



US Army Corps
of Engineers®

Stewardship

news

YOUR Thoughts

We are looking for contributors and ideas.

If you have a topic, success story, lesson learned, or helpful suggestion, let us know.

Send to: Tara.J.Whitsel@usace.army.mil

Stewardship News is an unofficial publication of the U.S. Army Corps of Engineers (USACE). This online publication is produced quarterly with the purpose of providing readers with information about the USACE Stewardship Program. Editorial views and opinions expressed are not necessarily those of the Department of the Army. Mention of specific vendors does not constitute endorsement by the Department of the Army or any element thereof.

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Your Stewardship HQ Update

Six USACE Lakes Selected for Bass Pro Grants

The National Fish Habitat Partnership (NFHP) announced that eight priority Reservoir Fish Habitat Partnership projects will receive funding through a \$500,000 grant received from the Bass Pro Shops Outdoor Fund. Six of those eight projects will occur at USACE lakes.

The eight selected projects will bring over \$483,743 in total match funding in support of the Bass Pro Shops grant, which will go directly to on-the-ground projects benefiting fish habitat and improving angling opportunities. The USACE Projects funded through this opportunity include:

- **DeGray Lake Fisheries Revegetation, Arkansas:** (Arkansas Game and Fish Commission, grant amount \$35,000 with \$75,000 in partner match funding.) The goal of this project is to support DeGray Lake fisheries by installing a combination of 60 artificial habitat structures and 1,000 containerized native aquatic plant pots that complements the fluctuating hydrology of the lake.

Article continued on page 2.

This issue is respectfully dedicated in memory of Mrs. Roseana Burick, our Environmental Stewardship Business Line and Program leader, our colleague, and our friend.



May we passionately carry out your vision for the stewardship of our nation's public lands and waters.



Spatial Data Standards for Nuisance and Invasive Species Data Collection

POC: Ben Silvernail, Benjamin.J.Silvernail@usace.army.mil

The Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) are a family of IT standards (models, specifications) that define a DoD-wide set of semantics intended to maximize interoperability of geospatial information and services for installation, environment, and civil works missions. The SDSFIE Gold data model for vector geospatial data consists of attributes to be included in all DoD component data models (Air Force, Army, Navy, Marine Corps, DISDI, and the Army Corps of Engineers). In FY23, the NRM technical support team worked with SDSFIE managers to update the Nuisance Species Standard.

The purpose of this standard is to ensure consistency when surveying and mapping the locations of invasive and noninvasive nuisance species that create negative impacts at USACE projects. The NRM technical support team enlisted the help of Motivf, a contractor, to field test the standard.

Left: Water hyacinth at the Willow Beach Camping Area. Photo provided by Cherrie-Lee Philips.



Article continued on page 2.

National Fish Habitat Partnership Continued



In Case You Missed It

USGS's INHABIT tool, an invasive species habitat suitability modeling tool, released an update in August of 2024. The update included a revised model, 40 new species, and two new map views!

Plus, INHABIT is now searchable by Corps project sites!

<https://gis.usgs.gov/inhabit/>

 [Click here for link!](https://gis.usgs.gov/inhabit/)

Reminder!

If your project master plan has been recently revised, please be sure to have a copy of the plan posted to the NRM Gateway Master Plan page.

<https://gateway.erdc.dren.mil/nrm/masterplans/mps.cfm>

 [Click here for link!](https://gateway.erdc.dren.mil/nrm/masterplans/mps.cfm)

Please email a PDF copy of the completed plan to
Tara.J.Whitsel@usace.army.mil

- **Enhancing Spawning Habitat at Lake Ouachita, Arkansas:** (USACE and Arkansas Game and Fish Commission, grant amount \$15,000 with \$26,980 in match funding.) This project funds construction of 45 gravel bream bed structures near Joplin Recreation area, enhancing spawning habitats to bolster the bream population and, subsequently, the populations of predator species such as largemouth bass and crappie in a 550-acre portion of the lake.
- **J. Strom Thurmond Lake—Aquatic Vegetation Habitat Establishment, South Carolina:** (USACE and GA B.A.S.S. Nation, grant amount \$10,044 with \$16,964 in match funding.) Project partners will establish emergent and submersed aquatic vegetation to provide long-term stabilization of soils and protective nursery/feeding areas for largemouth bass (*Micropterus salmoides*) and other species at twenty locations in J. Strom Thurmond Lake.
- **Truman Lake Habitat Project, Missouri:** (Missouri Dept. of Conservation, grant amount \$75,000 with \$112,016 in match funding.) The project involves deploying 400 natural fish habitat structures (i.e., primarily anchored cedar trees) throughout Truman Lake using a habitat barge. Cedar trees will be sourced from public land surrounding the lake, benefiting terrestrial habitat, and will be anchored with concrete blocks.
- **F.J. Sayers Lake Shoreline Enhancement Project, Pennsylvania:** (Northcentral Pennsylvania Conservancy, grant amount \$75,000 with \$80,000 in match funding.) Heavy machinery will construct 100 shoreline deflectors at the lake, which will stop future shoreline erosion. This project is also part of a volunteer scale effort that aims to construct over 300 short vertical plank structures, 180 catfish boxes, and 1,600 rock rubble humps.
- **Paintsville Lake Habitat Improvement Initiative, Kentucky:** (Anglers For Improving Opportunities, grant amount \$20,000 with \$28,493 in match funding.) Paintsville's essential fish habitat in the form of submerged structure has deteriorated significantly over time. This project will utilize 72 reef balls enhanced with wood and artificial materials to establish five new fish habitat sites adjacent to recently established accessible shoreline fishing sites.

Spatial Data Standards Continued

Motivf sent a small data collection team to five USACE Civil Works projects selected as pilot sites. They worked with project staff to identify key species and locations for surveying. Motivf searched for these species and used the Nuisance Species Standard to record observed occurrences; multiple data collection tools were used, including Gaia and FieldMaps.

Following field site testing, Motivf used lessons learned to develop a user's guide and provided a recorded virtual training to the NRM CoP. These resources aim to help USACE field staff successfully make use of the newly updated Nuisance Species Standard. The user's guide, a recording of the training, and links to the SDSFIE standard can be found on the invasive species page of the NRM Gateway.

 [Click here for link!](#)

Prescribed Fire at the Rivers Project

It's officially burn season at the Rivers Project! The Environmental Stewardship team is planning to burn over 1,000 acres of USACE managed lands along the Mississippi and Illinois Rivers from Oct. 15, 2024 to Apr. 15, 2025. Prescribed fire is an essential management tool used by the Rivers Project staff to improve and sustain native habitats. It has many management benefits, including reducing invasive species and woody encroachment, recycling nutrients, exposing bare ground for native seeding and planting, promoting germination of native plants, and more!

The Rivers Project staff plan the use of prescribed burns extensively to include specific weather parameters, the establishment of control lines, and staff training. The burn plans go through an approval process, including review by state agencies, to ensure management objectives are met and all safety factors have been considered in the area prescribed for the use of fire.



Above: The use of prescribed fire at the Rivers Project Office on USACE managed lands.



Above and right: Park Rangers at Saylorville Lake are hard at work completing projects such as tree work and prescribed burns.

Mark Your Calendar: Training Opportunities

Aquatic Invasive Management Workshop (February 2025).

In partnership with the University of Florida, an Aquatic Invasive Management Workshop will be held at the University of Florida Institute of Food and Agricultural Sciences (IFAS) Orange County Extension Office, Orlando, FL, Feb. 10 - 14, 2025. The workshop provides information on current and historic USACE involvement in invasive aquatic plant management, best management practices, herbicide physiology, contract management, and outreach related to aquatic plant management.

For additional details or to register, please email Tara.J.Whitsel@usace.army.mil.

ENS 102 (February 2025)

The 4th pilot course of ENS 102 will be offered Feb. 24 - 27, 2025 at Arkabutla Lake, MS. There is no tuition cost. This course is scheduled to be available through PROSPECT in FY26.

For additional details or to register, please email Tara.J.Whitsel@usace.army.mil.

Looking Ahead

FY26 locations for Prospect Course #411 (ENS 101) are currently scheduled for:

- Session 1: Rend Lake Visitors Center, Nov. 3 - 6, 2025
- Session 2: Lake Seminole Resource Management Office, Feb. 9 - 13, 2026



Highlighting Stewardship Efforts Throughout NWD



1 Lake Sacajawea (NWW) - On Sep. 1, 2024, a fire started at the northeast end of Hollebeke Habitat Management Unit (HMU). County fire serves responded as well as Kye Carpenter from the Tri-Rivers Natural Resources Management (NRM) Office. Kye was able to start the irrigation system, which helped the fire departments contain the fire and save portions of valuable and diverse habitats within the HMU. The fire burned approximately 160 acres of grassland and sagebrush habitat.

Post burn, Walla Walla District NRM Program leads assisted with planning restoration efforts. District Wildlife Biologist Brett Forge and Recreation Lead Merissa Stevens retrieved 600 pounds of native grass and forb seed mixes. Invasive species management and additional seeding and shrub planting are important future management actions and are currently being coordinated to ensure that quality wildlife habitat and food sources return.



Top Left: A stark line between burned and remaining habitat shows how effectively the irrigation system stopped the fire within the sprinkler's reach.

Bottom Left: A wild milkweed sprout pushes up through the ash just a few weeks post-fire, and the bare soil shows evidence of California quail and coyotes continuing to use the HMU.

Above: District Wildlife Biologist Brett Forge and Recreation Lead Merissa Stevens mix native grass and forb seed in preparation for spreading.

Top Right: Old growth sagebrush was a defining feature at Hollebeke HMU. Fortunately, about 25% of it survived the fire.

Bottom Right: Merissa Stevens hand-tosses the native grass and forb mix onto the powdery ash. Fall rains and winter freezes will ensure that the seeds work their way into the soil for germination next spring.



2 Walla Walla District (NWW) - Each fall in mid-September, the Walla Walla District NRM team leads a district-wide meeting at Three Meadows Group Camp on Dworshak Lake to discuss current and upcoming business, processes, and policies; identify concerns; and seek improvement or program support where needed. This meeting allows everyone to develop a common understanding of the trajectory of NRM programs such as recreation use fees and NWW's fish and wildlife mitigation requirements.

This year, staff from NWW's Real Estate Office joined the meeting to discuss real estate policies and processes, given that NRM has many outgrants and permits on USACE lands. Other topics discussed were Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act compliance for vegetation and construction work, national Environmental Policy Act processes and updates, and changes to NRM visitation data collection. Most importantly, spending the week together allows for valuable face time and team building.



Above: Dworshak Forester Jake Chaffee discusses the active Dent Acres timber sale while visiting the site from the water.

Highlighting Stewardship Efforts Throughout NWD Continued

3 Albeni Falls (NWS) - Albeni Falls Dam manages over 4,000 acres of fee-owned public land along the Pend Oreille Lake and River in Northern Idaho. With the support of ERDC, approximately 74 acres of submerged flowering rush along with 8 acres of dewatered flowering rush were treated through direct application.



Above: Dr. Kurt Getsinger (ERDC) and Aquatechnex applicator contractors on Pend Oreille Lake. Bottom circle: Staff and contractors conduct treatment assessments by boat. Below: The observation hive in the Fort Peck Visitor Center.

This effort will help to manage flowering rush in the Pend Oreille system and will help to restore hundreds of lost acres of habitat that will directly benefit fish and wildlife. This effort would not be possible without the assistance, support, and logistical coordination with ERDC and other stakeholders, including the Idaho State Department of Agriculture and the Bonner County Noxious Weed Department.

4 Fort Peck (NWS) - Across three Seattle District projects, five staff in NRM traveled to Fort Peck, Montana, for a pollinator workshop. The Fort Peck Project in Omaha District has focused its efforts educating the public about pollinators through the observation hive in its visitor center; their pollinator garden, interpretive panels, and volunteer-built pollinator houses; and through a partnership with the Montana State University County Extension Agent to host beekeeping classes. Libby Dam, Chief Joe, and Lake Washington Ship Canal Projects are interested in furthering their pollinator programs and building observation hives in their visitor centers. The Fort Peck staff states that the hive is a favorite among the visitors to their interpretive center.

The workshop gave the visiting rangers hands-on experience working with bees and the opportunity to ask questions about the beekeeping process. NRM Specialist Patricia Gilbert-Ball lead a tour through the pollinator pods she has spent several years designing, planting, and maintaining. The tour helped show the yearly progression and seasonal benefits these plants have. The Fort Peck Project sets an excellent example of being an innovative stewardship team, connecting to their visitors through unique education experiences, and involving the community and volunteers as force multipliers.



YOUR HELP PLEASE!

Northern Bobwhite, along with a suite of related Grassland and Forested Grassland birds are demonstrating significant declines across their range. Fortunately, efforts are underway across numerous initiatives to stem and reverse these trends.

Accordingly, DoD and DoD Partners in Flight are investigating ways to participate in these initiatives and partnerships. As step one to accomplish this, we are doing two things:

Compiling information on DoD installations and USACE lands in reference to both their potential and their interest in the conservation of these birds.

USACE Northern Bobwhite Questionnaire



Developing a list of natural resource managers who would be interested in knowing of and/or participating in forums or collaborations to help maximize the DoD's contribution to these conservation efforts.

Whether you want to be included in #2 above (there is a checkbox in the survey), or just help us with #1 - to ascertain USACE land potential, we would greatly appreciate you taking just a few minutes to populate this survey at the link below or QR code above.

<https://forms.osi.apps.mil/r/YcjreS76L1>



Highlighting Stewardship Efforts Throughout NWD Continued

5 Libby Dam (NWS) - Greg Hoffman and Paige King, from the Libby Dam NRM Office, and Seattle District's Senior Hydraulic Engineer, Zac Corum, covered a 70-mile stretch of the Kootenai River in three days to complete a survey of the Wood Nourishment Pilot Project. The goal for the three-day survey was to find, and document, tagged logs the Libby Dam Project placed in the Kootenai River during the spring of 2023 and 2024.

Libby Dam blocks transport of all wood downstream, and this pilot project and study is part of USACE's Engineering With Nature (EWN) program designed to help improve ecosystem function in the Kootenai River. The crew used ArcGIS Field Maps to record the GPS coordinates of logs and upload photos, locations, and detailed notes. The survey gave the researchers a better understanding of where the wood has traveled and deposited after high flows. During the survey, 38 of the 82 tagged logs were found. Some areas had denser deposit than others.

As future surveys continue, the team will monitor the movement of these logs, as well as those introduced in the future, from the downstream of Libby Dam into Idaho and the British Columbia border. The Kootenai Tribe and partners, including USACE, have made habitat improvements in the river near Bonners Ferry for sturgeon, and some of the wood that the program has introduced has, and will, add to the functionality of this habitat over time.

6 Omaha District (NWO) - Omaha District staff teamed with the WOZU group on a planting project in Cannon Ball, North Dakota. The WOZU group was founded in 2021 as a nonprofit organization. The organization is led by indigenous people and the term Wozu means *to plant* in the Lakota language.

The idea for the project began a year ago when the WOZU group contacted the Oahe Project to inquire about building a small bike trail near the Cannon Ball River. Once it was determined the bike trail could be built, the Oahe Project agreed to support the effort by planting native vegetation along sections of the trail that cross federal land. Research was conducted in advance to ensure only native species were selected. The day-long project brought together youth and WOZU group volunteers from the Standing Rock Reservation with staff from the Oahe Project. As a result, more than 150 trees, bushes, and shrubs were planted.

Top: A log deposited on the rocky bank of the Kootenai River. Middle: The Field Maps app was used to view existing project data and plot new log locations. Bottom: Hydraulic Engineer Zac Corum checks a GPS unit placed in a log. Holes were drilled into the metal panel to increase cellular connection.



Above: Planting efforts between WOZU group volunteers and USACE staff from the Oahe Project.

Mount Morris Dam Staff Survey for Special Status Species Plants

Natural Resource Specialists (rangers) from Buffalo District's Mount Morris Dam and Recreation Area surveyed riparian areas located along the Genesee River within the Letchworth Gorge to identify populations of rare and threatened plant species, and assess any risks posed to the plants and their required habitats. Rangers paddled the Genesee River upstream of the Mount Morris Dam in search of small, isolated populations of plants that require specific habitat conditions such as sheer rock cliffs with waterfall mist. Rangers successfully relocated some previously identified populations of yellow mountain-saxifrage and butterwort but also discovered a cliff-face inhabited with yellow mountain-saxifrage.

Protecting species that have been afforded a 'special status' by the state or federal government is a responsibility inherent with sound environmental stewardship practices. Buffalo District's rangers documented their findings and shared them with state partners to help ensure these rare plant populations continue to be monitored and protected from anthropomorphic stresses or encroachment from invasive species.

In Case You Missed It...

USACE has an updated national MOU with the Plant Conservation Alliance (PCA), a public-private partnership with 17 federal agencies and 400 nonfederal cooperators to support protection of native plants and native plant populations.

PCA can support policy and program development for plant protection efforts and provide technical support to assist with native plant protections.

For more information visit: <https://www.blm.gov/programs/native-plant-communities/national-seed-strategy/pca> and <https://www.plantconservationalliance.org/welcome>.

A copy of this agreement is posted on the NRM Gateway at <https://corpslakes.erdc.dren.mil/employees/cecwon/mou.cfm>.



Left to right: Ranger Jerome points to yellow mountain –saxifrage; Ranger Smith looks for special status species as part of the riparian area survey; Plant species yellow mountain-saxifrage. Circle: Butterwort plant.

More About Yellow Mountain-Saxifrage:

- Yellow Mountain-Saxifrage is a New York state-threatened plant species.
- The species almost always grows in the company of butterwort and birds-eye primrose; with all three preferring a cold, wet, shale cliff environment.
- There are only nine known populations of this plant. Most of the populations are on well-protected cliffs, but some cliffs may be subject to natural or artificial sloughing.





Sam Rayburn Lake: Pollinator Garden Partnership

Park Ranger Emily Laperriere has continued a beneficial partnership with the Rayburn Bloomers local gardening club to maintain an active pollinator garden outside of the Sam Rayburn Project Office. The gardening club volunteered to clean the garden from weed plant species to maximize the value to wildlife, while simultaneously improving aesthetics for visitors to the office.

The garden consists of several Texas native wildflower species that act as food sources for wildlife, are host plants for caterpillars, and attract native pollinator species such as the monarch butterfly during fall migration. Species included in the garden are Turk's cap, blue mistflower, elegant blazingstar, and Texas lantana. Pollinator gardens are crucial in the effort to support pollinator populations as part of the environmental stewardship mission.

Above and below: Park Ranger Emily Laperriere at the Sam Rayburn Project Office pollinator garden.



Recognizing Excellence

Eric Pedersen, NAE Chief of Operations, presented Park Ranger John Pribilla with the Civilian Service Commendation Medal for his efforts in supporting the USACE National Invasive Species Leadership Team. John was recruited by the team to serve as a subject matter expert in the planning, design, and implementation of the invasive species traveling trunks.

The trunks are widely used throughout the country by USACE and its partners. These assets help raise awareness of the nation's growing invasive species issues.

Right: John Pribilla is presented with the Civilian Service Commendation Medal.



More About the Traveling Trunk

There is no better way to share information on invasive species than with the Traveling Trunk.

The Invasive Species Leadership Team developed an interpretive trunk to serve as a tool to enhance the public's understanding of invasive species, the negative impacts they have, management approaches, and steps we can all take to help stop their spread. Just this past year, new exhibits were added to each of the trunks!



The Traveling Trunk is FREE to borrow! Learn how to request use of the Traveling Trunk on the NRM Gateway.

<https://corpslakes.erd.c.dren.mil/employees/invasive/>



Click here for link!



Above and right: The Invasive Species Leadership Team's Traveling Trunk.



Interested Reading and Viewing

1 The following technical publications from researchers at the Engineer Research and Development Center (ERDC) may be of interest to the NRM community:

ERDC MP-24-6

- **Title:** Human Well-Being and Natural Infrastructure: Assessing Opportunities for Equitable Project Planning and Implementation
- **By:** Ellis Kalaidjian, Margaret Kurth, John Kucharski, Stephanie Galaitsi, and Elissa Yeates
- **Link:** <http://dx.doi.org/10.21079/11681/49360>

ERDC/EL MP-24-10

- **Title:** Environmental DNA (eDNA) Assays for the Detection of Ridgway's Rail (*Rallus obsoletus*) in the United States
- **By:** Xin Guan, Richard F. Lance, and Sheena M. Feist
- **Link:** <http://dx.doi.org/10.21079/11681/48757>

ERDC/EL MP-24-11

- **Title:** A Broadscale Assessment of Sentinel-2 Imagery and the Google Earth Engine for the Nationwide Mapping of Chlorophyll a
- **By:** Richard A. Johansen, Molly K. Reif, Christina L. Saltus, and Kaytee L. Pokrzywinski
- **Link:** <http://dx.doi.org/10.21079/11681/48784>

ERDC/EL MP-24-12

- **Title:** Advancements in Riverine Fish Movement Modeling: Bridging Environmental Complexity and Fish Behavior
- **By:** Daniel P. Zielinski, James Kerr, Kim M. Bærum, Olivia M. Simmons, Ana T. Silva, and R. Andrew Goodwin
- **Link:** <http://dx.doi.org/10.21079/11681/49423>

ERDC/EL TR-24-14

- **Title:** Pollinator Garden Playbook: Supporting the Western North American Population of Monarch Butterfly (*Danaus plexippus*) and the Endangered Smith's Blue Butterfly (*Euphilotes enoptes smithi*) on Military Lands
- **By:** Aaron N. Schad, Nathan R. Beane, and Sierra L. DaSilva
- **Link:** <http://dx.doi.org/10.21079/11681/49319>

ERDC/EL TR-24-16

- **Title:** Habitat and Landcover Classification and Maritime Forest Restoration Recommendations for Deer Island, Mississippi
- **By:** Jacob F. Berkowitz, Matt Blanchard, Kevin D. Philey, Nathan Beane, and Sydney Bufkin

2 Feral Swine in America Episode 7: Missouri - This video series shows the stories of farmers, ranchers, and others impacted by invasive feral swine. Episode 7: Missouri, looks at the integrated approach used to manage feral swine in Missouri.

<https://www.youtube.com/watch?v=HjHVRZKixXM>

Right: NWW District NRM meeting. Staff travel to discuss the active Dent Acres timber sale.

Your Assistance Please!

Do you have a good example of using the HAB Explorer web app and are you interested in having it showcased on a new StoryMap landing page? ERDC developers would love to feature how you're using the web app by showcasing map and related data with a short description. Examples can be simple daily/weekly screenings for a particular waterbody, post-season retrospectives to see how a water body changed throughout a HAB season, monitoring to plan for an upcoming field survey or field research, etc. Your example could provide insight to others for what to consider when using the app and how it could be used, including both capabilities and limitations. In addition, your examples will be used to help provide user guidance for the HAB Explorer web app.

To submit an example, please send to Molly Reif, molly.k.reif@usace.army.mil, with a brief description of your example, including waterbody name/locations, and any relevant details such as preferences related to area of interest/date/filter criteria, image previewing, map product options, data discovery (e.g., index value info or histograms), data download, and follow-on activities pertaining to map product analysis, interpretation, or sharing/communication to help explain how you're using the app and resulting data.

