

## **Protecting Wetlands and Streams in Your Community**

Thursday, November 9, 2023, 1:00-2:30 pm

Conservation and Land Use Webinar Series

NYS DEC Hudson River Estuary Program

Christine Vanderlan 00:07:31.940 --> 00:07:48.580

To introduce a little bit about the Hudson River Estuary program. We are a special program within the Department of Environmental Conservation, and we work throughout this green

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Christine Vanderlan 00:07:48.780 --> 00:08:09.060

shaded area shown on your screen, which is the estuary watershed. So the estuary is the portion of the Hudson River that's under the influence of the tides, and all of the green shaded area are the lands that are draining to that portion of the Hudson River.

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Christine Vanderlan 00:08:10.540 --> 00:08:29.540

Our mission is to protect, restore, and revitalize the Hudson River and its valley and we work to ensure access for all to the Hudson. And we're working to achieve the key benefits that are listed on the slide. Within the Estuary

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Christine Vanderlan 00:08:30.060 --> 00:08:50.020

Program, the conservation and land use team, which is the team that I am part of, and which organized today's webinar, we work with municipalities on local land use and conservation planning. This is a screenshot of our website, which is a clearinghouse for information

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Christine Vanderlan 00:08:50.100 --> 00:09:10.340

about local natural resource and conservation planning and Ingrid just put a link to this website in the chat, so you can learn more about us. You also could reach out to me to learn more about our program or to talk about your interests in conservation planning in your community.

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Christine Vanderlan 00:09:12.420 --> 00:09:30.980

This webinar and previous webinars are recorded, and we post the recordings online on this DEC webinar website. So following the webinar you will receive an email with this link. It's also being posted now, so you can access this recording and then also previous

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Christine Vanderlan 00:09:31.140 --> 00:09:51.460

webinars. We have an upcoming webinar on Tuesday, next Tuesday, November fourteenth, which is focused on municipal options for developing local funding sources for protecting open space. So we invite you to sign up and join

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Christine Vanderlan 00:09:51.620 --> 00:10:01.180

us on Tuesday. The same link that was in the chat has a description of that webinar and you can click through to a registration link.

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Christine Vanderlan 00:10:03.520 --> 00:10:23.920

To introduce our speakers today. So Ingrid Haeckel is the newly promoted manager of DEC's Hudson River Estuary Program. Ingrid is overseeing the program's scientific research, and outreach and water resource conservation, climate resilience. and conservation and land use teams

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Christine Vanderlan 00:10:24.560 --> 00:10:44.400

in the estuary watershed. Prior to now she worked as part of our conservation and land use team for ten years, providing education and technical assistance to municipal and regional partners to promote conservation planning and protection. Ingrid began

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Christine Vanderlan 00:10:44.800 --> 00:10:51.880

her career as a field biologist mapping wetlands, streams, and other habitats in the Hudson Valley.

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Christine Vanderlan 00:10:53.360 --> 00:11:14.480

And Emily Svenson is a partner in the law firm Gordon and Svenson in Poughkeepsie. Emily's legal practice focuses on environmental, land use, and municipal law. She serves several local municipalities as town attorney or planning board attorney and represents citizen groups

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Christine Vanderlan 00:11:14.600 --> 00:11:27.600

And nonprofits advocating for environmental protection. Emily's background includes work and soil and water conservation and service as an elected town board member and deputy supervisor.

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Christine Vanderlan 00:11:29.840 --> 00:11:35.720

So I'm gonna invite Ingrid to share her slides.

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Ingrid Haeckel 00:11:45.200 --> 00:12:05.680

Hello everyone and good afternoon. Thank you Christine. For the introduction. My name is Ingrid Haeckel and I'll be presenting together with Emily's Svenson about protecting wetlands and streams in your community, and this has been part of a series of programs we've been holding on this

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Ingrid Haeckel 00:12:05.800 --> 00:12:17.440

subject this fall. So hopefully if you're here today that means you haven't already attended one of our other sessions, but thanks for taking the time to join us.

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Ingrid Haeckel 00:12:18.480 --> 00:12:38.960

I'll be starting off the session with a brief introduction to the importance of wetlands and streams including diversity, mapping, benefits and threats, and Emily will take it from there to discuss the changing status of federal and state regulation of these resources and local approaches to wetland and stream protection. And lastly, I'll finish up with some additional information about

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Ingrid Haeckel 00:12:40.360 --> 00:12:43.920  
tools and funding available to develop local policy.

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Ingrid Haeckel 00:12:46.000 --> 00:13:06.480

Some of the messages we hope you'll take home today are:

- that wetland and stream protection, including adjacent buffer areas, is really vital to clean water and many other benefits these areas provide.
- Existing mapping of wetlands and streams is incomplete and doesn't provide a reliable picture of all of the wetlands and streams around us, so you should do your homework and look more closely when you're reviewing proposed development projects,
- thirdly, state and federal regulations are changing and they leave some big gaps.
- Fortunately, municipalities can do more and we'll be talking about the various and diverse approaches that are available and lastly we hope you all come away realizing you can make a difference in your community or through your professional role to help bring awareness the importance of these resources and advocate for their protection.

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Ingrid Haeckel 00:13:39.120 --> 00:13:59.600

So, as we begin, I'd like to take a moment and ask you to think about a wetland or a stream that you know, and it could be one you see regularly driving through your neighborhood or walking or perhaps one you see around town or even on your own property, and as we go through the presentation, you can think about the type of wetland or stream it is. The benefits it

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Ingrid Haeckel 00:13:59.760 --> 00:14:20.080

provides and whether and how it's protected at federal state and local levels. And so this is an example from my town in the heart of the village of New Paltz, and it's located, right next to our village hall in Peace Park. It's a place I've driven by many times, there's a playground across the street. I haven't thought

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Ingrid Haeckel 00:14:20.160 --> 00:14:40.560

A whole lot about it, but the stream was actually buried in pipes for nearly a hundred years, and then several years ago, those, the infrastructure was starting to break down and the stream was unearthed or daylighted in 2016 in part, from funding through a green infrastructure grant from the Hudson River Estuary Program, and this is my daughter's girl scout

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Ingrid Haeckel 00:14:41.200 --> 00:15:01.000

troop using this location for their moving up ceremony a few weeks ago from Daisys to Brownies. And I think it's a great example, both of the kind of small streams that are often unprotected at State and

federal levels and overlooked in land development that provide many ecological and other community benefits.

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Ingrid Haeckel 00:15:01.720 --> 00:15:04.320

Such as this lovely example of

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Ingrid Haeckel 00:15:07.440 --> 00:15:26.640

community use. I'll start with some definitions. A stream is simply a natural waterway flowing in a visible channel with a defined bed and banks, and generally we call larger streams rivers. It's important to note that streams are dynamic and

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Ingrid Haeckel 00:15:27.080 --> 00:15:44.000

closely with the adjacent areas and flood plains, which are low-lying areas that periodically flood after heavy rainfall events and snow melt. And those are also important parts of the stream system, even though they're normally dry most of the time.

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Ingrid Haeckel 00:15:45.840 --> 00:16:05.680

The riparian area is land bordering the stream or water body that is influenced by the presence of nearby surface and groundwater, and groundwater is usually shallow to the surface in these areas. The vegetation and land uses in riparian areas have a strong influence on the hydrology

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Ingrid Haeckel 00:16:06.120 --> 00:16:09.160

and water quality in the adjacent stream.

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Ingrid Haeckel 00:16:12.080 --> 00:16:26.960

We'll also refer to riparian buffers or stream buffers and these are protective areas of vegetation between a water body and human activity. And the same concept applies to wetland buffers as well.

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Ingrid Haeckel 00:16:30.000 --> 00:16:48.560

There are many different types of streams, but in this presentation we're focusing on the basic distinction between perennial versus intermittent streams. Perennial streams flow year round, whereas intermittent streams, only flow seasonally or after rain. And the term ephemeral stream refers to

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Ingrid Haeckel 00:16:48.960 --> 00:17:02.080

very small intermittent streams that only flow after rainfall. Intermittent and ephemeral streams may be very small, but they contribute significantly to the quantity and quality of water in downstream rivers and water bodies.

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Ingrid Haeckel 00:17:03.920 --> 00:17:24.400

The EPA (Environmental Protection Agency) estimates that streams comprise nearly sixty percent of total stream length in the United States. However, in many cases, intermittent streams are unmapped. This is a map showing the town of Woodstock, New York, with which happens to have high resolution local stream mapping that distinguishes perennial versus

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Ingrid Haeckel 00:17:25.040 --> 00:17:41.000

intermittent streams. The perennial streams here are shown in blue versus purple for the intermittent streams. None of the intermittent streams shown here appear on state or federal stream maps, but they account for sixty- seven percent of the stream length in this particular area.

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Ingrid Haeckel 00:17:42.320 --> 00:18:03.440

So moving on, wetlands have three main characteristics in common. Those are hydrology, soils and vegetation. Water is present at or near the ground surface for a sufficient time during the growing season in a wetland to result in the development of hydric soil conditions and vegetation

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Ingrid Haeckel 00:18:03.440 --> 00:18:09.520

adapted to growing in saturated soils like this skunk cabbage shown here.

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Ingrid Haeckel 00:18:11.760 --> 00:18:32.240

And wetlands are extremely diverse and truly no two wetlands are alike, however, we can classify wetlands into some common categories such as these based on vegetation characteristics and hydrology. Knowing the type of wetland you have can help determine the plant and animal species that might occur there.

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Ingrid Haeckel 00:18:32.240 --> 00:18:52.560

And one key message to take away is that not all wetlands are wet all the time. They can be wet only seasonally, but still be wetlands and in addition, I'll just note, we have tidal wetlands along the Hudson River that are influenced by daily tidal fluctuations, as well as the salinity gradient, which Christine mentioned, in the estuary.

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Ingrid Haeckel 00:18:52.800 --> 00:19:03.960

We're not going to focus on those in this presentation. We'll be discussing non-tidal wetlands. I'll briefly walk you through these different wetland types.

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Ingrid Haeckel 00:19:06.160 --> 00:19:26.000

Swamps are wetlands that are dominated by trees and shrubs and contrary to their depiction and popular culture they're really wonderful habitats. Forested swamps have a closed tree canopy, but we also have shrub swamps, which can be more open. Swamps vary widely in the degree of

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Ingrid Haeckel 00:19:26.000 --> 00:19:44.880

of flooding or soil saturation, so some can have standing water for many months or nearly all year round, whereas others may only have saturated soils for several weeks during the growing season, but a sufficient period of time to develop again, those distinctive soils and vegetation.

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Ingrid Haeckel 00:19:47.760 --> 00:20:06.960

Woodland pools are a subset set of vernal pools and they are small, isolated, seasonally flooded wetlands, and because they're isolated from streams and they usually dry up by the middle of the summer, they lack fish. And as a result, they're often vital breeding grounds for salamanders

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Ingrid Haeckel 00:20:08.240 --> 00:20:20.360

and frogs and other forest dwelling amphibians. They're often quite small and as a result, these wetlands often don't show up on official maps.

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Ingrid Haeckel 00:20:24.240 --> 00:20:42.160

Wet meadows occur in many cases in abandoned agricultural areas and are dominated by grasses and forbs. In some cases, these are areas that were previously drained for farming and have returned to wetlands after farming activity is stopped. In this picture you can see purple loosestrife.

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Ingrid Haeckel 00:20:42.640 --> 00:20:49.960

That's a non- native invasive species. That's really common in these habitats and is also a good indicator of wetland soils.

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Ingrid Haeckel 00:20:51.840 --> 00:21:08.600

Next we have marshes, and these typically have standing water throughout most of the growing season. They're dominated by herbacious vegetation like cattails, and these are probably what you think of first when you hear the word wetland.

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Ingrid Haeckel 00:21:10.360 --> 00:21:30.160

Last, we have open water habitats like ponds and lakes. These are usually flooded year round. They can support a wide variety of aquatic plants, and it's important to note that many of our ponds and lakes were created by impounding streams or excavating other types of wetlands to make them.

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Ingrid Haeckel 00:21:30.880 --> 00:21:41.640

Which continues to happen. People continue to do this. Lake and ponds have some good habitat values. The best practice ecologically is to avoid altering existing wetlands.

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Ingrid Haeckel 00:21:44.240 --> 00:21:45.680

Let's see.

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Ingrid Haeckel 00:21:47.040 --> 00:22:07.920

So similarly to the issues with stream maps, state and federal wetland maps are very incomplete. This map shows that there's one DEC-mapped wetland near the center of Woodstock in our study area here, and that has this light green check zone around it that the state includes with

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Ingrid Haeckel 00:22:07.960 --> 00:22:28.400

freshwater wetland maps because we know they're pretty inaccurate. There are also a handful of other, small wetlands shown in dark green here that are picked up by the national wetland inventory mapping. However, in reality, there are numerous other small wetlands present, these are shown in pink,

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Ingrid Haeckel 00:22:28.440 --> 00:22:48.880

that are picked up by the local Woodstock habitat map, and in particular, we know that smaller, dryer wetlands are frequently missed in the national wetland inventory database, as well as our DEC wetland maps. Let's see, I'm sorry, this keeps jumping around. So.

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Ingrid Haeckel 00:22:48.960 --> 00:23:09.360

Next, I'm gonna talk briefly about the functions and benefits of wetlands and streams and this is a diagram showing the overview of wetland functions and relationship with surrounding landscape. Water typically enters wetlands through streams and surface water runoff or sometimes by ground water discharging to the

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Ingrid Haeckel 00:23:10.200 --> 00:23:30.480

Wetland. As water enters the wetland, it slows down and spreads out and can be released more slowly downstream, which reduces erosion and flooding and in the process sediment and nutrients are filtered from the water and many contaminants can be broken down by bacteria or taken up

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Ingrid Haeckel 00:23:30.760 --> 00:23:38.040

by plants in the wetland, so that the water draining out of wetlands is usually cleaner than the water that entered.

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Ingrid Haeckel 00:23:40.960 --> 00:24:00.560

And intermittent streams and other small streams provide many similar functions, controlling sediment and nutrient run-off to larger streams. They're particularly important for nutrient processing, which can reduce excess nitrogen from polluting, downstream waters and causing related impacts like ELGO blooms.

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Ingrid Haeckel 00:24:00.880 --> 00:24:21.680

So this diagram shows the hyporheic zone, which is an area of sediment and pore space beneath the stream bed where there's shallow mixing of ground water and surface water from the stream and there, this is where a lot of water filtration and purification occurs, as well as groundwater recharge, so you can imagine when streams are

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Ingrid Haeckel 00:24:21.760 --> 00:24:33.200

buried or have their channels altered, we're losing these important water quality and recharge functions and all that water is just moving even faster downstream, which can contribute to flooding.

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Ingrid Haeckel 00:24:37.040 --> 00:24:54.960

An intact network of wetlands and streams provides many significant benefits for flood control. A single acre of wetlands can soak up to one and a half million gallons of flood water and natural stream corridors and floodplains also provide the space that streams need during flooding to

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Ingrid Haeckel 00:24:55.480 --> 00:25:16.080

spread out and slow down water. And we know this is increasingly important in our changing climate as climate warms. We're not only receiving more overall precipitation per year, but more of it is occurring in heavy downpour type events that result in flooding and for example, like the July 10th floods, we experienced this past

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Ingrid Haeckel 00:25:16.240 --> 00:25:34.480

summer. This is an image from Highland Falls on that date. Protecting small wetlands and streams and avoiding new development in these areas reduces risk to our communities and infrastructure, and it's one of the most cost-effective strategies we have to mitigate flood risk and damage.

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Ingrid Haeckel 00:25:37.200 --> 00:25:56.400

So moving on to some other benefits, wetlands and streams provide critical habitat for many common and imperiled species. These are just a few examples. About forty percent of plant and animal species live or breed in wetlands, and about half of federally threatened and endangered species are wetland dependent.

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Ingrid Haeckel 00:25:58.960 --> 00:26:16.880

It's important to recognize that critical habitat extends beyond the wetland or stream itself. There are many species that move between habitats throughout the year to meet their needs like the spotted salamander shown here, which breeds in woodland pools and lives the remainder of the year in the surrounding forest and

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Ingrid Haeckel 00:26:16.920 --> 00:26:27.680

can travel for up to a mile away from these pools. Buffers also protect the quality of the habitat from adjacent land uses.

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Ingrid Haeckel 00:26:30.320 --> 00:26:49.520



So riparian buffers provide numerous important functions. They help to slow down run off and reduce erosion. They filter out nutrients and sediment before they reach the aquatic habitat. They control flooding, provide shade that helps keep the water and streams cool.

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Ingrid Haeckel 00:26:49.560 --> 00:26:55.960

And they contribute organic matter and wood that are vital to the instream or wetland habitat.

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Ingrid Haeckel 00:26:58.480 --> 00:27:18.960

So you may have heard the term that "fish grow on trees" because they rely on the shade, the food, and the habitat that trees provide to streams. It's very reciprocal relationship between the riparian area and the stream and anyone who likes to fish, for example, for a trout, probably as quickly learn to look for this kind of woody

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Ingrid Haeckel 00:27:18.960 --> 00:27:25.600

structure instreams. Because that's often where fish like to hide out.

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Ingrid Haeckel 00:27:27.280 --> 00:27:47.120

There's a lot of research around recommended buffer widths to protect streams and wetlands. And in general, the bigger the better. This graphic, which is from the Planner's Guide to Wetland Buffers, illustrates buffer widths needed to achieve different goals based on scientific literature. So, for example, a buffer of between thirty and a

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Ingrid Haeckel 00:27:47.400 --> 00:28:07.280

hundred feet, may be sufficient for sediment and phosphorus removal from runoff into a stream or wetland, but you may need up to a hundred and sixty feet or more for nitrogen removal or up to three hundred feet or more for wildlife habitat protection.

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Ingrid Haeckel 00:28:07.600 --> 00:28:15.240

In general, the literature recommends at least a one hundred foot buffer along streams to achieve most of these benefits.

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Ingrid Haeckel 00:28:19.760 --> 00:28:37.680

And the last thing I'll touch on in this introduction are some of the common threats to these resources, specifically threats related to local land use, vegetation clearing, filling, and grading. These continue to be commonplace threats to small wetlands to make way for new development and similarly small streams

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Ingrid Haeckel 00:28:38.040 --> 00:28:41.080

are often channelized or buried in pipes.

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Ingrid Haeckel 00:28:43.640 --> 00:29:04.560

Development in wetlands continues to be a leading cause of wetland loss in the Hudson Valley, and this is an example of an apartment complex that was partially constructed on top of a wetland. Lastly excess and polluted runoff from new development can impact nearby streams and wetlands, and we don't have time to go in

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Ingrid Haeckel 00:29:04.760 --> 00:29:19.240

detail into stormwater management in this webinar, but it's an important and closely related topic. So with that, I'll stop sharing and Emily will continue into the next part of our webinar.

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Emily Svenson 00:29:30.800 --> 00:29:49.360

Thanks everyone for being here. My name again is Emily Svenson. I'm an attorney in Poughkeepsie and in the next segments of our webinar today, I'm gonna be talking about state jurisdiction over streams and wetlands and federal jurisdiction over some streams and wetlands, and then also

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Emily Svenson 00:29:49.440 --> 00:30:09.840

talk about what local governments can do. I want to point out that the slides that I'm going through have a lot of information, and the entire slide show, Ingrid's and mine, will be sent to you after the presentation through your email, so you don't have to try to write things down. You'll get the slides and.

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Emily Svenson 00:30:11.160 --> 00:30:31.440

A fact sheet that covers these, the key points of what we're covering, and you'll have a link to that as well. So rest assured you'll have some materials for your own reference or to share with others after the presentation. I want to also just reiterate what Ingrid said our, our focus today is on

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Emily Svenson 00:30:31.440 --> 00:30:51.920

physical disturbance of streams and wetlands during construction activities. There are lots of other things that can affect water quality and such that are outside the scope of today. So we're really just focused in on physical disturbance of those resources. Okay, so just to put us all in

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Emily Svenson 00:30:52.040 --> 00:31:12.400

the same frame of mind here. I want to just remind folks where laws come from, right? So what we typically call laws are statutes, and those statutes are adopted by legislatures, state legislatures, the federal government, Congress. They adopt

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Emily Svenson 00:31:13.120 --> 00:31:32.880

laws, and then the laws are carried out by agencies. And agencies produce regulations and guidance and things like that to actually carry out those statutes, and then if there are issues or disputes, they may go to the courts. And so just kind of keeping

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Emily Svenson 00:31:33.080 --> 00:31:39.920

That framework in mind, we'll explain some of the flux that's happening as far as federal and state wetland regulations.

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Emily Svenson 00:31:42.480 --> 00:32:02.320

So I'm gonna start with New York State regulations. The reason I'm starting with New York State is because for the most part, they're the stronger set of regulations. Occasionally, people think that if something is a federal wetland, that must mean it's highly regulated, but the federal regulations tend to not be as strong as

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Emily Svenson 00:32:02.320 --> 00:32:22.800

state ones. So we're gonna start with New York State. And we're gonna start with streams. New York State stream regulation arises from the Protection of Waters statute, which is part of the Environmental Conservation Law, which

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Emily Svenson 00:32:23.280 --> 00:32:43.280

Regulates the physical disturbance of streams and that regulation is based on a map that the state has produced and a classification system of the streams. Streams that are mapped and classified as AA, A, B and some Cc's. Only.

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Emily Svenson 00:32:44.200 --> 00:33:03.760

The C-T and the C-T-S, those are the regulated streams. The regular C that doesn't have a T- with it, C are not regulated. And the D- are not regulated under the Protection of Water's program. For the most part these are perennial streams, meaning they flow year round. There are

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Emily Svenson 00:33:03.800 --> 00:33:24.240

occasionally intermittent streams that are mapped and classified, and then those would also be regulated, but for the most part, they're the perennial year round flowing streams. And if you come across the stream that is unmapped, if it is a perennial year round stream, then it will be regulated

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Emily Svenson 00:33:24.240 --> 00:33:44.720

even though it's not mapped, and it will take the classification of the stream it flows into. So I guess just to clarify that if it flows into a regulated stream, then it will be regulated. If it's an unmapped perennial stream that flows into an unregulated stream, a C or a D,

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Emily Svenson 00:33:44.760 --> 00:33:46.600

then it will not be regulated.

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Emily Svenson 00:33:49.200 --> 00:33:52.120

So to provide an example of that.

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Emily Svenson 00:33:53.680 --> 00:34:14.159

You'll see here. The blue highlighted stream and actually the part that continues through down to the Hudson River, that is a class C-T stream. Meaning it's a class C- with a T- a trout designation and so that stream is regulated.

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Emily Svenson 00:34:14.800 --> 00:34:34.639

If a project were proposed that disturbed that stream, it would be regulated. It would need a DEC permit through New York State. Just to the left of that, you'll see the Lansmanskill stream system that is a class C- that is not a T, so it's just a regular C. And that means it's not regulated, so it's a

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Emily Svenson 00:34:34.679 --> 00:34:48.440

perfectly nice stream. It flows through a nice forested area. Development that affects that stream would not be regulated by New York State. So it's really just depends on that classification system.

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Emily Svenson 00:34:50.639 --> 00:35:10.480

So for streams that are regulated, then the question is: What part of the, the stream area is regulated? And the area regulated is the bed and banks of the stream. The bed is the area that's actually under water most of the time. It's the, the bed of the stream up to the mean high water level.

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Emily Svenson 00:35:10.480 --> 00:35:30.960

And then the banks of the stream are the area that slopes down toward the stream, up to a maximum of fifty feet. Occasionally, it can be more than fifty feet, if it's steeper than forty- five degrees, but for the most part, it's just the bed and the banks up to a maximum of fifty feet.

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Emily Svenson 00:35:31.040 --> 00:35:46.520

That's the area regulated by New York State. It doesn't really provide a buffer to, to the level that, that Ingrid was speaking about. The area that is part of the stream ecosystem may extend beyond that.

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Emily Svenson 00:35:50.160 --> 00:36:10.640

And then, so for each of these categories, we're gonna tell you about what's regulated and then what's changing. In the case of streams, that's easy because New York State regulation of streams is not changing. There have been some attempts to change the statute to expand to all class C streams, but they have not yet

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Emily Svenson 00:36:10.640 --> 00:36:16.520

Bben enacted, so at this point, it's what I just described and that's staying the same.

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Emily Svenson 00:36:17.680 --> 00:36:38.160

So moving on to New York State regulation of wetlands. Wetlands are regulated through the Freshwater Wetlands Act, and New York State at the moment today, regulates wetlands that are 12.4 acres or larger based on regulatory maps that they have

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Emily Svenson 00:36:38.240 --> 00:36:58.640

Established. So for a wetland to be regulated, it has to be 12.4 acres or larger, and it has to be identified on the state regulatory maps. Occasionally, smaller wetlands of unusual local importance can also be regulated. I'm not gonna dwell on this because it's, it's changing.

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Emily Svenson 00:36:58.800 --> 00:37:11.320

So the area that's regulated includes the wetland itself and a one hundred foot adjacent area adjacent to the edge of the wetland.

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Emily Svenson 00:37:15.920 --> 00:37:33.200

And there's a DEC permitting program that exists, so if an applicant or a, if someone wants to do construction within that area, they can apply for a permit from New York State. So this is an area where there is a lot of change.

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Emily Svenson 00:37:34.560 --> 00:37:53.680

This is one of the things we wanted to alert you to, and the reason for doing these programs. So the state legislature amended the statute in 2022, and the new regulations are underway, and so there will be changes rolling out over the next few years.

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Emily Svenson 00:37:53.680 --> 00:38:02.680

So just to kind of clarify: the statute was changed, but the changes to the regulations are still underway.

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Emily Svenson 00:38:05.840 --> 00:38:25.680

So the regulations are going to be coming out in draft form in the next couple of months, we're expecting, and so if these are issues that are important to you and your community, you can keep an eye out for the draft regulations and it'll be an opportunity to comment if there are things that you want to urge the state to include in the final

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Emily Svenson 00:38:25.960 --> 00:38:46.160

Regulations. So the statute change did give direction to what those changes are going to be, and that's what we're going to go over right now. So the first set of changes that will occur and that will take effect in 2025: jurisdiction will no longer be based on

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Emily Svenson 00:38:46.160 --> 00:39:06.640

Maps. So the jurisdiction will still be 12.4 or larger, but it will not be based on a map. If you have a wetland on a site, that's 12.4 acres or larger, but was not previously mapped by DEC in the past, that was very difficult. They were, they were not

156

Emily Svenson 00:39:07.160 --> 00:39:27.120

Regulated. But under the regulations that will be taking effect in 2025, wetlands, 12.4 acres or larger will be regulated whether or not they appear on a map. The other change that will take place in 2025 is that there will be new criteria for small wetlands of unusual importance.

157

Emily Svenson 00:39:27.920 --> 00:39:47.600

Some of the criteria that will apply to unusual importance include:

- watersheds with flooding issues,
- wetlands in urban areas,
- wetlands that provide habitat for protected species,
- vernal pools, specifically,
- and previously mapped wetlands that were regulated in the past will also continue even if they're smaller than 12.4 acres.

The regulations that we're waiting to see in the next couple of months will provide more clarity on that, but the upshot is that there will be more

159

Emily Svenson 00:40:09.360 --> 00:40:28.560

wetlands that will be included, even if they're smaller than 12.4 acres. But I do want to emphasize that there's still going to be only wetlands of unusual importance that are regulated by DEC, if they're smaller than 12.4 acres. There are lots of usual types of importance that Ingrid just

160

Emily Svenson 00:40:29.780 --> 00:40:35.660

described and not all of those wetlands are going to be regulated by New York State.

161

Emily Svenson 00:40:36.860 --> 00:40:57.260

The next set of changes that will be happening in 2028 is that the size threshold will reduce to seven point four acres instead of twelve point four. So those wetlands that are seven point four acres and larger will become regulated in twenty- twenty eight. And a note about the maps.

162

Emily Svenson 00:40:58.540 --> 00:41:17.740

Even though mapping will no longer be the determination of whether something is regulated or not, DEC is not going to be abandoning their mapping. In fact, they're gonna be putting effort into improving the available maps and they will be taking input from local government and

163

Emily Svenson 00:41:17.780 --> 00:41:31.100

academia and such to improve those maps as a predictive tool for where wetlands are likely to be. They just won't be, they won't be the decision making factor on what's jurisdictional.

164

Emily Svenson 00:41:34.380 --> 00:41:53.580

Okay, so that's New York state regulation of streams and wetlands. Moving on now to federal regulation of streams and wetlands. Federal regulation of disturbance or placement of fill in streams and wetlands

165

Emily Svenson 00:41:53.660 --> 00:42:12.700

comes under the Clean Water Act section 404 and the Clean Water Act applies to waters of the United States. We're gonna be talking more about what is a Water of the United States because that is what determines whether there's federal jurisdiction.

166

Emily Svenson 00:42:15.340 --> 00:42:34.540

There is no regulatory map for federal streams and wetland jurisdiction. You may have seen the national wetland inventory maps. Those are a great predictive tool to see where wetlands may be, but that map is not a regulatory map.

167

Emily Svenson 00:42:34.740 --> 00:42:55.020

It doesn't mean that if something's on there or not on there, it does not affect whether or not it's regulated. The key to federal jurisdiction is connectedness. So the waters of the United States, the Clean Water Act is based on the, the federal Commerce Clause (of the Constitution) and so you can kind

168

Emily Svenson 00:42:55.220 --> 00:43:16.140

picture a web of water waterways starting with navigable rivers and then branching out to streams and then wetlands that are adjacent to those streams. That's what's going to be regulated. It's not gonna be anything that's isolated because it's based on this idea of interstate commerce, so to give a little more detail.

169

Emily Svenson 00:43:17.420 --> 00:43:36.620

Actually, first I want to mention that for wetlands that are regulated, there is a permitting system. So if someone wants to construct something that will affect a federally regulated wetland, there is a permitting system. There are general

170

Emily Svenson 00:43:36.660 --> 00:43:57.100

permits available, which can allow a certain amount of wetland disturbance for common project types. So, for instance, there's a general permit that allows disturbance it up to a half acre of wetland loss for residential housing construction, for instance.

171

Emily Svenson 00:43:57.100 --> 00:44:17.580

There's quite a lot of availability of permits through the Army Corps of Engineers, which is who implements section 404 of the Clean Water Act. I just want folks to bear in mind that just because a wetland may be regulated or jurisdictional under the federal

172

Emily Svenson 00:44:17.620 --> 00:44:26.780

government, it doesn't mean that it's protected per se because of the availability of these permits that can pretty easily be

173

Emily Svenson 00:44:28.500 --> 00:44:48.300

received in order to fill parts of a wetland. Okay, so going back to the question, which are these waters of the United States that are regulated by the federal government? So it navigable

174

Emily Svenson 00:44:48.420 --> 00:45:08.780

able waters and then tributaries of those rivers, the streams that are tributary, and then wetlands that are adjacent to those rivers and streams. And the question of what adjacent means has caused a lot of a lot of conflict over the last couple decades and different rules

175

Emily Svenson 00:45:08.780 --> 00:45:29.260

have come out most recently in March twenty- twenty three, a rule came out from the EPA, which is who makes the rules about waters of the United States. And then no sooner had that rule gone into effect that in May twenty- twenty- three, the US Supreme Court *Sackett* decision came out which

176

Emily Svenson 00:45:31.180 --> 00:45:49.340

Invalidated the March, twenty- twenty three rule. So in August, twenty- twenty- three, the federal government came at with a new conforming rule to conform to the Sackett decision. So there's a, a new rule as of August, twenty- twenty three and so.

177

Emily Svenson 00:45:49.860 --> 00:46:10.220

If you had heard in the past about the "significant nexus rule," that's no longer a thing. So I'm gonna tell you what the, what the rule is now which came out in the August twenty- twenty- three regulation. EPA made the rule,

178

Emily Svenson 00:46:10.500 --> 00:46:30.700

what's a water of the United States. Army Corps actually implements the section four o- four permit program. And Army Corps is still kind of waiting for more guidance on how to implement this. So we don't have the exact details for you, but want to kind of give you the gist. So what the new rule is that

179

Emily Svenson 00:46:31.980 --> 00:46:51.180



tributaries that are relatively permanent are included in federal jurisdiction, so that definitely includes perennial streams that flow year round. It definitely does not include ephemeral streams that flow only after rainstorms, those really small temporary streams.

180

Emily Svenson 00:46:53.100 --> 00:47:11.660

It may include some intermittent streams. So if a stream is seasonal, it may fall into the category of relatively permanent or it may not, and we can't really tell you right now where that line will be drawn. As far as wetlands

181

Emily Svenson 00:47:11.820 --> 00:47:29.140

Wetlands have to have a continuous surface connection to one of those regulated rivers or streams, so that means that isolated wetlands that are not connected to a stream are not regulated by the federal government.

182

Emily Svenson 00:47:31.500 --> 00:47:50.540

This question again, is still unrolling, it may not be over. There have been attempts to adopt new statutes, so we'll see, but again, I do want to emphasize that these changes at the federal level do not affect New York State regulation.

183

Emily Svenson 00:47:50.740 --> 00:48:08.660

Because New York State has its own statutes that were adopted separately. So the upshot of all of this is that New York state is expanding its protection of streams and wetlands while the federal government is reducing its jurisdiction.

184

Emily Svenson 00:48:12.460 --> 00:48:31.020

The changes that I just mentioned to the federal regulations, EPA has estimated that those changes reduced jurisdiction nationwide by eliminating jurisdiction over one- to five million miles of the federal streams.

185

Emily Svenson 00:48:31.100 --> 00:48:41.140

and reducing jurisdiction of up to 63 percent of wetlands by acreage. It's a pretty significant reduction in federal jurisdiction.

186

Emily Svenson 00:48:44.460 --> 00:49:03.020

I have a couple slides here to try to illustrate that change. This slide shows a traditional navigable water like a river, then the tributaries to it that are perennial, that flow year round. They will be regulated

187

Emily Svenson 00:49:03.020 --> 00:49:23.500

by the federal government and wetlands that are adjacent to those tributaries will be regulated. Tributaries that are intermittent may or may not be regulated, and then wetlands that are adjacent if it's a regulated tributary, adjacent wetlands that are have a continuous

188

Emily Svenson 00:49:23.580 --> 00:49:31.380

surface connection will be regulated, but isolated wetlands will, will never be regulated by the federal government.

189

Emily Svenson 00:49:33.100 --> 00:49:53.580

And this slide I wanted for you to have for reference, but we're not gonna get into the details. I wanted to provide an example of the permitting that I spoke about. This is an example of a site where there were various state-regulated wetlands

190

Emily Svenson 00:49:54.260 --> 00:50:08.940

over on the left side and a, a pond, and then there are some smaller wetlands that may have had federal jurisdiction. I'm gonna zoom in on one area.

191

Emily Svenson 00:50:10.220 --> 00:50:30.700

So the area that's shown in orange that was mapped by the applicant as a potential federal jurisdiction stream and wetland area, and what I wanted to show is that when an applicant is designing a site, if they see a wetland where the only regulation of it is federal,

192

Emily Svenson 00:50:32.560 --> 00:50:52.400

they may be aware that it's quite easy to get permitting to disturb a small amount of that wetland. So in this case, it looks kind of like the project designer didn't really try to avoid that stream. They put two crossings across it to get to an area where they wanted to build.

193

Emily Svenson 00:50:52.400 --> 00:51:12.880

And they were easily able to get a permit for that, and I wanted to show the outcome. On the left you see an aerial photo before the project went in. It's the forested area with that stream and wetland area afterwards the area all around it has been

194

Emily Svenson 00:51:13.040 --> 00:51:33.360

clear cut, and only a few trees left right around the wetland area. So I just want to emphasize that if a wetland or a stream is under federal jurisdiction, don't count on that to provide any real ecological protection. Whatever habitat

195

Emily Svenson 00:51:33.480 --> 00:51:47.280

value that had really is probably much less if not gone at this point after all the vegetation has been removed because there's no, no buffer around a federal wetland.

196

Emily Svenson 00:51:49.360 --> 00:51:52.760

OK. I want to try to put all those pieces together.

197

Emily Svenson 00:51:54.480 --> 00:52:14.960

This is going back to that mapping that Ingrid showed in the town of Woodstock. This colorful map shows all the different areas that the town found to be streams and wetlands when they did their own mapping. New York state stream regulations only cover those red

198

Emily Svenson 00:52:15.160 --> 00:52:18.400

streams that have been mapped and classified.

199

Emily Svenson 00:52:20.080 --> 00:52:32.280

New York State wetlands regulations include one wetland in this area. The one covered is showed in red here and the hundred foot buffer around it.

200

Emily Svenson 00:52:33.560 --> 00:52:54.000

Federal regulations, we can't really say for sure. They definitely include some of the streams in this area and they include the wetlands that are adjacent to those streams. They're shown in red on this map. They may include some additional streams and wetlands, depending on how those definitions

201

Emily Svenson 00:52:54.640 --> 00:53:10.960

of a relatively permanent stream and a continuous surface connection wetland play out. But there are also definitely some wetlands that are not connected to any stream that will certainly not be covered by federal regulation.

202

Emily Svenson 00:53:13.240 --> 00:53:31.040

In twenty- twenty- five, when the New York State regulations change, one new wetland will come into state jurisdiction because it's greater than twelve point four acres, even though it's not currently mapped. The one circled there will come into state jurisdiction.

203

Emily Svenson 00:53:33.040 --> 00:53:42.480

And in twenty- twenty- eight, when the New York state threshold goes down to 7.4 acres a few more wetlands will come into state jurisdiction.

204

Emily Svenson 00:53:46.480 --> 00:54:04.400

Okay, this is the audience participation portion of the presentation. I'm gonna ask if you look at the bottom of your screen, hopefully you have a chat function. So let's give this a try. I'm going to go through a few examples and see if you guys can put in the chat, what you think the state or federal

206

Emily Svenson 00:54:25.400 --> 00:54:45.360

jurisdiction is of these wetlands. So the site that we're looking at is a large site. It's an eight-hundred-acre site where there's been consideration of some development, and they have had detailed habitat mapping done. So the map that you see here is a Hudsonia habitat map

207

Emily Svenson 00:54:45.440 --> 00:55:05.840

that shows streams wetlands and other habitat types, and so we're gonna run through a few examples. The first area circled in orange is a stream corridor with a wetlands complex along the stream. The stream is a perennial stream. It's mapped by New York State.

208

Emily Svenson 00:55:05.880 --> 00:55:26.320

And it's a class C stream, and the wetlands along it include swamps and wet meadows, and the wetlands have not been mapped as a state protected wetland. So my first question is, is this stream covered by New York State regulations? You can just type it into the chat if you think, you know.

209

Emily Svenson 00:55:26.320 --> 00:55:28.880

I'm gonna try to find the chat.

210

Emily Svenson 00:55:33.360 --> 00:55:34.000

Let's see.

211

Christine Vanderlan 00:55:34.000 --> 00:55:41.040

If you cannot see it, I can see it, I'm seeing answers come in Emily, so I can read them out if you don't see it.

212

Emily Svenson 00:55:41.120 --> 00:55:46.320

Okay, no, I think I just found it. Actually, I just click on some things.

213

Emily Svenson 00:55:48.080 --> 00:56:08.560

All right, terrific good. So right, this stream is not regulated by New York State because it's perennial, it's mapped, but it's a class C- it's not a C-T, so that will not be New York State regulated stream. The wetlands along the stream, are they regulated by New York State?

215

Emily Svenson 00:56:13.040 --> 00:56:31.600

No, that's correct. They're not because they are not mapped as state regulated wetlands, but they may be in twenty- twenty- five if they add up to twelve point four contiguous acres, which they may. So we will see. As far as federal

216

Emily Svenson 00:56:31.600 --> 00:56:39.840

Regulation, is this stream, which is a, it's a perennial stream again, do we think this stream is under federal jurisdiction?

217

Emily Svenson 00:56:45.040 --> 00:57:01.680

The answer is actually, yes, because it doesn't the federal jurisdiction is not based on mapping, it's just based on whether it's a relatively permanent stream, which it is. So there is federal jurisdiction over the stream. The wetlands that are connected to this stream,

218

Emily Svenson 00:57:02.480 --> 00:57:04.920

Would they have federal jurisdiction?

219

Emily Svenson 00:57:07.440 --> 00:57:15.160

Yes, that's right. Good, so the wetlands that are connected to the stream would also be under federal jurisdiction.

220

Emily Svenson 00:57:17.720 --> 00:57:37.000

Let's see next example is some isolated wetlands that are in the forested part of the site. They include buttonbush pools, intermittent woodland pools, intermittent swamps, but they have no connection to any stream. So would those wetlands be regulated by New York State

221

Emily Svenson 00:57:37.560 --> 00:57:39.720

under the current regulations?

222

Emily Svenson 00:57:43.920 --> 00:58:01.840

Right, so the answer is no, they're not regulated right now by New York State because they're not on a state wetlands map and they're smaller than twelve point four acres. In twenty- twenty- five when the rules change, it's possible that they might come under that unusual importance category because

223

Emily Svenson 00:58:02.520 --> 00:58:14.480

they may have important species there, and vernal pools are supposed to become protected, so they may. What about federal jurisdiction over those isolated wetlands?

224

Emily Svenson 00:58:15.920 --> 00:58:22.680

No correct, yeah, we're all pretty sure about that one. So they're not connected to a stream. No federal jurisdiction.

225

Emily Svenson 00:58:24.280 --> 00:58:44.720

Next example. There's some wet meadows in a former agricultural field, they add up to maybe four or five acres altogether, not connected to a stream. So would there be state jurisdiction on those wetlands? No, there wouldn't.

226

Emily Svenson 00:58:45.600 --> 00:59:04.840

And it's unlikely that there would be under any of the upcoming changes, either. What about federal jurisdiction over those wetlands, the wet meadows. I'm seeing lots of "no's". So that's correct. There would not be because they're not connected to a stream.

227

Emily Svenson 00:59:07.120 --> 00:59:25.680

Last example, this is an intermittent stream that flows into that perennial stream we're talking about. This intermittent stream has some wetlands adjacent to it, which include marshes and wet meadows. Neither the stream nor the wetlands has been mapped by New York State

228

Emily Svenson 00:59:25.680 --> 00:59:43.600

as jurisdictional. Right now is that stream under New York State Jurisdiction? No. Correct- that's not mapped classified, and it's not perennial. Are those wetlands under New York State jurisdiction?

229

Emily Svenson 00:59:45.520 --> 01:00:06.000

No, they're not. They're not mapped by the state, and it's unlikely that they would be under state jurisdiction in the future because they probably don't have a contiguous twelve point four acres. I don't know. They may be, I don't know enough about those wetlands to say if they would meet one of the, the unusual

230

Emily Svenson 01:00:06.080 --> 01:00:26.480

categories. Someone asked how do we know by looking at this picture, if they're mapped? You don't know that, but you can look at the text over on the side where I said whether they are or not because we did check that. So federal jurisdiction on this. I'm just gonna say is a big maybe

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Emily Svenson 01:00:26.600 --> 01:00:46.960

because we don't know whether that stream is permanent enough to be relatively permanent and we don't know if, if the stream is jurisdictional, then the wetlands adjacent to it would also be, but we just don't know that. Okay, for playing along, I appreciate it. It helps to know that people are absorbing the material.

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234

Christine Vanderlan 01:00:50.740 --> 01:00:54.260

Can I pose a couple clarifying questions people asked.

235

Christine Vanderlan 01:00:54.340 --> 01:01:02.100

Where we go into the next section. One, if a stream flows into a class, a water supply lake, is it regulated?

236

Emily Svenson 01:01:03.260 --> 01:01:23.700

The state stream regulations are based on the state stream mapping. So the first place to look would be the maps to see if the stream is mapped.

237

Emily Svenson 01:01:23.740 --> 01:01:40.580

If it's mapped, and it's classified as class CT or higher than it's regulated. I'm assuming the reason the person is asking is that it's unmapped and if it's unmapped, then it depends, if it's perennial, it may be regulated.

238

Emily Svenson 01:01:42.260 --> 01:01:48.100

I can talk to this person offline if, if we want to get into the specifics, but hopefully that helps.

239

Christine Vanderlan 01:01:49.300 --> 01:02:02.100

And another question, what, if you can, is an example of a wetland of unusual importance, would it be in, say, an EJ area? Would it have listed species habitat?

240

Emily Svenson 01:02:02.100 --> 01:02:22.580

Right, so that is the, the statute gave the, the changed statute gave some direction on that and we'll find out the specifics when the regulations come out for comment, so I would encourage the person to look at those regulations when they come out, and if they want to comment on it, they can.

241

Emily Svenson 01:02:22.620 --> 01:02:43.020

Some of the clues that the state gave in the statute is there were a number of categories listed including wetlands in a watershed with flooding problems, wetlands in urban areas, wetlands that provide habitat for rare species, certain vernal pools. So more

242

Emily Svenson 01:02:43.340 --> 01:02:46.260

to come on that as the regulations are finalized.

243

Christine Vanderlan 01:02:46.940 --> 01:02:48.700

Great, thank you.

244

Emily Svenson 01:02:48.820 --> 01:02:58.740

Yeah, thanks for, for jumping in Christine. Okay, so the last segment here for me, and then I wanna leave time for Ingrid's last segment as well.

245

Emily Svenson 01:03:00.980 --> 01:03:20.180

Hopefully a lot of folks here on the webinar are part of local municipality and you do have a lot of opportunity within your municipalities to develop your own regulations. What we're hoping that you've seen from the previous segments is that there are a lot of streams and

246

Emily Svenson 01:03:20.620 --> 01:03:40.660

wetlands that are not regulated by either the state or federal government. Even if they are, they, they may not be fully protected by those agencies because permits are fairly readily available, at least for federal jurisdictional areas.

247

Emily Svenson 01:03:41.300 --> 01:04:01.140

And just from what Ingrid described you'll notice that the wetlands that are more important aren't necessarily the ones that are regulated. There may be wetlands that provide really important benefits that just don't happen to fall into one of those

248

Emily Svenson 01:04:01.220 --> 01:04:21.620

categories that are regulated by the state or federal government. So the good news is that you have the opportunity to make your own regulations. So the benefits of creating your own municipal regulations are not relying on those state and federal reg.

249

Emily Svenson 01:04:22.300 --> 01:04:42.100

And you can choose what's important in your community and make regulations that suit your needs. Municipalities have that authority both generally, under New York State Municipal Home rule law section ten, as well as the New York State Freshwater Wetlands Act

250

Emily Svenson 01:04:42.220 --> 01:04:55.380

specifically says that the state isn't knows that they're not regulating all the wetlands and they offer municipalities the option to regulate smaller unregulated wetlands.

251

Emily Svenson 01:04:58.100 --> 01:05:17.860

So I like to suggest to folks that if you're thinking about, if you want to take a look at what you have in your community and to improve your protection of streams and wetlands, the first place to look is to see what regulations you already have in place and find out if they're being implemented.

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Emily Svenson 01:05:18.140 --> 01:05:38.420

Or if not, if, if that can is something that you can work on. So, for example, do you have regulations in your zoning code and is the planning board fully embracing those regulations when they review site plans and subdivisions? If not, maybe that's an opportunity for



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Emily Svenson 01:05:38.460 --> 01:05:58.900

education and process change. Also is your code enforcement officer up to speed on what they should be doing, if someone disturbs wetlands in your community? If you have a regulation, is the code enforcement officer aware of it and, and how they should be enforcing it? Sometimes could enforcement

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Emily Svenson 01:06:00.180 --> 01:06:19.380

are amazingly well versed on everything to do with fire codes and such, but may not have a background in environmental protection. So that's an opportunity, but then if you determine that, you don't have the regulations that you need within your community to protect streams in wetlands,

255

Emily Svenson 01:06:19.860 --> 01:06:40.500

I like to suggest, you know, a problem solving approach of thinking about which resources are important and what the threats are to those resources, so that you're focusing your effort on the actual concerns in your community and not doing something over broad that will be a challenge for you. So.

256

Emily Svenson 01:06:41.260 --> 01:07:00.980

Think about really what the problem is you're trying to solve and then what strategy might work, which we'll talk about in a moment. I would also just suggest considering the political will in your community and the enforcement capacity. So if you're in a, a small town that

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Emily Svenson 01:07:01.020 --> 01:07:13.900

doesn't have a lot of capacity to enforce say conservation easements, then that might not be something that's gonna work well for you. So just think about what's gonna work for you.

258

Emily Svenson 01:07:15.700 --> 01:07:18.420

So the first example

259

Emily Svenson 01:07:20.180 --> 01:07:40.020

of a type of stream and wetland protection is sort of the gold standard wetland and watercourse protection law. This type of law provides comprehensive regulation of not only new construction, but also other types of activities in and near streams and wetlands. So.

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Emily Svenson 01:07:40.020 --> 01:08:00.500

if you design a wetland and water course protection law, you can choose which areas to regulate. You can include streams, wetlands, vernal pools, anything that is important in your community, and then you can choose what size buffer you want to protect around those regulated resources. You can

261

Emily Svenson 01:08:00.860 --> 01:08:03.220

set up a permitting process

262

Emily Svenson 01:08:05.460 --> 01:08:17.100

if development does need to occur in those areas, and you can also set your own penalties, if you want for what will happen if someone violates that law.

263

Emily Svenson 01:08:18.420 --> 01:08:38.900

An example of a wetland and watercourse protection law is the Town of Woodstock. So we were using this example throughout the presentation of a section of the Town of Woodstock and you could see there were certain streams and wetlands that were not regulated by either the state or federal government, but the good news is that the Town

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Emily Svenson 01:08:39.259 --> 01:08:59.380

of Woodstock has a comprehensive wetland and watercourse protection law, which applies to wetlands of all sizes, vernal pools, streams, and water bodies. It includes the buffer of thirty to a hundred feet, depending on the resource. I want to just talk about that for a minute. As Ingrid showed the, the buffer size

265

Emily Svenson 01:08:59.580 --> 01:09:19.859

that you need to depends on what you're trying to protect, but usually a hundred feet is, is a good buffer size to go for. They may have decided in their process that it wasn't. I'm not, I don't know the details of Woodstock's process, but for instance, some communities find that asking for a hundred foot buffer

266

Emily Svenson 01:09:19.859 --> 01:09:33.540

around all streams and wetlands is just not viable, that it won't get passed in their community. Well, okay, so if you can get thirty feet passed, that's, that's doing something, right? So sometimes it's just a compromise.

267

Emily Svenson 01:09:35.500 --> 01:09:55.700

Their wetland and watercourse protection law requires permits for various activities and they have a wetland and watercourse inspector who helps to implement the law. Now what if you're not ready to do a full wetland watercourse protection law or what if, maybe you already have one, but you want to add

268

Emily Svenson 01:09:56.340 --> 01:10:03.380

other layers of protection? So I'm gonna talk about some other alternatives if that isn't the right choice for your community.

269

Emily Svenson 01:10:05.300 --> 01:10:25.140

One example is zoning setbacks. You have setbacks from the lot lines, for instance, different types of setback requirements. You could add a setback from streams or wetlands and what the Town of Gardiner had, and I think they're in the process of changing

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Emily Svenson 01:10:25.500 --> 01:10:45.620

this, but what they have had is they had a rule in, in their code that said, for state- regulated streams, we're adding an extra one hundred foot setback from the top of the bank. So whatever area New York State regulates the town of Gardiner is adding

271

Emily Svenson 01:10:45.740 --> 01:11:06.100

One hundred foot extra buffer of protection. Because again the state protects the, the bed and bank of the stream only up to fifty feet and fifty feet really isn't much of a buffer. So the town of Gardiner decided, we're not going to identify a new streams for protection but we are going to add

272

Emily Svenson 01:11:07.300 --> 01:11:27.780

a buffer on state regulated streams. That's adding something, and this is a photo of an area where there was development proposed along the Shawangunkill and the state regulated area only went a little ways up the slope, but the town's

273

Emily Svenson 01:11:27.940 --> 01:11:34.460

regulation added an extra hundred foot setback keeping the development back further from the river.

274

Emily Svenson 01:11:36.460 --> 01:11:56.580

Another option is the use of overlay zoning. Overlay zoning is where you create regulations that add an extra layer of protection on top of the existing underlying zoning. So this first example is from the City of Newburgh. They created a waterfront protection overlay

275

Emily Svenson 01:11:57.300 --> 01:12:17.060

district that applies to the Hudson River and some of the major stream corridors. You could kind of see the blue dotted lines there, and so in the areas within that overlay district, it doesn't mean that you can't develop,

276

Emily Svenson 01:12:17.700 --> 01:12:27.500

but in those areas, in addition to the regular zoning rules, there's an extra set of regulations to protect those water bodies.

277

Emily Svenson 01:12:29.860 --> 01:12:50.340

Another use of overlay zoning is if there are certain watershed areas or broad areas that need protection, this is in the town of Newcastle and on the left and the right side of the town, the sort of Tan shaded areas, both of those areas

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Emily Svenson 01:12:50.980 --> 01:13:10.820

are watersheds that drain into two different drinking water systems, and so in those areas, the town wanted to put an extra layer of protection on the wetlands that occur within those parts of town. So, if a project is proposed within one of those, within the environmental protection

279

Emily Svenson 01:13:11.460 --> 01:13:31.300

area, it has the regular zoning requirements, but then it also has an extra set of wetlands protections in those areas. So they weren't ready to do or didn't see the need to do expanded wetlands protections, town wide, but they did want to have expanded wetlands protections in areas that

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Emily Svenson 01:13:31.500 --> 01:13:33.700

Drain into the drinking water sources.

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Emily Svenson 01:13:35.780 --> 01:13:55.620

Another example is the use of a conservation planning process. So you may have conservation subdivisions in your subdivision code. The idea there is to arrange the lots or the homes on a site in a way

282

Emily Svenson 01:13:56.900 --> 01:14:16.100

That protects the natural resources on the site while still allowing the developer to have the full number of houses that they otherwise would have. So this is example is from the town of Pine Plains, their conservation subdivision process actually is required.

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Emily Svenson 01:14:16.860 --> 01:14:36.580

Sometimes conservation subdivision is an option, but in the town of Pine Plains, it's a required process in the rural zoning district. And what they require is that the applicant and the board have to agree to the conservation area before laying out the development.

284

Emily Svenson 01:14:36.580 --> 01:14:57.060

The applicant will come in with all of the natural resources mapped, including streams and wetlands, as well as other important natural areas and the applicant and the board will agree together on the certain areas that need to be protected versus the areas where development can occur. And that all happens

285

Emily Svenson 01:14:57.460 --> 01:15:17.540

Before anyone draws out any house lots on the plan. And this resource this guide that's available through New York State provides a great resource on all different kinds of model laws that you can choose from that might work in your community. There's no concern about plagiarism.

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Emily Svenson 01:15:17.700 --> 01:15:33.580

Find a law that you like that, someone else is using. Imitation is the sincerest form of flattery. When it comes to laws, so go ahead and, and use it and adapt it and make use of other people's work to benefit your community.

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Emily Svenson 01:15:36.100 --> 01:15:55.300

Okay, I want to spend just a minute on SEQR ("seeker"). So the SEQR process, the State Environmental Quality Review Act. That's obviously a state regulation, but it's something that's carried out in individual communities by boards. I imagine many folks watching are

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Emily Svenson 01:15:55.380 --> 01:16:15.780

Board members who do SEQR on projects in their community. So I want to just urge you to use SEQR as the tool to protect streams and wetlands, but the first thing I want to point out is that SEQR is not limited to regulated resources. In SEQR,

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Emily Svenson 01:16:16.580 --> 01:16:36.260

the question that it's basically asking is "Does this project pose the potential for any significant adverse environmental impacts?" And that doesn't ask "significant impacts to regulated resources." It just asks whether there are any significant environmental impacts. So if there are streams or wetlands

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Emily Svenson 01:16:36.300 --> 01:16:40.940

on a site that are not regulated, they're still part of your SEQR consideration.

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Emily Svenson 01:16:44.580 --> 01:17:03.140

A couple ways to make your SEQR process more effective. One thing you can do is collect data in advance because if an applicant comes in and says we're not aware of any streams or wetlands on the site, if you have already done proactive data collection, like this example is from

292

Emily Svenson 01:17:04.420 --> 01:17:23.620

the town of Hyde Park, where a sensitive part of the town was proactively mapped in partnership with Hudsonia. If a project came in in this area, the town would already know where there are known to be streams and wetlands and could ensure that the applicant does a careful job of

293

Emily Svenson 01:17:23.660 --> 01:17:44.100

of identifying those. So being proactive is definitely helpful. If you can't do actual mapping like this, even just collecting and knowing all the resources available on online mappers and such can be a helpful tool. Also make sure that your officials and the consultants that you hire

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Emily Svenson 01:17:44.180 --> 01:18:04.580

are educated on the local resources and the priorities that you have in your community. So, for example, they know that you are concerned about protecting streams and wetlands. And another option is the use of critical environmental areas to document key areas

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Emily Svenson 01:18:05.100 --> 01:18:14.860

to make sure are protected and I won't get into that in detail, but I think there are some resources on the in the tools that we will give you later.

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Emily Svenson 01:18:16.860 --> 01:18:36.580

And just my final pitch here is to consider different layers of protection. It's not just choosing one tool, but you may need different tools to really protect the water resources in your community and if you are in the process, for instance of doing comprehensive planning,

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Emily Svenson 01:18:36.660 --> 01:18:57.060

one of the best things you can do is look at your whole community and say we want to protect our water resources, but we know we also need housing or we need different types of growth. Where do we want those things to occur? And really plan that out so that you're not having arguments on individual sites. So this example is in the town.

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Emily Svenson 01:18:57.100 --> 01:19:17.540

Of Red Hook where they decided they really wanted to keep their agricultural and forested areas rural, as well as their Hudson River waterfront. They didn't want to have heavy development there, but they did want to incorporate more dense development adjacent to the village of Red Hook and so they zoned for that and they put in

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Emily Svenson 01:19:17.620 --> 01:19:28.780

infrastructure for that. So that they could have the housing that they knew they needed while also keeping the pressure off some of the more sensitive ecological areas.

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Emily Svenson 01:19:30.340 --> 01:19:50.820

So, you're a planning board member, for instance, what are some things that you can do? You can use the local laws that are available in your community, and if you feel that the local laws you have are not adequate, then you can advocate for your town board, village board, city council to adopt stronger.

301

Emily Svenson 01:19:52.500 --> 01:20:11.940

You can also use SEQR to, on individual sites to look at the resources and how they can, how any impacts to them can be mitigated. And if you're working on a site that does have potentially federally or state jurisdictional

302

Emily Svenson 01:20:12.340 --> 01:20:28.060

wetlands make sure those are mapped make sure you're the mapping is, is validated with DEC. Send the applicant to the Army Corps for a jurisdictional determination if needed, and make sure that those resources are really being protected.

303

Emily Svenson 01:20:29.860 --> 01:20:42.860

I think that brings me to the end of my slides. I'm gonna turn it back to Ingrid, but I do want to just really thank all of you for your interest and your attention and do feel free to reach out if you have more questions.

Ingrid Haeckel

Thank you so much. Emily, That was really great. So I'll just take a few final minutes to provide some information about additional training tools and funding available on this topic.

307

Ingrid Haeckel 01:21:16.200 --> 01:21:37.320

And learning more about the changing state wetland regulations. We're hosting a webinar on December fourteenth that will go further in depth on that topic. We do know there's a chance this webinar maybe postponed. The regulatory rule making process has been delayed already. We were hoping to originally offer this webinar in

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Ingrid Haeckel 01:21:37.400 --> 01:21:57.800

October, so things seem to have been delayed, but please register, if you're interested, if it is postponed, then you'll be notified of the new date. In addition, we have a great archive of past webinar recordings on these topics, including about headwater stream conservation and

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Ingrid Haeckel 01:21:57.840 --> 01:22:18.280

Wetland and woodland pool conservation and more including more in- depth training about how to remotely identify and map some of these features that may not show up on existing maps. And if you're not already signed up for our DEC delivers, e- newsletter list, you can do that on the, the web page with the

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Ingrid Haeckel 01:22:18.920 --> 01:22:38.760

webinar registration and make sure you're getting announcements. The Hudson Valley Natural Resource Mapper is an online interactive mapping tool from the DEC that is a very useful resource for existing stream and wetland mapping. And it also includes wetland- related soil maps

311

Ingrid Haeckel 01:22:38.800 --> 01:22:51.800

that can help to identify additional potential wetland locations. So please take advantage of that. These are, it's a nice handy reference.

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Ingrid Haeckel 01:22:54.120 --> 01:23:13.960

If your community may also happen to have a natural resources inventory or other local studies, which provide local mapping data on wetlands and streams. And this is an example from the town of Washington, which we're currently assisting. This map includes local wetland and stream mapping from a habitat

313

Ingrid Haeckel 01:23:14.320 --> 01:23:24.720

mapping study in the town that includes vernal pools and also includes those wetland soils and state jurisdictional wetlands.

314

Ingrid Haeckel 01:23:27.400 --> 01:23:47.240

Emily touched on the Department of State and DEC model local laws to increase resilience, and this includes a large chapter on wetland and watercourse protection measures with many examples from diverse New York communities, and that's available on the Department of State website. That's a great resource. And we wanted to throw in a couple of other

315

Ingrid Haeckel 01:23:47.880 --> 01:24:07.720

publications that we think are useful, including the Planners Guide to Wetland Buffers for Local Governments. Ad this blue publication is a recent study about wetland and watercourse regulations profiling three Hudson valley towns, including New Paltz, Fishkill, and Newcastle that provides

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Ingrid Haeckel 01:24:07.840 --> 01:24:23.120

in depth analysis of factors leading to the successful adoption and implementation of these laws. That's a really interesting study and we also have our website, which is a Clearinghouse of resources as Christine mentioned in the introduction.

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Ingrid Haeckel 01:24:25.000 --> 01:24:46.120

And we have some fact sheets that we put together on these topics. So if you wanted to share some of these, you know, highlights of what we've discussed today with other members of your board or a group you're in, you can print these fact sheets for wetland and stream conservation, as well as a really nice overview of the changing state and federal

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Ingrid Haeckel 01:24:46.120 --> 01:24:49.200

regulatory changes on the right.

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Ingrid Haeckel 01:24:52.160 --> 01:25:11.080

And if you're interested in developing local policy, there's funding available through Hudson River Estuary grants and also from the Hudson River Valley Greenway and these grants can be used to fund professional assistance for zoning revisions, wetland and watercourse laws or conservation overlay zoning. And the map on the right is from an

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Ingrid Haeckel 01:25:11.520 --> 01:25:22.000

overlay zoning project underway in five Westchester Towns and villages to protect water quality in the Croton gorge area, and that's funded through an estuary grant.

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Ingrid Haeckel 01:25:23.880 --> 01:25:43.720

And lastly, the Hudson River Estuary Trees for Tribes program helps stream side landowners and municipalities to protect and restore stream buffers by providing free trees and shrubs and assistance with plantings. And municipalities and other partners can really help us to spread the word with property owners about this program.

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Ingrid Haeckel 01:25:44.440 --> 01:25:53.920

And some have been involved with restoring stream buffers on municipal parks or other municipally owned land, like this example.

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Ingrid Haeckel 01:25:55.880 --> 01:26:05.200

So I'll stop there and thank you again for listening today and, and we have some, a few minutes left to take some questions.

324

Christine Vanderlan 01:26:08.040 --> 01:26:28.520

Thank you both, Ingrid and Emily. We do have a couple of questions. One question is whether municipalities need to go to the effort of mapping all their wetlands in order to regulate them, or can they rely on informational online maps and then put the burden

325

Christine Vanderlan 01:26:28.600 --> 01:26:33.600

applicants and wetland delineators in terms of locating wetlands?

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Emily Svenson 01:26:35.600 --> 01:26:55.400

Yeah, there are different approaches to that. You don't necessarily have to map them to regulate them. You can define them and then have them actually mapped on a case by case basis. One example, that was, that has worked out well, is in the town of New Paltz.

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Emily Svenson 01:26:55.760 --> 01:27:15.880

They did not have a regulatory map for their wetlands because it could be, you know, it could be impossible to map things like vernal pools that are in remote areas and you may not know unless you went out and, you know, searched every square foot of the town, but what they did was they provided.

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Emily Svenson 01:27:17.160 --> 01:27:36.360

a free inspection, one-time, for any landowner who wanted to know if they had wetlands on their site. Before putting in some proposal, they could get a free inspection from the town wetlands inspector, so that was a way that New Paltz handled it. There are different examples of how different municipalities

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Emily Svenson 01:27:36.360 --> 01:27:38.000  
handle that.

330

Christine Vanderlan 01:27:42.760 --> 01:27:52.960

Thanks. A related question is about whether every project big or small needs to require field flagging of wetland boundaries?

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Emily Svenson 01:27:53.720 --> 01:28:14.120

That's a really tough issue because right, so if there are wetlands on a site, but it's just, it's a small project and it's not an applicant who would otherwise go get a wetlands consultant to map their wetland. What do you do? So, just to, to contrast that with a larger site.

332

Emily Svenson 01:28:14.520 --> 01:28:34.600

Normally the applicant would have their own wetlands inspector go out and flag the wetland and then they would submit it to, if they thought that there was a state- regulated wetland, they would submit it to DEC to validate the mapping and make sure that the buffer is being protected. If they thought it might be a federally jurisdictional wetland, they would

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Emily Svenson 01:28:34.640 --> 01:28:55.080

send it to the Army Corps for a jurisdictional determination. Those are the... those are the, the mechanisms to make sure that you're not infringing on a regulated wetland. The only kind of workaround I can suggest is if you can just stay away from those areas. So if the applicant

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Emily Svenson 01:28:55.800 --> 01:29:15.560

doesn't want to go to the expensive going through those jurisdictional steps, they can just locate their project outside of those potentially regulated areas, if that's not possible, then pretty much they do need to go through that process of, of mapping and verifying with the agencies and

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Emily Svenson 01:29:16.200 --> 01:29:31.320

we will have to wait and see how DEC plans to handle that with State wetlands now that they're changing from the map base to the non- map based system. There may be some additional guidance in the regulations that come out.

336

Christine Vanderlan 01:29:35.480 --> 01:29:55.240

Another related question is about a town that has natural resource maps created by Hudsonia, including habitat mapping, and wetlands are part of those habitats that are mapped. The planning board however is wondering whether they can consider those maps

337

Christine Vanderlan 01:29:55.280 --> 01:30:02.400

created by Hudsonia as quote official, and I think maybe based decisions on them.

What I would say to that is if, if they want the map to be regulatory, to require something, that it would need to be adopted by the town board as some kind of regulation under the zoning, but if the map just exists and the

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Emily Svenson 01:30:28.880 --> 01:30:47.720

planning board has that mapping, when they do their SEQReview I think they would have a responsibility to look at that mapping as part of their SEQR analysis of whether there are impacts on the site. So if a site has a lot of wetlands shown on the

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Emily Svenson 01:30:48.520 --> 01:30:59.360

produced map, I think the planning board should then require that to be looked at, you know, have the applicant do a field study of those wetlands, for example.

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Christine Vanderlan 01:31:05.000 --> 01:31:15.880

Another question is about wetland and watercourse inspectors, whether those are full- time positions and how municipalities fund those positions, if you happen to know.

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Ingrid Haeckel 01:31:15.960 --> 01:31:36.360

Yeah, I could chime in on this one just from anecdotal knowledge of, of some different municipalities that, that have similar positions. I think it depends. There's a range of approaches so some municipalities will hire this on a contractual basis,

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Ingrid Haeckel 01:31:38.040 --> 01:31:58.160

consultant to serve in this position and that work is often primarily funded through the fees paid by applicants. However, then the town might have to set aside a small budget for the wetland inspector to handle other matters that

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Ingrid Haeckel 01:31:58.400 --> 01:32:18.640

might be outside of the scope of project review or for instance, in dealing with evaluating potential violations to the law. So I know that's how the town of New Paltz handles the budgeting for the wetlands inspector, but I think some other communities do have full- time positions.

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Ingrid Haeckel 01:32:18.760 --> 01:32:27.560

And, and that these inspectors make carry out additional code enforcement roles in those communities.

347

Christine Vanderlan 01:32:35.960 --> 01:32:55.600

So the only other question I see was asked kind of before you got really deep into the local protections part. I'm not sure if this is still an applicable question or maybe you just want to add on, if you have examples of particular local streams laws.

348

Emily Svenson 01:32:58.360 --> 01:33:09.800

I think that in that Department of State Publication, there are a number of examples both for streams and wetlands. I think that's a great resource for folks to browse.

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Ingrid Haeckel 01:33:11.760 --> 01:33:26.480

Yeah, and I'll just point out one nuance. We've discovered, you know, at our conservation and land use team is that actually has a researcher graduate student. Sorry, not a graduate student. She's a post doc at Cornell, working on a study.

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Ingrid Haeckel 01:33:27.120 --> 01:33:47.600

And has been compiling wetland and watercourse laws and one of the things we've noticed is some communities they'll have a wetland law, but they'll define watercourses within their definition of wetlands. So the wetland law will actually apply to both wetlands and streams that's something to pay attention to as you're looking at some of these.

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Ingrid Haeckel 01:33:50.160 --> 01:33:57.840

You know, ideally, it's, I think it makes a lot of sense to be addressing both resources in, in one law.

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Christine Vanderlan 01:34:01.040 --> 01:34:12.760

And another question just came in about towns, maybe adjoining towns, hiring consultants to support both their towns say with wetland mapping or other responsibilities.

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Emily Svenson 01:34:15.200 --> 01:34:20.400

That's a terrific idea and towns regularly share services like that.

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Christine Vanderlan 01:34:23.440 --> 01:34:43.920

So it's just about at two thirty and I just want to thank Emily and Ingrid again for your presentations for folks as you exit, you will see a little pop- up four question survey. So please do fill that out and give us your feedback and then also you will receive a follow- up email with.

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Christine Vanderlan 01:34:45.880 --> 01:34:47.160

Some links.

356

Christine Vanderlan 01:34:49.040 --> 01:34:55.360

That will take a few days though. Takes a few days to get the recording up on the website.

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Christine Vanderlan 01:34:57.360 --> 01:35:05.320

And your certificates will also be emailed to you at the conclusion of the webinar. So thanks again and enjoy the rest of your afternoon.

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Emily Svenson 01:35:05.680 --> 01:35:06.920

Thank you.

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Ingrid Haeckel 01:35:07.600 --> 01:35:08.880

Thank you.

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Ingrid Haeckel 01:35:17.200 --> 01:35:19.760

Thanks, Emily, thanks again for your presentation.