



# WETLAND NEWS DIGEST

Monthly News Digest of the Association of State Wetland Managers

August 2021

## Editor's Note

**Dear Wetlanders,**

As predicted, things are heating up in D.C. in regard to federal agency reviews and revisions to the 2020 Clean Water Act Section 401 Rule and the 2020 Navigable Waters Protection Rule, both of which significantly altered pre-existing approaches to implementation of CWA § 401 and the definition of Waters of the U.S. (WOTUS). In Editor's Choice this month, you can find information regarding federal consultation and public engagement opportunities for [WOTUS](#) and the [Association of State Wetland Managers' comments](#) regarding the EPA's intent to repeal and revise § 401.

Also of note in Editor's Choice is a story regarding the [Colorado River](#) and the dire situation the communities in the arid west are facing in regard to water shortages and a very uncertain water future. I lived in Colorado for ten years during the 1990's when development along the front range was accelerating at an unprecedented rate. It was apparent back then that unchecked and unsustainable rapid development was going to create water quantity and quality challenges for western states. It is discouraging to see that even with more than twenty years of efforts on the ground, the situation continues to worsen.

Climate change is front and center – we can see it with the unfolding 2021 hurricane season, the wildfires out west, and the extreme temperatures and precipitation events around the nation. The [International Panel on Climate Change](#) just released its 6<sup>th</sup> assessment report which you can find in our Resources and Publications section. We have a tremendous challenge, opportunity, and responsibility right now to address climate change and make choices that will ensure a healthy future for all of us.

Best regards,

Marla J. Stelk  
Editor, *Wetland News Digest*



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# Editor's Choice



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Photo Credit: Sharon Weaver, ASWM

### U.S. EPA Accepting Pre-Proposal Comments on WOTUS

U.S. Environmental Protection Agency

On Thursday, August 5th, the U.S. Environmental Protection Agency and the U.S. Department of the Army (“the agencies”) held a federalism consultation for intergovernmental association staff to solicit feedback on the effort to revise the definition of “waters of the United States.” [PowerPoint slides from the consultation are available here](#). The agencies intend to revise the definition of WOTUS following a process that includes two rulemakings. A forthcoming foundational rule would restore the regulations defining WOTUS that were in place for decades until 2015, with updates to be consistent with relevant Supreme Court decisions. A separate, second rulemaking process would refine this regulatory definition. In addition, the agencies are initiating Federalism and Tribal consultations for the foundational rule. The comment period for the federal consultation process with states, tribes, territories and the intergovernmental associations that represent them has been extended to 60 days, beginning August 5, and ending October 4, 2021. The agencies also intend to host a series of dialogues with state and Tribal co-regulators this fall to discuss the anticipated rulemakings.

The engagement opportunities include an opportunity for stakeholders and the public to provide written recommendations and a series of public meetings in August to hear perspectives on the agencies’ rulemaking process. The deadline for comments in response to the agencies public docket on the Federal Register ([Docket ID No. EPA-HQ-OW-2021-0328](#)) requesting pre-proposal feedback and recommendations is September 3, 2021.

Additionally, the agencies plan to convene regionally focused and inclusive roundtables during the upcoming fall and winter. These roundtables will allow a full spectrum of stakeholders to engage and discuss their experience with definitions of WOTUS—including what has worked and what has not. The roundtables will provide opportunities to discuss geographic similarities and differences, particular water resources that are characteristic of or unique to each region, and site-specific feedback about implementation. For more information about the definition of “waters of the United States,” or to register for the upcoming public meetings, [go here](#). Please contact [CWAwotus@epa.gov](mailto:CWAwotus@epa.gov) with any questions.

## EPA and Corps Memo on Clean Water Act Section 401 Certification Implementation

The Association of State Wetland Managers received a memo from the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) that they **will be releasing guidance on Section 401 certifications related to the 41 Nationwide Permits (NWP)**s proposed in September 2020 which have not yet been finalized. In addition, further guidance is being provided to promote improved implementation of EPA's 2020 Rule in the field and address additional implementation challenges which have been identified. EPA and the Corps will consider additional guidance, as appropriate, to facilitate implementation of the 2020 Rule, including the disposition of the 16 NWPs finalized in January 2021. The memo also states that **the Corps will extend the reasonable period of time to the one-year statutory maximum for certification on the remaining 41 NWPs**. The full memo is [available here](#).

## Colorado River cutbacks set stage for decade of drought politics

By Reid Wilson – The Hill – August 20, 2021

A prolonged and worsening drought has created an alarming shortage of water across the parched West, setting off what is likely to be a years-long crisis that could threaten the future of some of the fastest-growing cities and economies in the United States. The Bureau of Reclamation on Monday declared the first-ever water shortage on the Colorado River, forcing cutbacks to water allocations to Western states that will begin in the next several months. Water officials and experts who keep careful tabs on lake and river levels from the Rocky Mountains to Baja California say they expect further cuts unless the heavens open up once again. [Read more here](#).

## ASWM Comments on Clean Water Act Section 401

On Friday, July 30th, 2021, the Association of State Wetland Managers (ASWM) submitted comments in response to the U.S. Environmental Protection Agency's (EPA) Federal Register Notice of Intention to Reconsider and Revise the Clean Water Act Section 401 Certification Rule (Docket # EPA-HQ-OW-2021-0302). ASWM strongly supports EPA's intention to revise those regulations and submitted a comment letter to assist in development of a proposed rule. [The full comment letter can be read here](#).



The Association of State Wetland Managers

### Members' Webinar Series



### The Drone Webinars

Interested in learning more about utilizing drones in wetlands? Check out the Drone Webinars available to ASWM Members:

January 27, 2021

In this webinar presenters introduced participants to drone capabilities; opportunities and limitations in utilizing drones to support wetland programs; and perspective on what goes into establishing a drone program.



April 14, 2021

This presentation includes considerations for drone use planning (as part of ASWM's State-Tribal-Federal Coordination Meeting)



## Drones 3.0 – Inexpensive Tools and Technologies to get from Wetland Drone Images to Wetland Assessment Deliverables

Held Wednesday, August 18, 2021 - 3:00 pm - 4:30 pm ET

This webinar complements two prior ASWM webinars, focusing on the in-field operation of drones to conduct wetland assessment and mapping. The webinar will provide technical information about options and decisions for drone operators.

Presenter:

Arthur Ostaszewski  
Michigan Environment Great Lakes and Energy (EGLE) Department



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# National News



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Photo Credit: Sharon Weaver, ASWM

## Federal judge rules against Trump-era approval of Alaska drilling project

By Celine Castronuovo – The Hill – August 18, 2021

A federal judge in Alaska ruled against the Trump administration’s approval of a massive oil drilling project in the state, arguing that the Interior Department did not adequately measure the true environmental impact the project could pose. In [her opinion](#), Judge Sharon Gleason of the U.S. District Court for the District of Alaska faulted the department’s Bureau of Land Management environmental assessment of the ConocoPhillips’s Willow project, which [was granted approval](#) under former President Trump and was subsequently [backed by the Biden administration](#). [Read more here](#).

## Biden nominates National Park Service director after years of acting heads

By Zack Budryk – The Hill – August 18, 2021

President Biden is set to nominate Charles Sams to become the permanent head of the National Park Service (NPS), setting up a potential end to years of the park service being led by acting directors. Sams is an enrolled member of the Cayuse and Walla Walla, of the Confederated Tribes of the Umatilla Indian Reservation. He has worked in the nonprofit conservation sector and for state and tribal governments for more than 25 years, according to a fact sheet released by the White House. [Read more here](#).

## EPA Announces Resources to Help Partners Better Address Nutrient Pollution Affecting Waters

U.S. Environmental Protection Agency – August 13, 2021

On August 13, 2021, U.S. EPA released three new resources to assist state, territorial, and authorized tribal partners in addressing adverse effects of nutrient pollution, including freshwater harmful algal blooms (HABs). The resources include the final [Recommended Nutrient Criteria for Lakes and Reservoirs](#), which is the first update in 20 years and represents the advancing scientific understanding of the impacts of nitrogen and phosphorus. The agency will support co-regulators in using new models through the agency’s [Nutrient Scientific Technical Exchange Partnership & Support \(N-STEPS\) program](#). EPA has also published a [new ArcGIS StoryMap](#) that will allow the public to learn about and track reported cyanobacterial HABs in freshwaters across the country. Finally, EPA has published [Final Technical Support Document: Implementing the 2019 Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin](#), which explains how agencies may adopt [EPA’s 2019 recommended criteria for the two cyanotoxins](#) into their water quality standards or use the criteria in swimming advisory programs.

## House budget boosts resilience, but wetlands plan draws ire

By Kirk Ross – Coastal Review – August 6, 2021

House budget committees rolled out their spending and policy plans Thursday, including large increases in funding for conservation, flood prevention and stormwater infrastructure. But details in the plan, including an abundance of earmarks for local projects and a controversial provision to drop protections for hundreds of thousands of acres of wetlands, have drawn questions — even as the bill is on track for a final vote as early as next week. The House budget includes large increases for the state's [Land and Water Fund](#), [Parks and Recreation Trust Fund](#) and other conservation efforts, and appropriates close to \$2 billion toward flood prevention, resiliency and stormwater and wastewater infrastructure. [Read more here.](#)

## Climate Change Is Hitting Farmers Hard

By Avery Ellfeldt – Scientific American E&E News – August 6, 2021

Sweltering temperatures exacerbated by climate change dealt a multibillion-dollar blow to U.S. farmers and the public insurance program that shields them from devastating losses. Those costs threaten to take a toll on the domestic agriculture sector and American taxpayers, who subsidize the federal insurance program that insulates farmers from financial shocks such as plunging crop prices and yield volatility, according to new [research](#). A recent study in *Environmental Research Letters* by Stanford University climate scientists examined global warming's impact on the U.S. crop insurance program, which Congress established in the 1930s to revive domestic agriculture in the wake of the Dust Bowl. [Read more here.](#)

## EPA outlines plan to expand wetland protections

By Hannah Northey – E&E News – July 30, 2021

The Biden administration laid out plans today for scrapping and replacing a contentious Trump-era Clean Water Act rule that pulled back federal protections for millions of streams and wetlands. EPA and the Army Corps of Engineers said they will follow a two-pronged approach to revoke the Trump administration's Navigable Waters Protection Rule while revising the definition of "Waters of the United States," or WOTUS, which defines which waters fall under federal protection. The rule's fate and how quickly it can be rewritten are politically explosive for President Biden. It has pitted environmental groups against developers and farmers for decades and sparked partisan fights on Capitol Hill. [Read more here.](#)

## ASWM Welcomes our New Policy Analyst, Audra Martin

Audra is a Policy Analyst at the Association of State Wetland Managers, where she conducts research, analyzes policies, and evaluates state and tribal aquatic resource programs and program needs. Previously, Audra worked on water quality issues with NEIWPCC, a northeast regional commission. Her experience includes conducting webinars and meetings in support of state wetland programs, developing policy position papers, and managing federal grant projects. In the past 10 years she has provided a range of support to government and nonprofit agencies addressing natural resource management on a local to global scale. She holds a Master of Environmental Management degree.



# State and Tribal News



## New ASWM Beaver- Related Restoration Webpage Coming Soon

- ◆ Common Challenges Associated with Beaver-related Restoration
- ◆ Training and Guidance on Beaver-related Restoration Techniques
- ◆ Examples of Beaver-related Restoration
- ◆ Placement, Modeling, Planning and Permitting Beaver-related Restoration
- ◆ Useful Beaver-related Restoration Terms
- ◆ Beaver-Related Restoration Webinars and Training Modules

Photo Credit: Sharon Weaver, ASWM

### CA: Reconnecting the People, Plants and Animals of the Kendall-Frost Marsh

Contact: Michelle Franklin – UC San Diego News – August 12, 2021

The University of California San Diego's Kendall-Frost Mission Bay Marsh Reserve has received an \$85,000 grant from Honda to create an integrated research and public engagement program centered on bringing Native American perspectives and cutting-edge science into the management and access decisions needed to ensure the marsh's survival as a community asset. The significance of the grant is not just in the amount, but that it will reconnect humans to the marsh while supporting the City of San Diego's Climate Action Plan, improving ecosystem resiliency and fortifying wildlife habitats on the marsh. [Read more here.](#)

### CA: Warming rivers in US West killing fish, imperiling industry

By Daisy Nguyen – AP News – July 27, 2021

Baby salmon are dying by the thousands in one California river, and an entire run of endangered salmon could be wiped out in another. Fishermen who make their living off adult salmon, once they enter the Pacific Ocean, are sounding the alarm as blistering heat waves and extended drought in the U.S. West raise water temperatures and imperil fish from Idaho to California. Hundreds of thousands of young salmon are [dying in Northern California's Klamath River](#) as low water levels brought about by drought allow a parasite to thrive, devastating a Native American tribe whose diet and traditions are tied to the fish. And wildlife officials said the Sacramento River is facing a "near-complete loss" of young Chinook salmon due to abnormally warm water. [Read more here.](#)

### CA: California's 'Dixie Fire' generating its own climate

RTE – July 26, 2021

Thousands of US firefighters are battling a blaze in California that has grown so big it is generating its own weather system, with authorities warning conditions could worsen. The flames have grown so large that they have created clouds that can cause lightning and high winds, which in turn can serve to fuel the fire, according to experts. The Dixie Fire has been raging in the forests of northern California since mid-July, part of a climate crisis that has brought sweltering heat and an alarming drought. [Read more here.](#)

## **HI: Work Underway to Protect Endangered Hawksbill Sea Turtles on Maui**

Maui Now – July 30, 2021

The Hawai'i Wildlife Fund, US Fish & Wildlife Service and Mahi Pono are working together to ensure the safety and protection of endangered hawksbill turtles, also known as *honu 'ea or 'ea*, that nest along the shoreline in Mā'alaea fronting North Kīhei Road. In collaboration with community-based groups, including the Mā'alaea Village Association, these organizations are working to repair or replace fencing along the shoreline that is essential to ensure that the endangered turtles do not wander into traffic on the busy North Kīhei Road as they search for a safe place to lay their eggs. [Read more here.](#)

## **IN: IDEM Finalizes Wetland Permit, Includes Avenue for Permit Review**

By Enrique Saenz – Indiana Environmental Reporter – July 26, 2021

State officials have finalized a new permit for landowners after lawmakers removed protections from more than half of the state's remaining wetlands. The Indiana Department of Environmental Management issued the Isolated Wetland General Permit for Field Tile Maintenance in Class II State Regulated Wetlands, a five-year permit that allows landowners to discharge dredged or fill material associated with drainage tiles next to Class II state regulated wetlands. [Read more here.](#)

## **LA: Oil companies welcome latest ruling in lawsuits over coastal damage in Louisiana**

Daily Comet – August 6, 2021

Oil companies fighting dozens of lawsuits that blame drilling for decades of coastal erosion and wetland loss in Louisiana are pleased with a new appeals court ruling that could lead to some of the cases being heard in federal court. The oil companies want all 42 lawsuits brought by six coastal parishes to be tried in federal court, a request that federal district judges had rejected. On Thursday, however, the 5th U.S. Circuit Court of Appeals said the judges should reexamine whether cases from two parishes that involved federally overseen oil and gas operations during World War II should be heard in federal court. [Read more here.](#)

## **MD: Man-made floating island aims to bring endangered waterbirds back to coastal bays**

By Alaina Perdon – Chesapeake Bay Magazine – August 10, 2021

Thanks to the handiwork of Ocean City, Md. residents, once-scarce waterbirds may be returning to Maryland's coastal bays. A habitat restoration project launched in July seeks to draw birds back to the area, in the form of floating nesting spots. Common tern, royal tern, and black skimmer populations have declined by over 90 percent since the 1980s due to loss of suitable nesting areas. The Maryland Department of Natural Resources attributes this habitat loss to shoreline erosion and sea level rise. [Read more here.](#)

## **MD: Maryland wildlife refuge fights to protect American history from climate change**

By Stephanie Ebbs and Lindsey Griswold – ABC News – July 23, 2021

Blackwater National Wildlife Refuge is a wetland in the outer banks of Maryland established in 1933 as a protected area for bald eagles, osprey and several species of migratory birds. The government officials working to protect it say they can see the impacts of [climate change](#) in the refuge every day. As the ocean continues to warm and sea levels rise, the water is turning marshes into lakes and allowing invasive species to take over the ecosystem. [Read more here.](#)



## **MA: Abundant plant growth on floating wetland helps battle the ‘dirty water stigma’**

By Julia Carlin – Boston Globe – August 2, 2021

In the shadow of the Longfellow Bridge sits the lower basin of the Charles River — the most stagnant part of the river, which sees a steady stream of nutrient pollution from Route 28 runoff. It’s perhaps the dirtiest stretch of “[that dirty water](#).” But a few yards from the seawall a 700-square-foot floating oasis bobs on the water exploding with lush green plants and blooming native flowers. A year after its creation, researchers from Northeastern University and the Charles River Conservancy said they are seeing impressive plant growth on the wetland, which was launched in [June 2020](#). The floating wetland project aims to reduce harmful algal blooms in the Charles by creating a small habitat that will reduce nutrient pollution, enhance sedimentation, and strengthen missing a link of the river’s food chain by increasing the zooplankton population. [Read more here](#).

## **MA: A Watershed Moment: How Boston’s Charles River Went from Polluted to Pristine**

By Derrick Z. Jackson – Inside Climate News – July 25, 2021

U.S. Environmental Protection Agency Administrator Michael Regan officially [announced](#) earlier this month that the Biden administration will reinterpret the Trump administration’s definition of “waters of the United States”—waterways that are deserving of federal protection. Noting that the Trump rule “is leading to significant environmental degradation,” Regan said he would work toward a “durable definition” of waters of the United States. And he begins that effort at a time of year when, precisely because of decades of federally enforced cleanups, New England’s most famous river—and once one of its most infamous—the Charles, is as magical as Florida’s Everglades. [Read more here](#).

## **MI: Friends of Detroit River to begin habitat restoration on Sugar Island**

By Jim Kasuba – News-Herald – July 30, 2021

A habitat restoration project is set to begin soon on a small island in the lower Detroit River, between Grosse Ile and the Livingstone Channel. The work is designed to stabilize Sugar Island’s southerly end and enhance fish and wildlife habitat in the surrounding area. The 29-acre island is part of the U.S. Fish and Wildlife Service’s Detroit River International Wildlife Refuge and is one of 14 habitat restoration projects being implemented to offset the loss of fish and wildlife populations and habitats in the Detroit River. [Read more here](#).

## **MN: Enbridge Line 3 drilling fluid spills: What we know so far**

By Rilyn Eischens – Minnesota Reformer – August 16, 2021

Enbridge is done drilling under rivers to build its Line 3 oil pipeline, but scrutiny over potential permit violations in the process isn’t likely to fade away anytime soon. Enbridge spilled drilling fluid 28 times at 12 river crossings this summer, the Minnesota Pollution Control Agency announced last week. The news alarmed pipeline opponents — including some lawmakers — who had been demanding information about possible “frac-outs” along the route for weeks. [Read more here](#).

## **Klamath Tribes: Klamath Tribes partner with Oregon Department of Transportation on wetland restoration**

By Alexandra Feller – The Register-Guard – August 8, 2021

The Oregon Department of Transportation is partnering with the Klamath Tribes to restore 40 acres of former wetland into fresh habitat suitable for native flora and fauna including c’waam and koptu, two species of endangered suckerfish endemic to Upper Klamath Lake. ODOT is involved with the project as part of its wetland restoration offset program. According to an article on ODOT Transportation Insights, it manages several “wetland mitigation banks” around the state to compensate for projects of its that disturb wetland areas. [Read more here](#).

## VA: VCU wetlands research will help improve models that predict global climate change

By Brian McNeill – VCU News – July 29, 2021

The U.S. Department of Energy [recently awarded](#) \$11 million in funding for research projects — including at Virginia Commonwealth University — focused on how ecosystems such as forests, arid lands and coastal environments are affected by extreme weather events, including floods, droughts and heat waves. The goal is to help scientists improve their ability to accurately predict the effects of climate and environmental change. [Read more here.](#)

## WI: The annual Wisconsin waterfowl survey shows a slight overall increase in ducks and geese

By Paul A. Smith – Milwaukee Journal Sentinel – July 25, 2021

Despite below-average wetland conditions this spring in Wisconsin, the state's total breeding duck population was up 7% from 2020 and 19% above the 47-year mean, according to the Department of Natural Resources. The agency last week released its [2021 spring waterfowl survey](#), a report based on aerial and ground observations conducted in late April and early May. The work placed the total breeding duck estimate at 522,546 birds, up from 488,976 in 2020. [Read more here.](#)

# Become a Member of ASWM

ASWM's membership is growing, but we are still missing you! What does membership do for you? Check out these great membership benefits below:

- Exclusive access to our Members' Only live Webinars and recordings
- Free Certificates of Participation for all ASWM LIVE webinars
- Opportunities for Involvement in ASWM Committees
- Subscription to the Association's bi-monthly membership newsletter, Wetland News; and ASWM's weekly news bulletin, Insider's Edition
- Reduced Rates for Participation in ASWM Workshops and Meetings
- NEW: Special ASWM Member Discounts for Non-ASWM Wetland Trainings & Courses

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Photo Credit: Sharon Weaver, ASWM

# Wetland Science News



## Wetland Events

Moonlight on the Marsh  
Friends of the Ballona  
Wetlands  
Ballona Discovery Park  
Playa del Rey, CA  
October 9, 2021

The Big Sit  
Worldwide  
October 9-10, 2021

Frog-a-palooza  
Little River Wetlands  
Project  
October 16, 2021

See Calendar of  
Events Below

Photo Credit: Dennis P. Vasey,  
Marsh Paddlers

### Fracking linked to surface water quality for first time in new study

By Sharon Udasin – The Hill – August 19, 2021

The effects of fracking on nearby water sources may be worse than previously thought, according to a new study that found hydraulic fracturing can alter the composition of surface water and not just groundwater. The study, published Thursday in Science, is the first to link fracking to small increases in salt concentrations in surface water, particularly during the early stages of production. While the highest salt levels were well below what the Environmental Protection Agency (EPA) considers harmful, researchers identified a robust association between new wells and water quality changes, triggering public health concerns. [Read more here.](#)

### When Restoring Marine Life, Clumping Works Best

By Matthew Ponsford – Hakai Magazine – August 19, 2021

Over the last six years, a group of marine scientists has built up evidence that the vast majority of coastal restoration projects globally are designed and planted incorrectly. A simple change of layout, they say, could dramatically multiply success rates for restoring everything from oyster reefs to mangrove forests. [Read more here.](#)

### The Americas' First Ecosystem Managers

By Jessa Gamble – Hakai Magazine – August 18, 2021

The maritime fur trade, beginning in the 1700s and centered on the North Pacific Ocean, killed around one million sea otters and left the species fluttering on the verge of extinction with a global population as low as 1,000. On the west coast of Canada, the animal didn't make it. The last sea otter was seen in the region in 1929, off Vancouver Island, British Columbia. But beginning in the 1960s, restoration efforts have turned back the clock on British Columbia's sea otters. From an initial 89 sea otters relocated from Alaska, a population of 8,000 is now expanding in the province. Yet after generations of their absence, the surge in sea otters is stoking the resentment of some residents. The trouble is, a sea otter consumes 25 to 30 percent of its own body weight every day. The otters' voracious appetite can have dramatic ecological effects. It doesn't help, either, that sea otters eat many of the same seafoods that humans in the area have long favored, such as crabs and clams, [sparking conflict with shellfish fisheries](#) and leading some to argue that the reintroduction effort has worked too well. [Read more here.](#)

## Constructed Wetlands Could Reduce Nitrate Levels

Scoop – August 16, 2021

A recent presentation on the benefits of integrated constructed wetlands by wetland scientist Dr Michelle McKeown of science and engineering consultancy Wallbridge Gilbert Aztec (WGA) has prompted the Waimakariri Water Zone Committee to consider the possibility of a pilot project which would aim to reduce nitrate, phosphorous, sedimentation and E. coli levels in local waterways, while improving biodiversity in the district. [Read more here.](#)

## Statement from NOAA Administrator Rick Spinrad on new IPCC report

Contact: Scot Smullen – NOAA – August 9, 2021

Today, scientists from across the globe delivered the most up-to-date assessment of the ways in which the climate is changing. It is a sobering IPCC report that finds that human influence is, unequivocally, causing climate change, and it confirms the impacts are widespread and rapidly intensifying. The world's top climate researchers, including many NOAA scientists, contributed to [this report, which used climate models developed by NOAA and run using NOAA's long-term observations](#) of our ocean and climate system, together with a global community of observers. [Read more here.](#)

## False spring: Climate change may erode frogs' ability to withstand salt pollution

By Jennifer Micale – Bing'UNews – July 29, 2021

Driven by climate change, spring in the northeastern United States is now earlier and more variable in temperature than it used to be, a shift that has rippled through ecosystems. Among the most severely affected are spring-breeding amphibians such as wood frogs, who may be lured out of the mud to mate too early. When winter comes rushing back in, adult wood frogs will likely survive the chill — but their newly laid eggs may be at risk. But the impact doesn't end there, according to new research by Binghamton University's [Department of Biological Sciences](#). [Read more here.](#)

## New ASWM Membership Benefit



Marla Stelk, Executive Director, ASWM attending Eagle Hill Institute Wetland Identification and Delineation Class  
Photo Credit: Matt Schweisberg, Wetland Strategies and Solutions, LLC

ASWM is pleased to announce special discounts available to ASWM Members for non-ASWM Wetland Trainings and Courses:

Eagle Hill Institute is offering ASWM Members a 20% discount on tuition and accommodations. To view their upcoming seminars and workshops, [go here.](#)

Swamp School is offering ASWM Members a 10% discount on their wetland courses. No size restrictions or limits. For a complete list of Swamp School courses, [go here.](#)

If you are a current ASWM member and would like access to the discount codes, please log into the [ASWM website](#). After login, the Welcome Page will have a link for more information along with codes needed.

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# **First Nations Development Institute**

## **Stewarding Native Lands Webinar: Scanning the Horizon: Opportunities for Environmental Justice and Stewardship in Indian Country**

**August 25, 2021 - 2:00-4:00 p.m. EDT**

**[More Information](#)   [Register Here](#)**

Photo Credit: Dennis P. Vasey, Marsh Paddlers

## **Explore Wetlands**

### **Barataria Preserve Wetlands Walk**

Jean Lafitte National Historic Park:  
New Orleans, LA  
Offers many wetland walks through  
August-December

### **Guided Nature Tour**

Heal the Planet  
Snyder Park, Fort Lauderdale, FL  
September 4, 2021

### **Hamilton Wetlands Stroll**

Greenbelt Alliance  
Novato, CA  
September 12, 2021

### **Guided Boardwalk Tour**

John Bunker Sands Wetland Center  
Combine, TX  
Third Saturday of the Month  
Join a Wetland team member for a  
guided walk and learn about the many  
cool things happening in the wetland.

Photo Credit: Dennis P. Vasey, Marsh Paddlers

# Resources and Publications



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Photo Credit: Sharon Wever, ASWM

## IPCC Sixth Assessment Report Released

NOAA – August 9, 2021

The International Panel on Climate Change (IPCC) released the Sixth Assessment Report, *Climate Change 2021: The Physical Science Basis*. The Synthesis Report will be the last of the AR6 products, currently due for release in 2022. More information on the Sixth Assessment cycle is available [here](#). More information on the Sixth Assessment Report is available [here](#) and [here](#). In the August 9, 2021 press release, the IPCC states that “The report shows that emissions of greenhouse gases from human activities are responsible for approximately 1.1°C of warming since 1850-1900, and finds that averaged over the next 20 years, global temperature is expected to reach or exceed 1.5°C of warming.” It goes on to state “For 1.5°C of global warming, there will be increasing heat waves, longer warm seasons and shorter cold seasons. At 2°C of global warming, heat extremes would more often reach critical tolerance thresholds for agriculture and health...”

## Enhanced Aquifer Recharge of Stormwater in the United States: State of the Science Review (Final Report)

Contact: Thomas Johnson – U.S. Environmental Protection Agency – June 2021

EPA is announcing the availability of this final report prepared by the Safe and Sustainable Water Resources (SSWR) Research Program, located within the Office of Research and Development. [This report](#) is a summary and synthesis of scientific and technical literature on enhanced aquifer recharge (EAR) using stormwater. It is based on a search and screening of published literature conducted during summer and fall of 2020. The goal is to summarize the current state-of-the-science of information leading to best practices for EAR using stormwater. Topics addressed include factors affecting recharge volumes, risks (particularly of water quality degradation), what current science suggests about best practices, and knowledge gaps that, if filled, will help inform recommendations for safe, effective EAR using stormwater. The report is technical and does not address policy or regulatory issues. [Read more and download the report here.](#)

# ASWM'S WETLAND JOBS BOARD

## Director of Migratory Bird Wintering Ground Conservation

American Bird Conservancy  
Remote, Washington, DC

## Science Technician III

Akima Systems Engineering  
Reston, VA

## Environmental Protection Specialist

Federal Emergency Management Agency  
Location Negotiable – 10 vacancies  
Apply by September 1, 2021

## Lead Biologist

Washington State Department of  
Transportation  
Shoreline, WA  
Apply by September 12, 2021

## Non-game Wildlife Biologist

Montana Fish, Wildlife and Parks  
Kalispell, MT  
Apply by September 20, 2021

## USFS Field-based Study of Native Hawaiian Forests

U.S. Forest Service  
Hilo, HI  
Apply by September 30, 2021

## Wetland Project Manager

Weaver Consultants Group  
Naperville, IL  
Apply by October 1, 2021

[Visit the ASWM Wetland Jobs Board Here](#)

# GRANT OPPORTUNITIES

## Shoreline Stabilization, NSA Annapolis, MD

Department of Defense  
NAVFAC Washington, DC  
Search No.: N40080-21-2-0005  
Apply by August 30, 2021

## Native American Affairs: Technical Assistance to Tribes for Fiscal Year 2022

Department of Interior  
Bureau of Reclamation  
Search No.: R22AS00015

## Stream and Wetland Restoration Grant Tennessee

Apply by September 1, 2021; 5:00 p.m. ET

## Tribal Stewardship in the Northern Great Plains Grant

First Nations  
Apply by September 14, 2021; 5:00 p.m. MDT

## Climate Program Office FY2022

NOAA  
Search: NOAA-OAR-CPO-2022-2006799  
Apply by October 18, 2021

## NACA FY22 U.S. Small Grants - Environment

U.S. Fish and Wildlife Service  
Search: F22AS00032  
Apply by October 14, 2021

Photo Credit: Sharon Weaver, ASWM

# Potpourri



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Wetlands

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Photo Credit: Sharon Weaver, ASWM

## Fishers Struggle as Fish Head for the Poles

By Steve Murray – Hakai Magazine – August 16, 2021

In the United States, as elsewhere, commercial fishers are trying to adapt. But as a new study of trawler communities along the US east coast documents, fishers' efforts to adjust are being constrained by a regulatory environment that isn't adapting with them. [Read more here.](#)

## Environmental Racism and Climate Change — Missed Diagnoses

By Renee N. Salas – New England Journal of Medicine – August 18, 2021

The mother clutches her daughter as the nebulized albuterol permeates the young girl's airways. My eyes dart between the monitor and the child's small, dark-skinned chest as it heaves up and down at an alarming rate. I smile reassuringly, but the mother's eyes begin to well with tears as she recounts her daughter's numerous emergency department (ED) visits and home treatments. "I have done everything the doctors have asked, and she just keeps getting worse. What am I missing?" Later, while charting, I review in greater depth the patient's extensive records — far too many for someone so young. Her care teams have all been following the evidence-based guidelines. What are we missing? [Read more here.](#)

## Rarely-seen Spoonbills Draw Fans to Huntley Meadows Park

By Glenda C. Booth – Mount Vernon Gazette – August 1, 2021

Their flat, six-to-seven-inch, spatula-like bills look like long-handled spoons swishing back and forth in the Huntley Meadows Park wetland. These are stunning birds, roseate spoonbills, and they have attracted legions to the park in recent weeks. Observers reported one on June 26 to [eBird](#), three on July 16 and two each day since as of July 20, according to Dixie Sommers, avid birder and treasurer of the Audubon Society of Northern Virginia. [Read more here.](#)

## The oldest tree in eastern US survived millennia – but seas could kill it

By Ayurella Horn-Muller – The Guardian – August 1, 2021

A wizened eastern bald cypress dwells in an expanse of North Carolina's wetlands. It lives among a cluster of eastern bald cypress trees in the state's Black River, some with origins dating back a millennium. But this singular tree has witnessed more than its comrades; a 2019 [study](#) found it's been alive since at least 605BCE. It's the oldest-known living tree in eastern North America and the fifth-oldest living non-clonal tree species in the world. If these ancient trees could talk, they might wail a warning — a message about the coalescing threats to their continued survival. What we can learn from a 2,624-year-old bald cypress may help piece together how humanity can best mitigate and adapt to the [unprecedented](#) impacts of the climate crisis. [Read more here.](#)



## Podcasts of Interest

- No-Till Farmer Podcast: [Preserving Wetlands on the Farm with Ray McCormick](#)
- Earth Wise Podcast: [Coastlines and Climate Change](#)
- Sea Grant Podcasts: [Wisconsin Water News Series](#)
- Ohio Watershed Network Podcast: [A Functional Assessment of Stream Restoration in Ohio](#)
- Scientific American Podcast: [Wetlands Could Save Cities—and Money, Too](#)
- U.S. Geological Survey Podcast: [Science in the Swamp](#)
- American Rivers Podcast: [Climate Change: Understanding the Science Behind It](#)



## Environmental Events

- September 16 – World Ozone Day
- September 26 – World Rivers Day
- October 9 – World Migratory Bird Day (Fall)
- December 4 – Wildlife Conservation Day
- December 5 – World Soil Day



Photo Credit: Marla Stelk, ASWM

# Calendar of Events

## WEBINARS 2021

### AUGUST 2021

August 25, 2021 2:00 p.m.-4:00 p.m. EDT	First Nations Development Institute Webinar: <a href="#">Scanning the Horizon: Opportunities for Environmental Justice and Stewardship in Indian Country</a>
August 26, 2021 11:00 a.m.-12:00 p.m. EDT	Interagency Ecological Restoration Quality Committee Webinar: <a href="#">A Field Perspective of Integrating Data Review into Ecological Restoration – Best Practices for Conducting Data Review During Restoration Monitoring</a>
August 27, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: <a href="#">The story behind the SWANCC decision: Site history and permitting</a>

### SEPTEMBER 2021

September 10, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: Snapshot Wisconsin: <a href="#">Gathering and using trail camera data in wetlands and beyond</a>
September 15, 2021 4:00 p.m. EDT	Northeast Climate Adaptation Science Center (NECASC) Webinar: <a href="#">The Northeast's Paraglacial Shore and Its First Order Control on the Future Resilience of Coupled Beach/Marsh Systems</a>

### OCTOBER 2021

October 1, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: Snapshot Wisconsin: <a href="#">Wild rice in Wisconsin's wetlands</a>
October 13, 2021 1:00 p.m. EDT	OpenChannels Webinar: <a href="#">Blueprint for Coastal Adaptation</a>
October 13, 2021 4:00 p.m. EDT	Northeast Climate Adaptation Science Center (NECASC) Webinar: <a href="#">Increasing the Resilience and Resistance of Climate-Vulnerable Species and Ecosystems</a>
October 15, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: Snapshot Wisconsin: <a href="#">Wetland butterflies of Wisconsin</a>
October 29, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: Snapshot Wisconsin: <a href="#">Monitoring pollinators in wetlands: opportunities for citizen scientists</a>

### NOVEMBER 2021

November 5, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: Snapshot Wisconsin: <a href="#">Climate change resources for wetland managers</a>
November 17, 2021 4:00 p.m. EDT	Northeast Climate Adaptation Science Center (NECASC) Webinar: <a href="#">Refugia are important but are they connected? Mapping well-connected climate refugia for species of conservation concern in the Northeastern U.S.</a>
November 19, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: Snapshot Wisconsin: <a href="#">State Natural Areas at 70: Still protecting Wisconsin's Wetland Gems®</a>

## DECEMBER 2021

December 3, 2021 11:30 a.m. EDT	Wisconsin Wetlands Association: Wetland Coffee Break: Snapshot Wisconsin: <a href="#">Listen to the forest — and learn</a>
December 1, 2021 4:00 p.m. EDT	Northeast Climate Adaptation Science Center (NECASC) Webinar: <a href="#">Managing Waterfowl Harvest under Climate Change: Time-Dependent Optimal Policies to Address Non-Stationary Dynamics</a>

## MEETINGS 2021

### AUGUST 2021

August 28, 2021 Ridgway, CO	Uncompahgne Watershed Partnership: <a href="#">Ridgway RiverFest</a>
August 29-September 1, 2021 St. Paul, MN	Institute for Tribal Environmental Professionals (ITEP) Conference: <a href="#">National Tribal &amp; Indigenous Climate Conference</a>

### SEPTEMBER 2021

September 8-11, 2021 New Orleans, LA	<a href="#">Ducks Unlimited 84<sup>th</sup> National Convention</a>
September 8-10, 2021 Virtual	<a href="#">Association of Fish &amp; Wildlife Agencies Annual Meeting</a>
September 12-14, 2021 Providence, RI	
September 15-17, 2021 Perth, Western Australia	The Biodiversity Conference 2021: <a href="#">Resilient Landscapes</a>
September 20-26, 2021 New York, NY	<a href="#">Climate Week NYC</a>
September 22-24, 2021 Virtual	2021 AWRA Mid-Atlantic Conference: <a href="#">Water Resource Management Tools and Success Stories</a>
September 27-30, 2021 Missoula, MT; Virtual	<a href="#">North American Invasive Species Management Association (NAISMA) Conference</a>
September 29-30, 2021 Muskegon, MI	Michigan Department of Environment, Great Lakes, and Energy: <a href="#">Great Lakes Area of Concern Annual Conference</a>
September 29-October 1, 2021 Virtual & In-Person Field Trips	<a href="#">Coalition for the Delaware River Watershed 9<sup>th</sup> Annual Watershed Forum</a>
September 30-October 2, 2021 Estes Park, CO	<a href="#">7<sup>th</sup> Live Discovery – Doing Science Biology Education Conference</a>

## OCTOBER 2021

October 1, 2021 Virtual	San Francisco Estuary Partnership: <a href="#">State of the San Francisco Estuary Conference</a>
October 2, 2021 Pennington, NJ	The Watershed Institute: <a href="#">Watershed Fest</a>
October 5-7, 2021 Virtual	Land Trust Alliance: <a href="#">Rally 2021: The National Land Conservation Conference</a>
October 5-8, 2021 Virtual	<a href="#">Student Conference on Conservation Science</a>
October 6-7, 2021 Virtual	Invasive Species Council of BC: <a href="#">2021 Invasive Species Research Conference</a>
October 6-10, 2021 New Orleans, LA	Deep South Center for Environmental Justice, Inc.: <a href="#">8<sup>th</sup> Annual HBCU Climate Change Conference</a>
October 10-15, 2021 Christchurch, New Zealand	Christchurch/ Ōtautahi INTECOL Wetlands Conference Organizing Committee: <a href="#">International Wetlands Hybrid Conference</a>
October 12-14, 2021 Ann Arbor, MI	<a href="#">Great Lakes Commission Annual Meeting</a>
October 12-15, 2021 Virtual	NAAEE 2021 Conference: <a href="#">The Power of Connection</a>
October 15-17, 2021 Las Vegas, NV	Heartland Institute: <a href="#">14th International Conference on Climate Change</a>
October 19-20, 2021 Cape May, NJ	Restore America's Estuaries Workshop: <a href="#">2021 Living Shorelines Tech Transfer Workshop</a>
October 25-29, 2021 Virtual	<a href="#">Anthropology and Conservation Virtual Conference</a>
October 26-27, 2021 Fulton, MD	Center for Watershed Protection: <a href="#">Sustainable Watershed &amp; Agriculture Symposium</a>
October 26-27, 2021 Virtual	<a href="#">Northeast Climate Adaptation Science Center (NE CASC) Regional Science Symposium</a>
October 27, 2021 Virtual	<a href="#">UC Davis Climate Adaptation Collaboration Symposium</a>

## NOVEMBER 2021

November 1-4 and 8-11, 2021 Virtual	<a href="#">Coastal Estuarine Research Federation (CERF) 2021 Conference</a>
November 1-5, 2021 Virtual	<a href="#">The Wildlife Society's 28<sup>th</sup> Annual Conference</a>
November 1-12, 2021 Glasgow, UK	<a href="#">UN Climate Change Conference</a>
November 8-11, 2021 Kissimmee, FL	American Water Resources Association: <a href="#">2021 Annual Water Resources Conference</a>
November 12-14, 2021 Easton, MD	<a href="#">Waterfowl Festival</a>

## DECEMBER 2021

December 13-17, 2021  
New Orleans, LA

AGU Fall Meeting: [Science is Society](#)

## FEBRUARY 2022

February 15-17, 2022  
Stevens Point, WI

Wisconsin Wetlands Association: [Wetlands Science Conference](#)  
[Workshop proposals](#) and [Symposium Proposals](#) are due September 27, 2021

## MAY 2022

May 15-19, 2022  
Orlando, FL

[Association of State Floodplain Managers Conference](#)

May 16-20, 2022  
Grand Rapids, MI

[Joint Aquatic Sciences Meeting](#)

## AUGUST 2022

August 29-September 1, 2022  
St. Paul, MN

Institute for Tribal Environmental Professionals: [National Tribal & Indigenous Climate Conference](#)



Photo Credit: Dennis P. Vasey, Marsh Paddlers

# TRAINING/WORKSHOPS 2021

## SEPTEMBER 2021

September 6-7, 2021 Charleston, SC	Duncan & Duncan Wetland & Endangered Species Training: <a href="#">Identification of Grasses, Sedges, and Rushes</a>
September 9, 2021 TBD	Massachusetts Association of Conservation Commissions (MACC) Course: <a href="#">Wetland Delineation for Beginners</a>
September 9-10, 2021 Hilliard, OH	Midwest Biodiversity Institute Course: <a href="#">Ohio Rapid Assessment Method (ORAM) for Wetlands</a>
September 11, 2021 Marion, MA	Massachusetts Association of Conservation Commissions (MACC) Workshop: <a href="#">Basic Wetland Delineation: Vegetation</a>
September 13-14, 2021 San Diego, CA	Wetland Training Institute Course: <a href="#">Riparian Habitat Restoration for the Arid Southwest</a>
September 13-16, 2021 Denver, CO	Richard Chinn Environmental Training, Inc. Course: <a href="#">Wetland Delineation Training</a>
September 13, 2021 Online - 12 Weeks	Swamp School: <a href="#">Stream Restoration Level 1 – Stream Physics &amp; Fluvial Geomorphology</a>
September 15-16, 2021 Denver, CO	Richard Chinn Environmental Training, Inc. Course: <a href="#">Regional Supplement Wetland Delineation Training</a>
September 16, 2021 Framingham, MA	Native Plant Trust Course: <a href="#">Invasive Plants: Identification, Documentation, and Control</a>
September 18, 2021 Marion, MA	Massachusetts Association of Conservation Commissions (MACC) Workshop: <a href="#">Basic Wetland Delineation (BVM): Soils</a>
September 20-24, 2021 Online	Eagle Hill Institute Online Seminar: <a href="#">Identification of Common Grasses (Poaceae) Using Field Features</a>
September 20-24, 2021 Portage, WI	Wetland Training Institute Course: <a href="#">Basic Wetland Delineation</a>
September 22-23, 2021 Online	Rutgers Office of Continuing Professional Education Course: <a href="#">NJ Wetland Management for LSRPs</a>
September 27-29, 2021 Online	Eagle Hill Institute Online Seminar: <a href="#">Identification of Common Carex (Sedges) Using Field Features</a>
September 27-October 1, 2021 St. Michaels, MD	Environmental Concern Course: <a href="#">Basic Wetland Delineation</a>

## OCTOBER 2021

October 4, 2021 Online – 16 Weeks	Swamp School: <a href="#">Wetland Basic Delineation Training</a>
October 4-5, 2021 St. Michels, MD	Environmental Concern Course: <a href="#">Evaluating Hydric Soils in the Field</a>
October 4-7, 2021 Richmond, VA	Richard Chinn Environmental Training, Inc. Course: <a href="#">Wetland Delineation Training</a>

October 4-7, 2021 Northern Virginia	Wetland Training Institute Course: <a href="#">Federal Wetland/Waters Regulatory Policy</a>
October 6-7, 2021 Richmond, VA	Richard Chinn Environmental Training, Inc. Course: <a href="#">Regional Supplement Wetland Delineation Training</a>
October 18-21, 2021 San Diego, CA	Wetland Training Institute Course: <a href="#">Federal Wetland/Waters Regulatory Policy</a>
October 19-22, 2021 Online	Rutgers Office of Continuing Professional Education Course: <a href="#">Wetland Construction: Principles, Planning, and Design</a>

### NOVEMBER 2021

November 1-3, 2021 St. Michels, MD	Environmental Concern Course: <a href="#">Winter Woody Plant ID</a>
November 3, 2021 Online	Wetland Training Institute Course: <a href="#">Demystifying Wetland and In-Water Permitting in Washington State</a>
November 15-18, 2021 Columbus, OH	Richard Chinn Environmental Training, Inc. Course: <a href="#">Wetland Delineation Training</a>
November 17-18, 2021 Columbus, OH	Richard Chinn Environmental Training, Inc. Course: <a href="#">Regional Supplement Wetland Delineation Training</a>

### DECEMBER 2021

December 13-16, 2021 Tampa, FL	Richard Chinn Environmental Training, Inc. Course: <a href="#">Wetland Delineation Training</a>
December 15-16, 2021 Tampa, FL	Richard Chinn Environmental Training, Inc. Course: <a href="#">Regional Supplement Wetland Delineation Training</a>

### JANUARY 2022

January 9-14, 2022 Boston, MA	Boston University Course: <a href="#">Ecological Forecasting</a>
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Photo Credit: Dennis P. Vasey, Marsh Paddlers

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- Biden nominates National Park Service director after years of acting heads
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- House budget boosts resilience, but wetlands plan draws ire
- Climate Change Is Hitting Farmers Hard
- EPA outlines plan to expand wetland protections

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- CA: Warming rivers in US West killing fish, imperiling industry
- CA: California's 'Dixie Fire' generating its own climate
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- MN: Enbridge Line 3 drilling fluid spills: What we know so far
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- WI: The annual Wisconsin waterfowl survey shows a slight overall increase in ducks and geese



Photo Credit: Dennis P. Vasey,  
Marsh Paddlers



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- When Restoring Marine Life, Clumping Works Best
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- Statement from NOAA Administrator Rick Spinrad on new IPCC report
- False spring: Climate change may erode frogs' ability to withstand salt pollution

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- Enhanced Aquifer Recharge of Stormwater in the United States: State of the Science Review (Final Report)

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- Environmental Racism and Climate Change — Missed Diagnoses
- Rarely-seen Spoonbills Draw Fans to Huntley Meadows Park
- The oldest tree in eastern US survived millennia – but rising seas could kill it
- Conservationists Set Their Sights on Shipping
- Cities have a green infrastructure blind spot
- The first mangrove forest with full carbon calculation enters the carbon market
- Stanford researchers map how people in cities get a health boost from nature

## CALENDAR OF EVENTS

### WEBINARS

#### AUGUST 2021

- First Nations Development Institute Webinar: Scanning the Horizon: Opportunities for Environmental Justice and Stewardship in Indian Country
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- Institute for Tribal Environmental Professionals (ITEP) Conference: National Tribal & Indigenous Climate Conference

### September 2021

- Ducks Unlimited 84<sup>th</sup> National Convention
- Association of Fish & Wildlife Agencies Annual Meeting
- The Biodiversity Conference 2021: Resilient Landscapes
- Climate Week NYC
- 2021 AWRA Mid-Atlantic Conference: Water Resource Management Tools and Success Stories
- North American Invasive Species Management Association (NAISMA) Conference
- Michigan Department of Environment, Great Lakes, and Energy: Great Lakes Area of Concern Annual Conference
- Coalition for the Delaware River Watershed 9<sup>th</sup> Annual Watershed Forum
- 7th Live Discovery – Doing Science Biology Education Conference



Photo Credit: Dennis P. Vasev. Marsh Paddlers

## October 2021

- San Francisco Estuary Partnership: State of the San Francisco Estuary Conference
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- Great Lakes Commission Annual Meeting
- NAAEE 2021 Conference: The Power of Connection
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- UN Climate Change Conference
- American Water Resources Association: 2021 Annual Water Resources Conference
- Waterfowl Festival

## December 2021

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## February 2022

- Wisconsin Wetlands Association: Wetlands Science Conference

## May 2022

- Association of State Floodplain Managers Conference
- Joint Aquatic Sciences Meeting

## August 2022

- Institute for Tribal Environmental Professionals: National Tribal & Indigenous Climate Conference



## TRAININGS/WORKSHOPS

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### December 2021

- Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
- Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training

### January 2022

- Boston University Course: Ecological Forecasting



The Association of State Wetland Managers' *Wetland News Digest* (WND) is a monthly compilation of wetland-related stories and announcements submitted by readers and gleaned from listservs, press releases and news sources from throughout the United States. WND chronicles the legislative, national, state and tribal news relevant to wetland science, policy, practice and law. It also links to new publications, tools and resources available to wetland professionals as well as events and training opportunities for those working in water resources and related fields. *Wetland News Digest* (formerly "*Wetland Breaking News*") has been published for over fifteen years and ASWM has been a nationally recognized resource for

information on wetland science and policy since 1983.

The items presented in *Wetland News Digest* do not necessarily reflect the views of the editor or of the Association of State Wetland Managers. Send your news items, comments, corrections, or suggestions to <mailto:news@aswm.org>.

"WETLAND NEWS DIGEST" Compiled by Tessa Paulsen, Intern; and Edited by Marla Stelk, Executive Director; Laura Burchill and Sharon Weaver, Assistant Editors, Association of State Wetland Managers, 32 Tandberg Trail, Ste. 2A, Windham, ME 04062. Telephone: 207-892-3399; Fax: 207-894-7992.

Send your news items, events, comments, corrections, or suggestions to [news@aswm.org](mailto:news@aswm.org)



Photo Credit: Dennis P. Vasey, Marsh Paddlers