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Alice Volpitta, Blue Water Baltimore
Michael Williams, Univ. of MD College Park

MINUTES

MARYLAND WATER MONITORING COUNCIL BOARD MEETING

OCTOBER 18, 2023 – *VIRTUAL*

In Attendance

Alice Volpitta, Andy Becker, Brian R. Smith, Byron Madigan, Chris Victoria, Jason Dubow, John Denniston, Katherine Hanna, Ken Mack, Matt Harper, Mat Pajerowski, Matthew Stover, Megan Brosh, Michael Williams, Mike McMahon, Najma Khokhar, Richard Mitchell, Bob Hilderbrand

Matt (Stover) [Chair] called the meeting to order at 10:03 AM.

Matt: We were able to partner with the Maryland Stream Restoration Association to help us with registration. November 17 will be the date of the conference at MITAG. We need help before and at the conference.

The Minutes (10:06 AM)

Matt called for review of the minutes, which were approved by a virtual “hands up” vote.

Nominating Committee (10:08 AM)

Ken: sent out a couple of resumes to everybody for the two vacant open board memberships. It appears we will have four board vacancies next year. We've had a couple of volunteers. We will have two volunteers for the NGO and federal government positions. Please submit resumes soon. Please refer anybody who is interested. Hopefully we can get a vote by this winter.

Matt: feel free to suggest candidates through personal contacts. It's also good to have more than one candidate. We want to have a full slate of representation here. We'll use a Google poll for voting. Once that goes out, try to have all responses back within a week.

Once the board votes to approve someone's candidacy, we then have to send it to the Secretary of DNR. Occasionally, I think a few of you had to fill out an ethics questionnaire. Hopefully, we don't have to continue that. We've gotten very inconsistent guidance.

Committee Reports (10:10 AM)

Monitoring and Assessment

Byron: We had seven at our meeting, a few were new. We took the first part of the meeting getting to know about core job functions and interests. We discussed the logistics of the upcoming eDNA workshop that Chris has been planning for this December. Plus, we discussed a potential workshop or seminar on temperature, which led into a discussion on climate change. Some other good ideas were thrown around regarding terrestrial, groundwater, and surface water.

Chris: I gave the committee a briefing on where things stand with the eDNA workshop. All speakers are confirmed. The best day for everyone should be December 8. I'm throwing that out for board approval. The only concern is it's close to the annual meeting. I don't think there are any eDNA talks in the annual meeting this year. Also, Matt Pajerowski has offered the USGS Science Center as a venue. It should be a hybrid workshop. If people think it's better just have a virtual meeting, we could do that.

Michael: We had talked about other days, because that's close to another conference. Did you touch base with the presenters to see whether or not there are other options earlier in the week?

Chris: I did. That's the best day for everybody.

Mat: Yes, that day is available at the USGS Water Science Center, and I've got it reserved. We are set up to do hybrid meetings. I'll make sure somebody is there from IT.

Chris: Maybe next month Matt and I can meet with you and your IT person. I'd like to go over the facility, and how to organize the virtual components. Mat agreed.

Chris: As long as everyone's okay with the 8th—I'm not hearing any objections.

Mat: It's three weeks away from the big meeting and there's no overlap. There's nothing on eDNA at the annual meeting. I think that will be fine. You might attract some people that don't go to the annual conference.

Richard suggested leads he had for speakers and the topic of metagenomic analysis. He also asked for help getting speakers for his Cutting Edge Biology session at the conference.

Chris: Are we charging any money for the workshop? Should we provide lunch or leave people to fend for themselves? Byron suggested that people get lunch on their own. Matt asked if registration proceeds would be available by that time.

Katherine: I've looked into it. What we would do is just get three caterer bids.

Mat: You've got our center for free, so you don't have to worry about that. The question is whether or not to provide or set people loose for an [lunch] hour and fend for themselves.

Chris: I know that sometimes these workshops replenish our coffers. I don't think we are supposed to make money.

Mat: No, I think the goal is pretty much to cover the costs.

Matt: Just for simplicity's sake, it might be easy to not have to deal with caterers.

Chris: I'm okay with that. I think this is going to be well attended virtually for sure. I think people will show up in person. December the 8th at USGS in Catonsville, probably free. [Chris then opened discussion up of workshop registration and promotion.]

Mat: I think you don't want to wait until after the meeting. It's going to be near the same time as the conference, but that's okay.

Chris: We could send something out now and focus on the annual meeting advertising.

Brian passed on a related personal message from Mark Trice. He's still submitting to MWMC.

Chris: Yeah, absolutely. No. That would be great.

Matt: I can mention it in my opening remarks at the conference.

Michael: Chris, what's the timing of the event? 9 am until 4 pm? Chris confirmed.

Michael: We could have coffee and donuts to start. A good thing, pretty inexpensive, to get people charged. Chris concurred.

Chris: Can I send a receipt for any expense to Katherine or something like that?

Katherine: I would have [to purchase refreshments] if we were going to get reimbursed.

Chris: Maybe Anne Arundel County can pay for the donuts.

Mat: When you register people, you want to ask them if they're coming in person.

Chris: Is Google Meet the best choice technology for your Center? Mat: yes.

Mat: That's what I've always used there. I don't see why we couldn't use another format if you wanted to use Zoom or something else.

Katherine: If you have an announcement, I can post it on our bulletin board page. Then I can send out an email to the full listserv.

Chris: I can have our public information officer craft a press release, then I provide that to you guys for a Facebook page, etc.

Katherine: Would you like me to come up with the sign-up form or would you like to come up with that? Chris said he would work on that, but he would accept a draft or any help.

Chris: No, I think maybe you and I can work on that together. If you could come up with a draft and schlep it over, we can see what it looks like. Anyone who wants to be involved with any of this logistical stuff can be. Something by the end of October as a first announcement.

Mike: We're not providing lunch. Are there places in the area to eat, or should people pack their lunches?

Chris: There's a Subway [restaurant] around, right? Matt: There are a couple other places too, but they're not as close as the Subway.

Mat: Good to think about in advance because it'll play into how much time you want for lunch. Yeah, there's a Subway right next door. Aside from that you have to drive up towards Catonsville for many options. It's 10 minutes away, so if you're going to encourage people to go out, give more than an hour for lunch.

Chris: I think I've planned an hour and 15 for lunch. Mat agreed that would work.

Chris: Katherine, I'll have some sort of press release announcement, if everyone wants to see it before we send it out, I'm happy to do that.

Matt: Just the leadership, the Monitoring Assessment Committee, then Katherine.

Brian: You can either send it to me or to Mark Trice if you want to post it on Facebook.

Matt: I think we have some good ideas, something focused on temperature or climate change. That was held in 2015, wasn't it Byron?

Byron: Yeah, I think the one that we dug up in 2009 was the original one. I think there was a follow-up in 2015.

Matt: Thinking of a reboot more specific to issues of thermal impacts. There's actually a thermal impacts session at the annual conference.

Citizen Science and Community Stewardship

Matt: Anyone from Citizen and Community Stewardship? If not, moving on.

No one representing this committee was present.

Information Management Committee

Najma: We had one routine meeting last quarter discussing the QAQC. Alex Fries from UMCES provided a presentation and lead discussion about QAQC used by their organization. Currently we are focusing on bringing some guests to discuss their organizations process. We are planning to hold a series of webinars. Still in the process but under consideration that we are planning to do these webinars on regular basis, at least once a quarter, bringing guests from EPA and other organizations to give high level introduction of different processes, including how to write QAAPs, how to do the QAQC of the data, and how to improve the process, etc.

Matt: Najma and I were kicking around ideas for this webinar series. For instance, the Chesapeake Monitoring Cooperative has the Chesapeake Data Explorer. Would that be useful? Would your staff attend?

Jason: You may draw more people, if you focus on a particular topic, rather than databases, that could be used to support. I'm biased towards planning protection plan for a healthy watershed. Should you ask what databases would be of most interest to people?

Matt: So, not necessarily tying the database to the user. Do people use data that they don't themselves or their organization collect?

Mike: Such as, I worked on the point source data that comes from wastewater treatment plants. I don't know how this factors in.

Matt: Maybe MDE is in a unique position, since we compile data from a variety of different sources. We use data for both regulatory and non-regulatory decision-making or investigations. We're scouring different databases. Maybe that's not common amongst other organizations.

Jason: People look for possible projects. Data may help prioritize projects. For remediation or other purposes, including different habitats. Maybe looking at different datasets as well. Looking for wetland protection, fish management, etc. It might be interesting to get a sense of different data users and different types of data uses.

Ken: We do use data from other organizations and it's helpful. We direct and guide some of the data collection through grants as well. I think people in my position have a good awareness of what data is being collected. And I work for Montgomery County, so we know what's being collected in Montgomery County. I don't know if we'd be a great target audience for that kind of webinar series. But some explanation regarding monitoring cooperatives, data used for certain processes, and data uses based on the objective quality of those data that are collected. If we work on a one-to-one basis, those data would be more useful. A webinar that explains what data and how they're collecting it. I like how the test monitoring cooperative adds data quality element.

Najma: Data quality is a challenging part because a lot of organizations are collecting data, and they do some sort of quality control. Some have tight standards and some just general. Bringing all these factors in webinars creates awareness to set criteria as a standard or baseline. Then they can add more on top of that, based on their own project specific needs. Creating awareness is the main purpose of these webinars, so people can learn that organizations are collecting almost the same data set. Usually, we do water chemistry and biological habitat. These are continuous. Monitoring is another current burning topic, and they do data collection; but some do rigorous QA/QC processes and others a general baseline.

Matt: Yeah, and kind of where we were going. Initially we need help building cooperation. the basics of that, it's always good. Refreshers for groups such as NGO groups that might be starting their monitoring programs. That might be something that could be helpful there. And I think we talked about that in July. If folks have other ideas of webinars on this or related topics, feel free to send those to Najma. Ken, did you have something?

Ken: We have struggled with various types of newer monitoring and how to develop a rigorous QC process. So that would be very helpful. I would assume there's some eDNA standard. Having a community-wide standard would be great on both continuous monitoring and eDNA.

Matt: I think we have a Region 3 contact who's pretty involved with a lot of the continuous monitoring, Leah Ettema. Richard, I don't know if you've worked with her much on that subject.

Richard: I work with her a lot. I've been engaged in that effort too, but she's on maternity leave right now. She'll be back another month or two. There's some in my office who work more closely. That's a topic we can probably figure out something about.

To the point about the eDNA standards. There's not a lot of standards out there right now. I was just in a meeting last week, talking about that, where I don't know. Some of you may know David Lodge, a long-time stream ecologist. He's been doing DNA work and he's been working with the White House Office of Science and Technology Policy, discussing that very topic because we know nationally, this is becoming a bigger thing. I think we're still a long way off before we have things standardized.

Chris: The first half of the eDNA workshop is heavy on QA/QC, study design, and topics of that nature. The methods are expanding. and there's no real consensus about what makes good QA/QC. There do not seem to be QA/QC standards coalescing for eDNA. That doesn't seem to be happening with this technology as it enters the regulatory sphere and local government assessment.

Richard: The Europeans are ahead of us, regarding eDNA monitoring and assessment.

Bob: I agree with you both. We're kind of in the Wild West with eDNA because we're still trying to figure out which primers are the ones to use. If you go out and you use another instrument, we really don't figure that out for years, since the research cycle runs on a three-to-five-year cycle. Even while we might have the perfect QA/QC, we'll be wrapping up our papers that we did with data collected two to three years ago.

Richard: Then the bioinformatics end: how you run that to find out, especially if you do metagenomics as opposed to eDNA, where you're trying to map it to unique taxa in a database. An area that is starting to coalesce is on the metagenomic side, in terms of people following the same process. But you can find labs doing things a little differently on the bioinformatics side, too. There's a whole gamut of things that are still being worked out.

Bob: I'm doing bioinformatics right now in a different way. One must be backwards compatible with previous research.

Groundwater Committee

Mat: We have not had a meeting since the last board meeting. We have had some interest from potential members, so we're staffing up again. Reviewing the response to salinization plan for Maryland. Jason, is there anything else you want to add?

Jason: We had discussion from Geological Survey and MDE, Water Supply about the aquifers chapter of Maryland's plan to adopt saltwater intrusion. We also noted a law that passed last year asking MDE to fund a long-term study on groundwater. I know our group is also interested in monitoring PFOS and groundwater in Maryland. MDE has done lots of PFOS monitoring and groundwater and actions have been taken in response. We're assuming contamination of groundwater is probably more widespread than just the few areas analyzed so far. Also revising a man-dated five-year update on the saltwater intrusion adaptation plan. I'm hoping we can convene the work group and we can talk about some of the comments from the MGS and MDE. And I was happy to see that one of the candidates for the at-large position is Heather Quinn at MGS.

Student Committee

Matt: I don't know that Lindsay is here today for the Student Committee. Katherine?

Katherine: I didn't get an update per se, but she did want me to let folks know she is looking for student poster judges. If you would like to do that judging, it usually happens through the second session of the conference. She's looking for extra help with that. Shoot her a message, if you are interested.

Matt: Do you know how many judges we currently have?

Katherine: Currently, I do not. We usually aim for three if I'm not mistaken.

Brian: Yeah, I volunteered as one.

Matt: Thank you, Brian.

Katherine: I don't know if Andy has been in touch with her more recently, or with anybody else who might be on board.

Andy: I offered to continue to help judge posters. I don't know if she needs a third, or if she was intending...I didn't get that info.

Katherine: So, it looks like there may be at least one opening for a judge. If you're interested, they're looking for volunteers.

Andy: It depends on how many posters there are. In the past, what we've done is review all the posters. There's a scoring criterion we run through as much as possible. Then we make an effort to talk to each and every one of the poster presenters to gauge their understanding of their project. How much of the work may have been their own and tease out some things that they learned/employed, that didn't kind of make it in the poster. Usually, you give up at least one of the breakout sessions to do the kind of prejudging before we interview.

Brian: One difference with the information Lindsay sent out, she's looking to have lightning round presentations for the students to have opportunity to present. For five minutes, share critical highlight of their work, then they'll be a more casual Q&A session after that with the judges.

Katherine: One of the sessions is set aside. She's going to have her student speed talks then. It's not related to the poster contest.

Matt: How many posters typically have to be reviewed, or does it vary widely?

Brian: It varies. Last year, there were maybe five. In the past, we've had 10 or more.

Matt: If anybody isn't moderating a session and would like to contribute in this way? So that would be awesome. If someone's willing, reach out to Lindsay.

Katherine: Please spread the word. We do want students to get into this contest so we can hold it. There's a flyer that should be available on the conference page. If you could send this around to any school connection that would be a great help.

Andy Becker: We've limited the contest part with the cash awards to high school and undergraduates. Send it out, especially if you have any contacts in public school system,

Katherine: I believe it's also open to middle school.

Matt: If judges lose the ability to go to one concurrent session, that is a big deterrent. Wonder if we can maybe have the judging happen at the front end of the conference. Maybe ask poster participants to come a little bit early for the judging. Or something like that.

Annual Conference Planning

Katherine: Registration is open. It's being hosted through the MSRA's web system. It will not look like what it normally does but don't let that deter you. Early bird will be open through October 27. We did get our announcements sent out yesterday. I need to know which organizations may not have gotten it, to not have that issue this year.

We have a tentative schedule worked out like other years. Three breakout sessions after our plenary session in the auditorium. Six different breakout rooms this year. We are working on getting our abstracts submitted. A lot of these have potential speakers lined up have not submitted. We are in search of at least one moderator, possibly two. We will have a contributed talks session as a miscellaneous catch-all. We need a moderator for that.

Matt: Part of being a board member is helping with the annual conference. We need more moderators from the board.

Richard: Two other talks lined up. Are there other talks for this session?

Katherine: Mark's doing a presentation on prevention of bird strikes. He originally wanted to be in the megafauna session, but it is full there. If you find something that would be a better fit for the session, I could work it out. If you find more on topic, that's fine.

Richard expressed concern about the number of speakers that could be invited, dependent on the 30-minute length of presentations. Katherine explained it was a similar format to last year. Having three talks gives them a little more time to expand or take more Q&A. Megan said the person she had in mind did not have data yet.

Katherine: Do you expect to have another moderator for the PCB2 session? Or do you think we need one?

Mat: I don't have one lined up right now. And I don't have any definite lined up speakers. I've got a couple of leads. [He asked for leads to find PCB speakers.]

Chris offered to ask colleagues involved in PCB monitoring to speak. Matt thanked Chris. Mike suggested contacting the Anacostia Riverkeeper or another organization associated with the Anacostia for an outreach perspective.

Ken: I asked the Anacostia Riverkeeper to speak on muscle stocking. The riverkeeper is not available. Somebody else from his organization may give a talk.

Matt and Mat discussed other possible speakers, including Liz Green at MDE.

Katherine turned the discussion to the restoration talks. She asked for more moderators. Matt pointed to a monitoring workshop as a potential source of speakers.

Ken volunteered to moderate.

Mike asked about Ken Staver's session. Katherine would reach out to him.

Katherine brought up the need to nominate awardees (Weber & Above and Beyond.). She asked that nominations be in no later than Friday, to allow time to order the awards.

Matt revisited the need for speakers in the PCB and restoration sections. Mat asked for help to fill a second PCB session. If he can't fill both sessions, the second could be used for another topic or contributed talks. Matt asked how many contributed talks we have gotten?

Katherine: We got two from Chris's office. I am expecting one to come in from my office. That's all the non-solicited abstracts we've got right now.

Matt: I could potentially get talks from my office, but it may not be on the topic we want.

Ken: I think I may end up with one extra talk in my session.

Megan: My coworker who can't speak, I asked him if he might have any leads and he said there was a poster by Natalie Lombard. She's a student of Dr. Gosh's at UMBC. Mat agreed.

Matt: Do we have a second PCB or another contributed talk session?

Mat: I'm not hopeful that we'll get six talks. Maybe we should have more contributed talks.

Chris: I think we're going towards the contributed talk route. It has to be announced today or so, given that we're a month away. People might need time to put something together.

Richard: If Mark needs contributed talks, I could reach out to my colleague at USGS, Leetown.

Matt: Contributed talk might be the safer option. Board members can leverage their connections to find whatever topics may not fit into a session.

Katherine: I will take PCB2 off. We will make that into a contributed talks. If you would reach out to your other person, that would be good.

Richard: I just hit send.

Katherine: Given that there are two remaining positions available for contributed talks, I would not want to open up a call for papers. Spread the word to our colleagues and see what's available. There are several conferences that have just happened in the last month or two that people probably already have something prepared. Bringing it to a new audience might be of interest to them.

Matt: I'm thinking of a possible topic as an update on temperature TMDL development.

Katherine: I think that sounds good.

Chris: Are you still looking for spots for the restoration? Katherine replied, yes.

Chris volunteered to recruit speakers from his office.

Richard: Early bird registration ends on the 27th of October. Is that right?

Katherine: Correct.

Richard: 10 days.

Katherine: Then to the awards student and poster contests.

Mike: I pasted the link for the award submission form into the chat box.

Katherine: That wording is not completely clear up at the top, I will be changing that. Please, if you know of someone who's had a long career serving the environmental field, that would be a way to honor them. Spread the word that we are looking for those.

Last thing, there will be vendor tables available. Those can be signed up through the registration form for general admission. They do include one individual registration when you sign up for the table this year.

That's the major outline that I have for going over conference material. I've been getting a lot of help from the planning committee, and from a lot of other individuals as well. Is there any question that I did not address?

Matt: Just really appreciate your efforts, Katherine. It has been a challenging year to say the least. It's amazing when it all comes together. Thanks to all the efforts of the committee and those not on the committee. If you haven't contributed yet, please consider doing so because we really could use the help even if it's just finding speakers. That would be a huge help, especially for the restoration sessions, for which we don't have any talks yet.

News Roundtable (1:21 PM)

Matt called on people round-robin.

Katherine: We are in a holding pattern in my office right now. We're working on reports, processing our data, and getting it out to interested people, including landowners who have given permission to access their streams.

Mike: I don't have anything to report. I'm starting new projects and will be a few months before I see something out of them.

Ken: We have been processing data since we wrapped up summer sampling three weeks ago. We're preparing reports and getting in touch with landowners. We've done some bacterial source tracking in the last six months that has proven expensive and challenging. That is probably the next big phase. My program is more involved in human fecal indicator bacteria tracking.

Mat: We have a lot of ongoing projects related to PFAS, doing some sampling. Developing an assay method for PFAS in general, ready sometime early next year. There's promising results that

show some microbial communities under the right conditions can break down some PFAS and their precursors.

Chris: I don't really have anything to report. We're starting to gear up for our winter field season and starting to work through the process.

Megan: Baltimore County just hired a Lead for a new PCB monitoring program. We've helped him put out some passive samplers. They've survived the recent heavy rains, and we're hoping we'll have some data in two months. Then we can figure out more source tracking. We have a consultant working with us to design a desktop analysis to find hot spots. We're also looking into piggybacking on Ken's bacteria source tracking. We've been using *E. coli* to source track. Sometimes when you don't find anything, you assume it must be wildlife or natural. We're looking to do some MST work and we're having a lot of trouble finding labs. We have a lab in Tennessee that might be likely. [She asked if anybody has contract labs for this kind of work.]

Ken: Andy Becker probably has a better contact.

Richard: We finished the first year of the two-year sampling for the national rivers and streams assessment (NRSA). Now we're just going through the dataset, cleaning up some of the field data and so forth. We've been talking about human pathogens or pathogens in general. We are doing a pilot study within the national survey, collecting samples to assess antimicrobial resistance, both genes and organisms. We're using both DNA techniques and culture methods to identify a wide variety of organisms and potential genes in the environment. It's a larger project that we're doing in collaboration with CDC and FDA, as well as USDA. FDA is the big funder of the project. Our research office is also doing some watershed level work, not just the probability sites from the national survey but doing this work at watershed scale. [We're] trying to understand different sources and geographic variation in these both, and the spread of the genes because some of this stuff is naturally occurring, obviously, because bacteria do it naturally. They want to stop fungus and other things from killing them, but there's also pretty strong likelihood that based on some earlier research that our use of antibiotics has really expanded the number of organisms throughout the environment that are potentially harmful to humans. That's going to be ongoing and more of that research will be coming out probably at the end of the year or so after the 2024 season.

Brian: Mark Trice had wanted me to share that the MWMC Facebook page has over a thousand followers. If you have anything that you want to post to it, you can either send it to Mark or send it to me, and I will pass it on. As far as news from my shop, at the end of this month, we will be shutting down a large portion of our shallow water monitoring for the season. Our data flow cruises and some [conductivity monitors] are pulled the end of October and then they'll be redeployed in early April. Cruises monitoring hypoxic conditions in the main stem bay are finished and we're putting together a final report for the year. Predictions that were made back in May, based on spring runoff were that hypoxic volume in the mainstem bay would be slightly below average. It looks like the data is supporting that for both of our July cruises and August. The amount of by-volume of hypoxia within the main stem bay was below average.

Bob: A new project starting with colleagues from Penn State through the Chesapeake Bay Trust pool monitoring program. We're going to do some stream restorations and introducing aquatic

invertebrates to see whether or not the desired taxa can survive, starting this spring. We're looking at sites right now and some of the sites that we are selecting are based on the results of my current eDNA work with Chesapeake Bay Trust. I'm making some headway on that with respect to the stream microbes. It's taking a long time to get the bioinformatics down. Once we get that, then I can start applying that to some models I'd done previously, using stream microbes, to predict stream condition. We'll have some target sites. We'll stock bugs into those streams and see if they survive. I've got some things going on in life right now, which will keep me from going to the conference.

Najma: No, I don't have anything. Thank you very much.

Byron: This time of the year is busy for us, mix of field and office. We're wrapping up our cross section stream surveys for Army Corps reporting and monitoring. We're in the middle of our MS4 assessment of controls from last reporting year because we're a medium jurisdiction. This is our first year for submitting in the new permit. We're all working through our BMP effectiveness monitoring plan as well as a watershed-wide assessment. We have about 40 temperature sensors around the county, so, we've been pulling those last couple weeks now that we're in October. We have our fall tree plantings, 10.4 acres going in this year. And we're up to 272 acres that we planted through our program since we started the stream corridor assessments in 2012. Over 63,000 trees in the ground to help our MS4 program, both on private and municipal partner land. Pushing 300 acres in the next couple years.

John: I don't have anything projectwise. The Port Administration is hosting an open house at the Cox Creek dredge material containment facility. If anybody is curious about what goes on at a DMCF or learning about what's done with the material that's dredged out of the port after it's done, or after they pull it out, it's an interesting site and there's an extensive wetland system next to it that's a Swan Creek environmental area. I can put the link into the chat and if anybody would like to take a look.

Matt: A lot of you may have received an email from one of my colleagues Becky Monahan to review. There's a public review period for the methodologies for three different pollutants to be assessed on the integrated report. They aren't the only pollutants being assessed on the integrated report, but just the three assessment methodologies that are being revised. One is for temperature, another for bacteria, and a third. If you're interested, let me know. If you haven't already received an email from Becky, she'll be receiving comments for another 20 or so days.

In addition to that, if you have an interest in the Maryland's Integrated Report of Surface Water Quality, (AKA list of impaired waters, or the 303D list). That report should be coming out for public review with probably a December/January timeframe. That'll have at least a 30-day public comment period as well. More to come on that. In terms of water quality standards developments and MDE. We continue to work on things that relate to coldwater resource protection. Currently looking at several water bodies where coldwater obligate species have been found. They might be designated as a warmwater body, but we found coldwater species and colder water temperatures. So, we're looking to either changing the designation or at least identify a coldwater use in the meantime. I know we're looking at a lot of our different permitting programs trying to see how

we can better protect our coldwater resources, especially with such a focus in our department on climate resiliency.

In terms of antidegradation and reviews of impacts to Tier 2 High Quality Waters, that's kind of taking a significant amount of time, I've mentioned before the proposed magnetic levitation train line from DC to Baltimore, and ultimately, New York and even Boston, if they're successful. It would run through two different Tier 2 watersheds, removing quite a bit of forest. They do have some mitigation plan but not on equal to what's being cut down and the impervious surfaces added. Hearings are ongoing for their Water Quality Certification for the project. It's a pretty controversial project with both those in favor and those against. We'll see how it develops with time.

Action Items (1:44 PM)

Mat: We're looking for help on judging student posters. Get back to Lindsay on that if you would like to do it or know somebody that could help in judging the posters. We're looking for additional speakers for the PCB session and the contributed talk session. We mentioned that vendor tables are available, if you want to have any of your colleagues apply.

Katherine: If the announcement email didn't make it out to anybody, please let me know. We are still looking for a moderator for the Contributed Talks 2 session. We are asking that the student poster flyer gets shared out to various schools, undergraduate programs, etc. Spread the word. We need nominations for both Weber awards.

Other than conference items, I'm going to be getting the press release from Chris when that's available for the eDNA workshop. We'll go about getting that out to people. And I owe him a registration form.

Matt: I have one to add. Review resumes for board candidates and when Ken sends out the poll, make sure to vote on that in a pretty timely manner.

We need to find speakers for the restoration talks. We need volunteers to fill those sessions, make some phone calls, send some emails, and reach out to contacts. I will start with the Bay Trust website and see if some of their more recent researchers will be willing to present their work.

Katherine: Nancy's leading the effort for the restoration talks. If you have somebody, let her know.

Matt: Send them to her. Okay. I'll reach out internally to submit maybe a contributed talk.

Adjournment (1:51 PM)