

D I A L O G U E

“Waters of the United States” and the Future of Wetlands Protection

Summary

Federal jurisdiction over wetlands was muddled by the U.S. Supreme Court’s 2006 decision in *Rapanos v. United States*, a fractured 4-1-4 ruling with no clear majority. The Trump Administration is relying on Justice Scalia’s plurality opinion as the basis for amending the regulatory “waters of the United States” (WOTUS) definition, which could remove federal protections for many wetlands currently regulated under the Clean Water Act. States and localities are struggling with how to update and clarify their own wetland-related regulations in light of these ever-evolving developments. On May 7, 2019, ELI hosted an expert panel that explored the implications of *Rapanos* and the proposed new WOTUS rule for the future of wetlands. Below, we present a transcript of the discussion, which has been edited for style, clarity, and space considerations.

Hannah Keating is Manager of Educational Programs at the Environmental Law Institute.

Amanda Waters (moderator) is General Counsel at the National Association of Clean Water Agencies.

Joel Gerwein is Deputy Regional Manager of the California State Coastal Conservancy.

Greg Sutter is Vice President and General Manager at Westervelt Ecological Services.

Angela Waupochick is a Hydrologist with the Stockbridge-Munsee Community Band of Mohicans.

Hannah Keating: We are delighted to welcome everyone to this Environmental Law Institute (ELI) 50th anniversary seminar. Today’s seminar is in conjunction with ELI’s 30th Annual National Wetlands Awards celebrating the work of wetland champions around the country.¹

1. For more information, see ELI National Wetlands Awards, *Home Page*, <http://www.elinwa.org/> (last visited July 9, 2019).

As we begin, I would like to introduce our excellent moderator for this seminar, Amanda Waters. Amanda is the general counsel for the National Association of Clean Water Agencies (NACWA), where she manages the organization’s legal advocacy program and oversees strategic communications. Prior to working at NACWA, she served as the government affairs counsel for the Water Environment Federation, where she advised and managed programs related to federal water legislation. We’re delighted to have Amanda moderating.

Amanda Waters: Thanks to ELI for inviting me to moderate this panel with some amazing experts in this field. I’m going to introduce each of them briefly.

Joel Gerwein is deputy regional manager for the California State Coastal Conservancy, which was established in 1976 to protect and improve natural lands and waterways to help people get to and enjoy the outdoors, and to sustain local economies along California’s coast. It’s a non-regulatory agency that supports projects to protect coastal resources. Joel has spent more than a decade at the Conservancy working to protect and restore coastal ecosystems, especially wetlands on the northern California coast with a focus on Humboldt Bay.

Next, we have Greg Sutter who serves as vice president and general manager of Westervelt Ecological Services. He works on mitigation and restoration planning and implementation throughout northern California, and has done so for more than 40 years. Greg has particular technical expertise in brackish, tidal marsh, riparian, and riverine systems. He’s an acknowledged leader in mitigation planning, design, and implementation, and oversees all of Westervelt’s business planning and budgeting.

Last, but not least, is Angela Waupochick. She’s been a hydrologist for the Stockbridge-Munsee Community Band of Mohican Indians for almost nine years. She began her tenure with the tribe as a geographic information system (GIS) specialist contributing to the tribe’s first wetland functions mapping project. She became further immersed in 2011 when she was hired as a wetland

specialist to manage a U.S. Environmental Protection Agency (EPA) Wetland Program Development Grant the tribe had been awarded. In 2015, she became the tribe's hydrologist, adding the management of the tribe's Clean Water Act (CWA) §106 program² to her duties, and in 2016, she established the tribe's §319 Nonpoint Source Management Program³ while continuing to oversee the wetlands program. She is a driving force behind the implementation of stream and wetland restoration activities on the reservation.

I'm pleased to have these experts with us today. I will briefly introduce the topic, and then I will turn it over to Joel. Each panelist will share their perspectives on this issue, and then we'll have a moderated question-and-answer session.

The reason we're here today is that the CWA regulates navigable waters, but the U.S. Congress did not define "navigable waters." This session is focused on *Rapanos v. United States*⁴—and the confusion began long before *Rapanos*. The case went to the U.S. Supreme Court with the hope that it would resolve the confusion.

Rapanos was heard and ruled on by the Supreme Court in 2006. It was actually the first major environmental case heard by Chief Justice John Roberts. Five Justices in the case agreed to void the rulings against the defendants who were enforced against for impacting a wetland, but they split on the details. Four Justices joined in the plurality opinion, which was written by Justice Antonin Scalia. These were more conservative Justices who had a narrower vision of "navigable." In Justice Scalia's plurality opinion, he confers federal jurisdiction over non-navigable waters—waters that are not navigable in fact, so we're really talking about wetlands here—only if waters exhibit a relatively permanent flow, such as a lake, river, or stream.

Justice Anthony Kennedy wrote an opinion where he focused on the "significant nexus" test. He agreed that the case should be vacated and remanded, but he believed that a wetland and/or non-navigable water body falls within the scope of the CWA's jurisdiction if it bears a significant nexus to a traditional navigable waterway. That was 2006. Since then, we've had a few rules come out that I will discuss.

In 2015, EPA and the U.S. Army Corps of Engineers (the Corps) issued the Clean Water Rule.⁵ This was the Barack Obama-era rule, and it relied on the significant nexus test in Justice Kennedy's opinion. In 2015, there were numerous court actions after that final rule was issued. The U.S. Court of Appeals for the Sixth Circuit issued a nationwide stay on the Clean Water Rule.⁶ The District Court for the

District of North Dakota enjoined the Clean Water Rule in 13 states.⁷

Moving on to 2016, there was additional action in the Sixth Circuit. The court ruled that it had jurisdiction to hear consolidated challenges to the Clean Water Rule. Then, on February 28, 2017, the president issued an Executive Order⁸ directing the Corps and EPA to review and rescind the rule. This was a priority for the Donald Trump Administration coming in the door, and that's why this Executive Order came out not long after President Trump was in office. On July 27, the Corps and EPA published the proposed "step-one" rule to rescind the Clean Water Rule and recodify the prior definition of "waters of the United States" (WOTUS).⁹

Then, 2018 is important because this is when the current Administration really got into the details. In February, they published their final rule that added a deferred "applicability date" to the existing Obama-era Clean Water Rule.¹⁰ In July, they published a supplemental notice of proposed rulemaking,¹¹ and then in December, they came out with a prepublication version of the rule that they later published in February 2019.¹² It took some time because of the government shutdown, but it was published on February 14. They had a 60-day comment period that they did not extend, and that comment period closed on April 15.

As of now, the Clean Water Rule, the Obama-era rule, still applies in 22 states. Or if state laws are more stringent, then those apply. In the rest of the country, the Clean Water Rule is not currently applicable. What you would look to in the rest of the country is not the proposed rule, because it's not finalized, but rather pre-Obama-era regulations on how to determine what is navigable. It is a mixed bag right now. I mentioned states; this will come up in our discussion because some states are and have been filling the gap, and providing more protection for wetlands.

The main differences between the Obama-era rule and the current proposed rule are, first, throughout its proposal the Trump Administration is relying on Justice Scalia's plurality opinion on "continuous flow" and omitting any reference to "significant nexus." With regard to tributaries and in other areas, they make it clear that the rule applies only to "perennial" and "intermittent" flow, and not to "ephemeral" flow. And under the definition of wetlands, they have replaced language about "bordering, contiguous, or neighboring" from the Clean Water Rule with "abut," and they've added "in a typical year." This is going to be the crux of much of the discussion today: the wetlands issue and ephemeral streams.

2. 33 U.S.C. §1256, ELR STAT. FWPCA §106.

3. *Id.* at §1329.

4. 547 U.S. 715, 36 ELR 20116 (2006).

5. Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37053 (June 29, 2015).

6. *In re Environmental Protection Agency*, 803 F.3d 804, 45 ELR 20195 (6th Cir. 2015).

7. *North Dakota v. U.S. Environmental Protection Agency*, 127 F. Supp. 3d 1047, 45 ELR 20159 (D.N.D. 2015).

8. Exec. Order No. 13778, 82 Fed. Reg. 12497 (Feb. 28, 2017).

9. Definition of "Waters of the United States"—Recodification of Pre-Existing Rules, 82 Fed. Reg. 34899 (July 27, 2017).

10. Definition of "Waters of the United States"—Addition of an Applicability Date to 2015 Clean Water Rule, 83 Fed. Reg. 5200 (Feb. 6, 2018).

11. Definition of "Waters of the United States"—Recodification of Preexisting Rule, 83 Fed. Reg. 32227 (July 12, 2018).

12. Revised Definition of "Waters of the United States," 84 Fed. Reg. 4154 (Feb. 14, 2019).

There are additional changes that were made in the 2019 proposed rule, but I want to now turn to the experts to allow them to give their perspectives on what this proposed rule does for wetlands protection and their thoughts for states' involvement in the protection of wetlands. Joel, I'll turn it over to you.

Joel Gerwein: I'm going to talk about regulatory and voluntary approaches to wetland protection and restoration, so the carrot and the stick approach. I'm fortunate to get to work on the carrot end of the system. My agency provides funding and works with partners to develop projects to protect and restore wetlands. But I also depend on the regulatory side of things, partly to affect the market forces that shape people's decisionmaking. Those regulations recognize the services that wetlands and waters provide for all of us, and shape the way landowners make their decisions about what they want to do with the wetlands on their property and whether they want to work with my agency and our partners to protect and restore these resources.

I'm going to first talk about the ecological importance of the wetlands and waters that have lost or stand to lose protection with this new interpretation of the CWA. Then, I'm going to talk about the regulatory approach in California to wetlands protection, and move on to an example of the voluntary approach that my agency takes.

Two types of features that lose protection under the new interpretation are ephemeral drainages and seasonal wetlands that may not abut a navigable water but are within the watershed. From a watershed perspective, these features are very important for ecosystem processes. A couple examples of that are the hydrology of the watershed and the sediment budget.

Another type of feature that loses protection is unvegetated wetlands like salt flats. These are really important habitat types for some specialized species. This is a habitat type that has been passed over to some extent even in the restoration community, which has often targeted vegetated marshes at the expense of salt pans and salt flats and other features that are an important part of wetland complexes but that are not as well understood. One of the things these features do, in addition to playing a role in ecosystem processes, is provide an important habitat for wildlife.

If you look at ephemeral and intermittent drainages that might be in the upper watershed, for example, you get a sense that a feature like this, even if it's not flowing for a lot of the year, can be very important to the sediment budget of the system. It can be very important, for example, in providing coarse sediment as opposed to the fine sediment that you might get more of if you're looking at surface runoff as the dominant way for precipitation to reach the main drainages.

That coarse sediment can be really important to species like salmon that depend on that kind of sediment for spawning gravels, and can really suffer from a predominance of fine sediment that can choke their spawning gravels, juveniles, fry, and so on. There's a lot of these types of

drainages in the upper watershed. The loss or impact to any one of them might not be a huge impact to the system, but a death by a thousand cuts is what you could look at when you remove protections from features like these.

Any kind of seasonal wetland that you might have in the watershed, in the floodplain, is going to play a really important role in the hydrology of the watershed. In terms of an after-precipitation event, how long does that water from the rain take to reach the channel? What does it do to the flow? Are you looking at a flashy system where you've lost a lot of these features that detain and infiltrate water, or are you looking at a system where you have infiltration, a kind of delayed and more long-term release of water into the system so that you have flow into the dry season, and you don't have these peak flash flows that can happen when you lose a lot of these features?

When you look at things this way, you can see the ecological importance of these types of features. This is particularly important to us in the arid West because so many of our wetlands and waters are composed of them. In California, 66% of our drainages are in the intermittent and ephemeral category. That's the lowest percentage for these arid western states.

I'm going to talk about the regulatory approach to wetlands protection. Again, this isn't something that my agency is focused on, but my sister agency and other state agencies that are important partners are critical for this work. The California State Water Resources Control Board has played a big role in stepping up to try to provide protection by broadly defining "waters of the state." We'll talk more about that in a minute.

The California Department of Fish and Wildlife also regulates streambeds and lakes. Their jurisdiction extends to ephemeral streams. The California Coastal Commission—although their jurisdiction is not statewide, but rather limited to the coastal zone—also has a much broader definition of "wetlands." Instead of requiring that you have hydrology, soils, and vegetation, like the Corps does in their delineation of "wetlands," the Commission only requires one of those three parameters. So, it results in protection for a lot more features.

The State Water Resources Control Board adopted a new definition for "waters of the state" and protocol for regulating impacts to those waters at the beginning of April, and included that in the state's water quality control plan. This new definition protects small, naturally occurring features like seasonal wetlands that are now looking like they could be outside of federal jurisdiction. It also protects the non-vegetated wetlands that we mentioned earlier. But they were careful. It's difficult to craft these definitions. You don't want to be protecting tire ruts and other kinds of human-made transient features, so the Board was careful to avoid providing protection for those types of features.

The Board's goals in doing this were to strengthen protection for waters of the state that are no longer receiving federal protection, and to create some consistency across the state. We have regional water boards that handle the

permitting in different parts of the state, and they wanted to make sure that was being done consistently. We've also lost a huge percentage of our wetlands. Ninety percent or more of the wetlands of California have been lost due to historical impacts, so what we have left is really precious to us. That's a strong motivator.

Now, I'm going to talk about the voluntary approach that I'm fortunate to be engaged in. One way to look at this approach is with the slogan that one of our partners on the northern coast of California, the Northcoast Regional Land Trust, likes to use: "Cows and Coho."¹³ By that they mean we can find projects that help protect working lands—the grazing land that's common around Humboldt Bay, for example—and also restore and protect habitat for species that depend on wetlands, like coho salmon.

In the area around Humboldt Bay, agriculture is a very important part of the community, and it has a great climate for grazing. It's relatively cool year-round, and it has very productive grasslands. However, most of these grasslands are on diked historic tidelands. There are a few more tidal marshes now that we've been working on restoration up there, but there is a sense that the vast majority of these features have been lost.

Sometimes, there are conflicts between the agricultural community and the restoration community, because the restoration community wants to bring back tidal marsh and the agricultural community feels like that's going to threaten their continued existence and health. We are able to find, working with partners and landowners, situations where we can provide wins for both the agricultural community and the restoration community. One example of that is the Salt River Project in the Eel River Delta just south of Humboldt Bay.

This is an area that was plagued by frequent long-duration flooding. That's partly because the Salt River, which once was large enough to have ships come up it, had become full of sediment from the erosive mountains in this watershed and had lost the ability to transport that sediment as the tidal marshes were all filled in. It was having extensive flooding that really impacted the people who lived there and the value of the land for agriculture. At the same time, there was a lot of habitat loss for threatened coho salmon and other species in these tidal marshes that have been diked and drained.

The project was to restore the channel and extensive tidal marsh downstream. In other words, take one part of this area that had become much less productive because of prolonged flooding and use it to help restore that sediment transport capability and restore a significant amount of habitat, and then also provide better drainage all the way upstream for seven miles of the river, and provide extensive riparian habitat along that stretch.

It's projects like this, where we work with partners in the resource conservation district, across all the agencies, and

many landowners who had to provide access and cooperation and work with the Salt River Watershed Council to make this happen, that really give me hope that we can work together to protect and restore our wetland systems on the carrot side of the equation and not just the stick side of the equation.

Greg Sutter: I'm here to represent the private sector and the opportunity for the private sector to bring resources to bear in conservation and restoration. I'm with the Westervelt Company, which is a forestry company, and I manage the wetland mitigation banking unit of the company. We do wetland and endangered species compensatory mitigation and preservation. I like to point out sort of my bias—where I'm coming from—and that is as a landscape architect and a wetland ecologist. I always want to build something and get my hands dirty. That tends to be a focus.

The Westervelt Company is a 135-year-old company. So we're private sector, but we are long-term. We think long-term. We're a fifth-generation, family-owned business, and we're talking about projects way beyond "how the return is this quarter." In working with agencies and other lands, I find that when we're talking about putting private capital into conservation, we need to talk well beyond how the business return is this quarter. It's long-term management, and that is what Westervelt does. I'm lucky to be part of that. That's what allows our team of about 50 people to move forward, so it's a good model.

We're driven by the rules that we've been talking about here, but the Endangered Species Act (ESA), as applied on both the state and federal level, is very important to us in addition to CWA §404 regulation and additional state regulation—like the newest one in California, in which the state is taking on a lot of the wetlands. Those all come into play for us.

I grew up on the East Coast, went out to California for a summer internship in 1978, and I've been working in the West since then. But I grew up in the Rust Belt, and it's exciting to me to see that there are more people involved in restoration now than in the coal and steel businesses. It is a strong part of our economy. When it comes to environmental regulation and the effect on the economy, we're supplying jobs and promoting employment in the work that we do.

We have offices in California, the Southeast, and the Rocky Mountains. We have probably 50 active, varied projects around the country. The projects are in the private sector where mitigation banking makes sense. We also do mitigation or compensatory mitigation turnkeys and grant-funded projects, but the majority of our business is mitigation banking.

The intersect there is really where you have the regulatory drive and the business opportunity, in which case private-sector capital is what we need to drive the amount of conservation we're trying to deliver; that is only a part of the interchange. So, where does the private sector contribute? It's significant, but it's not everything. We have to work in conjunction with agencies, grant projects, and

13. *Cows, Coho, and Community*, NORTHCOAST REGIONAL LAND TRUST, Autumn 2016, at 1, available at http://nrlt.org/sites/nrlt.org/files/NRLT%20News%2010-16_06.pdf.

nonprofits. I think it's important to look at how we can partner and where there's a chance to bring that private capital to bear.

Part of the model in the vertical integration that we have is thinking long-term in sort of Stephen Covey thinking. You know, start with the end in mind. I think of building that trust amongst all these restoration projects. They're very complicated. From a business perspective, they're very long-term. It's not quarter-by-quarter. So, we have to build that into our ecological goals, our restoration implementation. It's all about building that trust. To do that, you have to think long term.

Circling back to WOTUS and how this all works, if the pie is getting smaller, we're going to reduce the pie. Joel talked about the importance of ephemeral systems to the ecosystem. We have to pay attention to them. Clarity is very important. Right now, we have very muddy waters, as Amanda was talking about. If you want investment dollars, the clearer you can make the rules, the better your chances of getting large private-sector dollars involved.

State assumption is a good thing in terms of protecting the resource, but there are new rules, new nuances slowing projects down. That makes it difficult, especially for a nuts-and-bolts group like us. We're just out there trying to purchase ground, and we're in a race to get, protect, and restore the ground, important conservation corridors, and so on. Don't kid yourself if you don't think it is a race. We have to get out there. The private sector can move quickly if we clarify and understand the rules. That can help in working with agencies. So, sometimes it doesn't feel like we're thinking about the end in mind. If we could do more of that in Washington, it would help.

We're doing a lot of reconnecting floodplains, for example, on the Sacramento River; there's not much riparian vegetation left there. We're doing a lot of that type of work, fisheries habitat work, salt marsh restoration, and so on. A lot of it is fisheries-driven, as Joel talked about. But I'm going to talk about vernal pools, which again is an ephemeral system. We're working with Placer County to deliver their conservation plan, and a lot of the focus is on vernal pool habitat. It is really a grassland system that's historically grazed and had fire as part of the management of that system, but it's intertwined; the upland and the wetlands are very intermixed. The species that use them are as reliant on the upland as they are on the ephemeral wetlands, and they're rainwater-driven. We do a lot of work with that.

Now, it's hard to manage with fire because of air quality regulations, and we have to manage with grazing, but we've learned that's an important part of the management in order for these systems to maintain diversity. It is very ephemeral. Beautiful wildflowers, native species, are there for a week or two weeks out of the year. Some years, we don't have them at all. We have a Mediterranean climate where it's very dry the rest of the year.

We're also doing some restoration of geomorphic terraces. These are very old soils, and we've lost a lot of them to agriculture and urbanization, but the intense agriculture

that exists there now is where the restoration opportunity exists. It's a challenge, but we're doing some of that. A lot of it is driven by CWA §404 regulation, but it's driven also by species that use the upland in conjunction with periodic use of the wetlands. Each component is very important. We're doing that scale of restoration, and it's very oriented toward the soils and the hydrology.

I'm a student of Luna Leopold, who was a great professor of mine. He taught me how much I don't know and to be humble. Every time I work on a restoration project, I learn to be more humble about it. We're doing this type of restoration in conjunction with agencies and the county to deliver some of these ephemeral wetland systems. It requires working at the scale of 300 to 1,000 acres at a time. We're fine-tuning, grading down to portions of an inch to get these. We had a wet year this past year, but in a dry year, we won't even get ponding the whole year and we'll have water after a rainstorm.

There's a lot of controversy about whether vernal pools can be restored, but they're annual systems. Again, I'm a nuts-and-bolts guy. We're out there doing it. I'm not saying our projects are perfect, but we're delivering with agencies trying to get the work done and get the landscape ahead of the deep-ripping for almond orchards. Because once you deep-rip these soils, you're done. You're never going to recover them.

Whatever the regulations are, we need to try not to let the "perfect" get in the way of the "good," and get out and try and implement some of these things. That's a quick overview of some of the things we do and how WOTUS works.

Angela Waupochick: I serve as the hydrologist for the Stockbridge-Munsee Community. I'm here to share my experiences in program development and managing our tribal wetland program.

I want to first share a bit of our tribal history that has impacted how I manage our tribal wetland program and planning and implementation on tribal land. Originally, the Stockbridge-Munsee Community lived on the indigenous lands near the Hudson River Valley in New York. In 1856, we underwent a series of relocations to Kansas, Canada, and the eastern side of Wisconsin. Now, our reservation is located in Shawano County, Wisconsin, in the townships of Bartleme and Red Springs. The land was previously indigenous lands of the Menominee Indian Reservation.

Through my research and looking at notes from superintendents that oversaw the activities of Indians in those days on these lands, they thought the Menominee Indians did not want these lands because they are primarily swamps. But these are very important lands to the Menominee because black ash swamps are where they gather their medicines, materials for the age-old tradition of basketmaking, and so on. These lands were taken from the Menominee Reservation and given to the Stockbridge-Munsee Community. Before our people arrived, much of the timber was logged and sold to timber companies there.

So, the 1856 Treaty placed us on 42,000 acres in these two townships in Shawano County, Wisconsin. The treaty involved this campaign for us to become farmers. We had no farming experience. We weren't farmers. Then, through the Dawes Act,¹⁴ a lot of our tribal members lost those farming lands, our reservation became checkerboarded, and that remains an issue to this day in terms of management and planning, and what we do with our wetland program. We started out with 42,000 acres, and by 1934, we only had 16,000 acres in the hands of tribal members.

In 1992, the tribe first started using CWA funding from EPA. It took almost 60 years for our tribe to actually formally address some kind of water quality monitoring and start to establish our tribal needs in a plan. In 2011, we received our first Wetland Program Development Grant funding. At the time, it was thought we were going to use the funding to develop some kind of auxiliary plan to support how we wanted to address pollution coming from upstream sources onto our reservation.

In 2016, we finally gathered together and created a Non-point Source Pollution Program Plan that was approved by EPA. So, 83 years after we lost all of our tribal lands, we were finally able to formally start to address our water quality issues and put something in place to implement on-the-ground restoration and meet those needs for our tribal members.

The 1990s were a successful time for us. The tribe was becoming more successful with our gaming revenue, and we used those funds to start reacquiring our tribal land base. Since then, we have grown our land base from 16,000 acres to almost 25,000 acres. Every time we buy up a piece of property, we put in the land trust application. That process takes a while. We have two land statuses. We have over 15,000 acres that are held in trust, and almost 8,000 acres in fee simple.

These differences in land statuses present problems in terms of on-the-ground restoration that we want to do. A lot of times, it would be ideal for us to choose Natural Resources Conservation Service funding or some other funding agency. But because of the land trust status, we aren't able to use that kind of funding to implement restoration like we want to. I hope that in time we can start using those funds.

Also, because of our checkerboard land arrangement, it can be difficult to work with neighboring landowners. Some people are receptive toward what our tribal needs are, what we want to do, and where we want to implement restoration, and others are not so receptive. How are we going to target areas that we put as priority for restoration? I don't know. That's something that we continue to work on.

I don't have a solution to our topic today. I just want to share my experiences as we continue to build our wetland program and move on with our other water resource-

related programs. Ever-changing laws and policies make it difficult for us to develop our program. We don't have a big staff. We have three people that work on water-related issues for our tribe. I have one attorney that is available, but it takes a significant amount of time for us to even plan and implement a project. A 20-acre wetland project that we might want to do takes years. We don't have the funding available.

I guess there's nothing new the way I see this. My great grandparents, my grandparents, my parents, we've all dealt with changing laws that always have some kind of impact on what we were promised for resources that we needed to sustain our tribal needs. This is what I'm dealing with. I don't want to speak for other tribes, but our tribe wants and needs clean water. We hunt. We fish. We very much depend on that food source. I've been there. I started to hunt and fish when I was in graduate school.

We also depend on black ash swamps for medicinal needs and traditions, like I touched on before. Black ash swamps are important to both tribes. These are age-old traditions that we need to protect. This ruling is going to have an impact on the protection of those areas. Also, EPA is required to give tribes consultation when these policies are changed. From what I understand, we got a webinar. I don't know what to expect. What is this ruling going to do to our base funding? Are we going to be able to sustain what we planned or continue to develop our program? I have no idea.

We don't have the resources to continually keep up with or understand these changes in policies. Our program is based on monitoring and assessment of on-the-ground work. That's a challenge for the tribe, but we have these needs that we need to protect. With a program that is staffed by only three people, what do we do?

Amanda Waters: Thank you to all the panelists for their perspectives. We'll now move on to the question-and-answer portion of this event.

Joel, I want to start with you because I'm intrigued by the voluntary work that you're doing and the partnerships involved. How are you getting agriculture to the table to talk about this? You mentioned that California has a much broader protection of state waters than the federal government has under any of these rules. Are they on the hook from a regulatory standpoint, or is this totally voluntary on their part?

Joel Gerwein: It's a combination of things. There are protections that limit what farmers can do with wetlands on their land, but in many cases, they can continue farming them. Farmed wetlands are in a different category than if you are trying to develop the property, for example. But what we often find is that in a lot of these watersheds, because of land use decisions that were made in previous generations, the wetland restoration really is helpful to farmers and ranchers in maintaining the health of their working lands.

14. 25 U.S.C. §§331 et seq. (1887).

I talked about flooding. That's a situation that we see a lot on the northern coast. There was also extensive logging that occurred in a lot of these watersheds—a lot of logging happened in the 1950s and 1960s, and then some extensive logging occurred more recently in the 1980s and 1990s—that led to a lot of sediment coming into these systems. The ability to transport that sediment depends on healthy, functioning watersheds and channels that we can work with landowners to restore, but we need their cooperation to do so.

In that sense, it is really like I talked about. A kind of win-win situation where some land, because of these previous land use decisions and practices, has become marginally productive. By giving up some of that land, it can be a big gain for wetlands and for the wetland-dependent species. The working landscape can really benefit, can become more productive, and can continue longer into the future.

But it is true at the same time that there are regulations that are important in motivating landowners. One place where that can come into play is when we need to protect land and acquire it to make a restoration project possible. The ability to develop that land to sell it and develop it for housing or some other kind of development is really impacted by what kind of protections there are over the wetlands on the property and what recognition there is of the importance of the services they provide. When there is protection, then it makes the decision to have a conservation sale as opposed to a sale to a private developer much more attractive to landowners.

We've had some interesting acquisition projects, for example, where we've worked with a farmer who says, you know, it's important to me that agriculture be maintained in this landscape. I'll sell you my land for a wetland restoration project, but I want you to maintain 75% of it as pasture and you can restore the other 25%.

We had someone who was a pivotal and important member of the farm bureau in Humboldt County who sold his land. I think selling land for restoration has at times been considered a kind of betrayal of the community, but this guy went ahead and did it with that kind of a condition set on the project. And now that restoration project has finally been able to move forward. So, it's a combination of things, but there really are opportunities where people can see that everyone is going to gain from restoration—you know, as the working landscape and the environment or natural community.

Amanda Waters: Greg, you mentioned with the vernal pools that grazing is important. Are you working with partners as well in agriculture and with landowners?

Greg Sutter: We are. Our default approach is to purchase fee title property, but we are partnering with large ranchers. We look at the long-term plan for the property. If there's a commitment to long-term stewardship, then we're willing to partner. One of the things that I think is important,

which relates to what Joel was talking about, is that we're looking at sort of an overall mixed use in a lot of cases where we may take a stream corridor or a vernal pool area and put a conservation easement on it.

But we're funding a long-term endowment for long-term management of that property as part of our effort. That can sometimes make the grazing more sustainable, especially with urban development pressures on where we can put a permanent easement. We've funded all of our projects. Every acre we've implemented has a permanent conservation easement for protection as well as an endowment to fund the management of that property. So we're working with grazing as a tool to protect areas, for example, where we're restoring stream corridors. We may keep some area in for tree production, but the stream corridor is protected and has an endowment for long-term management.

Land doesn't take care of itself. Nowadays, you have to maintain against trespass and things like that, so funding for long-term stewardship is important. We don't want to create liabilities. We want to make sure there's a long-term sustainable approach, and that's where we feel it fits in with agriculture and timber in some cases.

Amanda Waters: Angela, I'm assuming that your state does not have greater protection for wetlands than the federal government.

Angela Waupochnik: It does not. We actually do have a series of tribal ordinances in place but, again, going back to our land arrangement, they do little to protect our wetlands and tribal needs. Also, there's more that can be done in place to check tribal wetlands. We're just not at that point yet. That's probably about program development.

Amanda Waters: Are you concerned about, outside of your lands, the upstream distributions?

Angela Waupochnik: We are. Fortunately, we've been working with a local concentrated animal feeding operation (CAFO) that is located upstream. For two years, we've been providing our comments to permit applications for manure spreading. Fortunately, the manager of the CAFO called me up in response to that, and was interested in having a discussion with me about it.

We understand that, yes, we have to choose our battles or how we're going to approach this. But in my former work as a GIS specialist, I was able to get the land use information on properties where they do manure spreading, and I'm working on getting a list of changes that I think can make small improvements. I build a relationship there with implementation of best management practices in certain fields, things like that. That's actually a fairly new relationship that's happened in the past few months, but it's a start for us. It's our first attempt at working with off-reservation partners in agriculture, and I look forward to what's to come. I think that's going to help grow the program.

Amanda Waters: That seems to be the more promising side of this discussion—in the absence of broad federal protection, if states step up, that’s one thing, but it also creates an incentive for more partnerships. Looking at how this might play out, the rule will be issued and that will be challenged. I’m sure this will be in litigation for years to come. It will probably end up back before the Supreme Court.

In the interim, though, we’ll probably still have a mixed bag of what rule is applicable. Do you think that the states will step up and do more? Do you think that that is an appropriate balance of federal-state authority over these types of issues?

Joel Gerwein: I hope states will step up and do more. I’m sure it will be uneven across the country and that will lead to some confusion for landowners and for people who are working across multiple states. I also think that whatever the patchwork of laws we’re working with, there are other factors that are coming into play regardless of federal and state politics—like sea-level rise—that are being felt across the landscape and leading people to really think about what they need to do to maintain their relationship with the land that they’re managing and that can lead to new partnerships.

That’s something that I’ve seen in Humboldt County with the agricultural community there knowing that, for example, they really need to repair and increase the height of their dikes that protect some of the working lands from ongoing sea-level rise. But they know that in order to permit that with the existing state laws in particular, they need to be able to restore other areas. So, it’s the beginning of a dialogue that my agency and others are having with the agricultural community there to talk about regional planning, where we can again decide what parts of the landscape we’re going to concentrate on working together to restore and protect, what parts we could maintain for a longer period of time as working landscape, and how those pieces are all going to fit together to try to be able to maintain our human and natural communities at the same time.

Greg Sutter: I see integrated flood management with habitat. The Sacramento Valley and the San Joaquin Valley in California have huge flood-risk issues. Regional planning and the dollars spent for flood protection, if planned well, and habitat planning dovetail well together actually. We’re as involved in flood planning as we are with mitigation planning. So, there’s a lot of joint benefits to some of them. A lot of it is fish- and salmonids-driven. The Sacramento-San Joaquin Valley was historically one of the biggest salmon runs in the world, and now there is a lot of effort to try and just restore remnant runs. But a lot of it is a benefit to the flood community.

California has 20 million more residents projected over the next 10 years, I believe, and a lot of that is going to be in the Central Valley. You know, it’s spreading out from the

coast. That is a big issue. I think it hurts when the rules are muddy, but I think there are a lot of other reasons for some of this good land use planning. I think we need to stretch our dollars however we can where we’re integrating other planning with wetland protection.

Amanda Waters: You made good points about the economic value of restoration activities. That’s a message I think that is not always conveyed. Are there questions from the audience?

Audience Member #1: I think we’re always seeking creative ideas for protecting wetlands. We’ve lost coastal tidelands in Louisiana over the past 80 years about the equivalent of the size of Delaware. And you would think that every American and every person who cares about the environment would be acutely aware of that.

This summer, I was up at Lake Itasca filming for a documentary. We talked to about 200 people who were visiting that area out of curiosity and historical interest. We talked to every one of them, and not one person knew what Louisiana was losing on an annual basis. The saying is that it’s about a football field every hour.

One of the things that we’ve talked about for almost 30 years is that the large majority of coastal Louisiana is owned by the private sector, like Phillips Petroleum, which has 600,000 acres. The purpose for holding marshland in Louisiana today is mineral rights. So, we’ve had problems over the decades trying to come up with management plans for the coast, because if one person manages their property for whatever their values are, it may hurt the property next door.

We’ve been looking at the Louisiana Trust Fund where people can put their land into the trust fund but retain their mineral rights, and then you would have one management organization managing the entire coast, as much as you can. Have any of you seen that happen successfully anywhere in the country—where we could allow the private sector to retain the values that they have on their land, but turn the management of surface rights over to a trust that then manages the land as one entity?

Joel Gerwein: Not that exact configuration. I’m not familiar with that. In California, we do have this concept of public trust lands, which I think is a common concept, where there’s a coastal zone management agency. In our case, it’s the State Lands Commission, which has jurisdiction up to the high-tide line. That tide line of course is moving now with sea-level rise, so that’s a question that we’re all dealing with.

But the interesting situation is that it’s not that you can’t use that land. You just need to apply to the State Lands Commission for a lease to allow you to use it. It has to be determined that the use is for public interest. It seems like what you’re talking about is moving further in that direction. There are other efforts, more regional efforts to

establish a regional agency that can help with the management across jurisdictions and ownerships that you're talking about.

For example, with this levee and dike management that I was talking about with sea-level rise in Humboldt Bay, people are talking about trying to revive the old levee management districts or perhaps adopt a flood management approach at the county level, because if one piece of land maintains or elevates its levee and the next one doesn't and it erodes and floods in, it's going to affect all of the land behind that dike system. So, there is a real need for that kind of regional management. That sounds like an innovative approach to it. I hope it works.

Greg Sutter: In California, mineral rights are a very strong element of the bundle of rights of owning a property. We work in multiple states, and it's different in every state, but California has strong mineral rights law. But we're still seeing the ability to work out with the mineral rights owner, who's often not the surface deed title owner, the ability to protect that right and still work to achieve an ecological objective or other objectives like flood management.

But it's hard on the planning and the complexity of trying to get to the finish line. With multiple properties and therefore multiple mineral rights owners, it gets challenging. Certainly, we've seen it happen on multiple properties where the biggest challenge is getting to a setback levee, for example. We've worked on a number of those on the Cosumnes River, for instance, where we've reconnected the floodplain of the river by setting a levee back a mile or two for a stretch. The most difficult task was negotiating the mineral rights protection and buying the right to flood that access.

Audience Member #2: I deal mostly with constructed wetlands, and one of the issues I have run into is the overlap of the regulatory agencies in terms of being able to implement good projects. For example, the word I use as an engineer is "optimize." I would like a net environmental benefit to be able to be analyzed for a project.

Let's say you have single-purpose objectives that have one particular regulation in mind. For example, we deal with the Corps, the California Coastal Commission, the regional water quality control board, the National Incident Management System in many cases, or hydrological organizations in the area. If we have a project that would be able to measure the net benefit, you might lose a little bit of something, but you get so much more if you can just figure out how to get a net level benefit of research, education, and more habitat. That's maybe not perfect but seasonal. That's what I think. I'm curious to know how people feel about that because that's something that has kept me back from being able to implement a lot of projects.

Greg Sutter: I share your frustration. We deal with that same issue day in and day out to try to think big-picture—

multispecies benefits, multiuser benefits—while also meeting the criteria of specific regulations, because so many of the people sitting at the U.S. Fish and Wildlife Service or National Marine Fisheries Service have a certain requirement they have to meet. They aren't necessarily anti-multispecies. But yeah, I got a dent in the wall with my head on that same issue.

Joel Gerwein: I think people understand that shortcoming and are trying to address it in different ways. For example, multiple-species conservation plans have been around for quite a while as an implementation approach for the ESA. There's a lot of discussion about how the Coastal Act in California might change in light of the need to adapt to sea-level rise that's happening in the San Francisco Estuary, where they're taking a more flexible approach to meet the purpose of living shorelines restoration that can provide protection against sea-level rise. I think people recognize that need, but it's just the way legislation happens. I mean if you think it takes a long time to make a restoration project happen, which it does, it seems like legislation and its implementation can take equally as long.

Audience Member #3: Greg, who are your clients?

Greg Sutter: Our clients are people who are pulling CWA §404 permits and are required to do mitigation. They don't have to buy credits from us. Some of it is private-sector projects, but more than 50% of our business is actually public agencies, public works projects, and highway departments. Our biggest client is the California High-Speed Rail, about which there's a lot of controversy. There's a lot of planning that's going on. As they're doing their project, we're moving forward with conservation compensatory mitigation. So, it's mixed public- and private-sector projects that are implementing some type of development and are required to mitigate.

Audience Member #3: In light of this need to follow a statute and a series of regulations and then a series of programs in California, has there been some initiative to get away from the square-peg-in-a-round-hole problem of §404 and the CWA by creating a new statute that recognizes the value of these other habitats in the land surface, versus mineral subsurface rights, so that these habitats, this land, and the water uses can be protected? We could create a new statute that recognizes those kinds of lands and deals with them that way. Has there been legislation that's been proposed federally or statewide?

Joel Gerwein: Well, at the state level in California, we do have legislation that provides protection for waters of the state separate from the federal CWA protection with a broader definition. The State Water Resources Control Board is further defining exactly what it means. It's not completely clear, but the Porter-Cologne Water Quality

Control Act¹⁵ provides that broader protection. I'm sure that many states have similar types of legislation.

Amanda Waters: At the federal level, if legislation has been introduced, it has not been successful or it has not come across our radar screen. For many years, NACWA members responsible for wastewater and stormwater management have been the public point sources, so we often talk about how great it would be to have a Watershed Act—something that is much broader—and it continues to be one of those big audacious goals.

But the reality in this political climate of getting a new statute is I think very, very unlikely. It doesn't mean you shouldn't try, but you could start with the existing statute—the CWA—and try to amend it. This would be a congressional fix, not EPA coming out with a rule. But I do not think the current Congress would be willing to open up that can of worms.

Creating a new statute is just an incredibly heavy lift. Who will administer it? How will it be funded? It's all very politically sensitive. It's a great idea. With the Congress that existed back in 1972, it might be possible.

Greg Sutter: I think it's important to note that the California rule that Joel summarized just came out. There has been more than 10 years of push to get that through the state. There are still a lot of unknowns about how it will be administered by the regional boards. So there's still going to be a lot to sort out.

Hannah Keating: We'll go ahead and answer some questions from our online audience. The first one is directed to Joel. What has California's experience with renewable energy development and wetland resources impacts been so far, if any?

Joel Gerwein: That's an interesting question. I'm not familiar with a lot of conflicts that have emerged between renewable energy development and wetlands restoration. There has certainly been conflict with species protection and solar development—for example, development in the desert impacting habitat for desert tortoise—and an attempt to really focus renewable development on the least sensitive and most degraded areas there. I know we have been starting to look at tidal energy development in the Humboldt Bay area. They are trying to take a careful look at what the impacts might be to species as well as to fisheries. That's still in process. Greg, do you know more about that?

Greg Sutter: We do have a number of clients who are renewable energy project developers. Their compensatory need has been driven by the ESA—wind projects and raptors; solar

projects and kit fox and blunt-nosed leopard lizards; and other federally and state-protected species.

Joel Gerwein: I would just say that another area where there's a conflict that sometimes emerges is with hydroelectric projects. On the Klamath River in northern California, there are a number of hydroelectric dams that aren't as useful as they once were because they get sedimented in over time and don't have the same capacity. We are finally looking at taking down those dams because the impact to salmonids and other species from the dams is really significant. I think the dams that are targeted for removal at this point are the ones that are much less useful and whose removal can have a really huge environmental benefit.

Hannah Keating: We have another question for Greg. What is the average cost of a mitigation credit? Is it one mitigation credit per one acre of wetland impacted?

Greg Sutter: Each mitigation project has a different sort of unit for mitigation; hence, a number of our projects are driven by acre. Each district of the Corps and region has a different methodology for accounting for it. We have stream credits and wetland credits, and different types of wetland credits depending on the project.

The unit is established by the Corps and an interagency review team, so multiple agencies are set up to define what the units of credit will be. The credits are released over a time line as we meet performance standards, and we sell them for what the market will bear. It's an open market. We only get a set number of credits on a project, and it's really driven by the market.

Amanda Waters: What kind of criteria other than acreage do they consider when they look at how the function of the wetland is?

Greg Sutter: Usually, there's a functional lift analysis that's done in the development of the bank. That's fed into the crediting that you get. Again, you get that over typically a five- to 10- or 12-year period. As you meet a biological performance standard, we'll get a certain number of credits released. Then, we're allowed to sell that amount on the market. It's not guaranteed. We're competing with other mitigation alternatives that the client might have, so we have to be cost effective for the client.

Hannah Keating: I would like to thank our audience for joining us today and for your thought-provoking questions. We hope you will continue to think about the implications of *Rapanos*, the proposed new WOTUS rule, and the future of wetlands.

15. CAL. WATER CODE §§13000 et seq.