



WETLAND NEWS DIGEST

Monthly News Digest of the Association of State Wetland Managers

June 2021

Editor's Note

Dear Wetlanders,

I cannot believe it's already nearing the end of June – the first half of 2021 seemed to just fly by. But the official start of summer just kicked off with the summer solstice last weekend and temperatures are already experiencing extremes. In various regions across the U.S., folks are sweltering in temps soaring into the 100s. And many regions are experiencing drought, including Maine (where ASWM is headquartered). The West is particularly vulnerable to drought – in Editor's Choice this month you can read a story about how [Lake Mead's decline](#) portends an untenable future for the American southwest. We have also included a story about how important [wetland restoration](#) is for addressing the impacts from climate change (as well as biodiversity loss).

Things are heating up (literally and figuratively) in D.C. these days, with the recent notices by the Biden Administration regarding potential rollbacks and/or revisions to the U.S. Environmental Protection Agency's (EPA) 2020 definition of [Waters of the U.S.](#) and the 2020 Clean Water Act [Section 401](#) rule among several other federal agency actions being taken in response to Executive Order 13990.

We have several stories of interest for tribal nations as well, including one in the National News section on EPA's approval of the request by the [Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians](#) to assume responsibilities of the Clean Water Act's water quality standards and certification programs on reservation and trust lands.

If you have news stories to share, please consider sending them to us to include in future editions of Wetland News Digest by emailing them to news@aswm.org.

Best regards,

Marla J. Stelk

Editor, *Wetland News Digest*



Photo Credit: Devin Griffiths, The Wetlands Institute

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Editor's Choice

Join 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 Training Sessions
- And More!

Photo Credit: Dennis P. Vasey,
Marsh Paddlers

Leaders Urge Prioritization of Wetland Restoration to Fight Climate Change and Biodiversity Loss

Contact: Florencia Panizza – Society of Ecological Restoration – June 22, 2021

Top academics and NGO experts joined leaders from the UN Environment Program (UNEP) and the Convention on Biological Diversity (CBD) to highlight the vital importance of wetland restoration for addressing the dual planetary crises of climate change and biodiversity loss. “While it’s important to look at all ecosystems, wetlands are particularly important,” said Elizabeth Maruma Mrema, Executive Secretary of the United Nations Convention on Biological Diversity. “Particularly for the ecosystem functions and services they provide, such as recycling and moderation of water for freshwater ecosystems to thrive and as essential habitats for migratory species.” [Read more here.](#)

Lake Mead's decline points to scary water future in West

By Zack Budryk – The Hill – June 18, 2021

The Hoover Dam is seeing record-low water levels, a significant and scary development with major implications for water and climate in the entire American Southwest. Amid drought conditions, Lake Mead's level last week reached an all-time low of 1,071.56 feet above sea level, leaving it just 37 percent full. The body of water's level has been declining since 2000 and has fallen about 140 feet over the past two decades. It comes amid a drought in the Southwest that is the worst in two decades, according to a New York Times analysis. [Read more here.](#)

Biden pushes protection for more streams and wetlands, targeting a major Trump rollback

By Dino Grandoni – The Washington Post – June 9, 2021

The Biden administration is set to toss out President Donald Trump's efforts to scale back the number of streams, marshes and other wetlands that fall under federal protection, kicking off a legal and regulatory scuffle over the fate of wetlands and waterways around the country, from the arid West to the swampy South. [Read more here.](#)

NOAA Fisheries and U.S. Fish and Wildlife Service to Propose Regulatory Revisions to Endangered Species Act

NOAA – June 4, 2021

The U.S. Fish and Wildlife Service and NOAA Fisheries have released a plan to improve and strengthen implementation of the Endangered Species Act (ESA). The set of proposed actions follows [Executive Order 13990](#). The order directed all federal agencies to review and address agency actions during the last 4 years that conflict with Biden-Harris administration objectives, such as addressing climate change. “The U.S. Fish and Wildlife Service is committed to working with diverse federal, tribal, state and industry partners to not only protect and recover America’s imperiled wildlife but to ensure cornerstone laws like the Endangered Species Act are helping us meet 21st century challenges,” said Fish and Wildlife Service Principal Deputy Director Martha Williams. “We look forward to continuing these conservation collaborations and to ensuring our efforts are fully transparent and inclusive.” [Read more here](#).

EPA Announces Reconsideration and Potential Revision of the Clean Water Act Section 401 Final Rule

Lexology – June 2, 2021

On May 27, the Environmental Protection Agency (EPA) announced its intent to reconsider the Clean Water Act (CWA) Section 401 final rule issued by the Trump administration in June 2020 (Final Rule). Section 401 of the CWA provides a cooperative federalism framework where states and authorized Tribes can issue a water quality certification that places conditions on a proposed project or action requiring a federal permit. Under President Trump, EPA revised the regulations implementing Section 401, to among other reasons, create greater regulatory certainty in the process, reaffirm one year means one year or less as authorized by statute, address the scope of review by clarifying conditioning authority is focused on water quality effects of the discharge as opposed to the entire activity, and modernize the application process. [Read more here](#).

US proposes ending rule that weakened wild bird protections

By Matthew Brown – Associated Press – ABC News – May 6, 2021

Longstanding protections for wild birds would be restored under a proposal unveiled Thursday to bring back prosecutions of avian deaths by industry that were ended under former President [Donald Trump](#). The Interior Department announcement came as President [Joe Biden](#) has sought to dismantle a Trump policy that ended criminal enforcement against companies over bird deaths that could have been prevented. [Read more here](#).

EPA Announces \$6.5 Billion in New Funding for Water Infrastructure Projects

U.S. Environmental Protection Agency – April 27, 2021

Today, at an address to water associations, utilities, and their workers to mark Water Week, U.S. Environmental Protection Agency (EPA) Administrator Michael S. Regan announced the 2021 notice of funding availability under the agency’s Water Infrastructure Finance and Innovation Act (WIFIA) program and state infrastructure financing authority WIFIA (SWIFIA) program. These lending programs accelerate investment in critical water infrastructure through innovative and flexible financing that can support a wide range of projects in both large and small communities. [Read more here](#). EPA will accept letters of interest from prospective WIFIA borrowers until July 23, 2021. EPA will accept letters of interest from state water infrastructure programs until June 25, 2021. More information about the WIFIA and funding announcement [can be found here](#).

UPCOMING ASWM MEMBERS' WEBINAR SERIES

[Members Only Webinar](#)

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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

[**Register Here**](#)

[**More Information**](#)

Drones 3.0 – Considerations for On-the-Ground Drone Operators Working in Wetlands

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**](#)

A Certificate of Participation to be used toward Continuing Education Credits will be available for these webinars. Free Certificates of Participation are a benefit of [ASWM membership](#). Non-Members who request a certificate will be charged a processing fee of \$25.00. You will have up to 60 days to retrieve your certificate. Certificates are not available for viewing recorded webinars. [More Information](#) can be found [here](#).

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Luce Indigenous Knowledge Fellowship - 2022

First Nations Development Institute

In 2019, First Nations Development Institute ([First Nations](#)), in partnership with [The Henry Luce Foundation](#) (Luce) launched the **Luce Indigenous Knowledge Fellowship** to honor and support a select cohort of fellows as they work to further Indigenous knowledge creation, dissemination and perpetuation in Indigenous communities. Through this fellowship program, we will award 10 two-year fellowships of \$75,000 each to outstanding Native knowledge holders and knowledge makers engaged in meaningful work that benefits Indigenous people. This fellowship is intended to support the exceptional creativity, progressive and critical thinking, and the potential of Native knowledge holders and knowledge makers as they move forward their field in ways that will ultimately lead to broad, transformative impacts for Indigenous communities. [Read more here](#). Application deadline is July 13, 2021, by 5 pm MDT.

Biden taps ex-New Mexico lawmaker for USDA post

By Brett Samuels – The Hill – June 18, 2021

President Biden on Friday announced he plans to nominate former Rep. Xochitl Torres Small (D-N.M.) for a role in the Department of Agriculture (USDA) after she lost her reelection bid last November. If confirmed, Torres Small would serve as the undersecretary of rural development at the USDA. The White House touted her political organizing experience in rural New Mexico and her term representing the state's second congressional district, which includes large swaths of rural land. [Read more here](#).

NOAA gets first Senate-confirmed administrator since 2017

By Rachel Frazin – The Hill – June 17, 2021

The National Oceanic and Atmospheric Administration (NOAA) on Thursday got a Senate-confirmed leader for the first time since 2017. The Senate approved Richard Spinrad's nomination to lead the oceans and weather agency by a voice vote, signaling that his nomination was noncontroversial. In addition to leading NOAA, Spinrad will also serve as the Commerce Department's undersecretary for oceans and atmosphere. A statement released by NOAA said that Spinrad's priorities will include developing products and services relating to climate change, creating a portfolio that will both improve sustainability and economic development, and creating a more diverse and inclusive workforce. [Read more here](#).

Photo Credit: Sharon Weaver,
ASWM

Senate confirms Radhika Fox to lead EPA's water office

By Zack Budryk – The Hill – June 16, 2021

The Senate voted 55-43 Wednesday to confirm [Radhika Fox](#) as head of the Environmental Protection Agency's (EPA) Office of Water. Senate Environment and Public Works Committee Chairman [Tom Carper](#) (D-Del.), in remarks on the Senate floor, praised Fox's record and highlighted the organizations endorsing her for the position. These include the U.S. Chamber of Commerce, the Family Farm Alliance and the U.S. Water Alliance, where she previously served as CEO. [Read more here.](#)

EPA Announces \$6 Million for Tribes to Support Wetlands and Healthy Watersheds

U.S. Environmental Protection Agency – June 11, 2021

Today, The U.S. Environmental Protection Agency (EPA) announced selections under two Clean Water Act (CWA) grant programs to support leadership of Tribes in protecting and restoring water resources. The agency anticipates awarding approximately \$3 million to 18 Tribal nations and one Intertribal organization under the Tribal Wetland Program Development Grant competition and an additional \$3 million in CWA Section 319 Tribal Competitive Grants to 32 Tribal nations to support projects to manage nonpoint source pollution. [Read more here.](#)

Rebuilding EPA through its climate programs

By David F. Coursen – The Hill – June 9, 2021

After surviving a barrage of assaults on its mission and the science that supports it, the Environmental Protection Agency (EPA) now faces the triple challenges of rebuilding its capacity to protect the nation's air, land and water; leading the urgent response to climate change that the science demands and delivering environmental justice to disadvantaged communities. [President Biden's](#) EPA budget request for fiscal 2022 takes a huge step toward meeting those challenges. [Read more here.](#)

How Returning Lands to Native Tribes Is Helping Protect Nature

By Jim Robbins – YaleEnvironment360 – June 3, 2021

In 1908 the U.S. government seized some 18,000 acres of land from the Confederated Salish and Kootenai Tribes to create the National Bison Range in the heart of their reservation in the mountain-ringed Mission Valley of western Montana. While the goal of protecting the remnants of America's once-plentiful bison was worthy, for the last century the federal facility has been a symbol to the tribes here of the injustices forced upon them by the government, and they have long fought to get the bison range returned. Last December their patience paid off: President Donald Trump signed legislation that began the process of returning the range to the Salish and Kootenai. [Read more here.](#)

EPA restoring state and tribal power to protect waterways

By The Associated Press – NBC News – May 28, 2021

In the latest [reversal](#) of a Trump-era policy, the Biden administration's Environmental Protection Agency is restoring a rule that grants states and Native American tribes authority to block pipelines and other [energy projects](#) that can pollute rivers, streams and other waterways. [Read more here.](#)

Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians receive EPA approval to administer Clean Water Act programs on reservation and trust lands

TheWorldLink.com – May 11, 2021

The U.S. Environmental Protection Agency has approved the request by the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians to assume responsibilities of the Clean Water Act's water quality standards and certification programs on reservation and trust lands. With this approval, the CTCLUSI will assume authority over all surface waters within the reservation and trust lands. Trust lands include lands located outside of the reservation that are held in trust by the United States for the CTCLUSI. The CTCLUSI reservation and trust lands collectively cover almost 15,000 acres of southwest Oregon. [Read more here.](#)

EPA Grantees Develop Tool to Help Water Resources Managers Make Stormwater Infrastructure Decisions

U.S. Environmental Protection Agency – May 18, 2021
Stormwater runoff is a major cause of water pollution in urban areas as it can carry trash, bacteria, heavy metals, and other pollutants from the urban landscape into nearby water bodies. Higher flows from heavy rains can also cause erosion and flooding in urban streams, damaging habitat, property, and infrastructure. Communities are facing decisions on how best to upgrade aging stormwater infrastructure and build new infrastructure to lessen the impacts of stormwater runoff. As communities make these decisions, they need tools to assess their options in order to determine the most cost-effective approach. [Read more here.](#)

Overview of Recent Nationwide Permit Program Changes

The National Law Review – May 7, 2021
On March 28, 2017, former President Donald Trump issued Executive Order 13783, "Promoting Energy Independence and Economic Growth." The Executive Order directed the U.S. Army Corps of Engineers ("Corps") to immediately review existing regulations that "potentially burden the development or use of domestically produced energy resources" such as Nationwide Permits ("NWP"). NWPs are general permits issued for categories of activities that have minimal individual and cumulative adverse environmental effects on the environment. The issuance and reissuance of NWPs normally occurs every five years. Most of the current NWPs are set to expire on March 18, 2022. However, in September of 2020, the Corps proposed to revise and reissue 12 NWPs, and create four new NWPs. [Read more here.](#)

Urban Wetlands Protection and Restoration Guide



Urban Wetlands Protection and Restoration Guide

A resource to support efforts to restore and protect urban wetlands for economic, ecological, and social benefits

By William Dooley and Marla Stelk – Association of State Wetland Managers – 2021

This guide, [*Urban Wetlands Protection and Restoration Guide: A resource to support efforts to restore and protect urban wetlands for economic, ecological, and social benefits*](#), summarizes the findings of a two-year project carried out by the Association of State Wetland Managers (ASWM) with assistance from a national interdisciplinary workgroup of experts to identify ways to enhance, protect, and restore wetlands within and surrounding urban areas to maximize economic, ecological, and social benefits for urban communities. This guide provides a road map for future efforts to improve policies, programs, and actions that restore and protect urban wetlands. While being of greatest use to individuals at the local government level who are just beginning to consider urban wetland management, information contained within will also benefit more advanced local planners and provide recommendations to state and federal agencies on how they can better support local wetland partners. [Download the guide here.](#)

UPCOMING ASWM HOT TOPICS WEBINARS

Risk Reduction for Mitigation Projects: Perspectives on Financial Assurances' Best Practices (Part 1)

Tuesday, July 13, 2021 – 3:00 p.m.-4:30 p.m. ET

Part 1 of 2: Letters of Credit & Escrow Accounts

Presenters:



Steve Moore
Vice President of
Finance, Westervelt
Ecological Services



Amelia Savage
Environmental
Attorney, Hopping
Green & Sams

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[More Information](#)

Risk Reduction for Mitigation Projects: Perspectives on Financial Assurances' Best Practices (Part 2)

Tuesday, July 27, 2021 – 3:00 p.m.- 4:30 p.m. ET

Part 2 of 2: Casualty Insurance & Surety Bonds

Presenters:

- **Alexander Dam**, Director, Surety & Performance Security, Aon
- **Chris Baker**, Principal, Conservation United
- **Robert Spoth**, President, Ecosystems Insurance

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[More Information](#)

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State and Tribal News



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Photo Credit: Dan Cary, Oregon
Department of State Lands

CA: Snakes by the Planes: Endangered San Francisco Species Found Thriving in Wetlands at SFO

San Francisco CBS – June 17, 2021

An undeveloped parcel of land owned by San Francisco International Airport is home to a thriving population of an endangered snake species, a recent study revealed, airport officials said Wednesday. The study, commissioned by the U.S. Geological Survey and the U.S. Fish and Wildlife Service, revealed that the 180-acre parcel of wetlands and uplands sustains some 1,300 San Francisco garter snakes — the largest concentration discovered to date. [Read more here.](#)

LA: Louisiana to spend \$1 billion on these coastal restoration, hurricane protection projects

By Mark Schleifstein – Noal.com – June 2, 2021

Louisiana will spend almost \$1 billion on coastal restoration and hurricane protection in the fiscal year that begins July 1, including 18 projects using dredged sediment to rebuild almost 14,000 acres of wetlands, marsh and ridge, Gov. John Bel Edwards said Wednesday. The money also will pay for another 109 miles of new or improved hurricane levees protecting coastal populations across the state, the start of construction on the new Houma Navigation Canal lock and completion of the Bayou Chene flood control structure, Edwards told the online State of the Coast conference. [Read more here.](#)

MN: The Line 3 pipeline protests are about much more than climate change

Alexandria Herr – Grist – June 9, 2021

Frank Bibeau remembers canoeing on the waters of northern Minnesota with his father on a late summer day in 1996. The sky and placid lake stretched to the horizon all around their red canoe, interrupted only by stalks of delicate grasses protruding through the lake's surface. Bibeau navigated with a long pole while his father, perched in front, rhythmically knocked grains from the stalks into the boat, harvesting wild rice. [Read more here.](#)



OH: Bill seeks to overturn protections for ephemeral streams; experts say water quality will suffer

By Beth Burger – The Columbus Dispatch – June 2, 2021

For decades, Ohio has had laws in place that protect ephemeral streams. These streams sometimes only flow after rain or snow melt. "While they are not like other streams that support fish habitat, ephemeral streams are important in our watersheds because they are located at the top of the watershed, and therefore can affect water quality downstream," said Ohio Environmental Protection Agency Director Laurie Stevenson during testimony at the Ohio House Agriculture and Conservation Committee. [House Bill 175](#), introduced by Rep. Brett Hudson Hillyer (R-Uhrichsville), would seek to remove protections from those streams. The bill mirrors standards put in place by the Trump administration, which removed similar protections at the federal level. [Read more here](#).

OR: Amid Historic Drought, a New Water War in the West

By Mike Baker – The New York Times – June 8, 2021

Through the marshlands along the Oregon-California border, the federal government a century ago carved a whole new landscape, draining lakes and channeling rivers to build a farming economy that now supplies alfalfa for dairy cows and potatoes for Frito-Lay chips. The drawdowns needed to cover the croplands and the impacts on local fish nearing extinction have long been a point of conflict at the Klamath Project, but this year's historic drought has heightened the stakes, with salmon dying en masse and Oregon's largest lake draining below critical thresholds for managing fish survival. Hoping to limit the carnage, federal officials have shut the gates that feed the project's sprawling irrigation system, telling farmers the water that has flowed every year since 1907 will not be available. [Read more here](#).

SEMINOLE TRIBE OF FLORIDA: As Floods Become More Frequent, Climate Change Threatens Seminole Tribe of Florida

By Valerie Vande Panne – Native News Online – June 2, 2021

Valholly Frank is 18 years old. She grew up in South Florida, spending her time between the Big Cypress Reservation, one of the six reservations of the Seminole Tribe of Florida, and Weston in Broward County. The rising tides of water, whether from a hurricane, storm surge or king tide, surround her and her community, from Miami to the reservation. She, like many in South Florida, have watched as poor planning and policy have layered more problems on top of climate change, including impending oil drilling, and brackish water and blue green algae where once the water was fresh. Native plants and animals are moving, with some, like the manatee, in the midst of a mass die-off as a result. When Frank was 15, she entered into a lawsuit, joining several other young people, ages 13 to 21, in suing Florida's political leaders over their lack of action on climate change. [Read more here](#).

WI: Wetlands That Mitigate Flooding in Northern Wisconsin at Risk Under Rule Change

By Katie Thoresen – WXPR – May 25, 2021

From fish and wildlife habitat to natural water purifiers, wetlands play a crucial role in human and environmental health. Last year, the Clean Water Rule was replaced by the Navigable Waters Protection Rule which modified the Waters of the United States definition in the Clean Waters Act. The rule change means that lakes, streams, some tributaries, and wetlands adjacent to those remain protected, but excludes other streams and isolated wetlands. It's a change the Wisconsin Nature Conservancy's Director of Science and Strategy Nick Miller says was not based on science. [Read more here](#).

ASWM RECENTLY RECORDED WEBINARS

Wetland Mapping Consortium Webinar



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Recording
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The Expanding Role of Automated Feature Extraction in Wetlands Mapping

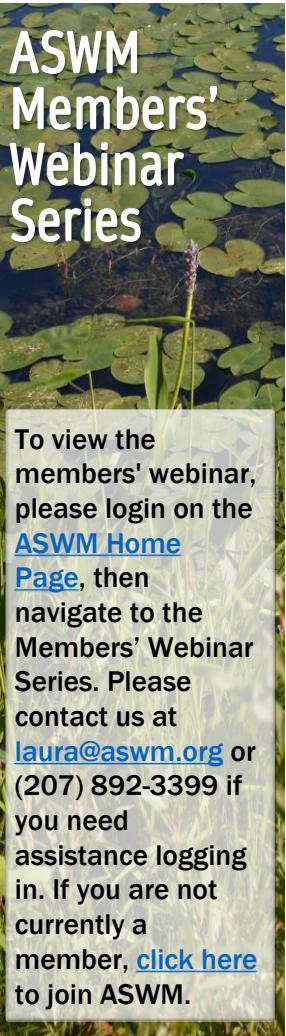
Held April 21, 2021

Presenter:



Sean MacFaden
University of Vermont Spatial Analysis Laboratory

ASWM Members' Webinar Series



To view the members' webinar, please login on the [ASWM Home Page](#), then navigate to the Members' Webinar Series. Please contact us at laura@aswm.org or (207) 892-3399 if you need assistance logging in. If you are not currently a member, [click here](#) to join ASWM.

Technology for Manual Delineation, Confirmation and Characterization of Wetlands: ESRI's Wetland Identification Model (WIM) and More

Held Wednesday, April 28, 2021

Presenters:



Gina O'Neil, Ph.D.
Technical Consultant
Esri



Jeremy Schewe, PWS,
Chief Scientific Officer
Ecobot



Kevin Benck
Geospatial
Services

Wetland Science News

Wetland Events

Wetland Walk
Ferguson Forest Preserve
Durand, IL
July 10, 2021

Wetlands Festival
Beaver Creek Wetlands Association
Beavercreek, OH
August 28, 2021

See Calendar of Events Below

Photo Credit: Emily Hirsch,
Whatcom Conservation District

This ecologist thinks coastal wetlands can outrun rising seas. Not everyone's convinced

By Gabriel Popkin – Science Magazine – June 17, 2021

Coastal scientist Matt Kirwan has a sense of what it's like to flee from rising seas. More than 100 years ago, Kirwan's great-great-grandfather owned a farm close to this sprawling wetland refuge near the Chesapeake Bay, a key annual migration stop for hundreds of thousands of geese, ducks, and other waterbirds. Joseph Josiah Robbins sold his homestead in 1909, family members say, after salty, brackish waters invaded his fields, stunting and killing his crops. Kirwan's ancestors were early climate refugees, he says, even if nobody called them that. "There are large tracts of farmland that were usable a generation ago but no longer are." [Read more here.](#)

A Swampy Home for Shoebills

NASA Earth Observatory – June 4, 2021

With [oversized bills](#), gangly legs, and shaggy neck feathers, there is [something vaguely cartoonish](#) about the African shoebill (*Balaeniceps rex*). For prey, however, there is little that is funny about these birds. The [dinosaur-like](#) shoebill is a wading bird that can stand motionless for hours before using its wide bill and explosive bursts to snap up lungfish, bichir, tilapia, eels, monitor lizards, and even baby crocodiles. The enormous birds—some standing up to 1.5 meters (5 feet) tall, with 2.5-meter wingspans—prefer to live near slow flowing and muddy freshwater full of vegetation. If decaying vegetation accumulates quickly on the bottom or temperatures change in unfavorable ways, water can quickly become depleted in oxygen. This forces prey to the surface to breathe, giving shoebills an opportunity to strike. On May 15, 2020, the [Operational Land Imager](#) (OLI) on [Landsat 8](#) captured this natural-color image of one such ecosystem in northern Zambia. The Bangweulu wetlands—which include a shallow lake, several rivers, and flooded grasslands and swamps—spread across a flat area about the size of Connecticut. [Read more here.](#)

What Killed the Eagles? EPA Researchers Help Solve 25+ Year Mystery

U.S. Environmental Protection Agency – June 1, 2021

For the past 27 years, scientists have struggled to understand the cause of unprecedented bald eagle deaths in the southeastern U.S. After decades of exhaustive efforts to pinpoint the cause, EPA researchers helped determine that the eagles contracted a neurological disease from ingesting a toxin produced by a species of cyanobacteria. [Read more here.](#)

Chesapeake Bay restoration stumbles in race to finish line

By Timothy B. Wheeler – Bay Journal – May 10, 2021

On a warm, sunny afternoon in June 2014, state, federal and local officials leading the long-running struggle to restore the Chesapeake Bay gathered in Annapolis and pledged themselves anew to bringing back the ailing estuary's ecological health. The new *Chesapeake Bay Watershed Agreement* signed that day laid out 10 broad goals and 31 outcomes, many to be achieved by 2025 or even earlier. The fourth Bay restoration pact inked in a little more than three decades, it contained fewer specifics than the last one signed in 2000, which had failed to fulfill many of its goals. [Read more here.](#)

Climate Change Brings Changes to Coastal Wetlands' Carbon Absorption

By Sophie Schmidt – NPR – May 8, 2021

Coastal wetlands are considered key for fighting climate change. Their plants absorb carbon and store it in soil even faster than forests do. But research at a salt marsh in Delaware raises questions about just how effective those tidal wetlands are at soaking up carbon and if that's changing as the climate warms. [Read more here.](#)

New study explores functionality in aquatic ecosystems

Contact: Prof. Dr. Stefan Peiffer – EurekAlert! – May 7, 2021

The functions of water-dominated ecosystems can be considerably influenced and changed by hydrological fluctuation. The varying states of redox-active substances are of crucial importance here. Researchers at the University of Bayreuth have discovered this, in cooperation with partners from the Universities of Tübingen and Bristol and the Helmholtz Centre for Environmental Research, Halle-Leipzig. They present their discovery in the journal *Nature Geoscience*. The new study enables a more precise understanding of the biogeochemical processes that contribute to the degradation of pollutants and the reduction of greenhouse gas emissions. [Read more here.](#)

ASWM Comments on Regulations Governing Take of Migratory Birds

On May 28, 2021, ASWM submitted comments to the Federal Register in response to the May 7, 2021, Federal Register notice of proposed rulemaking for “Migratory Bird Permits; Regulations Governing Take of Migratory Birds” (Docket ID No. FWS-HQ-MB-2018-0090). ASWM strongly supports the proposed rule to revoke the January 7, 2021, final rule that defined the scope of the Migratory Bird Treaty Act (MBTA) to not prohibit incidental take. [The full comment letter can be read here.](#)



ENVIRONMENTAL CALENDAR OF EVENTS

June 22 – World Rainforest Day

June 29 – International Day of the Tropics

World Mangrove Day – July 26

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: Matt Schweisberg, Wetland Strategies and Solutions, LLC



ASWM Wishes all our Wetlander Friends a
Safe, Healthy and Happy Summer!

Photo Credit: Dennis P. Vasey, Marsh Paddlers

Resources and Publications

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Photo Credit: Sharon Weaver,
ASWM

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.](#)

Oregon water report shows stress on communities of color

By Victoria Sanchez – Mirage News – June 9, 2021
A changing climate, aging infrastructure and lack of sustained investment have resulted in stress on Oregon's water systems, with communities of color disproportionately affected, according to a recent report by the Oregon Water Futures Project. The report's lead author is [Alaí Reyes-Santos](#), associate professor of Indigenous, race and ethnic studies at the UO. The report includes interviews from more than 100 individuals across eight different counties in Oregon throughout 2020, including those in partnership with the [NAACP Eugene/Springfield](#) and [Coalition of Communities of Color](#), and [Verde](#). [Read more here.](#)

USGS Releases Nationwide Marsh Vulnerability Maps

Hydro International – May 27, 2021
U.S. Geological Survey scientists have developed and made available a new mapping resource that can identify the most vulnerable marshes across the contiguous U.S. through a combination of remote-sensing and satellite technologies. These maps provide critical information to land managers and help inform marsh conservation and restoration strategies without costly site-specific or labour-intensive assessments. [Read more here.](#)



ASWM'S WETLAND JOBS BOARD

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Alaska Climate Adaptation Science Center
Application deadlines are rolling.

Visiting Scientific Specialist, Wetlands Geology

University of Illinois at Urbana-Champaign
Apply by July 13, 2021

Wetlands Project Manager - 2 openings

Indiana Department of Environmental Management
Indianapolis, IN

[Req. ID: 224286](#) and [Req. ID: 224381](#)

Apply by June 30, 2021

Wetland Mitigation Supervisor

Minnesota Board of Water and Soil Resources
St. Paul, MN

Apply by June 29, 2021

Post-Doctoral Fellow - Freshwater Ecosystems

Department of Biology, University of North Carolina at Greensboro

The preferred start date is July 1, 2021, but negotiable.

Water Program Specialist

Pennsylvania Department of Environmental Protection

Harrisburg, PA

Apply by June 24, 2021

Environmental Senior (Nonpoint Source) Management Coordinator

Washington Department of Ecology
Union Gap, WA

Apply by July 2, 2021

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

Photo Credit: Dennis P. Vasey, Marsh Paddlers

GRANT OPPORTUNITIES

U.S. Environmental Protection Agency, Region 4:

Wetland Program Development Grants

No.: EPA-REG4-WPDG-21-01

Apply by July 2, 2021

Cooperative Agreement for CESU-affiliated Partner with Great Rivers Cooperative Ecosystem Studies Unit

U.S. Geological Survey

No.: G21AS00524

Apply by July 8, 2021 (Search G21AS00551)

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

USDA Natural Resources Conservation Service

No.: USDA-NRCS-NHQ-WMBP-21-NOFO0001116

Apply by August 16, 2021



Photo Credit: Laura Vrabel, SCI Engineering, Inc.

Potpourri

Donate
to
ASWM



Help
Support
Wetlands

Donate Here

Photo Credit: Dennis P. Vasey,
Marsh Paddlers

Freeing Oysters from a Parasite's Hold

By Karen Pinchin – Hakai Magazine – June 15, 2021

The dead oyster falls from the plastic mesh bag with the hollow clop of a horse hoof on pavement. Its shell gapes, innards rotted. About 100 or more oysters—some living, some dead—quickly follow, clattering like maracas onto the flattened bow of Joe Googoo's dark-green jon boat. Clad in a jacket with blaze-orange sleeves and a ball cap with a moose on it, Googoo pulls a knife from his belt holster in one smooth motion and taps oyster shells with its curved tip as he sorts through the mottled pile. Counting them one by one, he tosses lifeless shells aside and puts the living oysters back in the bag. [Read more here.](#)

The West Can End the Water Wars Now

By Emma Marris – The Atlantic – June 5, 2021

In my experience, out here in the West, people are, by and large, aggrieved. This is not entirely their fault. Federal and state governments have made lots of promises to people in the West, or to their parents or grandparents. Some people were promised that their land would not be taken, while other people were promised free land. Some were told that they could withdraw water from this or that lake or river every year until the end of time, others that their right to hunt or fish on their territory would never be infringed. [Read more here.](#)

Worsening droughts could increase arsenic exposure for some Americans

By Lauren Leffer – Popular Science – June 4, 2021

[More than half](#) of the continental US is currently experiencing some level of drought, and [about a quarter](#) is in severe drought or worse. In recent years, the western and southwestern US has been in a [seemingly](#) continual state of reduced rainfall and snowpack. Droughts have many well-known, potentially catastrophic consequences, from [crop failures](#) to [water shortages](#) to [wildfires](#). Yet they can also have more [direct human health impacts](#) by not only affecting how much water there is, but also the quality of that water. Recent research from the US Geological Survey (USGS) suggests that droughts, particularly the prolonged kind happening in parts of the US, could increase the risk of harmful arsenic exposure for people that rely on well water. [Read more here.](#)

Vast Ghost Forests Caused by Sea Level Rise Are Visible from Space

By Andrea D. Steffen – Intelligent Living – June 2, 2021

There is [evidence of forest die-off everywhere](#) throughout coastal North Carolina. Nearly every roadside ditch is lined with dead or dying trees. [Ecologist Emily Ury](#) and other North Carolina State University and Duke University researchers have been studying wetland response to [sea-level rise](#) there since 2004. She said the trees are dying because of flooding, which is evidence that [climate change](#) dramatically alters landscapes along the Atlantic coast. [Read more here.](#)

The fish and bird species at risk from Australia's failure to manage wetlands

By Peter Hannam – The Sydney Morning Herald – May 31, 2021

Australia risks breaching its international commitments to preserve critical wetlands, with many fish and bird species facing extinction, new research shows. Peer-reviewed papers by researchers at the Australian National University have identified critical problems in how state and federal governments have met obligations laid out in the Ramsar Convention, a global pact to protect wetlands. [Read more here.](#)

The Pandemic Exposed the Severe Water Insecurity Faced by Southwestern Tribes

By Judy Fahys – InsideClimate News – KUNC – April 29, 2021

While the world watched in horror as refrigerator trailers collected the bodies of COVID-19 victims in New York City, the suffering of Native American people was almost invisible. The Navajo Nation was enduring an infection rate 21% higher than New York during the same time period. And the White Mountain Apache tribe on the New Mexico-Arizona border was grappling with infection rates almost twice as high as the national average. A key factor driving these staggering infection numbers, according to a new report, was the limited access to water that as many as half of the Native Americans on reservations face. [Read more here.](#)

Wetland Podcasts

- NOAA Ocean Podcast: [Bringing Wetlands to Market](#)
- Ducks Unlimited Podcast: [Recent Rains Lift Prairie Wetlands in Canada](#). Full list can be found [here](#).
- NEIWPC Podcast: [Wetlands Watchers Podcast Series](#)
- Passport to Texas: [Aquarena Center Wetlands Walk Podcast](#)

Eagle Hill Institute 2021 Seminars

☆☆ **ASWM Members receive a 20% discount on tuition and accommodations.** ☆☆

WEEK-LONG SEMINARS

Wetland Identification, Delineation, and Ecology

July 11-17, 2021

Instructors: Rick Van DePoll and Joe Homer

Grasses: Learning to Identify Tribes to Better Identify Genera and Species

July 11-17, 2021

Instructor: Dennis Magee

ONLINE SEMINARS

Identification of Common Grasses (Poaceae) Using Field Features

September 20-24

Instructor: Robert Lichvar

Identification of Common Carex (Sedges) Using Field Features

September 27-29

Instructor: Robert Lichvar

See [Calendar](#) below or visit the [Eagle Hill Institute](#) website for more information on additional Seminars and registration.

When registering, please mention you are an ASWM Member.

☆☆ [Join ASWM or Renew your Membership Here](#) ☆☆



Calendar of Events

WEBINARS 2021

JUNE 2021

June 24, 2021
11:00 a.m.-12:00 p.m. EDT

Interagency Ecological Restoration Quality Committee Webinar: [Construction, Monitoring & Adaptive Management of Select USACE Restoration Projects w/ Update on Ft. Sheridan Shallow Water Reefs](#)

June 29, 2021
1:00 p.m.-2:00 p.m. EDT

Delaware Living Shorelines Committee Webinar: [Restore America's Estuaries Coastal Restoration Toolkit](#)

June 30, 2021
2:00 p.m.-3:00 p.m. EDT

U.S. Environmental Protection Agency Webinar: [Road Salts and Freshwater Salinization Syndrome: An Emerging Water Quality Threat](#)

June 30, 2021
3:00 p.m.-5:00 p.m. EDT

Association of State Wetland Managers Members' Webinar Series: [State Tools to Support Mitigation Banking: New Concepts, Considerations, and Implementation](#)



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

JULY 2021

July 13, 2021
3:00 p.m.-4:30 p.m.

Association of State Wetland Managers Hot Topics Webinar: [Risk Reduction for Mitigation Projects: Perspectives on Financial Assurances' Best Practices \(Part 1\)](#)

July 27, 2021
3:00 p.m.-4:30 p.m.

Association of State Wetland Managers Hot Topics Webinar: [Risk Reduction for Mitigation Projects: Perspectives on Financial Assurances' Best Practices \(Part 2\)](#)

AUGUST 2021

August 17, 2021
4:00 p.m. EDT

OpenChangels 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](#)

OCTOBER 2021

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

JUNE 2021

June 23-24, 2021
Virtual

[Eastern Lake Ontario Invasive Species Symposium](#)

June 28-July 1, 2021
Virtual

[Mid-Atlantic Climate Change Education Conference](#)

JULY 2021

July 19-21, 2021
Virtual

AWRA 2021 Virtual Summer Conference: [Connecting Land & Water for Healthy Communities](#)

July 19-23, 2021
Raleigh, NC

National Mitigation & Ecosystem Banking Conference: [Connecting Policy, Practice, Business, Science & People](#)

July 28-30, 2021
Virtual

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

AUGUST 2021

August 2-6, 2021
Virtual

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

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 25-27, 2021
St. Catharines, Ontario

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

August 28, 2021
Beavercreek, OH

Beaver Creek Wetlands Association: [Wetlands Festival](#)

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

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

SEPTEMBER 2021

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 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 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 Abstract Deadline: June 30, 2021
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 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 8-11, 2021 Kissimmee, FL	American Water Resources Association: 2021 Annual Water Resources Conference



Photo Credit: Paul Anderson, University of Washington

TRAINING/WORKSHOPS 2021

JUNE 2021

June 29 and July 1, 2021 Online	Forester University Course: Stream Restoration: Stream Classification and Geometric Determinations
June 30-July 16, 2021 Online/In-Person Saukville, WI	University of Wisconsin – Milwaukee Field Station Workshop: Fishes of Wisconsin ; one-day, in-person session on July 16 or July 17, 2021

JULY 2021

July 6, 2021 Charleston, SC	Duncan & Duncan Wetland & Endangered Species Training: Wetland Delineation Reboot . Also offered October 18, 2021
July 10-17, 2021 Steuben, ME	Eagle Hill Institute Seminar: Wetland Identification, Delineation, and Ecology
July 11-17, 2021 Steuben, ME	Eagle Hill Institute Seminar: Grasses of the Greater Northeast: Identification and Ecology
July 12-13, 2021 Virtual and Hilliard, OH	Midwest Biodiversity Institute Course: Qualitative Habitat Evaluation Index (QHEI)
July 12-15, 2021 Nashville, TN	Richard Chinn Environmental Training, Inc. Course: Wetland Delineation Training
July 12, 2021 Online - 16 Weeks	Swamp School Course: Certified Wetland Botanist
July 12, 2021 16 Weeks	Swamp School Course: Wetland Basic Delineation Training Other dates available
July 12, 2021 16 Weeks	Swamp School Course: Certified Hydric Soils Investigator
July 14-15, 2021 Nashville, TN	Richard Chinn Environmental Training, Inc. Course: Regional Supplement Wetland Delineation Training
July 14-15, 2021 Laramie, WY	Wetland Training Institute Course: Basic Wetland Delineation Refresher
July 17, 2021 Whately, MA	Native Plant Trust Workshop: Aquatic Plant Identification and Biology
July 20-23, 2021 Portage, WI	Wetland Training Institute Course: Plant Identification for Wetland Delineators
July 21-August 4, 2021 Online/In-Person Saukville, WI	University of Wisconsin – Milwaukee Field Station Workshop: Plant-Insect Interactions ; one-day, in-person session on August 6 or August 7, 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

SEPTEMBER 2021

September 6-7, 2021 Charleston, SC	Duncan & Duncan Wetland & Endangered Species Training: Identification of Grasses, Sedges, and Rushes
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 27-29, 2021 Online	Eagle Hill Institute Online Seminar: Identification of Common Carex (Sedges) Using Field Features
OCTOBER 2021	
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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	
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- EPA Announces Reconsideration and Potential Revision of the Clean Water Act Section 401 Final Rule
- US proposes ending rule that weakened wild bird protections
- EPA Announces \$6.5 Billion in New Funding for Water Infrastructure Projects

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- Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians receive EPA approval to administer Clean Water Act programs on reservation and trust lands
- EPA Grantees Develop Tool to Help Water Resources Managers Make Stormwater Infrastructure Decisions
- Overview of Recent Nationwide Permit Program Changes

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- OR: Amid Historic Drought, a New Water War in the West
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- A Swampy Home for Shoebills
- What Killed the Eagles? EPA Researchers Help Solve 25+ Year Mystery
- Chesapeake Bay restoration stumbles in race to finish line
- Climate Change Brings Changes to Coastal Wetlands' Carbon Absorption
- New study explores functionality in aquatic ecosystems

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- Oregon water report shows stress on communities of color
- Ancient Maya Made Widespread Changes to Wetland Landscape
- USGS Releases Nationwide Marsh Vulnerability Maps

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- The West Can End the Water Wars Now
- Worsening droughts could increase arsenic exposure for some Americans
- Vast Ghost Forests Caused by Sea Level Rise Are Visible From Space
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- The Biodiversity Conference 2021: Resilient Landscapes
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- 7th Live Discovery – Doing Science Biology Education Conference

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December 2021

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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>.

"WETLAND NEWS DIGEST" Compiled by 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

