



Maryland Water Monitoring Council
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Rupert Rossetti, Octoraro Watershed Association
Nancy Roth, Tetra Tech, Inc.
Brian Smith, Maryland DNR
Ken Staver, Univ. of MD WREC
Angel Valdez, Maryland Dept. of the Environment
Greg Voigt, US Environmental Protection Agency
Michael Williams, Univ. of MD College Park

BOARD MEETING REPORT

MARYLAND WATER MONITORING COUNCIL BOARD MEETING

APRIL 15, 2025 – VIRTUAL

In Attendance (virtual):

Andy Becker, Angel Valdez, Brian Smith, Brock Reggi, Byron Madigan, Greg Voigt, Heather Quinn, John Denniston, Katherine Hanna, Ken (M)ack, Ken (S)taver, Matt (H)arper, Mat Pajerowski, Matt Stover, Melinda Cutler, Michael Williams, Mike McMahon, Nancy Roth, Rupert Rossetti, Thavamani Rajapandi, Thomas Guay, Tomas Ivasauskas

Matt (Matt S.) called the meeting to order at 9:53 AM. He started by asking new people to introduce themselves: *Melinda* Cutler (MDE: substitute for Becky), *Thavamani* Rajapandi (Coppin State), and *Tomas* Ivasauskas (DNR). All three gave brief introductions. *Thavamani* and *Tomas* will be on the Information Management Committee.

Matt touted and praised the people involved in last year's annual conference, the PFAS Workshop, and the Stream Monitoring Roundtable. The latter two were put on by the Monitoring Assessment Committee. Five hundred people were present at the hybrid PFAS Workshop. He thanked *Byron*.

Matt reminded the Board his term as president will be up at the end of the year, and he will step down. He suggested people consider chairing the Board. It was mostly staying organized and keeping track of action items. He will help the new person take charge. *Mat (Mat P.)* also encouraged people to step up and share the board. He pointed out the rewards of seeing things coming together and great opportunities for networking.

Membership

Matt announced that *Thavamani* and *Tomas* will chair the Information Management Committee. He asked that members let us know if interested in chairing a committee or volunteering for one.

Matt thanked Nancy for volunteering as Membership Committee chair. He pointed out that we have SOPS to cover these duties. Some of it is covered in the bylaws. The Board still has three

vacancies in local government, academia, and volunteer representative. He thanked people for providing potential candidate names. *Nancy* said she was looking forward to helping out.

Matt also encouraged people to join and restart the groundwater committee. He referred to *Mat* for advice on how to proceed. *Mat* encouraged someone to arrange the meetings.

Matt next brought up the coming July meeting. We discussed the options for in person meetings. The three favored places were SERC (Smithsonian Environmental Research Center), Masonville Cove Environmental Education Center, and Soldiers Delight Natural Environment Area. SERC was the first choice for the Board. *Michael* had a contact there. *Mike* arranged tours at SERC last summer and volunteered to contact Rebecca Hale. He noted that there was a conference at SERC on July 15, and we should consider an alternate date (July 8?). This would include a tour of the Muddy Creek Restoration Project.

Committee Updates

Monitoring and Assessment (*Byron*)

The committee's PFAS Workshop in January drew 50 attendees in person and four hundred and 30 virtual. Brock thought the workshop was informative and thanked everyone on the committee for their efforts. He deferred to Andy for any discussion on the Roundtable. At the next committee meeting, they will be discussing the new temperature TMDL, to be out soon.

Andy reported that 93 people attended the Roundtable, 63 virtually and 30 in person. They ended up with 30 or 31 presentations. The Roundtable Mapper is 100% reflective of what the group sent in this year. He asked those doing random biological sampling to send in updated list sites so they can be properly entered into the Roundtable map. He would like to hand over this duty to someone else. He has an email list that only requires a few changes annually. *Matt* verified that it was the 17th annual Roundtable. He noted that MDE uses it for multiple purposes including TMDL assessments. *Byron* thanked *Mat* for use of the USGS Water Science Center. *Mat* invited others to use the space as well, under the mission of water monitoring.

Stream Restoration (*Brock*)

The committee had two speakers at their last meeting on eDNA and stream restoration. One focused on regulatory or locality context and how to use it in the restoration efforts to improve water quality and find mussel species. Overall membership of the committee is good, but attendance at the last couple of meetings was poor. Formulating plans to improve that. Discussing specifics on stream restoration, cell types, and slope of outfalls to prove that not one-size-fits-all. Focusing on the specific situations/environmental conditions at the outfall. *Angel* asked *Brock* to add her to his committee's distribution list. She would like to join.

Information Management (*Matt S.*)

Matt thanked Dr. Rajapandi for agreeing to lead the committee. *Thavamani* asked if *Byron* would visit Coppin State to talk about PFAS. *Tomas* asked anybody to share ideas for the committee. *Matt* recounted activities of the committee in place when Najma was chair. *Thavamani* explained some of the issues he wanted to focus on with the committee.

Groundwater (*Mat P.*)

Mat had nothing to report other than efforts to recruit people for the committee.

Student (Lindsay)

Katherine read a report from *Lindsay*. She's been communicating with MSRA about future student collaborations and hoping to coordinate on future events and student engagement. *Matt* mentioned that she was talking about doing another career chat. He explained that it was an outreach to educational institutions to provide perspective on environmental careers. The last one was not well attended, but *Lindsay* got some nice thank you notes.

Citizen Science and Community Stewardship (Rupert)

Planning a workshop in the Fall and asked to use the site at USGS Water Science Center. Next committee meeting is April 30. *Mat* asked for specific dates to reserve the space. *Rupert* also explained that the committee is looking to build an output for the Roundtable. *Brock* asked if there might be overlapping data regarding outfalls and stream degradation. This might aid issues of access to private property.

Rupert brought up the issue of whether this data collect by citizen groups is used at all. *Angel* brought up the idea that citizen scientist was an antiquated term. Discussion ensued. *Mike* pointed out that *Tom* left comments in the chat. *Tom* reiterated that he was concerned about whether the data was being used. He pointed out that he follows protocols year by year. His data was used in tier three analysis, which he was happy to hear. *John* explained that MDOT switched to calling them Community Stewardship Grants.

Ken S explained that these groups are major players in water quality on the Eastern Shore. Yet, they will often not do research to determine what standards need to be followed. He appreciates all their efforts but is cautious about their data quality. *Ken M* stated that he sits somewhere in between *Tom* and *Ken S*. His office has had success identifying high quality citizen science data and using it to fill in gaps. It's been particularly useful for tracking bacteria. *Rupert* has met with a representative from the Elk/North East Rivers Watershed Association. They are discussing calibration issues. He asked that *Ken M* might come and speak to their group. *Ken S* paralleled the practice of people successfully collecting data on birds. He recommended to pay attention to the needs of the parameters being monitored. *Matt* pointed out that QAPPs are developed for the reasons that are being discussed.

Annual Conference Planning (Katherine)

She reported submitting the requisition paperwork for the venue. Have not received any updates on its posting. Scheduling the next planning committee meeting. She invited people to the committee. She plans to finalize the conference theme and identify plenary speakers. She asked for plenary speaker suggestions. *Matt* suggested Jane Nishida (MDE/EPA) and NASA speakers he could reach out to. *Katherine* had again emailed last year's survey suggestions the prior Friday.

Brock suggested the topic of connecting stormwater and stream restoration practices. He cited a VA project that turned 200 or 300 acres into impervious surface and transformed the watershed. He pointed out large development projects that undermine nutrient reduction, hence stream restoration.

Heather suggested a One Water theme: how surface, ground, and stormwater all become one. *Ken S* proposed addressing loss of farmland and increased impervious surface created by solar farms. He described it as a new version of impervious surface and a good session topic. *Brock* cited the same debate in VA. *Rupert* brought up the issue of high tunnels on farmland. These are common

in plain sect country. *Ken S* explained that the high tunnels are used in Maryland to get crops to the market earlier. He also explained agrovoltatics, growing crops under solar panels. *Matt* described solar panels that pivot to vertical when it rains. *Ken S* cited a State bill passed that would give more local control of solar development. This was spurred on by loss of farmland.

News Roundtable

Angel: coordinating with our MS4 program for Tier 2 conditions/language in MS4 requirements.

Brian: all continuous monitoring is deployed with one exception; starting cruises next month for a hypoxia in the bay main stem; a couple of projects on hold due to federal funding uncertainty – CBIB and tagged fish monitoring.

Brock: manage projects for nutrient and occasionally 404, banks for VA restoration projects.

Byron: wrapping up our spring sampling, about three dozen sites this year; we began our Piney Run monitoring season; pending temperature TMDL for Pretty Boy; positive response this year from private landowners on a random MBSS; tariffs prevented us from getting a new HD camera. *Mat* offered a cooperative agreement for *Byron* to use a USGS camera. *Heather* offered similar.

Heather: To clarify, MGS is the MD equivalent of USGS and part of DNR, based in Baltimore; we began a statewide groundwater program to evaluate regional trends in groundwater levels; looking at the sources of chlorides in groundwater, including naturally occurring chlorides on Kent Island and Annapolis Neck etc.; looking at naturally occurring radionuclides in Charles County; PFAS sampling at DNR properties in Cecil County at Fairhill; monitoring groundwater under the One Stream approach in stream restoration of a Sassafras River tributary; coordinating stream gage monitoring with USGS, MDE, and other local agencies.

Greg: continuing to provide support for all three regional states on submission and approval of 303D lists; ramping up for a season of aquatic resource surveys; finalized aquatic PFAS criteria, out for public comment; draft of water quality criteria for the protection of human health.

John: identifying candidates for smartponds stormwater control.

Katherine: two-thirds of the way through our MBSS monitoring; teaming up with Bob Hildebrand for eDNA analysis at our sentinel sites.

Ken M: wrapped up our spring sampling and geomorphological monitoring; monitoring the impacts of Greenfield developments and stream channel restorations as foliage sets in; wrapped up ids on 2024 benthic samples in which stoneflies appeared in streams not previously known as cold water; the WMA-COG technical water resources committee reported disturbing PFAS results in some of our surface waters, new monitoring in place to track down the source.

Ken S: federal ag cost share programs may be in jeopardy; funding for agricultural buffers and wetland restoration is frozen; working out the issue of PFAS content in agricultural soils; the drought remains a central concern; salinity levels are far higher than usual;

Matt (H): finishing spring sampling; scheduling summer outfall sampling; completing restoration and outfall projects in five streams ; working on native plantings.

Mat: working with MGS on monitoring network of wells across the state, gauging groundwater levels and stream flow; concerns about the current drought; studying all aspects of hydrologic cycle for groundwater quality and quantity; USGS expanding our use of drones for monitoring; looking for groundwater seepage into Tidal Creek, transporting contamination from a nearby

landfill; tracking multiple parameters along with bacteria at fixed stations and with drones along the Anacostia; report due out on urban watersheds related to PCBs and sediment source tracking.

Melinda: Our annual review of water quality chemical standards for adopting the PFAS aquatic life criteria; looking at cyanotoxin criteria for recreational use; proposing new Tier 2 streams. Other water quality standards proposed for adoption will include human health criteria for 25 different parameters; controversial issues regarding the existing use-determination on the North Branch Potomac in Allegheny County; in the early stages of considering the new microcystin and cylindrospermopsin criteria.

Michael: concerns over frozen federal academic funding, told to keep working.

Mike: 319 grant funding restored for now; concerns over federal funding echoed at the 319 NEIWPCC conference; same conference, broad discussion on communicating with the public, including great presentation on NH small-scale dam removal; working with researcher at UMES to study nitrogen flux in the sediment of baygrass both *Zostera* and *Ruppia*; working on project to improve water operator recruitment with end goal of brochure and swipeable video.

Nancy: wrapped up a Hartford County report on PCB sampling in the Bush River in response to the TMDL; finished second year of geomorphic survey for Prince George's County; finished microplastic sampling with Prince George's County; working on a microplastic sampling framework throughout the Bay.

Thavamani: Collecting Baltimore harbor microplastic and nanoplastic samples to study their biological impact in the laboratory with two model microorganisms: amoebae and soil nematodes; surprisingly these particles interfere with many different sets of pathways; colleagues in my department are also looking at water samples from reservoirs in Howard and Baltimore County and throughout Maryland, finding heavy metals in estrogenic compounds at mindboggling levels; other faculty members are looking at PFAS; other major research in my lab is on malaria.

Megan: analyzing full year of follow-up sampling at our outfalls that had high *E. coli*, high for canine; will stop spending the money on that analysis because it's usually low or ND; hoping that would generate some good data for pet waste outreach.

Tom: operating an osprey (indicator species) survey with high and middle school students this Summer on Severn and Middle River; alongside this data, doing water monitoring under CMC standards, will compare population living near the mouth to upstream.

Tomas: finishing up spring MBSS sampling and finalizing 2024 data, which will be available to request; developing an online data download tool, rollout in the next month or so.

Rupert: the Octoraro Watershed Association monitors nitrate levels in the Susquehanna River below the Conowingo Dam; macrobenthic sampling for community outreach; aiming to delist the Octoraro; trying to engage recreational fishermen; buffer maintenance and trash pickup.

Matt: thank you for submitting data for the integrated report; produced a story map on the performance of MD's wastewater treatment plants; Back River and Patapsco WWTP meeting enhanced nutrient removal (ENR) goals, enabling us to meet our Bay WIP goals; developing forest preservation crediting and how it might be available for MS4 jurisdictions.

Action Items

July Onsite Meeting

- Mike will investigate meeting at SERC, including onsite tours
- Michael will check with his contact at SERC
- Matt will investigate Masonville Cove

Board Management

- Contact Matt if you would like to be considered for the Board Chair
- Thavamani and Tomas will make plans for the Information Management Committee
- Groundwater Committee needs a Chair
- Send edits to the last meeting report to Katherine by Friday
- Katherine will schedule the next Conference Planning Committee meeting
- Rupert and Mat will setup a Citizen Science workshop at USGS
- Send Andy and Byron updated points for the Roundtable map
- Byron, Mat, and Heather will team up for borehole camera work
- Brock will share the recording of the last Restoration Committee meeting (eDNA talks)
- Angel will be added to the Restoration Committee contact list

Adjournment (12:39 PM)