about the total population numbers along with viability and sustainability of the population using a genetic monitoring approach, but the funding isn't there yet.
    - Mike Land – Then currently with the data available, the first surrogate the EBTJV has for viability is the size of the patch?
    - Jeff Horan – Yes, but there are many data layers available to help EBTJV focus its resources. The catchment and patch metrics approach is used to monitor progress.
- Bill Dennison – Have you considered vulnerability to climate change or restoration potential?
    - Jeff Horan – Yes, EBTJV has data and criteria for both areas. The targeting approach is in place, but the goals are not.
    - Bill Dennison – These areas should be reported separately to avoid confusion, but they are both important for this project.
- Jeff Horan – The idea is that the Brook Trout Action Team should be lead by STAR. EBTJV would like to be incorporated in this project as the technical contributors, but needs STAR help in determining an outcome and putting it forward.
- Lewis Linker – Development and climate change are going to be a huge factor. Is there any consideration or to what degree is there consideration of strategic disengagement of some areas?
    - Jeff Horan – Absolutely, that is exactly why EBTJV is walking away from a sub watershed approach. Also, there are currently models that involve effects of development and climate change on various animal and plant species including brook trout.
    - Jeff Horan – The current outcomes do not have a qualitative component. It seems like EBJTV may need two outcomes (i.e. one quantitative and one qualitative).

Resources would then go to streams that are most likely to reach variability and sustainability.

- Lewis Linker – Need to determine what the best areas for restoration are, but also effectively communicate to the public why we aren't putting resources into other areas.

- Scott Phillips – What is the purpose of the action team?

  - Jeff Horan – In order to change the outcome, EBTJV must go through the Federal Office Directors and related committees, the Management Board, and the Principals Staff Committee. The current outcome is unrealistic and meaningless. The EBTJV needs STAR's help in convincing the Management Board and the Federal Government through the Executive Order that there is a superior outcome.

- Pat Buckley – Why does EBTJV need another technical group? Why don't they have their own recommendation?

  - Jeff Horan – EBTJV has the data, but they do not know how to move it forward to the next step and create a meaningful outcome.

- Pat Buckley – What does EBTJV expect to get from the Healthy Watersheds GIT?

  - Jeff Horan – If EBTJV is going to be successful, the priorities must be in line. Healthy Watersheds GIT can help prioritize.

  - Mike Fitz – One specific way the Healthy Watershed GIT can help is to contribute to the discussion about what success is. Not only ask if brook trout present, but is their presence assured into the future? What metrics could be developed to assure their viability and sustainability?

- Bruce Vogt – Requested to offline with Jeff Horan to receive further direction on who would be a good match for the Brook Trout Action Team from the Fisheries GIT.

Streams Workshop 2013 Update – Jeff Horan (USFWS)

Jeff gave updates and led the discussion of possible topics and draft outcomes for the proposed Streams Workshop, tentatively called "Call the Plumber: Fixing the Chesapeake's Streams." Proposed sponsors: STAR, Vital Habitats GIT, Healthy Watersheds GIT.

For more information the presentation is available at:

http://www.chesapeakebay.net/channel_files/18389/brook_trout_and_streams_workshop.pdf

Possible Topics:

Habitat value: Targeting Brook Trout Restoration in the Chesapeake Bay Watershed (Hudy)

Jeff Horan suggested a presentation on the upcoming brook trout outcome to kick-start the Streams Workshop.

Water Quality value: Stream Restoration as a BMP in the Chesapeake Bay Watershed (Schueler)

Stream Functions Pyramid as framework for effective project planning (Starr)

CBP does not want to incentivize projects that may be harmful, so the project must be considered from many different perspectives (i.e. aquatic organisms AND geologic properties). The general goal of these to topics is to determine how CBP can provide guidance for the states when they are assessing possible stream restoration projects.

Stream Health Index: Going Beyond Benthic (Stranko)

Climate Impacts on Streams and Aquatic Organisms (Letcher)

How are streams currently being modeled and how is the impact of development and climate change going to affect the future of the stream?

Questions and Discussion:

- Pat Buckley – Wouldn't the Stream Health Index be the responsibility of the Non-tidal Monitoring Workgroup?
    - Jeff Horan – There is an awful lot of overlap between the workgroups and these questions. The point of the workshop is to provide a forum where people can discuss all of these topics together.
- Bruce Michael – There was a Stream Restoration Workshop three years ago. Will the outcome of that Workshop be used to drive some of the conservation in this workshop?
    - Jeff Horan – That is the hope. And also to incorporate the outcome of the brook trout restoration project. Another promising outcome of the workshop is to create a function Streams Workgroup.
- Jeff Horan – Upon Jeff's request, Bruce Vogt, Bruce Michael, and Kevin Sellner will work on finding a fisheries toxicologist that understands the impacts of algal blooms on fish and Scott Phillips will send the draft Toxic Contaminants Report to him.

Fisheries Management Board Presentation, Harris Creek – Bruce Vogt, NOAA

At the August 2nd MB meeting the Fisheries GIT will describe the oyster restoration progress in Harris Creek. The Fisheries GIT's intention is to use this project as an example of how to integrate all of the GITs and STAR to accomplish a specific goal. Bruce presented the draft presentation and requested STAR's input.

Bill Dennison took the lead in creating a STAR PowerPoint slide to incorporate into the Fisheries GIT's presentation and will be presenting that slide at the August 2nd Management Board Meeting.

For more information the final presentation is available at the August 2nd MB Meeting event webpage:

http://www.chesapeakebay.net/calendar/event/18085/

Questions and Discussion:

- Bruce Michaels – DNR has deployed a water quality profiler in Harris Creek to measure DO, salinity, temperature, etc.

- Bill Dennison – Do the blue prints that the Fisheries GIT has created for this project include Elizabeth North's oyster hydrographic models?

    - Bruce Vogt – Yes, based on the models much of the larvae will end up in Broad Creek, which is not a sanctuary. The Fisheries GIT is also considering using the project at Harris Creek to study how other areas can benefit from a sanctuary or even as an attempt to answer the question: Are the ecological services from sanctuaries higher than an area that is open to fishing?

- Lewis Linker – The Fisheries GIT must consider the entire Chesapeake Bay because it may have more impact on the conditions in Harris Creek.

- Bruce Vogt – What role could STAR play in the Oyster Restoration Project in Harris Creek?

    - Bill Dennison – This project would promote sanctuaries and bring light to the associated benefits. It is a sufficient investment for the CBP and deserves attention. To quickly name a few ways that STAR can contribute: model runs, monitoring data, mapping, and Elizabeth North model videos of simulations.

- Jeff Horan – Would a sediment transport assessment be beneficial and possible?

    - Lewis Linker – Couldn't the Fisheries GIT survey the bottom to determine where to put the oysters?

    - Bill Dennison – Yes, but a predictive capacity would be useful in this ever changing system.

    - Lewis Linker – This would be a new model development since the kilometer scale would not be able to achieve the needs of the project. A multi-scale model in a small abatement could accomplish this. It would be expensive, but possible.

    - Kevin Sellner – Harry Wang is incorporating active models in Lafayette and Lynnhaven that incorporate a sediment transport assessment.

- Mike Fritz – Need to know the primary sediment sources before carrying out this restoration project.

- Bill Dennison – A broader view of the habitat restoration may be in order.

- Jeff Horan – Wanted to thank the Fisheries GIT for all of its work on this project. This has been beneficial learning experience and the "place based approach" is a great way to focus the GITs.

- Bill Dennison – Since this is such an important and huge investment, tracking and incorporating all of the GITs is extremely important.

- Bruce Vogt – The more that CBP can research and communicate the synergy and many benefits that oyster restoration can have on other aspects of Harris Creek the better. The sanctuary program has to be justified and this could be one project that helps accomplish that.

- Mark Bennett – Is there water quality monitoring planned for all of these areas?

    - Bruce Michael – DNR has deployed one water quality profiler in Harris Creek that takes continuous measurements of measure DO, salinity, temperature, etc. The Fisheries GIT would like to deploy its own monitors, but the funding is not currently available.

    - Mark Bennett – Without monitoring in all of the sites the means to do the adaptive management are not met.

- Nita Sylvester – Are diseases being monitored?

    - Bruce Michael – Yes, DNR is handling the disease monitoring.

Development of New Shad Indicator – Adam Davis, Fisheries GIT and Bruce Vogt, NOAA

The Fisheries GIT requested input from STAR along with the Atlantic States Marine Fisheries Commission's American Shad Technical Committee to work with Fisheries GIT staff and their Executive Committee to develop a new Shad indicator for the Bay Program.

Adam and Bruce provided an overview of the current CBP shad indicator and reviewed options for a new indicator.

More information is available at:

http://www.chesapeakebay.net/channel_files/18389/new_cbp_shad_indicator_options.pdf

Questions and Discussion:

- Nita Sylvester – If the current indicator is not used for management purposes, what is being used to manage shad?
    - Adam Davis – The states are all reporting different types of data in different reporting styles for shad. There are no standardized hard targets or reference points.
    - Nita Sylvester –Recheck to make sure that the current metrics are not being used for management purposes. If they aren't, CBP must determine what metrics are being used to manage shad and start reporting those.
- Bruce Vogt – The Fisheries GIT is looking into creating an index instead of just an indicator. It would be beneficial if it could be used to link the restoration efforts with overall fishery health.
- Pat Buckley – PA does not seem to be represented on the Fisheries Committee, but one of the current indicators is located at the Susquehanna River at York Haven Dam, which is in PA.
    - Bruce Vogt – The Fisheries GIT's Executive Committee would like to have someone from PA for discussions of shad and/or blue catfish. There is currently a member from the PA Fish and Boat Commission. Also, according to the Charter and Edema for decision rules, if there is an issue that is particular to a jurisdiction that is not current represented on the Executive Committee, they are invited to choose a representative to participate as a voting member.
    - Pat Buckley – Mike Hendricks is the PA representative from the Fish and Boat Commission.
        - Adam Davis – There was a lack of participation from Mike so the Fisheries GIT found someone else from the Fish and Boat Commission.
        - Bruce Vogt – Requested that Pat Buckley help the Fisheries GIT determine who the best representative for PA would be.
- Bill Dennison – The current indicator has two different metrics: fish passage and juvenile abundance. These should probably be represented using two different symbols since they are such different types of metrics.
- Bruce Vogt – Is STAR interested in creating an action team to help with this indicator?
    - Bill Dennison – Would that action team fit into the Indicators Workgroup?
    - Nita Sylvester – The Indicators Workgroup takes recommendations from the GITs. The Action Team would have to be part of one of the GITs with ASMFC and the invested states. It would have to be a subgroup of STAR and the GITs.

- Bruce Vogt – The Fisheries GIT is trying to reach across their GIT, Habitat GIT, STAR, and ASMFC. If it is up to the Fisheries GIT to make their own indicator workgroup or action team, they will probably end up just using the current indicator. The idea is to branch out and relate the restoration to the habitat and other issues.

- Bill Dennison – Could also incorporate other key species (i.e. the American eel and brook trout).

- Bill Dennison – STAR will work to integrate these groups and come up with recommendations.

Management Board and CBP STAC Presentations – STAR Chair Bill Dennison UMCES, Vice Chair Mark Bennett USGS

STAR's presentation for the August 2nd Management Board Meeting was reviewed. Bill and Mark took the lead in making the suggested changes to the presentation and they will be presenting the material at the August 2nd meeting.

For more information the final presentation is available at the August 2nd Management Board Meeting event webpage:

http://www.chesapeakebay.net/calendar/event/18085/