

THE ANDREW SABIN FAMILY

CENTER for ENVIRONMENT AND SUSTAINABILITY

# **CLEAN WATER AFTER SACKETT**

A SYMPOSIUM ON THE LEGAL, POLICY, AND CONSERVATION IMPLICATIONS OF SACKETT V. EPA

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# Panel 1: North Carolina State Water Quality Policies

Keith Larick, Natural Resources Director, NC Farm Bureau Federation

Grady McCallie, NC Conservation Network

Edgar Miller, Yadkin Riverkeeper

Robin Smith, Chair, NC Environmental Management Commission

Moderator:

Stan Meiburg, Sabin Center Executive Director, Wake Forest University

**Stan Meiburg**: This panel is a distinguished and lively group; I'm expecting great things from this discussion. I'm going to introduce the speakers in the order in which they will speak.

Keith Larick is the Natural Resources Director for the North Carolina Farm Bureau Federation, and he's been in that position since January of 2015. Of the things I especially appreciate about Keith is he's demonstrated over the years a great willingness to listen and work with others who might not necessarily agree with him, and for his concern about the impact of flooding on farmers and looking for ways that farmers can have a positive effect in reducing greenhouse gas emissions. Keith's also a former member of the advisory board for the North Carolina State Department of Biological and Agricultural Engineering. And he's an NC State graduate and he's active in speaking to groups and participating in policy forums around the state. So, Keith, welcome to Winston Salem; thanks for coming over.

Keith Larick: Glad to be here.

**Stan Meiburg**: Grady McCallie is the Policy Director for the North Carolina Conservation Network, and this is a role he's been in since 2000. Wow, I think that may make you the dean of something. Grady leads the organization's policy team, works on water quality and quantity, toxics, growth patterns, and resilience policy, and he's the lead author of the Conservation Network's State of the Environment Report. Before joining the conservation network, Grady worked for the Chesapeake Bay Foundation and the National Wildlife Federation. Grady I couldn't figure out where you went to undergraduate school.

Grady McCallie: Yale University.



**Stan Meiburg:** Yale? And he has his law degree from the University of California at Berkeley. So, we're just delighted you chose to make North Carolina home.

Edgar Miller is, I think, well known to many of the audience. He's the Executive Director and is the Yadkin River Keeper. And before joining the Yadkin Riverkeeper, he served as Director of Government Relations for the Conservation Trust for North Carolina, where he lobbied the General Assembly of the Congress on behalf of the state's 24 land trusts. And served also on the NC Agricultural Development and Farmland Preservation Trust Fund Advisory--that's a long title--and he chaired the policy committee of the North Carolina Local Food Council. Edgar also spent ten years as Director of Policy for the National Recycling Coalition and two years as a lobbyist for the American Iron and Steel Institute in Washington, DC. That's a long way from there to Agricultural Development and Farmland. That's impressive, Edgar.

Edgar Miller: I'm going backwards.

**Stan Meiburg:** He's been active in promoting tourism and recreation development along the Yadkin River, and he has a bachelor's degree in botany from Duke and a Masters of Environmental Management from Duke's Nicholas School. And Robin Smith is the current chair of the North Carolina Environmental Management Commission, where she's had a full-time job cleaning up the mess left by her predecessor.

Robin Smith: I did not say that.

**Stan Meiburg:** Robin has been in private practice for ten years, but before that, was the Assistant Secretary for the Environment in the North Carolina Department of Environment and Natural Resources for 13 years, and also serves as an Attorney in the Environmental Division of the North Carolina Attorney General's Office and worked in the North Carolina Division of Coastal Management. She has her law degree from the University of North Carolina School of Law, and a bachelor's degree from Duke, which makes me wonder where your loyalties during basketball season?

Robin Smith: Oh, there's no question.

Stan Meiburg: Yes, but what's the answer?

Robin Smith: Duke.

Stan Meiburg: I rest my case.

**Stan Meiburg:** Each panelist will give opening remarks for about 7 minutes. A couple of them have some pictures, and I will work that, but we made it very explicit that there was no requirement for PowerPoints, so the people who are doing PowerPoints and slides are doing this on their own volition, not because we asked for it. And then after that, I'll have some follow-up questions for the panelists to discuss among themselves. We will also have the opportunity for questions from the audience. As you came in, you may have seen the stack of three by five cards. If you didn't, I have some more, and we can use those to get questions which I will curate and present to the panel. So, with that, Keith, I think you're first up, so let me turn it over to you.



**Keith Larick:** Good morning, everybody. Again, Keith Larick. I work with the North Carolina Farm Bureau. I deal with environmental policy issues that impact agriculture. So, I think, kind of thinking about how I was going to talk about this, you know, we're focusing on North Carolina State water policy. But with this issue, as you'll hear, state and federal policy related to waters, which waters are regulated, are very closely linked now.

So, I'll very briefly touch on our perspective on the *Sackett* case itself. You know, from our perspective, you know, the previous definitions of waters of the US. I mean, we did feel like they went too far, you know, when it came to the term, especially the term "significant nexus." As you heard earlier that one was particularly vexing for landowners to figure out. You know, how is the landowner going to know if their wetland has a significant nexus to other jurisdictional waters? And that was the whole crux of the *Sackett* case itself. And so, you know, kind of at the same time, that *Sackett* case. I guess first I'll point out the Supreme Court, you know, there were sort of two parts of that decision. The first part was, is the significant nexus setup a valid setup, and the court ruled nine to nothing that that was not the right approach. The big difference of opinion came on what the new approach should be once you get rid of significant nexus, and so there was a difference of opinion related to that.

At the same time, the Farm Act, the first draft of the Farm Act contained language that basically told DEQ, "But we don't want you to regulate wetlands in addition to the federal wetlands; we want it to be tied to the federal definition." Again, when the Farm Act was first drafted, the *Sackett* case had not been decided yet, so the level of federal regulation was higher. Then the *Sackett* case came out; that level of federal regulation has decreased, obviously. When the Farm Act was passed, that provision was still in it, so now the level of state regulation has dropped to that level as well. I think that's a fair summary.

I will say it's called the Farm Act, not everything in the Farm Act is--we don't come up with all those ideas. I would say there were, you know, there are other groups, business groups, industrial groups, things like that, who have pushed for reform to state regulation of wetlands for a long time. Now, that's not to say we didn't agree with that, but that's sort of how all that worked. You know, I would say that there's still quite a few questions about how the state's going to regulate things now that that law has been passed; I think you'll hear about some of those concerns. Especially how waters of the state, waters of the United States, works with other regulatory programs that DEQ implements, things like discharge permits, 401 permits, things like that. I think those are all legitimate questions that we're going to have to figure out. You know, how do I say this the best way? Sometimes people pass a law and don't think about all those implications. They have one thing they want to fix and, sort of, the collateral issues, we have to figure those out later, unfortunately, so that's sort of where we're at right now.

I would say, from an agricultural perspective, you know, it's important to note. And so, I was in Elizabeth City yesterday talking to a group of soil and water supervisors and farmers. And obviously, I talked about waters in the US; I'm with Farm Bureau, I'm contractually obligated to talk about it at every meeting I go to. But from an Agriculture perspective, I go through the changes to the federal law, I went through the changes to the state law. And at the end, I have to say this does not mean you guys can go out and start clearing a bunch of land without checking with anybody. You still got to call the Corps. But for a lot of these guys, more importantly, or just as importantly, you have to check with USDA, because it is part of the Farm Bill. If a farmer wants to participate in Farm Bill programs, they have to meet what's called conservation compliance. And part of that is what we call the Swampbuster provisions, which essentially means you're not allowed to go clear land that has wetlands on it and make it



useful for farming. The deadline for that is 1985, so stuff before 1985 is grandfathered in. So, a lot of the farmland you see in eastern North Carolina would have been cleared before that time. But if a farmer goes and clears a tract of forest land and starts growing crops on it, and there were wetlands on that tract of land, they're going to have issues with USDA, and that impacts their ability to, you know, USDA, there's a subsidy for crop insurance that a lot of farmers take advantage of. If a farmer wants to take part in conservation practices, USDA will pay up to 75% of that cost. Even participation in disaster programs if there's a federal disaster. If a hurricane comes through and Congress approves disaster funding, on top of, you know, what's available with your crop insurance, that goes through USDA. So, if a farmer wants to participate in any of that, they have to be in compliance with these Swampbuster provisions. So, from an Ag perspective, some of those protections, those protections are still in place even with the changes to the state and federal programs. One example, I'll put out of a question that's out there, I have no idea how I am on time, so feel free to...

Stan Meiburg: Maybe just wrap it up.

**Keith Larick:** Okay, last thing. So, in the animal waste world, it is one example. You have, you know, hog farms out there that land apply waste. They have setbacks that they have to maintain from waters of the state, which include wetlands. So, the question would be, you know, if you had an isolated wetland that used to be regulated and is now not regulated, does a farmer have to maintain that setback? I don't know that we know the answer to that yet. It's possible that they would not have to maintain a 50-foot setback to that isolated weapon. But the permits that they have, you know, the way those permits are written, if you apply waste and it runs off your field, you violated your permit. So, whether or not you've had a discharge to waters of the state or waters of the US, even if it just goes into a ditch on the side of the field, the farmer has violated their permit. So, there is still an enforcement mechanism there that the DEQ has to regulate those types of entities. So, I think I'll leave it there.

Stan Meiburg: Keith, thank you very much. Grady, I'm going to pull up your pictures.

Grady McCallie: Is it okay if I speak from up there?

Stan Meiburg: Yes, it certainly is.

**Grady McCallie:** Good morning. I appreciate you all being here; I appreciate the chance to be on this panel. I'm Grady McCallie with the North Carolina Conservation Network. And I really appreciate Keith's summary of what happened. So, we have this decision from the Supreme Court in May. At the time, North Carolina had an independent statutory basis for regulating wetlands, and the North Carolina General Assembly removed that by the end of June in the North Carolina Farm Act from this year. So, at this point, I believe as he said, that the jurisdiction in North Carolina is coterminous with federal jurisdiction.

Part of what I hope you'll take away from these remarks is that that doesn't make sense from a public policy perspective for North Carolina; there's no reason that ours should be coterminous with federal jurisdiction. I want to start by saying the reason why, we, as a matter of public policy, care about protecting wetlands is the functions that they provide, right? So, they provide habitat, they provide flood control, they clean pollutants, especially nutrients -- nitrogen and phosphorus -- out of water, they recharge our groundwater supplies. That constellation of reasons we protect wetlands doesn't really have anything to do with the legalistic, federal



determination on what is a water of the United States and what is not, but it should drive our state conversations about what receives state protection.

I'll start with, I just have three slides. And I'll say on these, I'm indebted to Adam Gold with Environmental Defense Fund for putting together these slides. They're very preliminary, and he asked me to be sure to say they're very preliminary. I should also caveat them by saying what he did to make these was take the National Wetlands Inventory data, which is mostly from color infrared photographs from the 1980s, early 1980s, and overlay them with the National Hydrographic Dataset, which is mostly from the 1970s. So, it's very old data. The National Wetlands Inventory Program, Fish and Wildlife Service, has said for years, don't use this for regulatory purposes; this is a non-regulatory database, and part of that is because it misses most wetlands under an acre, which provide really important functions, they're scattered across the landscape. That's particularly important in the Piedmont and the mountains in North Carolina, as you can see on this map. What you see here are the perennial streams and intermittent streams in the Yadkin Basin, so there's Yadkinville in the middle. You see very few wetlands because wetlands tend to be pretty small in the Piedmont and in the mountains, and they just don't get picked up in this dataset. So, the reason I have this up here is because one of the implications of the Sackett decision is that the intermittent streams aren't protected because they are not connected with a continuous flow for most of the year at the surface. So, look at this dendritic pattern, and it's like lopping the fingers off of a hand when you see what happens when we don't have any regulatory protection for those streams.

Now, in river basins where we have buffer rules that provide some measure of protection, we may see buffer rules protected, repairing buffer rules, protected in the Yadkin. Because there's a stakeholder process going on right now, but that isn't in law right now for the Yadkin basin. We want to take a look at this; this is a map around Greenville. And what I briefly want to note here is that from a public policy perspective, it doesn't make sense that we would protect--the areas in blue are areas that, in this analysis, they're basically wetlands from the National Wetlands Inventory that are adjacent to perennial streams and rivers; the red are not, and so the red, in this very rudimentary analysis, are the ones that lose protection. But what you see, it doesn't really make sense if you're a person living near a blue area that you would be protected from flooding because the wetland just upstream from you can't be developed without a permit or mitigation. But if you live next to the red one, you can be flooded now because there isn't a mechanism to protect you from those impacts.

I will also mention, if you know the area around Greenville, there's a lot of development coming south down Winterville. If you look over towards that area of red areas around Frog Level, I was just taking a look at who owns that land. Some of it is North Carolina farmers, landowners on the land. There's a tract that's Weyerhauser forest property. Some of it is owned by folks who live in Florida, or South Carolina, or Virginia, or a Real Estate Investment Trust, who owns a big chunk of wetlands there. And the concern for us is, what happens when, as the development pressure comes out from Greenville, Winterville, what happens to those lands? Who's making sure that the water that is placed there isn't going to flood somebody else, and that the other functions are protected?

This is the last slide I'll put up, and this is from Farmville. This is the little town of Farmville, which is west of Greenville. That's Little Contentnea Creek that flows through; it's the main river that flows through. There are a couple of points that I want to draw out of this. One is, if you see that tongue of red here, this is an area that this basic analysis that EDF does shows as not being connected. Now whether it is or not, I don't know. And one of the challenges to this is that it's still going to require, as Keith said, it's still going to require a delineation; someone's going to have to go out and walk the property to tell whether it's really connected or not. So, this decision



and the stripping of protections doesn't really simplify that question for the landowners. But I will say that this area, this neighborhood here, already has flooding in storms; you can see the news articles online. When they get a lot of rain, that area already floods. And if you look at this wetland up here, which partly has agricultural drainage, but it is a wetland currently--but it drains into here and comes down. If you add this runoff, this area is already flooding, so there's a question of what happens to the neighbors who are already at risk of flooding. You pour more water in, on top from newly drained or paved-over wetlands upstream.

The other thing I'll notice about this map: it doesn't divide up the kind of wetlands that are along this stream; the National Wetlands Inventory says these are all wetlands. But if you parse that, some of these, there's an area here, for example, that is a different kind of wetland, right where the light is now, compared to this where the light is now. And this part is saturated; it all floods for at least a few days or weeks in the spring, but in this part, the soil dries out later in the year and in the part closer to the river, it doesn't. So, one question is going to be, is that continuous? Is that all one wetland that's connected to the perennial stream? Or does it stop when the kind of wetland changes? That's something that we don't know yet, how that would be interpreted, and it may be interpreted differently in different places.

There's also the question, if you own a piece of property here, this decision was supposed to make things easier, but you can't actually tell that unless you cross all the intervening properties to get to the perennial stream to tell whether it's continuous, whether the wetland is continuous. So, this actually isn't simple for a landowner; it actually makes it more complex because you've got to look at intervening properties that you don't own and don't have permission to go on. So, I think this is actually going to be quite a headache to implement.

And the last thing that I want to mention, is back to that question of why do we protect wetlands? You can imagine an approach that says we will regulate each of these things separately. So, we'll regulate stormwater to make sure we don't lose too much water off of a property that will flood somewhere downstream. We'll regulate habitat to make sure we protect threatened and endangered species. We'll regulate groundwater recharge zones; we don't have regulatory protection for groundwater recharge ones. But by the time you do that, you set up four different regulatory programs. We had it all in one when we were protecting that habitat. So, it makes sense to us to reclaim some of that jurisdiction in state law as a way of protecting these functions. Thanks so much.

**Edgar Miller:** Thank you, Stan. As Stan said, I'm Edgar Miller, I'm the Yadkin Riverkeeper, and also serve as Executive Director of the organization. Have a couple of my board members here today: Robby Abou-Rizk and Colleen McDaniel. I don't think I see anybody else out there. But, glad to be here today to talk a little bit about this and how it impacts North Carolina.

From a Riverkeeper's perspective, of course, our job is to be the voice of the river, to protect and enhance the Yadkin River, particularly from a water quality standpoint. And any time we perceive or think the Clean Water Act, which we use on a daily basis to hold polluters accountable, is going to be weakened, or somehow will not be a tool for us, obviously, citizen suits under the Clean Water Act, we do a lot of permit review and other things that we really need to work with the state agencies to try to get those permits stronger. So, we're obviously concerned about this.

Grady mentioned how the Farm Act, passed by the state Legislature (not to be confused with the Farm Bill at the federal level), ties our hands. And maybe Robin will touch more on this about how North Carolina used to have protection for some of these isolated wetlands. The



particular concern here, and I'll talk a little bit more about this later, are headwater streams. I've actually learned a new term during this debate--losing streams. How many people know what a losing stream is? Well, there you go. So, it's not well known, but it's a stream that, I guess, gets lost and goes underground, I guess that's where that comes from.

Of course, floodplains, we are relatively fortunate that we have mostly still functional floodplains along the Yadkin, great buffers in most cases, predominantly farm and forest land. So, as Grady mentioned, the High Rock Lake nutrient management rules, we're hoping, will ultimately produce buffer requirements to protect what we do have. I will show some photographs of a recent time on the river and above the river to illustrate the importance of those buffers.

I guess I follow the ecosystem framework category that Stan mentioned; that seems like a common-sense approach. As Grady noted, this seems to bring even more regulatory uncertainty to landowners. So, it concerns me that people are going to be even more confused or have to spend more money to figure this out. I guess the good news, though, is that, unless someone corrects me, I believe the Yadkin River is still covered by the waters of the United States. Anybody disagree with that?

#### Robin Smith: Today.

**Edgar Miller:** Today. Well, and it's not because it's traditionally navigable. Because some of you may be familiar with the Alcoa dam relicensing process, where the state ultimately sued Alcoa about who owned the riverbed. Of course, the DC, I think, appeals court--lawyers can correct me later--also, ruled that it was not, because it was not navigable at the time North Carolina became a state in 1789. More fun facts that that I've learned. So, there were efforts to obviously develop Bean Shoals Canal. But I've been assured that because we are an interstate river, starting with the tributary of the Rat River in Virginia, flowing through North Carolina and then turning into the Pee Dee and flowing for another 230 miles in South Carolina, which is slightly more navigable on that end. I think, at least with fisherman and commercial activity, because we are connected to the Pee Dee, I believe we're good. All right, so no more panic attacks on my part.

But in terms of the actual local impacts of this, it's somewhat limited, according to the to the National Landcover database; only about 1.5% of our 7,200-square-mile watershed is considered to be wetlands. Now, to Grady's point earlier, the map may be a little different, and probably a lot of smaller wetlands are not being counted there. But I looked at the basin wide plan, and we have about 96 square miles of wetlands, if you look at what is 1.5%, and it's remained relatively constant, we've actually gained an acre of wetland over the last ten years. I guess that was restoration or mitigation, but about 96 square miles, and you know, that doesn't seem like a lot out of 7,200. But obviously, in very critical places, these wetlands are filtering pollution, and doing the other benefits that Grady talked about. And so, what you see there, that's about the size of the city of Winston Salem, I believe. According to Google, the city is 134 square miles, so you know, you think about that, and that's pretty big, you know, so that's big, and when it's in the strategic spots, it's important to protect it.

As far as regulatory issues related to wetlands, we've only seen about 80 acres of wetlands--once again, very small wetlands--that have been converted. If anybody's from Kernersville, or you see what's going on up at the headwaters of Abbotts Creek, those are regulated wetlands, but unfortunately, they're still filling up the stream with sediment and other things that come into High Rock Lake and bring nutrients and pollution with them. So, even the



current regulatory framework does not work that great, but I assume those would continue to be protected because I believe they are adjacent to a stream that is perennial and attaches to a navigable water. So, in 2016, which is last year we had data in the basin report, there were only five, I think those were 401 wetland certification permits filed in our watershed for about 5 acres. So, it's a slow process, but I think if any of you drive around the Triad, particularly, you see the development pressure coming. We see the Forsyth County Board of Commissioners--let me throw them under the bus briefly--they are rezoning the Yadkin River Conservation District all up and down the river in Forsyth County to allow more high-density housing development, so that's just going to hurt our buffers. And I've tried to advise them to stop doing that, but they keep doing it. And it involves a lot of complicated development issues like sewer, and who's pumping the sewer, and who's paying for the pump station, and then who ends up holding the bag on that one? I think we all know.

So, I just wanted to show a few quick photos here in my last minute and reiterate a couple of concerns, I think I've touched on almost everything. This was from a paddle that we did on the Upper Yadkin above Kerr Scott Reservoir, the river there is much more like a mountain stream and very beautiful. We're hoping to designate part of that, at least in Wilkes County (I believe this is actually in Caldwell County), as part of Yadkin River State Trail. And if anybody needs a Yadkin River State Trail map, see me after the conference. So, this was like September 2<sup>nd</sup> when we were paddling on the river over Labor Day. This is when I was with staff from the Pilot Mountain State Park at the river section of the park, some of you may be familiar near East Bend, and that was like a couple of days later. And I think, you know, this is not the Yadkin, it's not living up to its moniker, the Muddy Mighty Yadkin, here; it's very clear, you can see the bottom and that's the way it should be, right?

This, unfortunately, is the Mitchell River, where the state and federal government has spent \$20,000,000 on restoration. But this picture was taken by wildlife biologist Joe Mickey, who some of you may know; it just shows what's happening up there with agricultural land.

Sorry, time's up, sorry, was trying to do my best.

But let me just wrap this up. This is a stream; this was about September 7, and Robby, who's also president of Trout Unlimited, who's worked on a lot of restoration projects there, sent me this from Joe. And then, this is a few days later, on I think September 9, with the Ararat River coming in clear as a tributary from Mount Airy, but merging with the main stem, which of course, does convey most of the sediment and nutrient pollution that you see. And so, this is the place where I put the sign a few days before when it was clear, and now you can see that sediment plume bringing all the pollution with it is now at that sign. So, that's one of our new river trail signs here, by the way, so in case you get lost, you know where you are, kind of.

This is an aerial shot then, about five days later, when I flew over the watershed. And this is the border between Davidson and Davie County. And you can see the river is living up to its name, "Too thick to drink, too thin to plow," I think it's the expression that they use on that one. But once again, you see the wonderful tree buffers and the farmers doing a great job there, just really fortunate that it's that way.

And then, on that flight proceeding down to High Rock Lake, you see that sediment plume has now reached the middle of the lake. This is really dramatic, in my opinion, to see how much that happens. And that happens, High Rock flushes out like this every five or six weeks, if there's rain. This was probably less an inch of rain; I did not look at precipitation data for that day. But



so, that plume that now has followed me and plagued me all the way down the river is in the lake. And what happens is the sediments go under the High Rock Dam and are passed on down to Tuckertown. And now we're seeing algal blooms, harmful algal blooms, in Badin and Tuckertown. And this is the cyanobacteria which can potentially produce toxins. And both Tuckertown and High Rock now have hundreds of acres covered with that. And High Rock has had blooms as well, where they've had to do swimming advisories. That's what's at stake here, and any weakening of our ability to protect wetlands and protection along river buffers is going to add more problems.

Stan Meiburg: Thank you very much. Robin we're going to turn it over to you.

**Edgar Miller:** Oh, and there's the South Yadkin, coming into the Yadkin, you can see what's going on there too.

**Robin Smith:** I think that the maps and the pictures are really helpful. Talking about laws and regulations, on the other hand, I decided to spare you my PowerPoint slides of bullet points, which are always riveting to look at. I do need to say, going into this, that I'm speaking as an individual, not on behalf of the Environmental Management Commission, which represents a range of viewpoints on all of these issues.

I'm going to back up just a little bit to some history, and why I think the recent unfortunate sequence of events is so both unfortunate and disconnected from either law or good policy. The history is that states have primarily been responsible for protecting the environment and the public health of their citizens, and so environmental regulation is fundamentally a state responsibility. There are federal laws like the Clean Water Act that have superimposed some federal standards on top of the variety of state laws, and states vary tremendously in how they regulate water quality and air quality. But the Clean Water Act creates a sort of base for all states to operate under.

The Clean Water Act has limited jurisdiction, and that's really what we're talking about when we're talking about the *Sackett* decision; we're talking about what the extent of federal jurisdiction is under that law. Federal jurisdiction is never as broad as state jurisdiction because Congress, unlike the state, is limited by the United States Constitution. Congress can only make laws, generally speaking, if you're talking about the environment or public health, Congress is limited by the Interstate Commerce Clause as a basis for taking some sort of legislative action. So, Congress has to be able to say there's an interstate commerce aspect of a law in order to use federal power to address some of these issues. And that's exactly what happened with the Clean Water Act. That's why the Clean Water Act talks initially in terms of navigable waters, because that was considered an interstate issue. States are not and never have been constrained by that kind of jurisdictional limitation, because all waters in the state are state waters, and the state has responsibility as a state to address the quality of those waters. Some states do better jobs of that than others, but the Clean Water Act just presents a floor for those activities.

So, having said all that, I think one of the disconnects in the interaction between the *Sackett* decision and the North Carolina Farm Act provision this year, it's a continuation of a theme we've seen, I think, in state legislation for several years, which is that state environmental laws should not go beyond federal laws. In this case, I think we've mixed up standards versus jurisdiction. The real issue in *Sackett* is jurisdiction. Nothing about the *Sackett* decision indicates that non-perennial, intermittent streams are not waters or wetlands that only have a



groundwater connection to surface waters are not wetlands. This isn't about defining what wetlands are; it's not about the value of any particular type of wetlands. It is strictly about which wetlands are in federal jurisdiction under the language of the Clean Water Act, which again, is constrained by the United States Constitution to matters that affect, or are affecting, interstate commerce. So, we had this unfortunate sequence of events started, as others have mentioned, back in the spring when the *Sackett* decision came down. And then the North Carolina Farm Act was enacted shortly after that and did have the effect of saying that, for state regulatory purposes, waters of the state will no longer include any wetlands that are not in federal jurisdiction.

And I'll do a quick sort of before and after this sequence of events. So, before the *Sackett* decision, before the North Carolina Farm Act provision, the state looked at impact to streams and wetlands in two ways, well, maybe three. So, if you look at just discharge of pollutants into waters, of course, we have a permitting program, the NPDES permitting program that regulates wastewater discharges from your municipal system or from industrial dischargers. And the jurisdiction for those permitting requirements, the NPDES wastewater discharge permit is the same; it's waters of the United States. So, the *Sackett* decision didn't just affect the definition of waters of the United States for purposes of filling; it also affects the definition for purposes of discharge of pollutants. We have NPDES permitting for wastewater discharges with respect to physical alteration of streams and wetlands, which usually means filling, sometimes excavation, but usually filling.

We looked at those impacts in two ways. If a stream or wetland or other surface water body was in federal jurisdiction under the Clean Water Act, then the primary permitting agency would be the United States Army Corps of Engineers. But the state had the opportunity to review all of those permit applications, and under a separate section of the Clean Water Act, the state had the ability to determine whether that project would comply with all state water quality standards. So, not just standards for filling activities but all state water quality standards. So, the need for a permit to fill a stream or wetland under Section 404 of the Clean Water Act would trigger the need for a Section 401 certification from the state that that activity was going to be consistent with state water quality standards.

And then, the final way we looked at these impacts is that if a water body or a wetland fell outside federal jurisdiction, so it didn't trigger the Section 404 permit requirement, the state still had some standards, both pollution and filling standards for what we referred to, broadly, as isolated wetlands. So, wetlands that were not in federal jurisdiction were still wetlands meeting the normal definition of a wetland, whether that was surface connection or groundwater connection. So, the state had a very small piece of direct permitting authority over those non-jurisdictional wetlands in the state.

But it has changed now; well, several things have changed now. Obviously, the thing that has gotten the most attention is that the North Carolina Farm Act now says wetlands that aren't in federal jurisdiction don't require state permits at all; they're completely outside state regulatory authority. The other thing that has gotten a little bit less attention, I think, is that the *Sackett* decision also talks about what federal jurisdiction is over streams, tributaries. And I think Grady's slides did a really good job of illustrating what that can affect.

So, the issue is going to be that, in the *Sackett* decision, the court talked about the fact that the Clean Water Act really only covers tributaries. Well, there are two steps, I guess. First, if the Corps of Engineers is looking at a water body, they have to make a determination: Is this a



water of the United States? Under a number of different criteria in the Clean Water Act, which include: is it an interstate water, is it tidally influenced (all tidal waters are considered waters of the United States), is it a territorial sea? So, there are several initial criteria for determining if something is a water of the United States. If the court decides that it is, then traditionally tributaries to those waters have also been jurisdictional. But what the court said in *Sackett* is, those tributaries, to be jurisdictional, have to be relatively permanent, standing or continuously flowing. That obviously affects potentially both permits for discharge of pollutants and state wetland reviews because previously some of those tributaries would have been jurisdictional, federally jurisdictional, and the state would have looked at impacts to wetlands connected to those tributaries in the 401 certification process. If the tributary drops out of federal jurisdiction, so do any adjacent wetlands.

And then there's the final category of just wetlands that, whether they are in federal jurisdiction or not, and clearly, under the new state law, if they are not in federal jurisdiction, the state has no regulatory authority.

Stan Meiburg: That all sounds as clear as day.

Thanks to all of you; these are great presentations and very thought-provoking. And for those of you in the audience, if you have questions you'd like to ask, if you'll write them down on three-by-five cards and just pass them up toward the front, we'll take those.

But while you're thinking about that, I have a question I wanted to frame, which all of the speakers in some way, shape, or form, touched on. When you read the *Sackett* decision, one of the questions that was posed there is what happens if areas fall out of federal jurisdiction? The answer in the decision was that, well, that's what Congress intended. States were to govern under their authorities. Under the Constitution, states would step in to protect, as they needed to, waters that weren't federally jurisdictional. And the classic example of North Carolina is the pocosin wetlands, maybe not the only example, but certainly a classic one, as to whether they were included or not.

My question would be, now that we've had some time to reflect on the North Carolina Farm Act and the interplay with wetlands of concern in the state, do you think there is some prospect that the Legislature might go back and say, "We may have done things that we didn't intend to do, not providing protection for some of these areas," and revisit this question, or is it going to be left more open ended now? I'd be curious to hear reactions of the panelists in any order you would like.

## [laughter]

**Stan Meiburg:** I realized that this asks you speculate what the legislature would do, which is a fraught topic to begin with.

**Keith Larick:** So, I've heard several people ask, "Did the legislature actually intend to completely remove the state's authority?" And I don't know the answer to that. I do know that there are several legislators who may not have quite known what they were voting for. I mean, if you look at the Farm Act language and who voted in favor of it, in the end, you could look at the vote total and say it was actually a bipartisan vote, which leads me to believe there were several members who did not quite understand the implications.



Now, those members are probably not the ones who decide what laws move forward and which ones don't in the legislature, to be frank. If you're asking me to predict the future, I would say there's probably not a big appetite for the legislature to go back and revisit it. Now, that's not to say, I mean, the way we got the State Wetlands Program to begin with, was people realized you know, there were needs out there, and they went in and did that, and it's possible that that'll happen, maybe there'll be a few projects that make people realize, "Well, maybe we do need some state protections."

Grady, you mentioned the flood control issues. DEQ is currently developing what they call flood resilience blueprint to help with flood issues in the state. You know, and one of the things they're looking at and that is, you know, are we going to construct wetlands to help with flood control? When I go and talk to farmers about flooding, the first thing they tell me is, "Well, if we're not going to do anything about development and adding new impervious surface, what are we even talking about?" So, there's competing interests for sure.

**Stan Meiburg:** That's actually a very interesting point, because occasionally, as you mentioned earlier, people tend to lump agricultural interests and development interests in the same bucket, when that may not, in fact; those interests may not, in fact, overlap.

Keith Larick: Sometimes it does, sometimes it doesn't.

#### Stan Meiburg: Yes.

**Keith Larick:** You know, I think we're approaching a point where on the flood control issue especially, we may not be in alignment and we're just going to have to see how that plays out.

#### Stan Meiburg: Other thoughts?

**Grady McCallie:** Yeah, Keith, I think that's a very thoughtful point. I will say, when the legislature considered the Farm Act in this session, the arguments were brought to the legislature before *Sackett* and after the opinion came out and were ignored. I mean, it was not that they didn't, that they hadn't been told and we tried to get the best messengers, which is not always the environmental lobbyists, it's often other folks to bring the information.

Stan Meiburg: With apologies to all the environmental lobbyists in the audience.

**Grady McCallie:** But this session, the legislature, both parties heard the information and did not act on the basis of that. I wouldn't be surprised to see some effort to bring jurisdiction back for some subset of wetlands. The question is going to be: what set is it?

The other thing I'll say is that the interest that was most up front on this was the North Carolina Home Builders. So, part of the question, the calculus on this for me, is in future sessions, how much relative power do the Home Builders have, specifically? They got, not just on this, they got this, they got a whole bunch of other changes this session, which are terrible policy, from a flood protection point of view, on stormwater management. Other areas as well, building code stuff. So, one question is, how much power do they have in future sessions? But it's always easier to block changes than to enact them. To get protection, we're going to have to see changes enacted.



I think when bills are brought forward, the thing that I'm particularly going to be looking for is, do we see a bill that says, "Oh, you know what? We should protect bogs and mountain fens," and that's great; we need those from a habitat perspective, but we also need to protect people from flooding. And some of the areas that are going to be the most politically controversial, do we prevent--the permit process doesn't prevent--do we make it harder for someone to locate new developments in a wetland that's going to flood, or in a place that's going to flood somebody downstream? That really is the crux: Can someone sell their property for development? Is it worth as much if part of it has to be protected because you need to protect the wetlands on that property?

The last thing I'll say is there was a study from UNC, I think it was released in February of this year [2023], that noted that we're spending millions of dollars to buy out properties in floodplains and across North Carolina, but we are, as a state, building ten times as many houses in floodplains as we are removing them by paying for them. That's not directly connected to wetlands, but of course, the more wetlands we drain, the wider the floodplains downstream get and the more often they flood. Certainly, if we're allowing, by removing wetland protection, for certain areas of floodplains to be developed that otherwise weren't being developed, we're increasing that exposure too.

**Stan Meiburg:** There had been, back in the day, some effort on the part of the legislature to protect the isolated wetlands that Robin was mentioning. I think I know the answer to this question, but I thought I'd ask it too: Did the isolated wetlands provisions go out with the Farm Act, or was there still some residual coverage?

**Robin Smith:** Our best interpretation is that they disappeared with the Farm Act. You're mentioning a 2015 session law that specifically allowed for permitting impacts to certain types of state wetlands, that were outside federal jurisdiction. This new provision is written so broadly that, as a later provision that is written more broadly than the earlier law, it overtakes that earlier protection. So, our assessment, and the assessment of the Attorney General's Office, has been that those earlier isolated wetlands pieces of legislation have been overwritten.

**Edgar Miller:** Yeah, I think that that's our concern on the floodplains. I mean, because we're just seeing so much development pressure building right up to those floodplains, and this might open the gate and make it easier for those to be developed, per Grady's point. I think politically, we were all surprised that the governor vetoed the Farm Act. As Keith said, the Farm Act has a lot of things in it that are good for farmers and others. But I mean, you were surprised, weren't you, Grady?

## Grady McCallie: Yes.

**Edgar Miller:** And the governor vetoed this, and we did get a few folks that had voted for the act initially, in the Senate at least, to switch their votes, to sustain the veto. And that only failed by one vote. So, maybe there's a glimmer of hope that if we have some good examples of where things are happening. There is a North Carolina Wetlands Protection Team that has been established that several of us are working on to try to figure out how we can do this from a state or local perspective. So, I don't know, legislatively, Grady, if you think they will come out with the proposal, but they're certainly looking at that. So, yeah, I think you know, being an optimist, that we could hopefully address some of these more egregious situations, but politically right now, we're obviously not in a good place.



**Stan Meiburg:** Well, that raises an interesting question, now that it's been six months since the *Sackett* decision and a few months since the North Carolina Farm Act. Have you already seen people who have been moving to take advantage of the state of play now to do things they might not otherwise have been able to do before the *Sackett* decision?

**Edgar Miller:** Well, I think, I don't know if this is relevant or not, and Robin might be able to shed light on the one new piece of legislation that involves highly treated wastewater. And my concern with that is that it's going to allow people to basically dump highly treated wastewater into a ditch that would no longer be considered, you know, connected to a navigable water. And so, I don't know how, I mean, I think if we start having raw wastewater going out in ditches, then maybe, maybe somebody would, you know, show concern about that.

#### Stan Meiburg: Other comments?

**Grady McCallie:** So, I'll say that's something that we've been trying to figure out: how do we tell? So, there are a couple ways to tell that. One is just for someone go to the Army Corps of Engineers and get told that the wetlands they have on their property are non-jurisdictional. And so, to do that, you have to look through the files, delineation by delineation. Now, if they don't go to the Army Corps Engineers because they conclude post-*Sackett* that they don't have anything jurisdictional and they're just going to take a chance that the court would not disagree with them, the only way you find it is if someone complains and there's enforcement record. We haven't seen any of that.

The other thing I'll say, the other place you might see it is at the local level, with people coming into rezone properties that they never thought they could develop for the last 50 years, and now they think they can. We've made some rudimentary efforts, but nothing systematic, to find those.

**Robin Smith:** Yeah, I'll just add, I think it may be too early to tell, because on the federal side, people who are trying to do it right and trying to make sure they have their federal permit, if they need one, go to the Army Corps of Engineers for a jurisdictional determination.

The problem since the *Sackett* decision has been that *Sackett* turned upside down all the criteria the Corps have been using. It took until September for EPA and the Corps to agree on rule amendments. So, they've amended the federal rule now on jurisdiction to align with the *Sackett* decision. The final rule was issued in September. And they've just in the last few weeks, they, meaning the Corps, started doing jurisdictional determinations again. So, for a long time, they just weren't doing any because they were uncertain what the criteria were going to be. So, they have finally started doing jurisdictional determinations, which will give us a better picture of what all this is going to look like on the ground. So, for people who are trying to use the appropriate process, that process has just restarted and we're just going to have to wait and see what happens.

I have said, and we talked about this at the Environmental Management Commission back in the summer that the Department of Environmental Quality needs to really communicate to folks. We've seen this movie before, that when federal jurisdiction changes and people get the subliminal message that you don't need to worry about permits anymore, some number of people are going to go out and do really bad things that turn out to be illegal for other reasons.



So, we went through this 20 years ago with a US Supreme Court decision that caused a lot of ditching and draining activity in the coastal area. And it turned out those projects didn't trigger a federal permit, but they ended up on the wrong side of a state enforcement action under the State Sedimentation Act.

So, one thing we've tried to start putting out there is just remind people, federal jurisdiction, federal permits, that's one question, we still have other state laws, not wetlands permitting laws at this point, but other state laws that may affect those activities, so use some caution. There's not a green light to go out and do whatever.

**Stan Meiburg:** Which is kind of the same message that Keith mentioned in connection with his advice to farmers.

Well, we are getting a number of great questions in here. Here's one that, Grady, seems appropriate for you, but I think several of you could speak to this. When intermittent and non-continuous streams lose protection, what are some of the other impacts? You talk mostly about flood mitigation, but there are concerns about wildlife, water quality, and so forth.

**Grady McCallie:** That's right, and I know other folks on the panel will have thoughts on that. One that jumps out at me is, there's a lot of research showing that the area where water comes out from the ground water into the stream is particularly important for nutrient removal. If you bury that stream or pave over it, you're going to lose that. And that is, that's, when I was talking about sort of the fingers on the hand, that is really important for nutrient management throughout our watersheds. And that's one of the reasons why those headwater streams, it's so critical that they be protected.

**Stan Meiburg:** Here's a question, Keith, for you: What percentage of the farms use USDA programs? For the ones that don't, does that mean they don't have to abide by some of the USDA rules of conservation and so forth?

**Keith Larick:** So, it probably depends on the type of farm. You know, if you're looking at your larger, you know, typical corn, soybean, cotton type of growers, the vast majority of those farms participate in the USDA programs. Primarily because of that crop insurance benefit, kind of that risk management aspect, it helps them with that. You know, your smaller farms, some of your produce type farms, maybe not. You sort of have to get to a certain size before some of those crop insurance benefits help you out.

Unfortunately, we've tried to have those help smaller farmers throughout the years, that's more of a federal Farm Bill type issue. As we've heard, having Congress change stuff, that can be hard to do. There are farms, you know, who have looked at it and decided, screw it, it's not worth it for me to mess with all this stuff, I'm just going to do what I want. There are some of those farms out there; there's not that many. Like I said, the disaster payment aspect. You know, I know a cattle farmer who may say that, you know, heck with it, it's not worth me messing with any of this. And then he realized, well, that means I don't get this disaster payment, and he's trying to scramble to figure out what he can do to get back in USDA's good graces.

So, I guess the bottom line is, when you think about your larger farms, the vast majority of them do participate in those programs. And, you know, I would say those are, especially when you think about eastern North Carolina, those are probably the ones that would be more likely to



look at clearing land and adding new land that might impact wetlands. So, I think there is some protection there, I would say that the issues, you know, you may see some of the smaller farms that are not participating in those programs that do that, but those would also be smaller impacts, would be my guess.

**Robin Smith:** I have one thing to add to that, and that is, setting aside the Swampbuster provisions, which are really important, on the regulatory side, most agricultural activities have always been exempt from the regulatory pieces of the Clean Water Act, on the wetlands side.

Stan Meiburg: Irrigation, are you thinking about irrigation return flows.

#### Robin Smith: Yes.

**Keith Larick:** Yeah, that's true. But so, I will struggle with this. I don't think a farmer is allowed to clear land to make it available for farming any more than a developer is to make it available for houses. You know, farmers, if they're going to fill in an existing wetland, I mean, that farmer still needs to go through the Corps just like anybody else. I mean, we've seen farmers get in trouble for that.

You know, if a farmer wants to build poultry houses, for example, I mean, they would have to go through the Corps to make sure that's not a wetland. Now, I mean, there are, you know, discharge things, and return flows from irrigated agriculture that there are exemptions for. But just for the purposes of going and clearing, filling in a wetland, you know, where there used to be trees, farmers still get caught in those regulations.

**Stan Meiburg:** Yes, the only nuance that I was thinking about was the so-called prior converted cropland.

Keith Larick: The pre-1985, right.

**Stan Meiburg:** Where if the developer were coming in, they'd probably have to have a higher degree of scrutiny than if you were just going to restore prior converted crop land to agriculture.

Keith Larick: If the court knew about it.

Stan Meiburg: Yes. There's that.

[Laughter]

**Robin Smith:** And actually, my point is not so much that I think farmers are going to rush to do that, as just to reinforce something someone said earlier, I think. This is really about development activity; it's not about agriculture. I don't know what all the political thinking was either, this year in the North Carolina Legislature, or how likely there will be changes.

But I think the fact that the provision was in the North Carolina Farm Act, it was supported by farm organizations. I think a lot of legislatures may interpret that to mean this is really important to farmers, and it just wasn't really about that; it was about development activity.



**Stan Meiburg:** And that's why, you know, it's interesting to think about where their interests may overlap and where their interests may not. There's a lot of room for discussion on that point.

We have an interesting question here: Are Lake Mattamuskeet and other very coastal natural lakes considered waters of the United States? And then, a follow up question to that is, what authority do counties, independent of the state, have with respect to protection of isolated wetlands? So, can counties use zoning authorities or other things to provide protection in isolated wetlands? So, two different questions, one specifically about Lake Mattamuskeet. Robin what do you think?

**Robin Smith:** So, Lake Mattamuskeet would definitely be considered waters of the state; that wouldn't have changed under the recent state legislation. I don't know what the federal, how the federal agencies have looked at an area like Lake Mattamuskeet, to tell you the truth.

**Keith Larick:** It's a good question, how those get treated. I mean, over the years they have been modified to have a continuous connection.

Stan Meiburg: Correct.

Keith Larick: You know, with outlet canals and things like that.

**Stan Meiburg:** Just intuitively, just to step out of my moderator role for a minute, I would think that it would be a hard argument to argue that Lake Mattamuskeet is not a water of the United States, but...

Keith Larick: Right.

Edgar Miller: It's all about the Fish and Wildlife Service, isn't it?

Keith Larick: Well, Federal Wildlife Refuge, sort of.

Stan Meiburg: Sort of, yes, there's your answer.

**Grady McCallie:** It probably is worth noting, so, there's pocosins in the coastal plain, which are different. And one of the big questions there, and this is a big question, I think.

**Stan Meiburg:** Pocosins to me are kind of the iconic examples of ones where there's some interesting.

**Grady McCallie:** Right, because they do, they fill up the water, they're often slightly higher than, because of the accumulated peat, slightly higher than the land around them. And they do shed water, they would be perennial if they shed it through a perennial connection. But if they shed it like sheet flow across the landscape, then there's a good chance that they're not protected.

**Stan Meiburg:** Right. What about the county authority question? Did the NC Farm Act preempt counties from adopting additional local restrictions?

**Robin Smith:** It does not expressly address that, and honestly, I cannot recall whether there is any specific preemption in the state water quality rules.



Stan Meiburg: States have gone different directions on this.

**Keith Larick:** I would say generally, there are a lot of preemptions for counties and municipalities to take action on their own. Yes, you know, one question is that the coastal counties get treated differently on a lot of stuff through the Coastal Area Management Act, so I don't know if maybe that gives them, you know, with their land use planning, some authority. But generally, the legislature has pulled that back from them over the years.

**Stan Meiburg:** Pulled back from doing preemptions or pulled back granting local authorities the ability to take their own actions?

Keith Larick: I would say generally the legislature has pulled back granting--

Robin Smith: Local authority.

Keith Larick: --taken away their additional authority over the years, generally.

**Edgar Miller:** I mean, there is a lot of research going on about that. The NC Wetlands Protection Team is doing a lot of research on that to try to either develop some template ordinances that don't call them wetlands protection, right? So, you know, other public health powers that local governments have could be exercised in a way, I think, to possibly get around that.

**Robin Smith:** And there are other programs, whether it's floodplain regulation or stormwater regulation. It just gets really complicated in terms of, in some areas, local governments clearly have authority to go beyond state minimum requirements, and in others, they don't. And as others have said, the trend in recent years at the legislature has been to limit local authority and not allow local governments to go beyond state standards.

**Grady McCallie:** I think, I guess my view is that local governments have authority under police powers and under the zoning powers. I wouldn't, if I were a local government concerned about this, I wouldn't pass an ordinance that is modeled on the federal wetlands program. I wouldn't do that. I would revisit my ordinances and say, for the functions of wetlands we're concerned about, have we zoned property properly? Do we have ordinances in place that manage volumes when you develop property?

I will say, as a practical matter, when I look at where rapid development is happening coming out from our metropolitan areas, politically, it would not be hard to have that kind of review of ordinances or adoption of ordinances in Chapel Hill and Raleigh, maybe in Winston-Salem. But when you look at the places where the development pressure is heaviest, where wetlands will be destroyed, filled, without mitigation, and other people will be at flood risk, that's on the urban fringe. Often, the politics in those places is in the process of shifting. But not until that development has already happened, the new residents are shifting the politics, but they haven't arrived yet.

And so, the city council, county commissions are generally anti-regulatory and are not going to put the protections in place at the local level, in the places where the development pressure is greatest and you most need them to preserve the functions. So, I don't have a lot of hope for local action as a solution.



**Stan Meiburg:** Edgar, that was kind of the issue you were bringing up with respect to Forsyth County, if I remember correctly. And it's not so much about the wetlands, but it's the whole buffering function that you get from stream boundaries.

**Edgar Miller:** Flood plains, buffers, yeah. They resolve areas that are currently Yadkin River Conservation District for that very reason: to allow more high-density development.

**Stan Meiburg:** Here is another question. To some degree, data about all waters is becoming obsolete due to more extreme weather and actual development. How is this being dealt with? And I'll also add, the question of data, data shortfalls, is a chronic problem in the water program. Is there any effort to take more advantage of data that's being collected by organizations other than the state?

**Edgar Miller:** The Riverkeepers, we try to work with the state to follow their quality control procedures, to present data on particularly stream impairments. And so, we have a project that's been funded to go forward and do that for the South Yadkin River.

But I'm not sure on the broader trends. I mean, clearly, we talk a lot about increased precipitation in cases like the rezoning, because I think Forsyth County has had three of its highest twelve months of rain, obviously not right now, over the past five years. And so, you know, you see that flooding, and you know, my prediction, if they're only using 100-year flood plain for that development, there's going to be some houses getting wet eventually.

**Stan Meiburg:** On the larger data question, Robin I might pose this to you from your days back with the Department. My own experience when I was sitting on the Commission was that you always wished you had more data than you did, and there was some effort on the part of the Department to make more use of data being collected by other sources. I don't know if you have any more insight on that.

**Robin Smith:** I know there's been a lot of work done in the last several years at the department to expand their mapping capability and draw in and combine.

Stan Meiburg: River basin planning stuff.

Robin Smith: Yes, we do. So, we have river basin plans.

Edgar Miller: Operations cost is important. I look at [my monitors] every day.

**Robin Smith:** he river basin plans have been a major effort, but we have other programs, including mapping of known contamination sites across the state. So there has been a real effort to draw together datasets and create maps that are publicly accessible. It's a big project and requires money and staff, which has been in short supply.

**Grady McCallie:** And I'll jump in on the data. There was a recommendation by an inter-agency committee in September of this year, so just a little over a month ago, on the National Hydrography Dataset, that North Carolina, because that data is from the 1970s, and a recommendation that the state invest in updated data on where the streams are. That's important, not just for, and not primarily for, regulatory purposes, but for resilience, for us to be



able to predict where floods will be, we need that updated data, and it will be expensive, but I think that's worth it.

The other thing I'll say about climate change, I think that's a really thoughtful question. I think one of the challenges that's dogged wetlands as an issue since the 1970s is that they aren't static because the environment isn't static. I have heard Environmental Management Commissioner members ask, "Can't we just get a map? Why isn't there a map?" They change, the wetlands. And part of the answer to that is because wetlands move on the landscape as the hydrology changes. And with climate change, I expect we will see wetlands develop in places where they haven't been because there are changes in intensity of rainfall and where it collects. I think that's something that, just as a matter of public policy, we've got to get used to. It already was changing, and now it's changing in some additional ways. The public policy needs to be flexible enough to accept that.

**Stan Meiburg:** Grady, to your example, I was working with one of my colleagues, a geographer, who had a class on GIS mapping. She asked me if I had an idea for an assignment to the class. I said, "Oh, why don't you see if you can go out and have them do a map of the wetlands around Lewisville in Western Forsyth County?" And of course, it was a trick question. They came back and said, "What do you mean?" So, exactly the point you made.

And finally, and we're about out of time, and I have a last question. Robin, I am not making this up. Robin, please tell me more about the North Carolina Environmental Management Commission (e.g., powers, source of those powers, funding sources, mission, recleaning water, etc.) This is about the EMC, which is probably the most significant and least known regulatory entity in the state government, I think.

**Robin Smith:** The Environmental Management Commission is a 15-member citizen commission, so we all work for free. They give us lunch occasionally. The Commission meets generally six times a year. Every other month, they have a day of committee meetings and then a day of the full commission meeting. But they have the state regulatory authority over all the major environmental protection programs. So, in many states, a state department like DEQ would have that rule-making authority; that is not the case in North Carolina. So, in North Carolina, the Commission actually has the rule-making authority for water quality, air quality, waste management. I'll leave some things out. Those are the big categories, I guess. Then, the department's role is to implement the rules the Commission has adopted. The Commission itself is made up of, well, we just changed our make up as of this week.

Stan Meiburg: I was hoping you would speak to that.

**Robin Smith:** As of this week, it's fifteen members; it used to be eight members appointed by the Governor, and seven members appointed by legislative leadership.

Stan Meiburg: It was actually nine and six.

Robin Smith: It is nine and six? Was it nine and six?

Stan Meiburg: Yes.



**Robin Smith:** Okay, nine and six. The governor had the majority of the appointments, and then the legislative leadership had the remaining appointments. As of this week, the governor now has less than a majority of appointments, and the legislature and the Ag Commissioner combined have the majority of the appointments. So, now I guess it's eight, is that right? Yes. Six legislative appointees, two Ag Commissioner appointees, and then seven Governor's appointees.

Edgar Miller: Have the new appointees been named?

Robin Smith: They met with us yesterday.

Edgar Miller: Who are they?

**Robin Smith:** Let me get the names to you: Joseph Reardon and Bill Yarborough, who have both had experience in the Department of Agriculture and in soil and water conservation districts.

**Edgar Miller:** Interesting. Yes, because I think that's probably the worst piece of legislation to be passed. Well, it's just going to make it very difficult, obviously, to, you know, even more difficult than it is now to get good rules through the EMC, but maybe not. Bill Yarborough has got a strong agricultural background.