



WETLAND NEWS DIGEST

Monthly News Digest of the Association of State Wetland Managers

July 2021

Editor's Note

Dear Wetlanders,

I hope this issue of *Wetland News Digest* finds you all in good health and good spirits – and hopefully enjoying some time outdoors in your favorite wetlands. The summer season has already experienced multiple extreme weather events – with record setting high temperatures across the country, intense precipitation events, drought, and wildfires. In our home state of Maine, we are still in “abnormally dry” drought conditions across 88.2% of the state, even though July has been an incredibly wet month so far. Bangor has recorded its wettest July on record since 1926.

In *Wetland News Digest* this month, you will find many stories discussing impacts we are experiencing from climate change, as well as federal agency actions such as the announcement by NOAA that [Nicole LeBoeuf](#) has been named as the agency’s new director. We also included a story about an interesting new twist by the [Fourth Circuit](#) regarding Clean Water Act Section 401 from a decision regarding the one-year deadline for state water quality certifications. You will also find an encouraging story regarding an agreement between the [Colorado River Indian Tribes](#) and the state of Arizona that will help conserve water for farming, wildlife and assist the tribes to develop water infrastructure.

Best wishes for an enjoyable remainder of the summer season!

Best regards,

Marla J. Stelk
Editor, *Wetland News Digest*

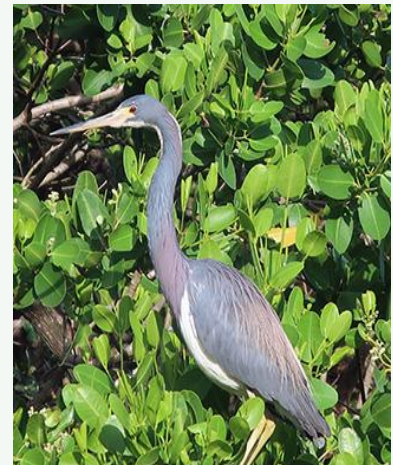


Photo Credit: Dennis P. Vasey,
Marsh Paddlers

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Editor's Choice



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Photo Credit: Dennis P. Vasey,
Marsh Paddlers

Preserving their way of life

By Natash Brennan – Indian Country Today – July 17, 2021

Tribes from the Columbia Basin gathered at the historic Salmon and Orca Summit earlier this month to discuss preserving their way of life as salmon people and called on President Biden and Congressional leadership to join them in taking bold action. The summit was hosted by the Nez Perce Tribe and the Affiliated Tribes of Northwest Indians on the Squaxin Island Tribe reservation northwest of Olympia July 7-8. It focused on U.S. Rep. Mike Simpson's proposed Columbia Basin Initiative, an ambitious \$33 billion proposal to remove four dams in the lower Snake River. [Read more here](#).

Water crisis reaches boiling point

By Gillian Flaccus Associated Press – Indian Country Today – July 13, 2021
Ben DuVal knelt in a barren field near the California-Oregon state line and scooped up a handful of parched soil as dust devils whirled around him and birds flitted between empty irrigation pipes. DuVal's family has farmed the land for three generations, and this summer, for the first time ever, he and hundreds of others who rely on irrigation from a depleted, federally managed lake aren't getting any water from it at all. As farmland goes fallow, tribes along the 257-mile-long river that flows from the lake to the Pacific Ocean watch helplessly as fish that are inextricable from their diet and culture die in droves or fail to spawn in shallow water. [Read more here](#).

Fourth Circuit Weighs In On Rules for Clean Water Act's One-Year Deadline for State Water Quality Certifications for Federal Discharge Permits

By Eric Christensen, Allyn Stern, and Jimmy Slaughter – Beveridge & Diamond – July 12, 2021

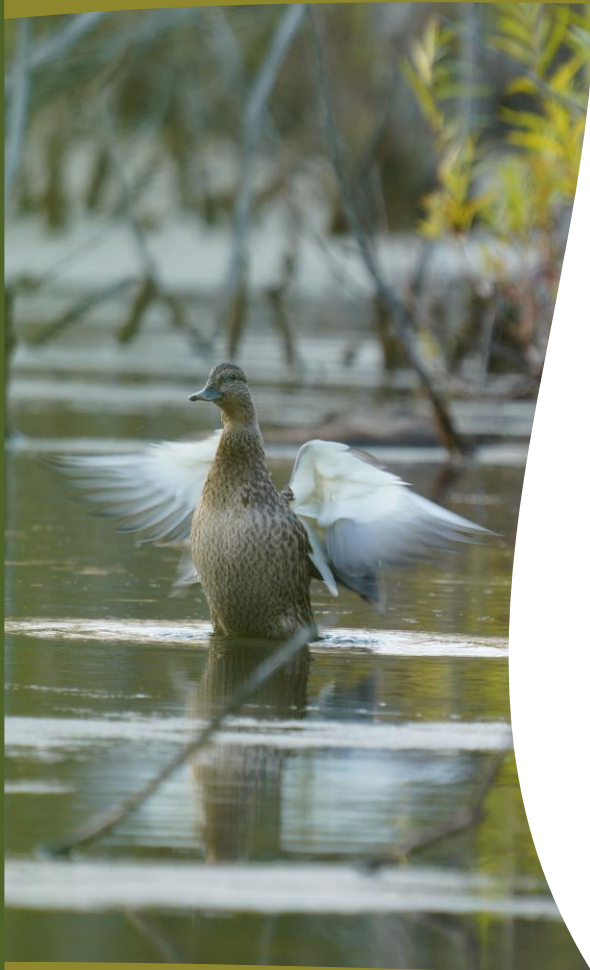
On July 2, 2021, the U.S. Court of Appeals for the Fourth Circuit waded into the controversy surrounding proper interpretation of the one-year deadline for state action contained in Section 401 of the Clean Water Act. Its opinion in *North Carolina Department of Environmental Quality v. Federal Energy Regulatory Commission*, 2021 WL 2763265 (4th Cir. July 2, 2021), interprets Section 401's deadline with considerably more leniency toward the states than either of the other circuits that have recently addressed the issue. Regulated entities seeking federal discharge permits have to carefully assess the timeline for state involvement in their permits and consider outreach to shape acceptable state water quality guidelines under Section 401. [Read more here](#).

National Estuary System Helps Power Local Economies, Study Finds

By Thomas Wheatley – The PEW Charitable Trusts – June 11, 2021

A [recently published study](#), commissioned by the National Oceanic and Atmospheric Administration (NOAA) and The Pew Charitable Trusts, offers a glimpse into the significant contributions that the [National Estuarine Research Reserve System \(NERRS\)](#) makes to local economies. The analysis by [Eastern Research Group Inc.](#) looked at just four of the system's 29 reserves—[Rookery Bay](#), [Guana, Tolomato Matanzas](#), and [Apalachicola](#) in [Florida](#) and [South Slough](#) in Oregon—and conservatively estimated that together they generate more than \$165 million in annual revenue for their communities, including \$56.4 million in wages paid for at least 1,762 jobs. In short, the study concluded that the reserves' work to build environmental resilience also supports local economic resilience. [Read more here.](#)

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

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

Presenter:



Arthur Ostaszewski

Michigan Environment Great Lakes and
Energy (EGLE) Department

[Register Here](#)

[More Information](#)

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Photo Credit: John Sullivan,
Friends of the La Crosse Marsh

White House throws support behind House bill aimed at tackling 'forever chemicals'

By Rachel Frazin – The Hill – July 19, 2021

The White House is throwing its support behind a House bill, slated for a vote this week, aimed at tackling a class of toxic chemicals. In a statement, the Office of Management and Budget said that it backs the legislation tackling releases of PFAS chemicals, some of which have been linked to health hazards. [Read more here.](#)

Apply Now for 2021 Native Youth and Culture Fund Grants

Contact: Amy Jakober – First Nations – July 15, 2021

First Nations Development Institute ([First Nations](#)) today announced it is accepting proposals for the Native Youth and Culture Fund (NYCF) for programs that focus on youth and that support the perpetuation of traditional ecological knowledge, spirituality, and the intergenerational transfer of knowledge systems, resulting in compassion, respect, dignity, reverence for nature, and care for each other and the Earth. [Read more here.](#) The Request for Proposals can be found [here](#), and the application deadline is **Thursday, August 19, 2021**. All applications must be submitted via the First Nations [online grant application system](#).

Western fires threaten Native American lands

Texarkana Gazette – July 14, 2021

Fierce wildfires in the Pacific Northwest are threatening Native American lands that already are struggling to conserve water and preserve traditional hunting grounds amid a historic drought in the U.S. West. It comes as extremely dry conditions and heat waves tied to climate change have swept the region, making wildfires harder to fight. Climate change has made the American West much warmer and drier in the past 30 years and will continue to make weather more extreme and wildfires more frequent and destructive. [Read more here.](#)

Nicole LeBoeuf named director of NOAA's National Ocean Service

Contact: Jennie Lyons – NOAA – July 13, 2021

Nicole LeBoeuf, a national leader in ocean conservation and management with more than two decades of experience at NOAA, has been appointed by U.S. Secretary of Commerce Gina M. Raimondo as the assistant administrator for Ocean Services and Coastal Zone Management. In this capacity she will serve as director of the [National Ocean Service](#), America's Ocean and coastal science agency. LeBoeuf, acting in this role since August 2018, also served as the deputy since December 2016. [Read more here.](#)

Predicting When the Next Bluff Will Fall

By Ramin Skibba – Hakai Magazine – July 9, 2021

Collapsing coastal bluffs are a threat wherever waves, earthquakes, and intense rainstorms can destabilize steep seaside terrain, and with sea levels rising, this risk is increasing. It is a pronounced risk throughout many areas along the Pacific coast of North America, especially in Southern California. Considering that many lives, homes, and vital infrastructure are at stake, scientists have been trying to figure out exactly what causes such cliffs to fall. [Read more here.](#)

Lawsuit Filed to Overturn Denial of Endangered Species Protection to Eastern Hellbenders

Contacts: Brian Segee; Lindsey Muzzio; and Betsy Nicholas – Waterkeepers Chesapeake – July 1, 2021

A [lawsuit](#) filed today by five conservation groups challenges a decision made by the U.S. Fish & Wildlife Service under the last administration to deny Endangered Species Act protection to eastern hellbenders. These river-dwelling salamanders can grow longer than 2 feet and live in clear, fast-flowing mountain streams in 15 southeastern, midwestern and northeastern states. They have now been eliminated from much of their historic range. [Read more here.](#)

U.S. House backs higher spending levels for NSF and DOE science

By Jeffery Mervis – Science Magazine – June 29, 2021

In back-to-back votes last night, members overwhelmingly approved two bills that would authorize massive spending increases at the National Science Foundation (NSF) and the Department of Energy's (DOE) Office of Science. One calls for more than doubling NSF's current annual budget of \$8.5 billion to \$17.9 billion by 2026, and the other would give the Office of Science a 63% boost, to \$11.1 billion, over the same 5-year period. [Read more here.](#)

Climate lawsuits lag considerably behind state-of-the-art climate science

By Sarah DeWeerd – Anthropocene Magazine – June 29, 2021

More than 1,500 climate-related lawsuits have been filed worldwide. Plaintiffs have sought to recoup damages from emitters for losses due to current or future climate change and tried to force governments and corporations to reduce greenhouse gas emissions or beef up climate adaptation measures. So far, only a few lawsuits have gained traction in the courts. But in many more cases, the science backing plaintiffs' claims already exists, according to a new study – it just hasn't made its way into the legal system. [Read more here.](#)

Bipartisan agriculture climate bill clears Senate

By Zack Budryk – The Hill – June 24, 2021

The Senate on Thursday passed bipartisan legislation aimed at granting farms access to carbon offset markets by a 92-8 vote. The Growing Climate Solutions Act, introduced by Sens. Mike Braun (R-Ind.) and Debbie Stabenow (D-Mich.), next heads to the House. The measure would establish a Department of Agriculture certification process through which producers can generate and sell carbon credits. [Read more here.](#)

U.S. Fish and Wildlife Service Announces Proposed Change to Federal Duck Stamp Contest

Contact: Vanessa Kauffman – U.S. Fish and Wildlife Service – June 22, 2021

The U.S. Fish and Wildlife Service is proposing to revise regulations governing the annual Migratory Bird Hunting and Conservation Stamp (Duck Stamp) Contest beginning with the 2022 contest. The proposed revisions would provide artists more flexibility when designing their art and broaden the appeal of the Duck Stamp to more audiences. “More than \$1.1 billion in Duck Stamp sales have been used to acquire wetland habitats that help sequester carbon and contribute to addressing the impacts of climate change, purify water supplies, provide economic support to local communities and enhance outdoor recreation opportunities,” said U.S. Fish and Wildlife Service Principal Deputy Director Martha Williams. [Read more here.](#)

Military and Government Leaders Recruit Nature to Protect Shoreline

By Holly Binns & Joseph Gordon – The PEW Charitable Trust – May 4, 2021

Along the U.S. Southeast coast, communities and military installations face a common enemy—floods, erosion, and rising seas. In response, military and government leaders are looking to fight nature with nature. A group of regional government and military officials launched an initiative Tuesday aimed at conserving a 1 million-acre stretch of salt marsh—nearly the size of Grand Canyon National Park—from Northeast Florida to North Carolina. Salt marshes, which are sinewy channels of coastal grasslands, protect coastlines from flooding, erosion, and storm surge, filter upland runoff, and serve as vital habitat for fish, birds, and other animals. [Read more here.](#)

ASWM RECENTLY RECORDED HOT TOPICS WEBINAR

Investing in Resiliency: Intersectional Perspectives of Wetlands, Infrastructure, and Healthy Communities

Held Tuesday, May 18, 2021 - 3:00 pm-4:30 pm Eastern

Presenters



Stella Wilson
National Oceanic
and Atmospheric
Administration



Elizabeth Habic
Federal Highway
Administration



LaTonya Gilliam
Delaware Dept. of
Transportation



Becca Madsen
Electric Power
Research Institute



Nalini S. Rao
Electric Power
Research Institute

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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

AK: US to end large, old-growth timber sales in Alaska forest

By Matthew Daly and Becker Bohrer – Associated Press – Indian Country Today – July 15, 2021

The Biden administration said Thursday it is ending large-scale, old-growth timber sales in the country's largest national forest — the Tongass National Forest in Alaska — and will focus on forest restoration, recreation and other noncommercial uses. The U.S. Agriculture Department, which includes the Forest Service, also said it will take steps to reverse a Trump administration decision last year to lift restrictions on logging and road-building in the Tongass, a rainforest that provides habitat for wolves, bears and salmon. [Read more here.](#)

CO: US proposes removing Colorado River fish's endangered status

By James Anderson – Associated Press – Indian Country Today – July 7, 2021
The U.S. Fish and Wildlife Service said Tuesday it plans to propose reclassifying a rare Colorado River Basin fish called the razorback sucker from endangered to threatened status after a multiyear and multistate effort throughout the Southwestern U.S. to replenish its populations. A proposed formal relisting, to be published Wednesday in the Federal Register, would classify the fish as no longer on the brink of extinction. But it would require continued management of the razorback's survival in the Colorado River and several key tributaries. The Fish and Wildlife Service first said it would recommend the change in 2018. [Read more here.](#)

Colorado River Indian Tribes: Tribe becomes key water player

By Felicia Fonseca – Associated Press – Indian Country Today – July 7, 2021
For thousands of years, an Arizona tribe relied on the Colorado River's natural flooding patterns to farm. Later, it hand-dug ditches and canals to route water to fields. Now, gravity sends the river water from the north end of the Colorado River Indian Tribes reservation through 19th century canals to sustain alfalfa, cotton, wheat, onions and potatoes, mainly by flooding the fields. Some of those fields haven't been producing lately as the tribe contributes water to prop up Lake Mead to help weather a [historic drought](#) in the American West. The reservoir serves as a barometer for how much water Arizona and other states will get under plans to protect the river serving 40 million people. [Read more here.](#)

DE: DuPont, Chemours, Corteva to pay Delaware millions over damage from PFAS or 'forever chemicals'

By Jeff Neiburg – Delaware News Journal – Delaware online – July 13, 2021

DuPont, Chemours and Corteva will pay millions of dollars to the state of Delaware, according to a settlement reached between the Delaware Department of Justice and the three companies – an agreement that holds the companies responsible for decades of damage done to Delaware’s environment through toxic chemicals known as PFAS. The settlement, announced Tuesday afternoon, will result in a guaranteed \$50 million to Delaware, to be paid immediately. [Read more here.](#)

FL: 'We can't stop it': Florida Keys soon to be swamped as climate crisis accelerates

By Christian Spencer – The Hill – June 25, 2021

The Florida Keys are facing a climate change disaster caused by rising sea levels. On Monday, Florida officials met in the city of Marathon and said they plan on elevating the streets throughout the Keys to prevent flooding, albeit they do not have all the resources to accomplish this, [The Guardian reported.](#) [Read more here.](#)

IN: Removal of wetland protections may harm Indiana frog populations

By Laura Gerber – IDS News – June 27, 2021

In April, Gov. Eric Holcomb removed state protections for over 50% of wetlands in Indiana when he signed Senate Enrolled Act 389 into law. The law goes into effect on July 1st, according to Indiana Environmental Reporter. Frog species can be harmed when their habitats are disturbed, such as when the wetlands are drained and farmers use high levels of chemicals in areas that come in contact with frogs, Vicky Meretsky, Director of O’Neill Environmental Master’s Programs, said. [Read more here.](#)

LA: NASA studies Louisiana delta system; area’s wetlands at stake

By Janet McConnaughey – Associated Press – houmatoday – July 4, 2021

Erosion, sinking land and rising seas from climate change have killed the Louisiana woods where a 41-year-old Native American chief played as a child. Not far away in the Mississippi River delta system, middle-school students can stand on islands that emerged the year they were born. NASA, along with several universities aim to create computer models that can be used with satellite data to let countries learn about which parts of their deltas can be shored up and which are past hope. [Read more here.](#)

LA: This Ambitious Project Aims to Rebuild Louisiana's Vanishing Coastal Wetlands

By Sarah Sneath – Audubon – Summer 2021

The marshes south of New Orleans are dying, slowly sinking into the rising sea. But when Erik Johnson imagines their future, he sees a paradise for birds. Bald Eagles will feast on fish in Barataria Bay. Green-winged Teal and Mottled Ducks will forage in the shallows. With luck, Roseate Spoonbills might join in. “Where the freshwater and saltwater mixes is just a really productive system,” says Johnson, director of conservation science for Audubon Delta. [Read more here.](#)

MD: Push is on for 'green amendments' in four Bay state constitutions

By Jeremy Cox – Bay Journal – July 14, 2021

For anyone who believes that Maryland’s laws adequately protect the environment and people’s health, state Del. Wanika Fisher has an invitation: Come visit her legislative district. In District 47B, which lies in Prince George’s County inside the DC Beltway, about 90% of the residents are Black or Hispanic. Many, she said, suffer from ailments related to pollutants legally emitted by the beltway’s traffic, nearby concrete plants and other industrial facilities. [Read more here.](#)

MD: A Cicada Postmortem: What We're Learning from Brood X

By Chris Carroll – MarylandToday – July 1, 2021

The insect chorus once audible through a triple-pane window is down to an occasional, lonely buzz in the treetops. All that's left of the massive swarms recently visible on National Weather Service radar is a few squished bug bodies you need to pry out of your car's radiator. Yes, the cicadas of Brood X, which made our region into their strange kingdom for the last month or two, are mostly gone, but they've left behind billions of eggs that will hatch tiny nymphs next month to burrow into the soil and emerge in another 17 years—and new questions and answers that could keep scientists busy for much of that interim. [Read more here.](#)

MI: Efforts underway to help restore 200-acre, globally rare, forested wetland in Detroit

By Michigan Department of Natural Resources – The News-Herald – July 6, 2021

A unique but damaged ecosystem on the eastern side of Belle Isle Park is getting some much-needed attention. Restoration specialists with the Michigan Department of Natural Resources are already at work to bring back 200 acres of globally rare, forested wetland at the 2.5-mile-long island park in the Detroit River. It's one of the largest wet-mesic flatwoods in existence and one of only six high-quality occurrences left in Michigan, providing habitat for a variety of rare plants, wildlife species and migrating songbirds. Wet-mesic flatwoods – or forested wetlands – once were prominent along the Detroit River. [Read more here.](#)

MN: Line 3 opponents appeal to Minnesota Supreme Court

By Steve Karnowski – Associated Press – Indian Country Today – July 14, 2021

Tribal and environmental groups opposed to Enbridge Energy's Line 3 oil pipeline project asked the Minnesota Supreme Court on Wednesday to overturn a lower court decision affirming the approvals granted by independent regulators that allowed construction to begin last December. The legal move came as protests continue along the route in northern Minnesota. More than 500 protesters have been arrested or issued citations since [construction on the Minnesota leg of the project began](#) in December, but they have [failed so far to persuade President Joe Biden's administration](#) to stop the project. Meanwhile, opponents have been demanding more transparency about a spill last week of drilling mud into a river that the pipeline will cross. [Read more here.](#)

NM: Once a Rich Desert River, the Gila Struggles to Keep Flowing

By Jim Robbins – Yale Environment 360 – July 8, 2021

The confluence of the tiny San Pedro River and the much larger Gila was once one of the richest locales in one of the most productive river ecosystems in the American Southwest, an incomparable oasis of biodiversity. The rivers frequently flooded their banks, a life-giving pulse that created sprawling riverside *ciénegas*, or fertile wetlands; braided and beaver-dammed channels; meandering oxbows; and *bosques* — riparian habitats with towering cottonwoods, mesquite and willows. This lush, wet Arizona landscape, combined with the searing heat of the Sonoran Desert, gave rise to a vast array of insects, fish and wildlife, including apex predators such as Mexican wolves, grizzly bears, jaguars and cougars, which prowled the river corridors. The confluence now is a very different place, its richness long diminished. [Read more here.](#)

Navajo Nation: Navajo Nation Sees Relief in Lawsuit Over Navigable Waters Definition

By Lisa Whitley Coleman EHS Daily Advisor – July 7, 2021

New Mexico is known as the “Land of Enchantment,” but it is also a state without a lot of bodies of water. When the Trump administration changed the “navigable waters” definition to include only waters that flowed year-round, both New Mexico and Arizona were particularly hard hit, as the majority of their waterways don't have continuous flow to another waterway, meaning those waterways were left without federal protection under the Clean Water Act (CWA). [Read more here.](#)

NY: DEC Announces Lake Sturgeon Found Spawning in Genesee River, First in More Than 50 Years

New York State Department of Environmental Conservation – July 15, 2021

New York State Department of Environmental Conservation (DEC) Commissioner Basil Seggos today announced a milestone in the restoration of the Genesee River following the collection of a spawning female lake sturgeon in the lower Genesee for the first time in more than 50 years. The announcement took place with partners along the banks of the Genesee River in Monroe County. On May 25, 2021, Dr. Dawn Dittman and the field crew from the U.S. Geological Survey's (USGS) Tunison Laboratory of Aquatic Science netted the 61-inch, nearly 70-pound female lake sturgeon. DEC began stocking lake sturgeon into the Lower Genesee River in 2003, as part of the State's efforts to support the species' recovery. [Read more here.](#)

OH: USDA Seeking New Partnerships to Restore Wetlands

Ohio Country Journal – July 15, 2021

USDA is investing 17 million dollars for conservation partners to protect and restore critical wetlands on agriculture lands through Wetland Reserve Enhancement Partnership (WREP). NRCS is prioritizing their focus on historically underserved producers conserving wetlands. Partnership proposals are due August 15, 2021. [Read more here.](#)

Puyallup Tribe of Indians: Harvesting sacred cedar

By Natasha Brennan – Indian Country Today – July 10, 2021

Puyallup tribal members led by elder and culture director Connie McCloud are harvesting sacred cedar on their ancestral lands for the first time in years. The Department of Natural Resources in Washington state was surveying an area of the Elbe Hills State Forest in eastern Pierce County for future timber sales when they identified a group of trees that had previously been used for cedar harvesting, McCloud said. The department reached out to the tribe to invite them to harvest and by the end of the season, the tribe's culture center will have led three weekly harvests in the area. [Read more here.](#)

WI: After more than a century, Burnham Canal, one of Milwaukee's deadest of dead zones, is being revived as a wetland

By John Gurda – Milwaukee Journal Sentinel – June 30, 2021

As any parent of toddlers will tell you, it's much harder to clean up a mess than it is to make one. Crayoned walls and torn screens happen in a matter of seconds; repairing the damage can take hours. The same dynamic applies to the natural environment. When one generation leaves a mess, their descendants can spend millions just to restore the status quo. That's precisely what's happening on the south edge of the Menomonee Valley today. The Burnham Canal, which runs from 7th to 15th streets just north of Bruce Street, is undergoing a complete restoration, and it's high time. If you had to name the deadest of the dead zones in Milwaukee's waterways, the Burnham Canal would certainly be a candidate. It is literally a dead end, with no current, no source of fresh water, and pretty much no life. The aim is to bring the canal back to a reasonable facsimile of its original condition as a wetland. That makes it an all-American project to celebrate on this most patriotic of weekends. [Read more here.](#)

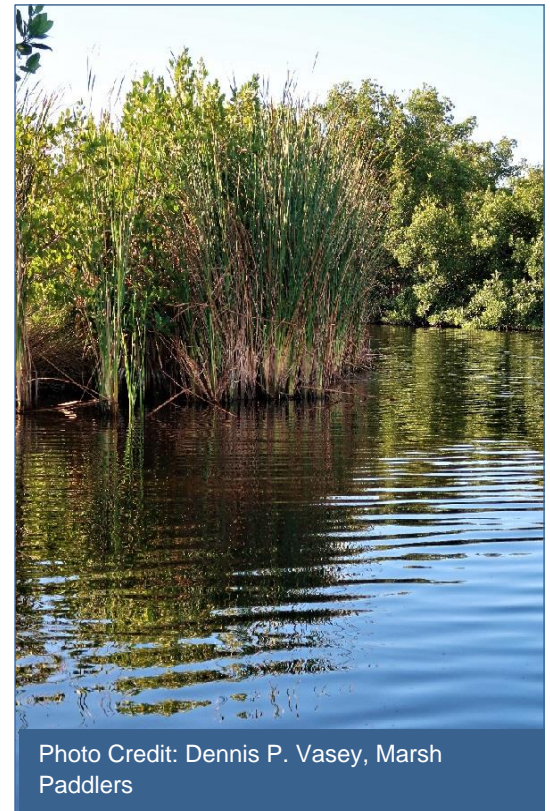


Photo Credit: Dennis P. Vasey, Marsh Paddlers

ASWM RECENTLY RECORDED MEMBERS' WEBINARS

Protecting Wetlands through Integration with State Buffer and River Corridor Programs

Wednesday, May 26, 2021 - 3:00 pm-4:30 pm ET

Presenters:



Chuck Horbert
Rhode Island
Department of
Environmental
Management



Rob Evans
Vermont Department
of Environmental
Conservation



Gretchen Alexander
Vermont Department of
Environmental
Conservation

State Tools to Support Mitigation Banking: New Concepts, Considerations and Implementation

Wednesday, June 30, 2021 - 3:00 pm-5:00 pm ET

Presenters:



Denise Clearwater
Maryland Department
of the Environment



Lauren Driscoll
Washington State
Department of
Ecology



Kate Thompson
Washington State
Department of
Ecology

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Wetland Science News



Wetland Events

Watershed Butterfly Festival

The Watershed Institute
Pennington, NJ
August 7, 2021

Wetland Plants Really Clean Up!

John Bunker Sands
Wetland Center
Combine, TX
August 18, 2011

See Calendar of
Events Below

Photo Credit: Dennis P. Vasey,
Marsh Paddlers

As Ghost Forests Spread, Researchers Ask for Help Keeping Track

By Sarah Noyes – Discover Magazine – July 15, 2021

Have you seen a ghost forest? As sea levels rise around the world, coastlines are increasingly marked by lingering stands of dead trees. The cause of death isn't a mystery. Sea level rise is intensifying the effects of flooding and pushing saltwater into low-lying coastal ecosystems. That saltwater kills the trees, leaving behind eerie stands of sun-bleached tree trunks accompanied by migrating marsh grasses, transforming coastal forests into marshlands. [Read more here.](#)

These cities have the most stifling heat islands in the United States

By Kerrin Jeromin – The Washington Post – July 15, 2021

These cities, along with Houston, San Francisco and even relatively small places such as Burlington, Vt., feature some of the country's most intense urban heat islands, according to a [report](#) by the independent research group Climate Central. Urban heat islands are zones of elevated temperatures that form from high concentrations of dark, heat-retaining surfaces like asphalt and concrete. They can run as much as [15 to 20](#) degrees hotter than surrounding rural areas. [Read more here.](#)

June 2021 was the hottest June on record for U.S.

National Oceanic and Atmospheric Administration – July 9, 2021

Exceptional heat waves from coast to coast helped push June 2021 to the No. 1 spot on the list of hottest Junes on record for the U.S. The first six months of 2021 also brought [eight-billion-dollar weather disasters](#), ranging from destructive severe weather to a historic deep freeze, according to experts from NOAA's National Centers for Environmental Information. [Read more here.](#)

The complex case of Chesapeake Bay restoration

DredgeWire – June 30, 2021

On a warm October day, six researchers ventured out to a reef in Baines Creek, a tributary of Virginia's Elizabeth River. Back in 2014, the Army Corps of Engineers had dumped tons of fossil oyster shells into the water in the hopes of attracting more of one of the key inhabitants of the Chesapeake Bay—oysters. Now the researchers, wearing masks and socially distancing as they wade through the water at low tide, are measuring the progress. What they are finding is just astounding, says Romuald Lipcius, professor of fisheries science at the Virginia Institute of Marine Science (VIMS) at Gloucester Point, and also the School of Marine Science at William & Mary University. The team counts hundreds of oysters growing on each square meter of reef. Some oysters had reached the ripe old age of five, once considered unachievable because of diseases that had been introduced into the Bay; oysters' fecundity increases exponentially with size and age. [Read more here.](#)

For 2nd year in a row, smaller summer dead zone predicted for Chesapeake Bay

By Neal Augenstein – WTOP News – June 24, 2021

There's encouraging news about the health of the Chesapeake Bay: A smaller than average "dead zone" is forecast for summer 2021, for the second year in a row. Dead zones are areas of tidal rivers in the Chesapeake Bay with low or no oxygen, making it difficult for underwater plants and animals to survive. "The dead zone for this summer will be below average, which is good," said Beth McGee, the Chesapeake Bay Foundation's Director of Science and Agricultural Policy. This marks the second year in a row that smaller-than-average dead zones were forecast: "Last year, the dead zone was among the best on record, frankly, in terms of the volume," McGee said. [Read more here.](#)

The wetlands' oldest stories are told by silt, sediment

By Josh Pike – The Pagosa Springs Sun – June 4, 2021

Wetlands tell a myriad of stories. Stories in the flitting of birds as they feed and nest. Stories in the patterns of vegetation growth and the channels of water that wind through them. The oldest stories in the wetlands are told by the silt and sediment that accumulates at the wetland bottom. These soils chronicle the history of the wetlands, telling us stories of droughts and floods, of changing water sources and vegetation and, stories of human uses of the wetlands and the changes they have wrought. [Read more here.](#)

ASWM Welcomes our New Intern, Tessa Paulsen



Tessa is ASWM's newest intern. Ms. Paulsen graduated from University of New Haven in CT with a Bachelor of Arts in Marine Affairs with a minor in Sociology. She will be attending the Portland State University in Portland, OR to complete a master's degree in environmental science and natural resource management. Tessa's main career goal is to work on science communication and outreach with communities that have a history of distrust of government policy. This includes commercial fishers and indigenous peoples. During her time at ASWM, Tessa will be performing a literature review of hydrological dynamics in relation to silviculture management practices and coastal wetlands, as well as testing and assisting with the development of training modules on beavers and wetland restoration best practices, in addition to other activities in support of ASWM's mission.

New ASWM Membership Benefit

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.

Not an ASWM Member?

[See **Benefits of Membership**](#)

[Join Here](#)



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

Resources and Publications



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Photo Credit: Matt Schweisberg,
Wetland Strategies and Solutions,
LLC

Study: constructed wetlands are best protection for agricultural runoff

Contact: Brendan M. Lynch – EurekAlert! – July 5, 2021

A new paper from a lead author based at the University of Kansas finds wetlands constructed along waterways are the most cost-effective way to reduce nitrate and sediment loads in large streams and rivers. Rather than focusing on individual farms, the research suggests conservation efforts using wetlands should be implemented at the watershed scale. [Read more here.](#)

GAO Report: EPA Needs to Better Assess and Disclose Quality of Compliance and Enforcement Data

U.S. Government Accountability Office – July 2021

EPA partners with states to oversee compliance with and enforcement of the Clean Water Act. EPA estimated that in 2018, nearly 11,000 facilities significantly exceeded their permit limits and illegally discharged pollutants into nearby waters, which may pose serious threats to human health and the environment. GAO was asked to review EPA’s enforcement of the Clean Water Act. This report examines (1) changes since 2015 in EPA’s national initiatives for ensuring compliance with the act, (2) changes in NPDES compliance and enforcement activities since 2015, and (3) the extent to which EPA is measuring progress toward compliance with the NPDES program. [Read full report here.](#)

Rediscovering, Reevaluating, and Restoring Lost River-Wetland Corridors

By Ellen Wohl, Janine Castro, Brian Cluer, et al. – Frontiers in Earth Science – June 30, 2021

River-wetland corridors form where a high degree of connectivity between the surface (rheic) and subsurface (hyporheic) components of streamflow creates an interconnected system of channels, wetlands, ponds, and lakes. River-wetland corridors occur where the valley floor is sufficiently wide to accommodate a laterally unconfined river planform that may feature morphologically complex, multi-threaded channels with vegetated bars, islands, and floodplains. The development and persistence of river-wetland corridors is driven by combinations of geologic, biotic, and geomorphic processes that create a river environment that is diverse, heterogeneous, patchy, and dynamically stable, and within which patterns of flow, sediment features, and habitats shift continually. Hence, we describe these polydimensional river corridors as “kaleidoscope rivers.” [Read full article here.](#)

New model predicts spotted lanternfly egg hatching

By Amy Duke – Penn State News – June 30, 2021

Research conducted by scientists in Penn State’s College of Agricultural Sciences has led to the creation of an online tool that can help predict seasonal egg hatch for spotted lanternflies. The spotted lanternfly, an invasive insect from Asia, was discovered in North America in Berks County in 2014. The pest since has spread to at least 34 Pennsylvania counties. It also has become established in New Jersey, New York, Connecticut, Delaware, Maryland, Ohio, Virginia and West Virginia. [Read more here.](#)

Tracing and building up environmental justice considerations in the urban ecosystem service literature: A systematic review

Amalia Calderón-Argelich, Stefania Benetti, Isabelle Anguelovski, et al. – Science Direct – May 13, 2021

The concept of ecosystem services (ES) has mainstreamed as an interdisciplinary framework in the urban sustainability and resilience agenda. While the uptake of ES in urban areas is deeply entangled with multiple values, trade-offs, institutions, management and planning approaches, there is still a lack of a comprehensive and systematic framework to address environmental justice (EJ) in urban ES assessments. This article presents a systematic literature review to examine what factors are critical for the effective inclusion of an EJ lens in urban ES appraisals. More specifically, we assessed how distributional, procedural and recognitional EJ dimensions have been addressed, and in relation to which types of urban ES. Our results reveal that EJ considerations are currently focused on the (un)equal distribution of ES and the associated green and blue infrastructure with regard to socioeconomic groups, with special attention to income and race/ethnicity as the main mechanisms of social stratification. There is also a predominant focus on regulating and cultural ES, analyzing their role on resilience and adaptive capacity on one hand, and recreational values, social cohesion and place-making on the other. In this review, we also evaluate the interconnected dimensions of justice and their constraints and lay out pathways for new research into intersectional and restorative approaches to justice in ES assessments. Finally, we interrogate what the role of urban ES-based planning might be in making more inclusive and just cities and explore its implications for policy and practice. [Read full article here.](#)



ASWM'S WETLAND JOBS BOARD

Interdisciplinary Aquatics Analyst/Ecologist/Fish Biologist

Bureau of Land Management
Lakewood, CO
Apply by July 30, 2021

Environmental Specialist III

Florida Environmental Protection
Tallahassee, FL
Requisition No: 426481
Apply by July 30, 2021

Biologist (Ecological Services)

U.S. Fish & Wildlife Service
Honolulu, HI
Apply by August 2, 2021

Senior Ecology Instructor

College of Natural Resources
University of Idaho
Open until filled; Priority by July 23, 2021

Civil Engineering Technician

Natural Resources Conservation Service
3 Vacancies: Algona, Oakland; and Ottumwa, IA
Apply by July 29, 2021

Aquatic Biologist

SpecPro Sustainment & Environmental (SSE)
Fort Campbell, KY
Apply by August 1, 2021

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

GRANT OPPORTUNITIES

Fiscal Year (FY) 2021 Building Partner Capacity and Promoting Resiliency and Equity under Clean Water Act Wetlands, Nonpoint Source, Monitoring, Assessment and Listing Programs

U.S. Environmental Protection Agency
Search No.: EPA-OW-OWOW-21-02
Apply by August 10, 2021

Wetland Mitigation Banking Program for Federal Fiscal year (FY) 2022

USDA Natural Resources Conservation Service
Search No.: USDA-NRCS-NHQ-WMBP-21-
NOFO0001116
Apply by August 16, 2021

Evaluating Mineral Associated Blue Carbon Accumulation in Coastal Wetlands

Department of Defense
Engineer Research and Development Center
Search No.: W81EWF-21-SOI-0021
Apply by August 18, 2021

Tribal Climate Resilience Liaisons – Alaska, Northwest, Southwest CASC Regions

Department of the Interior
Bureau of Indian Affairs
Search No: BIA-2021-TCRP
Apply by August 23, 2021

Shoreline Stabilization, NSA Annapolis, MD

Department of Defense
NAVFAC Washington, DC
Search No.: N40080-21-2-0005
Apply by August 24, 2021

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

Department of Interior
Bureau of Reclamation
Search No.: R22AS00015

Photo Credit: Matt Schweisberg, Wetland Strategies and Solutions, LLC

Potpourri



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to
ASWM

Help Support
Wetlands



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Photo Credit: Devin Griffiths,
The Wetlands Institute

Scientists say “moon wobble” will create extreme floods in 2030s

Open Access Government – July 15, 2021

Every 18.6 years, the orbit of the moon experiences a natural “wobble” – which [impacts the Earth’s oceans](#). This study, a collaboration between NASA and The University of Hawaii, looks at the unique mix of this tide-changing “moon wobble” during a time of extremely high water [levels due to climate change](#). The study predicts that high-tide flooding (HTF) will hit the coastal regions of the United States, mid-2030. [Read more here](#).

Many Nations Receive Failing Scores on Climate Change and Health

By Katie Livingstone – Inside Climate News – July 15, 2021

As record-breaking heat has smothered much of the northern hemisphere, the impact of global warming on human health has been dramatically evident in deaths from high heat. The death toll underscored both the impact of climate change on human health and what a new report rates as poor performances by numerous nations in addressing health issues in their emissions and adaptation goals—known as Nationally Determined Contributions, or NDCs—as part of the Paris Agreement. The [report](#), by the California-based Global Climate and Health Alliance, concluded that of 40 countries whose NDCs were reviewed (one of which covered all 27 European Union nations), few provided more than superficial detail on how they would protect their citizens’ health from climate change. Even fewer specified how such health measures would be financed. Wealthier nations scored the worst in the report. [Read more here](#).

MIT Predicted in 1972 That Society Will Collapse This Century. New Research Shows We’re on Schedule.

By Nafeez Ahmed – Vice – July 14, 2021

A remarkable new study by a director at one of the largest accounting firms in the world has found that a famous, decades-old warning from MIT about the risk of industrial civilization collapsing appears to be accurate based on new empirical data. The study was published in the *Yale Journal of Industrial Ecology* in November 2020 and is available [on the KPMG website](#). It concludes that the current business-as-usual trajectory of global civilization is heading toward the terminal decline of economic growth within the coming decade—and at worst, could trigger societal collapse by around 2040. [Read more here](#).

Conservationists Set Their Sights on Shipping

By Erica Gies – Hakai Magazine – July 7, 2021

Off the northern end of Vancouver Island, British Columbia, lies a constellation of small islets known as the Scott Islands. This remote outpost is where imperiled species come to continue their lines—it's where 55 percent of the world's Cassin's auklets, and seven percent of its rhinoceros auklets, come to breed. It's also the site of the second-largest breeding aggregation of Steller sea lions in the world, and home to many other species at risk, including other birds and marine mammals, reptiles, and fish. The islands' importance led Environment and Climate Change Canada (ECCC) to create the Scott Islands Protected Marine Area in 2018, one of a series of marine protected areas (MPAs) that Canada is forming to meet its international commitment to protect biodiversity by setting aside 25 percent of its territorial waters by 2025. [Read more here.](#)

Cities have a green infrastructure blind spot

By Sarah DeWeerd – Anthropocene Magazine – June 22, 2021

Green infrastructure has a lot of benefits: nature can improve people's mental and physical health; vegetation helps reduce building energy use by providing insulation and cooling; and plants and soils store carbon. The problem is there is no way of evaluating whether green infrastructure projects really live up to their promises. How much carbon does a street tree actually sequester? And what's the greenhouse gas impact of growing seedlings in nurseries, assembling the raw materials for potting soil, and transporting mulch to where it needs to go? [Read more here.](#)

The first mangrove forest with full carbon calculation enters the carbon market

By Augusta Dwyer – Landscape News – May 17, 2021

For the first time since scientists recognized the carbon-sequestration power of mangroves, known as blue carbon, the carbon value of a mangrove ecosystem – a 11,000-hectare mangrove forest in Cispatá, Colombia – has been fully calculated. The new measurement accounts for not just the roots, trunk and foliage of the tree, as was previously done, but the even greater amounts of carbon stored in the sediment as well. [Read more here.](#)

Stanford researchers map how people in cities get a health boost from nature

EurekAlert! – May 10, 2021

Your local city park may be improving your health, according to a new paper led by Stanford University researchers. The research, published in *Proceedings of the National Academy of Sciences*, lays out how access to nature increases people's physical activity - and therefore overall health - in cities. Lack of physical activity in the U.S. results in \$117 billion a year in related health care costs and leads to 3.2 million deaths globally every year. It may seem like an intuitive connection, but the new research closes an important gap in understanding how building nature into cities can support overall human wellbeing. [Read more here.](#)

PODCASTS OF INTEREST

- American Rivers Podcast Series: We are Rivers: Conversations about the Rivers that Connect Us
- Circle of Blue Podcast: What's Up with Water
- Earth Wise: Beavers and Biodiversity
- Maine Environment: Frontline Voices Podcasts
- Prairie Rivers Network Podcast: Stories from the Floodplain
- Urban Rivers Podcast: Duwamish River Floating Wetlands

ENVIRONMENTAL EVENTS

- July 26 – World Mangrove Day
- 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: Sharon Weaver, ASWM

Calendar of Events

WEBINARS 2021

JULY 2021

July 21, 2021 12:30 p.m. EDT	Ecobot Webinar: Convergence of Wetland Science and Technology: Streamlining Environmental Reviews
July 23, 2021 12:00 p.m. EDT	Ecological Society of America Traditional Ecological Knowledge Section Webinar: Guidelines for the Use of Traditional Knowledges
July 28, 2021 1:00-2:00 p.m. EDT	Restore America's Estuaries Webinar: Celebrating Habitat Month: Restoration from Coast to Coast

AUGUST 2021

August 4, 2021 2:00 p.m.-4:00 p.m. EDT	First Nations Webinar: Tribal Stewardship in the Northern Great Plains - Part 1
August 5, 2021 2:30 p.m.-4:00 p.m. EDT	First Nations Webinar: Stewarding Native Lands: A Conservation Planning Guide for Native American Ranchers
August 4, 2021 2:00 p.m.-4:00 p.m. EDT	First Nations Webinar: Tribal Stewardship in the Northern Great Plains - Part 2
August 17, 2021 4:00 p.m. EDT	OpenChannels Webinar: Working towards a global plastic pollution treaty: Process and possibilities
August 18, 2021 3:00 p.m.-4:30 p.m. EDT	Association of State Wetland Managers Members' Webinar Series: Drones 3.0 – Considerations for On-the-Ground Drone Operators Working in Wetlands
August 20, 2021 12:00 p.m. EDT	Ecological Society of America Traditional Ecological Knowledge Section Webinar: Integrating Western Science into Indigenous Knowledge Processes

OCTOBER 2021

October 13, 2021 1:00 p.m. EDT	OpenChannels Webinar: Blueprint for Coastal Adaptation
October 13, 2021 4:00 p.m.	Northeast Climate Adaptation Science Center Webinar: Increasing the Resilience and Resistance of Climate-Vulnerable Species and Ecosystems
October 21, 2021 1:00 p.m.-2:30 p.m. EDT	Society of Wetland Scientist Webinar: Salt marsh adaptive management to sea level rise using runnels

MEETINGS 2021

JULY 2021

July 26-29, 2021
August 2-5, 2021
Virtual

[National Conference on Ecosystem Restoration](#)

July 28-30, 2021
Virtual

Climate Generation Conference: [Summer Institute for Climate Change Education: A Regrounding in Truth](#)

AUGUST 2021

August 1-4, 2021
Mobile, AL

[Alabama/Mississippi Water Joint Conference](#)

August 2-6, 2021
Virtual

Ecological Society of America (ESA) Annual Meeting: [Vital Connections in Ecology](#)

August 7, 2021
Pennington, NJ

The Watershed Institute: [Watershed Butterfly Festival](#)

August 8-11, 2021
Myrtle Beach, SC

SCAWWA/WEASC: [South Carolina Environmental Conference](#)

August 10-11, 2021
Virtual

[Tennessee River Basin Network Annual Meeting](#)

August 14-20, 2021
Virtual

[Canadian Society for Ecology and Evolution \(CSEE\) Annual Meeting](#)

August 16-19, 2021
Virtual

Institute for Tribal Environmental Professionals (ITEP) Conference: [Tribal Lands & Environmental Forum](#)

August 16-19, 2021
Nashville, TN

[NAFSMA 2021 Flood and Stormwater Management Conference](#)

August 18, 2021
Combine, TX

John Bunker Sands Wetland Center: [Wetland Plants Really Clean Up!](#)

August 25-27, 2021
St. Catharines, Ontario

[Great Lakes and St. Lawrence Cities Initiative Annual General Meeting](#)

August 29-September 1, 2021
St. Paul, MN

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

SEPTEMBER 2021

September 8-11, 2021
New Orleans, LA

[Ducks Unlimited 84th National Convention](#)

September 8-10, 2021
Virtual

[Association of Fish & Wildlife Agencies Annual Meeting](#)

September 12-14, 2021
Providence, RI

September 15-17, 2021
Perth, Western Australia

The Biodiversity Conference 2021: [Resilient Landscapes](#)

September 20-26, 2021 New York, NY	Climate Week NYC
September 22-24, 2021 Virtual	2021 AWRA Mid-Atlantic Conference: Water Resource Management Tools and Success Stories
September 27-30, 2021 Missoula, MT; Virtual	North American Invasive Species Management Association (NAISMA) Conference
September 29-30, 2021 Muskegon, MI	Michigan Department of Environment, Great Lakes, and Energy: Great Lakes Area of Concern Annual Conference
September 30-October 2, 2021 Estes Park, CO	7th Live Discovery – Doing Science Biology Education Conference
OCTOBER 2021	
October 1, 2021 Virtual	San Francisco Estuary Partnership: State of the San Francisco Estuary Conference
October 2, 2021 Pennington, NJ	The Watershed Institute: Watershed Fest
October 5-7, 2021 Virtual	Land Trust Alliance: Rally 2021: The National Land Conservation Conference
October 5-8, 2021 Virtual	Student Conference on Conservation Science
October 6-7, 2021 Virtual	Invasive Species Council of BC: 2021 Invasive Species Research Conference
October 6-10, 2021 New Orleans, LA	Deep South Center for Environmental Justice, Inc.: 8th Annual HBCU Climate Change Conference
October 10-15, 2021 Christchurch, New Zealand	Christchurch/ Ōtautahi INTECOL Wetlands Conference Organizing Committee: International Wetlands Hybrid Conference
October 12-14, 2021 Ann Arbor, MI	Great Lakes Commission Annual Meeting
October 12-15, 2021 Virtual	NAAEE 2021 Conference: The Power of Connection
October 15-17, 2021 Las Vegas, NV	Heartland Institute: 14th International Conference on Climate Change
October 19-20, 2021 Cape May, NJ	Restore America’s Estuaries Workshop: 2021 Living Shorelines Tech Transfer Workshop
October 25-29, 2021 Virtual	Anthropology and Conservation Virtual Conference
October 26-27, 2021 Fulton, MD	Center for Watershed Protection: Sustainable Watershed & Agriculture Symposium
October 26-27, 2021 Virtual	Northeast Climate Adaptation Science Center (NE CASC) Regional Science Symposium
October 27, 2021 Virtual	UC Davis Climate Adaptation Collaboration Symposium

NOVEMBER 2021

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

DECEMBER 2021

December 13-17, 2021 New Orleans, LA	AGU Fall Meeting: Science is Society Abstracts due by August 4, 2021
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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
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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
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Photo Credit: Matt Schweisberg,
Wetland Strategies and Solutions, LLC

TRAINING/WORKSHOPS 2021

AUGUST 2021

August 1-7, 2021 Steuben, ME	Eagle Hill Institute Seminar: Potamogetonaceae: Diversity and Ecology of the Pondweeds
August 2, 2021 Online - 16 Weeks	Swamp School Course: Certified Wetland Botanist
August 8, 2021 Framingham, MA	Massachusetts Association of Conservation Commissions Course: Climate Change and Plant Regeneration from Seed
August 8-14, 2021 Steuben, ME	Eagle Hill Institute Seminar: Native Bees: Biology, Ecology, Identification and Conservation
August 9-11, 2021 La Crosse, WI	University of Wisconsin La Crosse: Basic Wetland Delineation Training Workshop
August 9-12, 2021 Baton Rouge, LA	Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
August 9-13, 2021 Virtual	Institute for Tribal Environmental Professionals (ITEP) Course: Introduction to Climate Change Adaptation Planning for Tribes
August 9, 2021 16 Weeks	Swamp School Course: Functional Mitigation Design for Dam Removals
August 12-13, 2021 La Crosse, WI	University of Wisconsin La Crosse: Advanced Wetland Delineation Training Workshop
August 14, 2021 Online	University of Wisconsin – Milwaukee Field Station Workshop: Identifying Raptors in Fall Migration
August 17-18, 2021 Marysville, WA	Wetland Training Institute Course: Basic Wetland Delineation
August 18-19, 2021 Baton Rouge, LA	Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training
August 18-20, 2021 Online	Wetland Training Institute Course: Graminoids (Grasses, Sedges, Rushes) ID for Wetlands and Wetland Delineators
August 22-28, 2021 Steuben, ME	Eagle Hill Institute Seminar: Mosses in the Field: A New Approach to Moss Identification
August 23-26, 2021 Aliquippa, PA	Swamp School Course: Wetland Delineation Training



Photo Credit: Tom Douglas,
Bayou Preservation Association

SEPTEMBER 2021

September 6-7, 2021 Charleston, SC	Duncan & Duncan Wetland & Endangered Species Training: Identification of Grasses, Sedges, and Rushes
September 9, 2021 TBD	Massachusetts Association of Conservation Commissions (MACC) Course: Wetland Delineation for Beginners
September 9-10, 2021 Hilliard, OH	Midwest Biodiversity Institute Course: Ohio Rapid Assessment Method (ORAM) for Wetlands
September 11, 2021 Marion, MA	Massachusetts Association of Conservation Commissions (MACC) Workshop: Basic Wetland Delineation: Vegetation
September 13-14, 2021 San Diego, CA	Wetland Training Institute Course: Riparian Habitat Restoration for the Arid Southwest
September 13-16, 2021 Denver, CO	Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
September 15-16, 2021 Denver, CO	Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training
September 16, 2021 Framingham, MA	Native Plant Trust Course: Invasive Plants: Identification, Documentation, and Control
September 18, 2021 Marion, MA	Massachusetts Association of Conservation Commissions (MACC) Workshop: Basic Wetland Delineation (BVM): Soils
September 20-24, 2021 Online	Eagle Hill Institute Online Seminar: Identification of Common Grasses (Poaceae) Using Field Features
September 20-24, 2021 Portage, WI	Wetland Training Institute Course: Basic Wetland Delineation
September 22-23, 2021 Online	Rutgers Office of Continuing Professional Education Course: NJ Wetland Management for LSRPs
September 25, 2021 Marion, MA	Massachusetts Association of Conservation Commissions (MACC) Course: Basic Wetland Delineation: Vegetation
September 27-29, 2021 Online	Eagle Hill Institute Online Seminar: Identification of Common Carex (Sedges) Using Field Features

OCTOBER 2021

October 2, 2021 Marion, MA	Massachusetts Association of Conservation Commissions (MACC) Course: Basic Wetland Delineation: Soils
October 4-7, 2021 Richmond, VA	Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
October 4-7, 2021 Northern Virginia	Wetland Training Institute Course: Federal Wetland/Waters Regulatory Policy
October 6-7, 2021 Richmond, VA	Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training
October 18-21, 2021 San Diego, CA	Wetland Training Institute Course: Federal Wetland/Waters Regulatory Policy
October 19-22, 2021 Online	Rutgers Office of Continuing Professional Education Course: Wetland Construction: Principles, Planning, and Design

NOVEMBER 2021

November 3, 2021 Online	Wetland Training Institute Course: Demystifying Wetland and In-Water Permitting in Washington State
November 15-18, 2021 Columbus, OH	Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
November 17-18, 2021 Columbus, OH	Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training

DECEMBER 2021

December 13-16, 2021 Tampa, FL	Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
December 15-16, 2021 Tampa, FL	Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training

JANUARY 2022

January 9-14, 2022 Boston, MA	Boston University Course: Ecological Forecasting Applications are due August 15th, 2021
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Photo Credit: Sharon Weaver, ASWM

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- Water crisis reaches boiling point
- Fourth Circuit Weighs in On Rules for Clean Water Act's One-Year Deadline for State Water Quality Certifications for Federal Discharge Permits
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- White House throws support behind House bill aimed at tackling 'forever chemicals'
- Apply Now for 2021 Native Youth and Culture Fund Grants
- Western fires threaten Native American lands
- Nicole LeBoeuf named director of NOAA's National Ocean Service
- Predicting When the Next Bluff Will Fall
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- U.S. House backs higher spending levels for NSF and DOE science
- Climate lawsuits lag considerably behind state-of-the-art climate science
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- U.S. Fish and Wildlife Service Announces Proposed Change to Federal Duck Stamp Contest
- Military and Government Leaders Recruit Nature to Protect Shoreline

STATE AND TRIBAL NEWS

- AK: US to end large, old-growth timber sales in Alaska forest
- CO: US proposes removing Colorado River fish's endangered status
- Colorado River Indian Tribes: Tribe becomes key water player
- DE: DuPont, Chemours, Corteva to pay Delaware millions over damage from PFAS or 'forever chemicals'
- FL: 'We can't stop it!': Florida Keys soon to be swamped as climate crisis accelerates
- IN: Removal of wetland protections may harm Indiana frog populations
- LA: NASA studies Louisiana delta system; areas wetlands at stake
- LA: This Ambitious Project Aims to Rebuild Louisiana's Vanishing Coastal Wetlands
- MD: Push is on for 'green amendments' in four Bay state constitutions
- MD: A Cicada Postmortem: What We're Learning from Brood X
- MI: Efforts underway to help restore 200-acre, globally rare, forested wetland in Detroit
- MN: Line 3 opponents appeal to Minnesota Supreme Court
- NM: Once a Rich Desert River, the Gila Struggles to Keep Flowing
- Navajo Nation: Navajo Nation Sees Relief in Lawsuit Over Navigable Waters Definition
- NY: DEC Announces Lake Sturgeon Found Spawning in Genesee River, First in More Than 50 Years

- OH: USDA Seeking New Partnerships to Restore Wetlands
- Puyallup Tribe of Indians: Harvesting sacred cedar
- WI: After more than a century, Burnham Canal, one of Milwaukee's deadest of dead zones, is being revived as a wetland

WETLAND SCIENCE NEWS

- As Ghost Forests Spread, Researchers Ask for Help Keeping Track
- These cities have the most stifling heat islands in the United States
- June 2021 was the hottest June on record for U.S.
- The complex case of Chesapeake Bay restoration
- For 2nd year in a row, smaller summer dead zone predicted for Chesapeake Bay
- The wetlands' oldest stories are told by silt, sediment

RESOURCES/PUBLICATIONS

- Study: constructed wetlands are best protection for agricultural runoff
- GAO Report: EPA Needs to Better Assess and Disclose Quality of Compliance and Enforcement Data
- Rediscovering, Reevaluating, and Restoring Lost River-Wetland Corridors
- New model predicts spotted lanternfly egg hatching
- Tracing and building up environmental justice considerations in the urban ecosystem service literature: A systematic review

POTPOURRI

- Scientists say “moon wobble” will create extreme floods in 2030s
- Many Nations Receive Failing Scores on Climate Change and Health
- MIT Predicted in 1972 That Society Will Collapse This Century. New Research Shows We’re on Schedule.
- 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



Photo Credit: John Sullivan,
Friends of the La Crosse Marsh

CALENDAR OF EVENTS

WEBINARS

JULY 2021

- Ecobot Webinar: Convergence of Wetland Science and Technology: Streamlining Environmental Reviews
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- Ecological Society of America Traditional Ecological Knowledge Section Webinar: Integrating Western Science into Indigenous Knowledge Processes
- Northeast Climate Adaptation Science Center Webinar: Increasing the Resilience and Resistance of Climate-Vulnerable Species and Ecosystems

OCTOBER 2021

- OpenChannels Webinar: Blueprint for Coastal Adaptation
- Northeast Climate Adaptation Science Center Webinar: Increasing the Resilience and Resistance of Climate-Vulnerable Species and Ecosystems
- Society of Wetland Scientist Webinar: Salt marsh adaptive management to sea level rise using runnels



Photo Credit: Matt Schweisberg, Wetland Strategies and Solutions, LLC

MEETING

July 2021

- National Conference on Ecosystem Restoration
- Climate Generation Conference: Summer Institute for Climate Change Education: A Regrounding in Truth

August 2021

- Alabama/Mississippi Water Joint Conference
- Ecological Society of America (ESA) Annual Meeting: Vital Connections in Ecology
- The Watershed Institute: Watershed Butterfly Festival
- SCAWWA/WEASC: South Carolina Environmental Conference
- Tennessee River Basin Network Annual Meeting
- Canadian Society for Ecology and Evolution (CSEE) Annual Meeting
- Institute for Tribal Environmental Professionals (ITEP) Conference: Tribal Lands & Environmental Forum
- NAFSMA 2021 Flood and Stormwater Management Conference
- John Bunker Sands Wetland Center: Wetland Plants Really Clean Up!
- Great Lakes and St. Lawrence Cities Initiative Annual General Meeting
- Institute for Tribal Environmental Professionals (ITEP) Conference: National Tribal & Indigenous Climate Conference

September 2021

- Ducks Unlimited 84th 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
- Michigan Department of Environment, Great Lakes, and Energy: Great Lakes Area of Concern Annual Conference
- 7th Live Discovery – Doing Science Biology Education Conference

October 2021

- San Francisco Estuary Partnership: State of the San Francisco Estuary Conference
- The Watershed Institute: Watershed Fest
- Land Trust Alliance: Rally 2021: The National Land Conservation Conference
- Student Conference on Conservation Science
- Invasive Species Council of BC: 2021 Invasive Species Research Conference
- Deep South Center for Environmental Justice, Inc.: 8th Annual HBCU Climate Change Conference
- Christchurch/ Ōtautahi INTECOL Wetlands Conference Organizing Committee: International Wetlands Hybrid Conference
- Great Lakes Commission Annual Meeting
- NAAEE 2021 Conference: The Power of Connection
- Heartland Institute: 14th International Conference on Climate Change
- Restore America's Estuaries Workshop: 2021 Living Shorelines Tech Transfer Workshop
- Anthropology and Conservation Virtual Conference
- Center for Watershed Protection: Sustainable Watershed & Agriculture Symposium
- Northeast Climate Adaptation Science Center (NE CASC) Regional Science Symposium
- UC Davis Climate Adaptation Collaboration Symposium

November 2021

- Coastal Estuarine Research Federation (CERF) 2021 Conference
- The Wildlife Society's 28th Annual Conference
- UN Climate Change Conference
- American Water Resources Association: 2021 Annual Water Resources Conference

December 2021

- AGU Fall Meeting: Science is Society

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

August 2021

- Eagle Hill Institute Seminar: Potamogetonaceae: Diversity and Ecology of the Pondweeds
- Swamp School Course: Certified Wetland Botanist
- Massachusetts Association of Conservation Commissions Course: Climate Change and Plant Regeneration from Seed
- Eagle Hill Institute Seminar: Native Bees: Biology, Ecology, Identification and Conservation
- University of Wisconsin La Crosse: Basic Wetland Delineation Training Workshop
- Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
- Institute for Tribal Environmental Professionals (ITEP) Course: Introduction to Climate Change Adaptation Planning for Tribes
- Swamp School Course: Functional Mitigation Design for Dam Removals
- University of Wisconsin La Crosse: Advanced Wetland Delineation Training Workshop
- University of Wisconsin – Milwaukee Field Station Workshop: Identifying Raptors in Fall Migration
- Wetland Training Institute Course: Basic Wetland Delineation
- Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training
- Wetland Training Institute Course: Graminoids (Grasses, Sedges, Rushes) ID for Wetlands and Wetland Delineators
- Eagle Hill Institute Seminar: Mosses in the Field: A New Approach to Moss Identification
- Swamp School Course: Wetland Delineation Training

September 2021

- Duncan & Duncan Wetland & Endangered Species Training: Identification of Grasses, Sedges, and Rushes
- Massachusetts Association of Conservation Commissions (MACC) Course: Wetland Delineation for Beginners
- Midwest Biodiversity Institute Course: Ohio Rapid Assessment Method (ORAM) for Wetlands
- Massachusetts Association of Conservation Commissions (MACC) Workshop: Basic Wetland Delineation: Vegetation
- Wetland Training Institute Course: Riparian Habitat Restoration for the Arid Southwest
- Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
- Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training
- Native Plant Trust Course: Invasive Plants: Identification, Documentation, and Control
- Massachusetts Association of Conservation Commissions (MACC) Workshop: Basic Wetland Delineation (BVM): Soils
- Eagle Hill Institute Online Seminar: Identification of Common Grasses (Poaceae) Using Field Features
- Wetland Training Institute Course: Basic Wetland Delineation
- Rutgers Office of Continuing Professional Education Course: NJ Wetland Management for LSRPs
- Massachusetts Association of Conservation Commissions (MACC) Course: Basic Wetland Delineation: Vegetation
- Eagle Hill Institute Online Seminar: Identification of Common Carex (Sedges) Using Field Features

October 2021

- Massachusetts Association of Conservation Commissions (MACC) Course: Basic Wetland Delineation: Soils
- Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
- Wetland Training Institute Course: Federal Wetland/Waters Regulatory Policy
- Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training
- Wetland Training Institute Course: Federal Wetland/Waters Regulatory Policy
- Rutgers Office of Continuing Professional Education Course: Wetland Construction: Principles, Planning, and Design

November 2021

- Wetland Training Institute Course: Demystifying Wetland and In-Water Permitting in Washington State
- Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
- Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training

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

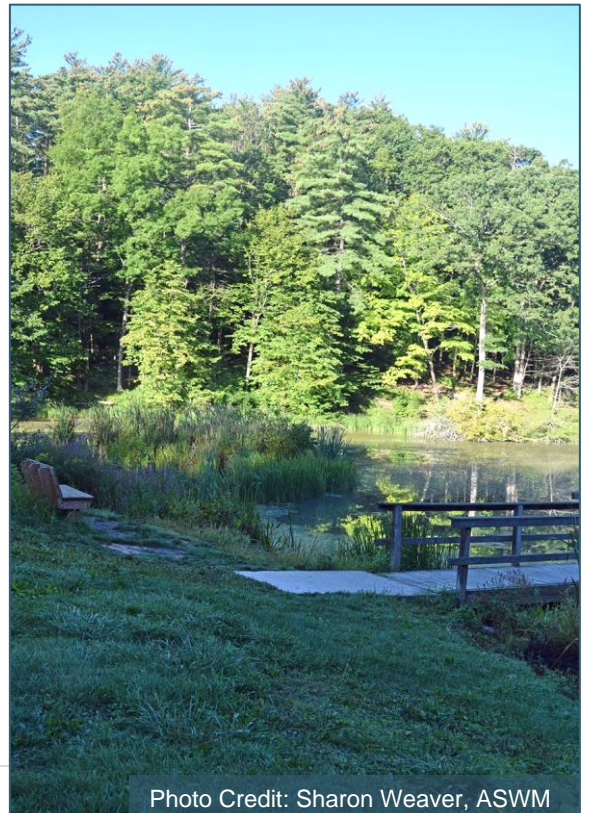


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The Association of State Wetland Managers' *Wetland News Digest* (WND) is a monthly compilation of wetland-related stories and announcements submitted by readers and gleaned from listservs, press releases and news sources from throughout the United 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>.

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Send your news items, events, comments, corrections, or suggestions to news@aswm.org



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