Non-Tidal Network Meeting

Wednesday, September 15, 2021
1:00 PM – 2:30 PM

Meeting Link*:
https://umces.webex.com/umces/j.php?MTID=mdc5a634b93cc5faa5e2237f3e3ce348a

Meeting Number: 120 064 4701
Password: NTNWG
Conference Line: +1-408-418-9388 Access Code: 120 440 0398

Meeting Materials:
https://www.chesapeakebay.net/what/event/nontidal_network_workgroup_september_2021_meeting

*If you are joining by webinar, please open the webinar first, then dial in.
This meeting will be recorded for internal use to assure the accuracy of meeting notes.

Action Items:

- ✓ Tammy Zimmerman will send Peter Powerpoint on IDA storm samples.
- ✓ Tammy Zimmerman will connect Peter with John Fisher out of the NY Science Water Center for the information on microplastic sampling.
- ✓ Workgroup members will follow up with parameter suggestions for the optimization effort at the next meeting.
- ✓

AGENDA

1:00 Welcome, Introductions & Announcements – Peter Tango, Coordinator (USGS@CBPO)
Jamie Shallenberger shared a story map from SRBC on the stations they monitor.
https://storymaps.arcgis.com/stories/0d365f5895354f279ad698d3e7b60101

Breck Sullivan accepted a position through an interagency agreement with USGS and EPA at the Chesapeake Bay Program as STAR Coordinator. Amy Goldfischer will be the new STAR staffer with the Nontidal Network Workgroup starting September 20th

1:10 Update on IDA – Peter Tango & All
Peter will provide insight on the Conowingo River flows from IDA compared to previous storms.

- Quick round robin on the status of storm sampling.
- Has someone already organized a Storm Report for webnews, blog posts, other communications?
- Are there State reports that have been released to reference?

IDA was the 5th strongest storm to ever make rainfall in the continental U.S. The Conowingo flows were significant, but it did not reach the top 20 because it was relatively a quick storm. The initial impacts of the storm to the Bay include high turbidity just past the Conowingo Dam.

There is a little area of low turbidity after the dam, and it is because of Susquehanna Flats, submerged aquatic vegetation beds, clearing waters in the upper Bay.

Tammy Zimmerman commented on the Pennsylvania USGS stream gauges and the southeastern part of the state got hit the heaviest. They have a FEMA mission assignment flagging high water marks and surveying them. They got all but one of their nontidal sites sampled. They missed Big Stream Run. Whenever a hurricane or tropical storm goes over PA, USGS has daily briefings on the samples collected, and she can send Peter those PowerPoints.

Jamie Shallenberger said there was not much precipitation in the upper Susquehanna, and besides a few local areas, there was not much damage. A group did pilot a project to fly a drone over flood sensitive areas in Lancaster County. There is an expectation for them to produce a product describing the effects of IDA in the county.

Mark Nardi commented for USGS. He noted there was sampling done on the Potomac, Conowingo, and Choptank. The flooding impacts was worse on the Delaware side.

Lucretia Brown commented for D.C. She stated they had high flows, but they did not have a lot of flooding. She said the turbidity was noticeable in the Potomac. They already did their benthic collections prior to IDA passing through the district.

Jeff Bailey stated for West Virginia they did not get as much precipitation as was anticipated. They did not receive news of much high flows or flooding.

Cindy Johnson shared the southwest region around the Shenandoah Basin of Virginia got hit hard by the storm. On September 1st, USGS went out for them and captured 8 or 9 sites. There was flooding and wind impacts.

Kristin Heyer spoke for Maryland. They sampled 14 of their sites.

1:30 PSC Monitoring Review status & directions – Peter Tango & Breck Sullivan

Peter Tango, Scott Phillips, and Breck Sullivan are providing an update to Scientific and Technical Advisory Committee (STAC) earlier in the week to align recommendations of CBP monitoring needs with their Comprehensive Evaluation of System Response (CESR) effort. They will provide an update to the NTN workgroup members and discuss future actions.

The objectives of the CESR effort are to:

- Identify gaps and uncertainties in system response —physical, chemical, biological, and socioeconomic— that impact efforts designed to attain WQS.
- Identify recent scientific developments that can shed light on the gaps and uncertainties in system response to advance efforts to attain WQS
- Recommend research strategies that improve understanding of system response to support informed decision making to attain WQS

- Recommend strategies for integrating scientific and technical analysis with active adaptive management in order to aid decision-making under uncertainty (to achieve WQS).

STAC is still writing the CESR report, but the themes include estuary, living resources, and watershed. Peter Tango commented that in the estuary STAC is targeting shallow water monitoring which should help improve the estuary model. They also highlighted the need for more analysis of the data collected along with the need for data management due to the increase in data collected.

Breck Sullivan commented they wanted to bring an update on the PSC monitoring review to STAC because to hopefully understand the recommendations coming from their CESR report and connect them to the CBP monitoring needs. This would provide justification to the PSC that a monitoring need is supported not only by an Outcome but also an area STAC recommends investing in for the program. They also want to identify if any science monitoring needs are missing from their PSC monitoring review.

Dave Montali stated the PSC is hearing from the Microplastic Team at their next meeting, and it connects with the same themes as CESR. Peter Tango said the initial request of the monitoring review was to cover 5 monitoring networks, but it has expanded to include monitoring needs beyond water quality. This includes microplastic, and through the PSC request, they are trying to capture the initial monitoring needs of these groups and outcomes.

Tammy Zimmerman commented USGS has an Urban Landscapes Capacities Team that did some microplastics sampling. It was a reginal project from New England to Virginia that had established protocols. They had lab to look at the samples. John Fisher out of the NY Science Water Center leads the team. She can connect Peter with him.

1:45 Temperature Network to support STAC Temperature Workshop requests – All

The CBP Climate Resiliency Workgroup (CRWG) is interested in supporting a Bay Water Temperature indicator connected to ecological impacts to fisheries. What is the investment needed and the work required to outfit more sites with ConMon temperature sensors to establish a regional temperature network?

- What sensor options are there for such a network?
    - John Clune has summarized the nontidal temperature sites from across the watershed. Peter and Scott Phillips are working with John to include it in the STAC workshop.

Breck Sullivan mentioned the CRWG is interested in creating a Bay Water Temperature indicator that connects to ecological impacts such as fish habitat suitability. There is data currently available to develop a physical indicator of Bay Water Temperature, but the workgroup is interested if organizations think there needs to be additional sensors to help them connect it to ecological impacts.

Peter Tango will bring back information on this topic to a future meeting if more questions come out from the next STAC workshop meetings.

2:10 Monitoring Budget – All

- Due to frequent level funding of NTN operations, an optimization exercise has been initiated to consider prioritizing decisions for adjusting the network size on a 5-year time horizon.
    - What are your recommendations for parameters we need to represent in the analysis (e.g. watershed size, geologic region, land use diversity, BMP concentration in the watershed, development in the watershed, etc)?
- Thanks for the input from grant leads to date this year. Peter will be in touch once more this fall on monitoring and analysis funding needs ahead.

Dave Montali will follow up with West Virginia. His thought is some consideration is to give money to jurisdictions underrepresented with nontidal stations if money is given to the CBP through the infrastructure bill. If those stations are lost, they have lost the investment they have already made for it. Also some jurisdictions do not have many stations to begin with so they will lose a lot of data if just one station is lost.

Doug Moyer is interested in how the optimization process will work such as with the example of losing the station Deer Creek. How would that process be reflected in the optimization exercise? Peter does not know the full process yet for the optimization exercise. They do not plan to remove stations from a whole state based on the parameter prioritization. They need to map out a decision tree and will bring to a future meeting. Doug stated it would be best if the order of operation showed it could first be resolved within their jurisdiction to tackle the status of their jurisdictional network, what are the short falls, and how funding in the jurisdiction can be redistributed to preserve stations.

Ken Hyer viewed this analysis as an initial opportunity to see population of watersheds that could be monitoring within the Bay watershed and characterize them by different parameters. Once that list is decided, they would crosswalk it with the current list of nontidal stations to see how well they are representing the watersheds across the different parameters. The other part is to allow the partnership to make more informed decisions on the removal or addition of nontidal stations. Peter Tango said if they see level funding or reduction in funding with the nontidal network, they will need to adjust. If they needed to make a decision soon on how to reduce the existing sites due to short funding, this effort would help them prioritize. It is more focused on the existing list of stations. Ken Hyer recommends adding a column to list on how many additional programs or ways the data is used beyond the NTN for a station.

2:30 Adjourn

Team homework:

- Complete science needs homework assignment (Provide track changes or email Breck Sullivan with comments):
    - Review Monitoring Science Needs Spreadsheet.
    - Are there any Nontidal monitoring gaps missing?
    - Are there synergies between Nontidal work and Cross-GIT monitoring gaps?

- Workgroup members will follow up with parameter suggestions for the optimization effort at the next meeting.
- Thanks for all of you who sent information on groundwater monitoring in your jurisdiction. Information was summarized and shared with the STAC Temperature Workshop leadership committee and will be referenced in a chapter of the final report.

Next meeting: Wednesday, October 20, 2021, 1 PM – 2:30 PM

Participants: Breck Sullivan, Peter Tango, Lucretia Brown, Tammy Zimmerman, Tyler Shenk, Jamie Shallenberger, Ken Hyer, Cindy Johnson, Jamie B SRBC, Mike Mallonee, James Colgin, Mark Nardi, Kristin Heyer, Dave Montali, Doug Moyer, E Campbell, Tom Parham, Jeff Bailey