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Stewardship news

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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

Your Stewardship HQ Update: Congratulations to Lake Red Rock and Rend Lake

Red Rock and Rend Lake are the most recent USACE recipients of the Reservoir Fisheries Habitat Partnership large grant program!

Lake Red Rock Fish Habitat Enhancement Project (IA): $56,500 grant to increase structural habitat, improve angler opportunities and enhance the quality of the fishery in Lake Red Rock. The project will provide quality structural habitat for natural spawning, nursery locations for young fish, congregation areas for forage fish and feeding opportunities for predator fish. The project will place 42 Mossback Essential Shallow Water Bundles, 20 Mossback Essential Deep Water Bundles, 22 Mossback Basic Shoreline Bundles, 14 Mossback Mega Reef structures. In addition, there will be placement of 30 Cedar Trees Adjacent to the newly treated USACE shoreline riprap stabilization project.

Photo Above: Prior fish habitat improvement efforts at Rend Lake

Rend Lake Native Habitat Improvement and Shoreline Erosion Prevention (IL): $17,204 grant to create biological habitat, inhibit shoreline erosion on highly eroded areas, inhibit mobilization of sediment and nutrients, and reintroduce native plants to an area invaded by common reed. The benefits expected include: increased complexity and diversity of habitat for fish and other wildlife, decreased turbidity, siltation and nutrient loading for improved water quality, increase of native plant species, and the protection of infrastructure necessary for the outdoor recreators to Rend Lake and its surrounding communities. This will promote increased density of priority game fishes and other desirable organisms for greater quality of experiences for anglers, campers, and other outdoor enthusiasts. This improvement project will also increase tourism dollars spent in the surrounding communities.

Photo: Lake Red Rock

Did You Know? The Friends of Reservoirs (FOR) recently announced its 2024 Small Project Grants program. These $2,000 grants are available exclusively to Friends of Reservoirs members. Applications are simple 2-page documents that must be filled out online. Applicants must be logged in as a FOR member to apply:

https://www.friendsofreservoirs.com/grants/submit-a-project/small-grant/

Environmental Stewardship Efforts in the Muskingum Area

POC: Scott Kraynak, Natural Resources Specialist

In many ways, the Muskingum Area (MUR) in the Huntington District is unique when compared to other USACE operations. Divided into 3 operational areas, there are a total of 15 projects, 11 which are considered lakes with the remaining projects considered dry dams. The lakes are owned/operated by the Muskingum Watershed Conservancy District (MWCD) whereas the dams and associated fee land is owned/operated by USACE. All the projects operate as a system, as they all feed the Muskingum River which eventually flows into the Ohio River. The Muskingum River basin is the largest watershed within the state of Ohio. The river and its tributaries drain 8,051 square miles in all, or parts, of 24 counties in the east central portion of the state. The projects have a drainage area of 4,276 square miles and USACE has 133,508 acres of flowage easement.

Another example of what makes the MUR unique is the sheer amount and scope of Environmental Stewardship (ES) work that is being implemented and accomplished at each of the 15 projects and in conjunction with an ever-growing list of partners. In the MUR, there are over 1,050 outgrants and more than 1,700 miles of boundary.

With the support of management on all levels, the Muskingum Area has focused on the following efforts:

- ***Master Plans—*** Perhaps one of the biggest changes and positive steps towards a more science based and environmentally sustainable approach to managing fee lands is the development or revision of project master plans within MUR. These updated documents include objectives such as managing lands for ecosystem restoration, replacing mowed areas with native grasses/pollinator habitat, completing species inventories, developing management plans for unique habitats like wetlands and vernal pools, development and implementation of invasive species control plans, evaluation and improvement of areas for suitable bird habitat, environmental outreach, and surveys and monitoring of special status species.
- ***Biological Inventories—***MUR staff have contracted with environmental consulting firms to begin conducting biodiversity inventories at the projects. On much of MUR project fee lands, inventories have never been completed. Staff are trying to expand environmental outreach efforts by hosting Earth Day and BioBlitz events. Additionally, staff and partners are conducting habitat assessments to identify, protect, and mitigate important habitat features such as cavity trees, large diameter trees, brush piles, dens, or large woody debris. Efforts also include the creation of artificial habitat for wildlife conservation. To help accomplish objectives, the region is utilizing the SCA program and increasing volunteer recruitment to support USACE staff. This also provides students with first-hand experience and knowledge that will benefit them as the NRM professionals of tomorrow.

Wildlife documented during biological inventories that are benefitting from habitat improvements. Photos Clockwise: Common musk turtle, Eastern kingbird, Clubtail. Photo Top Circle: White-headed Grape Leaffolder. Photos provided by MUR contractor Judy Semro.

Muskingum Area Continued

- ***Handshake Partnership Program—***For two consecutive years, MUR has been awarded Handshake Partnership Program funding. In 2021, MUR received funding for the Clendening Wetland/ Quarry Loop Trail and in 2022 funding was awarded for the Beach City Disc Golf course. Both of these projects included working with numerous federal, state, local, and non-profit partners such as the National Park Service, Muskingum Watershed Conservancy District, Ohio Department of Natural Resources, Audubon Society, Pheasants Forever, and Buckeye Trail Association among many others. Each project also addresses numerous goals and objectives simultaneously: 1.) both projects transition numerous acres of turf grass into pollinator or grassland habitat, 2) both projects improve recreational and environmental education opportunities for visitors and local communities, 3) both projects increase nesting structure availability, and 4) both projects preserve historical features, among other benefits.

Photo above: A successful pollinator plot at a Muskingum Area Project.

- ***Partnerships—***With the strong partnerships that have been forged, MUR staff are accomplishing projects that will benefit the environment, visitors, and local communities. An example of this is the preservation of a historic all-African American enrollee Civilian Conservation Corp (CCC) camp. The area is currently overgrown, and the site's history is also hidden. MUR staff are working with partners such as the MWCD, National Park Service, Kent State University, Buckeye Trail Association, the Ohio Department of Natural Resources, local historic offices and others to create new trails, expand existing ones, conduct archeological surveys, protect historic sites, create interpretive signs and brochures, and probably most importantly, breathe new life into this historic site and give the men, and their efforts, the recognition that they deserve.

Photo Bottom Circle: Watchable wildlife efforts at a Muskingum Area project.

We Need YOUR Help!

The Natural Resources Management Support Team is requesting your photography help. Recent photos (*those that are no more than 3 years old*) are needed that show the diversity of the work we do in the Natural Resources Management Program along with the diversity of our workforce. These photos are used in various reports *(such as the NRM Annual Report),* newsletters, briefings, and so much more. Please send any photos to Tara Whitsel at Tara.J.Whitsel@usace.army.mil. Please include the name of the photographer and the USACE project where the photo was taken so that proper credit can be provided when the photo is used!

In Case You Missed It: National Public Lands Day

It's that time of year again! Join the celebration of the 31st annual National Public Lands Day (NPLD) on Sep. 28, 2024, with the theme "Together for Tomorrow."

Our partners at NEEF have opened registration early for its federal partners and have updated the following resources to support your NPLD planning journey. Registering your event before Aug. 2, 2024, ensures you will receive your fee-free coupons, a free volunteer incentive that can be used at any of the participating agencies (even if your site does not carry a fee)! Registering your event is also critical to our agency's impact reporting. Visit the NPLD hub to get started: http://www.neefusa.org/NPLD.

The following resources are available to you:

- Theme Guide
- Site Manager's Guide
- Promotional Toolkit
- Infographic on requesting fee-free coupons
- Direct link to registration: https://www.neefusa.org/what-we-do/conservation/national-public-lands-day/national-public-lands-day-site-managers

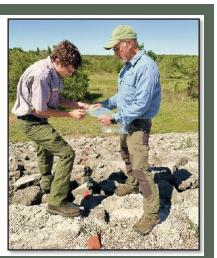
Photo Top Circle: 2023 NPLD at Cottage Grove Lake.

Stewardship Around USACE

1 Navarro Mills Lake (SWF) - During March, teammates from ERDC visited Navarro Mills Lake, accompanied by USACE Park Rangers, to survey wetland areas on the western side of the lake in order to collect data for a wetland management plan. Together, they examined levees, water control structures, and vegetation to create a custom plan to enhance active, sustainable management of the wetlands present.

Photos Above: ERDC and USACE Park Rangers collect data from the Navarro Mills wetlands to enhance active, sustainable management.

2 Somerville Lake (SWF) - Multiple agencies partnered in a spray drone study at Somerville Lake. Staff from USACE, Bureau of Reclamation, US Department of Agriculture, and professionals from Hylio Spray Drones conducted a study on the effectiveness of spray drones on an embankment surface. Part of the study including spraying water from the drone onto water sensitive paper to compute how effective drone spraying is on a steep slope embankment or dam. The possible use of drones on steep embankments could improve safety and save hundreds of hours in staff or contractor time.



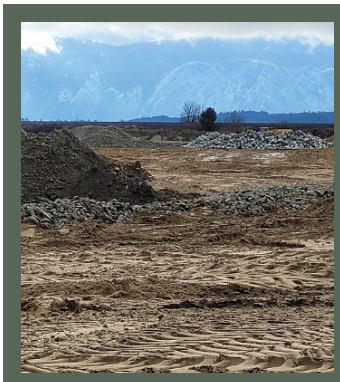
Photos Above: Multiple agencies partner in a spray drone study at Somersville Lake.

3 Whitney Lake (SWF) - In April, a Historic Properties Management Plan PDT visited Whitney Lake to conduct a site visit of its many cultural resource sites. The team, representing several facets of the Fort Worth District, were able to get a better appreciation of the cultural resources found at Whitney Lake. The visit also allowed the team to better understand the challenges that Whitney Lake staff face in managing and protecting these valuable and fragile sites. Overall, the visit will inform the creation of Whitney Lake's Historic Properties Management Plan and provide the first step in gaining the resources needed to better protect these sites.

Photo: PDT members investigate a rock shelter, an important cultural resources site.

Stewardship Around USACE

4 Albeni Falls Dam (NWS) - Pack River Delta Restoration. The Pack River Delta is a 1,200 acre parcel of public land owned by USACE and outgranted to the Idaho Department of Fish and Game (IDFG) for the purpose of wildlife management. Through the established partnership, IDFG is restoring the area by rebuilding 13 islands and creating 10 borrow pits that were lost during dam construction and subsequent pool raise. This effort will restore several hundred lost acres of habitat that will directly benefit fish, wildlife, and waterfowl.



Photos Above: USACE and IDFG meet to look at the progress of restoration efforts.

5 Mud Mountain Dam (NWS) - Muckleshoot Indian Tribe (MIT) Tomanamus Forest Meeting. USACE's Mud Mountain Dam (MMD) staff joined a partner meeting with USFS and MIT staff to discuss the security of 104,000 acres of tribal land. The Tomanamus Forest is owned by MIT and covers parts of King, Pierce, and Lewis counties. The property operates as a working, sustainable forest as well as provides educational, career, and recreation opportunities. MMD Park Rangers coordinate with the USFS and MIT regarding transients that move between adjacent lands, and support the facilitation of tribal rights and management of natural resources.

Photo Above: Flood debris that is collected on boats in the winter is cut up, decked, and donated to MIT for firewood and/or fish habitat enhancement.

6 Little Rock District (SWL) - Encroachment and Trespass PDT Policy Meeting. Little Rock District representatives from Operations, Real Estate, Office of Counsel, and Public Affairs met to develop a standardized policy for encroachment and trespass resolution on USACE project lands and waters within the district. The goal of the initial planning meeting was to establish communication strategies, determine policy focus areas, and set project timelines.

Photos Above: SWL PDT members hold an initial meeting to begin the development of an encroachment and trespass policy for the district.

7 New England District (NAE) - The New England District has developed an online story map to describe study efforts under way as part of the Connecticut River Hydrilla Research and Demonstration project. The district hopes that this site will help address and answer any questions the public and interested stakeholders may have about hydrilla, provide more details about the demonstration project, and describe USACE's history (and previous work) studying and controlling hydrilla in other locations of the country.

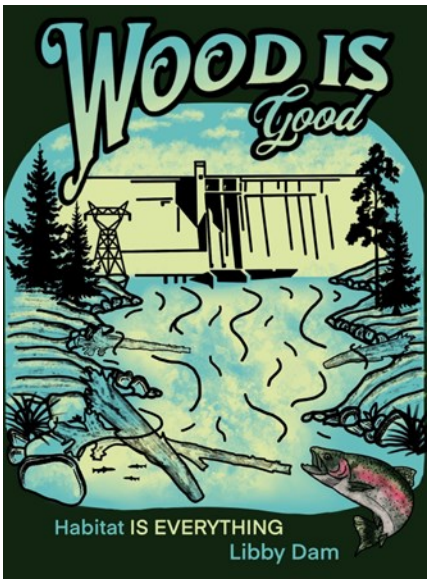
Link: https://storymaps.arcgis.com/stories/ac89d2534fa0490db6c8718191411bd1

Northern Lights Sights at Libby Dam

Incredibly vivid green and pink northern lights danced above Libby Dam and Montana over the weekend after a solar storm created aurora lights across the northern U.S. Libby Dam saw an influx of visitors primarily to the left abutment of the Dam because of its placement to view north. The photos below were taken at 0030 hours on May 11, 2024.

Wood is Good at Libby Dam!

POC: Tana Wilson, Natural Resources Specialist, Libby Dam



The Libby Dam Natural Resources section hosted a luncheon which provided an opportunity to discuss the second year of the "Wood is Good" pilot project for stakeholders and partners (Montana Fish, Wildlife and Parks, US Forest Service Kootenai National Forest, US Fish Wildlife and Service, Montana Department of Natural Resources, Montana Trout Unlimited, permitted fishing guides, Salish and Kootenai Tribes, BPA). This project and study is part of USACE's Engineering with Nature (EWN) program and is designed to help improve fish habitat in the Kootenai River below Libby Dam. The dam blocks the natural supply of large wood to the river from the watershed upstream. Wood was sourced from windthrown trees across USACE forest lands, a win-win by cleaning up Libby Dam's forested areas and reducing fire fuels, and ultimately providing fish habitat in the Kootenai River. This project has community support, including from one of the guides who provided an overview of the project and thanked USACE and Libby Dam on their website, [https://www.fishmontana.com/blog/kootenai-river-habitat-improvement.](https://www.fishmontana.com/blog/kootenai-river-habitat-improvement)

Photos Above: Efforts with the "Wood is Good" project at Libby Dam.

Interesting Reading & Information

1 FYI: The Spotted Lanternfly (SLF) National Hatch Predictor Map. Penn State University announced that the SLF National Hatch Predictor Map is live for 2024.

It is not a map of *where* SLF are, but a live mapping of *what percentage* of SLF would be expected to have hatched by the date showing if they existed in the location shown. This can be used for targeting monitoring and control activity timing.

It is expected that there can be variation on the ground of up to several weeks according to micro-climates (parking lot black top, south facing building heat sinks, or conversely North facing slopes with limited sun exposure). This map was developed by Dr. Dennis Calvin and Stephen Crawford from Penn State and based on degree day modeling from data collected in PA and VA.

To use the map, you can close out of the disclaimers and scroll down to see the toggles which turn on or off county lines, roads or places and see what the color shading represents and then zoom down to local areas. https://tools.cei.psu.edu/slf/

2 ERDC Research Shared. For anyone facing aquatic plant management challenges and other issues related to water exchange, this may be a helpful report.

- Link: http://dx.doi.org/10.21079/11681/48412
- Report Number: ERDC/EL SR-24-4
- Title: The Use of Rhodamine Water Tracer (RWT) Dye to Improve Submersed Herbicide Applications
- By: Kurt D. Getsinger, Christopher R. Mudge, Bradley T. Sartain, Benjamin P. Sperry, Damian J. Walter, and Michael W. Durham

Abstract: The inert fluorescent dye rhodamine water tracer (RWT) has been widely used in freshwater aquatic systems for many years to quantify bulk water exchange patterns and as a tracer for submersed herbicide movement. The dye is well-suited for tracer work due to its high solubility and detectability in water (<0.01 µg/L). Federal guidelines limit the aqueous concentration 0f RWT to <10 µg/L at drinking water intakes. The dye has proven to be harmless to aquatic organisms and humans in low concentrations and is relatively inexpensive. Since 1991, RWT has been used by Engineer Re-search and Development Center (ERDC) researchers to simulate aqueous herbicide applications in large, hydrodynamic systems in over 12 states. Such simulations have improved the effectiveness of herbicide treatments by linking in situ water exchange processes with appropriate herbicide selection and application rates. Understanding these parameters can be critical for mitigating herbicide exposure in environmentally sensitive settings and around potable water and irrigation intakes. A data-based estimate of water exchange patterns usually results in successful submersed herbicide applications—both with target-plant efficacy and limited injury to nontarget vegetation. Using RWT dye to simulate submersed herbicide applications is an important predictive and real-time tool in both experimental and operational settings.

Incase You Missed It...

Eagle Act Rule Revision

The USFWS has revised the regulations for the issuance of permits for eagle incidental take and eagle nest take under the Bald and Golden Eagle Protection Act.

The revised regulations include a new system of general permits in addition to the specific-permit situations the Service has authorized in the past. These general permits are designed for situations with low risks to eagles and are an alternative approach to authorize certain wind-energy generation projects, power-line infrastructure, activities that may disturb breeding bald eagles, and bald eagle nest take. The Service will continue to review specific permits for situations that have high or uncertain risks to eagles, thus meeting the preservation standard for eagles. For more information, visit: https://www.fws.gov/program/eagle-management

Click here !

Resources for You

The USACE Environmental Community of Practice recently announced the launch of five new Technical Working Group (TWG) SharePoint sites that are now available for your use. These sites were designed to facilitate team building and knowledge management across the USACE enterprise for technical competencies related to environmental quality and cleanup. Provided below are the links to these sites:

- HTRW Engineering
- HTRW Geology
- Health Physics
- Environmental Regulations
- Risk Assessment

These sites contain information for environmental practitioners in each of these fields, to include new/updated guidance, upcoming meetings and training opportunities, links to external resources and more — with the expectation that the resources will continue to grow as TWG members throughout USACE share information and best practices. The goal is to foster regular interaction of members to collectively learn, solve problems, build and sustain technical competencies, and develop best practices to support excellence across our environmental mission areas.

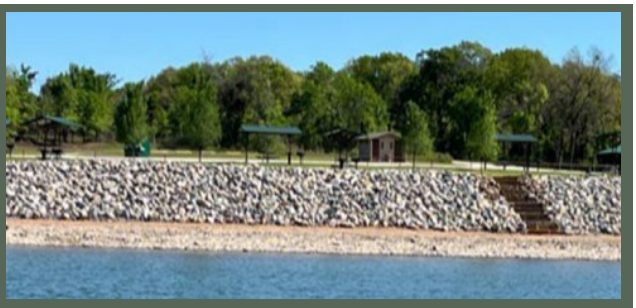
Each TWG is a subgroup within our USACE Environmental Quality and Cleanup Community of Practice. The new sites were created through the collaborative efforts of the HQUSACE Environmental Community of Practice Integrator and the Environmental and Munitions Center of Expertise (EMCX). The sites are managed by the EMCX and will be updated based on input from members of each of the TWGs. The point of contact for this new endeavor is Cathy Forgét, Cathleen.A.Forget@usace.army.mil.

Bipartisan Infrastructure Law Efforts Continue

Lake Texoma (SWT) - Tennessee Valley Authority staff continued to perform shoreline stabilization efforts at Lake Texoma. This work is a very critical aspect of shoreline management and is often necessary to protect shorelines from erosion caused by flooding, storm run-off, ad rising water levels. These efforts will preserve this highly visited area for generations to come.

Photos Right: Shoreline stabilization efforts at Lake Texoma funded under the Bipartisan Infrastructure Law.

Photo Top Circle: Natural Resource Specialists continue to conduct prescribed burns in the Sardis Lake Waterfowl Refuge in Mississippi (400 acres); Lake Ouachita and Lake Greeson in Arkansas; and Bayou Bodcau in Louisiana (300 acres). Photo taken at Bayou Bodcau.



Lake Red Rock Hosts Fish Habitat Workshop

Lake Red Rock hosted a Fish Habitat Workshop meeting with the Lake Red Rock Association (LRRA). The purpose of the workshop was to plan fish habitat and management with anglers and the Iowa Department of Natural Resources (IDNR) Fisheries. The effort utilized recent USACE-MVR bathymetric survey data to aid in management decisions. The LRRA has raised over $100,000 from grants and private foundation fund raising toward habitat efforts.

Photo Above: Lake Red Rock hosts a Fish Habitat Workshop meeting.

Training Opportunities!

1 Aquatic Invasive Management (September 2024).
In partnership with the University of Florida, the workshop will be held Sep. 10-12, 2024 in Windsor, CT. The workshop provides current and historic USACE involvement in invasive aquatic plant management, best management practices for APM, herbicide physiology, contract management, and outreach related to aquatic plant management. Please email Tara Whitsel at Tara.J.Whitsel@usace.army.mil for additional details and to register. *This workshop is currently waitlist only.*

2 ENS 101 (November 2024).
In FY25, ENS 101 will be offered through the USACE Learning Center as a PROSPECT course. The course will be held Nov. 4 - Nov. 7, 2024 at Lake Sonoma (CA). Cost will be determined in FY25 PROSPECT schedule. Registration for this course is through your training coordinator. https://ulc.usace.army.mil/. The projected course schedule for all FY25 Prospect classes is available at: https://ulc.usace.army.mil/CrsScheduleNewFY.

Photo above: Students participate in a field exercise during ENS 101 at Arkabutla Lake in February 2024.

3 Aquatic Invasive Management Workshop (February 2025).
An additional workshop is being planned for Feb. 10-14, 2025 located in Kissimmee, FL . Please email Tara Whitsel at Tara.J.Whitsel@usace.army.mil for additional details and to register.

4 ENS 102 (March or April 2025).
In FY25, the 4th pilot course of ENS 102 will be offered. Exact dates and location will be determined by September. Cost is $0. Please email Tara Whitsel at Tara.J.Whitsel@usace.army.mil for additional details and to register. This course is scheduled to be available through PROSPECT in FY26.

5 ENS 101 (August 2025).
In FY25, a second class of ENS 101 will be offered through the USACE Learning Center as a PROSPECT course. The course will be held Aug. 18-21, 2025 at Kanopolis Lake (KS). Cost will be determined in FY25 PROSPECT schedule. Registration for this course is through your training coordinator. https://ulc.usace.army.mil/. The projected course schedule for all FY25 Prospect classes is available at: https://ulc.usace.army.mil/CrsScheduleNewFY.

Photo above: Students and instructors of the Aquatic Invasive Management Workshop held at Raystown Lake in August 2023.