Sustainable Rivers Program

In Progress Review

FY 2025

US Army Corps of Engineers

The Nature Conservancy

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Prepared for U.S. Army Corps of Engineers, The Nature Conservancy, and other organizations involved with Sustainable Rivers

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SECTION 1 OVERVIEW

The Sustainable Rivers Program (SRP) is a national partnership led by the U.S. Army Corps of Engineers (USACE) and The Nature Conservancy (TNC). The mission of SRP is to improve the health and life of rivers by changing dam operations to restore and protect ecosystems, while maintaining or enhancing authorized uses and other project benefits.

This program began in 1998 with an initial collaboration to improve the ecological condition of the Green River in Kentucky. The SRP was formalized between USACE and TNC in 2002. By the end of fiscal year (FY) 2025, the SRP successfully focused efforts on 65 rivers intersecting 27 USACE districts and spanning into 38 states. SRP projects combined impact on more than 90 USACE reservoirs, 60 river basins, and approximately 14,800 river miles (RM).

This growing program is the most comprehensive program for implementing environmental flows (e-flows) below USACE reservoirs.

E-flows are defined as the quantity, timing, and quality of water flows required to sustain ecosystems. For reservoir operators, as e-flows manifest, management decisions to manipulate water and land-water interactions are made to achieve ecological and/or environmental goals.

The SRP multi-step process for e-flows has three key phases: advance, implement, and incorporate (Figure 1.1). Advancing e-flows involves engaging stakeholders in a science-based process to define the flow needs of riverine ecosystems. Implementation involves testing the effectiveness and feasibility of the defined flows. Incorporation involves including e-flow strategies in reservoir operations policy, such as water control manuals (WCM). The founding objective of SRP is searching for e-flow opportunities at general multiple purpose reservoirs with storage space for flood risk management and other conservation purposes. This objective remains the key focus of the organization. In recent years, the SRP began exploring other reservoir-oriented actions with potential to produce environmental benefits. SRP initiatives have expanded to explore opportunities for pool level management and related environmental improvement strategies at lock and dam (LD) projects.

Figure 1.1 Sustainable Rivers Program Location-Based Process.

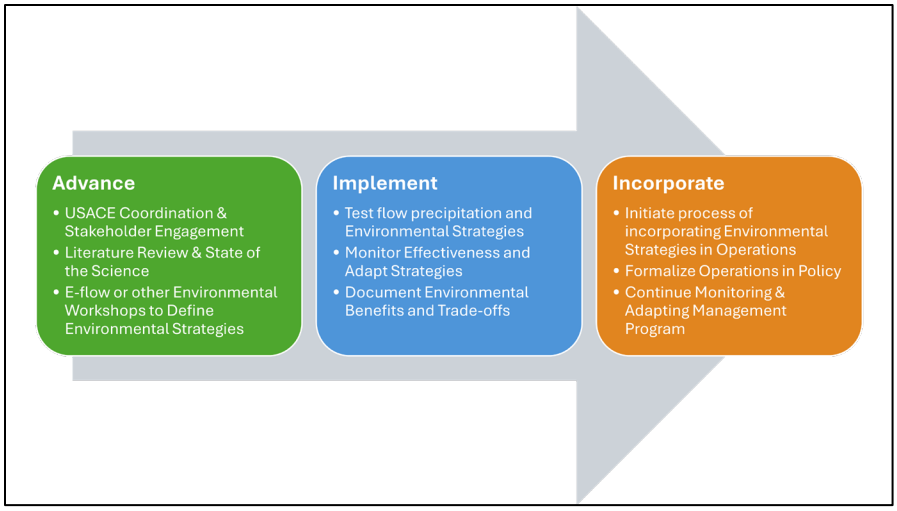

Figure 1.2 displays a map with SRP project status and locations. SRP river projects for FY 2025 include:

- Dyberry Creek, Philadelphia District (NAP)
- Niagara River, Baltimore District (LRB)
- Red River, St. Paul District (MVP)
- Rio Chama, Albuquerque District (SPA)
- Rolling Fork, Little Rock District (SWL)
- Saline River (SWL)
- Salt River, St. Louis District (MVS)
- St. Francis River (MVS)
- Green and White Rivers, Seattle District (NWS)

As in previous years, SRP funds were used to accomplish a combination of programmatic and location-based work. These activities were in accordance with the following principles in mind: 1) build capacity within water management and operations to implement environmental strategies with little or no direct involvement of SRP resources; 2) engage partners to focus on sustainable management of water and ecosystems; and 3) advance innovative efforts to implement environmental strategies.

In broad terms, programmatic work focused on how best to generate more environmental benefits from water resources infrastructure and location-based work focused on advancing, implementing, and incorporating environmental strategies at specific facilities. The two are complementary to generate new ideas, hone SRP methods, and demonstrate the benefits of environmental actions.

Ideas for programmatic work originated from and are shaped by several influences. Source influences include regional and national SRP meetings, other USACE programs, strategic directions of SRP governmental and non-governmental partners, and interactions with and commonalities among location-based work teams. Staff involved with SRP programmatic support refine and initiate ideas.

This document summarizes multi-fiscal year SRP programmatic and location-based work status, FY 2026 proposed work, and a vision for active SRP projects. Four projects are highlighted as a distinct category of SRP programmatic work through SRP-Science. Project updates were compiled based on communications with SRP teams and supporting information. Appendix A summarizes metrics and tally SRP outreach and ecological impacts. Appendix B includes deliverables and milestones for location-based work. Appendix C provides a summary of funding and expenditures for FY 2025. Other information and publications are available online at: Other information and publications are available on the SRP Hydrologic Engineering Center (HEC) and TNC websites at: https://www.hec.usace.army.mil/sustainablerivers/ and https://www.nature.org/en-us/what-we-do/our-priorities/protect-water-and-land/land-and-water-stories/sustainable-rivers-project/

Figure 1.2 Status of Rivers Engaged in the Sustainable Rivers Program at the End of Fiscal Year 2025

SECTION 2 HIGHLIGHTS–FISCAL YEAR 2025

The SRP budget decreased from $5 million in FY24 to $4.5 million in FY 2025.

Location-based teams provide some of the most exciting aspects of the program each year, and FY 2025 was no exception (Figure 2.1).

Figure 2.1 SRP Sites Advancing and Implementing in FY 2025

- Eleven teams executed stakeholder and e-flow workshops identifying and honing environmental strategies for their rivers and driving SRP growth.

- Five SRP location-based sites transitioned to the implementation phase for the first time in their e-flows programs: the Coosawattee River (SAM), James River (NWO), Kansas River (NWK), Osage River (NWK), and the Wabash River (LRC).

- Many other sites continued to implement, monitor, and adapt e-flows and environmental pool management (EPM) activities that began prior to FY25. This stage is critical to honing environmental strategies so they can eventually be incorporated into standard practices at the facility.

2.1 PROGRAMMATIC WORK

Programmatic work in FY 2025 comprised of program support, technologies, and validation of environmental strategies.

2.1.1 Program Support

A new tracking routine was developed to better assist SRP location-based teams in meeting their planned financial and deliverable milestones. The protocol includes distributing monthly actuals of labor expenditures relative to planned execution, status of deliverables, and regular check-ins with teams needing support. This new tracking helped SRP to successfully execute with limited carry-over. An SRP dashboard was created to improve data availability and communication with teams for efficient tracking, program execution, and management by location-based teams.

The FY 2025-2029 SRP Strategic Management Plan was finalized to improve internal collaboration between Headquarters (HQ) SRP Steering Committee, Institute for Water Resources (IWR) management, and the program team. The SRP Metrics Framework was finalized to better encourage communications, applicability, and accuracy across the SRP, including across sites and types of environmental actions supported. Appendix A provides a metrics summary.

Finally, the program team hosted a focused workshop on the “Best Management Practices for Implementing E-flows for Lake Sturgeon”.

2.1.2 Technologies

The Technologies Program Support line item invests in ecological software applied broadly within Sustainable Rivers and provides technical support for software applications led by location-based teams. Software enhancements benefit SRP modelers and others using the tools for ecological applications. Ongoing technology efforts include ecological software development to include formulation of ecosystem management alternatives, ecological time series analyses, habitat mapping, and ecological population dynamics.

2.1.2.1 Formulation of River Management Alternatives

Environmental strategies promoted by SRP generate environmental benefits by changing the operation of water resource infrastructure. The advance, implement, and incorporate SRP process described in Figure 1.1 is the plan that guides SRP work. As part of the advance phase, groups of scientists, engineers, water managers, operators, and stakeholders work together to formulate alternative ways to manage the infrastructure and associated aquatic systems.

Several software are used during alternative formulation, including the Regime Prescription Tool (HEC-RPT). HEC-RPT is a communications tool that contributes to the early stages of planning by formalizing ideas and expert knowledge into alternatives that are easily visualized and considered in more detailed modeling tools. Contributions of RPT to the formulation process include simple navigation and visualization of hydrologic data, tracking of hydrologic condition, electronic creation and shaping of alternatives, documentation of justifications and uncertainties associated with alternatives, simple comparisons of alternatives from different management perspectives, and assistance with integrating different perspectives into a single unified alternative.

HEC-RPT is used by SRP location-based teams during definition of environmental flows and is a key facilitation software for environmental flows, environmental pools, and adaptive management workshops. Ideas for HEC-RPT development are commonly identified by teams applying the software. Several of these user-identified enhancements, including more user control of ordering spatial locations and focal ecosystem aspects, added user control of hydrologic time series display, custom displays of alternatives per location and hydrologic condition, alternative formulation in terms of elevations and stages in addition to flows, and alternative formulation in user-specified data types and units were completed in HEC-RPT 3.0, which was released in September 2024. These enhancements were supported by SRP to improve program capabilities during alternative formulation. In FY 2025, HEC-RPT version 3.0 was used by several teams, including the Atchafalaya, Licking, Mahoning, and Potomac river teams (https://www.hec.usace.army.mil/software/hec-rpt/).

2.1.2.2 Ecological Time Series Analysis

Time series analyses are a fundamental part of technical support for a wide range of ecological projects and are used throughout the SRP process. During the advance phase, time series analyses are used to assess hydrological and ecological status and trends. During implementation, time series analyses are used to explore alternatives that are not easily done and monitored in real-world operations. During incorporation, time series analyses are used to measure the degree of adherence to operational alternatives and, ultimately, to reassess status and trends of new ecological trajectories.

Two software that are commonly used by SRP teams to perform time series analyses are the Indicators of Hydrologic Alteration (IHA) and the Ecosystem Functions Model (HEC-EFM). Both statistically assess time series to gain insights about an array of ecosystem dynamics with the fundamental goal of supporting restoration and stewardship of managed aquatic systems. HEC-EFM applications in support of SRP are diverse, ranging from statistical assessments of historical hydrologic conditions to modeling ecosystem responses to ecologically designed outflows from reservoirs.

SRP supported HEC-EFM enhancements that enable use of multiple variables to assess ecological conditions. This multivariate approach, where condition can be based on combinations of variables such as water depths, velocities, and temperatures, allows for more complex time series analyses investigating connections between operational decisions and ecosystem responses. Multivariate features are ready for use. HEC-EFM 6.0 and HEC-EFM Plotter 4.0, software packages displaying output of ecological time series analyses performed by HEC-EFM, began the HEC review process for public release in July 2024 and were released in March 2025 (https://www.hec.usace.army.mil/software/hec-efm/ and https://www.hec.usace.army.mil/software/hec-efm-plotter/).

2.1.2.3 Spatial Habitat Mapping

Habitat mapping is performed in support of ecosystem restoration projects, habitat conservation plans, and investigations related to species of interest. It is also an effective platform for communications, producing visual displays of habitat distributions, connectivity, and sometimes functionality across landscapes or within aquatic systems. Habitat mapping is less common than and often lags time series analyses and alternative formulation in the SRP process, but the approach has excellent potential as an

information source for ecosystem restoration and management and to further inform development of alternatives and communication of expected benefits.

As a spatial endeavor, habitat mapping is underpinned by geographic information systems (GIS). The Environmental Systems Research Institute, Inc. (ESRI) produces several GIS software as part of the Arc suite of tools. HEC-GeoEFM is a spatial accessory for HEC-EFM programmed to work with Arc software and offers several features related to management of spatial data sets, computation and comparisons of habitat areas, and assessment of habitat functionality. SRP supported GeoEFM enhancements that allow users to generate habitat suitability maps, display spatial statistics, and assess habitat functionality in terms of how much habitat and the configurations of habitat members of ecological communities need to survive and reproduce. These habitat mapping features are ready for use. HEC reviewed GeoEFM 3.0 for public release in October 2024 and the software was released in March 2025 (https://www.hec.usace.army.mil/software/hec-geoefm/).

2.1.2.4 Ecological Population Dynamics

The mission of SRP is to improve the health and life of rivers by changing water infrastructure operations to restore and protect ecosystems. Conceptually, improved operations for the environment should lead to more robust populations of plants, birds, fish, and other involved ecological communities. Practically measuring and understanding population dynamics can be difficult, especially in cases where populations are influenced by multiple variables and ecological responses can require years to complete. In restoration ecology, population models used to simulate and gain insights into population dynamics through ecological models tend to have some common weaknesses. The majority of ecological models are site-specific and single use. Ecological models are seldomly applied to geographical areas, periods of record, and levels of ecological detail necessary to comprehensively simulate ecological resources. Most do not connect sequences of events for time periods longer than one year, which limits insights to long-term ecosystem dynamics. SRP is supporting a new software platform designed to help with these limitations by applying data and computer resources at scale to simulate ecological dynamics, primarily to simulate populations. Applications are inherently spatial, and the software includes embedded GIS capabilities applied for model inputs, computations, outputs, and visualizations. The software allows users to create and characterize ecological communities to simulate in a virtual environment where thee data interacts with the environment . The initial version of the software, HEC-EFMSim 1.0, was reviewed by HEC to process the software for public release in September 2024. The software was released in March 2025 (https://www.hec.usace.army.mil/software/hec-efmsim/).

2.1.3 Science (Validation)

The success of SRP is a function of ecological improvements in river health, which are of key importance to gage. The health of a natural system is very difficult to measure due to uncertainties in understanding ecological concepts, changing influences of water management, and time required for ecological responses to become measurable. Through SRP science, SRP seeks to cultivate scientific understanding of the connections between reservoir operations and ecosystem responses for select rivers in unique ecoregions around the United States. Development of scientific knowledge is leveraged through implementation of e-flow prescriptions at SRP sites, which alters land-water interactions thereby stimulating ecosystem responses that can be studied and quantified using field monitoring protocols and analysis. If operational changes are studied, resulting knowledge can be used to improve prescriptions and perpetuate a culture of adaptive management, both locally and more broadly across USACE, as results are shared. Monitoring does not need to be exhaustive to be effective and requires constructive, informative, and timely guidance from science practitioners to dam operators.

SRP science began in FY 2020 and continues by funding four regional efforts, including the Des Moines River, North Carolina rivers (Cape Fear and Roanoke), Upper Ohio River Basin (Allegheny River), and Willamette River. The current studies and adaptive-management efforts intend to promote implementation of environmental strategies at reservoirs across USACE by reducing uncertainties on flow-ecology

responses, and quantifying and communicating benefits of e-flows. Additional rivers may be included in SRP science in the future as new opportunities for learning and transferability come to light.

2.1.3.1 Des Moines River, Iowa

SRP science activities on the Des Moines River and Lake Red Rock include agreements with the United States Geological Survey (USGS) Cooperative Research Unit at Iowa State University (ISU) and partnerships with the Iowa Department of Natural Resources (IDNR) fisheries, Rock Island District (MVR) Operations, the MVR Water Control Center, the Engineering Research and Development Center (ERDC), Ecosystem Management and Restoration Research Program (EMRRP), and Engineering with Nature (EWN) program. Field work began in 2021 to evaluate how dam operations can influence fish recruitment below Red Rock Dam. The effort created momentum with partnering agencies and resulted in the IDNR conducting fish recruitment studies on the lower Des Moines River that focus largely on sturgeon spawning.

In FY 2025, SRP science work on the Des Moines River continued its focus on nitrogen dynamics at Saylorville Reservoir. Past studies show nitrate-nitrogen concentrations in rivers are reduced as water flows through reservoirs. Most of these denitrification benefits occur at the reservoir delta, where sediment accumulates in the shallow upstream reaches of the reservoir. Though slightly hampered by persistent high water this summer, the collection of sediment cores, laboratory analysis of nitrate uptake through the sediment cores, and collection of dissolved nitrate data above and below the reservoir continued. This data will be integrated with an elevation-inundation analysis of Saylorville delta to calculate nitrate uptake potential at increasing reservoir pools. Results from the previous Lake Red Rock study indicated that slight raises in pool elevations inundating more of the delta would result in nitrate uptake equivalent to installing nearly 650 edge-of-field nitrate reduction practices in the watershed.

The Des Moines River is a critical resource for the city of Des Moines, providing water supply, recreation opportunity, and connection with nature. Locally, potential nitrate reductions within Saylorville Reservoir could reduce nutrient pollution in the drinking water supply of the Des Moines metro area. Regionally, Iowa is the largest single-state contributor of nitrates to the Gulf, and any reduction in nitrate export may help mitigate Gulf hypoxia. The current operational procedures at MVR three USACE flood control reservoirs in Iowa already reduce state-wide nitrate exports by an estimated eight percent. Actively managing reservoir stage for nitrate reduction at Saylorville is expected to further decrease nitrate concentrations on the Des Moines River, producing additional ecological benefits passed on to sensitive downstream ecosystems and a blueprint for reservoir operations in other locations with high nitrate runoff. Integrating active pool management for nitrate reduction with the current ecological goals of provision of habitat and forage for wildlife and migratory waterbirds will be an important output for this work.

2.1.3.2 North Carolina Rivers, Virginia and North Carolina

The Roanoke and Cape Fear rivers in North Carolina have been involved with SRP science since FY 2020. The Roanoke River is one of the original rivers in SRP and is now in the incorporate phase of the process. In FY 2016, the WCM was amended to allow for quasi-run-of-river operations when USACE enters flood operations. Building on the momentum of the Roanoke River, the Cape Fear River was added to SRP in FY 2017. The Cape Fear River is in the implement phase of the SRP process, actively conducting and monitoring e-flow releases.

Their status in the SRP process and semblance to other Atlantic coastal plain rivers make the Roanoke and Cape Fear compelling candidates for scientific exploration. SRP science efforts in these two rivers entail formal work with the USGS across four topics: creating a long-term adaptive management plan for both rivers, learning about bank stability after high flows on the Roanoke River to learn how to reduce the stress on the system with the new operational flexibility, studying algal blooms and water quality in relation to flows using advanced technologies and techniques, and investigating how climate change is influencing the timing and magnitude of inflows into reservoirs.

The Roanoke River is considered one of the most important riverine systems for diadromous fish reproduction on the Atlantic seaboard. In 2021, the Corps and TNC launched an environmental DNA (eDNA) effort to sample multiple locations in the river for juvenile alosines in relation to flow and habitat. FY 2025 SRP science work for the Roanoke is a continuation and expansion of the eDNA work to analyze historic samples for a more wholistic analysis of fish populations in relation to flow data. DNA metabarcoding is being used to analyze previous years water samples collected through SRP efforts and newly collected samples from nearby tributaries to evaluate the entire fish assemblage responses to Quasi Run of River (QRR) flows as well as on-the-ground floodplain connectivity restoration activities. Methodology and results will provide a framework that can be incorporated into long-term monitoring plans both in the Roanoke River and other critical watersheds of diadromous fish. This work also advances development of eDNA methodologies related to management of rivers nationwide.

2.1.3.3 Upper Ohio River, Pennsylvania

The Upper Ohio River Basin contain both warm- and cold-water world class fisheries as well as many mussel beds with multiple federally endangered species. Through the SRP, TNC and USACE continue to evaluate how the operation of reservoirs in the basin have changed the natural flow regime, identify and enact e-flow prescriptions to benefit downstream habitats, and work with to characterize flow regimes in the system.

In FY 2023, in alignment with defined e-flow recommendations, a spring pulse of water from Kinzua Dam to the Allegheny River was released to mimic the natural hydrologic frequency, magnitude, and duration of spring rain events. Implementation of this spring pulse enhances riverine habitat through disturbance processes (sediment, detritus, seed movement, etc.) and provides environmental cues for aquatic life. In FY 2024 and FY 2025, precipitation events produced a “natural” spring pulse, where the river discharged approached the target volume to refresh sediment and re-wet riparian areas important for habitat.

SRP science work focuses on characterizing the effects of altered flows on downstream flow-sensitive ecosystems. In FY 2025, SRP science work focused on analysis of mussel survey data (including species, age, spatial diversity, counts, biomass, etc.) collected the previous year and incorporation of bathymetric data into river hydraulic models and ecological models (HEC-EFM) that will be applied to predict flow-related effects on freshwater mussels and riparian and submerged aquatic vegetation at various river stages. Future work will record river temperature, and correlate river temperatures to operational actions and environmental cues for aquatic life. Ultimately, decision support tools incorporating habitat suitability criteria will be constructed from this data using HEC-EFM to evaluate flow release criteria and demonstrate how these technologies can be used to help inform water management in the region.

2.1.3.4 Willamette River, Oregon

Through SRP, USACE and TNC worked together to determine e-flow requirements downstream of USACE dams in the Willamette River Basin and identified opportunities to restore key aspects of the natural flow regime. SRP science efforts were initiated to assess implementation of e-flow targets in the Willamette River Basin, evaluate ecological implications of flow objectives, and develop communication products that can support the implementation and adaptive refinement of prescriptions for the basin and other watersheds.

Many of the original Willamette SRP flow targets are intended to mobilize coarse sediment for a variety of ecological and geomorphic goals, however, very little information is available to inform when and how much coarse bed sediment is transported. In FY 2025, two reports were drafted summarizing several years’ worth of investigations into (1) coarse bedload transport dynamics along select SRP reaches and (2) how these bedload dynamics affect aquatic macroinvertebrate communities and densities. These studies rely on passive acoustic monitors, or hydrophones, combined with signal processing to determine the onset of sediment transport and estimates of relative sediment flux. These bedload findings were then

paired with multi-year macroinvertebrate monitoring to determine if the high flow targets (and subsequent bedload transport) developed by SRP stakeholders achieve the hypothesized results. Results suggest that coarse bedload is generally mobilized at flows lower than those identified in SRP targets and then longer duration of bedload transport has a larger influence on macroinvertebrate populations than shorter but higher flows. Results also suggest that higher flows benefit insect taxa compared to non-insect taxa, which is generally seen as beneficial for fish species, such as salmon.

Another common goal of Willamette SRP flow targets is to recruit large wood from banks and side channels to benefit aquatic habitats. In FY 2025, USGS began developing and applying an image processing model to map the amount of large wood in Willamette SRP reaches from historical and current aerial imagery. Ultimately, results from this work are intended to identify if and how streamflow dynamics in SRP reaches affect large wood recruitment and retention, and if proposed flow targets are having their intended effect. Initial results suggest that imagery dating back to at least 2018 is suitable for reliably identifying large wood in target reaches. Initial results also suggest the model is flexible and therefore should be easily applied or adapted to other SRP basins. This effort will continue into FY 2026, where the model will continue to be refined and improved. Findings will be summarized in a report, model archive, and data release.

Finally, work on leveraging existing hydraulic models to inform patterns of inundation related to SRP flow targets continued into FY 2025. Work in FY 2025 focused on contextualizing and normalizing streamflows between SRP reaches and extracting the relevant data from the hydraulic models. This work will continue into FY 2026, where these results will be compared and summarized between SRP reaches to identify when objectives identified in SRP flow targets, such as inundating side channels and floodplains, are achieved, and if existing targets should be refined as a result.

SECTION 3 LOCATION-BASED WORK

SRP identifies and executes location-based work via the following process: 1) evaluate program objectives and topics of interest to determine if adjustments are needed, 2) highlight objectives and topics as part of an RFP, 3) compile and prioritize responses, 4) scope priority tasks, 5) arrange funding and other logistics, and 6) perform work. The annual in-progress review (IPR) reports summarize status, including work completed in each FY and anticipated work in the coming FY for those funded projects. IPR reports are available at https://www.hec.usace.army.mil/sustainablerivers/publications/.

In FY 2025, one SRP location-based requests for proposal (RFP) was announced for USACE infrastructure. The SRP received and reviewed 40 proposals on behalf of 30 rivers, including 14 new rivers, and funded 28 teams.

This section is organized alphabetically by river team funded as shown in Table 3.1. Sub headers are titled according to “river name (facility), state - district (infrastructure type)”. Infrastructure type is “Gen” for general multi-purpose reservoirs or “LD” for locks and dams. Water infrastructure that does not fit either of those categories (e.g., diversions) are included in “Gen”. The “Other Sustainable River Program Accomplishments” section of this report includes accomplishments for previously funded efforts that continued in FY 2025.

Table 3.1 FY 2025 Location-based Efforts (1 of 2)

Division Acronym	District Acronym	USACE District Name	SRP Supported Rivers (facilities) - FY 2025
LRD	LRB	Buffalo District	Niagara River (Black Rock Canal and Lock)*
LRD	LRN	Nashville District	Caney Fork River (Center Hill Dam)
LRD	LRP	Pittsburgh District	Allegheny River (Kinzua Dam)
LRD	LRP	Pittsburgh District	Mahoning River
MVD	MVN	New Orleans District	Atchafalaya River (Old River Control Complex)
MVD	MVR	Rock Island District	Des Moines and Iowa Rivers (Saylorville and Lake Red Rock)
MVD	MVR	Rock Island District	Des Moines River - Shorebird Study (Saylorville Lake and Lake Red Rock)
MVD	MVR	Rock Island District	Mississippi River (Lock and Dam 2) - LD
MVD	MVS	St. Louis District	Kaskaskia River
MVD	MVS	St. Louis District	Mississippi River (Lock and Dam 12) - LD*
MVD	MVS	St. Louis District	Mississippi River (Mel Price)
MVD	MVS	St. Louis District	Mississippi River (Lock and Dam 25) - LD
MVD	MVS	St. Louis District	Salt River (Clarence Canyon Dam)
MVD	MVS	St. Louis District	Salt River*
MVD	MVS	St. Louis District	St. Francis River (Wappapello Dam and Lake)*
MVD	MVP	St. Paul District	Minnesota River (Highway 75)
MVD	MVP	St. Paul District	Mississippi River (Lock and Dam 15) - LD*

Table 3.1 FY 2025 Location-based Efforts (2 of 2)

Division Acronym	District Acronym	USACE District Name	SRP Supported Rivers (facilities) - FY 2025
MVD	MVP	St. Paul District	Mississippi River Headwaters-Red River*
NAD	NAP	Philadelphia District	Dyberry Creek (General Edgar Jadwin Dam)*
NWD	NWK	Kansas City District	Kansas River
NWD	NWS	Seattle District	Green, White, and Kootenai Rivers*
NWD	NWS	Seattle District	Kootenai River (Libby Dam)
SAD	SAM	Mobile District	Alabama River (Clairborne and Millers Ferry Locks and Dams)
SAD	SAM	Mobile District	Chattahoochee River (Buford Dam)
SAD	SAM	Mobile District	Coosawattee River (Carters Dam)
SAD	SAM	Mobile District	Tennessee-Tombigbee River
SPD	SPA	Albuquerque District	Rio Chama (Abiquiu Dam) *
SWD	SWL	Little Rock District	Black River
SWD	SWL	Little Rock District	Rolling Fork and Saline Rivers*

*New location-based effort in FY 2025

3.1 LAKES AND RIVERS DIVISION

3.1.1 Buffalo District

3.1.1.1 Niagara River - Black Rock Canal and Lock, New York (LD)

The Black Rock Canal and Lock have long served a critical role in the navigational framework and has been an economic and ecological resource of the upper Niagara River and the Great Lakes system. The Buffalo District inventoried existing conditions related to the ecology, infrastructure, and operations within the Black Rock Channel with the intent of improving fish habitat within the Black Rock Canal.

- Status of FY 2025 Work

  In FY 2025, the team was able to meet to determine changes to lock operations that would improve habitat quality for fish species that live in the Niagara River and use the Black Rock Canal. The hydraulics and hydrology team member modeled the flow rates and volume of water movement given alternative options to lock operations that helped to inform environmental analysis of the observed species that would benefit from changes to lock operations. A stakeholder meeting was hosted by LRB in August 2025 to discuss proposed action plans and future monitoring opportunities as alternatives are implemented.

- Anticipated work in FY 2026

  An SRP proposal was not submitted for FY 2026, as the recommended plan was not yet identified prior to the RFP closure date. Proposal work in FY 2027 will consist of monitoring dissolved oxygen levels and fish movement as the changes to operations commence.

- Future vision

  Going forward, LRB hopes to implement changes to lock operations prior to and post rehabilitation project(s) anticipated at Black Rock Lock. The team foresees conservation lockages outside of the peak season to be beneficial to fish movement as well as water exchanges at night via opening culvert valves to increase water exchange outside of operating hours.

3.1.2 Nashville District

3.1.2.1 Caney Fork River - Center Hill Dam, Tennessee (Gen)

This project goal is to enhance the reintroduction efforts of the threatened Lake Sturgeon at Center Hill Dam, located on the Caney Fork River in Tennessee. The project, led by USACE in partnership with Tennessee Wildlife Resource Agency (TWRA), is focused on optimizing river flows to benefit Lake Sturgeon. Key activities include using HEC River Analysis System (RAS) 2D modeling to establish baseline flow conditions, monitoring sturgeon responses to different flow scenarios, and coordinating outreach to balance hydropower, flood risk management, and recreational needs. Objectives include modeling flow conditions, expanding sturgeon monitoring, and producing a comprehensive report.

Milestones include data collection, outreach meetings, and final reporting in upcoming years.

- Status of FY 2025 Work

  The team presented the SRP effort at a meeting hosted by our state partners. The state partners provided USACE with interesting sturgeon literature which was reviewed and allowed the team to learn more about spawning conditions and habitat. MVP provided the team with a beneficial insight with their ongoing effort with SRP and sturgeon in the Salt River.

  The team was on site four times this year while gathering a mix of bathymetry, velocity and depth, model calibration, and tagging sturgeon with our state partners. The team also developed a HEC-RAS 2D model, verified it, and is currently finalizing the report based on model data.

  The team has kept the internal hydropower business line very engaged thus far with what they think the needs could be and they are open to working with SRP.

- Anticipated work in FY 2026

  The work in FY 2026 will evaluate reservoir conditions to support optimized releases, use HEC-ResSim to assess operational feasibility, and expand monitoring to correlate sturgeon activity with dam operations. Final deliverables include an operational decision document and a comprehensive project report by September 2026.

- Future vision

  In the near term, the LRN hopes to implement an outreach plan and conduct stakeholder meetings to discuss proposed action plans.

3.1.3 Pittsburgh District

3.1.3.1 Allegheny River - Kinzua Dam, Pennsylvania (Gen)

Since 2013, LRP and TNC have worked cooperatively to advance the SRP in the Upper Ohio River watershed. Key outcomes from this work include an evaluation of the degree of flow alteration and subsequent ecosystem flow recommendations from Kinzua Dam in the upper headwaters of the Allegheny River, a “Spring pulse” implementation, and monitoring during the pulse. Current work focuses on operationalizing and testing the defined ecosystem flow prescriptions for Allegheny Reservoir, recording and evaluating the short and long-term environmental and ecological impacts of the prescriptions, and characterizing mussel population, prevalence, species, and habitat in the reach. In FY 2025, this work focused on “getting the word out,” including development of press pieces and a story to promote the ongoing SRP science effort and communication with the Seneca Nation of Indians to develop future ecological actions for their lands that lie above the reservoir and river above the Kinzua Dam.

- Status of FY 2025 Work

  During FY 2025, the project team worked to develop a press release and communications pieces that describe the work and outcomes. A briefing document was developed for LRP leadership to ensure that the purpose and actions of the pulse were clearly delineated. The team monitored reservoir conditions and forecasted elevations beginning in February of 2025, to evaluate the feasibility of a pulse. The team also installed water quality sensors at the West Hickory gauge station to record continuous water quality data during the pulse period. Water quality data was collected during a "natural" spring pulse (a pulse event that was not initiated by excess rainfall runoff, instead of a controlled reservoir release) that took place in early April 2025. Water quality data from the FY 2023 spring pulse, the FY 2024 "natural" pulse, and the FY 2025 "natural" pulse included water temperature data. The team noted that water temperature patterns varied depending on whether the pulse resulted from a controlled reservoir release, versus the water temperatures observed during a rainfall event. A "The Corps Environment" article is in preparation to describe this effort.

- Anticipated work in FY 2026

  In FY 2026, the team plans to implement an additional pulse and take water quality samples at three locations during the pulse to compare data with the samples obtained in previous years. The team will also coordinate with and support the USGS effort to evaluate water temperatures in the reach of the Allegheny River between the Kinzua Dam and Tionesta, Pennsylvania (the “A1” and “A2” reaches). USACE will consolidate known information about previous mussel surveys, fish populations, and temperature-related effects on populations of mussels and fish for the Allegheny and comparable rivers. The USACE water quality and environmental planning team members will assist in placing the temperature loggers and maintain them.

  Further, USACE and USGS will collaborate to define operational targets for outflow water temperatures (e-temps) using existing information and data and results of the longitudinal temperature survey. USACE will assess the operational limitations related to the ability to configure meet e-temps targets will be identified. If limitations are significant, initial ideas for outlet modifications will be discussed and documented.

- Future vision

  Finish refining spatial data and use it to develop decision support tools incorporating habitat suitability criteria using HEC-EFM to enhance evaluation of flow release criteria. Consider

possible ways to incorporate temperature considerations for mussel reproduction needs (temperature, timing) into dam operations, and work with water management and operations personnel to evaluate any potential impact of possible actions on water management.

3.1.3.2 Mahoning River, Ohio (Gen)

This SRP project proposed to quantify and define e-flow recommendations for the Michael J. Kirwan Dam, Mosquito Creek Dam, and Berlin Dam located in the Mahoning River Basin of the Upper Ohio River within the LRP using the Ecologically Sustainable Water Management (ESWM) framework. The flow recommendations will examine and incorporate ecological information from the 2020 Hydrologic Alteration study in the Mahoning River Basin and other SRP studies in the Upper Ohio River Basin. The proposed effort will include an e-flow workshop to gain input on potential e-flow recommendations and a literature review of existing documentation. The project delivery team (PDT) will then compile an e-flow recommendations document for all three reservoirs, which will enable submittal of future proposals to implement select e-flows in future years.

- Status of FY 2025 Work

  A team of engineers and planners from LRP learned to define and characterize e-flows in preparation for the March 27 to 28, 2025, e-flow workshop. Workshop attendees included USACE participants from each project site in the Mahoning River and reservoir system, biologists from the water quality division, hydrologic and hydraulic engineers, and environmental engineers. Non-USACE participants included representatives from the Trumball County (Ohio) Cooperative Extension, TNC, Ohio Environmental Protection Agency (EPA), regional academic institutions, and the Ohio Department of Natural Resources (DNR). A meeting report detailing the results of this effort is in preparation.

- Anticipated work in FY 2026

  This project has been terminated due to concerns from stakeholders.

3.2 MISSISSIPPI RIVER DIVISION

3.2.1 New Orleans District

3.2.1.1 Atchafalaya River - Old River Control Complex, Louisiana (Gen)

The Old River Control Complex (ORCC) refers to the five structures that are operated to maintain the distribution of flow between the Mississippi River and the Atchafalaya River, the four USACE owned and operated structures known as the Old River Control Structure (ORCS) and the Sidney A. Murray Jr. Hydroelectric Station that is privately owned and operated.

In addition to flood risk management and navigation, the ORCC provides freshwater to the Atchafalaya River, the fifth-largest river by flow in the U.S. and one of the last great primitive areas in the nation not part of the national wildlife refuge or park systems. This freshwater is needed by the extensive plant and animal life in the Atchafalaya Basin. The Atchafalaya is home to several species of concern including the pallid sturgeon, which has been found to be present in significant numbers behind the Old River Low Sill and Auxiliary Control structures, as well as commercially important fisheries for crawfish, fin fish, and shellfish. USACE operates the Old River Control Structure in accordance with authorizing legislation (Flood Control Act of 1954, Public Law 780, 83rd Congress) and the project water control manual. Operationally, the Low Sill, Auxiliary, and Overbank Control Structures, in conjunction with the privately owned S.A. Murray Hydroelectric Plant, are operated daily to maintain the Congressionally mandated 70/30 flow distribution where 70% of the combined flows of the Mississippi, Red, and Atchafalaya Rivers

flows down the Mississippi River and 30% of the combined flows of the Mississippi, Red, and Atchafalaya Rivers flows down the Atchafalaya River.

The goal of this SRP project is to conduct an e-flows workshop to advance understanding of whether changes in flow regimes at ORCC, while still maintaining the Congressionally mandated annual 70/30 flow distribution, could offer opportunities to improve ecological conditions in the Atchafalaya Basin.

- Status of FY 2025 Work

  A virtual public meeting held on March 12, 2025, introduced the project to the public and invited stakeholder input. Following this successful meeting, a technical e-flows workshop was held on April 8 to 9, 2025, in Lafayette, Louisiana. This workshop included break-out groups targeting three ecological target habitats: fish and crawfish, water quality, and forest health. The workshop culminated with a unification exercise to combine the recommendations from each target group into one. A final report was produced with an overview of the workshop and e-flow recommendations at ORCC collectively benefiting target habitats while remaining within Congressional authorization. The workshop also identified areas within the basin in need of additional data to validate and verify the local ecological assumptions that were made during the development of those recommendations.

- Anticipated work in FY 2026

  MVN requested FY 2026 SRP funding to use the recommendations of the workshop to conduct an operational test at ORCC. This test will validate assumptions of the flow distribution and further refine decision-support modeling tools to improve potential e-flow operations in the future.

- Future vision

  The SRP project future vision is to develop and provide the groundwork to establish e-flows in the Atchafalaya Basin. This information will support other efforts, such as the Lower Mississippi River Comprehensive Management Study, which is evaluating dynamic operations of the ORCC, rather than static daily operations. Testing e-flow recommendations and making improvements in predictive models to accurately portray impacts to water flow, water quality and other factors will inform and improve overall management of the Atchafalaya Basin; thereby maximizing benefits for multiple mission areas. In addition, future updates to the associated WCM will benefit from SRP input. SRP support from the public and stakeholders review of environmental opportunities at the Atchafalaya contributes to solutions within the basin.

3.2.2 Rock Island District

3.2.2.1 Des Moines and Iowa Rivers - Saylorville Lake and Lake Red Rock, Iowa (Gen)

The Des Moines River has been active in the SRP since 2015 and accomplished several projects that advance environmental water management principles primarily at Lake Red Rock.

- Status of FY 2025 Work

  FY 2025 work included a multi-agency collaborators workshop in February 2025; coordination, assistance, and review of reports for other ongoing Des Moines and Iowa River SRP projects; and incorporation and implementation of project recommendations into adaptive management actions.

- Anticipated work in FY 2026

  In FY 2026, anticipated work includes continued coordination with ongoing shorebird and sturgeon tracking projects; assistance with herptile tracking at Lake Red Rock; coordination with a species inventory team; and further coordination with the Saylorville Lake nitrate reduction study.

- Future vision

  MVR intends to continue incorporating new findings into annual e-pool and e-flow operations. The team also intends to continue generating interest in the effects of e-pool and e-flow operations within academic circles to better quantify the effects of these operations and target optimal management strategies for the Des Moines and Iowa Rivers.

3.2.2.2 Des Moines River - Saylorville Lake and Lake Red Rock - Shorebird Study, Iowa (Gen)

The Saylorville Lake and Lake Red Rock Shorebird Study is an evaluation of migratory bird behavior in response to e-flow management on the Des Moines River, with expansion of sites to include Coralville Lake and 1 to 2 additional sites in the Midwest.

- Status of FY 2025 Work

  The pre-award was authorized on July 17, 2025, and the FY 2025 field work kicked off with invertebrate sampling later that month at Coralville in coordination with Iowa DNR. A new graduate student from Iowa State University provided field support. MVR expects to begin a drawdown from 684.5 feet to 683 feet.

- Anticipated work in FY 2026

  MVR will focus on data collection at Coralville in FY 2026 and determine an additional 1 to 2 collection sites based on drawdown conditions. MVR will continue implementation of satellite tracking of pectoral sandpipers in coordination with environmental partners. Data will include information on site residency times, local movement patterns, possible site connectivity, and migration stopover information as the birds depart the Midwest and move south to wintering areas.

- Future vision

  At Coralville Lake, MVR will conduct a drawdown in accordance with the WCP and Adaptive Management and Monitoring Plan. Three reports will be completed as deliverables: 1) reservoir influence and operations as they relate to shorebird stopover ecology, 2) annual reports for field seasons 2025 and 2026, and 3) final report summary associated with Report 1. MVR will also provide field support for planning awareness.

3.2.2.3 Mississippi River - Lock and Dam 12, Iowa (LD)

This project is investigating the potential to facilitate Lake Sturgeon (LKSG) spawning below Lock and Dam 12 (LD12), similar to previous success at Mel Price Locks and Dam. Factors such as habitat quality, ability to manage flows, Lake Sturgeon presence and accessibility have all been considered. LD12 emerged as a potential site to provide LKSG with necessary spawning habitat. USACE will coordinate with Federal and State stakeholders to gather necessary information to confirm that LD12 has the necessary substrate, flow, and dam manipulation flexibility to be successful. These determinations will

come from modeling and ground truthing as well as conducting baseline LKSG monitoring at LD12 near Bellevue, Iowa.

- Status of FY 2025 Work

  In FY 2025 H&H developed a two-dimensional (2D) hydraulic model of the study area using HEC-RAS. This model spans RM 560 to RM 533.28 with the damming structure to include seven Tainter gates and three roller gates. The output water surface profiles were calibrated to reproduce operating pool conditions by varying Manning's "n" values associated with land cover type. No observed velocity data transects were available for calibration.

- Anticipated work in FY 2026

  MVR intends to tag adult LKSG with acoustic telemetry tags, deploy acoustic receivers, conduct active boat-based telemetry, and utilize visual observations for fish monitoring. In FY 2026, the hydraulic model will be further developed through the incorporation of Acoustic Doppler Current Profiler (ADCP) velocity data. This will allow more accurate velocity calibration in areas of interest. Once calibrated, the model will be applied to determine appropriate dam gate settings that produce desired velocities without impacting navigation. Field data requirements will include four ADCP collections by MVR staff for both high and low stage collections downstream of the dam and additionally in areas where sturgeon are known to be present. Gate manipulations may be requested to directly measure velocity response to gate setting changes.

- Future vision

  MVR will continue fish monitoring, field velocity measurement, hydraulic modeling, and gate manipulations to develop a protocol that can function across a variety of expected flows to improve spawning habitat for LKSG. In addition, MVS will continue monitoring flows and lock approach conditions to ensure navigation is unimpacted.

3.2.2.4 Mississippi River - Lock and Dam 15, Illinois (LD)

This project is investigating potential to facilitate LKSG spawning below Lock and Dam 15 (LD15), similar to previous success at Mel Price Locks and Dam. Factors such as habitat quality, ability to manage flows, Lake Sturgeon presence, and accessibility have all been considered; LD15 emerged as a potential site to provide LKSG with necessary spawning habitat. USACE will coordinate with Federal and State stakeholders to gather necessary information to confirm LD15 has the necessary substrate, flow, and dam manipulation availability to be successful. These determinations will come from modeling and ground truthing as well as conducting baseline LKSG monitoring at LD15 near Rock Island, Illinois.

- Status of FY 2025 Work

  In FY 2025 H&H developed a two-dimensional hydraulic model of the study area using HEC-RAS. This model spans RM 489.05 to RM 478.34 and included LD15 as well as the two hydropower dams in Sylvan Slough. The output water surface profiles were calibrated to reproduce operating pool conditions by varying Manning's "n" values associated with land cover type. No observed velocity data transects were available for calibration.

- Anticipated work in FY 2026

  MVR intends to tag adult LKSG with acoustic telemetry tags, deploy acoustic receivers, conduct active boat-based telemetry, and utilize visual observations for fish monitoring. In FY

2026, the hydraulic model will be further developed through the incorporation of ADCP velocity data. This will allow more accurate velocity calibration in areas of interest. Once calibrated, the model will be applied to determine appropriate dam gate settings that produce desired velocities without impacting navigation. Field data requirements will include four ADCP collections by MVR staff for both high and low stage collections downstream of the dam and additionally in areas where sturgeon are known to be present. Gate manipulations may be requested to directly measure velocity response to gate setting changes.

- Future vision

  MVR will continue fish monitoring, field velocity measurement, hydraulic modeling, and gate manipulations to develop a protocol that can function across a variety of expected flows to improve spawning habitat for LKSG. In addition, MVR will continue monitoring flows and lock approach conditions to ensure navigation is unimpacted.

3.2.3 St. Louis District

3.2.3.1 Kaskaskia River, Illinois (LD)

This project evaluates the vegetation response to a growing season drawdown at up to three locations on the Kaskaskia River system in Illinois. Successful water level management occurred at Carlyle Lake in 2021 and 2024, at Lake Shelbyville in 2022 and 2024, and at the Costello Lock and Dam in 2021 and 2022. Quantitative data were previously collected at Carlyle and Shelbyville to document the vegetative composition and richness. Due to weather-related limitations within the watershed, drawdowns occurred too late in the season to evaluate seed production potential of emergent vegetation at Carlye Lake and Lake Shelbyville. In FY 2025, the project aimed to evaluate seed production to better estimate and communicate environmental benefits of environmental pool management on the Kaskaskia River. Additionally, the team started discussions with natural resource partners at Carlyle Lake to develop other potential environmental benefits produced through water management modifications.

- Status of FY 2025 Work

  MVS was able to implement a drawdown at all three sites on the Kaskaskia River in FY 2025. A late season increase in pool elevations prevented seedhead analysis at Carlyle Lake, but seedhead sampling was conducted at Lake Shelbyville in mid-September.

- Anticipated work in FY 2026

  Seedhead analysis results will be dependent on U.S. Fish and Wildlife Service (USFWS) and are expected in FY 2026. The plant response summary report will be completed in early FY 2026.

  MVP plans to incorporate lessons learned from environmental pool management and conduct management strategy as conditions allowed based on feedback from operations and natural resource agencies. MVP plans to continue development of strategies with resource management partners to improve environmental benefits on the Kaskaskia River where opportunities are expected to occur.

- Future vision

  The project goal is to develop and implement a comprehensive menu of environmental strategies and incorporate those strategies into operations when environmental conditions are appropriate. These actions will help to improve project environmental benefits while

balancing project authorizations. Overall, the benefits are expected to increase the resiliency of organisms at Lake Shelbyville, Carlyle Lake, and the Kaskaskia River.

3.2.3.2 Mississippi River - Mel Price, Illinois (LD)

The purpose of this SRP project is to better understand the mechanism of success in the pool upstream closer to the hinge-point. This knowledge may allow USACE to adjust drawdowns to provide better conditions for more of the pool than what is currently provided. A case study of RM 210 for the past 10 years will determine the magnitude of additional benefits with a change in traditional Environmental Pool Management (EPM) methods.

- Status of FY 2025 Work

  The work has been completed and successful implementation has occurred. Large areas closer to the hinge-point have produced arrowhead (Sagittaria sp.) that would not have been achieved this growing season without the results of this study.

- Anticipated work in FY 2026

  A scope of work has been submitted to look at expanding this effort into Pools 24 and 25. It is anticipated that expanded EPM will be implemented in these pools in FY 2026 if hydrologic conditions are allowed.

- Future vision

  EPM continues to be one of the most effective e-flow projects in the country, given its low cost and large geographic scope. The program continues to evolve from its beginnings in 1994. SRP has been vital in pursuing new ideas and implementing them. The vision is that SRP and EPM will continue to work together to adjust USACE operations to improve environmental conditions as new ideas are brought forward.

3.2.3.3 Mississippi River - Lock and Dam 25, Illinois (LD)

Lake sturgeon spawning success has been achieved at Mel Price Locks and Dam (Mel Price) on the mainstem of the Mississippi River in 2022, 2023, 2024, and 2025. USACE coordinated with Federal and State stakeholders to initially identify and screen locks and dams for potential spawning locations in FY 2024. Factors such as habitat quality, ability to manage flows, lake sturgeon presence, and accessibility were utilized to rank viability of a given site. Lock and Dam 25 (LD25), near Winfield, Missouri, was one of the locks and dams that ranked highly for having potential to replicate efforts at Mel Price.

- Status of FY 2025 Work

  The team captured and radio tagged LKSG at LD25. Movements of tagged fish were monitored via VR2 receiver and homing via boat. Hydraulic engineers completed a 2D HEC-RAS model that the details gate settings needed to achieve targeted velocities for the site. Based on the model, velocity trials were made to operationalize flows to monitor target velocities. Lastly, the team conducted an exploration of technologies to identify prospective methodologies of describing submerged substrates.

- Anticipated work in FY 2026

  MVS plans to continue to capture, tag, and track LKSG in the LD25 tailwater. The team also plans to implement velocity trials at various flows to further calibrate the hydraulic model.

Velocity trials will be directed by input from water control and operations staff. Lastly the team will look to further investigate the applicability of the multifrequency, multibeam SONAR backscatter (MMSB) technology. MMSB could be a viable technology for accurately classifying substrates.

- Future vision

  MVS envisions replicating successes already achieved at Mel Price Locks and Dam. Under appropriate river conditions, MVS is confident gate settings can be altered to encourage lake sturgeon spawning on a consistent basis. Beyond LD25, we would like to see this become standard practice at many LDs on the Mississippi River to aid in the recovery and sustainability of lake sturgeon populations.

3.2.3.4 Salt River, Missouri - Clarence Cannon Dam (Gen)

The Salt River, located in northeast Missouri, is an important tributary of the Mississippi River. The river was dammed in 1984 by the construction of Clarence Cannon Dam (CCD) to create Mark Twain Lake (MTL). The dam, with two hydropower turbines, is jointly operated by the USACE and the Southwestern Power Administration (SWPA). Flows out of the dam are regulated in accordance with the USACE water control plan and hydropower generation. In addition, there is a re-regulation dam below MTL which was put in place for pump-back capability for the hydropower plant. While pump back has never been utilized outside of test capabilities, re-regulation of the Salt River is common, as flows out of MTL and the re-regulation pool have a significant impact on the species of the Lower Salt River. Flows below the re-regulation dam directly influence several species of state interest including paddlefish, walleye, sauger, channel and flathead catfish, and lake sturgeon. Secondarily, the river below MTL has productive mussel beds, which are a resource of concern within the Mississippi River Basin.

Of particular interest is the lake sturgeon. Once nearly extirpated from Missouri, the species has been subject to an extensive reintroduction effort by the Missouri Department of Conservation (MDC) since the 1980's. The lake sturgeon is a long-lived fish which takes upwards of 20 years to reach sexual maturity. MDC has noted the recent repeated aggregation of lake sturgeon below the re-reg dam in the Salt River during spawning season (2016 to 2021). They believe the aggregations are related to attractive flows out of the re-regulation dam. MDC biologists approached USACE with a request to evaluate velocity and flows to facilitate sturgeon aggregations, and to assess stage fluctuations, which they believe may be negatively influencing spawning and reproduction in the Salt River. Any efforts to benefit the lake sturgeon would also be expected to benefit a host of other riverine fish species that utilize the area for spawning and reproduction.

- Status of FY 2025 Work

  In FY 2025, MVS collected flow transects, implemented experimental e-flows, met with partners, deployed acoustic telemetry arrays, and conducted onsite monitoring for adult fish.

- Anticipated work in FY 2026

  FY 2026 efforts will prioritize comprehensive monitoring to assess spawning success. This includes intensified observation of adult fish activity during peak spawning periods, as well as expanded egg and larval sampling following peak spawning. Previous years focused on system understanding, flow data collection, and model development to inform flow management. With that foundational knowledge, FY 2026 will emphasize practical application and documentation of the ecological response to implemented flow regimes.

- Future vision

  Through rigorous data collection and analysis over multiple spawning seasons, this project has significantly advanced our understanding of the Salt River system and its impact on sturgeon spawning. The goal is to implement data-driven, routine flow adjustments to create consistently favorable spawning conditions into the future when spring water levels are favorable. This enhanced understanding, coupled with ongoing monitoring and collaborative partnerships, will ensure the long-term success of sturgeon populations across the region.

3.2.3.5 Salt River, Missouri (Gen)

MVS intends to investigate e-flow strategies to improve wetland productivity in the wetlands that are adjacent to the re-regulation pool. This first step is to acquire light and detection ranging (LiDAR) of the area and build a model to better understand how e-flows could enhance the wetlands.

- Status of FY 2025 Work

  The LiDAR was not completed given FY 2025 weather conditions. Money was returned for that part of the effort. The model was developed with the idea the LiDAR information could be deferred and plugged in during the FY 2026 effort.

- Anticipated work in FY 2026

  In FY 2026, LiDAR will be flown and data inserted into the model, thereby completing FY 2025 deliverables. In addition, initial results will be shared with stakeholders so that MVS can further refine e-flow strategies.

- Future vision

  Using the analysis completed by SRP, MVS will use its own funding to pursue implementation of experimental e-flows.

3.2.3.6 St. Francis River - Wappapello Dam and Lake, Missouri (Gen)

The USACE Wappapello Lake project is located on the upper St. Francis River in Wayne County, Missouri. The dam is located at RM 213.2, 16 miles northeast of Poplar Bluff, Missouri, and less than one mile southeast of Wappapello, Missouri. The project was authorized for downstream flood control by the Flood Control Act of 1936. Development of recreation and public-use areas on USACE reservoir areas was authorized by Section 4 of the Flood Control Act of 1944, as amended by section 209 of the Flood Control Act of 1954. These flood control acts which authorized development of recreation and public use areas made no provision for modifying reservoir WCM to accommodate recreation. Therefore, the project is only regulated to provide downstream flood control.

The MDC approached the MVS about operational flexibilities at Wappapello Lake on the St. Francis River. This request was based on successful implementation of SRP actions at other MVS reservoirs that realized environmental benefits. Early interest is in evaluating seasonal pool elevations to improve environmental conditions for fish, vegetation, and habitat sustainability and evaluation of downstream e-flows releases and available operational flexibility with a focus on banklines and mussels.

This is the first year of work to advance identification of environmental opportunities through a workshop with the expectation of future implementation and adaptive management if successful.

- Status of FY 2025 Work

  A stakeholder meeting was held in spring of 2025 and involved 23 participants from six agencies. At the workshop ten ideas (alternatives) were identified to further evaluate. One of these, development of a RESSIM Model, were pulled forward to start in FY 2025. This will provide a foundation for evaluating the rest of the identified alternatives.

- Anticipated work in FY 2026

  Plans for FY 2026 are to conduct a second workshop with partners and complete evaluation of the alternatives identified from the FY 2025 stakeholder meeting. The results of both along with model documentation will be summarized in the FY 2026 report.

- Future vision

  There is potential to begin implementation of one alternative in FY 2026, if conditions allow. Other actionable alternatives may be pursued based on the results of the alternative analysis in FY 2026.

3.2.4 St. Paul District

3.2.4.1 Minnesota River - Highway 75, Minnesota (Gen)

This is a periodic summer drawdown of the Highway 75 reservoir on the Minnesota River for the benefit of vegetation and shorebirds. This SRP initiative is being conducted in cooperation with USFWS, which manages the adjacent Big Stone National Wildlife Refuge.

- Status of FY 2025 Work

  The environmental assessment was posted for public review, and the Finding of No Significant Importance (FONSI) document was signed on June 24, 2025. The intent was to conduct the first drawdown during the 2025 growing season, but flooding in the basin prevented this. A drawdown will be attempted in FY 2026, if possible, to allow the execution of the cultural resources survey by the programmatic agreement; USFWS is conducting the survey.

- Anticipated work in FY 2026

  MVP expects to conduct its first full-summer drawdown and provide a completion report provided by USFWS. The project will need additional funds to continue. USACE planned to provide $10,000 to USFWS in FY 2025, but they exceeded the Economy Act limit and did not accept the funds.

- Future vision

  MVP anticipates improved wetland and floodplain habitat to benefit shorebirds, waterfowl, fisheries, recreation and water quality.

3.2.4.2 Mississippi River - Lock and Dam 2, Minnesota (LD)

This evaluation will determine how to manipulate flows from Lock and Dam 2 to improve local downstream habitat conditions at suitable habitat locations.

- Status of FY 2025 Work

  Hydraulic modeling of velocities at different flows were completed along with bathymetric surveys. Surveys of substrate were started at the end of FY 2025 and will be completed in early FY 2026. This data will be used to assess habitat at various flows, which will be presented in a completion report.

- Anticipated work in FY 2026

  No SRP funding has been requested at this site. If the evaluation suggests the potential to improve habitat via gate manipulation, a plan for implementation will be developed in FY 2026.

- Future vision

  MVP hopes to improve sturgeon spawning success below Lock and Dam 2.

3.2.4.3 Mississippi River Headwaters - Red River, Minnesota (Gen)

This 18-month study will assess the potential for water management considerations for manoomin at seven lakes, six headwaters lakes in the Mississippi River Basin (Leech Lake, Lake Winnibigoshish, Pokegama Lake, Sandy Lake, Cross Lake, Gull Lake) and a single headwaters lake in the Red River Basin (Red Lake). Two regional workshops will be held with local Tribes to use a collaborative science-based approach to evaluate opportunities during normal operations to enhance manoomin health and productivity at the seven USACE projects. The workshop will also provide an opportunity to share manoomin Traditional Ecological Knowledge (TEK). Increasingly, we are learning conservation and restoration work performed under Indigenous Peoples guidance is more successful than Western engineered-only solutions. This may be especially true given Indigenous Peoples intimate and historical ties to the land. Through the application of TEK and scientific ecological knowledge, USACE hopes to identify potential opportunities for manoomin enhancement at one or more of the lakes.

- Status of FY 2025 Work

  FY 2025 work included the formation of the project delivery team (PDT) and initial engagements with Tribal partners to identify knowledge holders, workshop venues, and communication protocols. The team also began compiling manoomin literature and water management information.

- Anticipated work in FY 2026

  In FY 2026, Tribal Nations Technical Center of Expertise (TNTCX) and MVP will jointly conduct workshops and document findings and conclusions.

3.3 NORTH ATLANTIC DIVISION

3.3.1 Philadelphia District

3.3.1.1 Dyberry Creek - General Edgar Jadwin Dam, Pennsylvania (Gen)

NAP has identified opportunities for environmental enhancements eligible for support from the SRP at the General Edgar Jadwin Dam (Jadwin) in Wayne County, Pennsylvania. During a North Atlantic Operations and Water Management meeting in October 2021, an opportunity was identified at Jadwin for riparian management to improve habitat conditions and physical instream habitat creation. Jadwin is a dry dam

(DD) located on Dyberry Creek, a tributary of the Lackawaxen River, approximately 2.9 miles upstream of the town of Honesdale, Pennsylvania. The dam can provide 24,600 acre-feet of storage to the spillway crest and a total of 47,300 acre-feet of storage at maximum pool.

The opportunities included planning and coordination of riparian management for terrestrial and instream habitat enhancement and instream habitat design advancement. Additionally, NAP will team up with state partners to plan instream habitat enhancements designed to increase habitat availability for high value aquatic species.

- Status of FY 2025 Work

  NAP completed planning and coordination of riparian and instream habitat enhancement. Plans have been developed with plant materials selected and a final report completed. The work in 2025 included planning only and not landscaping or purchasing plant materials.

- Anticipated work in FY 2026

  NAP expects to complete planting efforts with community partners.

- Future vision

  The goal of this project is to establish native plants in the riparian corridor so they can increase shading of the stream and limit invasive plant growth. Partner support and assistance from the NAP Operations Division will enable instream habitat enhancements. No SPR funding will be needed.

3.4 NORTHWESTERN DIVISION

3.4.1 Kansas City District

3.4.1.1 Kansas River, Kansas (Gen)

NWK is pursuing implementation of e-pools strategies at several reservoirs. Monitoring results and strategies is necessary to understand benefits to environmental conditions, mainly e-flows and Harmful Algal Blooms (HAB) prevention. NWK intends to communicate broadly with stakeholders via workshops with the Kansas Water Office. Ultimately, NWK hopes to incorporate an e-pools implementation strategy for 2026 Lake Level Management Plans (LLMP).

- Status of FY 2025 Work

  Some e-pools strategies were implemented at Perry and Milford Lakes with monitoring in place through aerial drone imagery and time-lapse trail cameras. A meeting with the Kansas Department of Health and Environment was completed to compare e-pools strategies to HAB prevention through lake level management. A workshop with the Kansas Water Office was completed to inform personnel on the SRP about the environmental pool management project at Wilson, Kanopolis, Milford, Tuttle Creek, and Clinton Lake. Internal meetings between Operations, Water Management, Planning, and field staff are occurring in preparation for the 2026 LLMP development. E-pools strategies are being proposed and incorporated into the LLMP proposal.

- Anticipated work in FY 2026

  In FY 2026 e-pool strategy implementation will be pursued at Perry, Tuttle Creek, Milford, Kanopolis, and Wilson Lakes. This will be facilitated through incorporating the strategies into the 2026 LLMP at these locations. Continued monitoring of environmental outcomes will occur in 2026 using trail cameras and drones to capture real time imagery. Remote sensing will be utilized to identify different vegetation types and species (if possible) from the imagery throughout the growing season.

- Future vision

  E-pools strategies for fish, wildlife, and other environmental benefits with seasonal elevation targets will become incorporated into LLMP. Adaptive management and the use of conservation bands within the LLMP will become common activities through continued collaboration among agencies. Monitoring, surveying, and data gathering will continue and expand when possible.

3.4.2 Seattle District

3.4.2.1 Green, White, and Kootenai Rivers, Idaho (Gen)

This project will compile best practices and lessons learned from three NWS operating projects related to changed operations to accommodate passage of large woody material downstream of the dams for purposes of environmental stewardship, National Environmental Policy Agency (NEPA) compliance, improving ecosystem function and instream habitat, strengthening partnerships, and reducing risks to infrastructure from entrainment of woody material.

- Status of FY 2025 Work

  In FY 2025 the NWS team, working in cooperation with IWR editors, completed a manuscript and draft case studies for improving ecological management of woody material at USACE operating projects. While the case studies emphasize work conducted in the Pacific Northwest, the document focus is national, and it provides several examples that are practical and scalable. NWS has drafted a document outlining the best ecological management practices, which includes several case studies illustrating various scales and types of projects.

- Anticipated work in FY 2026

  The team will be working to complete final drafts of case studies, incorporate editorial comments, and conduct a legal review before publishing electronically through IWR in FY 2026 and disseminating the results to key audiences.

- Future vision

  The overarching goal is to facilitate ecological and economically beneficial management practices at other USACE projects beyond the Pacific and Inland Northwest regions, so these benefits can be scaled across the USACE mission area, where appropriate.

3.4.2.2 Kootenai River - Libby Dam, Idaho (Gen)

Libby Dam was constructed with a selective withdrawal structure (SWS) that allows water to be discharged through the dam from different depths in the forebay. Increased coal mining in British

Columbia in the Elk River, a tributary to the upper Kootenai River (spelled Kootenay in Canada), over the past 20 years has resulted in a 5-fold increase in nitrate loadings. Sampling data show that nitrate concentrations in the forebay vary by season and depth in the water column. Understanding this temporal and vertical cycle of nitrate concentrations in the forebay and the relationship to temperature stratification and turnover are possibly key to optimizing future operations of the SWS to maintain the health of aquatic ecosystems. NWS is continuing a comprehensive study of the vertical dynamics of nitrate and temperature in the forebay at Libby Dam during the 2025 sampling season.

- Status of FY 2025 Work

  In FY 2025 new contracts were put in place allowing the NWS Water Management and Libby Dam project team to execute their second season of intensive field sampling. The field report from the 2024 sampling season was finalized and published online to the SRP website.

- Anticipated work in FY 2026

  In FY 2026, the team plans to take the two years of field data and produce a final report. The report will incorporate the field report from the 2024 sampling season, the two years of raw data, and comprehensive study results into recommendations regarding SWS operations, if appropriate.

- Future vision

  The final report may inform future SWS operations, if found appropriate. Furthermore, the study design and reports may serve to inform studies at other USACE projects with SWS, where appropriate.

3.5 SOUTH ATLANTIC DIVISION

3.5.1 Mobile District

3.5.1.1 Alabama River - Clairborne and Millers Ferry, Alabama (LD)

The Mobile River Basin comprises the Alabama and Tombigbee rivers which meet at their confluence to form the Mobile River and then flows for approximately 45 miles to the Gulf of Mexico. Together the basin forms the fourth-largest river system in the country and supports a high diversity of aquatic species (fishes, mussels, amphibians, and reptiles) and bottomland habitats. The Alabama River itself supports more than 180 fish species with a relatively high proportion of endemic species. Claiborne and Millers Ferry Locks and Dams are located on the Alabama River at RM 72.5 and RM 133, respectively. These are the lowermost dams on the Alabama River and are operated by the MVM, with authorized missions for hydropower (Millers Ferry), navigation, recreation, and fish and wildlife conservation.

Claiborne and Millers Ferry, the lowermost navigation structures in the Alabama River, are characterized by good water quality, connection to riffle/run/pool habitat, and presence of multiple threatened and endangered fish and freshwater mussel species. However, both Claiborne and Millers Ferry Lock and Dam restrict the ability for fish passage in the lower Alabama River. While some fish may pass through Claiborne, fish passage is more challenging at Millers Ferry. The goal of this SRP project is to improve the ecosystem of the Alabama River, while still allowing or improving current operations and authorized uses.

- Status of FY 2025 Work

  SAM completed a draft of the FY 2023, FY 2024, and FY 2025 report summaries. Fish surveys were completed in spring and summer 2025. Water conditions were also measured at the beginning of each of these surveys.

- Anticipated Work in FY 2026

  No additional work is anticipated in FY 2026.

- Future Vision

  The goal is to find a balance between these two lock and dams being properly utilized for their navigational purposes while also supporting fish passage. Successful implementation of this project could see improved ecosystem health, with federally listed species and host fish able to migrate through the Alabama River.

3.5.1.2 Chattahoochee River - Buford Dam, Alabama (Gen)

The tailwater of Buford Dam provides a unique cold-water fishery for metro Atlanta. In recent years there has been a decrease in dissolved oxygen leading to fish mortality in the tailwater. The USACE is experimenting with releasing water through the sluice gate to improve dissolved oxygen.

- Status of FY 2025 Work

  The team continued experimental operations this year and observed an increase of 1.5 to 2 mg/ml of dissolved oxygen. With Public Affairs, SAM installed cameras to show the discharges. SAM also completed a hydropower benefits analysis for modified operations. The SAM team expects to incorporate its findings in a meeting with the Major Subordinate Command (MSC) next month.

- Anticipated work in FY 2026

  No additional work is anticipated in FY 2026.

- Future vision

  To incorporate the results into the WCM.

3.5.1.3 Coosawattee River - Carters Dam, Georgia (Gen)

The Coosawattee is home to an experimental population of Lake Sturgeon (Acipenser fulvescens), which have shown evidence of spawning behavior below Carters reregulation dam. With the goal of encouraging spawning, Carters Re-Regulation Dam is experimenting with specific flow releases from gates 2 and 3.

- Status of FY 2025 Work

  A draft of the FY 2024 report is in progress. Modified operations and monitoring are also underway.

- Anticipated work in FY 2026

  Flows will continue to be released according to the recent findings. In FY 2026, SAM will decide if the experiment should develop into implementation. This will lead to an update in the district standard operating procedures (SOP).

- Future vision

  SAM intends to honor reasonable guidelines of flow distribution from Carters Re-Regulation Dam but continue with flows that support spawning behavior of lake sturgeon. The expectation is that lake sturgeon populations will increase; results and data can then be applied to other locations where this species is struggling.

3.5.1.4 Tennessee - Tombigbee Rivers, Alabama and Mississippi (LD)

The Tenn-Tom Waterway (TTWW) is home to a variety of mussels, including at least five federally listed species. Altered river flows due to dam structures such as the Whitten, Montgomery, Rankin, Fulton, Wilkins, Amory, and Aberdeen Locks and Dams have negatively impacted the environment. Not only does the water rise and fall too quickly, but high river flows carry large amounts of sediments, reducing water quality and creating sandbars. The combination of sediment deposits and flows have caused degradation to the ecosystem that this project aims to alleviate.

- Status of FY 2025 Work

  SAM has completed a draft of the FY 2023 report. A gage was installed at Bluewater Creek, just below Wilkins Lock and Dam. A survey was conducted in September 2025.

- Anticipated work in FY 2026

  In FY 2026, the team intends to continue annual survey efforts and monitoring of flows. SAM also intends to experiment with modified flows at Whitten LD.

- Future vision

  The vision is to replicate flows that resemble their historic states as closely as possible, which will provide improved habitat for mussel species in the area.

3.6 SOUTHWESTERN DIVISION

3.6.1 Albuquerque District

3.6.1.1 Rio Chama - Abiquiu Dam, New Mexico (Gen)

The SRP Rio Chama project builds upon recommendations generated from an August 2024 environmental flows workshop for the larger Rio Grande Basin in New Mexico. The Rio Chama project is working collaboratively with partners to evaluate environmental opportunities for e-flows from Abiquiu Dam to benefit downstream resources. As part of this project, the team is: 1) assessing the Rio Grande Basin Study's e-flow recommendations via HEC-RPT, and 2) developing and refining ecology-flow relationships that will inform e-flow recommendations for the Rio Chama below Abiquiu Reservoir.

- Status of FY 2025 Work

  Work completed by the team in FY 2025 included assessing the basin study e-flow recommendations for the Rio Grande Basin via HEC-RPT, assessing live history requirements of the Rio Grande sucker and chub, coordinating and partnering with Bureau of Land Management (BLM) on ecosystem monitoring, obtaining relevant datasets (e.g., fish data from the New Mexico Department Game of Fish), and making significant progress on open channel hydraulics modeling and a literature review. At the end of 2025, a report entitled “E-flow Opportunities for the Rio Chama,” was completed by the team that includes HEC-RPT hydrographs/plots, open-channel hydraulic plots, and preliminary results of the literature and data review on the Rio Chama hydrology, geomorphology, and the Rio Grande sucker and chub, as well as other relevant species.

- Anticipated work in FY 2026

  In FY 2026, the team will develop riparian vegetation and species e-flows relationships, evaluate opportunities to improve ecosystem benefits of operations at Abiquiu Dam, and provide recommendations to implement and monitor e-flow experiments and adaptive ecosystem management. The FY 2026 effort will be detailed in a report entitled “Riparian management opportunities for the Rio Chama,” or similar.

- Future vision

  The goal is to provide information for SPA partners within the Rio Grande Basin, and specifically along the Rio Chama, that will be useful in developing prescriptions for and potentially implementing e-flows on the Rio Chama.

3.6.2 Little Rock District

3.6.2.1 Black River, Missouri (Gen)

The Black River forms in southern Missouri near Centerville and flows about 40 miles before being impounded by Clearwater Dam. After leaving Clearwater Lake, the river flows southeasterly into the Mississippi embayment near Poplar Bluff, Missouri. Once in the Mississippi embayment, the Black River flows southwesterly parallel to the edge of the Ozark escarpment until joining the White River near Newport, Arkansas. Tributaries of the Black generally flow from the west, where they have sources in Ozark Mount in springs.

The Black River was added to the SRP in FY 2023. The science report details the current available data and literature for the Black River to identify flow-dependent fish, mussels, and other species in the river; examine changes in these species over time; and look at alterations in the flow regime that potentially could have caused these changes. Once the degree of flow alterations has been determined and experts have developed recommendations to restore eco-hydrological function, USACE will examine possibilities for reservoir management modifications within the range of authorized releases that align with expert recommendations to benefit the Black River ecosystem and its biota.

- Status of FY 2025 Work

  The science report was completed in August 2025.

- Anticipated work in FY 2026

  SWL intends to hold an environmental flows recommendations workshop to examine possibilities for reservoir management modifications within the range of authorized releases that align with expert recommendations to benefit the Black River ecosystem and its biota.

- Future vision

  Ultimately, SWL goals for the Black River is to implement stakeholder workshops e-flow recommendations.

3.6.2.2 Rolling Fork and Saline Rivers, Arkansas (LD)

DeQueen and Dierks Lakes are USACE reservoirs located on the Rolling Fork River and Saline River, respectively, tributaries of the Little River and part of the larger Red River system in southwest Arkansas. Authorized missions include flood risk management and water supply, but these reservoirs also provide fish, wildlife, water quality functions, and recreation opportunities. The Rolling Fork and Saline rivers were added to the SRP in FY 2024. A combined science report will detail the current available data and literature for the Rolling Fork and Saline rivers to identify flow-dependent fish, mussels, and other species in the river; examine changes in these species over time; and look at alterations in the flow regime that potentially could have caused these changes. Once the degree of flow alterations has been determined, and experts have developed recommendations to restore eco-hydrological function, USACE will examine possibilities for reservoir management modifications within the range of authorized releases benefiting the Rolling Fork and Saline River ecosystems and their biota.

- Status of FY 2025 Work

  In FY 2025, the science report was started and will be completed in early FY 2026.

- Anticipated work in FY 2026

  SWL will complete the science report initiated in FY 2025. SWL also intends to hold an environmental flows workshop to examine possibilities for reservoir management modifications within the range of authorized releases for the Rolling Fork and Saline rivers.

- Future vision

Ultimately, SWL goals for the Rolling Fork and Saline rivers is to implement stakeholder workshop e-flow recommendations.

SECTION 4 OTHER SUSTAINABLE RIVER PROGRAM ACCOMPLISHMENTS

In addition to location-based work funded in FY 2025, SRP also accomplished tasks from past years as described in previous IPR reports, https://www.hec.usace.army.mil/sustainablerivers/publications/. The following are other location-based SRP accomplishments occurring in FY 2025.

Table 4.1 FY 2025 Other SRP Accomplishments (1 of 2)

Division Acronym	District Acronym	USACE District Name	SRP Accomplishments - FY 2025
LRD	LRC	Chicago District	Wabash – Implementation and Monitoring (FY 2024)
LRD	LRL	Louisville District	Licking River E-flows Workshop (FY 2024)
LRD	LRN	Nashville District	Stones and Cumberland River (FY 2024)
LRD	LRP	Pittsburgh District	Clarion River – East Branch (FY 2024)
LRD	LRP	Pittsburgh District	Upper Ohio River (FY 2023 and FY 2024)
NAD	NAB	Baltimore District	Potomac River - North Branch (FY 2023)
MVD	MVN	New Orleans District	Atchafalaya River- Bayou Courtableau Control Structure (FY 2024)
MVD	MVR	Rock Island District	Des Moines River (FY 2024)
MVD	MVR	Rock Island District	Des Moines River Species Inventory in Delta (FY 2024)
MVD	MVS	St. Louis District	Mississippi River Environmental Pool Management (FY 2024)
MVD	MVS	St. Louis District	Mississippi River Lake Sturgeon Spawning LD (FY 2024)
MVD	MVS	St. Louis District	Salt River-Wetlands (FY 2024)
MVD	MVP	St. Paul District	Mississippi River - Pool 10 Opportunistic Drawdown (FY 2024)
NWD	NWK	Kansas City District	Kansas River (FY 2023)
NWD	NWK	Kansas City District	Kansas River E-pools (FY 2024)
NWD	NWK	Kansas City District	Osage River E-flows (FY 2024)
NWD	NWO	Omaha District	Cherry Creek - Cherry Creek Dam (FY 2024)
NWD	NWO	Omaha District	James River - Pipestem Dam (FY 2024)
NWD	NWS	Seattle District	Kootenai River - Libby Dam (FY 2024)
NWD	NWS	Seattle District	Lake Washington Ship Canal LD (FY 2023)
SAD	SAW	Wilmington District	Cape Fear River (FY 2023)
SAD	SAW	Wilmington District	Neuse River - Falls Dam (FY 2024)

Table 4.1 FY 2025 Other SRP Accomplishments (2 of 2)

Division Acronym	District Acronym	USACE District Name	SRP Accomplishments - FY 2025
SAD	SAW	Wilmington District	Roanoke River (FY 2022)
SPD	SPA	Albuquerque District	Rio Grande - E-flows (FY 2024)
SPD	SPA	Albuquerque District	TNTCX - Rivercane Restoration (FY 2023)
SPD	SPK	Sacramento District	Tule River- Lake Success (FY 2024)
SWD	SWF	Fort Worth District	Brazos River E-flows (FY 2024)
SWD	SWL	Little Rock District	Cossatot River (FY 2023)

4.1 LAKES AND RIVERS DIVISION

4.1.1 Chicago District

4.1.1.1 Wabash - Implementation and Monitoring (FY 2024)

Implementation and monitoring activities commenced in FY 2025. Three e-flows were implemented on the Mississinewa River from March to May 2025. Water quality monitoring in the three dam tailwaters commenced in October 2024 during fall drawdown and resumed in February 2025 to capture the spring fill, including e-flows on the Mississinewa River. Fish and habitat surveys were completed in November 2024 and May 2025. Indiana DNR collected gravid mussels in fall 2024 and transported them to the Kentucky Center for Mollusk Conservation for rearing. In July 2025, Indiana DNR and TNC deployed juvenile mussels in silos throughout the watershed to be monitored for growth and survival. A newsletter article describing the project was distributed to project stakeholders and LRC social media accounts in February 2025.

4.1.2 Louisville District

4.1.2.1 Licking River E-flows Workshop (FY 2024)

USACE met with Federal and State scientists to develop reservoir operation changes at Cave Run Lake Dam to benefit the downstream ecosystem of the Licking River, particularly in the tailwater. The workshop leveraged existing partnerships, and built new ones, while increasing awareness of USACE flood control mission and its mechanisms. The workshop yielded immediately actionable strategies which water managers could implement within our current WCM regulations, as well as areas where WCM updates could further boost ecological benefits. These e-flow prescriptions have the potential to synergize with ongoing ecosystem restoration efforts in the basin, solidify the Licking River as a bastion of aquatic biodiversity while maintaining USACE full flood control capacity, and revive the Licking River tailwater.

4.1.3 Nashville District

4.1.3.1 Stones and Cumberland River (FY 2024)

FY 2025 saw completion of the last of the milestones on this project. The project goal was to examine potential for future operational changes for e flow and e pool opportunities at J. Percy Priest and Old Hickory lakes by performing a literature and data review of preferred conditions of endemic and threatened species, including how an assessment of the hydrological needs of these groups. The following milestones were completed, ultimately resulting in a finished State of the Science report: summary of environmental characteristics, identification of environmental opportunities, and final report.

4.1.4 Pittsburgh District

4.1.4.1 Clarion River - East Branch Dam (FY 2024)

Since 2013, LRP and TNC have worked cooperatively to advance the SRP in the Upper Ohio River watershed. Key outcomes from this work include an evaluation of the degree of flow alteration and subsequent provisional ecosystem flow recommendations for the Allegheny and East Branch Rivers. The overall goal of the current effort is to develop a plan to implement and monitor a portion of the provisional flow recommendations at the East Branch Dam on the East Branch Clarion River. The project development team examined the existing provisional ecosystem flow recommendations for the East Branch Clarion River. Water Quality and Water Management personnel provided insight and discharge modeling to inform which provisional ecosystem flow recommendations could be implemented and examined the effect on river elevations downstream. The project development team also determined how much water would need to be released, for how long, to achieve downstream provisional ecosystem flow recommendations. Recommendations were made for monitoring releases and communicating the release and purpose to identify stakeholders. The resulting implementation plan will be included as Appendix F to the original 2017 document, “Provisional Ecosystem Flow Recommendations for Allegheny and Clarion Rivers.”

4.1.4.2 Upper Ohio River (FY 2023 and FY 2024)

The Upper Ohio River Fish Passage Investigation was held with monthly meetings starting in January 2025 with ERDC to discuss progress on a hydraulic model which assessed how fish passage might be improved with the construction of the larger lock chamber at Montgomery Lock and Dam. Meetings with the LRP fish passage team continued throughout the year to discuss how results of this model and recommendations for improving fish passage would be presented to the Pennsylvania Department of Environmental Protection, which is a requirement for USACE 401 certification for the lock chamber. Model results and a report were provided by ERDC in July 2025. The team is currently digesting the report and developing recommendations to provide for the LRP Operations Division, to determine what improvements may be feasible.

4.2 MISSISSIPPI RIVER DIVISION

4.2.1 New Orleans District

4.2.1.1 Atchafalaya River- Bayou Courtableau Control Structure (FY 2024)

H&H modeling is required to understand and evaluate the H&H dynamics of the Henderson Lake area. Due to delays in the contract award for the modeling, the team paused modeling to focus on stakeholder engagement and the development of a monitoring plan. The team was able to communicate the value SRP could bring to local stakeholders. The team also was able to solicit input from stakeholders on what ecological improvements they would like to see in the area.

4.2.2 Rock Island District

4.2.2.1 Des Moines River (FY 2024)

Completed milestones for initiating shorebird monitoring on Coralville Lake, which included tracking data collection until late September. Conditions have been exceptionally rainy, and the conservation pool has spiked more than 5 feet above the normal conservation pool. A shorebird summary report will be delivered in FY 2026.

4.2.2.2 Des Moines River Species Inventory in Delta (FY 2024)

FY 2025 saw the completion of the 2024 pilot season of data collection and the beginning of 2025 data collection. The FY 2024 Purpose and Pilot report was accepted and will soon be available to the public. A project-complete findings and field summary report is expected in April 2026, which will summarize the two field seasons of data collection.

4.2.3 St. Louis District

4.2.3.1 Mississippi River Environmental Pool Management (FY 2024)

The history of EPM has been documented from 1994 through 2024 to be used by future water control managers to enhance operations through lessons learned. The report documents the continued adjustments that have been made, as well as their impacts.

4.2.3.2 Mississippi River Lake Sturgeon Spawning LD (FY 2024)

A multi-agency team of biologists, lock and dam operators, and water management engineers assessed and ranked all 27 locks and dams (LDs) on the Upper Mississippi River (UMR) for potential to improve lake sturgeon (Acipenser fulvescens) spawning habitat. Successful intentional dam gate manipulations to support lake sturgeon spawns were demonstrated at Mel Price Locks and Dam near Alton, Illinois, in 2022, 2023, and 2024. This assessment indicates that over half of the 27 LDs possess conditions similar to Mel Price and may be suitable for operational changes to enhance lake sturgeon spawning. Furthermore, the team captured six lake sturgeons in the tailwater of Lock and Dam 25 (LD25). Five of these fish were implanted with acoustic transmitters and tracked throughout the spring. These observations confirm lake sturgeon utilization of the LD25 tailwater, reinforcing the potential for creating suitable spawning conditions at that location. This effort demonstrates successful collaboration between the MDC, Illinois Department of Natural Resources (ILDNR), (IDNR), Minnesota Department of Natural Resources (MDNR), Wisconsin Department of Natural Resources (WDNR), USGS, USFWS, and USACE to advance lake sturgeon conservation on the UMR.

4.2.3.3 Salt River-Wetlands (FY 2024)

Building on FY 2024 workshop results with partners, MVS identified data and analysis needs for future years to move this project toward implementation. MVS also developed a scope for FY 2026 to collect additional data and analysis.

4.2.4 St. Paul District

4.2.4.1 Mississippi River - Pool 10 Opportunistic Drawdown (FY 2024)

Draft handouts have been designed to communicate drawdown impacts, as well as to educate public and stakeholders on how water levels are affected by lock and dam operations in general. Animation scripts and graphics for animations are in development. A GIS Story Map has been drafted to showcase past drawdown successes from an interactive visual perspective. To wrap up this project, MVP is developing a draft report that details recommendations for use of all materials, including how to adjust for future situations.

4.3 NORTH ATLANTIC DIVISION

4.3.1 Baltimore District

4.3.1.1 Potomac River - North Branch (FY 2023)

The draft state of the science report was completed, and an e-flows workshop was held August 6 to 7, 2025. Resource agencies and stakeholders gathered and discussed the current conditions and resources of the North Branch Potomac River below Jennings Randolph Lake. Two main categories of focus were discussed: 1) fisheries and 2) benthics and flow variation. The team is working toward completion of the final state of the science report, which will summarize the results of the workshop, by the end of FY 2025.

4.4 NORTHWESTERN DIVISION

4.4.1 Kansas City District

4.4.1.1 Kansas River (FY 2023)

In FY 2025, an SRP-supported charette combining the Osage and Kansas River Basin SRP groups brought together eight agencies and universities to review WCM updates and move both projects into the next phase. The team advanced draft WCM language on the Pomme de Terre Lake Project and a new “Permissible Water Control Plan,” which allows for more opportunities for SRP flows, has been well received by management agencies. Kansas River basin lakes -- Milford, Tuttle Creek, Perry, and Clinton Lakes -- are the next priority planned for public comment meetings and approval in FY 2027. We will continue to partner with stakeholders to refine Monitoring and Adaptive Management Plans as we incorporate SRP flows into upcoming WCM updates. Oxbow connectivity on the Kansas River has targeted one acceptable property near Wamego, Kansas. An H&H 2D Model developed by an MVS hydrologist has been updated for the oxbow reach to study inundation depth at target Kansas River pulse flow discharges.

4.4.1.2 Kansas River E-pools (FY 2024)

NWK analyzed proposed e-pools for nutrient loading, evaluated Kansas River e-flow opportunities, hosted an e-pools workshop, and developed an e-pools implementation strategy.

4.4.1.3 Osage River E-flows (FY 2024)

An SRP-supported charette combining the Osage and Kansas River Basin brought together eight agencies and universities to review WCM updates and move both projects into the next phase. The advanced draft WCM language on Pomme de Terre Lake project and a new “Permissible Water Control Plan” which allow for more opportunities for SRP flows, have been well received by management agencies. Consequently, an increased interest and commitment in ecological and habitat monitoring is well aligned with USACE flow implementation efforts as the keystone for adaptive management strategies to guide future environmental flow actions. E-flows were implemented to benefit fish spawning (April to July 2025) on four stream reaches below USACE dams. Recommendations to improve spring fish spawning and recruitment in late Spring (May-June) were also initiated in FY 2025. A more natural flow regime and hydrograph were evident at Osage Basin releases in 2025, and releases aligned well with SRP-recommended e-flows after needed inflows allowed for larger releases in early May.

4.4.2 Omaha District

4.4.2.1 Cherry Creek - Cherry Creek Dam (FY 2024)

In FY 2025, the Cherry Creek Reservoir SRP team published the report “Evaluation of 2024 Summer Releases at Cherry Creek Reservoir to Improve Water Quality”, which included results from the July 2024

low-level release. Although there was not enough water to perform the July 2025 low-level release, two team members attended the Cherry Creek Basin Water Quality Authority's Annual Meeting to present and ask for feedback on the July 2024 findings. The team gained continued internal and external support for the low-level release when water is available. The team continues to work with the Omaha District, Office of Counsel to determine ways to store water more reliably for this purpose in the future. Unfortunately, competing district priorities have prevented progress so far.

4.4.2.2 James River - Pipestem Dam (FY 2024)

In FY 2025, the James River SRP team was able to build on momentum from the previous year. A water quality model was updated and calibrated using new information and was utilized to simulate stakeholder suggestions for reservoir operations. A second stakeholder meeting was held to solicit additional ideas and to present the model. The model and documentation of model updates and simulations were completed.

4.4.3 Seattle District

4.4.3.1 Kootenai River - Libby Dam (FY 2024)

New contracts were put in place allowing the NWS Water Management and Libby Dam project team to execute their second season of intensive field sampling. The field report from FY 2024 was finalized and published on the SRP website.

4.4.3.2 Lake Washington Ship Canal LD (FY 2023)

The USGS published their review of the LWSC and Ballard Locks model (https://doi.org/10.3133/ofr20241078). The findings in the report informed the next phase of the project, wherein the USGS team has been conducting a review of the model bathymetry file and executing calibration runs. USGS also created a project webpage that is hosted on the Oregon Water Science Center website.

4.5 SOUTH ATLANTIC DIVISION

4.5.1 Wilmington District

4.5.1.1 Cape Fear River (FY 2023)

In FY 2025, the SAW team continued and expanded the geographic extent and number of fish tagged from the previously funded SRP year. The basin was in drought during our Spring spawn, but the team was able to accomplish one dam submergence pulse. This event was used to train a water management team with the intent of the fish e-flows, modeling forecast releases, and coordination efforts required to conduct a successful e-flow for the Spring spawn. The fisheries team deployed 130+ tags on striped bass, shad, sturgeon, and flathead catfish. The team attempted a first round of trap and transport over the most upstream lock and dam barrier. There was a slight set back with the 2025 data when two of the most upstream sensors were lost during Tropical Storm Chantal. However, synthesis of the 2024 data revealed that many of our tagged striped bass and sturgeon were using an existing channel around Lock and Dam 1 (LD1) and even moving above LD1 with more moderate e-flow events. With this knowledge, we added multiple acoustic sensors throughout the bypass channel in 2025. This data support important additional efforts: TNC conducted landowner outreach and began design efforts to improve and utilize the bypass channel around LD1 for fish passage. HEC-RAS modeling was instrumental to this design. Our research also served to inform discussions on larger mitigation efforts for the SAW. Other leveraged efforts also include a National Oceanic and Atmospheric Administration (NOAA) Transformational Habitat Grant, launched by TNC, to enable more ideas for fish passage at the Cape Fear River Lock and Dams. For our water quality e-flows, the Cape Fear Basin went from dry to wet, and our SRP-funded water quality sensors showed that we did not need a water quality pulse in 2025. Yet, ahead of the summer, the

basin utilities were contacted and our “eyes on the river” group was expanded. As modeling, river sampling and lab work was being done throughout the year, our team was also focusing on outreach to inform our basin stakeholders and leadership in the region. SAW staff presented at the Drought and Aquatic Ecosystems in the Southeast Workshop, where we shared information on and our experience with the SRP. This event expanded the knowledge of SRP to state and federal agencies and university researchers. It also provided an opportunity to discuss incorporation strategies with NC Division of Water Resources. TNC presented at the Middle Cape Fear River Basin Association and the Cape Fear Arch meeting. The team reached new people through this outreach to over 100 people. Through TNC broader Cape Fear restoration efforts, 1 to 2 slides were added to presentations sent to Councils of Governments and additional basin-wide associations. TNC also presented at the Duke Ecology Seminar to researchers.

4.5.1.2 Neuse River - Falls Dam (FY 2024)

District efforts in FY 2025 picked up quickly after being on hold due to the loss of our lead biologist in early 2025. The Wilmington District team returned to bi-weekly virtual meetings with our partners to synthesize the data collected in 2024. Flow regimes are critical to the success of striped bass recruitment and our team identified flow magnitudes, velocities, durations, timing and temperatures that could create favorable attractive flows and conditions for egg and larvae development and transport in the Neuse. An existing HEC-RAS model was leveraged to identify how releases from Falls Dam could translate downstream to support those favorable spawning conditions at several key locations and times during the critical striped bass spawning period. Our fisheries partners worked with the district to prepare a draft report of our findings and began identifying opportunities for operational considerations at Falls Dam to support the Neuse River spawn. Final report will be completed in December 2025.

4.5.1.3 Roanoke River (FY 2022)

Work on the Roanoke during FY 2025 focused on continuation and expansion of previous SRP-funded eDNA work. The team completed Roanoke River field sampling and site water collection for Spring river herring eDNA analyses. The analyses of eDNA samples during Spring and Fall spawning seasons also positively identified Atlantic Sturgeon. These results were confirmed with sturgeon tagging as part of collaborative efforts on Roanoke. FY 2025 funding also supported an additional effort on the Roanoke to implement metabarcoding to expand out eDNA analyses to all fish species present in key Roanoke River locations. DNA was identified in previously collected samples that have been saved from four years of SRP-supported eDNA sampling. Successful identification of adults and juveniles for key Roanoke species along the river and in adjacent floodplains will not only inform the ability to implement adaptive management strategies with releases but also support an important leveraged effort. TNC removed a barrier and increased aquatic connectivity on the Upper Roanoke River game lands, opening three miles of a tributary that directly connects to the Roanoke and 500+ acres of floodplain forest, providing access to important habitat to blueback herring. This work supported an undergraduate student led publication: “Bailey CG, Spicer CG, Langley W, Joyner CS, Harris P, Rulifson RA, Field EK. 2025. Diurnal shifts in eDNA concentration of threatened juvenile river herring. microPublication Biology. 10.17912/micropub.biology.001844."

4.6 SOUTH PACIFIC DIVISION

4.6.1 Albuquerque District

4.6.1.1 Rio Grande - E-flows (FY 2024)

The primary objective of the FY 2024 and FY 2025 SRP Rio Grande project was to elucidate opportunities for SPA to participate in e-flow and ecosystem function improvement projects in the Rio Grande Basin. The final milestone, the submission of a final report, is near completion. The report is with SPA Office of Counsel for its second and final review. Completed work includes: 1) participation in e-flow framework discussions at the Rio Grande in New Mexico Basin Study Environmental Flows Workshop (August 5 to 7, 2024) and providing peer-review of the associated draft e-flows framework, 2) collating

information on opportunities and challenges for USACE operations in the Rio Grande Basin gathered during the workshop, 3) examining USACE ecosystem improvement authorities, and 4) analyzing a questionnaire the team administered to the Middle Rio Grande Endangered Species Collaborative Program signatories which assessed partner authorities, priorities, challenges, and collaborative pathways for river and floodplain restoration within the basin.

4.6.1.2 TNTCX - Rivercane Restoration (FY 2023)

FY 2025 concluded the rivercane genetic study at Kerr Reservoir and Sequoya National Wildlife Refuge. The study culminated with a report documenting the function and diversity of the native rivercane genome. The project also emphasized the preservation of Indigenous Peoples knowledge and cultural significance while enhancing the understanding of rivercane from a genomics perspective.

4.6.2 Sacramento District

4.6.2.1 Tule River- Lake Success (FY 2024)

FY 2025 concluded the Lake Success Tule Restoration Study. A report documenting collaboration with the Tule River Indian Tribe, potential tule restoration at Lake Success, and water management considerations for tule at USACE projects will be completed.

4.7 SOUTHWESTERN DIVISION

4.7.1 Fort Worth District

4.7.1.1 Brazos River E-flows (FY 2024)

The team modeled environmental base flows and pluses in RiverWare, HEC-RAS, and HEC-EFM to find which e-flows provide the most benefit while also causing the least risk.

4.7.2 Little Rock District

4.7.2.1 Cossatot River (FY 2023)

The Cossatot River SRP began its implementation phase in FY 2025. The SRP team leader has been working with the basin regulator on implementation and recording of actions. Data documentation procedures were started such as the placement of time laps cameras to record times of implementation. The final stage in FY 2026 is to take this data from the beginning of implementation and write up a brief documentation of implementation on the Cossatot for SRP records.

List of Acronyms and Abbreviations

ADCP	Acoustic Doppler Current Profiler
BLM	Bureau of Land Management
CCD	Clarence Cannon Dam
DD	dry dam
DNR	Department of Natural Resources
eDNA	environmental DNA
e-flows	environmental flows
EMRRP	Ecosystem Management and Restoration Research Program
EPA	Environmental Protection Agency
EPM	environmental pool management
ERDC	Engineering Research and Development Center
ESRI	Environmental Systems Research Institute, Inc.
ESWM	Ecologically Sustainable Water Management
EWN	Engineering with Nature
FONSI	Finding of No Significant Importance
FY	fiscal year
GIS	geographic information system
HAB	Harmful Algal Blooms
HEC	Hydrologic Engineering Center
HEC-EFM	Ecosystem Functions Model
HEC-RAS	River Analysis System
HEC-RPT	Regime Prescription Tool
HQ	Headquarters
IDNR	Iowa Department of Natural Resources
IHA	Indicators of Hydrologic Alteration
ILDNR	Illinois Department of Natural Resources
IPR	in-progress review
ISU	Iowa State University
IWR	Institute for Water Resources
LD	lock and dam
LRB	Buffalo District
LiDAR	light detection and ranging
LKSG	Lake Sturgeon
LLMP	Lake Level Management Plans
LRN	Nashville District

LRP	Pittsburgh District
MDC	Missouri Department of Conservation
MDNR	Minnesota Department of Natural Resources
MMSB	multifrequency, multibeam SONAR backscatter
MSC	Major Subordinate Command
MTL	Mark Twain Lake
MVN	New Orleans District
MVP	St. Paul District
MVR	Rock Island District
MVS	St. Louis District
NAP	Philadelphia District
NCDNR	NC Division Natural Resources
NEPA	National Environmental Policy Agency
NOAA	National Oceanic and Atmospheric Administration
NWK	Kansas City District
NWS	Seattle District
ORCC	Old River Control Complex
ORCS	Old River Control Structure
OWSC	Oregon Water Science Center
PA	periodic assessment
PDT	project delivery team
QRR	Quasi Run of River
RESSIM	Reservoir System Simulation
RFP	request for proposal
RM	river miles
SAM	Mobile District
SOP	standard operating procedures
SPA	Albuquerque District
SRP	Sustainable Rivers Program
SWL	Little Rock District
SWPA	Southwestern Power Administration
SWS	selective withdrawal structure
TEK	Traditional Ecological Knowledge
TNC	The Nature Conservancy
TNTCX	Tribal Nations Technical Center of Expertise
TTWW	Tenn-Tom Waterway
TWRA	Tennessee Wildlife Resource Agency

UMR	Upper Mississippi River
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WCM	water control manuals
WCP	water control plan
WDNR	Wisconsin Department of Natural Resources

APPENDIX A

FY 2025 Sustainable Yearly Report

This report on metrics is for tracking outreach and ecological impacts of Sustainable Rivers Program (SRP) for calendar year (CY) 2024 with a forecast for 2025. Additionally, updates to ongoing metrics tabulations is also summarized. Additional information on SRP metrics and methodology can be retrieved from https://www.hec.usace.army.mil/sustainablerivers/publications/.

DEFINITIONS

Four environmental actions (e-flows, e-pools, physical habitat, and conservation locking) and their associated outreach and environmental action purpose are tracked each CY.

- Outreach and stakeholder engagement are measured for sites in the advance, implement, and incorporate phases of SRP. Outreach is recorded when stakeholders and organizations, including U.S. Army Corps of Engineers (USACE), have contributed to or were invited to participate in decision making, share information and expertise, or actively participate in an SRP effort. Outreach is tracked by counting organizations contacted and organizations engaged (e.g., organizations invited to attend a workshop or contributing to project deliverables). Outreach is also tracked for organizations performing monitoring or analyses for a respective action purpose (i.e., sites may have multiple action purposes with separate engagement respective to the action purpose). The number of people contacted and engaged is also a reporting component for SRP metrics. Media pieces–comprising public information sources such as news reels, videos, public radio broadcasting, and articles–were also reported. Media pieces do not include tracking or posting of SRP highlights in social media outlets (e.g., Twitter, Facebook, LinkedIn, etc.).
- Sites having progressed to the implement and/or incorporate phases of SRP are linked to one or more action purpose. Action purposes may change throughout a site's involvement with SRP as environmental strategies evolve. Project teams in the implementation or incorporate phases report on river miles or acres for their targeted action purposes. Values reported include river miles or acres actively being monitored or the ecological benefit realized through routine implementation of an Adaptive Management Monitoring Plan and/or changed operations (i.e., pool level drawdowns as part of the water control manual [WCM] for a site).

2024 SUMMARY

In 2024 15 sites reported outreach metrics for stakeholder meetings or workshops. Table A.1 summarizes the running tabulation of miles and acres of ecological benefits of action purposes including the following:

- Geomorphic Process
- Water Temperature Management
- Fisheries (Life History Support)
- Fish Passage
- Harmful/Nuisance Algal Blooms
- Vegetation–Riparian
- Mussels (Life History Support)
- Vegetation–Wetlands
- Herptiles (Life History Support)
- Floodplain Connectivity
- Shorebirds, Gulls, Other Water Birds (Life History Support)

Table A.2 summarizes the running totals of unique outreach, river miles (RM), and acres overall for the sites in the implement and/or incorporate phases.

Table A.3 details site reporting. Over 100 organizations were contacted regarding individual SRP project efforts and most of those organizations actively participated in meetings and workshops. Two media pieces were generated from SRP-related advance efforts.

Table A.4 tracks the action purposes across all sites in the implement and/or incorporate phases. In CY 2024, only one SRP project reported an updated value for the acres of benefit of their target action purpose (Big Cypress Bayou); no sites moved to implement and/or incorporate phases in 2024.

Table A.1 SRP Running Summary of Outreach, River Miles, and Acres by Action Purpose for Implement and/or Incorporate Sites

Action Purpose	Orgs Contacted	Orgs Engaged	River Miles	Acres
E-Flows:				
Fish Passage	23	8	135	N/A
Fisheries (Life History Support)	80+	45	1,678	N/A
Floodplain Connectivity	43+	20	605	*183,837*
Geomorphic Process	19+	9	754	N/A
Harmful/Nuisance Algal Blooms (Disrupt/Disperse)	23	8	202	N/A
Herptiles (Life History Support)	10	3	126	N/A
Mussels (Life History Support)	16+	20	749	N/A
Vegetation–Riparian	2	2	449	N/A
Water Temperature Management	28	8	57	N/A
Total (sum of all e-flows amounts)	**189**	**105**	**4,620**	***183,837***
E-Pools:				
Fisheries (Life History Support)	30	12	N/A	22,623
Herptiles (Life History Support)	25	8	N/A	2,623
Shorebirds, Gulls, Other Water Birds (Life History Support)	49	19	N/A	8,623
Vegetation–Riparian	5	4	N/A	20,000
Vegetation–Wetlands	10	3	N/A	879
Total (sum of all e-pools amounts):	**119**	**46**	**N/A**	**54,748**

Note: Values in italics indicates a change or update since calendar year 2023 reporting in the 2024 IPR.

Table A.2 Summary Totals of Unique Outreach, River Miles, and Acres Overall for E-Flows and E-Pools

Domain of Implement and Incorporate	Orgs Contacted	Orgs Engaged	River Miles	Acres
Total–E-Flows (sum of unique amounts)	122	63	1,886	*183,837*
Total–E-Pools (sum of unique amounts)	64	26	0	29,502

Note: Values in italics indicates a change or update since calendar year 2023 reporting in the 2024 IPR.

Table A.3 Advance Sites–Outreach Metrics, 2024 (Sheet 1 of 4)

District	Site	Type	Action	# of Organizations Contacted	# of Organizations Engaged	List Engaged	# of Media Pieces
LRL	Nolin, Rough, Green, and Licking Rivers	General Reservoirs	E-Flows	11	11	• Kentucky Department of Fish and Wildlife Resources • Kentucky Division of Water • Kentucky Nature Preserves • Mammoth Cave National Park • Morehead State University • Thomas Moore University • The Nature Conservancy • U.S. Army Corps of Engineers, Louisville District • U.S. Fish and Wildlife Service • U.S. Geological Survey • Western Kentucky University	0
LRN	Cumberland River	General Reservoirs	E-Flows	11	11	• Cumberland River Compact • Kentucky Department of Fish and Wildlife Resources • Tennessee Department of Environment and Conservation • Tennessee Technological University • Tennessee Valley Authority • Tennessee Wildlife Resources Agency • The Nature Conservancy • U.S. Army Corps of Engineers - Nashville District • U.S. Army Corps of Engineers St. Louis District • U.S. Fish and Wildlife Service • U.S. Geological Survey	0

Table A.3 Advance Sites–Outreach Metrics, 2024 (Sheet 2 of 4)

District	Site	Type	Action	# of Organizations Contacted	# of Organizations Engaged	• List Engaged	# of Media Pieces
LRP	Ohio River	Locks and Dams	Conservation Locking	10	6	• PA Department of Environmental Protection • PA Fish and Boat Commission • The Nature Conservancy • U.S. Army Corps of Engineers • U.S. Environmental Protection Agency • Western Pennsylvania Conservancy	0
LRP	Upper Ohio River (Allegheny)	General Reservoirs	E-Flows	6	6	• Seneca Nation of Indians • The Nature Conservancy • U.S. Army Corps of Engineers • U.S. Fish and Wildlife Service • U.S. Geological Survey • Western Pennsylvania Conservancy	0
MVN	Atchafalaya River	Other	E-Flows	11	11	• Acadiana Planning Commission • Acadiana Watershed Commission • Coastal Protection and Restoration Authority • Congressman Higgins' Office • Dredge the Vermilion • Lafayette Parish Council • Louisiana Department of Wildlife and Fisheries • Tech-Vermilion Fresh Water District • St. Martin Parish Government • The Nature Conservancy • U.S. Army Corps of Engineers	0
MVP	Mississippi River (Pool 10)	Locks and Dams	E-Flows	5	5	• Iowa Department of Natural Resources • Minnesota Department of Natural Resources • Wisconsin Department of Natural Resources • U.S. Army Corps of Engineers • U.S. Fish and Wildlife Service	
MVP	Minnesota River	General Reservoirs	E-Pools	3	3	• Minnesota Department of Natural Resources • U.S. Fish and Wildlife Service • U.S. Army Corps of Engineers	0

Table A.3 Advance Sites–Outreach Metrics, 2024 (Sheet 3 of 4)

District	Site	Type	Action	# of Organizations Contacted	# of Organizations Engaged	• List Engaged	# of Media Pieces
MVR	Iowa River	General Reservoirs	E-Flows	16	11	• City of Coralville • City of Iowa City • Iowa City Engineering • Iowa City Water • Iowa Department of Ag and Land Stewardship • Iowa Department of Natural Resources • Iowa State University • Sierra Club • The Nature Conservancy • U.S. Army Corps of Engineers • University of Iowa Civil and Environmental Engineering	0
NWK	Osage River (Pomme de Terre)	General Reservoirs	E-flows	11	5	• Kansas State Water Office • Missouri Department of Conservation • The Nature Conservancy • U.S. Army Corps of Engineers • U.S. Fish and Wildlife Service	0
SWF	Big Cypress Bayou	General Reservoirs	E-Flows	5	5	• Caddo Lake Institute • North East Texas Municipal Water District • Texas Parks and Wildlife Department • Texas Water Development Board • The Nature Conservancy	2
SWL	Fourche LaFave River	General Reservoirs	E-Flows	11	8	• Arkansas Department of Transportation • Arkansas Department of Agriculture – Natural Resource Division • Arkansas Game and Fish Commission • Arkansas Natural Heritage Commission • The Nature Conservancy • U.S. Fish and Wildlife Service • U.S. Army Corps of Engineers • University of Central Arkansas	0

Table A.3 Advance Sites–Outreach Metrics, 2024 (Sheet 4 of 4)

District	Site	Type	Action	# of Organizations Contacted	# of Organizations Engaged	• List Engaged	# of Media Pieces
SWL	Black River	General Reservoirs	E-Flows	13	12	• Arkansas Department of Agriculture - Natural Resource Division • Arkansas Game and Fish Commission • Arkansas Natural Heritage Commission • Arkansas State University • Ducks Unlimited • EnSafe • Missouri Dept of Natural Resources • Missouri Department of Conservation • The Nature Conservancy • U.S. Fish and Wildlife Service • U.S. Dept of Agriculture • U.S. Army Corps of Engineers	0
Total	15 Sites			113	94		2

Note: Corrections and updates to metric reports can be requested by contacting the SRP Program Team

Table A.4 Implement and Incorporate Sites–Metrics Reporting, 2024 new implementation and updates to existing sites (in italics) since the FY 2024 In Progress Review.

District	Site	Type	Action	# Orgs Contacted	# Orgs Engaged	# Media Pieces	Action–Purpose	Amount	Organizations Engaged
SWF	Big Cypress Bayou	General Reservoirs	E-Flows	5	5		• Fisheries (Life History Support) • Floodplain Connectivity	30 miles *50,977* acres	• Caddo Lake Institute • North East Texas Municipal Water District • Texas Parks and Wildlife Department • Texas Water Development Board • The Nature Conservancy

APPENDIX B
FY 2025 SRP Milestones

Appendix B: Sustainable Rivers Program
FY 2025 SRP Milestones

Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
LRB - Niagara River - FY25	Milestone 1	Effort Started	6-Jan-25	6-Jan-25	6-Jan-25
	Milestone 2	Complete evaluation of fishery characteristics	30-Apr-25	15-May-25	7-May-25
	Milestone 3	Complete stakeholder coordination on prioritization matrix	31-Jul-25	21-Aug-25	21-Aug-25
	Milestone 4	Report completion	15-Sep-25	30-Sep-25	30-Sep-25
	Milestone 5	Fiscal closeout	30-Sep-25	30-Oct-25	30-Sep-25
	Milestone 6	Effort Finished	30-Sep-25	30-Sep-25	30-Sep-25
LRC - Wabash - Implementation and monitoring - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Purchase water quality loggers	26-Jun-24	26-Jun-24	26-Jun-24
	Milestone 3	Develop water quality monitoring plan	31-Oct-24	14-Oct-24	14-Oct-24
	Milestone 4	Complete modelling for modified fall drawdown/spring fill	31-Oct-24	2-Oct-24	2-Oct-24
	Milestone 5	Complete fall fish and aquatic habitat study	31-Oct-24	6-Nov-24	6-Nov-24
	Milestone 6	Collect gravid female Pocketbook mussels	1-Feb-25	18-Nov-24	18-Nov-24
	Milestone 7	Deploy water quality loggers	31-Oct-24	1-Oct-24	1-Oct-24
	Milestone 8	Implement modified fall drawdown	31-Oct-24	15-Mar-25	15-Mar-25
	Milestone 9	Disseminate first newsletter	31-Jan-25	14-Feb-25	14-Feb-25
	Milestone 10	Deploy mussel silos, measure and place juveniles in silos	15-Jun-25	11-Jul-25	3-Jul-25
	Milestone 11	Implement modified spring fill	30-Apr-25	16-May-25	16-May-25
	Milestone 12	Complete summer fish and aquatic habitat study	31-Aug-25	30-Sep-25	12-Sep-25
	Milestone 13	Complete mussel silo investigation	31-Oct-25		
	Milestone 14	Disseminate second newsletter	15-Dec-25		
	Milestone 15	Complete implementation activities and monitoring of fish & mussels	15-Dec-25		
	Milestone 16	Effort Finished	15-Dec-25		
LRL - Green River Basin E-Flows - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Complete research and data gathering for working meetings	31-Mar-25	31-Mar-25	31-Mar-25
	Milestone 3	Complete working meetings for each facility	31-Mar-25	31-Mar-25	31-Mar-25
	Milestone 4	Complete e-flows workshop	30-Apr-25	7-May-25	7-May-25
	Milestone 5	Complete workshop summary report and E-flows Summary Report	30-Jun-25	31-Jul-25	31-Jul-25
	Milestone 6	Effort Finished	30-Jun-25	31-Jul-25	31-Jul-25
LRL - Licking River E-flows Workshop - FY24	Milestone 1	Effort Started	29-Jul-24	29-Jul-24	29-Jul-24
	Milestone 2	Complete the literature review and share with workshop participants	31-Jan-25	28-Feb-25	28-Feb-25
	Milestone 3	Host workshop for technical specialists to provide information regarding the Licking River and define e-	28-Mar-25	11-Mar-25	11-Mar-25
	Milestone 4	Licking River E-flows and Related Opportunities Report detailing specific recommendations for e-flows, if	30-Jun-25	30-Jul-25	30-Jul-25
	Milestone 5	Effort Finished	30-Jun-25	30-Jul-25	30-Jul-25
LRN - Caney Fork River - FY25	Milestone 1	Effort Started	15-Nov-24	15-Nov-24	15-Nov-24
	Milestone 2	Complete data collection and model development	30-Apr-25	30-Jun-25	
	Milestone 3	Stakeholder meeting	31-Jul-25	31-Jul-25	31-Jul-25
	Milestone 4	Caney Fork River sturgeon monitoring report and recommendations	30-Sep-25	25-Sep-25	25-Sep-25
	Milestone 5	Effort Finished	30-Oct-25	25-Sep-25	25-Sep-25
LRN - Stones and Cumberland River - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Complete summary of environmental characteristics	30-Nov-24	30-Nov-24	30-Nov-24
	Milestone 3	Complete identification of environmental opportunities	31-Jan-25	15-Jan-25	15-Jan-25
	Milestone 4	Complete final report and transfer deliverables	28-Feb-25	28-Feb-25	28-Feb-25
	Milestone 5	Effort Finished	28-Feb-25	28-Feb-25	28-Feb-25
LRP - Allegheny River - FY25	Milestone 1	Effort Started	18-Dec-24	18-Dec-24	18-Dec-24
	Milestone 2	Initial coordination begins across district	10-Jan-25	31-Jan-25	31-Jan-25
	Milestone 3	Begin pre-pulse coordination with the Seneca Nation, develop press release with PAO	15-Jan-25	31-Jan-25	31-Jan-25
	Milestone 4	Installation of trail cameras	1-Mar-25	20-Mar-25	20-Mar-25
	Milestone 5	Kinzua pulse release, simultaneous documentation	31-May-25	31-May-25	31-May-25
	Milestone 6	Post-release development of outreach materials	31-Jul-25	30-Nov-25	
	Milestone 7	Delivery of outreach materials, including published articles	30-Sep-25	30-Nov-25	
	Milestone 8	Effort Finished	1-Oct-25	30-Nov-25	
LRP - Clarion River - East Branch Dam - FY24	Milestone 1	Effort Started	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 2	Complete internal discussions	30-Dec-24	31-Jan-25	31-Jan-25
	Milestone 3	Complete implementation and monitoring plan	30-Apr-25	30-Nov-25	
	Milestone 4	Implement select flow prescriptions and monitor impacts from March to August	31-Aug-25	30-Nov-25	

Appendix B: Sustainable Rivers Program
FY 2025 SRP Milestones

Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 5	Complete summary report	30-Sep-25	30-Nov-25	
	Milestone 6	Effort Finished	30-Sep-25	30-Nov-25	
LRP - Mahoning River - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Complete outreach	31-Jan-25	28-Feb-25	28-Feb-25
	Milestone 3	Conduct workshop	31-Mar-25	28-Mar-25	28-Mar-25
	Milestone 4	Complete e-flow recommendations document	30-Sep-25	30-Sep-25	30-Sep-25
	Milestone 5	Effort Finished	30-Oct-25	30-Sep-25	30-Sep-25
LRP - Upper Ohio River - FY23	Milestone 1	Effort Started	9-Dec-22	9-Jan-23	9-Jan-23
	Milestone 2	Site reconnaissance for riparian and SAV field surveys	25-Aug-23	25-Aug-23	25-Aug-23
	Milestone 3	Complete report for Kinzua spring pulse implementation	31-Jan-25	14-Jan-25	14-Jan-25
	Milestone 4	Complete revised AMMP and transfer of deliverables	31-Jan-25	14-Jan-25	14-Jan-25
	Milestone 5	Effort Finished	31-Jan-25	14-Jan-25	14-Jan-25
LRP - Upper Ohio River - FY24	Milestone 1	Effort Started	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 2	Coordinate outreach efforts to regional (Pennsylvania) stakeholders and brief SRP focused efforts to partne	26-Aug-24	26-Aug-24	26-Aug-24
	Milestone 3	Convene workshop to charter task force and outline mission statement, goals, and objectives	26-Aug-24	26-Aug-24	26-Aug-24
	Milestone 4	Finalize implementation plan	31-May-25	31-Dec-25	
	Milestone 5	Conduct conservation lockages and monitor throughout the FY24 season	15-Sep-25	31-Dec-25	
	Milestone 6	Project summary report with conservation lockage/implementation plan	31-Dec-25		
	Milestone 7	Effort Finished	31-Dec-25		
MVN - Atchafalaya River - FY25	Milestone 1	Effort Started	21-Nov-24	21-Nov-24	21-Nov-24
	Milestone 2	Kick-off public meeting	31-Jan-25	12-Mar-25	12-Mar-25
	Milestone 3	E-flows workshop	31-Mar-25	9-Apr-25	9-Apr-25
	Milestone 4	E-flows workshop report	16-May-25	4-Jul-25	4-Jul-25
	Milestone 5	Conclude any follow-up coordination	30-Sep-25	27-Aug-25	27-Aug-25
	Milestone 6	Effort Finished	30-Sep-25	27-Aug-25	27-Aug-25
MVN - Atchafalaya River (Bayou Courtableau Control Structure) - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	DRAFT Modeling Workplan Delivered	16-Dec-24	18-Dec-24	18-Dec-24
	Milestone 3	Modeling Workplan comments resolved, FINAL Modeling Workplan delivered	16-Dec-24	14-Feb-25	14-Feb-25
	Milestone 4	Model refinements and model extension completed	16-Dec-24	14-Mar-25	14-Mar-25
	Milestone 5	USACE completes review of model refinements, model extension, and existing conditions. Assessment run	6-Jan-24	4-Apr-25	4-Apr-25
	Milestone 6	Completion of modeling	17-Feb-25	9-May-25	9-May-25
	Milestone 7	DRAFT Final Modeling Report Delivered	17-Feb-25	23-May-25	23-May-25
	Milestone 8	All Final Modeling Report comments received	10-Mar-25	25-Jun-25	25-Jun-25
	Milestone 9	All Final Modeling Report comments resolved & Final Modeling Report delivered	28-Mar-25	25-Jul-25	25-Jul-25
	Milestone 10	Implementation and Monitoring Experimental E-flows	16-Jan-26	30-Sep-25	27-Aug-25
	Milestone 11	Final Evaluation of E-flows in the Bayou Courtableau Basin	9-Jul-27	30-Sep-25	27-Aug-25
	Milestone 12	Effort Finished	30-Jul-27	30-Sep-25	27-Aug-25
MVP - Minnesota River - FY23	Milestone 1	Effort Started	10-Mar-23	17-Mar-23	17-Mar-23
	Milestone 2	Funding of FY22 work and kickoff	1-Apr-23	1-Apr-23	1-Apr-23
	Milestone 3	Final EA and memo document completed	30-Nov-24	30-Jun-25	30-Jun-25
	Milestone 4	Anticipated start of drawdown	30-Jun-25	15-Jul-26	
	Milestone 5	Project report summarizing activities and associated monitoring	31-Dec-25	30-Sep-26	
	Milestone 6	Effort Finished	31-Dec-25	30-Sep-26	
MVP - Minnesota River - FY25	Milestone 1	Effort Started	2-Dec-24	2-Dec-24	2-Dec-24
	Milestone 2	Final EA complete	30-Jun-25	30-Jun-25	30-Jun-25
	Milestone 3	Anticipated start of drawdown and cultural survey	15-Jul-25	15-Jul-26	
	Milestone 4	Final report	30-Sep-25	30-Sep-26	
	Milestone 5	Effort Finished	1-Oct-25	30-Sep-26	
MVP - Mississippi River - LD - Pool 2 - FY25	Milestone 1	Effort Started	2-Dec-24	2-Dec-24	2-Dec-24
	Milestone 2	Funding of FY25 work and kickoff	15-Feb-25	14-Feb-25	14-Feb-25
	Milestone 3	Begin assessment of gate manipulation	15-Feb-25	14-Feb-25	14-Feb-25
	Milestone 4	Begin 2D modelling on the site	1-Mar-25	28-Feb-25	28-Feb-25
	Milestone 5	Work up existing sturgeon fishery data and fisheries assessment	1-Mar-25	28-Feb-25	28-Feb-25
	Milestone 6	Analyze substrate with high resolution side scan	1-May-25	11-Aug-25	11-Aug-25
	Milestone 7	Completion of 2025 suitability report summarizing findings from project tasks	30-Sep-25	15-Dec-25	

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Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 8	Effort Finished	30-Oct-25	15-Dec-25	
MVP - Mississippi River – Pool 10 Opportunistic Drawdown - FY24	Milestone 1	Effort Started	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 2	Funding of FY24 work and kickoff	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 3	Aniticipated implementation of operating plan	29-Aug-25	30-Sep-25	30-Sep-25
	Milestone 4	Effort Finished	31-Aug-25	30-Sep-25	30-Sep-25
MVP TNTCX - Manoomin workshop - FY25	Milestone 1	Effort Started	6-Dec-24	6-Dec-24	6-Dec-24
	Milestone 2	Hold kickoff meeting and initiate workplan	30-Jan-25	29-Jan-25	
	Milestone 3	Detailed workplan and schedule	30-Jan-25	6-Feb-25	6-Feb-25
	Milestone 4	Literature review completed	28-Feb-25	28-Feb-25	28-Feb-25
	Milestone 5	Webpage developed	15-Apr-25	15-Apr-25	15-Apr-25
	Milestone 6	Hold workshop(s)	30-Jul-25	6-Dec-25	
	Milestone 7	Draft workshop report	20-Nov-25		
	Milestone 8	USACE meeting to assess opportunities	15-Jan-26		
	Milestone 9	Draft educational/outreach materials	28-Feb-26		
	Milestone 10	Draft Storymap development, if applicable	15-Mar-26		
	Milestone 11	Submit final deliverables	15-May-26		
	Milestone 12	Effort Finished	15-Jun-26		
MVR - Des Moines and Iowa Rivers - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Science meeting and operations workshop reconnaissance and agendas	31-Jan-25	21-Jan-25	21-Jan-25
	Milestone 3	Completion of 4 of 9 reports due for ongoing work	30-Jun-25	30-Jun-25	30-Jun-25
	Milestone 4	Science meeting and/or operations workshop, update of AMMPs, summary report	31-Aug-25	31-Aug-25	13-Aug-25
	Milestone 5	Completion of 9 of 9 reports due for ongoing work	30-Sep-25	29-Sep-25	29-Sep-25
	Milestone 6	Effort Finished	31-Oct-25	29-Sep-25	29-Sep-25
MVR - Des Moines River - FY23	Milestone 1	Effort Started	20-Dec-22	9-Jan-23	9-Jan-23
	Milestone 2	Shorebirds - Coordination of effort with two other field sites in Midwest	15-Jan-23	15-Jan-23	15-Jan-23
	Milestone 3	Communications - Initiate processing and editing of time lapse images	31-Jan-23	31-Jan-23	31-Jan-23
	Milestone 4	Shorebirds - Initiate CESU contracting process	1-Feb-23	1-Feb-23	1-Feb-23
	Milestone 5	Communications - Present SRP supported science efforts at American Fisheries Society annual meeting	1-Mar-23	1-Mar-23	1-Mar-23
	Milestone 6	Science - Initiate discussions for 2023 e-flows and lake pool with stakeholders	15-Mar-23	15-Mar-23	15-Mar-23
	Milestone 7	Shorebirds - Award CESU contract for satellite tagging research and web portal	21-Aug-23	21-Aug-23	21-Aug-23
	Milestone 7a	Shorebirds - CESU contract POP end	30-Sep-25	30-Aug-25	30-Aug-25
	Milestone 8	Science - E-flows preparations and coordination for potential spring pulse	1-May-23	1-May-23	1-May-23
	Milestone 9	Science - Initiate 2023 spring and summer field monitoring season	28-Jun-23	28-Jun-23	28-Jun-23
	Milestone 10	Communications - Revise or supplement Red Rock Visitor Center displays	21-Aug-23	21-Aug-23	21-Aug-23
	Milestone 11	Shorebird - Complete coordination for field activities at 3 separate Corps lakes for studying interstate stopc	31-Jul-23	31-Jul-23	31-Jul-23
	Milestone 12	Shorebirds - Complete field work for satellite tagging of shorebirds	21-Aug-23	21-Aug-23	21-Aug-23
	Milestone 13	Sturgeon - Finalize scope and initiate work and funding	3-May-23	3-May-23	3-May-23
	Milestone 14	Science - Complete coordination of 2023 summer field season	21-Aug-23	21-Aug-23	21-Aug-23
	Milestone 15	Communications - Finalize written communication pieces	21-Aug-23	21-Aug-23	21-Aug-23
	Milestone 16	Shorebirds - Complete web portal for data visualization	10-Nov-23	10-Nov-23	10-Nov-23
	Milestone 17	Shorebirds - Field season report for 2023	25-Jun-24	25-Jun-24	25-Jun-24
	Milestone 18	Sturgeon - Initiate 2024 spring and summer field monitoring season	15-May-24	15-May-24	15-May-24
	Milestone 19	Sturgeon - Complete 2024 field year	15-Dec-24	15-Dec-24	15-Dec-24
	Milestone 20	Sturgeon - Complete 2024 field season report	31-Jan-25	31-Mar-25	31-Mar-25
	Milestone 21	Shorebirds - Field season report for 2024	30-Apr-25	20-Mar-25	20-Mar-25
	Milestone 22	Science - Conclude DMR Fish Recruitment Research and final report	10-Apr-24	10-Apr-24	10-Apr-24
	Milestone 23	Sturgeon - Initiate 2025 spring and summer field monitoring season	15-May-25	21-Apr-25	21-Apr-25
	Milestone 24	Shorebirds - Summary report	30-Jun-25	16-Oct-25	
	Milestone 25	Sturgeon - Complete 2025 field year	31-Oct-25	31-Oct-25	
	Milestone 26	Sturgeon - Complete 2025 field season report	15-Dec-25	15-Dec-25	
	Milestone 27	Sturgeon - Complete final report	31-Mar-26	14-Dec-26	
	Milestone 28	Effort Finished	30-Apr-26	14-Dec-26	
MVR - Des Moines River - Herptiles movement and observations - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Initiate plan of action and lit review	15-Apr-25	12-Jun-25	12-Jun-25
	Milestone 3	IDNR and ISU staff trap and tag turtles, attaching 8 units as pilot	30-Oct-24	30-Oct-24	30-Oct-24

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Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 4	Trap turtles and retrieve data loggers	30-Apr-25	31-Mar-26	
	Milestone 5	Complete “plan and pilot” report	31-Aug-25	31-Mar-26	
	Milestone 6	Conclude weekly summer turtle tracking	30-Sep-25	31-Mar-26	
	Milestone 7	Trap turtles, attach transmitters and data loggers, initiate winter tracking (field season 1)	31-Oct-25		
	Milestone 8	Conclude winter tracking, trap turtles, remove and replace data loggers (field season 1)	31-Mar-26		
	Milestone 9	Complete annual report, 2025-26 (field season 1)	31-Aug-26		
	Milestone 10	Conclude weekly summer turtle tracking	30-Sep-26		
	Milestone 11	Trap turtles, attach transmitters and data loggers, initiate winter tracking (field season 2)	31-Oct-26		
	Milestone 12	Conclude winter tracking, trap turtles, remove and replace data loggers (field season 2)	31-Mar-27		
	Milestone 13	Complete annual report, 2026-27 (field season 2)	31-Aug-27		
	Milestone 14	Complete technical report	30-Sep-27	30-Sep-27	
	Milestone 15	Effort Finished	30-Sep-27		
MVR - Des Moines River - Species inventory in delta - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Begin pilot site set up and data collection	15-Jul-24	15-Jul-24	15-Jul-24
	Milestone 3	Complete pilot data collection	31-Oct-24	15-Oct-24	15-Oct-24
	Milestone 4	Complete pilot data entry	31-Dec-24	30-Oct-24	30-Oct-24
	Milestone 5	Complete “purpose and pilot” report	28-Feb-25	31-Mar-25	14-May-25
	Milestone 6	Set up locations	31-Mar-25	30-Apr-25	7-Apr-25
	Milestone 7	Begin data collection	30-Apr-25	14-Apr-25	14-Apr-25
	Milestone 8	Complete data collection	31-Oct-25		
	Milestone 9	Complete data entry	31-Dec-25		
	Milestone 10	Submit “findings and field summary” report	28-Feb-26		
	Milestone 11	Complete “findings and field summary” report	30-Apr-26	30-Apr-26	
	Milestone 12	Effort Finished	30-Apr-26		
MVR - Des Moines River (Lake Red Rock) - FY24	Milestone 1	Effort Started	13-Nov-23	13-Nov-23	13-Nov-23
	Milestone 2	Science - Completion of CESU deliverables for Des Moines River scopes (i.e., waterbird & vegetation final re	30-Apr-24	30-Apr-24	30-Apr-24
	Milestone 3	Science – Field season reports (i.e., (1) e-flow impact on mussels, (2) e-flow response by fishes, and (3) e-pc	15-Nov-24	15-Nov-24	15-Nov-24
	Milestone 4	Science – Completion of satellite tracking web portal and Final Adaptive Management & Monitoring Plan (A	15-Feb-24	15-Feb-24	15-Feb-24
	Milestone 5	Communications - Educational and marketing materials	31-Aug-24	31-Aug-24	31-Aug-24
	Milestone 6	Sturgeon – Complete 2024 field season report	30-Apr-25	30-Apr-25	30-Apr-25
	Milestone 7	Shorebirds and Invertebrates – 2024 field season and annual report for shorebird satellite tracking and e-flo	30-Jan-25	21-Jan-25	21-Jan-25
	Milestone 8	Sturgeon - Annual report for effects of reservoir operations on (1) fish reproduction and movement and (2)	30-Apr-25	30-Apr-25	30-Apr-25
	Milestone 9	Effort Finished	30-Apr-25	30-Apr-25	30-Apr-25
MVR - DMR Lake Shorebird Study - FY25	Milestone 1	Effort Started	3-Apr-25	3-Apr-25	3-Apr-25
	Milestone 2	Initiate field season data collection	1-Apr-25	21-Jul-25	21-Jul-25
	Milestone 3	Complete field season data collection	30-Sep-25	30-Oct-25	
	Milestone 4	Annual Report, 2025 Season	31-Mar-26		
	Milestone 5	Initiate field season data collection	1-Apr-26		
	Milestone 6	Complete field season data collection	30-Sep-26		
	Milestone 7	Annual Report, 2026 Season	31-Mar-27	31-Mar-28	
	Milestone 8	Effort Finished	30-Apr-27	31-Dec-27	
MVR - Mississippi River - Pool 12 - FY25	Milestone 1	Effort Started	22-Nov-24	22-Nov-24	22-Nov-24
	Milestone 2	Complete Lake Sturgeon monitoring at Lock and Dam 12	30-Sep-25	15-Nov-25	
	Milestone 3	Complete H&H data gathering and modeling assessment of Lock and Dam 12	30-Sep-25	15-Nov-25	
	Milestone 4	Completion of 2025 final report summarizing findings from project tasks 1-2	31-Dec-25	31-Dec-25	
	Milestone 5	Effort Finished	1-Jan-26		
MVR - Mississippi River - Pool 15 - FY25	Milestone 1	Effort Started	22-Nov-24	22-Nov-24	22-Nov-24
	Milestone 2	Complete Lake Sturgeon monitoring at Lock and Dam 15	30-Sep-25	15-Nov-25	
	Milestone 3	Complete H&H data gathering and modeling assessment of Lock and Dam 15	30-Sep-25	15-Nov-25	
	Milestone 4	Completion of 2025 final report summarizing findings from project tasks 1-2	31-Dec-25	31-Dec-25	
	Milestone 5	Effort Finished	1-Jan-26		
	Milestone 6	Completion of 2025 final report summarizing findings from project tasks 1-2	31-Dec-25		
MVS - Kaskaskia River - FY23	Milestone 1	Effort Started	9-Dec-22	9-Jan-23	9-Jan-23
	Milestone 2	Implementation of environmental levels at Lake Shelbyville Carlyle Lake and Jerry F. Costello L&D in-person	21-Aug-24	21-Aug-24	21-Aug-24
	Milestone 3	Complete vegetation surveys and report briefing materials	15-Nov-24	22-Oct-24	22-Oct-24

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Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 4	Complete drone imagery collection and report briefing materials	31-Jan-25	2-Jan-25	2-Jan-25
	Milestone 5	Final vegetation survey summary report and acres exposed	31-Jan-25	31-Jan-25	2-Jan-25
	Milestone 6	Effort Finished	31-Jan-25	2-Jan-25	2-Jan-25
MVS - Kaskaskia River - FY25	Milestone 1	Effort Started	6-Nov-24	6-Nov-24	6-Nov-24
	Milestone 2	Environmental opportunities stakeholder meeting at Carlyle Lake	15-Mar-25	15-Mar-25	15-Mar-25
	Milestone 3	Implement drawdown at Carlyle Lake and Lake Shelbyville	15-Aug-25	30-Sep-25	30-Sep-25
	Milestone 4	Stakeholder meeting report	30-Sep-25	30-Sep-25	30-Sep-25
	Milestone 5	EPM summary report	31-Dec-25		
	Milestone 6	Effort Finished	1-Jan-26		
MVS - Kaskaskia River (Jerry F. Costello L&D) - FY24	Milestone 1	Effort Started	5-Dec-23	5-Dec-23	5-Dec-23
	Milestone 2	Shorebirds - Analysis of daily release and water surface elevation	30-Sep-24	30-Sep-24	30-Sep-24
	Milestone 3	Shorebirds - Perform shorebird use surveys	15-Oct-24	15-Oct-24	15-Oct-24
	Milestone 4	Shorebirds - Video/photo station	15-Oct-24	15-Oct-24	15-Oct-24
	Milestone 5	Shorebirds - Sediment moisture and invertebrate sampling	20-Oct-24	20-Oct-24	20-Oct-24
	Milestone 6	Shorebirds - Summary report	30-Jan-25	4-Dec-24	4-Dec-24
	Milestone 7	Shorebirds & WLM – Integration into Kaskaskia Basin operating plans	30-Jan-25	4-Dec-24	4-Dec-24
	Milestone 8	Effort Finished	30-Jan-25	4-Dec-24	4-Dec-24
MVS - Mississippi River - Mel Price - FY25	Milestone 1	Effort Started	6-Dec-24	6-Dec-24	6-Dec-24
	Milestone 2	Final summary report	30-Sep-25	30-Sep-25	
	Milestone 3	Effort Finished	1-Oct-25	1-Oct-25	
MVS - Mississippi River - Pool 25 - FY25	Milestone 1	Effort Started	21-Nov-24	21-Nov-24	21-Nov-24
	Milestone 2	Completion of HEC-RAS model for L&D25	30-Mar-25	4-Mar-25	4-Mar-25
	Milestone 3	Complete lake sturgeon monitoring at L&D25	30-Apr-25	25-Apr-25	25-Apr-25
	Milestone 4	Operationalize model output to create target velocities	30-Jun-25	30-Jun-25	30-Jun-25
	Milestone 5	Complete substrate exploration	30-Jul-25	7-Jul-25	7-Jul-25
	Milestone 6	Completion of 2025 report summarizing findings from LKSG monitoring, prescribed gate settings, implemer	30-Dec-25		
	Milestone 6	Effort Finished	31-Dec-25		
MVS - Mississippi River Environmental Pool Management - FY24	Milestone 1	Effort Started	28-Feb-24	28-Feb-24	28-Feb-24
	Milestone 2	Begin collection of existing data, reports, photos and other ancillary information, and begin interviews with	15-Apr-24	15-Apr-24	15-Apr-24
	Milestone 3	complete draft report	30-Sep-25	30-Sep-25	30-Sep-25
	Milestone 4	complete final report	31-Dec-25		
	Milestone 5	Effort Finished	31-Dec-25		
MVS - Mississippi River Lake Sturgeon Spawning-LD - FY24	Milestone 1	Effort Started	13-Dec-23	13-Dec-23	13-Dec-23
	Milestone 2	Complete lake sturgeon monitoring at L&D25	26-Apr-24	26-Apr-24	26-Apr-24
	Milestone 3	Complete assessment of Mississippi River L&D's for management of spawning habitat	26-Sep-24	26-Sep-24	26-Sep-24
	Milestone 4	Completion of 2024 Summary Report	28-Feb-25	28-Feb-25	28-Feb-25
	Milestone 5	Effort Finished	28-Mar-25	28-Feb-25	28-Feb-25
MVS - Salt River (Clarence Cannon) - FY24	Milestone 1	Effort Started	5-Dec-23	5-Dec-23	5-Dec-23
	Milestone 2	Onsite preseason meeting to outline upcoming tasks (SWPA, MDC, USACE)	1-Mar-24	31-Mar-24	1-Mar-24
	Milestone 3	Operational e-flows with onsite fish monitoring sampling	15-May-24	15-May-24	15-May-24
	Milestone 4	Complete modeling and agency coordination and outreach (ongoing through end FY24)	30-Sep-24	30-Sep-24	30-Sep-24
	Milestone 5	Season-end project report	31-Jan-25	23-Jan-25	23-Jan-25
	Milestone 6	Effort Finished	31-Jan-25	31-Jan-25	23-Jan-25
MVS - Salt River (lake sturgeon) - FY25	Milestone 1	Effort Started	2-Dec-24	2-Dec-24	2-Dec-24
	Milestone 2	Onsite preseason meeting to outline upcoming tasks (SWPA, MDC, USACE)	1-Mar-25	13-Mar-25	13-Mar-25
	Milestone 3	Operational e-flows with onsite fish monitoring, sampling, and telemetry	1-May-25	1-May-25	1-May-25
	Milestone 4	Complete flow transects and agency coordination and outreach	30-Sep-25		
	Milestone 5	Season-end project report	31-Dec-25		
	Milestone 6	Effort Finished	31-Dec-25		
MVS - Salt River (wetlands) - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Project report complete	30-Sep-25	30-Sep-25	
	Milestone 3	Effort Finished	31-Oct-25		
MVS - Salt River-Wetlands - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Onsite workshop with staff and stakeholders (SWPA, USACE, MDC, others)	28-May-24	28-May-24	28-May-24
	Milestone 3	Project Report	31-Jan-25	10-Jan-25	10-Jan-25

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Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 4	Effort Finished	28-Feb-25	10-Jan-25	10-Jan-25
MVS - St. Francis River - FY25	Milestone 1	Effort Started	21-Nov-24	21-Nov-24	21-Nov-24
	Milestone 2	Environmental workshop	31-Aug-25	30-Sep-25	30-Sep-25
	Milestone 3	Workshop summary report	30-Sep-25	30-Sep-25	30-Sep-25
	Milestone 4	Effort Finished	1-Oct-25	30-Sep-25	30-Sep-25
NAB - Potomac River North Branch - FY23	Milestone 1	Effort Started	16-Dec-22	16-Dec-22	9-Jan-23
	Milestone 2	Complete initial draft State of Science Report for review	31-May-23	15-Jan-23	15-Jan-23
	Milestone 3	Complete draft State of Science Report (incorporating review comments) as read ahead for e-flows worksh	16-May-25	16-May-25	16-May-25
	Milestone 4	Complete e-flows workshop	29-Aug-25	7-Aug-25	7-Aug-25
	Milestone 5	Finalize State of Science Report and workshop summary report detailing e-flow recommendations	30-Sep-25	30-Sep-25	30-Sep-25
	Milestone 6	Effort Finished	31-Oct-25	30-Sep-25	30-Sep-25
NAP - Dyberry Creek - FY25	Milestone 1	Effort Started	16-Jan-25	16-Jan-25	16-Jan-25
	Milestone 2	Project kickoff	27-Jan-25	27-Jan-25	27-Jan-25
	Milestone 3	Implementation of planting effort (not part of this scope)	19-May-25	15-Aug-25	15-Aug-25
	Milestone 4	Complete planning/coordination support	30-May-25	1-Sep-25	1-Sep-25
	Milestone 5	Monitoring survivorship and establishment	29-Aug-25	8-Sep-25	8-Sep-25
	Milestone 6	Complete summary report	30-Sep-25	9-Sep-25	9-Sep-25
	Milestone 7	Effort Finished	30-Sep-25	9-Sep-25	9-Sep-25
NWK - Kansas River - FY23	Milestone 1	Effort Started	2-Feb-23	10-May-23	10-May-23
	Milestone 2	Oxbows - 1st Workshop Summary	15-Aug-24	15-Aug-24	15-Aug-24
	Milestone 3	Oxbows - 2nd Workshop Summary	30-Nov-24	30-Jun-25	30-Jun-25
	Milestone 4	Oxbows - Baseline assessment and restoration measures summary	30-Aug-25	10-Sep-25	10-Sep-25
	Milestone 5	Geomorphology - Year 1 data collection complete	31-Aug-23	31-Aug-23	31-Aug-23
	Milestone 6	Chronologies - Database with records from all collections	31-Oct-23	31-Oct-23	31-Oct-23
	Milestone 7	Chronologies - Summary report	30-May-25	30-Jun-25	30-Jun-25
	Milestone 8	Coordination - Meeting notes and presentations prepared and delivered as required	31-Oct-25		
	Milestone 9	Geomorphology - Year 2 data collection complete	28-Oct-24	28-Oct-24	28-Oct-24
	Milestone 10	Turbidity - Database with records from all collections	31-Dec-24	31-Jan-25	31-Jan-25
	Milestone 11	Turbidity - Report complete	31-Oct-25		
	Milestone 12	Effort Finished	31-Oct-25		
NWK - Kansas River (e-pools) - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Determine reservoir(s) for e-pools implementation and install trail camera(s) for monitoring pool elevation	3-Feb-25	7-Mar-25	7-Mar-25
	Milestone 3	Complete evaluation report comparing combinations of e-pools and related strategies (may be a section of	2-May-25	11-Mar-25	11-Mar-25
	Milestone 4	Host e-pools stakeholders workshop	1-Aug-25	30-Sep-25	
	Milestone 5	Complete e-pools workshop summary report and e-pools implementation strategy report	30-Sep-25	30-Nov-25	
	Milestone 6	Effort Finished	31-Oct-25	30-Nov-25	
NWK - Kansas River E-pools - FY24	Milestone 1	Effort Started	13-Dec-23	13-Dec-23	13-Dec-23
	Milestone 2	Complete GIS data models	30-Dec-24	5-Nov-24	5-Nov-24
	Milestone 3	Complete summary report comparing impact of e-pools management strategies on other existing environn	30-Apr-25	30-Apr-25	30-Apr-25
	Milestone 4	Host e-pools workshop	23-Aug-24	2-Apr-24	2-Apr-24
	Milestone 5	Complete e-pool workshop summary report and implementation strategy	30-Apr-25	15-Nov-25	
	Milestone 6	Effort Finished	30-Sep-25	15-Nov-25	
NWK - Osage - E-flows - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Coordination - Meeting notes, presentations, adaptive management plan shared	20-Dec-24	30-Apr-25	30-Apr-25
	Milestone 3	Monitoring aquatic habitat and hydrographic surveys	20-Dec-25	30-Apr-25	30-Apr-25
	Milestone 4	Monitoring documented mussel beds to evaluate response to e-flows	20-Dec-25	20-Dec-25	
	Milestone 5	Contract award	30-Aug-25	30-Aug-25	30-Aug-25
	Milestone 6	Contract Pop End	30-Aug-27		
	Milestone 7	Effort Finished	20-Dec-25		
NWO - Cherry Creek (Cherry Creek Dam) - FY24	Milestone 1	Effort Started	25-Apr-24	25-Apr-24	25-Apr-24
	Milestone 2	Stakeholder coordination/feedback	25-Apr-24	25-Apr-24	25-Apr-24
	Milestone 3	Stakeholder kick-off meeting	25-Apr-24	25-Apr-24	25-Apr-24
	Milestone 4	Begin monthly water quality sampling at Cherry Creek Reservoir and outflow	20-May-24	20-May-24	20-May-24
	Milestone 5	End round one monthly water quality sampling at Cherry Creek Reservoir and outflow	24-Sep-24	24-Sep-24	24-Sep-24
	Milestone 6	Complete and circulate FY24 preliminary report	30-Nov-24	30-Nov-24	30-Nov-24

Appendix B: Sustainable Rivers Program
FY 2025 SRP Milestones

Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 7	Stakeholder results meeting; request round two support	12-Nov-24	12-Nov-24	12-Nov-24
	Milestone 8	Complete and circulate final FY24 summary report	31-Dec-24	20-Dec-24	20-Dec-24
	Milestone 9	Begin round two monthly water quality analysis of local water quality authority's samples	31-May-25	31-Dec-25	
	Milestone 10	End of round two monthly water quality analysis of local water quality authority's samples	30-Sep-25	31-Dec-25	
	Milestone 11	Complete and circulate FY25 preliminary report	30-Nov-25		
	Milestone 12	Stakeholder results meeting (actual date not set yet)	11-Sep-25		
	Milestone 13	Complete and circulate final FY25 summary report	31-Dec-25	31-Dec-25	
	Milestone 14	Effort Finished	31-Dec-25		
NWO - James River (Pipestem Dam) - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Meet with partners to discuss concerns and interest in environmental pool management and e-flow strateg	5-Sep-24	5-Sep-24	5-Sep-24
	Milestone 3	Complete Meeting Comment Summary Report 1	24-Sep-24	24-Sep-24	24-Sep-24
	Milestone 4	Begin WQ Sampling and model update	15-Aug-24	15-Aug-24	15-Aug-24
	Milestone 5	Complete WQ Sampling	30-Oct-24	24-Oct-24	24-Oct-24
	Milestone 6	Complete Model Calibration	15-Jan-25	15-Feb-25	15-Feb-25
	Milestone 7	Complete Alternatives Analysis	15-Mar-25	1-Apr-25	1-Apr-25
	Milestone 8	Meet with partners to discuss results of model analysis	15-May-25	27-May-25	27-May-25
	Milestone 9	Complete Meeting Comment Summary Report 2	15-Jun-25	15-Jun-25	15-Jun-25
	Milestone 10	Final report	30-Sep-25	30-Sep-25	30-Sep-25
	Milestone 11	Effort Finished	30-Sep-25	30-Sep-25	30-Sep-25
NWS - Kootenai River - FY25	Milestone 1	Effort Started	25-Nov-24	25-Nov-24	25-Nov-24
	Milestone 2	Begin water quality sampling	1-Apr-25	22-Apr-25	22-Apr-25
	Milestone 3	Finish water quality sampling	31-Oct-25		
	Milestone 4	Final Water Quality Study Report	15-Feb-26		
	Milestone 5	Effort Finished	16-Feb-26		
NWS - Kootenai River (Libby Dam) - FY24	Milestone 1	Effort Started	4-Apr-24	4-Apr-24	4-Apr-24
	Milestone 2	Water quality lab contracts finalized	15-May-24	15-May-24	15-May-24
	Milestone 2a	Water quality lab contracts POP end	28-Feb-25	28-Feb-25	28-Feb-25
	Milestone 3	Begin water quality sampling	21-May-24	21-May-24	21-May-24
	Milestone 4	Deliver water quality samples to lab	15-Nov-24	1-Nov-24	1-Nov-24
	Milestone 5	Begin water quality data analysis	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 6	Final report completed	30-May-25	30-May-25	30-May-25
	Milestone 7	Effort Finished	30-May-25	30-May-25	30-May-25
NWS - Lake Washington Ship Canal - LD - FY23	Milestone 1	Effort Started	22-Dec-22	9-Jan-23	9-Jan-23
	Milestone 2	Initial meeting with contractor and NWS team	19-Oct-23	19-Oct-23	19-Oct-23
	Milestone 3	All model files and tools are delivered to SME	2-Nov-23	2-Nov-23	2-Nov-23
	Milestone 4	Initial review completed by SME and mid-point review meeting held	7-Jun-24	7-Jun-24	7-Jun-24
	Milestone 5	Model updates are completed by NWS	31-Jan-25	14-Feb-25	26-Feb-25
	Milestone 6	Final model review completed by SME and final review meeting held	15-Aug-25	25-Aug-25	25-Aug-25
	Milestone 7	Complete final report and share as deliverable	28-Feb-26		
	Milestone 8	Effort Finished	28-Feb-26		
NWS - Management of woody debris - FY25	Milestone 1	Effort Started	13-Dec-24	13-Dec-24	13-Dec-24
	Milestone 2	Project PMP and TEAMS page	31-Dec-24	8-Jan-25	8-Jan-25
	Milestone 3	NWS woody material management study report outline	15-Jan-25	8-Jan-25	8-Jan-25
	Milestone 4	30% draft study report	1-Apr-25	1-Apr-25	1-Apr-25
	Milestone 5	60% draft study report	1-Jul-25	7-Jul-25	7-Jul-25
	Milestone 5	90% draft study report	31-Aug-25	31-Aug-25	31-Aug-25
	Milestone 5	Final report	31-Oct-25		
	Milestone 5	Effort Finished	31-Oct-25		
SAM - Alabama River - LD - FY23	Milestone 1	Effort Started	22-Dec-22	9-Jan-23	9-Jan-23
	Milestone 2	Initiate planning and methodology meetings with USACE and external agencies	15-Jan-23	15-Jan-23	15-Jan-23
	Milestone 3	Compile all data and complete implementation plan for the upcoming year as determined by the PDT throu	30-Aug-23	30-Aug-23	30-Aug-23
	Milestone 4	Complete baseline fish assemblage data collection under current conservation locking operations	1-Dec-23	28-Jul-23	28-Jul-23
	Milestone 5	Complete phase 1 monitoring report	30-Jan-25	6-Dec-24	6-Dec-24
	Milestone 6	Effort Finished	30-Jan-25	6-Dec-24	6-Dec-24
SAM - Alabama River - LD - FY24	Milestone 1	Effort Started	30-Nov-23	30-Nov-23	30-Nov-23

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FY 2025 SRP Milestones

Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 2	Initiate planning and methodology meetings with USACE and external agencies.	30-Nov-23	30-Nov-23	30-Nov-23
	Milestone 3	Purchase FLOY tags, acoustic tags, nets, fish feed, and feeders.	30-Nov-23	30-Nov-23	30-Nov-23
	Milestone 4	Begin fish attractant feeding	15-Dec-23	15-Dec-23	15-Dec-23
	Milestone 5	Initiate fish sampling	28-Feb-24	28-Feb-24	28-Feb-24
	Milestone 6	Finish fish sampling	15-Jul-24	15-Jul-24	15-Jul-24
	Milestone 7	Completion of summary implementation report	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 8	Effort Finished	30-Jan-25	30-Jan-25	30-Jan-25
SAM - Alabama River - LD - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Initiate planning and methodology meetings with USACE and external agencies.	15-Nov-24	15-Nov-24	15-Nov-24
	Milestone 3	Begin fish attractant feeding	15-Dec-24	6-Jun-25	6-Jun-25
	Milestone 4	Finish fish sampling	30-Jun-25	30-Jun-25	30-Jun-25
	Milestone 5	Completion of FY25 summary report	30-Sep-25	30-Nov-25	
	Milestone 6	Effort Finished	31-Oct-25	30-Nov-25	
SAM - Chattahoochee River - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Install public camera	31-Jan-25	21-Jan-25	21-Jan-25
	Milestone 3	Install signage	30-Apr-25	9-Apr-25	9-Apr-25
	Milestone 4	Hydropower analysis	31-Jul-25	31-Jul-25	31-Jul-25
	Milestone 5	SAM/SAD incorporation meeting	31-Aug-25	31-Aug-25	31-Aug-25
	Milestone 6	Meeting MFR, hydropower analysis and SOP document	30-Sep-25	30-Nov-25	
	Milestone 7	Effort Finished	31-Oct-25	30-Nov-25	
SAM - Chattahoochee River e-flows (Buford Dam) - FY24	Milestone 1	Effort Started	11-Dec-23	11-Dec-23	11-Dec-23
	Milestone 2	Complete data analysis of modified flow regimes conducted between August and December 2023.	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 3	Complete monitoring activities and distribute summary of impacts from 6-month e-flow implementation.	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 4	Conduct 12-month data review analysis with stakeholders (2 days).	22-Aug-24	22-Aug-24	22-Aug-24
	Milestone 5	Report of e-flow implementation results	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 6	Effort Finished	30-Jan-25	30-Jan-25	30-Jan-25
SAM - Chattahoochee River fish spawn (Seminole L&D) - FY24	Milestone 1	Effort Started	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 2	Kick off meeting with state resource agencies	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 3	Operation of pool for critical elevations begins	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 4	Data collection begins	1-May-24	1-May-24	1-May-24
	Milestone 5	Data collection ends	6-Jun-24	6-Jun-24	6-Jun-24
	Milestone 6	Project report	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 7	Effort Finished	30-Jan-25	30-Jan-25	30-Jan-25
SAM - Coosawattee River - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Initiate planning and methodology meetings with USACE and external agencies	30-Nov-24	30-Nov-24	30-Nov-24
	Milestone 3	Initiate modified gate openings	1-Mar-25	1-Mar-25	1-Mar-25
	Milestone 4	Collaborative sampling with GA DNR and UGA	1-May-25	1-May-25	1-May-25
	Milestone 5	End modified gate openings	1-Jun-25	1-Jun-25	1-Jun-25
	Milestone 6	Implementation meeting	30-Aug-25	30-Aug-25	30-Aug-25
	Milestone 7	Final Carters Dam reregulation recommendations report	1-Sep-25	30-Nov-25	
	Milestone 8	Effort Finished	30-Sep-25	30-Nov-25	
SAM - Coosawattee River (Carters Dam) - FY24	Milestone 1	Effort Started	2-Apr-24	2-Apr-24	2-Apr-24
	Milestone 2	Initiate planning and methodology meetings with USACE and external agencies	30-Nov-23	2-Apr-24	2-Apr-24
	Milestone 3	Acquire side scan sonar	31-Dec-23	2-Apr-24	2-Apr-24
	Milestone 4	Initiate data collection	17-Jun-24	17-Jun-24	17-Jun-24
	Milestone 5	Finish data collection	28-Jun-24	28-Jun-24	28-Jun-24
	Milestone 6	Review findings and collaborate with MVS team to share insights and best practices related to e-flows for l	30-Jan-25	22-Jan-25	22-Jan-25
	Milestone 7	Summary of Findings of E-flow Analysis at Carters Dam, Coosawattee River. Literature review and recomme	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 8	Effort Finished	30-Jan-25	30-Jan-25	30-Jan-25
SAM - Tenn-Tom Waterway - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Kickoff meeting	30-Nov-24	30-Nov-24	30-Nov-24
	Milestone 3	Begin FY25 e-flows	30-Apr-25	30-Apr-25	30-Apr-25
	Milestone 4	Biological survey and outreach completed	31-Jul-25	31-Jul-25	31-Jul-25
	Milestone 5	FY25 summary report	30-Sep-25	30-Nov-25	
	Milestone 6	Effort Finished	31-Oct-25	30-Nov-25	

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FY 2025 SRP Milestones

Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
SAM - Tombigbee River - LD - FY23	Milestone 1	Effort Started	9-Jan-23	2-Feb-23	2-Feb-23
	Milestone 2	Purchase ISCO 24- bottle sediment samplers	28-Feb-23	28-Feb-23	28-Feb-23
	Milestone 3	Deploy sediment samplers and water quality sensors and begin monitoring	16-Jun-23	16-Jun-23	16-Jun-23
	Milestone 4	Begin habitat assessment	30-Apr-23	30-Apr-23	30-Apr-23
	Milestone 5	Finish habitat assessment	29-Sep-23	29-Sep-23	29-Sep-23
	Milestone 6	Cooperating agencies meeting	29-Sep-23	29-Sep-23	29-Sep-23
	Milestone 7	Complete baseline report	30-Jan-25	18-Oct-24	18-Oct-24
	Milestone 8	Effort Finished	30-Jan-25	30-Jan-25	30-Jan-25
SAM - Tombigbee River (Wilkins Dam) _ FY24	Milestone 1	Effort Started	30-Nov-23	30-Nov-23	30-Nov-23
	Milestone 2	Gravel bar identification	30-Nov-23	30-Nov-23	30-Nov-23
	Milestone 3	Gravel bar data collection	24-May-24	24-May-24	24-May-24
	Milestone 4	eflows begin	31-May-24	31-May-24	31-May-24
	Milestone 5	eflows end	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 6	Complete implementation report and share supplemental gravel bar assessment.	30-Jan-25	30-Jan-25	30-Jan-25
	Milestone 7	Effort Finished	30-Jan-25	30-Jan-25	30-Jan-25
SAW - Cape Fear River - FY23	Milestone 1	Effort Started	14-Dec-22	14-Dec-22	14-Dec-22
	Milestone 2	Launch contracting process for partner research	1-Feb-23	1-Feb-23	1-Feb-23
	Milestone 3	Fish Passage - finalize fisheries research CESU contracts. Prepare equipment. Start Jordan pulses for fish; Cc	1-Mar-23	1-Mar-23	1-Mar-23
	Milestone 4	Fish Passage - equipment deployed and fish tagged; Water Quality - update CESU contracts with UNC Resea	1-May-23	1-May-23	1-May-23
	Milestone 5	Fish Passage - field monitoring concluded eDNA lab analysis and broader telemetry data analysis begin; Wa	1-Jul-23	1-Jul-23	1-Jul-23
	Milestone 6	Fish Passage - check in with researchers on fish results; Water Quality - field monitoring concludes and lab/	30-Sep-23	30-Sep-23	30-Sep-23
	Milestone 7	Fish Passage – end of year summary of fish findings complete. Researchers continue to analyze data and w	1-Jun-23	1-Jun-23	1-Jun-23
	Milestone 7a	Water Quality - check-in with researchers on water quality results. Communication - summary of “2023 les	31-Mar-24	31-Mar-24	31-Mar-24
	Milestone 8	Fish Passage - CESU contracts updated for another year of work. Supplies purchased. Water Quality -end o	31-Mar-24	31-Mar-24	31-Mar-24
	Milestone 8a	Fish Passage - CESU contracts POP end	30-Sep-25	30-Sep-25	
	Milestone 9	Launch year 2	18-Dec-23	18-Dec-23	18-Dec-23
	Milestone 10	Fish Passage - prepare equipment researchers synched. Start Jordan pulses for fish; Communication - work	1-Mar-24	1-Mar-24	1-Mar-24
	Milestone 11	Fish Passage - field monitoring concluded eDNA lab analysis and broader telemetry data analysis begin; Wa	15-Jun-24	15-Jun-24	15-Jun-24
	Milestone 11a	Water Quality - CESU contracts POP end	30-Sep-25	30-Sep-25	
	Milestone 12	Fish Passage - check in with researchers on fish results; Water Quality - field monitoring concludes and lab/	30-Sep-24	30-Sep-24	30-Sep-24
	Milestone 13	Fish Passage - end of year summary of fish findings complete. Researchers continue to work towards a fina	31-Dec-25		
	Milestone 13a	Water Quality - check-in with researchers on water quality results. Communication - summary of “2024 les	31-Dec-25		
	Milestone 14	Water Quality - end of year summary of water quality findings complete. Communications - “needs” docun	31-Dec-25	31-Dec-25	
	Milestone 15	Effort Finished	31-Dec-25		
SAW - Neuse River (Falls Dam) - FY24	Milestone 1	Effort Started	30-Nov-23	30-Nov-23	30-Nov-23
	Milestone 2	Concurrent tasks of data gathering data and sharing readily available data.	14-Jun-24	14-Jun-24	14-Jun-24
	Milestone 3	Concurrent tasks that may overlap with the data collection efforts, including identifying remaining data ne	31-Dec-24	20-Dec-24	20-Dec-24
	Milestone 4	Continue concurrent efforts and prepare draft report	30-Jun-25	31-Dec-25	
	Milestone 5	Final draft report	30-Jun-25	31-Dec-25	
	Milestone 6	Effort Finished	30-Jun-25	31-Dec-25	
SPA - Rio Chama (e-flows) - FY25	Milestone 1	Effort Started	3-Mar-25	3-Mar-25	3-Mar-25
	Milestone 2	HEC-RPT hydrographs/plots and draft literature review	30-Sep-25		
	Milestone 3	Final report	31-Dec-25		
	Milestone 4	Effort Finished	31-Jan-26		
SPA - Rio Grand - E-flows - FY24	Milestone 1	Effort Started	31-May-24	31-May-24	31-May-24
	Milestone 2	Pre-workshop activity to prepare participants for workshop discussions and document initial agency constr	18-Jul-24	18-Jul-24	18-Jul-24
	Milestone 3	Environmental flows workshop participation	7-Aug-24	7-Aug-24	7-Aug-24
	Milestone 4	Complete written summary of USACE perspectives/opportunities/constraints	28-Feb-25	28-Feb-25	28-Feb-25
	Milestone 5	Effort Finished	28-Feb-25	28-Feb-25	28-Feb-25
SPK - Tule River (Lake Success) - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	PDT formation and literature review	25-Jun-24	25-Jun-24	25-Jun-24
	Milestone 3	Hold kickoff meeting	12-Aug-24	29-Aug-24	29-Aug-24
	Milestone 4	Workplan development	22-Aug-24	6-Sep-24	6-Sep-24
	Milestone 5	Site visit/opportunities meeting	21-Nov-24	21-Nov-24	21-Nov-24
	Milestone 6	Develop potential restoration options	28-Feb-25	9-Jun-25	

Appendix B: Sustainable Rivers Program
FY 2025 SRP Milestones

Project Name	Deliverable or Milestone Number	Milestone Name	Planned Completion Date	Revised Completion Date	Actual Completion Date
	Milestone 8	Storymap/tech transfer development	18-Jul-25	18-Jul-25	18-Jul-25
	Milestone 9	Submit final report	30-Sep-25	30-Nov-25	
	Milestone 10	Effort Finished	30-Sep-25	30-Nov-25	
SWF - Brazos River - E-flows - FY24	Milestone 1	Effort Started	28-May-24	28-May-24	28-May-24
	Milestone 2	Riverware modeling complete	15-Feb-25	15-Aug-25	15-Aug-25
	Milestone 3	HEC-RAS modeling complete	15-May-25	7-Aug-25	7-Aug-25
	Milestone 4	HEC-EFM modeling complete	15-Aug-25	15-Aug-25	15-Aug-25
	Milestone 5	Report of findings	30-Sep-25	30-Sep-25	30-Sep-25
	Milestone 6	Effort Finished	30-Sep-25	30-Sep-25	30-Sep-25
SWL - Black River - FY23	Milestone 1	Effort Started	13-Dec-22	9-Jan-23	9-Jan-23
	Milestone 2	Finish identification of partners stakeholders and issues report	8-Sep-23	8-Sep-23	8-Sep-23
	Milestone 3	Complete State of the Science Report including hydrologic data assessment	31-Jan-25	31-Jan-25	31-Jan-25
	Milestone 4	Effort Finished	28-Feb-25	28-Feb-25	28-Feb-25
SWL - Black River - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Host e-flows workshop	31-Jul-25	31-Jul-25	31-Jul-25
	Milestone 3	E-flows Workshop Report	30-Sep-25	21-Aug-25	21-Aug-25
	Milestone 4	Effort Finished	31-Oct-25	21-Aug-25	21-Aug-25
SWL - Cossatot River - FY23	Milestone 1	Effort Started	13-Dec-22	1-Feb-23	1-Feb-23
	Milestone 2	Complete information resources and capacity building for implementation	30-Apr-23	30-Apr-23	30-Apr-23
	Milestone 3	Complete report detailing next steps for feasibility of e-flow components	31-Dec-25		
	Milestone 4	Complete the implementation activities report	31-Dec-25		
	Milestone 5	Effort Finished	31-Dec-25		
SWL - Rolling Fork and Saline Rivers - FY25	Milestone 1	Effort Started	7-Nov-24	7-Nov-24	7-Nov-24
	Milestone 2	Opportunities Report	28-Feb-25	31-Mar-25	31-Mar-25
	Milestone 3	State of the Science and initial E-flow Recommendations Report	31-Dec-25	30-Dec-25	
	Milestone 4	Effort Finished	31-Oct-25		
TNTCX - Rivercane restoration - FY23	Milestone 1	Effort Started	2-Feb-23	10-Feb-23	10-Feb-23
	Milestone 2	Submit CESU SOI and CAAD	12-Mar-23	12-Mar-23	12-Mar-23
	Milestone 3	Hold kickoff meeting	15-Mar-23	15-Mar-23	15-Mar-23
	Milestone 4	Site visit/meeting	5-Apr-23	5-Apr-23	5-Apr-23
	Milestone 5	Award CESU	26-Jul-23	26-Jul-23	26-Jul-23
	Milestone 6	Complete Genetics Work	15-Jul-25	15-Jul-25	15-Jul-25
	Milestone 7	Outreach/Educational Materials	15-Jul-25	15-Jul-25	15-Jul-25
	Milestone 8	Submit final deliverables	30-Jul-25	30-Jul-25	30-Jul-25
	Milestone 9	Effort Finished	31-Jul-25	31-Jul-25	31-Jul-25

APPENDIX C

Sustainable Rivers-In Progress Review Budget

In fiscal year (FY) 2025, the Sustainable Rivers Program (SRP) received $4.505 million total through appropriations and carried in $2.69 million from prior year funds for a total of $7.195 million available to obligate in FY 2025. The SRP program is obligated to $6,730,120 in FY 2025. The total carryover from FY 2025 to FY 2026 was $464,880.

Table C.1 Allocations and Carryover per Major Program Components

Component	**Obligated ($, millions)**	**Carryover to FY 2026 ($, millions)**
Programmatic	2.40	0.121
- Program support	*1.30*	*0.039*
- Technologies	*0.50*	*0.0*
- Validation	*0.60*	*0.082*
Location-based	4.33	0.345
Total	**6.73**	**0.465**

SRP components with administrative costs are included in Table C.2. Associated budgeted totals are located in Table C3 below.

Table C.2 Program Administrative Costs

Program support	**Total Budget Amount**	**Administrative Costs**	**Administrative Percent of Budget**
- Hydraulic Engineering Center (HEC)	$326,000	$222,000	68%
- Institute Water Resources (IWR)	$182,000	$94,000	52%
- Vicksburg District (MVP)	$232,000	$116,000	50%
- Modeling, Mapping, and Consequences Production Center (MMC)	$258,000	$258,000	100%
Validation (SRP-Science)			
- Cape Fear and Roanoke	$92,000	$10,000	CESU fees
Location-based			
- Rock Island District (MVR) - Des Moines River (Nitrate Loss)	$250,000	$8,000	3%
- Kansas City District (NWK) - Osage (E-Flows)	$100,000	$8,000	8%
Totals (program budget, admin, %)	**$7,195,000**	**$716,000**	**10%**

Table C.3 Allocations and Carryover per Detailed Program Components (Table 1 of 5)

	Budgeted	Obligated	Carryover distribution (labor)	Carryover distribution (reposition)
Programmatic	**$1,343,000.00**	**$1,323,098.40**	**$90,561.26**	**$0.00**
HEC	$375,000.00	$393,900.32	$33,453.01	$0.00
IWR	$180,000.00	$183,710.53	$7,380.00	$0.00
MVP	$220,000.00	$222,683.05	$6,000.00	$0.00
MMC	$250,000.00	$258,094.76	$19,000.00	$0.00
Detail	$75,000.00	$79,477.92	$0.00	$0.00
Pool Level Management for E-Benefits	$120,000.00	$104,296.97	$14,728.25	$0.00
Sturgeon-centric coordination meeting	$50,000.00	$18,954.89	$0.00	$0.00
Communications Contract	$73,000.00	$61,979.96	$10,000.00	$0.00
Technology	**$500,000.00**	**$493,779.53**	**$0.00**	**$0.00**
Ecological Software Contract	$250,000.00	$232,415.49	$0.00	$0.00
EFMSim Contract	$250,000.00	$261,364.04	$0.00	$0.00
Validation	**$680,000.00**	**$599,348.53**	**$81,185.52**	**$0.00**
Cape Fear and Roanoke	$120,000.00	$99,397.18	$11,938.78	$0.00
Upper Ohio River	$160,000.00	$150,948.30	$11,846.74	$0.00
Des Moines River	$130,000.00	$112,419.81	$20,400.00	$0.00
Willamette River	$270,000.00	$236,583.24	$37,000.00	$0.00
Location Based	**$4,987,000.00**	**$4,313,894.37**	**$265,821.73**	**$28,375.29**
SAW - Cape Fear River - FY21	$0.00	-$7,589.62	$0.00	$0.00
SPA - Pecos River - FY21	$0.00	-$19,693.86	$0.00	$0.00
SWT - Kiamichi River - FY21	$40,000.00	$38,449.52	$0.00	$0.00
LRP- Upper Ohio - FY22	$1,000.00	$1,170.84	$0.00	$0.00
MVS - E-Opportunities at Locks and Dams - FY22	$59,057.21	$27,099.39	$0.00	$0.00
NWK - Osage River E-Flows - FY22	-$668.72	-$861.23	$0.00	$0.00
SAW - Cape Fear River - FY22	$25,998.54	$8,119.06	$0.00	$0.00

Table C.3 Allocations and Carryover per Detailed Program Components (Table 2 of 5)

Location Based (Con't)	Budgeted	Obligated	Carryover distribution (labor)	Carryover distribution (reposition)
SAW - Roanoke River - FY22	$2,561.13	$519.49	$0.00	$0.00
SAW - Roanoke and Cape Fear Rivers - FY22	$6,857.59	$8,701.61	$0.00	$0.00
SWF - Brazos River - FY22	$2,000.00	$2,232.96	$0.00	$0.00
SWF - Neches River - FY22	$3,540.70	$3,428.70	$0.00	$0.00
LRP - Upper Ohio River - FY23	$12,084.54	$2,519.94	$0.00	$0.00
MVN - Atchafalaya River - FY23	$1,411.94	$402.63	$0.00	$0.00
MVP - Minnesota River - FY23	$19,507.05	$21,876.17	$0.00	$0.00
MVS - Kaskaskia River - FY23	$9,365.59	$10,260.27	$0.00	$0.00
NAB - Potomac River North Branch - FY23	$39,599.63	$44,586.55	$0.00	$0.00
NWK - Kansas River - FY23	$130,669.69	$91,903.05	$11,346.10	$500.00
SAM - Alabama River - LD - FY23	$524.99	$286.88	$0.00	$0.00
SAM - Tombigbee River - LD - FY23	$21,627.08	$2,068.03	$0.00	$4,100.00
SAW - Cape Fear River - FY23	$70,000.00	$49,316.78	$14,900.57	$0.00
SWL - Black River - FY23	$18,779.39	$23,136.70	$0.00	$0.00
SWL - Cossatot River - FY23	$35,098.07	$5,010.56	$7,000.00	$0.00
TNTCX - Rivercane restoration - FY23	$97,372.04	$81,841.13	$0.00	$0.00
LRC - Wabash - Implementation and monitoring - FY24	$165,445.13	$117,682.62	$38,000.00	$10,481.71
LRL - Green River (Barren, Nolin, and Rough River Lakes) - FY24	$80,072.33	$77,667.45	$0.00	$0.00
LRL - Licking River E-flows Workshop - FY24	$118,967.68	$114,217.40	$0.00	$0.00
LRN - Cumberland River - FY24	$1,500.00	$1,599.99	$0.00	$0.00
LRN - Stones and Cumberland River - FY24	$60,000.00	$57,225.97	$0.00	$0.00
LRP - Clarion River - East Branch Dam - FY24	$43,718.15	$38,233.86	$0.00	$0.00
LRP - Upper Ohio River - FY24	$39,010.10	$30,157.47	$3,352.63	$0.00
MVN - Atchafalaya River - FY24	$26,059.29	$22,741.31	$0.00	$0.00
MVP - Mississippi River – Pool 10 Opportunistic Drawdown - FY24	$85,979.96	$87,413.56	$0.00	$0.00

Table C.3 Allocations and Carryover per Detailed Program Components (Table 3 of 5)

Location Based (Con't)	Budgeted	Obligated	Carryover distribution (labor)	Carryover distribution (reposition)
MVS - Mississippi River Environmental Pool Management - FY24	$43,876.71	$33,491.59	$0.00	$0.00
MVS - Kaskaskia River (Jerry F. Costello L&D) - FY24	$40,000.00	$13,444.40	$0.00	$0.00
MVS - Mississippi River Lake Sturgeon Spawning-LD - FY24	$34,753.63	$36,579.99	$0.00	$0.00
MVS - Salt River (Clarence Cannon) - FY24	$44,362.66	$41,814.26	$0.00	$0.00
MVS - Salt River-Wetlands (Clarence Cannon) - FY24	$13,105.64	$11,555.30	$0.00	$0.00
NWO - Cherry Creek (Cherry Creek Dam) - FY24	$29,269.61	$20,829.29	$0.00	$0.00
NWO - James River (Pipestem Dam) - FY24	$59,366.39	$56,356.00	$0.00	$0.00
NWK - Kansas River - FY24	$27,312.79	$30,732.15	$0.00	$0.00
NWK - Osage - E-flows - FY24	$193,044.43	$187,666.55	$5,300.00	$0.00
NWS - Kootenai River (Libby Dam) - FY24	$12,568.43	$6,729.33	$0.00	$0.00
SAM - Alabama River - LD - FY24	$24,228.30	$25,210.54	$0.00	$0.00
SAM - Chattahoochee River e-flows - FY24	$32,078.65	$27,169.63	$0.00	$0.00
SAM - Chattahoochee River (Seminole L&D) - FY24	$14,779.40	$3,584.69	$0.00	$0.00
SAM - Coosawattee River (Carters Dam)	$1,361.12	$890.38	$0.00	$0.00
SAM - Tombigbee River - LD - FY24	$92,764.92	$90,407.84	$0.00	$237.84
SAW - Neuse River (Falls Dam) - FY24	$59,750.48	$59,244.24	$0.00	$0.00
SPA - Rio Grande - E-flows - FY24	$19,782.01	$18,842.16	$0.00	$0.00
SPK - Tule River (Lake Success) - FY24	$143,584.13	$108,614.81	$0.00	$0.00
SWF - Brazos River - E-flows - FY24	$131,649.60	$128,392.27	$2,658.80	$0.00
LRB - Niagara River - FY25	$114,203.00	$109,785.60	$0.00	$0.00
LRN - Caney Fork River - FY25	$107,000.00	$106,918.83	$10,000.00	$0.00
LRP - Allegheny River - FY25	$29,000.00	$14,246.33	$12,344.02	$0.00
LRP - Mahoning River - FY25	$60,000.00	$40,357.21	$0.00	$0.00

Table C.3 Allocations and Carryover per Detailed Program Components (Table 4 of 5)

Location Based (Con't)	Budgeted	Obligated	Carryover distribution (labor)	Carryover distribution (reposition)
MVN - Atchafalaya River - FY25	$117,195.00	$116,992.44	$0.00	$0.00
MVP - Minnesota River - FY25	$20,000.00	$20,398.67	$0.00	$0.00
MVP - Mississippi River - LD - Pool 2 - FY25	$150,000.00	$133,629.54	$16,370.46	$0.00
MVP - TNTCX - Manoomin workshop - FY25	$150,000.00	$39,716.39	$70,000.67	$10,400.00
MVR - Mississippi River - Pool 12 - FY25	$73,000.00	$73,842.77	$0.00	$25.77
MVR - Mississippi River - Pool 15 - FY25	$73,000.00	$72,600.96	$0.00	$89.97
MVR - Des Moines River Lake Shorebird Study - FY25	$286,724.00	$277,022.28	$7,871.98	$0.00
MVR - Des Moines and Iowa Rivers - FY25	$111,000.00	$105,227.51	$3,366.95	$0.00
MVS - Kaskaskia River - FY25	$42,500.00	$43,359.58	$7,500.00	$0.00
MVS - Mississippi River - Pool 25 - FY25	$95,000.00	$73,130.59	$0.00	$0.00
MVS - Mississippi River - Mel Price - FY25	$55,000.00	$53,028.35	$0.00	$0.00
MVS - Salt River (wetlands) - FY25	$40,000.00	$38,277.04	$0.00	$0.00
MVS - Salt River (lake sturgeon) - FY25	$75,000.00	$65,578.53	$0.00	$0.00
MVS - St. Francis River - FY25	$140,000.00	$122,518.34	$0.00	$0.00
NAP - Dyberry Creek - FY25	$58,000.00	$57,543.50	$0.00	$0.00
NWK - Kansas River (e-pools) - FY25	$55,600.00	$50,732.80	$0.00	$0.00
NWS - Management of woody debris - FY25	$170,000.00	$145,023.16	$22,500.00	$0.00
NWS - Kootenai River - FY25	$38,000.00	$31,336.25	$4,660.42	$2,540.00
SAM - Alabama River - LD - FY25	$165,000.00	$160,385.41	$5,000.00	$0.00
SAM - Chattahoochee River - FY25	$47,000.00	$33,283.62	$0.00	$0.00
SAM - Coosawattee River - FY25	$70,000.00	$79,407.25	$0.00	$0.00
SAM - Tenn-Tom Waterway - FY25	$150,000.00	$152,444.56	$5,000.00	$0.00
SPA - Rio Chama (E-Flows) - FY25	$100,000.00	$100,199.52	$10,000.00	$0.00

Table C.3 Allocations and Carryover per Detailed Program Components (Table 5 of 5)

Location Based (Con't)	Budgeted	Obligated	Carryover distribution (labor)	Carryover distribution (reposition)
SWL - Black River - FY25	$70,000.00	$64,631.55	$0.00	$0.00
SWL - Rolling Fork and Saline Rivers - FY25	$90,000.00	$88,995.19	$0.00	$0.00
FY17-22 funds	$0.00	$0.00	$288.17	$0.00
FY25 funds not distributed	$0.00	$0.00	$8,360.96	$0.00
TOTAL	***$7,510,000.00**	**$6,730,120.83**	**$437,568.51**	**$28,375.29**

** SRP over budgeted by 5% in FY 2025*