



## ENVIRONMENTAL AFFAIRS BOARD

### MINUTES

**August 2nd, 2023**  
Virtual Meeting (Zoom)

#### **Voting Members:**

Jennifer Carrigan (chair), Corie Hlavaty (vice chair & secretary), Sherry Taylor (at-large), Wafa Khalil, Wilson Salls, Ben Goldberg, Torrey Swain, Sandra Howell, Cooper Norris, Juilee Malavade, Malcolm Gregory

#### **Ex Officio Members/Staff:**

Amy Armbruster, Heidi Carter, Maggie Armstrong

Presenters: Mary Tiger, Anna Smith, Michelle Woolfolk  
Attendees & Panelists Total: 18 (17 panelists, 1 attendee)

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- I. Call to Order at 6:05 pm
  - II. Add Willson Salls to the roster.
  - III. Approval for June minutes is pushed back to the September meeting
  - IV. Centering and Icebreaker: EAB members went around and shared what drives them to work on sustainability and environmental work
  - V. Announcements:
    - a) Next EAB meeting is scheduled for September 6th, 2023.
    - b) We are asking that EAB members keep their cameras on at all times, if possible.
    - c) We use Roberts Rules throughout the meeting. Generally, it means if you would like to speak, please wait for discussion and raise your hand, the chair will call on you.
    - d) A reminder we are here to serve, not just listen.

## VI. **New and Continuing Business**

- Water Management Community Outreach Campaign

Presenters: Mary Tiger, Assistant Director in the Department of Water Management. Here to speak about the Community Engagement Campaign. Inviting us to share our feedback and input on their strategy.

- The Community Engagement Campaign- It's a campaign we're calling Lead Safe Durham. And this is a topic that has the potential to raise questions and concerns from the community. So it is important, as leaders in our community, that the EAB have a solid understanding of the what and how of our engagement with the community and this project. And also, since we are still in the planning stages of our engagement plan, we really want to invite your feedback and input on our strategy.
- What drives us is protecting public health. Our drinking water mission is to provide an adequate supply of safe and aesthetically pleasing drinking water to our customers and to maintain compliance with all federal and state regulatory requirements. And all of that centers around protecting public health. So when we talk about Lead Safe Durham, it's important to start with some facts. So one is that the water leaving the city of Durham to water treatment plants is lead free. We test our water every day to confirm that it is of high quality and that is lead free. But we do know that lead can enter drinking water by leaching from lead pipes that connect some properties to the water system through a process called corrosion.
- North Carolina banned lead service lines and lead solders in 1985. So we are confident to say that the service lines are lead free if they were installed after 1988. That helps us account for any older materials that might have been used in construction between 1985 and 1988. Lead in water can also come from household plumbing, such as brass or clip chrome plated fixtures that contain lead. So the reason why it does this is the water is corrosive by nature.
- At our water treatment plants, we add zinc orthophosphate to help manage the levels in the water, and that significantly lowers the potential of lead leaching from household pipes and plumbing. So you've probably heard about Flint, Michigan, and corrosion control. Corrosion was the major cause of the Flint, Michigan water crisis. Officials there decided not to add corrosion control chemicals to the city's water when they changed water sources. And as a result, the chemical composition of the new water source allowed lead to leach from pipes. And it's actually the Flint crisis that sparked revisions to the lead and copper rule. And it's behind why we are launching this campaign. But I do want to reiterate before moving on that corrosion control works, so adding the zinc orthophosphate and having that corrosion control helps to keep whatever is in the pipes, in the pipes.
- Durham Water has been in compliance with the original lead and copper rule since it was initiated in the early 1990s. In late 2021, the EPA finalized a revised Lead and Copper rule and what some of the requirements of that rule are:
  - An inventory of the material makeup of all of the buried lines in our service area. We also will be developing a lead service line replacement plan so that we are prepared if and when any lead service lines are found with a plan on how to replace those.
  - We are readjusting our compliance sampling. So every three years we take samples. I mentioned that we test every day at the water treatment plants, but we also test out in the community every three years in households that we suspect might have lead service lines. So we do testing every three years.
  - We are going to be sampling all the water in schools and daycares in the community. We are required to re-address our corrosion control treatment. We have done some

significant work in this space, so we're not actually going to be working on that in the near term. But that is a component of the revision and there's a lot of requirements and a lot of work that we need to do with public education and outreach.

- We have contracted with CDM Smith to provide program support and we've started developing our service line material inventory and planning our public education and outreach program. I do want to make clear when I say service lines, that we're all on the same page with what I'm talking about. So service lines are the buried lines that bring water from the water main. And typically they connect the water main to the building. So the city owns a portion of the service line between the water main and the water meter. And the property owner owns the service line from the meter into the building. Our inventory is going to include both sides of the service line.
- We're going to have to do some pretty significant community engagement to do the material inventory on the customer owned side of the service line. It's relatively easy to do it on our side. So what do we know so far?
- We know that about 89% of our service lines are not lead. The remaining 11% of our side of the service lines are unknown. But again, it'll be relatively easy to inspect those. On the private side, we know that about 50% of private service lines are not lead based on the date of their install. The remaining of those 50% are unknown. And so the goal of our inventory is going to be to know the unknown.
- We are going to be using machine learning to help us use the information that we know and observe to predict the material makeup of neighboring properties. So, for example, if there's a neighborhood, an entire neighborhood that we don't know what the service line is, if we're able to observe one or two of the service lines in that neighborhood. And we know that every other house was built around the same time, we can predict with general confidence that those other service lines are our lead free. It's entirely probable that we will not have the entire inventory done by October 2024, which is when the first inventory is done due to the state. So this will be an iterative process where we're continuously updating our inventory. Unknowns are throughout the system. They're not concentrated in one area of the city.
- Terms of our community engagement goals.
  - First and foremost, we want to be transparent and responsive. We want to reassure the community with information regarding drinking water safety. We want to engage the community in helping to complete the inventory. So we're going to need property owner permission to do contractor lead field verification, or we're actually digging in and looking at the line.
  - We're also going to be encouraging the community to observe their own service line and give us information on that.
  - We want to empower customers with information that they need to protect their health. Based on conversations that we've had with area plumbers, we don't expect to find a lot of lead service lines, but we need to be ready with information for the community if and when we do. Because just because a customer has a lead service line, it doesn't mean that they cannot safely drink their water.
- These are the tips that we will share with you on how you can safely drink water even if you detect outlet service line.

- We're engaging with stakeholder organizations like the EAB, Durham County Public Health, the city's neighborhood improvement services organization called Partnership Effort for the Advancement of Children's Health, Durham CAN (Durham Congregations associations and neighborhoods), and the Research Triangle Institute. That's doing a school and childcare lead sampling program now. We will be doing large scale outreach to encourage self-reporting.
- We'll be doing targeted outreach to gain consent for utility field verifications.
- We will host robust information on our website.
- We'll empower our customer service representatives with information about the program, and we'll be providing ongoing and timely information.

**Jen Carrigan:** Is the idea to inventory them and to ultimately replace them?

**Mary Tiger:** Yes. And when we find any lead service lines, that's what the replacement plan will be to address how we get those replaced.

**Jen Carrigan:** I wanted to make sure if you're not done the whole inventory in October, but can you find out why? It sounds like the idea is to immediately tell that particular customer how to protect themselves until the line can be replaced. Is that the idea?

**Mary Tiger:** Yes

**Wilson Sails:** Do you have a sense or a count of how many are lead in the city and also in private?

**Mary Tiger:]** We don't have that yet. Anecdotally, we have a few plumbers on staff and the plumbers that I've talked to have never seen a lead service line in the southeast. They're mostly prevalent in the Northeast and the Midwest. That doesn't mean that they're not here. So we are hopeful and optimistic that we don't find a lot. But right now, everything that we'll be focused on is to know the unknowns.

**Sherry Taylor:** You had a graphic and that's where the owners are responsible for their side of the waterline. Is there going to be any support for owners if they find something on their side that they have the responsibility to replace?

**Mary Tiger:** So part of our replacement plan is figuring out how they get replaced. So the lead and copper rule does not require that the city or the utility pay to replace the customer side of the meter. But we anticipate, you know, that's going to be a need in the community. And so we do know that there's bipartisan infrastructure law funding that is going to be coming through the state to help with service line replacement. We're actually applying right now for some grant funding to do the inventory work and really concentrate our inventory work in lower income areas of the city. And so we'll be looking for outside funding to do that and other funding opportunities that we can to help out with that replacement on the customer side.

**Ben Goldberg:** What is the process of checking to see what materials are used in the service line entail?

**Mary Tiger:** Yes. So there's two kinds of ways that we can do it. We'll be doing vacuum excavation, which is sticking a pipe into the ground that sucks the dirt off. You can crawl in your basement or your crawl space or wherever your service line is coming into your house and observe what the line is. So we'll be that broadcast information that we share with all of the households that are unknown.

**Malcolm Gregory:** It looks like the maps you provided, it's pretty spatially diffuse in terms of what needs to be inventoried. And so I was just curious, how is the department going about designing the testing? Like are certain areas being targeted first or where's y'all's head on that?

**Mary Tiger:** We'll be using our database and machine learning model. We're using a program that's designed to help us prioritize where we're doing our field verifications. So where we want to identify the unknowns throughout the city. I mentioned before that we are applying for a grant to do focus area inventory work in lower income neighborhoods. So we'll have a disproportionate number of observations based on our budget initially in lower income neighborhoods. So we'll be prioritizing based on that and we want to lay eyes on the stuff that we think could potentially be.

Anna Smith, The State of Our Streams (SOS), City of Durham Public Works and Stormwater Services

**Anna Smith:**

Two questions for EAB to consider: What's the best practice for collaborating with the EAB and Stormwater? How can EAB advocate for streams and areas of poor water quality?

- Based on data collected throughout 2022, the study received 71 out of 100 or less, a C, on our water quality index. This included lower individual water quality index scores in each of the eight watersheds that we monitor every year. Those watersheds included Third Fork Creek, Little Creek, New Hope, the Eno River, Lick Creek and Northeast Creek.
- Lower water quality index scores can signify increased pollution as well as other contributing factors like rainfall, temperature. And as you can imagine, increased pollution leads to increased instances of environmental justice issues as well as citizen concerns. And in the State of our streams report, we lost the top pollutants found in each watershed by our investigators, as well as the score of each watershed for four of the parameters that we measure in our monitoring program. It's not an exhaustive list of what we monitor, but it's the four that we think are the most useful for a public facing campaign.
- Our State of the Streams report functions as an overview of the general health of streams. I'm going to highlight two instances where we can kind of dig into the report and see what's going on underneath these scores. The two watersheds I'm going to talk about are Third Fork Creek and Lick Creek.
- Third Fork Creek - this is a watershed in an older portion of Durham. It's south of the Durham Freeway. And part of Forest Hills is in this watershed as well as in CC, New Wood, Croft and McDougald Terrace and the surrounding community.
- Third Fork Creek received a D on 2022 for turbidity and nutrient pollution, benthic communities and bacteria levels. Third Fork Creek has incredibly low dissolved oxygen levels. The S.O.S. Report also references the most common sources of pollution that our team identified, and we find those sources through water quality investigations.
- One of the main parties responsible for pollution in Third Fork Creek that we've been able to identify over and over again is the Brenntag facility. And this facility is located at the top of the watershed just north of McDougald Terrace and our impact.
- Brenntag has been responsible for discharging over and over again. We've had over 60 investigations or visits there based on pollution coming off of that site and flowing down into

the community. That community includes our elementary school, the community of McDougald Terrace itself and also the surrounding houses. NCCU and Durham Tech is down there also.

- Brenntag does not have a specific permit, and that's the way that we have the authority to really regulate a specific site. So what happens with Brenntag is we don't have any regular preventative authority. We can only regulate after we've seen pollution happening. And so this has been happening over and over again. And we keep coming up against this roadblock right where we have to. We can regulate. We tell them they have to remediate and then we'll see there's pollution coming off of the site again.
- Lick Creek - is a different kind of issue. Lick Creek is in the southwest portion of the city and this might be a familiar watershed to you because it's come up at city council meetings pretty often By Preserve Rural Durham, which is very active in advocating for this creek as well as Sound Rivers. The EAB received a few emails from those groups also regarding this issue and Lick Creek looks like it's doing pretty fine. It actually got a 79 out of 100 on our water quality index. So if you look at our State of the Streams report, it doesn't look like what Preserve Rural Durham is talking about.
- That's really been a point of contention in communications between the city and these residents that live in this watershed. As an aside, if you're not familiar with where this watershed is, it's going towards Raleigh and close to Brier Creek area. And so a lot of development is happening there right now. We anticipate in the future its water quality index score is really going to decrease pretty rapidly. And this is another kind of place where our hands are a little bit tied, where our ordinance stops, and that water quality work really doesn't so Preserve Rural Durham is really concerned about all of this sedimentation coming into the streams and clear cutting developments. And the issue with these developments is that they're not a part of the stormwater and the municipal separate storm sewer system. So we don't have any authority over them until they're connected to our storm sewer system. And our colleagues with the county stormwater do all of the regulation of big tracts of construction like this. But they don't have any authority over the creeks so they can regulate sediment. Once the sediment is in the creek there's kind of a hole there in the regulation world.
- Both of these examples are good opportunities where maybe where our work has to stop and there are ways that we can bring these up to you guys. It seems like there might be some overlap in the interest that you all have in watershed protection potentially where we can bring up some opportunities for collaboration, even maybe help brainstorm best next steps once we have to stop what we're doing.

**Jen Carrigan:** I was wondering regarding the point you made about no specific permit, therefore you have no preventative authorities. The first case study you offered, is that a problem that is specific enough to the city or county or some interaction between the city and the state? Or is that more of the general regulatory environment is such that there's but usually it's innocent until proven guilty?

**Anna Smith:** Usually facilities that are of a specific type like water treatment plants get a specific permit that tells them this is exactly what you can discharge, that gives us way more structure in what we can expect of a facility. If a facility doesn't have any specific permit for what they can and can't discharge, then we don't have any inspection authority. We can't require training. The difference is basically if a facility has a specific permit, we can go in and inspect. We have a much closer relationship with what that facility is doing, how they're discharging.

**Michelle Wolkfolk:** We can inspect if there is a problem. And we also do inspections against their stormwater best practices. But we can't necessarily require that business to do anything other than fix what they're discharging.

**Jen Carrigan:** Clearly, what I'm trying to understand is, is that that problem, the fact that you can't do that, is that something we should be advocating to change or is it that we just need to help, you know, what to do after.

**Michelle Wolkfolk:** We have been advocating for a change. So having your voice added to ours would be fantastic.

**Torrey Swain:** In regards to the education around what we're trying to accomplish with water quality and things like that, aside from the City of Durham website, is there any additional material available?

**Anna Smith:** Yeah, absolutely. So me and my colleague Laura Smith, no relation. We're both public outreach professionals in stormwater. And in order to ensure that information like this gets out into the public. But our role is completely tied to just information. So because we work for the city, we don't do any advocacy. Obviously we do a lot of tabling events. We talk about the Save Our Streams report as a great way to get people talking about where water quality is in a specific area. How is it, how it's doing, what it's doing compared to the past or what we hope for in the future? So we have pamphlets, we have social media, we do community events. We recently in the spring, we were at a farmer's market talking about best pollution prevention practices. These two case studies specifically because Preserve Rural Durham where has been taken directly to city council. The way that we can communicate with Preserve Rural Durham is really through the chain of command in the city all the way up to the city manager. And so an environment like the EAB potentially where you could advocate.

**Jen Carrigan:** I want to acknowledge that some ideas have come up about ways to collaborate. Regarding this issue in its entirety, I'd like to take this conversation maybe to a smaller group of members to talk to you and a little bit more, because it sounds like there's something here about how we can help advocate. And I think that needs a little bit more workshopping outside of just a regular member meeting. But I appreciate you opening it up. We're going to talk a little bit later, folks, about committees and focus areas. So I just want to preview that. This might be a really good thing for one of the committees to specifically talk about a workshop a little bit more clearly.

Michelle Wolkfolk ,City of Durham Public Works

**Michelle Wolkfolk:**

- The city's stormwater permit gets renewed every five years by the state. And the language that we were provided in the spring, which is what the EAB has been talking about for several months, suggested that the EAB itself or a new group needed to be formed to serve as a stormwater advisory group on the stormwater management plan, which is something we have to submit to the state.
- The latest language had problems there. This is the latest language and I've highlighted some things in red. So the biggest changes have been the invite word and then the last sentence, which is a really long sentence that essentially says that if we can establish a citizen advisory group, then we as a city have to explain why, which is fine. But since there already is an EAB, that's probably not going to be an easy out for us. So rather than take the the overall spirit that we've been talking about for the last couple of months, this actually does provide us a way to

keep the levels of stormwater involvement at the EAB relatively low compared to what we've been talking about.

- The key words here are must invite. If I come to the EAB twice a year to invite you to participate in revision or evaluation of the stormwater management plan and you make some decision, whatever the decision is, then I have satisfied the permit. I don't need to do anything else and you all don't need to do anything else. And what an invitation would be is we request you to participate and we'll tell you to the extent that we know what we think we're going to change. And that might be a really, really short description or it might be a whole section that we need to modify. I don't think that's going to happen very often.
- We're pretty set program now, but it's possible because rules and regulations change. But that's what we would invite you to do, to either participate in the revision or evaluation. And we'll tell you what it is that we think we're going to evaluate. Of course, you also can tell us if you think there's something else we need to evaluate and then you guys would respond. And what I'm envisioning your response would be right back to that language that I showed you at the beginning. So just a statement of the board composition. This is something that we've talked about at length as well, and whether or not it meets the current requirements. Right now, we don't think that it meets the permit requirements.
- So just to make that statement that you have, I don't even know how many people are on the board now, but not of them as a business owner. And then to decline to accept the invitation to participate in the revision. And you'll do this twice a year. It doesn't say every six months, it just does twice a year. So we'll have to decide how often that would be. But I have to do it twice and then that would be it. So that way, the only other thing I would say is to decline or accept the invitation. There are multiple sections in the stormwater management plan. There's ten different programs in there. So it could be that you just want to know about what I told you. We're thinking we're going to revise in the public involvement section, in which case you could say we decline all of these other sections, but we want to participate in public involvement. So you can very much limit it to the sections that you're interested in. S

**Jen Carrigan:** One quick question to clarify. Is this correct, we're inviting you to a public meeting twice a year. Sounds like the follow up work may or may not necessarily actually have to take place during any meeting. We could be tasking your subcommittee to help you with that.

**Michelle Wolkfolk:** Correct.

**Melanie Allen:** I guess the only other question I have is the requirement for the business person. Could the business representative be on the subcommittee and not the VIP? Could they be on a subcommittee that the working group or participate in? A working group would not necessarily be a full EAB member?

**Michelle Wolkfolk:** Yes.

**Jen Carrigan:** Actually in general, technically anybody can join any of our subcommittees, and it's usually only a EAB members, but only a EAB members are obviously part of these meetings. But we may invite anybody we want to our subcommittee work.

**Michelle Wolkfolk:** So I would add that if we are changing something, for example, in the illicit discharge portion of our stormwater master plan, which would cover that Brenntage facility in part and the EAB doesn't have a business representation, which is fine, I would still bring that invitation to the EAB, but I may also convene another meeting outside of the EAB to try to get business businesses to



provide me some input. So that would be another avenue if I were really trying to get some feedback from businesses.

**Wilson Sails:** I just want to ask about providing volunteer opportunities. I've got just a little bit of trouble, like trying to figure out the spirit of that and of that statement. I mean, it sounds like it could be interpreted as like you're suggesting, like the EAB itself. Is it also possibly meant to be like the general public?

**Michelle Wolkfolk:** Yeah. So we have struggled with that in our discussions between us and the EAB. I have struggled with that in discussions with the states who don't see an issue with that sentence that I have struggled with and issues with other large cities in North Carolina. And what we've been told is it's in the right place and it is intended to be associated with the Citizen Advisory Group.

**Jen Carrigan:** This is not an official proposal we need to vote on, but I'm just going to do a quick check. Could anybody from the EAB please raise your hand if you do not want to move forward with the way that Michele is proposing to have the EAB involved in the new stormwater management state requirements.

**Michelle Wolkfolk:** I will just take a second if I still have a minute left. We have a new person in stormwater who is Raven McLaurin. Can she just say Hi, Raven. She's been with us about two months now.

**Ravin McLaurin** Yep. I'm coming up on my second month, and so far I love it. There's always something new to do. And I get to come and listen to meetings like this.] Like Michelle said, I'm working on watershed restoration.

**Jen Carrigan:** Thank you, Michelle. Thanks to the EAB's involvement and engagement in that discussion, that was a kind of tricky thing for us to figure out over the last couple of months. But I'm glad we came to a resolution. And pausing just to see if there's any last questions or concerns.

**Ben Goldberg:** I was just curious what the stormwater management plan is about because I just haven't heard about it before.

**Michelle Wolkfolk:** The permit will ask us to do something and they will usually be very general. We want you to do some public outreach. The stormwater management plan would say, we're going to have meetings here, we're going to go to festivals, we're going to try to engage with 50 people every two months. So the very specific things are in the stormwater management plan, the general things are usually in the permit.

**Jen Carrigan:** I'm going to make a motion to adjourn the meeting.

**Wilson Sails:** Second.

Adjourned at 7:12pm