**Chesapeake Bay Program**

**Plastic Pollution Action Team**

**Web Meeting #5 - MINUTES**

**March 9th, 2021**

1:00 PM – 3:00 PM

**Attendance**

Alex Lopez (PSU)

Anna Kasko (MDNR)

Bob Murphy (Tetra Tech)

Brooke Landry (MDNR)

Carlie Herring (NOAA)

Catherine Magliocchetti (EPA)

Christina Davis (ICPRB)

Christy Kehoe (NOAA)

Claire Buchanan (ICPRB)

Clare Sevcik (DNREC

Dann Sklarew (GMU)

Doug Austin (EPA)

Emma Sharpe (WWU)

Jennifer Starr (LGAC)

Jonathan Cohen (University Delaware)

Julie Lawson (CAC)

Justin Shapiro (CRC/NOAA)

Kelly Somers (Vice chair - EPA)

Kirk Havens (VIMS)

Kristin Saunders (UMCES)

Linsey Haram (SERC)

Mark Trice (MDNR)

Martin Gary (PRFC)

Matt Robinson (Chair - DOEE)

Meredith Seeley (VIMS)

Michael Gonsior (UMCES)

Paige Hobaugh (Tetra Tech)

Phong Trieu (MWCOG)

Rebecca Whiteash (PA DEP)

Ryan Woodland (UMCES)

Sonia Saini (DOEE)

Shawn Fisher (USGS NY)

Tish Robertson (VDEQ)

Jennifer Flippin (Tetra Tech)

**01:00 Introductions and Announcements** (*Matt Robinson (DOEE) - Action Team Chair)*

* Matt Robinson (DOEE) mentions a Penn Environment survey of microplastics in Pennsylvania that was recently released. 100% of surveyed sites had a form of microplastics. One positive was the lack of microbeads found in samples. This could be from legislation addressing beads.

**01:10 Update on Development of the Science Strategy** *(Bob Murphy and Jennifer Flippin, Tetra Tech)*

* Bob updates PPAT’s roadmap up to this point. The team has a completed ERA with striped bass as an endpoint and a size classification and terminology document. This brings our team to the development of a science strategy. This strategy will guide future research on impacts of microplastics in the Chesapeake Bay, its tributaries, and the greater watershed.
* The PPAT’s current action is to provide input from our diverse membership. The team will discuss guiding questions that were in the distributed survey.

**01:30 Discussion on the Development of the Science Strategy** (*Bob Murphy)*

*Guiding Questions:*

What are the top 3-5 interests or priorities for microplastics in the Chesapeake Bay as it relates to your organization? Please provide specific interests and details if possible (Ex. fisheries management questions, public health, aesthetics, TMDLs, etc.)

* Julie Lawson (CAC): Top interests are greater understanding of ecological impacts of microplastics, policy and management to successfully engage with this issue, and microplastic impacts on public health
  + Bob Murphy (Tetra Tech) responds by asking what type of data would the CAC be looking for? As the strategy document would not recommend policy (but would rather focus on science)
  + Julie Lawson (CAC) responds that pulling success stories will be key to public engagement with this issue. This could focus on economics, for example. There is a lot of pessimism around this issue, so tangible recommendations for positive change are necessary.
* [Jennifer Starr](mailto:jstarr@allianceforthebay.org)(LGAC): Ensuring that research and corresponding decisions are disseminated to local governments. It can be a challenge to connect our findings to real government decisions (ex. shutting down plastic plants have political ramifications beyond science)
  + Bob Murphy notes that this is an important point. Suggests we look into economic analysis of these issues.
* Meredith Seeley (VIMS): One research priority should be ecological effects. What plastics and sizes are most dangerous/impactful to ecosystem health? Another priority should be source and fate in the Chesapeake Bay. Expanding monitoring would be valuable here.
  + Kelly Somers (EPA) adds that understanding and studying ramifications of size differences in plastics is an important long-term question.
  + Michael Gonsior (UMCES): Adds when looking at danger/impact, how do microplastics compare to other priority issues (ex. eutrophication). Decision makers will need to compare to the other major issues in need of funding.
  + John Cohen (UD): Adds that we need to begin thinking of population and community effects as opposed to organismal focus.
* Julie Lawson (CAC): Key to look for overlap with other water quality goals (and other Chesapeake Bay Program goals). Very important in relation to securing support and funding.
* Marty Gary (PRFC): Just FYI the ASMFC are engaged in a critical striped bass decision process. They are crafting amendments to guide management decisions for next couple of decades. If we can correlate microplastics to impacts on recruitment (with our ERA) it could have significant implications on management.
  + Matt Robinson (DOEE) asks Marty to elaborate on ASMFC striped bass amendments.
  + Marty Gary states that these amendments, when adopted, provide a long term framework for management strategies.
* Carlie Herring (NOAA): Curious about the scope of this strategy? What are the big questions trying to be answered?
  + Bob Murphy responds that this will be addressed in later questions in the presentation.
* Brooke Landry (MDNR): Interested in microplastics relationship to SAV. Continued research in this area is important.

What data gaps, challenges, needs, or next steps do you see for microplastics in the Chesapeake Bay as it relates to the following categories?

* Monitoring:
  + Kelly Somers (EPA): Mentions that lab standardization of processes is a need (to ensure all partners have a standard approach). Also brings up the question of how we choose monitoring locations, medium, species, etc?
    - Shawn Fisher (USGS) adds a couple of links about standardization:
      * <https://www.astm.org/Standards/D8332.htm>,
      * <https://www.astm.org/DATABASE.CART/WORKITEMS/WK67565.htm>
    - Matt Robinson (DOEE) adds that when thinking about monitoring, it is important to consider plastics beyond micro (thinking about macro-trash)
    - Meredith Seeley (VIMS) adds that standardization across labs can be a challenge. Labs use what equipment they have.
      * Bob Murphy (Tetra Tech) mentions similar challenges that occured with different measurements of chlorophyll. We should recommend standardization so this doesn't happen with microplastics research.
      * Mark Trice (MDNR) follows by saying that labs are trying to coordinate processes.
  + Kelly Somers (EPA) also asks if there is capacity to undertake lab analysis across the region?
    - Brooke Landry (MDNR) mentions that labs can barely maintain the monitoring programs already active. Adding to this workload would be very difficult.
    - Mark Trice (MDNR) concurs with the above statement. Staffing capacity can be an issue.
    - Shawn Fisher (USGS) agrees and mentions analysis capacity as an issue.
  + Kirk Havens (VIMS) adds that we should be working closely with the Toxic Contaminants Workgroup and the work they are doing in the monitoring realm.
  + Ryan Woodland (UMCES) adds it might be an initial monitoring goal to be identifying a standardized sampling regime. Perhaps testing different gears and methods to determine how comparable different approaches are. For example, a stationary net deployed from a pier or in a stream might be quite useful without requiring a vessel.
    - Matt Robinson (DOEE) responds by saying that it would be interesting to see how we can join existing monitoring programs to add additional data on plastics.
    - Mark Trice (MDNR): Had conversations with fisheries monitoring folks who have started adding trash surveys to fisheries YOY surveys.
  + Tish Robertson (VDEQ) mentions that a challenge in Virginia is monitoring, and the accompanying logistics. This includes data interpretation as well. Policy for VDEQ is that if you don't have an assessment tool, then do not collect data.
  + Michael Gonsior (UMCES) mentions microplastics are likely vectors to transport persistent organic pollutants and this is highly dependent on what chemicals are most prevalent in any aquatic system.
* Policy
  + N/A
* Research
  + N/A
* Other Areas
  + N/A

Which specific items within the topics in Question 2 do you feel should be addressed first or with highest priority?

* Kristin Saunders (UMCES) mentions that we should rank as high/medium/low instead of providing number values
  + Bob Murphy (Tetra Tech) mentions that this is similar to Michael Gonsior’s (UMCES) comment in the chat
* Matt Robinson (DOEE) mentions that the short-term priority is to prove importance to Bay Program leadership, long-term is about establishing a long-term monitoring program.
* Monitoring:
  + As Brook Landry (MDNR) mentioned, monitoring programs are often already at capacity. Funding is difficult in this realm.
  + Kristin Saunders (UMCES) mentions that recent Principals Staff Committee meetings focused on the increased need for monitoring. Making connections to outcomes where there is a “focus on”, means there are chances for resource allocation with our PPAT work.
  + Tish Robertson (VDEQ) adds that monitoring should be ranked as our highest priority. Without it, we cannot quantify the problem we face.
  + Kelly Somers (EPA) says maybe we couple monitoring with existing work. Again, connections to the toxics and fisheries groups are mentioned.
* Policy
  + N/A
* Research
  + Matt Robinson (DOEE) and Doug Austin (EPA) have an exchange and agree to connect with the Toxic Contaminants Workgroup leadership. Important to ensure cross collaboration with other Bay Program research/priorities.
* Other
  + Julie Lawson (CAC) asks about plastics being mentioned or discussed at the upcoming Executive Council (EC) meeting?
    - Kristin Saunders (UMCES) responds by saying that EC will be heavily focused on climate and diversity issues. But there may be opportunities to link our work to those previously mentioned “hot-topics”.

What goals or management decisions relating to controlling onr monitoring plastic debris does your state, city, region already have in place? Ex. plastic bags, restrictions on takeout materials, food containers?

* Brooke Landry (MDNR) mentions the new balloon release legislation passed in Virginia.
* Julie Lawson (CAC) mentions that this type of work is being tracked by the NOAA Marine Debris Action Plan.
* Michael Gonsior (UMCES) mentions we need a conceptual framework we all can work on and a flow chart to reach the set goals. For this we would need specific monitoring about sources and which polymer is associated with what (e.g. take-out containers and polystyrene, etc).

San Francisco Bay Example (2017)

* Bob Murphy (Tetra Tech): We are following their outline (written on the slides). Any suggestions, input, opinions on this structure as it pertains to creating a Chesapeake Bay strategy?
* Kelly Somers (EPA) mentions the importance of talking about capacity and personnel. At a programmatic level, do we have the resources/support to do this work?
* Kelly Somers also asks if we see value in keeping a team like this around in the long-term?
  + Bob Murphy responds that this is important to mention in our science strategy.
  + Brooke Landry (MDNR) believes we need a long term workgroup for microplastics
* Kristin Saunders (UMCES) asks if there are aspects of Chesapeake Bay management differing us from San Francisco?
  + Linsey Haram (SERC) states for one, that inter-agency/state relationship collaboration will be important to define. Chesapeake Bay obviously requires multiple states to collaborate.
* Kelly Somers brings up the timeline for this strategy. Does 5 or 10 years make sense?
  + Shawn Fisher (USGS) thinks 5 years sounds reasonable
  + Michael Gonsior (UMCES) concurs. As does Bob Murphy (Tetra Tech).

**02:30 Update on Project Schedule and Next Steps** (*Kelly Somers, PPAT Vice Chair, EPA Region III)*

* Tetra Tech will send around final draft of conceptual ERA and response to comment document for final approval
* April 4th - Science Strategy sent to PPAT/STAC for one week review
* April 13th - PPAT Meeting #6