



# Wetland News Digest

## Editor's Note

I hope you all had an enjoyable holiday season and are rested and ready for the new year. There is certainly a lot happening news-wise that we are happy to share with you in the 1st edition of *Wetland News Digest* for 2023.

The catastrophic flooding and landslides occurring in California are yet another sobering reminder of how vulnerable we are to climate change. The California Geological Survey has reported 401 landslides since December 30th of 2022, killing at least 19 people. And although the rainfall amounts will certainly help alleviate drought conditions this summer (assuming there are systems in place to capture the excess floodwaters), that fact does little to help the individuals and communities who have lost everything over the past few weeks due to short-sighted historical land use decisions.

In Editor's Choice this month you will find a story about [Arizona's struggle with land development](#) pressures in an arid state that simply will not have the water resources needed to support new development. "Cumulative impacts" is a term used by many to describe the well known adage, "death by a thousand cuts". The same adage could be used to describe development that does not look to the future availability of sustainable clean water supplies to support it. We must consider the watershed's ability to support our needs long-term. A critical policy that can make or break our collective efforts to protect and restore our water resources is the definition of waters of the United States (WOTUS). You can read about the [new final rule](#) in our National News section.

I hope you enjoy this edition of *Wetland News Digest* – and if you're looking for a great wetlands meeting to attend this year, please consider joining us at our annual [State/Tribal/Federal Coordination Meeting](#) at the Arbor Day Foundation's Lied Lodge in Nebraska this May!

Best regards,

Marla Stelk, Editor, *Wetland News Digest*, NAWM

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# Editor's Choice



Photo Credit:  
Sharon Weaver, NAWM

## **Study suggests US freshwater fish highly contaminated with 'forever chemicals'**

By Sharon Udasin – The Hill – January 17, 2023

Eating just one serving of freshwater fish each year could have the same effect as drinking water heavily polluted with “forever chemicals” for an entire month, a new study finds. The equivalent monthlong amount of water would be contaminated at levels 2,400 times greater than what’s recommended by the Environmental Protection Agency’s (EPA) drinking water health advisories, according to the study, published Tuesday in Environmental Research. [Read more.](#)

## **Arizona report says development plans outstrip water resources**

By Julia Mueller – The Hill – January 12, 2023

Plans to develop the desert west of Phoenix outstrip the water available to the area, a newly released report from Arizona’s Department of Water Resources shows. Arizona Gov. Katie Hobbs (D) on Monday ordered the report to be released, saying “I do not understand, and do not in any way agree with, my predecessor choosing to keep this report from the public and from members of this legislature.” [Read more.](#)

## **'Shoulder to the wheel': EPA girds for 2023**

By Kevin Bogardus – E&E News Greenwire – January 12, 2023

EPA has a consequential year ahead as it advances far-reaching regulations and defends gains made during the Biden administration that now face empowered Republican lawmakers on Capitol Hill. Since coming to office, President Joe Biden has secured historic funding for the agency through his signature legislation, the Bipartisan Infrastructure Law and the Inflation Reduction Act. In 2023, EPA will manage billions of dollars under those measures while pushing forward on significant rules on climate change and water protection. [Read more.](#)

## **White House releases climate guidance for permitting**

By Kelsey Brugger – E&E News Greenwire – January 6, 2023

The White House issued a new policy directive Friday that aims to spur clean energy development and fulfill President Joe Biden’s pledge to strengthen the green economy. The greenhouse gas guidance directs federal planners to mitigate greenhouse gas emissions “to the greatest extent possible” when surveying the impacts of projects like highways, pipelines, transmissions, bridges and renewable energy ventures. The documents builds on an Obama-era edict that former President Donald Trump scrapped. [Read more.](#)





National Association of Wetland Managers

## Annual State/Tribal/Federal Coordination Meeting

Protecting and Restoring Wetlands for People and Wildlife

**May 2 - 4, 2023**

*\*Optional field trip on May 5th.*

**Arbor Day Farm's Lied Lodge  
Nebraska City, NE**



Image by Mariah Lundgren  
Platte Basin Timelapse

[www.nawm.org](http://www.nawm.org)

We invite you to join us for NAWM's Annual State/Tribal/Federal Coordination (STFC) Meeting, to be held at the Arbor Day Farm's Lied Lodge in Nebraska City, NE from Tuesday, May 2nd through Thursday, May 4th, 2023, with an optional field trip available on Friday, May 5th. The purpose of this annual meeting is to support state and tribal wetland program managers, and other wetland professionals as they respond to challenges in the coming year.

### **Draft Agenda**

### **Early Bird Registration is Now Open!**

**Deadline is March 3rd!**

### **Sponsor this Great Event!**

**Deadline is March 31st!**

### **Location/Lodging Information**

### **Things to do: Lied Lodge/Nebraska City**

### **Call for Abstracts**

**Submission Deadline:**

**February 17, 2023**

### **State and Tribal Scholarships**

**Submission Deadline:**

**February 17, 2023**

### **Jon A. Kusler Student**

### **Scholarship Award**

**Submission Deadline:**

**February 17, 2023**



**Visit the meeting  
website for more  
information.**

## Calling all Silent Auction and Raffle Enthusiasts!

As part of our fundraising goals for 2023, NAWM is hosting two events during our annual [State/Tribal/Federal Coordination Meeting](#):

- Silent Auction for in-person attendees
- Raffle for both in-person and virtual participants

Support NAWM by donating a silent auction or raffle item. You or your company will be recognized for your generosity! If you are looking for inspiration, we have suggested "Wish List" items below. You are also welcome to make a cash donation and we'll do the shopping for you!

Wish List:

- Gift Cards (nationally / regionally available)
- Membership to your favorite Association
- Art
- Memorabilia
- Learning Experiences
- Lied Lodge items (gift shop, spa, etc.)
- Themed gift basket
- New Electronics
- Hotel Accommodations
- Jewelry
- Specialty Items
- Wetland inspired items



Proceeds support future wetlanders and NAWM's ability to respond to time-sensitive issues as they arise. Thank you for your generosity!

For more information, contact: Dawn Smith at [dawn@nawm.org](mailto:dawn@nawm.org)



# National News

## **WOTUS Rule Finalized: What Does it Mean?**

JD Supra – January 18, 2023

Following decades of regulatory actions and lawsuits concerning the definition of “waters of the United States under the Clean Water Act, on December 30, 2022, the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps, together with EPA, the “Agencies”) announced the final “[Revised Definition of ‘Waters of the United States’](#)” rule (Final WOTUS Rule). The Final WOTUS Rule comes more than a year after the Biden Administration committed to re-establish the definition of WOTUS, with the goal of creating a “durable” definition takes into account “[Supreme Court decisions, the science, and the \[A\]gencies’ technical expertise.](#)” The Final WOTUS Rule will become effective sixty (60) days after it is published in the Federal Register. [Read more.](#)

## **EPA Releases Updated Legal Guidance on Identifying, Addressing Cumulative Impacts to Advance Environmental Justice, Equity**

U.S. Environmental Protection Agency – January 11, 2023

Today, the US Environmental Protection Agency announced the latest action to identify and address cumulative impacts from pollution and non-pollution sources. EPA’s Office of the General Counsel (OGC) released the [Cumulative Impacts Addendum to EPA Legal Tools to Advance Environmental Justice \(EJ Legal Tools\), available here](#). The Addendum is a first-ever collection of examples of the Agency’s legal authorities to identify and address cumulative impacts through a range of actions, including permitting, regulations, and grants, in order to consider the lived experience of communities overburdened by pollution and advance environmental justice. [Read more.](#)

## **Biden admin revisits sage grouse regs, teeing up fresh battles**

By Scott Streater – E&E News - GreenWire – January 11, 2023

The Bureau of Land Management is hoping the third time’s the charm on a federal blueprint designed to save the greater sage grouse and its dwindling sagebrush habitat. BLM is working to complete a revised management plan for the nearly 70 million acres of habitat the agency oversees across the West, first adopted in 2015 under the Obama administration and amended in 2019 by the Interior Department under former President Donald Trump. [Read more.](#)

## **Biden-Harris Administration Announces Availability of \$100 Million through Inflation Reduction Act for Environmental Justice Grants**

U.S. Environmental Protection Agency – January 10, 2023

Today, the U.S. Environmental Protection Agency (EPA) announced the availability of approximately \$100 million for projects that advance environmental justice in underserved and overburdened communities across the country. This funding, made possible through President Biden’s Inflation Reduction Act, marks the largest amount of environmental justice grant funding ever offered by the Agency. EPA has published two Requests for Applications for this funding through the Environmental Justice Collaborative Problem-Solving (EJCS) Cooperative Agreement Program and the Environmental Justice Government-to-Government (EJG2G) Program. [Read more.](#)

## Meet the new GOP chair of the House Science Committee

By Scott Waldman – E&E News - ClimateWire – January 10, 2023

The new Republican chair of the House Science Committee knows full well the dangers of climate change. That alone is a notable departure from much of today's Republican Party, as well as the last GOP lawmaker to hold the position, observers say. But what Rep. Frank Lucas (R-Okla.) does with that knowledge is another question. Though Lucas has spoken about the threat posed by more intense droughts and heat waves, he also has resisted calls to cut the use of fossil fuels, by far the biggest contributor to global warming. [Read more.](#)

## Congress Passes Audubon-backed Bill to Assess and Monitor Saltwater Lake Ecosystems in the West

Audubon – December 20, 2022

Last night, *Saline Lake Ecosystems in the Great Basin States Program Act* passed the Senate after passing the House last week. This Audubon-backed legislation will establish a scientific monitoring and assessment program to help save the Great Salt Lake and other saline lakes in the West. Rep. Blake Moore (R-UT), Rep. Jared Huffman (D-CA) and Sen Merkley (D-OR) and Sen. Romney (R-UT) led this bipartisan legislation. The bill now heads to the White House to be signed into law by President Biden. [Read more.](#)

## Stephen Samuels

*We're sorry to say that wetlands recently lost a true friend. Steve Samuels, who throughout his legal career fought to protect wetlands and other waters, passed away last weekend following an accident in his home. Before his retirement, Steve was for many years the Assistant Chief of the U.S. Department of Justice's Environmental Defense Section. Steve was the main architect at DOJ for defending Clean Water Act section 404 actions and protection of "waters of the United States," using his depth of knowledge and strategic skills to not only help influence court rulings about Clean Water Act protections but also to help EPA and the Army Corps develop a legally and scientifically defensible definition of "waters of the United States." Wetlands and the Clean Water Act weren't just a job for Steve ... he proudly pointed out that his car license plate was "CWA 404." Steve was a staunch ASWM/NAWM supporter, always willing to participate in a webinar or talk with our members about CWA nuances. NAWM's sympathies go out to Steve's wife Joanna and his family. He will be missed.*





# NAWM'S HOT TOPICS WEBINARS

## Advancing the Integration of Clean Water Act Programs with Natural Hazard Mitigation Planning & Implementation

Held Tuesday, January 17, 2023 - 3:00 p.m. - 4:00 p.m. EST



**Marla Stelk**  
National Association of  
Wetland Managers



**Ellie Flaherty**  
U.S. Environmental  
Protection Agency



**Jenna Moran**  
Association of State  
Floodplain Managers

[More Information](#)

[Recording Available Soon](#)

## Recommendations for Reducing Wetland Loss in Coastal Watersheds of the United States

Tuesday, January 31, 2023 - 3:00 p.m. - 4:30 p.m. EST



**Amanda Santoni**  
U.S. Environmental  
Protection Agency



**Jonathan Phinney**  
National Wetland  
Inventory



**Marla Stelk**  
National Association of  
Wetland Managers

[Register](#)

[More Information](#)

## NAWM'S MEMBERS' WEBINAR SERIES

### NOAA's New Mitigation Policy for Trust Resources

Wednesday, January 25, 2023 3:00 p.m.-4:30 p.m. EST



**Susan-Marie Stedman**

NOAA Fisheries, Office of Habitat Conservation David

**David Hirsh**

National Marine Fisheries Service, West Coast Region

[Register Now](#)

[More Information](#)

**Members'  
Only  
Webinar**

**Not a NAWM Member?**

**Join or Renew Today!**

## WETLAND MAPPING CONSORTIUM WEBINAR

### Mapping Wetland Probabilities: Tools, Models, and Applications

Wednesday, February 8, 2023 - 3:00 p.m.-4:30 p.m. EST



**Meghan Halabisky**

University of Washington  
Remote Sensing and  
Geospatial Analysis Lab



**Anthony Stewart**

PhD Student  
University of Washington



**Andy Robertson**

GeoSpatial Services at  
Saint Mary's University  
of Minnesota

[Register Now](#)

[More Information](#)



# TRIBAL WETLAND PROGRAMS WEBINARS

## Developing Your Tribal Wetland Program

Thursday, February 16, 2023 - 3:00 p.m.-4:30 p.m. EST



**Rick Gitar**  
Fond du Lac Reservation  
Office of Water Protection



**Blair Libby**  
Confederated Salish  
and Kootenai Tribes

[Register](#)

[More Information](#)



## Monitoring and Assessment Data Collection and Applications for Tribal Wetland Programs

Thursday, April 20, 2023 - 3:00 p.m.-4:30 p.m. EST

## Geospatial Mapping Tools and Techniques for Tribal Wetland Programs

Thursday, June 15, 2023 - 3:00 p.m.-4:30 p.m. EST

## Education and Outreach Efforts to Support Tribal Wetland Programs

Thursday, September 21, 2023 - 3:00 p.m.-4:30 p.m. EST

## Approaches to Sustainable Funding for Tribal Wetland Programs

Thursday, November 2, 2023 - 3:00 p.m.-4:30 p.m. EST

[More information and registration is available here.](#)

A Certificate of Attendance to be used toward Continuing Education Credits is available when participating in NAWM's live webinars. All NAWM members receive free Certificates of Attendance for webinars. 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.](#) Membership information can be [found here.](#)

# State and Tribal News

## **AK: Alaska Native group protects land coveted by Pebble Mine developers**

By Maxine Joselow – The Washington Post – December 22, 2022

An Alaska Native group on Thursday will announce that more than 44,000 acres of land near Bristol Bay, the site of the world's largest wild salmon fishery, are off limits to future development, according to details shared exclusively with The Climate 202. The move will make it harder for the developers of the proposed Pebble Mine to build a road across the land, posing another setback for the controversial gold and copper mine that the Environmental Protection Agency is already considering blocking. [Read more.](#)

## **CA: Ballona Wetlands Construction Projects Approved, Activists 'Outraged'**

By Rachel Barnes – Patch – December 29, 2022

The California Coastal Commission unanimously voted to approve two permits that would allow a tree-removal project and boring at the wetlands to proceed, and activists against the project said it felt like a "slap in the face." [Read more.](#)

## **Karuk Tribe: The Klamath River Restoration Project Is Working to Remove Dams and Help Local Tribes**

By Rayna Skiver – Green Matters – December 15, 2022

Klamath Tribes are set to receive \$500,000 in order to help with restoration projects along the Klamath River, according to a press release from the U.S. Department of Interior. The funds will focus on assessing and planning restoration activities for 5 miles of the Upper Williamson River. [Read more.](#)

## **FL: An appeals court is urged to hear a case involving water flows to the Apalachicola River**

By The News Service of Florida – WUSF Public Media – December 24, 2022

In the latest round of battles about the Apalachicola River, environmental groups are asking a federal appeals court to hear arguments in a challenge to U.S. Army Corps of Engineers decisions that affect water flowing into the Northwest Florida river. The National Wildlife Federation, the Florida Wildlife Federation and the Apalachicola Bay and River Keeper filed a 95-page brief this month at the 11th U.S. Circuit Court of Appeals as they seek to overturn a 2021 district-court decision backing the Army Corps. [Read more.](#)





## **IL: McHenry County Conservation District protects 49 acres with Illinois Clean Energy Community Foundation Grant**

McHenry County Conservation District – Daily Herald – January 4, 2023

The Clean Energy Community Foundation awarded McHenry County Conservation District a \$223,500 grant through their Natural Area Acquisition Grant Program for the protection of 40 acres in McHenry Township. The property, located south of Ringwood Road and east of Pioneer Road, includes an additional nine-acre land gift from the heirs of Ronald E. Heuer, for total land protection of 49 acres [Read more](#).

## **KS: The Keystone pipeline leaked in Kansas. What makes this spill so bad?**

By Jaclyn Diaz – NPR – December 17, 2022

It's been over a week since TC Energy announced its Keystone pipeline leaked into Mill Creek in Washington County, Kan. Nearly 600,000 gallons of oil spilled into the waterway as well as the land surrounding it. Environmental advocates say this is just the beginning of a cleanup that will likely take years. [Read more](#).

## **LA: Ten acres of litter removed from Burden wetland**

By Olivia McClure – LSU Ag Center – December 19, 2022

The LSU AgCenter Botanic Gardens at Burden and the Louisiana Stormwater Coalition finished the second phase of an Environmental Protection Agency-funded litter remediation and prevention program Dec. 14. The Osprey Initiative, the organization contracted to remove and study aquatic trash from a borrow pit and wetland at Burden Museum and Gardens, has now completed its tactical removal process that began in June 2022. The Osprey team removes the trash and then studies certain qualities of it, such as age, quantity, brands and type. [Read more](#).

## **MN: Pumping resumes at Canisteo mine pit near Bovey**

By John Myers – Duluth News Tribune – January 3, 2023

The Minnesota Department of Natural Resources has begun pumping water out of the Canisteo Mine Pit to reduce the water level and delay the water from overtopping the mine and spilling into this nearby city. The pumps will move up to 11,000 gallons of water per minute from the Canisteo pit into a nearby wetland that flows into Holman Lake, creating unsafe ice conditions on all three bodies of water. [Read more](#).

## **MN: Input sought for plan to control aquatic invasive plants on Brule River**

By Maria Lockwood – Superior Telegram – December 16, 2022

A management plan for aquatic invasive plants on the Brule River is under development, and the public is being asked to provide input. "The idea here is to develop a detailed plan that will make some recommendations to help guide future management of harmful invasive plants on the Brule," said Zach Stewart, natural resources specialist and aquatic invasive species coordinator for Douglas County. "I want the public to know they can get involved. I really value the input I get from stakeholders and members of the public." [Read more](#).

## **MN: Fire Chief talks wetland restoration**

By Josh McGovern – Southern Minn – December 15, 2022

At the Faribault River Bend Nature Center, Faribault Fire Chief and conservationist Dustin Dienst put on a presentation about his work restoring Minnesota wetlands to maintain waterfowl populations. Dienst grew up coming to the River Bend Nature Center and knows all about waterfowl hunting in the area. [Read more.](#)

## **MS: Our Views: Use the powerful tool of Mississippi River to rebuild wetlands**

Nola.com – January 3, 2023

After the Great Flood of 1927, and the subsequent construction of levee systems for protection of Louisiana from high water, it was recognized that restrictions on water flow affect the dispersal of sediments coming downstream in the Mississippi River. Now, almost a century on, that levee-blocked process is going to be refocused on preserving Louisiana's endangered coastal wetlands. [Read more.](#)

## **NH: Bigger buffer for wetlands on warrant for Enfield Town Meeting**

By Frances Mize – Valley News – January 12, 2023

A proposed zoning amendment to expand the buffer protecting prime wetlands from 50 feet to 100 feet will appear before Enfield voters at March's Town Meeting. The amendment is recommended unanimously by the Planning Board. New Hampshire mandated a statewide 100-foot wetland buffer until 2010, when it ceded the decision to local authorities. At that time, Enfield had a 50-foot buffer for wetlands but didn't act to expand the distance for its prime wetlands. The proposed zoning amendment would restore zoning to the state's initial requirements. [Read more.](#)

## **NY: EPA delays cleanup of Brooklyn's toxic Newtown Creek Superfund site until 2032**

By Nathan Kensinger – Gothamist – December 5, 2022

The Newtown Creek is one of the most polluted bodies of water in the nation, fouled by more than a century of sewage overflows, oil spills and industrial waste. The coastline of this 3.8-mile waterway, located along the border of Brooklyn and Queens, is lined with wastewater facilities, factories, warehouses and oil storage tanks. Coming up with a plan to clean this toxic estuary may now take five years longer than expected, according to a new timeline released by the Environmental Protection Agency. [Read more.](#)

## **OH: The Messed Up Truth About The Cuyahoga River Fires**

By Marina Manoukian – MSN – December 17, 2022

The Cuyahoga River runs through Cleveland, Ohio, in the Midwestern United States, but despite being a tributary of Lake Erie, the river used to have more in common with a burning building than a body of freshwater. And it wasn't until the 21st century that the river regained its status as a livable ecosystem. Since the mid-19th century, the Cuyahoga has caught fire at least 13 times. But it was never the river itself that was burning. Instead, it was all of the oil and industrial waste that was being dumped into the river by the factories operating nearby. [Read more.](#)

## **OH: Community weighs in on Doan Brook restoration project at Horseshoe Lake**

By Thomas Jewell – Cleveland.com – December 12, 2022

More than 100 people came to the Shaker Heights Public Library earlier this month to assist in designing new and reimagined parkland on the expanse of Horseshoe Lake and dam. The hands-on, interactive activity with the pre-design team provided a chance to learn more about the project. The gathering was part of the second round of community engagement regarding plans to remove the dam in 2024. [Read more.](#)

## **PA: Pennsylvania Department of Environmental Protection Approves Grants to Protect Lake Erie's Coastal Zone**

Erie News Now – December 21, 2022

The Pennsylvania Department of Environmental Protection (DEP) announced that seven projects received Coastal Zone Grants totaling more than \$280,077. The grants are aimed at protecting and restoring the Lake Erie Coastal Zone. The funding will be used toward projects that will benefit this critical habitat and ecosystem of Erie's Coastal Zone. [Read more.](#)

## **VA: National Heritage Area bill for Great Dismal Swamp wins Senate, House approval**

By Jeff Moore – Suffolk News-Herald – December 27, 2022

A bill initiating the process of designating the Great Dismal Swamp as a National Heritage Area only lacks the President's signature to become law. Both the U.S. House and Senate have now approved the legislation that directs the Secretary of the Interior to assess the suitability and feasibility of designating the Great Dismal Swamp and its associated sites as a National Heritage Area. [Read more.](#)

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# TRIBAL WETLAND PROGRAMS WEBINAR RECORDINGS

## A Path to Successful EPA Grant Applications for Your Tribal Wetland Program

Held December 8, 2022



**Myra Price**

U.S. Environmental  
Protection Agency



**Rebecca Dils**

U.S. Environmental  
Protection Agency



**Mike Jones**

Stockbridge-  
Munsee Community



**Rue Hewett  
Hoover**

Nez Perce Tribe

[View Recording](#)

## Protecting Waters and Wetlands in Indian Country: An Overview and Case Studies from EPA's New Tribal Wetland Program Guide

Held December 15, 2022



**Gretchen Goldman**

White House Office of Science  
and Technology Policy



**Kerryann Weaver**

U.S. Environmental  
Protection Agency



**Matt Baerwalde**

Snoqualmie Indian Tribe



**Tyler Orgon**

Red Lake Band of  
Chippewa Indians



**Linda Storm**

U.S. Environmental  
Protection Agency



**Kathleen**

**Kutschenreuter**  
U.S. Environmental  
Protection Agency

[View Recording](#)

# Wetland Science News

## **Scientists EEAGER-ly Track Beavers Across Western United States**

By Alka Tripathy-Lang – Eos – January 3, 2023

Beavers are among the world's most effective engineers. Members of this keystone species build dams and canals and, in so doing, create entire, multilayered wetland ecosystems. Beginning in the 1600s, however, the fur trade decimated North American beaver populations. Now, humans are starting to recognize that beavers, though still considered pests by some, benefit landscapes in myriad ways. For instance, beaver activity can reduce erosion, create habitat for other species, and maintain wetlands. [Read more.](#)

## **Scientists: Atmospheric carbon might turn lakes more acidic**

By John Flesher – PHYS.org – December 19, 2022

The Great Lakes have endured a lot in the past century, from supersized algae blobs to invasive mussels and bloodsucking sea lamprey that nearly wiped out fish populations. Now, another danger: They—and other big lakes around the world—might be getting more acidic, which could make them less hospitable for some fish and plants. [Read more.](#)

## **The real-world isn't static: Understanding how fluctuating stressors affect wetlands**

By Griffith University – PHYS.org – December 16, 2022

Griffith University research reveals that when combinations of human-caused stressors fluctuate, replicating more realistic environmental conditions, it vastly changes their impact on wetland habitats. Published in *Ecology Letters*, the study shows that when the level of stressors, like chemical pollution and reduced light conditions from sediment disturbance or algal blooms, change over time, as they would in real-world exposures, they caused more seagrass loss than when a stressor of the same intensity was constant over time. [Read more.](#)

## **Arctic Report Card 2022: The Arctic is getting rainier, and seasons are shifting, with broad disturbances for people, ecosystems and wildlife**

By Matthew L. Druckenmiller, Rick Thoman, and Twila Moon – The Conversation – December 13, 2022

In the Arctic, the freedom to travel, hunt and make day-to-day decisions is profoundly tied to cold and frozen conditions for much of the year. These conditions are rapidly changing as the Arctic warms. The Arctic is now seeing more rainfall when historically it would be snowing. Sea ice that once protected coastlines from erosion during fall storms is forming later. And thinner river and lake ice is making travel by snowmobile increasingly life-threatening. Ship traffic in the Arctic is also increasing, bringing new risks to fragile ecosystems, and the Greenland ice sheet is continuing to send freshwater and ice into the ocean, raising global sea level. [Read more.](#)

## **Tidal restoration to coastal wetlands reduces greenhouse emissions, study finds**

By Griffith University – PHYS.org – December 12, 2022

Restoring tidal flow to enclosed freshwater wetlands is key to reducing greenhouse gas emissions and helping reach Australia's carbon reduction targets a Griffith-led study found. Published in *Restoration Ecology*, the study compared the greenhouse gas emitted by impounded freshwater coastal wetlands with those from tidally connected mangrove and saltmarshes in the Queensland's Burdekin catchment. [Read more.](#)



# Support NAWM

## MEMBERSHIP

NAWM has a long history of blazing trails in advocating for sound wetland science and sensible water policy. By joining NAWM, your membership carries many benefits including our Members' Webinar Series, Federal Policy Tracker, opportunities for involvement on committees, and exclusive publications.



## DONATIONS

Your private donations directly support NAWM's (501(c)(3) nonprofit) ability to respond to time-sensitive issues as they arise and allow us to provide information, expert analysis, and recommendations regarding the impacts of potential policy and law on wetland protection programs and efforts. You may also opt to support the Jon A. Kusler Student Scholarship.



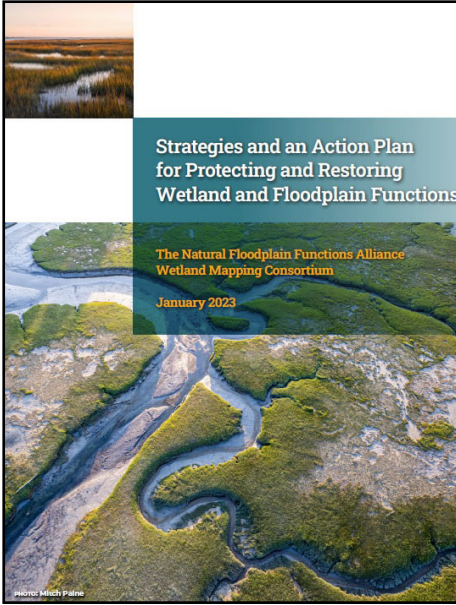
## SPONSORSHIP

Take advantage of one of NAWM's many sponsorship opportunities and reach thousands of engaged webinar audience members, publication readers, and attendees at our Annual State/Tribal/Federal Coordination Meeting.





# Resources and Publications



## **New Report Released: Strategies and an Action Plan for Protecting and Restoring Wetland and Floodplain Functions**

The Natural Floodplain Functions Alliance (NFFA) and the Wetland Mapping Consortium (WMC) are pleased to announce the release of their jointly developed report, *Strategies and an Action Plan for Protecting and Restoring Wetland and Floodplain Functions*. This report is the result of a multi-year initiative and a series of workshops that were developed to identify barriers to greater integration of wetland and floodplain management efforts and strategies for overcoming those barriers for nature-based solutions. The overall goal of the initiative was to support greater climate resiliency and, in turn, safer and healthier communities for all Americans. The report is organized based on four pillar topics that were identified during workshops

as being central to developing a path forward: policy, data, funding, and communication. The report documents workshop findings, policy recommendations, and suggested next steps. The loss of functioning floodplains is contributing to water-resources management challenges across the nation, including increased flooding and erosion, poor water quality, drought, and loss of biodiversity. Functioning floodplains are a necessary solution to address the climate change and biodiversity crises that we face today. The strategies and recommendations included in the report are intended to provide a launching pad to reignite federal leadership and support for a unified national program and action plan for protecting and restoring the natural and beneficial functions of wetlands and floodplains. [Download the report.](#)

## **State of the Coast: A Review of Coastal Management Policies for Six States**

By Rachel Karasik, Amy Pickle, Maggie O'Shea, et. al. – Nicholas Institute for Energy, Environment & Sustainability – January 3, 2023

This analysis of coastal habitat policy in six US states—California, Florida, Massachusetts, North Carolina, Texas, and Washington—aims to identify promising policy approaches for improved protection and restoration of oyster reefs, mangroves, salt marshes, and seagrass. . Coordinated policy responses across levels of government are required for protection and restoration of coastal habitats because they do not have discrete jurisdictional boundaries and are often harmed by distant anthropogenic activities. The analysis finds that state-level management is principally guided by federal coastal protection and management statutes, namely the Clean Water Act and Coastal Zone Management Act. State and federal policies are rarely habitat-specific and do not comprehensively address threats, which can result in a fragmented policy landscape that struggles to meet habitat protection and restoration goals. Dedicated funding for sustained, long-term monitoring to best understand the effects and outcomes of habitat protection and restoration policy efforts will also be critical to identify enabling conditions and replicate effective measures in similar contexts. The Pew Charitable Trusts supported the development of this report. [Download the report.](#)

## Help inform the National Nature Assessment

The first ever National Nature Assessment is in its early stages, and you have the opportunity to shape it! This new assessment, being led by the U.S. Global Change Research Program, aims to take stock of nature across the nation, synthesize what we know about how nature matters to people's lives and the economy, and explore how nature is likely to fare in the future. The Federal Steering Committee guiding the assessment wants to hear from you through this [request for information](#): What does nature mean to you? What decisions should this assessment support? What questions should it answer? How do we make this assessment as useful as possible? Responses are due by March 31, 2023.

In addition to taking virtual input through the link above, there will be two in-person collaboration sessions in Washington, DC.

**January 31, 2023, 3:00-5:00 pm ET in-person**, Smithsonian National Museum of Natural History, 10th St. and Constitution Ave NW, Washington DC

The event is free and open to the public, but registration is required and will be capped at 200 people. [Register here](#).

**Feb. 1, 2023, 10:00am - 12:00 pm ET in-person**, Reservoir Center for Water Solutions, 301 Water St SE, Washington, DC

The event is free and open to the public, but registration is required and will be capped at 150 people. [Register here](#).

## Celebrate World Wetlands Day!

World  
Wetlands Day

2 February 2023





# Potpourri

## Why has the Colorado River Delta in Mexico dried up?

By Kyle Dunphey – KSL.com – December 25, 2022

Manuel Machado Gerardo watched the mighty Colorado River Delta die perhaps more clearly than any man alive. The reality is grim at the end of the river. The population growth, government policies and climate change that have brought the Colorado to its knees are palpable. [Read more.](#)

## 11th Hour Racing awards grants to nonprofits for Ocean Ecosystem Restoration

By Ryan Belmore – What's Up Newp – December 20, 2022

11th Hour Racing, a non-profit organization dedicated to promoting ocean literacy and stewardship, has announced eight new grants, funded by The Schmidt Family Foundation, to nonprofit organizations in the U.S. and Puerto Rico. In total, the organization has awarded nearly \$4 million in grants to nonprofit organizations this year. These grants support initiatives that advance ocean literacy and stewardship, clean technologies and best practices, and ecosystem restoration. [Read more.](#)

## FUNDING OPPORTUNITIES

[Huyck Preserve Research Grants](#); Apply by February 17, 2023

[ERDC Broad Agency Announcement - Various Research and Development Topic Areas](#)

U.S. Army Corps of Engineers Research and Development Center

Apply by February 28, 2023; Search: W912HZ22BAA01

### Chesapeake Bay Trust

- [Pooled Monitoring Initiative's Restoration Research Award Program](#); Apply by January 26, 2023
- [Anne Arundel County Watershed Restoration](#); Apply by February 28, 2023
- [Nontidal Wetlands Awards Program](#); Apply by March 23, 2023

### NOAA

- [Effects of Sea Level Rise \(ESLR\) Technical Assistance](#); Apply by March 15, 2023

### U.S. Environmental Protection Agency

- [Fiscal Year \(FY\) 2023 Request for Applications from Indian Tribes and Intertribal Consortia for Nonpoint Source Management Grants Under Clean Water Act Section 319](#); Apply by February 14, 2023
- [2023 Request for Applications: Puget Sound Action Agenda — Climate Resilient Riparian Systems Lead](#); Apply by March 31, 2023



## NAWM Jobs Board

**GIS/Stewardship Specialist (Research Coordinator)**

**Eastpoint, FL; Apply by January 30, 2023**

**Restoration Technician**

**Easton, MD; Apply by February 15, 2023**

**Wetland Program Project Officer**

**Santa Fe, NM; Apply by February 5, 2023**

**Wetland Centre Student Internship**

**NW Alberta, Canada; Apply by February 5, 2023**

**Visit the NAWM Jobs Board**

## Wetland Photos

NAWM is always looking for new wetland photos. If you'd like to share your wetland views in our publications and social streams, [submit your photo\(s\) here](#).



Photo Credit: U.S. Fish and Wildlife Service

# Calendar of Events

## WEBINARS

### January

January 18, 2023 3:00 p.m. EST	U.S. Fish and Wildlife Service Webinar: <a href="#">Indigenous Connections Roundtable: Indigenous Science Discussion</a>
January 19, 2023 2:00 p.m. EST	Wetland Knowledge Exchange Webinar: <a href="#">No Longer Just the Swamp of Sadness: an insight into the value of forested wetland ecosystems (swamps) as natural climate solutions</a>
January 25, 2023 1:00 p.m. EST	Center for Watershed Protection Webinar: <a href="#">New Contaminants of Concern in our Nations Water</a>
January 25, 2023 3:00 p.m. EST	National Association of Wetland Managers Members' Webinar Series: <a href="#">NOAA's New Mitigation Policy for Trust Resources</a>
January 26, 2023 1:00 p.m. EST	Swamp School Webinar: <a href="#">2023 Wetland Status and Trends</a>
January 31, 2023 3:00 p.m. EST	National Association of Wetland Managers Hot Topics Webinar: <a href="#">Recommendations for Reducing Wetland Loss in Coastal Watersheds of the United States</a>

### February 2023

February 7, 2023 9:00 p.m. EST	King Conservation District: <a href="#">Streamside Restoration Webinar</a>
February 15, 2023 1:00 p.m. EST	Center for Watershed Protection Webinar: <a href="#">The Value of Biochar for Improved Soil &amp; Water Quality Health</a>
February 16, 2023 3:00 p.m. EST	National Association of Wetland Managers Tribal Wetland Programs Webinar: <a href="#">Developing Your Tribal Wetland Program</a>

### April 2023

April 20, 2023 3:00 p.m. EST	National Association of Wetland Managers Tribal Wetland Programs Webinar: <a href="#">Monitoring and Assessment Data Collection and Applications for Tribal Wetland Programs</a>
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<b>June 2023</b>	
June 15, 2023 3:00 p.m. EST	National Association of Wetland Managers Tribal Wetland Programs Webinar: <a href="#">Geospatial Mapping Tools and Techniques for Tribal Wetland Programs</a>
<b>September 2023</b>	
September 21, 2023 3:00 p.m. EST	National Association of Wetland Managers Tribal Wetland Programs Webinar: <a href="#">Education and Outreach Efforts to Support Tribal Wetland Programs</a>
<b>November 2023</b>	
November 2, 2023 3:00 p.m. EST	National Association of Wetland Managers Tribal Wetland Programs Webinar: <a href="#">Approaches to Sustainable Funding for Tribal Wetland Programs</a>
<b>CONFERENCES/EVENTS</b>	
<b>January 2023</b>	
January 28, 2023 Folkston, GA	St. Marys Riverkeeper: <a href="#">Paddle the Swamp 2023</a>
January 30-February 1, 2023 Atlantic City, NJ	Partnership for the Delaware Estuary: <a href="#">Delaware Estuary Science &amp; Environmental Summit 2023</a>
<b>February 2023</b>	
February 1, 2023 Fort Wayne, IN	Little River Wetlands Project: <a href="#">World Wetlands Day Trivia Night</a>
February 2, 2023	World Wetlands Day: <a href="#">Revive and restore degraded wetlands</a>
February 2-3, 2023 Virtual	<a href="#">The Stewardship Network Conference</a>
February 4, 2023 Online - 12:00 p.m.	Newport Bay Conservancy Online Symposium: <a href="#">World Wetlands Day 2023: Can We Place a Value on Nature?</a>
February 6, 2023 Rockton, IL	Natural Land Institute: <a href="#">Wander at the Wetland: Full Moon Snowshoe &amp; Hike 2023</a>
February 6-9 2023 Charleston, SC	Coastal GeoTools 2023 Conference: <a href="#">Linking People, Place, Information, and Technology</a>
February 6-10, 2023 Anchorage, AK	<a href="#">Alaska Forum on the Environment 2023</a>
February 7-9, 2023 Osage Beach, MO	Missouri Natural Resources Conference: <a href="#">New Frontiers on Old Landscapes</a>



February 11, 2023 Kilmarnock, VA	Friends of the Rappahannock: <a href="#">Hughlett Point Hke</a>
February 18, 2023 Christmas, FL	<a href="#">Orlando Wetlands Festival</a>
February 21-23, 2023 St. Louis, MO	Midwest Climate Collaborative: <a href="#">Midwest Climate Summit</a>
February 21-23, 2023 Stevens Point, WI	Wisconsin Wetlands Association: <a href="#">Wetland Science Conference</a>
<b>March 2023</b>	
March 1-3, 2023 Midland, MI	<a href="#">Michigan Stormwater-Floodplain Association Conference</a>
March 1-3, 2023 Austin, TX	<a href="#">Texas Land Trust Council Conservation Conference</a>
March 9, 2023 Berlin, CT	<a href="#">Connecticut Association of Wetland Scientists Annual Meeting</a>
March 21, 2023 Augusta, ME	Maine Association of Wetland Scientist: <a href="#">2023 Annual Meeting and Winter Conference</a>
March 25, 2023 Middletown, CT	<a href="#">Connecticut Land Conservation Council Conference</a>
<b>April 2023</b>	
April 12-13, 2023 Saratoga Springs, NY	NEIWPC Annual Nonpoint Source Conference: <a href="#">Environmental Justice, Equity &amp; Climate Change</a>
April 20-21, 2023 Vancouver, Canada	<a href="#">Fifteenth International Conference on Climate Change: Impacts &amp; Responses</a>
April 21-23, 2023 Burlington, VT	Eagle Hill Institute <a href="#">2023 Northeast Natural History Conference</a>
April 22, 2023	Earth Day 2023: <a href="#">Invest in Our Planet</a>
April 24-27, 2023 San Diego, CA	Center for Watershed Protection <a href="#">2023 National Watershed and Stormwater Conference</a>
April 24-28, 2023 Virginia Beach, VA	North American Lake Management Society: <a href="#">13th National Monitoring Conference: Working Together for Clean Water</a>

<b>May 2023</b>	
May 2-4, 2023 Field Trip: May 5, 2023 Nebraska City, NE	National Association of Wetland Managers: State/Tribal Federal Coordination Meeting: <a href="#">Protecting and Restoring Wetlands for People and Wildlife</a>
May 5-6, 2023 Thompsonville, MI	Michigan Lakes & Streams Association 62nd Annual Conference: <a href="#">Protecting and Restoring Michigan's Lakes and Streams</a>
May 7-11, 2023 Raleigh, NC	<a href="#">Association of State Floodplain Managers Conference</a>
May 8-11, 2023 Jacksonville, FL/Virtual	<a href="#">National Mitigation &amp; Environmental Markets Conference: Invest in the Environment</a>
May 10-12, 2023 Sandusky, OH	Ohio Stormwater Association <a href="#">2023 Ohio Stormwater Conference</a>
May 14-19, 2023 Bonita Springs, FL	University of Florida Conference: <a href="#">Species on the Move</a>
May 22-25, 2023 Winter Harbor, ME	Schoodic Institute <a href="#">2023 Spring Birds of Acadia, with Puffin Cruise</a>
May 31-June 3, 2023 Las Vegas, NV	<a href="#">Ducks Unlimited National Convention</a>
<b>June 2023</b>	
June 3-7, 2023 Brisbane, Australia	Society for Freshwater Sciences Annual Meeting: <a href="#">Freshwater Sciences 2023</a>
June 11-14, 2023 Tahoe City, CA	<a href="#">2023 CUAHSI Biennial Colloquium</a>
June 27-30, 2023 Spokane, WA	Society of Wetland Scientists Annual Meeting: <a href="#">Wetland adaptation from floodplains to ridgelines</a>
<b>July 2023</b>	
July 24-27, 2023 Seattle, WA	National Association of Flood and Stormwater Management Agencies (NAFSMA) <a href="#">45th Annual Meeting</a>
<b>August 2023</b>	
August 6-11, 2023 Portland, OR	<a href="#">2023 ESA Annual Meeting: For All Ecologists</a>

# TRAINING COURSES

## January 2023

January 23-26, 2023 San Diego, CA	Richard Chinn Environmental Training, Inc. Course: <a href="#">Wetland Delineation Training</a> . Other dates offered.
January 24, 26, 31, February 2, 2023 Virtual	National Wildlife Federation Workshop: <a href="#">Habitat Steward Training</a>
January 25-26, 2023 San Diego, CA	Richard Chinn Environmental Training, Inc. Course: <a href="#">Regional Supplement Wetland Delineation Training</a> . Other dates offered.

## February 2023

February 1-2, 2023 Online	Rutgers Office of Continuing Professional Education Course: <a href="#">Introduction to Wetland Identification</a>
February 8-9, 2023 Virtual 12:00 p.m.-5:00 p.m. EST	National Park Service Course: <a href="#">Interpreting Climate Change</a>
February 13, 14, 16, 17, 2023 Online	Rutgers Office of Continuing Professional Education Course: <a href="#">Wetland Construction: Principles, Planning, and Design</a>
February 16-17, 2023 Atlanta, GA - Piedmont	Duncan & Duncan West Course: <a href="#">Advanced Hydric Soils, Atypical Wetlands, and Hydrology</a> . Other dates offered.
February 22-24, 2023 Virtual	Northwest Environmental Training Center Course: <a href="#">Wetlands: Science and Regulatory Management</a> . Other dates offered.
February 27-March 2, 2023 San Diego, CA	Wetland Training Institute, Inc. Course: <a href="#">Federal Wetland / Waters Regulatory Policy</a>
February 27-March 2, 2023 E. Angier, NC	Swamp School Course: <a href="#">Standard Wetland Delineation Training</a> Other dates offered.

## March 2023

March 1, 2023 Online	University of Wisconsin La Crosse Course: <a href="#">Critical Methods in Wetland Delineation</a>
March 7, 2023 Virtual	University of Washington Botanic Gardens Course: <a href="#">Soaking It All In: Understanding Soil Water</a>



March 24-31, 2023 Portsmouth, NH	University of New Hampshire Course: <a href="#">Winter Plant Identification for Wetland Boundary Determination</a>
March 27-31, 2023 Atlanta, GA - Piedmont	Duncan & Duncan West Course: <a href="#">Basic Wetland Delineation</a> Other dates offered.
<b>April 2023</b>	
April 18-19, 2023 Virtual 2:00 p.m.-7:00 p.m. EDT	National Park Service Course: <a href="#">Interpreting Climate Change</a>
April 19-21, 2023 Folsom, CA	Wetland Training Institute, Inc. Course: <a href="#">Plant Identification for Central and/or Southern California</a>
<b>May 2023</b>	
May 8, 2023 San Diego, CA	Wetland Training Institute, Inc. Course: <a href="#">Beginners Plant ID for Wetland Delineation</a>



Photo Credit: U.S. Fish and Wildlife Service

# ***Wetland News Digest***

The National Association of 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

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 twenty years and NAWM 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 National Association of Wetland Managers. Send your news items, comments, corrections, or suggestions to [news@nawm.org](mailto:news@nawm.org).

## ***Compiled and Edited by:***

Marla Stelk, Executive Director, NAWM and  
Justin Farino, Administrative Assistant

## ***Assistant Editors:***

Laura Burchill, Office Manager  
Sharon Weaver, Webmaster  
Dawn Smith, Communications Specialist

## ***Contact Us:***

NAWM  
500 Washington Avenue, Suite 201  
Portland, ME 04103  
(207) 892-3399  
[laura@nawm.org](mailto:laura@nawm.org)



Photo Credit: U.S. Fish and Wildlife Service