



2025

NPS ANNUAL REPORT

KENTUCKY NONPOINT
SOURCE PROGRAM



ENERGY AND
ENVIRONMENT CABINET

Nonpoint Source and Basin Team Watershed Management Branch Kentucky Division of Water

The Kentucky Division of Water's Nonpoint Source and Basin Team implements the state's Clean Water Act Section 319 Nonpoint Source Program, including the 319(h) grant, river basin coordination, and volunteer monitoring initiatives.

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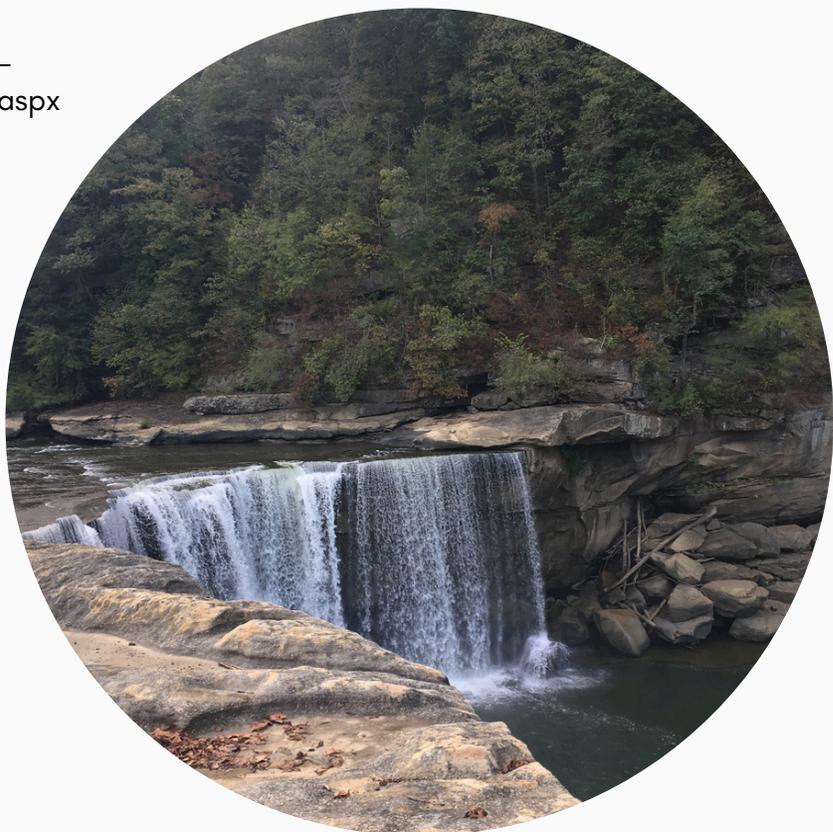


TABLE OF CONTENTS

01 INTRODUCTION

Introduction	06
Success Story: Fleming Creek	08
Success Story: Sulphur Creek	10
Feature Project: Red Bird River	16

02 BASIN COORDINATION

Basin Coordination	19
Big Sandy River Basin	20
Four Rivers River Basin	22
Green River Basin	25
Kentucky River Basin	28
Licking River Basin	33
Salt River Basin	45
Upper Cumberland River Basin	50

03 EDUCATION & OUTREACH

Education & Outreach Highlights	54
Education & Outreach Accomplishments	56
Healthy Watershed Program	611
Volunteer Lakes Monitoring Prg.	62
Nutrient Reduction Strategy	63
Nature Based Solutions	64
KY Project WET	66
Watershed Watch	67
Source Water Protection	68
Equipment Rental	70

04	TOOLS FOR CLEAN WATER	
	Homeowner’s Assistance Program in KY	72
	Severe Erosion Drone Surveys	74
	Mapping Resources	78
05	NPS LOAD REDUCTION REPORT	
	Table 4. 2025 Load Reductions	82
	Graph 1. 2025 Nutrient Load Reductions	83
	Graph 2. 2025 Sediment Reductions	84
	Graph 3. 2025 <i>E.coli</i> Reductions	85
06	NPS GOALS & COMMITMENTS	
	NPS Goals and Management Tables	87

NONPOINT SOURCE POLLUTION MANAGEMENT IN KENTUCKY

INTRODUCTION

The Kentucky Nonpoint Source Management Program's mission is to protect surface and groundwater from nonpoint source pollution (NPS), abate pollution threats, protect healthy watersheds, and restore degraded waters to meet water quality standards and support beneficial uses. Given its diffuse nature, NPS management requires partnering with a wide variety of organizations. Alongside federal, state, local, and private partners, the NPS team promotes pollution control initiatives at both statewide and watershed scales.

The NPS Management Program administers and implements the Kentucky Division of Water's 319(h) Nonpoint Source Grant Program. The Environmental Protection Agency (EPA) awards the Kentucky Division of Water (DOW or the division) grant funds each year to address problems associated with NPS pollution. A 40 percent nonfederal match is required on all projects that receive funding. During the ranking period, priority is given to projects that include watershed plan development, or that focus on impaired waters or Special Use Waters with identified threats.

In the Federal Fiscal Year (FFY) 2025, division received \$4.6 million from Clean Water Act (CWA) Section 319(h) funding to execute the program. This year, communities and organizations shared ~ \$1.26 million in federal funding to implement projects that control NPS pollution within watershed planning areas. The division awarded those funds to implement best management practices in watershed planning areas, help develop watershed plans and conduct statewide nonpoint source outreach and education.

This report features accomplishments aligned with the NPS program's goals that occurred during FFY 2025 (October 1, 2024- September 30, 2025).

Division staff provide technical assistance to watershed groups and other partners to develop watershed plans and implement NPS pollution abatement strategies identified through the watershed planning process.

During FFY 2025, division worked with grantees and partners toward the development of eight additional watershed plans: Bee Creek and Clayton Creek, Glens Creek, Hardy Creek, Jennings Creek, Lower Pitman Creek, McDougal & Castleman, Mill Creek, and Upper Paint Lick Creek.

Watershed plan reviews are coordinated by Nonpoint Source staff and ensures that all necessary DIVISION branches can comment or offer constructive feedback on watershed plans prior to acceptance. Currently, 31 watershed plans have been accepted for full implementation with CWA Section 319(h) funding with one, the Glenns Creek Watershed Plan, under EPA review.

Eleven watershed plans were being implemented through one or more CWA Section 319(h) funded contracts during FFY 2025.

SUCCESS STORY: FLEMING CREEK

Fleming Creek Realizes Improvements After Decades of Investment

The division added an approximately 12-mile segment of Fleming Creek (miles 0.0-12.8) to the 2006 Clean Water Act (CWA) section 303(d) list/Integrated Report as impaired (partial support) for nutrient/eutrophication biological indicators. Watershed planning by the 319 Program spurred partner investments, resulting in improvements in water quality. In 2024, the Kentucky Division of Water delisted a 12.8-mile segment of Fleming Creek for nutrients and eutrophication biological indicators.

Problem

Fleming Creek drains into the Licking River in northeast Kentucky (Figure 1). Fleming Creek is approximately 39 miles long and receives run-off from a 96.3 square mile watershed dominated by livestock and agriculture in Fleming and Nicholas counties. Monitoring data from 1998 collected by the Division of Water's Nonpoint Source Monitoring Program identified elevated nitrate/nitrite and Total Kjeldahl Nitrogen (TKN) in water chemistry samples, and a fish community that was classified as fair. Fleming Creek (mile 0.0-12.8) was listed as impaired (partial support) for the warm water aquatic habitat designated use in the 2006 Integrated Report, with animal feeding operations identified as a suspected source of nutrient/eutrophication biological indicators.

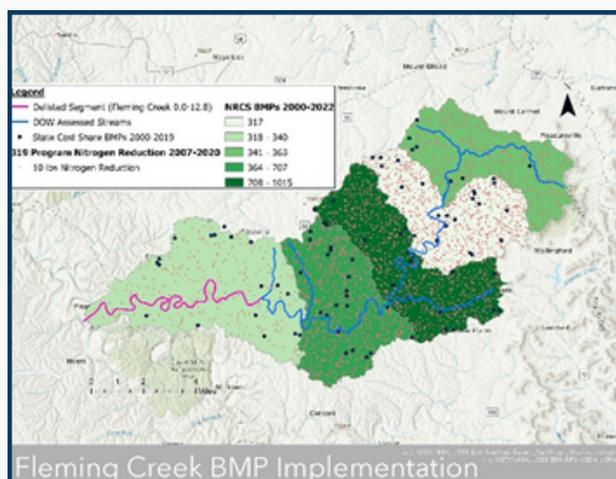


Figure 1. Fleming Creek watershed implementation in northeastern Kentucky.

Story Highlights

In the early 1990s, local residents formed the Fleming Creek Water Quality Oversight Committee to improve water quality in the watershed through education and investment in nonpoint source solutions. From 1991 to 2000, this committee worked with the Division of Conservation on 13 U.S. Department of Agriculture and 319 Program projects to reduce nonpoint source pollution from agriculture throughout the watershed. This decade of collaboration saw over \$1.4 million of federal funding invested in the Fleming Creek watershed.

Following these investments, in 2004 the 319 Program also awarded a \$570,639 grant that installed 54,700 linear feet of livestock exclusion fence, 39,352 linear feet of rotational grazing fencing, 9.3 acres of critical area plantings, 23 livestock watering tanks and alternative sources, 766 acres of pasture seeding, and 39,536 square-feet of heavy-use areas to mitigate livestock impacts to water quality. In 2008 the 319 Program provided a \$226,412 grant for the Stockton Creek sub-watershed which installed 9,320 linear feet of livestock fencing, 12 alternative watering facilities, 52,337 square feet of heavy-use areas, and 307 acres of pasture seeding to reduce erosion.

Between 2000 and 2022, the Natural Resources Conservation Service (NRCS) installed 2,742 conservation practices in the Fleming Creek Watershed. The Kentucky Division of Conservation also installed 103 conservation practices through the State Cost Share Program in the Fleming Creek watershed.

In addition to this work, the city of Flemingsburg is planning a Green Sinks Flood Mitigation Program with the Division of Water to catch nonpoint source pollution during flood events. This program will build on the long history of nonpoint source work in the Fleming Creek Watershed.

Results

Following decades of watershed planning and agriculture conservation investment, the division monitoring results from 2019 demonstrated that the warm water aquatic habitat designated use is being supported. Nitrate/nitrite and TKN values were lower compared to results from 1998, and both macroinvertebrates and fish received excellent scores on their respective indices. As a result, Fleming Creek (miles 0.0-12.8) was delisted for nutrient/eutrophication biological indicators during the 2024 Integrated Reporting cycle and the warm water aquatic habitat designated use is now categorized as full support.

SUCCESS STORY: SULPHUR CREEK

The Sulphur Creek Watershed (HUC 051401030105) is located in parts of Anderson, Mercer and Washington counties, Kentucky. The watershed is approximately 23-square miles and is a tributary to Chaplin River, which drains directly into the Salt River.

In 2015, local engagement led to the Sulphur Creek Watershed Oversight Committee and the development of the [Sulphur Creek Watershed Implementation Plan](#). Data collected for this plan supported the Division's decision to list a 3.2-mile segment of Sulphur Creek (miles 6.8-10.0) on the 2016 Clean Water Act (CWA) section 303(d) list/Integrated Report as impaired (non-support) for primary contact recreation (PCR).

Since then, over \$769,000 in 319 Program funds have been invested in septic repairs and agriculture best management practices (BMPs). In 2023, the Division issued a TMDL Alternative for this waterway. Subsequent division monitoring revealed improving water quality metrics (see results), and the need for additional investments beyond the 319 Program.

Water Quality Challenge

Within the Sulphur Creek Watershed, there are 10 miles designated as an exceptional water and an Outstanding State Resource Water (OSRW). There are also 19.5 miles of streams that do not support their PCR designated use due to high levels of E. coli bacteria, and 2.8 miles of stream that only partially support their warm water aquatic habitat (WAH) designated use due to high levels of sediment and nutrients.

The Sulphur Creek watershed lacks adequate sewer services for approximately 519 residents, with ~207 homes on septic systems, and an unknown number of homes that lack treatment systems of any kind. The Mercer County Health Department (MCHD) estimated that 50 percent of the 207 septic systems were failing. Additionally, there are approximately 4,500 head of cattle in the watershed.

The [Sulphur Creek Watershed Implementation Plan](#) identified Brush Creek and Log Lick sub-watersheds as high priorities based on water quality data, livestock density, and landowner capacity to implement BMPs (Figure 2). There are approximately 30 septic systems and 1260 head of cattle in these 2 sub-watersheds

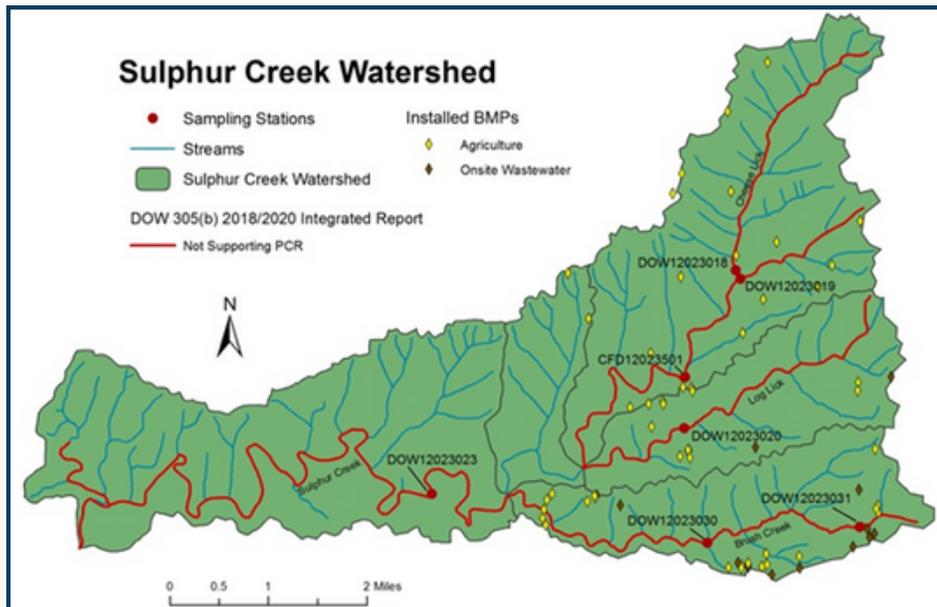
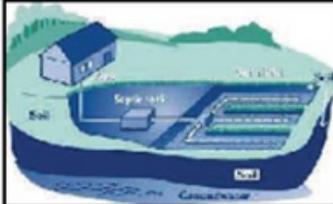


Figure 2. Sulphur Creek Watershed in Central Kentucky

Upcoming workshop in Mercer County
Thursday, April 14th, 2016 at 6:30 P.M.
and Saturday, April 16th, 2016 at 10 A.M.
Salvisa Baptist Church Fellowship Hall
138 Kirkwood Road
Salvisa, Ky.

Funding is limited to residents of the Sulphur Creek Watershed, but all interested citizens are encouraged to come and learn. Attendance is required to qualify for financial assistance. To find out if you reside in the watershed, or for more workshop information, contact the Mercer Co. Health Department at (859) 734-2229.

This work is funded in part by a grant from the U.S. Environmental Protection Agency under §319(h) of the Clean Water Act.

Figure 3. Mercer County Health Department Septic Workshop Flyer

Story Highlights

In 2015 and 2017, the division awarded two contracts to address nonpoint source pollution in the Sulphur Creek watershed, including a contract with MCHD to provide septic system education and pump-outs (Figure 2). Homeowners were eligible for system maintenance or system replacement. With 319(h) funding, the MCHD successfully installed thirteen new septic systems and provided two septic pump-outs.

In 2017, the Anderson County Conservation District was awarded a Clean Water Act (CWA) 319(h) grant to improve water quality within the Cheese Lick Watershed. The project sought to install agriculture best management practices (BMPs) within the watershed, to educate landowners on the importance of water quality, and to improve the overall management of their farmland.

The Cheese Lick Watershed Oversight Committee hired a watershed coordinator, who identified over 25 landowners to help address water quality improvement. These landowners completed 31 BMPs and approximately 10 new Ag Water Quality Plans. Approximately 15,034 feet of exclusion fencing were installed, improving pasture for more than 372 head of cattle. Nine feed pads and 12 alternative watering facilities enabled landowners to relocate their feeding operations away from water bodies (Table 1).

In 2020, landowners hosted field days showcasing BMPs implemented through the CWA 319(h) project which included a wagon tour of the farms for participants to see firsthand the completed work. Field days were attended by 58 landowners from surrounding counties and agency staff.

Partners and Funding

The Mercer County Health Department, Mercer County Conservation District and the Anderson County Conservation District played a crucial role in community engagement and the implementation of BMPs throughout the Sulphur Creek Watershed. A \$100,000 319(h) grant in 2015 was awarded to the Mercer County Health Department, along with \$66,667 in state funding to repair failing septic systems. A \$255,000 319(h) grant was awarded to Mercer County Conservation District in 2015, along with \$170,000 in state funding to implement agriculture BMPs. The Anderson County Conservation District received a \$200,000 319(h) grant in 2017 to install agriculture BMPs in the Cheese Lick sub-watershed.

A \$205,200 319(h) grant to the Mercer County Conservation District was supplemented by \$136,800 in local funding in 2018 to install agricultural BMPs. In 2022, a \$147,934 319(h) grant was awarded to Mercer County Conservation District to implement agricultural BMPs.

Results

Following septic repairs, replacements and pump-outs, along with the extensive agriculture BMPs that were installed within the Sulphur Creek Watershed, new sampling data supports a reduction in bacteria, nutrients, and sediment. Baseline sampling data at Sulphur Creek (mile 6.8-10) from 2012 and 2013 identified E.coli geometric means of 230 MPN, or Most Probable Number, and 244 MPN respectively, while sampling data in 2023 showed improvements to 69 MPN and 86 MPN (Figure 4). Monitoring data continues to show the stream is impaired due to the number of individual samples exceeding the 240 MPN threshold for PCR. However, geometric means have declined by a factor of three since BMPs were installed, suggesting water quality is improving.



Picture 1. Sulphur Creek Exclusion Fencing

Table 1. Resulting BMPs in Sulphur Creek

BMP	Number Installed	Units
Pond	1	INDIVIDUAL UNITS
Fence	1,250	FT
Livestock Feedlot Relocation	350	AC
Heavy Use Area Protection	220.47	AC
Barnyard Runoff Management	2	AC
Animal Trails and Walkways	15,689	SQUARE FEET
Pasture & Hayland Management	207	AC
Alternative Water Sources	46	<>
Stream Exclusion Fencing	33,470	FT
Pipeline	6,118	FT
Pasture & Hayland Planting	88	AC
Onsite Wastewater Treatment System (New/Existing)	26	<>
Onsite Wastewater Treatment System (pump out)	4	<>

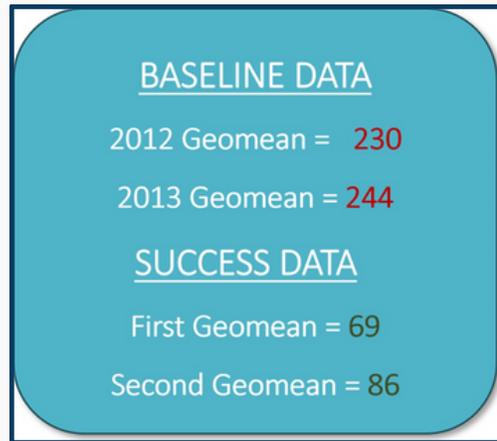


Figure 4. Sulphur Creek E.coli Success Monitoring Results

FEATURED PROJECT: RED BIRD RIVER–CONTINUING GOOD WORK

Previous Watershed Success

The Red Bird River Watershed (HUC-10 code 0510020302) drains into the South Fork of the Kentucky River in southeast Kentucky covers 195.5 sq miles that is dominated by forestland. Water quality sampling in 2013 found high concentrations of E. coli, which resulted in a 15-mile segment, from the mouth of the Red Bird River to Big Creek, being listed as impaired. In 2016, the Red Bird River Watershed Plan was finalized, which outlines watershed needs for septic system improvements, erosion mitigation, and trash cleanup.

From 2016 to 2023, 19 failing septic systems were replaced, and 29 septic systems were pumped out in the Red Bird River watershed using CWA Section 319(h) funding (Project 15-05 & 19-09). The US Forest service led the watershed planning and implementation effort and partnered with Eastern Kentucky Pride for these projects. Additionally, outside funding to the Red Bird Mission made it possible to multiply the impact of this effort by installing an additional 19 new septic systems and completing two septic repairs. These efforts resulted in the delisting for E. coli impairment from the 15-mile segment.

Although the Forest Service was no longer able to continue this effort, in 2024 the Kentucky Waterways Alliance (KWA) has continued the septic work. This is a good example of how a watershed plan can be used by multiple groups to accomplish water quality objectives.

Continuing the Work

319(h) Project: Red Bird River Septic I 23-08

In FFY 2023 KWA was awarded \$160,000 to employ a local watershed coordinator to continue repairing and replacing septic tanks in the area. This coordinator served on the previous project and provided the program consistency while building from previous work and connections. In FFY 2024, the coordinator attended various community events, conducted a public meeting, helped with a local environmental field day with elementary children, hosted a septic information workshop, and provided one-on-one septic training with grant recipients. This resulted in three septic system replacements and one new septic system installation. The coordinator continued her education and outreach efforts throughout FFY 2025 with plans for six septic replacements in FFY 2026.

Illegal Open Dump Grant Program

In FFY 2024, Clay County received a grant to clean up illegal dumpsites in the area. Two dumpsites were within the Red Bird Watershed and totaled \$16,131, which was used as matching funds for the 23-08 319(h) project. A third, the Hector Farm Dumpsite, included removal of tires from the Red Bird River.

Rotary Club Work

Independently from the 319(h) project team, local rotary clubs have been working on their own septic programs. The groups collaborated to cover different areas of Red Bird and the surrounding watersheds. They often send referrals to each other when they encounter a homeowner in need of help that the other can provide.

319(h) Project: KWA Mini Grant Program 23-03

This project awards small grants throughout the state and is managed by the Kentucky Waterways Alliance. Each major river basin received a \$4000 grant through a competitive application and ranking process. In the Kentucky River Basin, Eastern Kentucky PRIDE was awarded \$4,000 to do septic pump outs in the area, and nine were completed in Red Bird River watershed in 2024-2025. These pump outs are impactful for homeowners, some of which gave their testimonials following the work that was done.

"Ours hadn't been pumped in 30 years, it was spilling out into our vegetable garden, now no more leaking!"

319(h) Project: Red Bird River Septic II

With a growing list of homeowners in need of assistance and the efficient use of the FFY 2023 funds, KWA decided to apply for the FFY 2025 grant cycle and was awarded \$171,337. After seeing the success in doing pump outs for the area, this project will include septic repair/replacement projects as well some pump outs. Septic education and outreach are already being done by the coordinator to assist homeowners in filling out their applications to be considered for funding. It is anticipated that this project will fund 10 septic repair/replace projects and 15 pump outs. This project is scheduled to start in FFY 2026.

BASIN COORDINATION

BASIN COORDINATION

The division's basin coordinators serve as catalysts in the watershed management process by acting as facilitators for agency activities and as points of contact for local organizations interested in addressing water quality and pursuing watershed planning. Basin coordinators enhance communication with stakeholders by invigorating regional basin teams and stakeholder groups (local, state, and federal agencies, universities, non-governmental organizations, industry, and community groups) that work actively in the basin. These groups meet regularly to discuss current projects, needs, and strategies related to basin-wide ecosystem health. Basin coordinators help facilitate discussions, gather feedback for the division, and communicate with members via regular newsletter releases.

In addition to the basin teams, basin coordinators help involve the public in setting management priorities, developing watershed plans, providing grant assistance, supplying water-focused education and outreach, and exploring innovative ways to improve water quality at the community level. Currently, the division directly employs five of the seven basin coordinators (Big Sandy, Little Sandy, and Tygarts Rivers Basin, Green and Tradewater Rivers Basin, Licking River Basin, Upper Cumberland River Basin, and the Salt River Basin) and one through an outside contractor (Four Rivers Basin). The Kentucky River basin coordinator is funded through the Kentucky River Authority and works cooperatively with division staff.

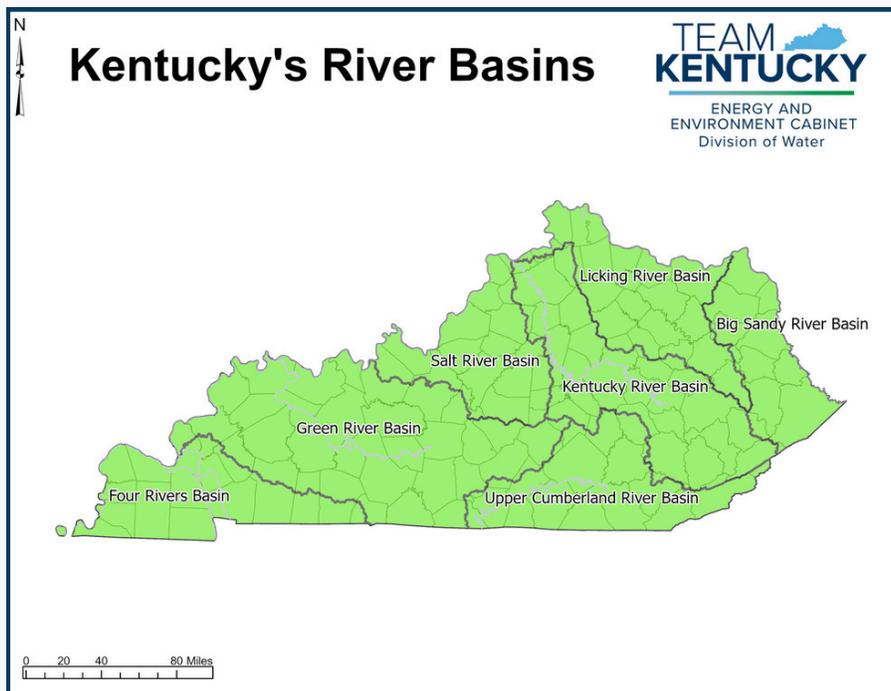


Figure 5. Kentucky River Basins

BIG SANDY RIVER BASIN

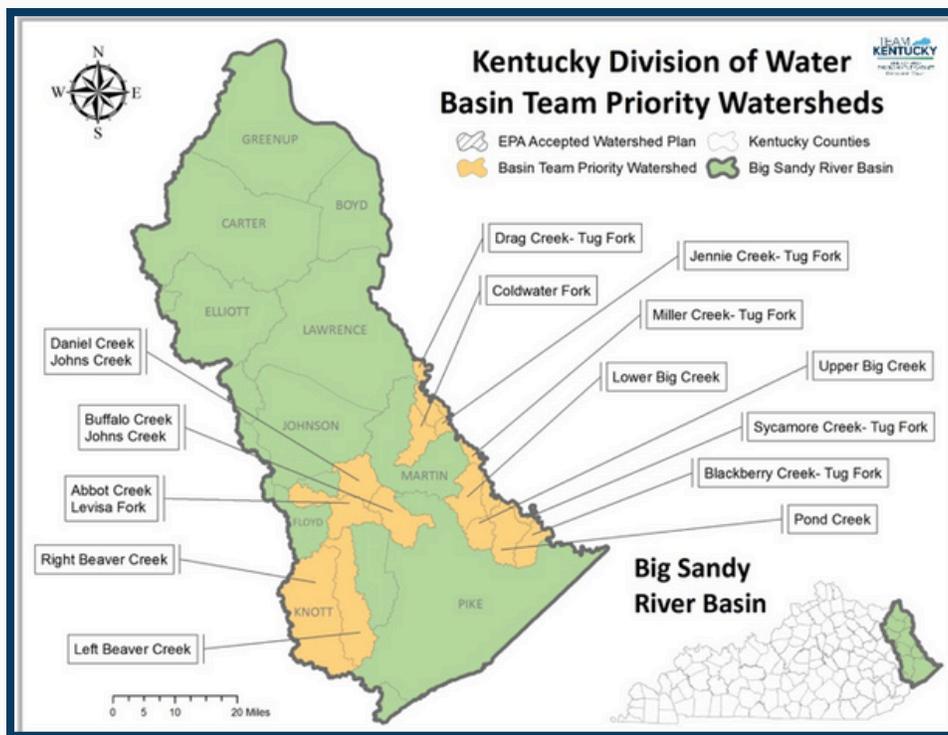


Figure 6. Priority Watersheds identified by the Big Sandy Rivers Basin.

Tug Fork and Tributaries

The Tug Fork and Big Sandy Rivers form most of the border between Kentucky and West Virginia. Since 2016, the Friends of the Tug Fork River, a local 501(c)3 and the leading clean water organization in the area, continues to restore the health and beauty of the Tug Fork River. In February of 2025 the Tug River (along with many others in the region) was devastated by historic flooding. Friends of the Tug Fork collaborated with Kentucky, West Virginia, Virginia, and the Federal Government to provide support and guide recovery efforts to hundreds of flood victims. The group became a hub for essentials like food and water, as well as a source for reliable information and community support.

In addition, they continued their good work of cleaning up the river and reached the milestone of removing over 19,000 tires from the waterway. Over the summer, they hosted multiple educational events targeting local youth and opened a physical office to serve as the group's "headquarters".

Island Creek-Levisa Fork

The city of Pikeville, with help from partners that included the Pike County Clean Community Board, the University of Pikeville, and Kentucky Division of Waste Management, hosted its third annual Tire Clean-Up in August 2025. The event brought together a wide array of community members, including city/county workers, concerned citizens and over 60 students from the University of Pikeville, who together pulled over 300 tires from the Levisa Fork River. The event will continue annually, has launched a broader conversation about water quality, and has inspired the community to consider pursuing a watershed plan.

Pond Run-Ohio River (Stormwater Management in the Big Sandy)

The community of Flatwoods (Pond Run-Ohio River) contacted the NPS section in 2024 to request help to address stormwater concerns. The basin coordinator worked to build a partnership between the NPS Section, the city of Flatwoods and the United States Army Corps of Engineers with the goal of developing a mitigation strategy for the city to address both stormwater and water quality concerns. Though attempts to secure funding for watershed planning efforts was unsuccessful in 2024, the city has been approved for a USACE Planning Assistance for States (PAS) Study once funding for that program is available.

Upper Elkhorn Creek

The division's Water Quality Branch is working on a sampling project in and around the city of Jenkins (Upper Elkhorn Creek). Once completed, the Big Sandy Basin coordinator will assist the community in pursuing a watershed plan for the area. Additionally, Jenkins has received a large Federal Emergency Management Agency grant to study and mitigate local stormwater issues using nature-based solutions.

FOUR RIVERS RIVER BASIN

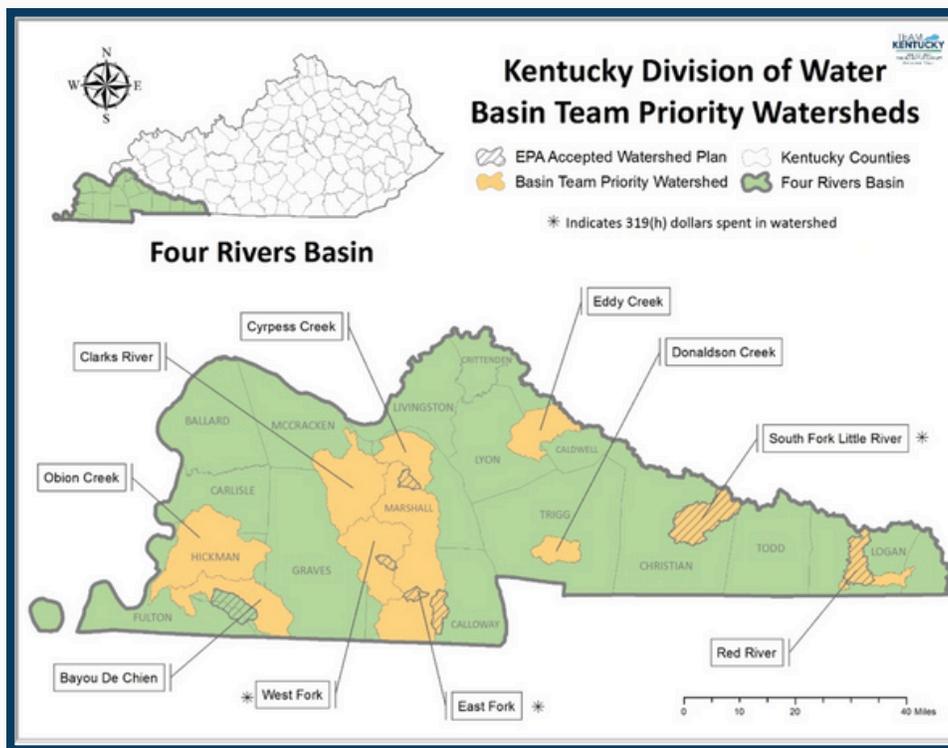


Figure 7. Priority Watersheds identified by the Four Rivers Basin.

Bee Creek and Clayton Creek

The Friends of Clarks Rivers National Wildlife Refuge received a 319(h) grant (Project 23-05) to write a watershed management plan for Bee Creek and Clayton Creek in Calloway County in 2023. The Watershed plan is currently in progress.

South Fork Little River

The Little River Water Quality Consortium received a 2018 319(h) grant (18-08) to hire a South Fork Little River watershed coordinator who has worked with local landowners to install BMPs that improve water quality. Sixty-one home septic systems were pumped out and seven homes received new septic systems.

In 2022, another 319(h) grant (22-10) was awarded to continue work in the watershed. The project concluded in FFY 2025 with 14 pump outs and five systems repaired or replaced. In FFY 2025, this area experienced record-breaking flooding and as a result, several properties were bought out by FEMA. The project team is now turning their attention to agricultural BMPs for an upcoming project proposal.

Chestnut Creek

Through several 319(h) grant-funded projects, the Friends of Clarks Rivers National Wildlife Refuge continues to employ a watershed coordinator who works with the division, NRCS, U.S. Fish and Wildlife Service Partners Program, and local partners to recruit landowners in Marshall County and the Chestnut Creek Watershed to implement pathogen, nutrient, and sediment-related BMPs, all of which are reinforced by continuous public education.

Additionally, the watershed coordinator helped Marshall County Fiscal Court facilitate residential connections to a newly installed sanitary sewer line as part of a FFY 2018 319(h) project. Septic systems at four homes were decommissioned and were connected to Sanitation District 2. This project also involved 11 home septic systems being pumped out (two with new riser installation), the replacement of two failing home septic systems, and the installation of two stream bank crossings.

In FFY 2025, Chestnut Creek (23-09), continued to implement sewer connections and septic decommissioning as the city expands the sewer treatment system and provides additional financial support for replacing, repairing, and pumping out septic systems when homeowners are not eligible or able to be connect to the sewer system. The project is still in progress and due to the amount of local participation, even has a waiting list for future projects.

GREEN RIVER BASIN

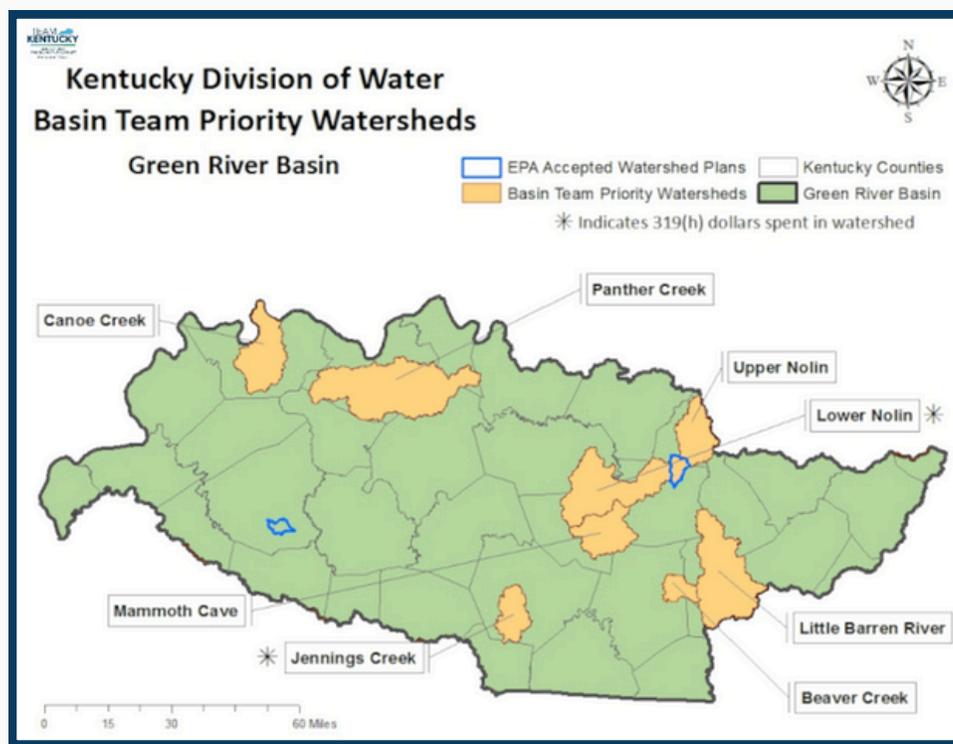


Figure 8. Priority Watersheds identified by the Green Rivers Basin.

Bacon Creek

The LaRue County Conservation District (LCCD) was awarded FFY 2025 319(h) funding to implement best management practices (BMPs) for the Bacon Creek Watershed. The district plans to focus on septic system maintenance to better reduce pathogen and nutrient inputs into local waterways.

The Bacon Creek Watershed Plan was accepted by the EPA in 2010 and aims to reduce bacteria, sediment, and nutrient inputs into local waterways by implementing agriculture and wastewater BMPs. Previous implementation funding has primarily been used to design and implement several agriculture BMPs across the Upper Bacon Creek watershed, including streamline fencing, crop rotations, heavy use areas, and watering facilities.

Castleman and McDougal Creek

The Lincoln Trail Health Department (LTHD) was awarded FFY 2025 319(h) funding to implement septic BMPs in the McDougal and Castleman Creek Watershed . The Lincoln Trail Health Department plans to use the 319(h) funding to conduct outreach programs focusing on effective septic system maintenance and implement BMPs to better reduce fecal coliform inputs into local waterways.

The McDougal and Castleman Creek Watershed Plan was accepted by the EPA in 2024 and aims to reduce bacteria, sediment, and nutrient inputs into local waterways by implementing agriculture and wastewater BMPs. The Health Department has been awarded implementation funding for the FFY 2025 to focus on septic system installations, maintenance, and decommissions.

Panther Creek

The Daviess County Fiscal Court has expressed interest in identifying potential funding opportunities and solutions to flooding and drainage issues they experience along Panther Creek. The harsh weather and flood events in 2025 created many stream blockages along Panther Creek, which has led to further flooding and drainage issues for landowners on and near the waterway. The Green River basin coordinator has been working with members of the Daviess County Fiscal Court, the United States Army Corps of Engineers (USACE), the National Resources Conservation Service (NRCS), and other branches to identify target areas for stream management and explore funding opportunities.

Basin-Wide

Kentucky Waterways Alliance (KWA) has been coordinating with the Green River basin coordinator and other partner agencies to begin work on their project to identify hot spots for tire waste across the Green River and fostering recreation by improving access to information related to entry and exit points along the river. KWA has hosted several partner meetings to gather input and provide updates and has begun implementation of their "Tire Identification Tool," a Survey123 form that anyone can use to report tire sightings during their recreation. The Green River basin coordinator will continue to provide support to KWA, as applicable, throughout the project process.

KENTUCKY RIVER BASIN

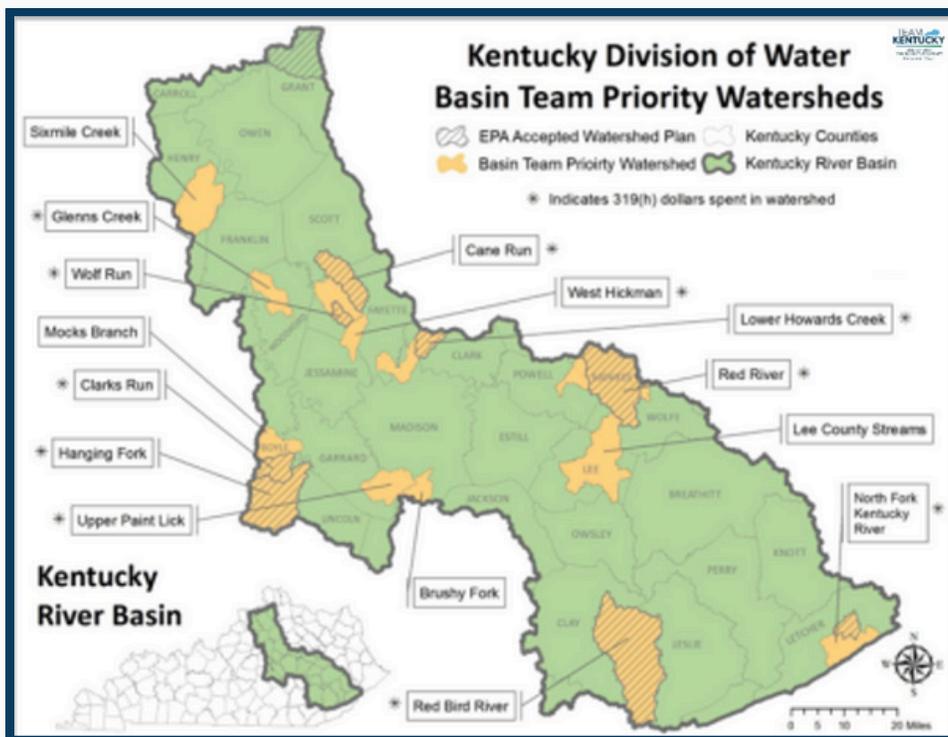


Figure 9. Priority Watersheds identified by the Kentucky River Basin.

Kentucky River Authority Watershed Grants

The Kentucky River Authority (KRA) funded eight watershed projects in the KY River Basin this past year totaling \$35,000. The recipients of the grants and funded projects include:

- Bluegrass Greensource – Riverfest
- Carroll County 4H – Raising Community Project
- Friends of Wolf Run – Bluegrass Watershed Summit
- Friends of Red River – Upper Red River Cleanup
- Herrington Lake Conservation League – Trash & Debris Removal from Herrington Lake
- Kentucky Waterways Alliance – 8th and 9th annual Red River Fest
- Redbird Mission – Bear Proof Dumpster Installation
- Shaker Village – Boat Ramp Repairs

KY River Basin Team Meetings

The KY River Basin Team, made up of watershed professionals and citizen watershed group members, met four times this past year, two times in person, and two times virtually. The topics for the meetings were chosen by the group and meetings focused on providing tools and expertise in each of the topic areas.

Meeting Dates, Themes, and Guest Speakers:

November 7, 2024 – “Affordability of Watershed Projects” – Shaker Village of Pleasant Hill

- Green Infrastructure Calculation Tools – John McMaine/Myranda Hentges, UK Biosystems and Agricultural Engineering
- Triple Bottom Line Too” – Steve Evans and Adam Shelley, KWRI

January 17, 2025 – “KY River + NF Blue Water Trail + Hydro Power” – virtual

- KY River Historic Flood Project – Luciano Cardone, UK Graduate Student
- KY River + NF KY River Water Trail Planning – Russell Clark, National Park Service
- KY River Hydropower – David Brown Kinloch, Appalachian Hydro Associates

May 9, 2025 - "Mitigating Water Quality Issues - PFAS + Source Water Protection Areas" - The Berry Center

- Berry Center Archives - Michele Guthrie, Berry Center Archivist
- Mitigating Water Quality Issues - PFAS + Source Water Protection Areas" - Chloe Brantley, KY Rural Water Association

August 28, 2025 - "The Watershed Planning Process - Why, How, Who, Timeline, Cost"

- KY Division of Water - Watershed Planning Process - Amy Rhorer, DOW
- Watershed Planning and Implementation Panel Discussion- Demetria Kimball-Mehlhorn, RES (former - LFUCG) - Urban city planning/implementation, John Pike, Palmer Engineering - Urban community group/WSP contractor, Malissa McAlister, KWW (former - KWRI) - Clark Run WSP - urban/rural + historical KY River Basin plans, Laura Gregory, KWA - Rural WSP implementation + initial steps in WSP process for 2 sites, Mary Rockey, DOW - WSP data & site planning including QAPP's.

Implementation

The KY River Basin had two watershed plan project 319h implementation grants awarded during the Federal Fiscal Year 2024: Red River Gorge Septic and Education with a grant total of \$250,000 and Whitesburg Tributaries Implementation with a grant total of \$258,334. Two implementation plans are in their second year and are ending: Wolf Run Watershed Water Quality Basins and Update with a grant total of \$533,333 and Redbird River Septic and Education Project with a grant total \$266,667.

Red River Gorge Septic and Education

The Red River Gorge Septic and Education project's objective is to reduce pathogens, nutrient, and sediment loads in Swift Camp Creek and the Red River by implementing septic programs and education. The project will take on this new work while closing out their FY 2023 project focused on septic in the Redbird River. Through these grants, KWA has had the opportunity to hire a local watershed coordinator.



Picture 2. Photos from the November 7th KY River Basin Team Meeting. Photo credit: John McMaine



Picture 3. Photos from the November 7th KY River Basin Team Meeting. Photo Credit: Andrea Drayer.

Whitesburg Tributaries Implementation 1

Cowan Community Center is addressing watershed health and water quality by beginning implementation of the North Fork: Whitesburg Tributaries Watershed Plan. During 2025, the community has hired a local watershed coordinator and have hosted several watershed education projects including a rain barrel workshop, riparian planting workshop, and a new downtown water themed mural.

Wolf Run

The Wolf Run Watershed management groups are working to update the 2013 data from Wolf Run Watershed Management Plan and the Best Management Practices (BMPs). The Regency Road detention basin was able to complete retrofits using 319(h) funding. These retrofits involved removing concrete channels, installing wetland micropools, and planting trees at the basin on Regency Road between Derby Drive and Lowry Lane. The planning process is complete for a new detention basin in the Southland area of Wolf Run. The Friends of Wolf Run has received successive Stormwater Incentive Grants from the Lexington-Fayette Urban County Government which enabled implementation of multiple riparian buffer education and enhancement activities.

Glenns Creek

In 2021, the Kentucky Water Research Institute (KWRI) received a 319(h) grant to complete a watershed plan using 2021-2022 monitoring data. ArcGIS Online was used to develop an interactive, electronic Glenns Creek Watershed plan which can be found at: <https://www.gcwatershed.org/>. The main benefits of this electronic plan include real-time community engagement with the data and the ability to continually update the plan with new information. The online framework has the potential for use as a template for other watershed planning efforts across Kentucky. This plan has now been accepted in its final form by the EPA.

West Hickman Creek

The Hickman Creek Conservancy (HCC) received EPA approval of the West Hickman Creek Watershed Management Plan in 2023. Since the approval, HCC has been focusing on community outreach activities including stream walks. During the development of the watershed plan, Palmer Engineering created an interactive map of potential BMPs for the watershed: *Map of West Hickman Creek's Areas of Concern and Proposed Projects*. This map will help guide future community water quality improvement efforts within the West Hickman Creek watershed. The most recent development is the removal of a non-functioning low-head dam in the lower portion of the watershed that was outlined in the watershed plan.

LICKING RIVER BASIN

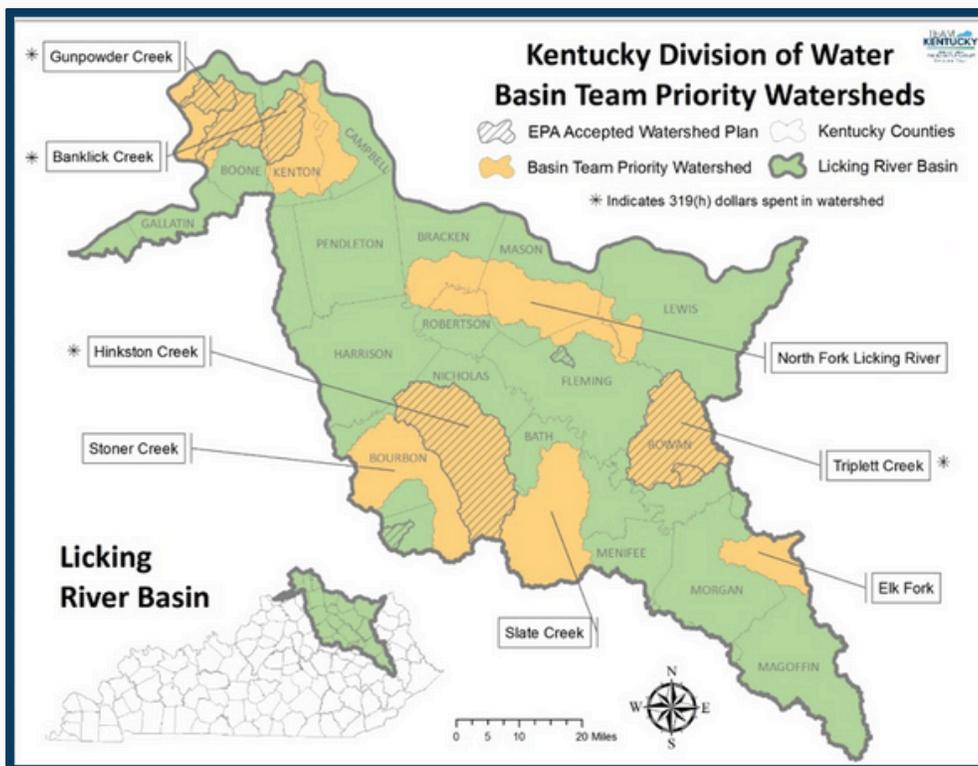


Figure 10. Priority Watersheds identified by the Licking River Basin.

Northern Licking River Basin

Gunpowder Creek, Dry Creek, and Banklick Creek

There is significant momentum in the northern parts of the Licking River Basin. Gunpowder Creek, Dry Creek, and Banklick Creek all have active, EPA-accepted watershed plans and Banklick Creek has a contracted watershed coordinator. The watershed groups are interested in implementing nature-based solutions to reduce erosive stormwater flows and protect water quality. Banklick Watershed Council (BWC) is currently managing two (FFY 2023 and 2025) 319h grants.

Sanitation District 1 (SD1) is regularly conducting water quality monitoring in three counties (Boone, Kenton, Campbell) in the northern region of the Licking River Basin (Figure 11). The 2025 accomplishments are:

East Basin Trend Sites (9)

- Water Quality - Ten samples were collected from each site from April - October 2025. Parameters included physical parameters, bacteria, nutrients and solids.
- Biological - Macroinvertebrate and habitat assessments were conducted at each site.
- Stream Channel Stability - Rapid stream channel stability assessments were conducted at each site.

Central, North and West Basin Ambient Sites (9)

- Water Quality - Ten samples were collected from each site from April - October 2025. Parameters included physical parameters, bacteria, nutrients and solids.

Least Impacted Sites (5)

- Water Quality - Ten samples were collected from each site from April - October 2025. Parameters included physical parameters, bacteria, nutrients and solids.
- Biological - Macroinvertebrate and habitat assessments were conducted at each site.
- Stream Channel Stability - Rapid stream channel stability assessments were conducted at each site.

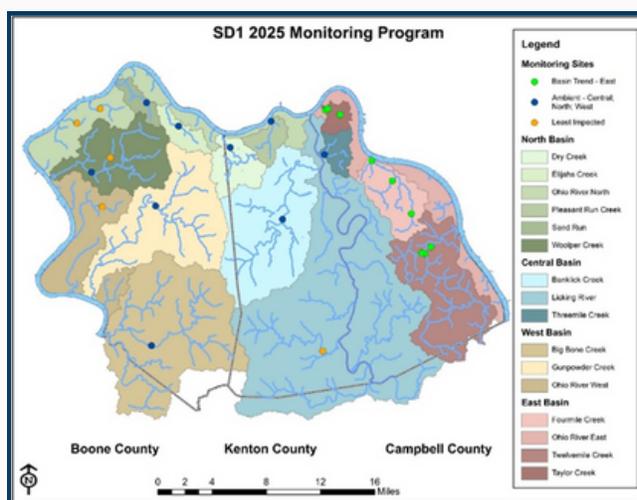


Figure 11. SD1 water quality monitoring sampling sites.

Gunpowder Creek

Gunpowder Creek contains the state's only TMDL Alternative Plan and was delisted from the state's list of impaired waterways. The Boone County Conservation District (BCCDKY) is using conservation funds from Kentucky Department of Fish and Wildlife's Fee-In-Lieu-Of program and mitigation credits for stream and wetland mitigation projects in Middle Creek, Gunpowder Creek, Woolper Creek, and Big Bone Creek. BCCDKY used 97 acres of purchased land, adjacent to Gunpowder Creek Nature Park, and a newly established environmental center for conservation and education to host over 600 people for conservation education programs. The project converted a 19-acre agricultural field along Gunpowder Creek into native meadow at the Earl and Hazel Jones Center for Conservation. The Boone Conservancy also purchased a 350-acre property along 1.25 miles of the Ohio River near Second Creek. The Boone County Ohio River Initiative published a report on conservation efforts and opportunities along Boone County's 43 miles of Ohio River shoreline. Finally, BCCDKY is working with a private landowner in the Big Bone Watershed to pursue a wetland mitigation project.

Dry Creek

Sanitation District 1 has a basin monitoring program that includes data collection within the Dry Creek watershed and other locations throughout their service area (Figure 10). The district is also in the planning stages of a full stream restoration of Dry Creek, including stormwater basin retrofits in the headwaters to slow stormwater and protect the restoration investment.

Banklick Creek

Banklick Watershed Council (BWC) is an active, local nonprofit that implements the watershed's management plan and is led by their watershed coordinator. The group was named the 2025 Kentucky Watershed Group of the Year by Kentucky Waterways Alliance.



Picture 4: Banklick Watershed Council receiving Kentucky's Watershed Group of the Year Award from Kentucky Waterways Alliance. Photo Credit: KWA

According to KWA, “In announcing the award, the Waterways Alliance highlighted BWC’s ‘remarkable diversity of projects, funding, and partners over many years—an inspiration to all who care about clean water and are looking for examples in community-led watershed management.’”. For more information on BWC’s award, see Banklick Watershed Council named Watershed Group of the Year and Banklick Watershed Council named Kentucky Watershed Group of the Year for protecting healthy waterways - NKyTribune.

Banklick Watershed Council had a busy FFY 2025. The group is currently managing two 319(h) grants (2023 and 2025) and the accomplishments in 2025 included six septic repairs, one “hotspot” neighborhood sewer and 10 septic systems decommissioned, four stream cleanups, and one TMDL-Alternative Plan approved by division and EPA. In addition, BWC has many ongoing projects underway in FFY 2025, including:

Outreach & Engagement (partial funds from FFY 2023 319h)

- Doe Run Lake cleanups, creek-side cleanups
- Historical society presentation on the history of the Banklick

Stormwater Management (partial funds from FFY 2023 319h)

- 5 - Basin retrofits designed and ready for construction
- Advocating for improved stormwater basin maintenance and corrective action at several locations
- SD1 announced \$400k in stormwater retrofitting in the Horse Branch watershed (SD1)

Pollution reduction (septic sources, partial funds from FFY 2023 319h)

- US EPA research study using MST to track instream changes after septic tank decommissioning (US EPA/SD1)
- 1 - Septic repairs approved and awaiting construction
- Construction started on two hot spot neighborhoods for sewer extensions and septic decommissioning (SD1)
- Starting a septic pump out assistance program for low-income residents

Land Conservation (private funding)

- Lower Banklick landowner outreach - Heron Rookery property, City of Fort Wright floodplain property, and adjacent parcels
- Brushy Fork Nature Preserve wetland restoration project under design (Kentucky Department of Fish and Wildlife Resources)
- Urban Forest restoration and stormwater retrofits at Howell Elementary (collaboration with Kenton County Conservation District)

- Tri-State Trails' NKY Regional Trails Master Plan to name Banklick Greenway as potential greenway area

Watershed Planning (FFY 2025 319h funds)

- Update of Banklick Watershed Plan

In FFY 2025, the Kenton County Conservation District is continuing to monitor the post-installation of the bottom-land hardwood forest, which was part of the FEMA-Banklick buyouts from the Meldahl Hydroelectric Project. The group is working on invasive-plant removal and native hardwood restoration on donated property near Elsmere Elementary School. They are also continuing basin retrofits and forest restoration projects in the Banklick watershed headwaters near Elsmere, KY.

Central-West Licking River Basin

Hinkston Creek, Stoner Creek, Slate Creek, Beaver Creek, Salt Lick Creek

Within the central-west region of the basin, there are varying levels of stakeholder interest. Many watersheds had some level of activity during the year. Of the three priority watersheds in this region, one has an EPA-accepted watershed plan (Hinkston Creek).

Hinkston Creek

The University of Kentucky Cooperative Extension is currently working with a farmer in the Hinkston Creek watershed, using EQIP and EPA Farmer to Farmer funds, to add fencing to restrict livestock access to sensitive areas, install heavy-use area winter feed pad, and gateway installations to prevent and control erosion. According to Amanda Gumbert, "After participating in the UK CES-led farmer leadership training Tap Your Potential, Ben Robin (Robin Ridge Farms) recognized erosion issues on the farm that might be impacting the quality of nearby Hinkston Creek. UK Extension specialists partnered with the Bourbon County Conservation District to help Ben identify and install appropriate conservation practices to address erosion issues on the farm." Practices installed include rocked gateways, a heavy use area pad, regrading and critical area planting, and an intense rotational grazing system for his beef herd.

To showcase the success of the conservation practices in use at Robin Ridge Farms, Ben and his family hosted a field day for 24 participants in May 2025. Field day attendees owned or managed a total of 4,315 acres (range: 16.5-1600) with operations reported as beef cattle, sheep/goat, fruit/vegetable, hay, horses, and trees. A post field day evaluation was

distributed and respondents indicated the following: 86% agreed or strongly agreed that they learned about a new conservation practice that they will adopt on land they manage; 86% agreed they feel more knowledgeable about on-farm conservation practices; 86% agreed or strongly agreed that the practices shared were profitable enough for them to adopt on land they manage; 100% agreed or strongly agreed that the event increased their confidence to implement conservation practices and that attending the event helped them connect with other people who are implementing or advising on conservation practices. Respondents commented that the most important benefits of attending the event were networking with other producers and learning that a lot can be done to help with erosion and conservation.

The city of Mt. Sterling is currently in planning and design for two large floodplain sinks (FFY 2024 319h funds) to mitigate flooding and nonpoint source pollution from stormwater runoff and to build public greenspace. The Licking River Watershed Watch has been conducting regular sampling of Hinkston Creek for water chemistry and E coli.

Stoner Creek

In Stoner Creek, the community group Friends of Stoner Creek has taken the lead. In FFY 2025, they completed water quality testing with Kentucky Watershed Watch and led a stream clean-up on Stoner Creek.

Slate Creek

Kentucky Division of Water, NRCS, city of Mt Sterling, and Mt Sterling Water and Sewer utility are working together to reduce nonpoint source pollution into the Greenbrier Reservoir, the drinking water source for the city of Mt Sterling and surrounding area. Additionally in Slate Creek, the local health department is concerned about failing septic systems in the watershed and subsequently, there is interest in a State Revolving Fund project to address septic issues.

Beaver Creek

In Frenchburg (Beaver Creek), the division is working with the city and Gateway Area Development District to construct floodplain sinks (off-channel retention basins) for stormwater/flooding and nonpoint source pollution abatement. Frenchburg has identified seven properties to create floodplain sinks for stormwater/flooding abatement and is currently seeking funding for design and construction.

Salt Lick Creek

Salt Lick is completing their planning phase (Federal Emergency Management Agency Planning Grant) and was recently awarded Sewer Overflow and Stormwater Reuse Municipal Grant

Program (OSG) funds to continue with the design for stormwater mitigation using nature-based solutions. Currently, the use of wetlands is looking promising (Figure 12) for mitigating the regular flooding that occurs in Salt Lick, KY.

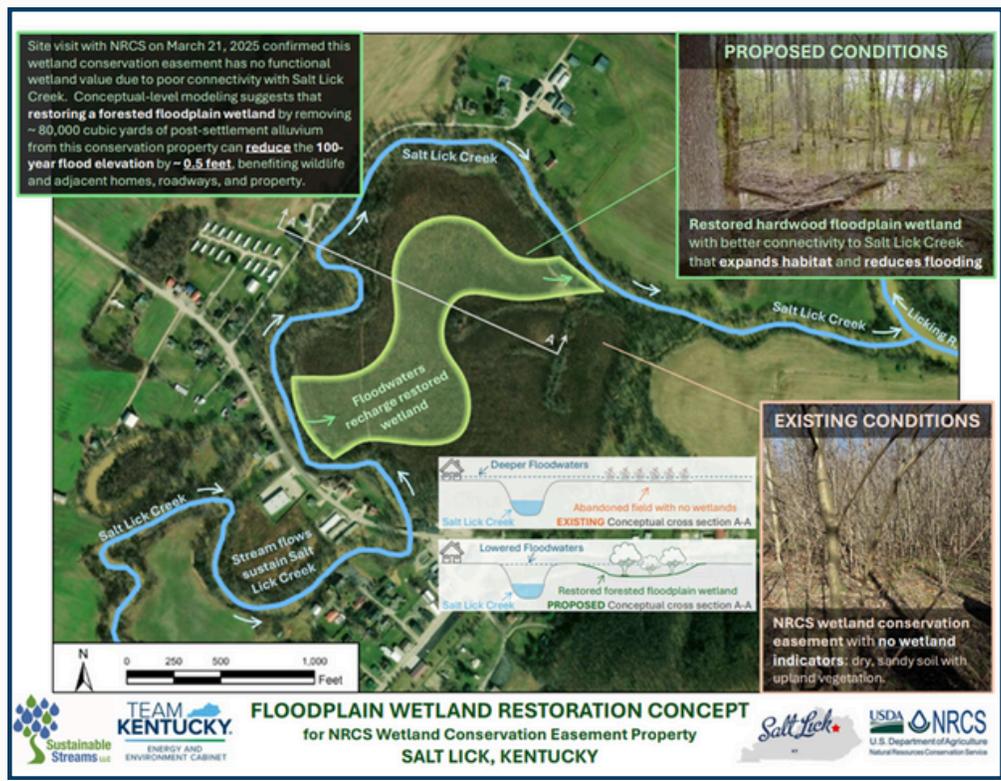


Figure 12. Restored wetland conceptual design for Salt Lick, KY stormwater management.

Central-East Licking River Basin

Licking River, North Fork Licking River, Limestone Creek, Kinniconick Creek, Triplett Creek
 Within the central-east region of the basin, there are varying levels of stakeholder interest. Most priority watersheds had some level of activity during the year. Of the two priority watersheds in this region, one has an EPA-accepted watershed plan (Triplett Creek).

Licking River

In the main stem of the Licking River, there have been regular trash and tire cleanups occurring and some 350 tires were removed in FFY 2025. The US Army Corps of Engineers (USACE) - Louisville also held their Licking River E-flows workshop for the Sustainable Rivers Program, which aims to better meet the needs of aquatic organisms into release schedule for Cave Run

Dam that releases into the mainstem of the Licking River. The Corps is planning to implement some of the findings from the workshop. In addition, in 2025, a new watershed group—Pendleton Waterways Legacy—has formed and is working to improve water quality, increase outdoor recreation (Figure 13), and reduce flooding along the mainstem of the Licking River and the South Fork of Licking tributary.

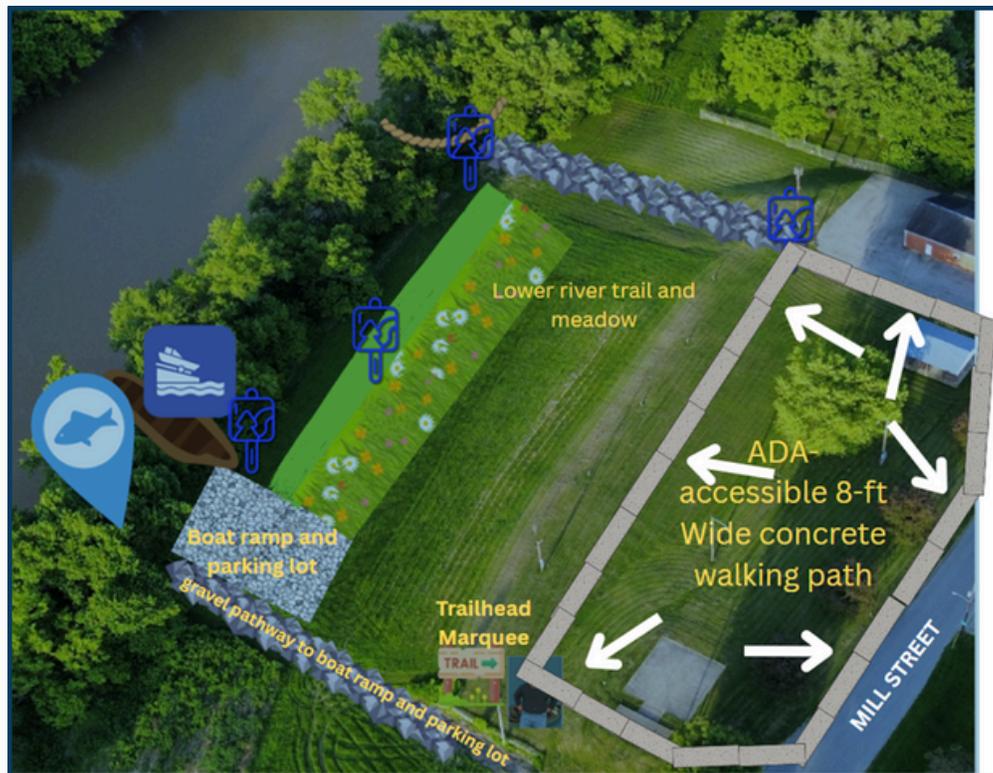


Figure 13. Conceptual design of future outdoor recreation and water quality improvement BMPs along the mainstem of the Licking River in Pendleton County.

Limestone Creek

The city of Maysville is partnering with the Buffalo Trace Area Development District, the Mason County Public Library, Kentucky Division of Water, and USACE-Huntington to invest, monetarily and temporally, into Limestone Creek for flood mitigation, NPS reduction, and public greenspace/outdoor recreation (Figure 13). The status of these projects:

- Limestone Creek Sediment Tracing Study—completed 2025 (private funding from Mason County Public Library)
- Limestone Creek Floodplain Sinks Planning and Design—ongoing (OSG Grant Program-2024)
- Limestone Creek Watershed Planning—ongoing (319h-2025)
- Limestone Creek Restoration—awaiting funding allocation for USACE-Huntington Feasibility Study

When completed, these projects will help Maysville return Limestone Creek back to a more natural state and improve the quality of life for their community (Figure 14).



Figure 14. Conceptual design of potential Limestone Creek restoration.

Lees Creek, Lawrence Creek, North Fork of the Licking

In the North Fork of the Licking River and Lawrence Creek, Licking River Watershed Watch has been keeping up with regular water sampling in 2025, including water chemistry and E coli levels. In addition, Mason County Conservation District, along with USDA-NRCS, have 34 producers under contract to implement conservation practices over a five-year period in an area covering approximately 6,486 acres. Types of practices include cover cropping, riparian buffer improvements, and fencing livestock out of local waterways.

Kinniconick Creek

Lewis County Fiscal Court was recently awarded a FFY 2025 319(h) grant to establish a watershed management plan on the Montgomery Creek section of Kinniconick Creek. Lewis County has been focused on development of outdoor recreation and public greenspace in and around Kinniconick Creek (Figure 15), which all hinges on clean water in this water source. An EPA-accepted watershed plan is a critical first step in this project.

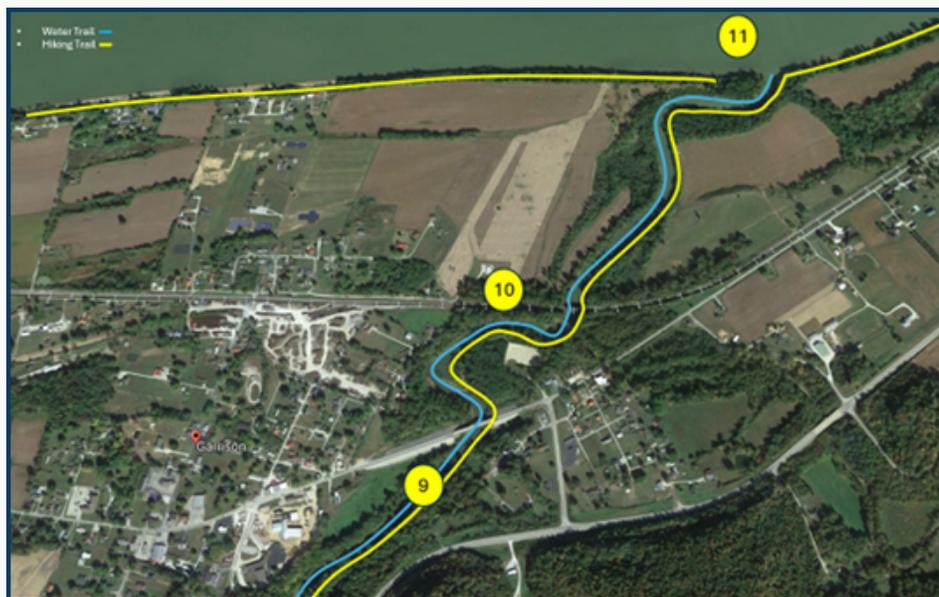


Figure 15. Conceptual design of potential outdoor recreation in and around Kinniconick Creek. The Blue line is the future Blue Water Trail paddling trail; the yellow line is the future hiking/biking trail; and the associated numbers are three separate new parks that will be incorporated into the trail systems.

Triplett Creek

Two high-level resource documents have been produced by USACE for Triplett Creek, including an Initial Watershed Assessment (2019) and a Planning Assistance to States Study Flood Risk Reduction on Triplett Creek (2018). There is significant local interest from the city of Morehead's Floodplain Coordinator and Morehead Plant Utility Board regarding stormwater management and flash flooding impacting water treatment plants, wells, and the community. The Licking River basin coordinator has been in conversations with program staff to strategize 319(h)/MS4 synergies. For Phase I, the city is working with Gateway Area Development District to build 2-4 large floodplain sinks (off-channel retention basins) to mitigate flooding and nonpoint source pollution from stormwater runoff. The city has finished the planning process for these floodplain sinks (FEMA Planning) and was recently awarded FFY 2025 319(h) funds to continue with the design (Figure 16).

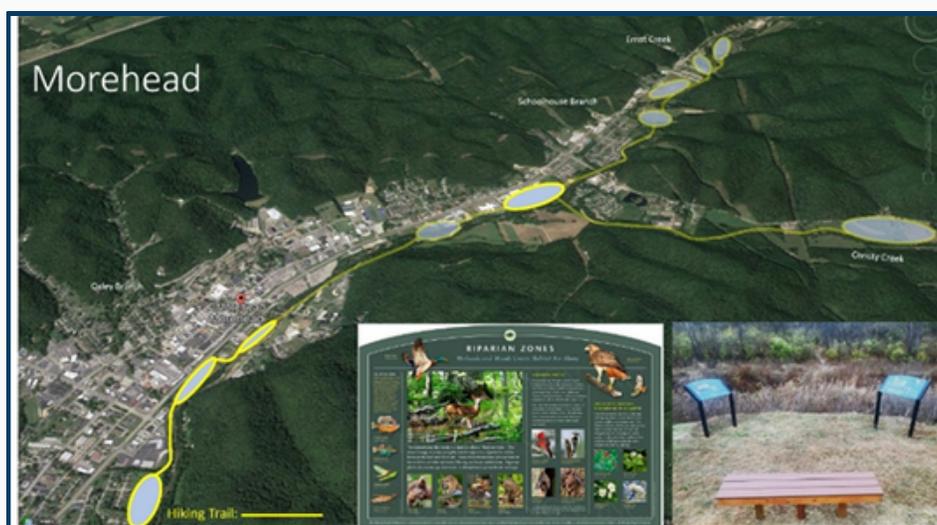


Figure 16. Conceptual design of potential floodplain sinks for flood and stormwater mitigation and additional trail and public green space. The ovals of different sizes are the planned floodplain sinks, and the yellow line is the hiking/biking trail that connects them together into a public greenspace opportunity.

Headwaters Licking River Basin

Elk Fork Creek

In FFY 2025, a local water district in the headwaters of the Licking approached the Licking River basin coordinator with interest in engaging in more watershed-focused conservation efforts, particularly surrounding septic and straight pipe issues. The local health department has expressed interest as well. The division plans to spend more time in the Licking Basin headwaters in FFY 2026 to foster more community involvement in this area.

SALT RIVER BASIN

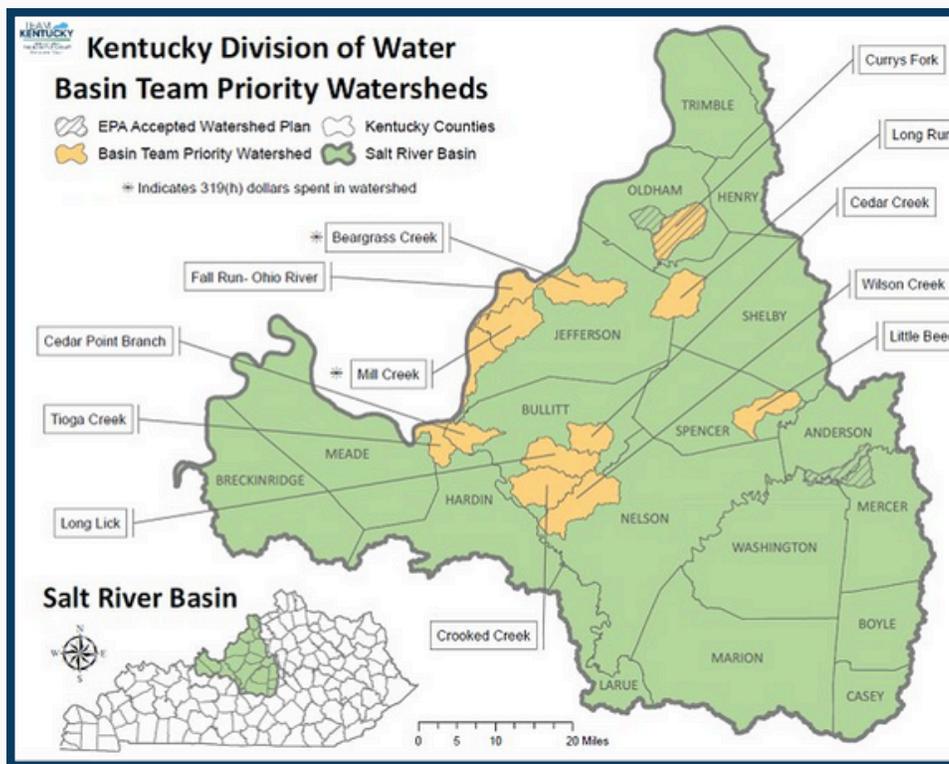


Figure 17. Priority Watersheds identified by the Salt River Basin.

Curry's Fork

The Curry's Fork Watershed, a tributary of Floyd's Fork, is located in Oldham County, Kentucky. The watershed is approximately 29 square miles and is composed of four sub-watersheds. The EPA accepted the Curry's Fork Watershed Plan in 2012.

For FFY 2025, the Oldham County Conservation District (OCCD) continued to employ a watershed coordinator as part of its FFY 2022 319(h) grant funding to implement BMPs from their watershed plan.

Additionally, in FFY 2025 the OCCD organized a pond and lakes management workshop that focused on best management practices and the Volunteer Lake Monitoring Program. The OCCD also held a tree planting and live stakes workshop for residents within the watershed. They developed a nature-based solutions incentive program, that reimburses homeowners that have established nature-based solutions on their property. Some projects include rain barrels, native plantings, and bioretention systems and was funded by their FFY 2022 CWA Section 319(h) awarded grant.

Curry's Fork was awarded FFY 2024 319(h) grant to implement educational programs, demonstration projects and incentives. The project includes an educational wetland complex design at Centerfield Elementary in Oldham County, the construction of the FFY 2022 319(h) basin retrofit design project at the Oldham County Health Department, and the construction of a residential basin retrofit, previously designed using FFY 2022 319(h) funds.



Picture 5. Oldham Pond and Lake

Middle Fork Beargrass Creek

The Middle Fork Beargrass Creek is located in central Jefferson County, Kentucky, and is one of three streams (Muddy Fork, Middle Fork, and South Fork) that join to form the larger Beargrass Creek watershed. The Middle Fork Beargrass Creek watershed drains 25.2 square miles. In 2022, the EPA accepted the Middle Fork Beargrass Creek Watershed Plan. Since its acceptance, several implementation projects have been funded.

The Louisville Jefferson County Metropolitan Sewer District (MSD) hired a full-time watershed coordinator who is continuing to assist with community engagement and education and outreach.

In FFY 2025, MSD held a “Fall in Love with your Creek” event at Cherokee Park along Beals Branch (tributary to Beargrass Creek) during the “no-cars park day” to get the community engaged with their local creeks and streams. The event featured an interactive water cycle game, hands-on discovery booths, planting native riparian seed paper along the stream, free trash clean up materials to take as participants walked, and Post-it note boards to determine which nature-based solutions the community would like in their park. This was part of the initiative to find a best management practice that would be most supported for implementation, a milestone in MSD’s FFY 2024 319(h) project.



Louisville MSD was also awarded FFY 2025 319(h) funds to design and install tree boxes in the Cherokee Triangle neighborhood to increase infiltration, mitigate litter, and promote treatment of stormwater. The use of green infrastructure, like tree boxes, is valuable in areas like the Cherokee Triangle because this type of infrastructure utilizes the trees’ ability to uptake and treat stormwater while enhancing biodiversity, mitigating urban heat, and providing social benefits like increased awareness of the value of stormwater treatment. The contract is scheduled to start in FFY 2026.

Picture 6. Beargrass Fall in Love with Your Creek

Additionally, The Jefferson County Soil and Water Conservation District was awarded FFY 2025 319(h) funding for a multifaceted approach to NPS education and outreach. The project aims to improve community awareness regarding waterway health and its impacts on the community. They plan to hold a trash clean-up, a tree planting event at the Beargrass Creek Trailhead, and a reimbursement program to enhance riparian and stream buffers on their properties. This contract is scheduled to start in FFY 2026.

Mill Creek

The Mill Creek watershed is a 34-square-mile basin located in southwest Louisville, Jefferson County, Kentucky and is divided into the Upper Mill Creek and Lower Mill Creek sections.

In 2022, MSD launched a watershed-planning effort and recruited partners for monthly meetings and community input. Since then, MSD submitted their Mill Creek Watershed Plan to the division in November 2025 and it is currently in review.

In FFY 2025, MSD initiated a trash clean-up at the Sylvania Park in the Mill Creek Watershed where approximately 20 volunteers removed two large trash bins and a dump truck's worth of garbage from the area, which included more than 30 tires.



Picture 7. Mills Creek Cleanup

Hardy Creek/Little Kentucky

The Hardy Creek-Little Kentucky watershed covers an area of approximately 15,239 acres in Trimble and Henry counties. Hardy Creek is approximately 5.6 river miles long and flows southeast to drain into the Little Kentucky, a direct tributary to the Ohio River. The watershed also includes Dry Fork Creek and Daugherty Creek. Most of the land in the watershed is used for agriculture, with a residential area extending from Bedford to south of Hardy Creek. The watershed is prone to severe bank erosion and flooding during heavy rain events.

The Trimble County Fiscal Court (TCFC) was awarded FFY 2024 319(h) funds to develop a watershed plan for the Hardy Creek-Little Kentucky River watershed. To date TCFC has since hired an environmental consultant to write the plan and has developed a community engagement plan.

UPPER CUMBERLAND RIVER BASIN

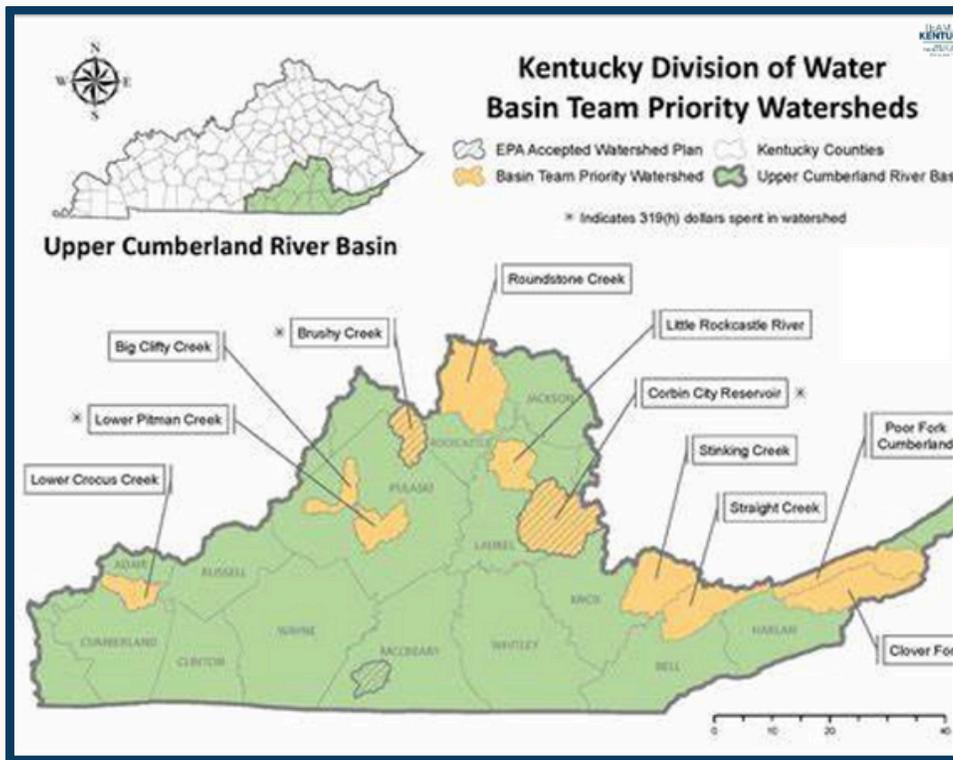


Figure 18. Map of Upper Cumberland River Basin Team Priority Watersheds.

Rockcastle River Watershed

The Rockcastle Conservation Initiative was formed in 2018 to provide stakeholders an opportunity to work together toward a common goal of protecting and enhancing natural resources in this priority area. The initiative widened the priority area around Roundstone Creek and the Little Rockcastle River to include the entire Rockcastle River Hydrologic Unit Code 8.

The watershed is a globally important biodiversity hotspot in Kentucky. Historically, its streams contained 65 fish species, 38 mussel species, and 10 crayfish species. The rich flora and fauna here harbor rare and endangered species that depend on high quality ecosystems, including critical bat populations, rare amphibians and reptiles, and black bears. The plant flora is among the most diverse in temperate latitudes and includes many medicinally valuable or rare species, as well as several plant species that are unique to the gravel and cobble bars along the lower Rockcastle River, one of only three in Kentucky that have these high-quality riparian areas and ecological communities.

Through this initiative, the Natural Resources Conservation Service (NRCS) is funding a focused conservation project in the watershed to address key resource concerns including water quality, soil health and plant and animal health. Previously, NRCS approved two sub-watersheds of the Rockcastle River Watershed for focused conservation projects. A new aspect of the project in FFY 2025 is the treatment of hemlock woolly adelgid.

Buck Creek

The Healthy Watershed Program workgroup widened the priority area around Brushy Creek to include all 6 HUC12s in the Buck Creek watershed. In FFY 2023, the Pulaski County Conservation District received a 319(h) grant to write a watershed plan to address water quality in the Headwaters Buck Creek watershed (051301030101) and Barney Branch-Buck Creek watershed (051301030102). The project focuses on writing a plan to restore and protect habitat for 77 fish species and 30 species of mussels, nine of which are considered rare. The project team is examining the inclusion of a mussel survey in 2026.

Stinking Creek

The Lend-A-Hand Center, in partnership with the University of Kentucky Appalachian Center and the University of Kentucky Center for Appalachian Research in Environmental Sciences, hosts two stream cleanups each year. Participants are given the opportunity to start the day with optional educational programs to deepen their understanding of their natural surroundings. This years-long program attracts many local community members interested in clearing the trash from Stinking Creek.

EDUCATION AND OUTREACH

EDUCATION AND OUTREACH HIGHLIGHTS

Spring into Reading!

This spring the division participated in the Kentucky Department for Libraries and Archives' annual Spring into Reading event. Franklin County elementary school students were bused to the event to enjoy a fun-filled day of hands on activities. The division led an engaging monarch butterfly habitat activity to teach the difference between native and invasive species, how planting flowering plants for our pollinator friends can be helpful, and how natives planted around our streams can help slow stormwater and provide habitat for Kentucky wildlife. The kids started the activity by spending "summer" in the milkweed habitat area, consisting of a designated area of milkweed habitat, acting as a monarch butterfly. A situational card would be read, such as, "More farm land was created, destroying vital milkweed plants. Remove space #2," and a space of the milkweed habitat would be removed. This demonstrated the effect of native plant loss and provided the opportunity to discuss how they could create new pollinator habitats, such as in rain gardens. The kids then went to the Mexican Oyamel Firs area to "ride out the winter", where a situational card was read taking away another space. They continued to do this until there was only one butterfly left, depicting how human interactions can deplete natural wildlife habitats, and how we all can do our part to be good environmental stewards.

Make a Splash Water Festival

Kentucky Waterways Alliance, in partnership with Wolfe County 4-H and Wolfe County Schools, hosted their 6th annual Make A Splash Water Festival for Wolfe Co. 6th grade students. The goal of the event is to have a fun field day centered around environmental education with a focus on clean water. The Kentucky Division of Water used their Ward's Floodplain Simulation Model to explain the difference between pervious and impervious surfaces, the use of gray infrastructure to manage stormwater runoff like basins, and how wetlands can be used as a greener way to soak up stormwater and slow it down. They were asked engaging questions about their natural landscape in the mountains of eastern Kentucky and encouraged to think of natural ways we could slow down stormwater and soak it up.



Picture 8. Make a Splash Water Festival

E&O ACCOMPLISHMENTS AND ACTIVITIES TABLES

Table 2. E&O Action Items for 2025

Action Items	2025
Action Item 1.1: Continue effective messaging for the Division of Water	The NPS staff regularly submit videos and photos of the work being done around the basins to the EEC social media accounts. Also, the NPS staff have revived the newsletter, giving it a new name "Runoff Report" that is quarterly dispused, along with a Volunteer Lakes Monitoring Newsletter.
Action Item 1.2: Partner w/organizations on evniromental education and outreach opportunities	Partnered with the following organizations: Kentucky Conservation Districts, Kentucky Division of Conservation, Kentucky Water Resources Research Institue, Kentucky Association for Environmental Education, Kentucky Waterways Alliance, Kentucky Association of Mitigation Managers, Friends of Barren River, Friends of Tug Fork, Jackson Purchase RC&D Foundation, UK Extension Office, University of Pikeville, University of Louisville, University of Kentucky, Kentucky Watershed Watch, The Nature Conservancy, Ohio River Basin Alliance, Louisville MSD, River City Paddle Sports, Murray State University, Banklick Watershed Council, New Pioneers, KY Dept for Libraries and Archives, Kentucky State Unversity, KY State Parks, Kentucky Department of Fish and Wildlife, Kentucky River Keepers, Kentucky Office of Communications, NRCS, Lexington Fayette Urban County Government, Louisville Metro Sewer Department, Buckley Wildlife Sanctuary, Parklands of Floyd's Fork, Ky Land Trust Coalition, Mountain Eagle.
Action Item 1.3: Develop content for social media, basin newsletters, and other print and non-print outlets	Social Media: Each Basin Coordinator provides content for the EEC Facebook page, Participated in the following Social Media Campaigns to promote various aspects of water, including Kentucky River Keeps, and "There are No Stupid Questions". The basin coordination team distributes a quarterly newsletter called the "Runoff Report".
Action Item 1.4: Coordinate and conduct public events and/or exhibits	Salt Festival, Parklands Environmental Day, Jim Claypool Art and Conservation Writing Contest, Mountain Eagle, ECU Outdoor Career Fair, Maysville Farm and Family Night, Envirothon, Robinson Forest Field Day, Somerset Earth Day Celebration, Wolf Creek Earth Day Celebration, Trigg County Homeschool outreach, Spring into Reading, Ky Green Schools Summit, Governor's Derby Party Kickoff, Springfield Green Festival, Murray State University Earth Day, Louisville Zoo Earth Day, Green Career Spotlight, Red River Fest, Family Farm Field Day, Wild and Scenic Red Riverfest, Berry Center Kids Arts & Letters day, Big Bone Lick Discovery Day, FLASH Initiative, North Central Health Dept annual kids health fair, raising hellbenders on the river, KAEE outdoor learning symposium, Trimble co homeschoolers, KWRA conference, Perry county central HS career day, Marsh Madness, Carter County Farm and family field day, DEAL Day, Oldham County Conservation District Field Day, Fall in Love with your creek Cherokee Park, Make a Splash Water festival.

Table 3. E&O Activities by Type

Education & Outreach Activities by Type		
Type		Community Reached
Presentations	Manchester Whitewater Park, Flood Mitigation with Green Sinks, Converting Low-Head Dams into Float Parks, Off-Channel Basins (Green Sinks and Wetlands), USACE Flood Mitigation; Flood Mitigation and Outdoor Recreation to Promote Water Quality in Kentucky, The future of Limestone Creek, Nature Based Solutions, Kentucky River Water Trail, Rural Water Conservation, Salt River Basin Updates, Watershed Network, Managing Natural Areas, VLMP, 319(h) program, Watershed Watch.	Conducted ~29 formal presentations reaching ~787 community members of all ages
K-12 Environmental Education	Salt Festival, Parklands Environmental Day, Jim Claypool Art and Conservation Writing Contest, Mountain Eagle, ECU Outdoor Career Fair, Maysville Farm and Family Night, Envirothon, Robinson Forest Field Day, Somerset Earth Day Celebration, Wolf Creek Earth Day Celebration, Trigg County Homeschool outreach, Spring into Reading, Governor's Derby Party Kickoff, Springfield Green Festival, Murray State University Earth Day, Louisville Zoo Earth Day, , Red River Fest, Family Farm Field Day, Wild and Scenic Red Riverfest, Berry Center Kids Arts & Letters day, Big Bone Lick Discovery Day, FLASH Initiative, North Central Health Dept annual kids health fair, raising hellbenders on the river, Trimble co homeschoolers, Perry county central HS career day, Marsh Madness, Carter County Farm and family field day, DEAL Day, Oldham County Conservation District Field Day, Fall in Love with your creek Cherokee Park, Make a Splash Water festival	Conducted environmental education Programs reaching ~3,418 students
Workshops (hosted)	Project WET Workshop, Invasive Plant Workshop, USACE Licking River E-Flows Workshop, Watershed Coordinator's annual meeting.	At the 20 workshops held throughout Kentucky, ~349 community members and partners were taught by the Division of Water.

Table 3. E&O Activities by Type Continued

Education & Outreach Activities by Type		
Type		Community Reached
Workshops (attended)	PEEC Workshops, Eastern KY Plan Form Workshop, basin coordinators workshop, FLASH initiative, Pond & Lake Management Day workshop, Green River Basin E-flows workshop, OAK Field Days, KGS Seminar, Kentucky River Water Trail Visioning Workshop	N/A
Community Meetings Attended	UK Cares/Water Quality and Human Health, Jessamine Creek Sampling Meeting, KRADD Community Change Grant, Nutrient Strategy, FLASH Initiative, Currys Fork, Kelley's Landing, Backyard Streams, Salt River Basin Team Meeting, LFUCG Proposed water quality monitoring meeting, Louisville MSD, USACE Meeting about flood modeling/coordination, KRA Water Quality, Buckley Wildlife Sanctuary Hike, KGS Open House, KY Flood Resilience Group, Manchester Waterpark, Canoe Creek Watershed Planning Meeting, Harrodsburg/Mercer County Watershed Planning Meeting, Bacon Creek Meeting, McDougal & Castleman Creek Grant Meeting, Low head dam discussion, Salt Lick community meeting, CEDIK meeting, Woods and Waters Land Trust, KY/North Fork Blue Water Trail, Hurrican Hills Lake Watershed meeting, Ohio River Way Conservation, Whiteburg Cowan Community Center Meeting, Middle Fork Beargrass Creek Steering Committee Meeting, Aquatic Connectivity Team, KY ACT, Elkhorn-South Elkhorn-Dreen Creek Watershed planning, Mill Creek Partners meeting, Bluegrass Watershed Summit, Flatwoods Watershed planning, beals branch partners meeting, Black Appalachian Coalition, Bacon Creek, Red Bird... <i>See Continued Table</i>	Attended ~116 in-person and ~127 virtually community meetings throughout Kentucky

Table 3. E&O Activities by Type Continued

Education & Outreach Activities by Type		
Type		Community Reached
Community Meetings Attended	Wilderness Road Girls Scout Council, Herrington Lake Outreach, KACD Meetings, ENVS career panel, Maysville Planning Collaboration, LCADD Meeting, KMM Sediment load meeting, Stillwater Creek Meeting, SE Aquatic Barrier, KY River Water Trail meeting, geomancer permaculture meeting, salt lick flood mitigation, Riverfront Park Project Site Tour, Primer for Green River, Southeast Work Unit NRCS Meeting, Lower Green Project Introduction, Bath County flood mitigation, KY River lock and dam removal meeting, Willisburg Lake meeting, Mammoth Cave Biosphere regional advisory council, wolf run watershed council, Daviess county flood mitigation workshop, KY Riverkeeper, Warren Co Conservation meeting, Source Interns, tree city USA, Green River tire project meeting, red river watershed, hardin co conservation meeting, Marion CCD meeting, Green Co Extension Service, Taylor Fork Watershed Planning	Attended ~116 in-person and ~127 virtually community meetings throughout Kentucky
Watershed plan development areas.	Lower Pitman, Jennings Creek, Laurel Lake, Upper Paint Lick, Mill Creek, Beaver Creek, Dry Branch (Upper Salt River), Wilson Creek, Canoe Creek, Bee Creek, Clayton Creek, Hardy Creek, Wells Run, Whittaker Run, Little Kentucky River, Drennon Creek, Limestone Creek and Kennedy Creek, Montgomery Creek (Kinniconick), Duff Branch, Long Branch, Beech Creek, Blackberry Creek, Sycamore Creek, Miller Creek, Jennie Creek, Drag Creek, Lost Creek, Pond Creek, Upper Wolf Creek, Pigeonroost Fork, Lower Wolf Creek, Lower Rockcastle Creek, Griffin Creek, Coldwater Fork, Upper Elkhorn, Long Lick Creek, Clarks Creek, Salt Lick Creek (Lewis County), Creenbrier Creek, Bowman Creek, Cruises Creek, Hurricane Hills Lake, Willisburg Lake, Still Creek, Taylor Fork, Goose Creek	

Healthy Watershed Program

Protecting healthy watersheds in Kentucky offers both environmental and economic benefits. Watersheds feed into streams, rivers, and lakes, and play a crucial role in maintaining biodiversity by providing habitats for various aquatic and terrestrial species. A healthy watershed acts as a natural filter by capturing pollutants, sediments, and excess nutrients. They help waterways remain clean and safe for both designated uses and aquatic life.

Protecting land to maintain the health of a watershed, as opposed to stream restoration, offers added benefits. Prevention is more effective and less costly than remediation because once a watershed is degraded, the restoration process can be time-consuming, expensive, and may never fully replicate original conditions or provide the same ecological function. Intact ecosystems have evolved over millennia, and their intricate web of relationships, from soil microbes to apex predators, can be challenging to recreate artificially.

The division initiated the development of a Healthy Watershed Program to enhance and protect state aquatic resources as well reduce pollutants entering Kentucky's waters. The NPS program is prioritizing the protection of high-quality watersheds through 319(h) funding by adding one extra point to 319(h) grant applications. In FFY 2024 and 2025 the top ranked 25 HUC 12 Healthy Watersheds were identified using the EPA's Recovery Potential Screening Tool. Key indicators in the analysis focused primarily on biological factors like the number of rare and endangered species in the watershed as well as non-impaired waters.

This year, protection efforts centered on a FFY 2023 319(h) funded pilot project in the Buck Creek watershed with the goal of drafting a comprehensive watershed protection plan for this area, which the U.S. Fish and Wildlife Service designated as critical habitat for mussels including the federally endangered Cumberland Bean and the state endangered purple Lilliput and Tennessee clubshell. Past efforts in the watershed include extensive mussel, macroinvertebrate, and fish surveys. Building on this foundation, the project partners will pursue additional freshwater mussel assessments to evaluate ecological changes over the past 30 years. These data will compliment traditional water quality monitoring and help inform restoration strategies. Once the watershed protection plan is finalized, implementation will focus on restoring and protecting the watershed, with particular emphasis on rare species habitats.

Volunteer Lakes Monitoring Program

The Volunteer Lakes Monitoring Program (VLMP) trains community members to monitor lakes and reservoirs for lake clarity, conditions around the lake, and harmful algal blooms. The program has three main goals: to educate the public on water quality issues and environmental protection, to generate data that can be used by volunteers to learn about their local waterbodies, and to complete the picture by augmenting work the Division of Water currently conducts. Volunteers are also encouraged to report potential harmful algal blooms on the survey 123 datasheet during sampling events. The VLMP also serves as an avenue for drinking water plant operators to receive continuing education credits through regular monitoring. Each plant operator receives two hours of education credit for the initial VLMP training, and one hour of education credit for each sampling event performed, with no more than three hours of credit per event.

This year, six VLMP trainings were conducted across the state. There were 21 total volunteers trained, and each of the 21 volunteers was new to the program. The volunteers were trained on how to properly perform and record Secchi disk measurements, how to properly fill in the sections on the data sheet, how to analyze the lake and its surrounding environment, and how to identify differences between harmful algal/cyanobacteria blooms versus other aquatic plants or algae.

The Division of Water is continuing to work on expanding the VLMP by implementing sampling tiers, expanding training protocol, creating a dashboard for volunteers to quickly access broad VLMP data, and creating map viewers for volunteers to explore individual lake data in-depth. Tier 1 is the base level of training that all current VLMP samplers will have and covers the parameters that volunteers currently monitor with the addition of in-lake and bank trash. Tier 2 will require additional volunteer training and will focus on more complex parameters, such as rooted and floating aquatic plant identification, invasive plant and animal species identification, riparian vegetation constitution, and bank angle. Tier 3 will be a grab sample that will be analyzed for certain parameters. Tier 2 will begin implementation in 2026, and work will continue toward Tier 3 with hopeful implementation in 2027 or 2028.



Nutrient Reduction Strategy Update

The division continues broad outreach to stakeholders relative to the Nutrient Reduction Strategy. The Nutrient Reduction Strategy Biennial Report was completed in March 2025. The division held nutrient workgroup meetings in October 2024, March 2025 and June 2025. A total of 44 stakeholders participated between the three meetings.

Gulf Hypoxia Program (GHP) staff continue to work on implementation of the Nutrient Reduction Strategy. This year GHP staff with other division staff began auditing major wastewater treatment plants to support nutrient removal optimization. In FFY 2025 a total of 14 facilities received audits. For more information about the Kentucky program, visit <https://eec.ky.gov/Environmental-Protection/Water/Protection/Pages/WWTPOptimization.aspx>.

Kentucky has also convened a Hypoxia Task Force Wastewater Nutrient Optimization Working Group to provide a forum for states to talk about their programs and learn from each other. The group met five times last year with six or more states participating in each meeting.

For the most complete information, visit Nutrient Reduction Strategy at <https://eec.ky.gov/Environmental-Protection/Water/Protection/Pages/Nutrient-Reduction-Strategy.aspx>

Nature Based Solutions- Stormwater Management

Stormwater management is a critical aspect of urban planning and environmental conservation. Traditional methods often involve extensive infrastructure like pipes and retention basins, which can be costly and may fail to address the underlying ecological issues. In contrast, nature-based solutions (NBS) offer sustainable alternatives that harness the power of natural processes to manage stormwater, enhance biodiversity, and improve community resilience. Nature-based solutions are strategies that utilize natural systems and processes to address societal challenges. These solutions work with nature, rather than against it, and can include techniques such as green roofs, rain gardens, permeable pavements, wetlands restoration, and urban forestry. By mimicking natural hydrological processes, NBS can effectively manage stormwater runoff, reduce flooding, and improve water quality.

During FFY 2025, division staff visited several Phase I and Phase II MS4 communities to learn how they are using NBS to address stormwater flooding concerns. Staff met with Kenton Sena, a faculty member at University of Kentucky, who is transforming conventional stormwater basins into micro-forests and studying whether these micro-forest basin retrofits reduce the quantity and improve the quality of stormwater runoff. Staff also visited Radcliff, KY to see their floodplain basins that are used to mitigate stormwater runoff and flooding. These floodplain basins can mitigate rain events up to 10" and are important for trapping NPS pollution runoff before the stormwater ultimately goes into a karst sink hole.

In addition, in FFY 2024 and 2025, we identified an expertise void for MS4 public works wanting to use NBS for stormwater management and in FFY 2025 began working to fill this void. Specifically, public works departments have high employee turnover and can quickly lose the personnel that are knowledgeable at maintaining NBS projects. When this happens, many times, the public works department simply removes the NBS, returning the site back to its previous use. To fill this knowledge void, division staff have approached the Kentucky Master Gardeners Program across the state to be the stable knowledge base for these public works departments. For example, if public works wants to install raingardens, wetlands, or vegetated bioswales for stormwater management, they will have a stable knowledge base (local Master Gardener) that can assist them in maintaining that BMP.

Nature-based solutions represent a transformative approach to stormwater management that aligns with environmental sustainability and community well-being. By leveraging the power of nature, cities can enhance their resilience to water quantity issues, improve water quality, and create vibrant urban spaces. As the challenges of urbanization and climate change continue to grow, integrating NBS into stormwater management plans will be essential for creating sustainable, livable environments for future generations. Embracing these solutions is not just an investment in infrastructure, it's an investment in the health and resilience of our communities and ecosystems.

KY Project WET

The division is the host institution for Project WET (Water Education Today) in Kentucky. The Project WET Foundation is an international non-profit water literacy education program that provides scientifically accurate and academically sound water resource education materials, training courses, engagement, and networking services communities. Project Wet is used in 96 countries by more than 44,000 teachers and has helped educate approximately 4.4 billion people worldwide. Project Wet has created online training, educator guides and lesson plans, children’s activity booklets, downloadable materials, maps, and posters, to help educators correlate Project WET to Kentucky academic standards.

The Kentucky Project WET Coordinator is contracted to the Kentucky Association of Environmental Education (KAEE) funded by the 319(h) Grant. KAEE trains facilitators and educators, ensures that certified facilitators have all required forms to support their workshops, manages activity guide orders, develops and maintains a database of certified facilitators and educators in Kentucky, and provides an annual report to Project WET Foundation detailing Project WET workshops.

In FFY 2025, KAEE continued promoting Project WET with Next Generation Science Standards (NGSS), a model that is now utilized by Project WET coordinators nationwide. Incorporating NGSS into environmental education helps formal educators justify how Project WET activities correlate to academic standards, and assists informal educators engage with formal educators by addressing NGSS scholastic needs. During FFY 2025, KAEE’s Project WET program conducted 14 educator workshops and reached 217 educators, including (K-12), university, pre-service, and non-formal educators.



Kentucky Watershed Watch

Watershed Watch in Kentucky was established in 1997 to train, equip, and support a dedicated group of volunteers across the seven river basin units to actively monitor streams, rivers, and lakes. Today it operates under a different name, Kentucky Watershed Watch (KYWW). The division continues to support this volunteer water monitoring program and its efforts to become a truly volunteer-led program.

In 2025 there was a transition to a new method, called "R-card", to obtain bacteria results, rather than using previous, costly lab E.coli samples. The R-card method allows volunteers to collect samples, then incubate and read the sampling cards for a bacteria count that can be entered directly into a new data portal. This new method provides the volunteer control over their data and reduces sample costs. KYWW has continued to train new volunteers on this new method.

Kentucky Watershed Watch also elected to establish support hubs, or locations within each major stream basin, to house incubators and equipment and provide support to volunteers. There are currently 37 hubs with plans to increase this number in 2026 so more counties will be able to assist volunteers.

Changes to the program and data collection required substantial training opportunities for volunteers to become proficient in the new methods. In 2025, 73 volunteers received training at 19 different workshops. The R-card training was also taught to existing volunteers at two basin annual conferences.

There are currently 510 active volunteers and 500 active sampling sites. The May, July, and September sampling events involved 379 sites that monitored using the new R-card method. One basin offered lab analysis for E.coli to any of their volunteers that wanted to compare the R-card method against the lab results. That basin had 39 samples that used both the R-card method and lab analysis. All sites were analyzed for E.coli and field chemistry.

KYWW will be introducing habitat and biological training workshops beginning in the spring, 2026. The new data portal and viewer was completed in June 2025 and KYWW volunteers have been able to enter their sampling date and register for upcoming events.

Source Water Protection

Water Conservation Week

In an effort to raise awareness and public participation in water conservation, the division set out to increase traffic to the EEC Water Conservation website and utilization of outreach and education tools. The division selected the week of October 20, 2025, to promote water conservation actions through the Energy and Environment Cabinet Facebook page with engaging posts and videos, designed to promote water conservation actions that can be taken in the home and direct the public to the other resources available online. In addition to these resources, an article promoting Water Conservation Week was written for the cabinet's Naturally Connected blog and emails to public water utility list serves, like Drinking Water Wednesday, were used to raise awareness. Finally, the division's website was redesigned to emphasize tools for local leaders to employ during water shortage, including a public outreach tool kit, fact sheets, and children's activities.

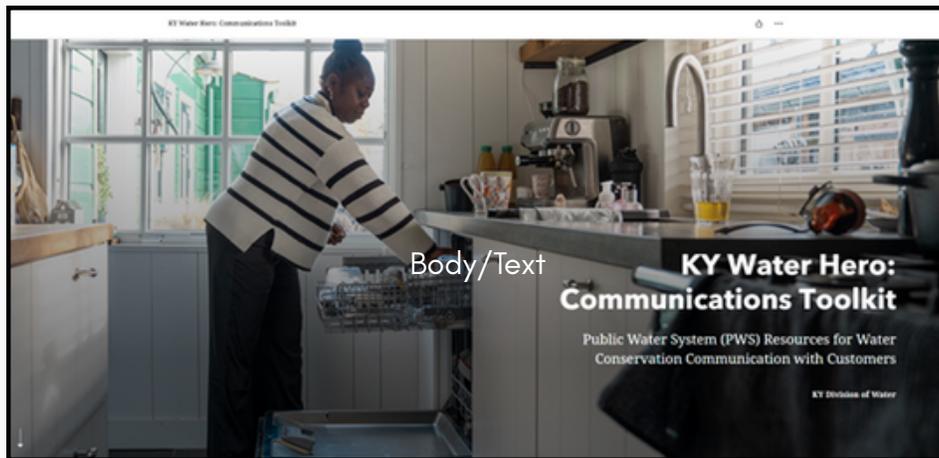
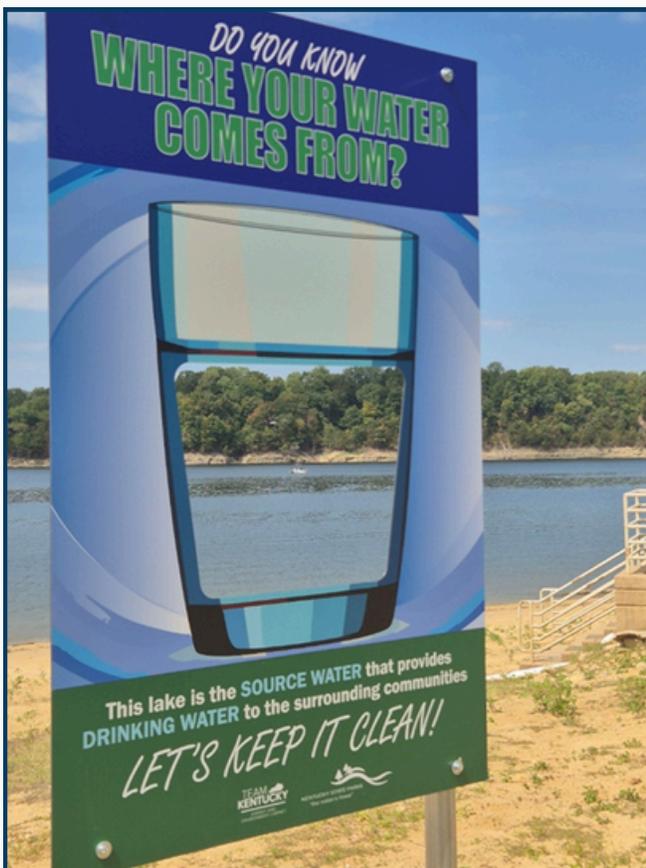


Figure 19. KY Water Hero Communications Toolkit

Source Water Protection Week

Source Water Protection (SWP) Week was first developed by the American Water Works Association (AWWA) and the KY Division of Water has participated since 2021. The division uses the week (September 28-October 4, 2025) to promote awareness and implementation of source water protection strategies and funding. In 2025, the division produced an article for the Naturally Connected Blog, sent email blasts to supporting partners, and produced SWP week social media posts daily on the EEC Facebook page. The Source Water Protection Week [website](#) was used to promote division tools for source water protection education and planning. As part of the week the division also rolled out special source water protection signage that has been installed at Barren River Lake State Resort in Lucas, KY.



Picture 9. Lakeside Signage

EQUIPMENT RENTAL

The division makes its large supply of environmental education equipment available for checkout, which allows teachers and other professionals to use various pieces for educational events in their regions. Available items include the Ward's Stormwater Floodplain Simulation System, Envirosapes for nonpoint source pollution, wetlands, landfill and hazardous waste, a stream table that demonstrates bank erosion and other stream processes, the Ollie the Otter division mascot costume, and a display box for viewing 30 different macroinvertebrates including a flip card booklet that describes each organism and its sensitivity to pollution.

During FFY 2025, the division loaned Envirosapes for eight outside events, the Ollie the Otter costume for two events, and the macroinvertebrate display box for six events.



Picture 10. Ward's Stormwater Floodplain Simulation System



Picture 11. Ollie the Otter

TOOLS FOR CLEAN WATER

Homeowner Assistance Program in Kentucky

The Homeowner Assistance Program (HAP) is a reimbursement program that assists homeowners with the fees associated with sewer line connection and septic decommissioning. The program strives to improve water quality by eliminating failing onsite wastewater systems, easing the financial burden on homeowners, and promoting long-term solutions to sewage waste disposal. It requires partnerships with local sanitation districts, health departments, state plumbing inspectors, licensed plumbers, and licensed septic installers. These programs often run as cost-share programs, reimbursing part or all of a homeowner's cost of connecting to the sewer system and decommissioning any on-site waste disposal method. Potential sources of matching funds, depending on the program's cost-share structure, include tap-on fee donations, homeowner contributions, and financial contributions from local government agencies.

Chestnut Creek Homeowners Assistance Program

The Friends of Clarks River National Wildlife Refuge (Friends of Clarks River) group, partnered with the Marshall County Conservation District, Murray State University, U.S. Fish and Wildlife Service, and Third Rock Consultants to create the Chestnut Creek Watershed Plan and address the limited access to sewer and waste disposal for residence of the watershed in 2012. Using 319(h) Grant funds, the Chestnut Creek Watershed Plan was completed and accepted in 2015. Addressing failing on-site wastewater systems and applying agricultural BMPs was recognized as priorities. Since then, implementation has focused on connecting homeowners to the city's sewer lines as the urban area expands, using a homeowners assistance program to help with the high cost associated with sewer connections and septic decommission. In addition, homeowners that could not be connected to the new sewer lines were able to obtain funding for septic repairs and replacements or be placed on a waitlist for future implementation. The Friends of Clarks River have continued to apply for implementation funding consecutively.

In FFY2014, Friends of Clarks River received 319(h) Grant funds to start implementation and hire a watershed coordinator. Chestnut Creek Watershed Based Plan Implementation (14-06), developed a HAP sewer connection program with a 75/25% cost share and additional funding for four septic replacements, and applied BMPs such as a grassed waterway, three stream crossings, a driveway culvert addition and reconstruction, and a rain garden.

The watershed coordinator for Chestnut Creek (17-14) and the Chestnut Creek Implementation II project (22-07) were awarded grant funds to continue and extended the previous HAP sewer connection program with a 75/25 cost share and water outreach and education. In addition, project 17-14 funded eight septic pump outs, exclusion fencing, and added alternative water sources. Working with the Sanitation District #2, the Marshall County Health Department, and the Marshall County Fiscal Court for grant match and support, Chestnut Creek Implementation II (22-07) funded nine HAP sewer connections to the newly placed sewer lines, and supplied additional funding for 16 septic pump outs, four septic installations, and two streambank crossings.

The Chestnut Creek HAP III (23-09) was granted funding in FFY 2023 and continued the previous HAP sewer connection program at a 90/10 cost share split and funded septic implementation within the watershed. During FFY 2025, Chestnut Creek HAP III (23-09), completed four septic repairs, five septic replacements, and two sewer connections. The Friends of Clarks River is predicted to continue seeking funding as the city expands the sewer lines for the area.

Lincoln County HAP

The Hanging Fork Watershed Plan was developed by the Dix River Watershed Council and Third Rock Consultants and completed in 2009. The watershed plan identified fecal bacteria from failing on-site septic systems as a primary pollutant and the focus for plan. The Lincoln County Sanitation District secured funding from the Clean Water State Revolving Loan Program to provide the community with a sewage treatment system serving over 600 residences. In 2016, the Lincoln County HAP Phase 1 (16-08) project was funded by the 319(h) grant to financially assist 289 homeowners with the new sewer connection cost.

The Lincoln County HAP Phase Two (22-06) program was funded by a FFY 2022 319(h) grant to educate and financially support homeowners with the implementation of the new county sewer ordinance that mandated homes within 200 feet of the new sanitary sewer line be connected to the system. The HAP provided an 80/20 or 90/10 sewer connection cost share allowance. In total, 115 connections were completed, and 1 septic system was decommissioned.

Severe Erosion Drone Surveys

Hardy Creek Erosion Surveying

In FFY 2025, the division Drone Team continued to use drones to conduct Severe Erosion Surveys (SES) in the Hardy Creek watershed as a part of their watershed planning process. The main objective of SES is to identify environmental problems within the stream corridor that cannot easily be seen at ground level. The team selected sites of potential erosion issues (Figure 19) by highlighting the height differences in raster data from 2012 and 2020. Drones are used to capture high-quality imagery with geographic coordinates and use them to create orthomosaics of these areas. An orthomosaic is a series of images that have been orthorectified, or spatially corrected, using embedded locational and sensor data. This highly efficient process allows the team to survey more sites than before, and includes communication with partners, desktop reconnaissance, site assessment, drone flights, and a final report.

The resulting report provides a list of the areas where various problems exist within the watershed, as well as the severity and estimated ease of correcting the problem. This will provide a framework for future sampling and erosion control as well as an opportunity to educate the community about BMPs for sediment control. In addition to the report, this year the team procured a 3D printer and used the drone data to print a 3D model of the watershed. This model (Figure 20) was printed in three parts to represent the sub-watersheds (HUC 14s) and was painted to easily see the topography, offering a hands-on educational opportunity for community members.

Formalizing the Process

Due to the increase in drone surveying needs, this year the team created a SharePoint Home page for internal usage that includes a request form, calendar, library, data, and viewers (Figure 21). This has created a workflow for the requestor and the Drone Team member:

1. The requestor submits a "Request a Drone or Bathymetry Mission" survey
2. The Drone Team is assigned the mission and schedules it on the calendar
3. The Drone Team plans the flight mission using a flight planner and investigates flight conditions
4. A team member submits the "Equipment Checkout Survey" to reserve the necessary equipment
5. The Drone Team flies the planned mission if conditions allow or reschedules
6. A team member submits the "sUAS Flight Missions" upon completion of the mission which is displayed on the "Drone Dashboard"
7. The Drone Team processes and uploads the data to Site Scan and/or Hypack
8. The requestor is notified of completion via an automated email and given access to data

Thermal Drone Imagery

Another improvement in the drone program in FFY 2025 was the procurement of the Autel EVO2 640T Drone, which has both RGB and thermal cameras. This drone takes pictures using both cameras and measures the temperature of the surface as it goes. The resolution for the thermal camera is enough to detect differences in temperature as low as 2 degrees F. The team first piloted this technology along Elkhorn Creek in Georgetown Kentucky. The objective of the pilot study was to determine a difference in temperature of the creek water versus spring water that feeds into the main stem (Figure 22). The team took readings at six different locations with the drone and with probes to compare data and found that the drone was highly accurate and was within 1 degree F of the probe readings.

Future plans include using the drones to find leaks in water supply systems and septic systems, starting with septic systems in Franklin County. The team anticipates being able to see the leaks due to the differences in soil temperature measured by the thermal camera and the differences in plant health measured by the multispectral camera. Next, the team will fly the thermal drone alongside their erosion surveying in Hardy Creek, specifically where there are trailer homes in the floodplain of the creek that community members have expressed concerns about onsite waste issues. The Hardy Creek watershed planning effort will directly benefit from the formalized process, erosion surveying, and thermal surveying done by the Drone Team, resulting in a more robust plan that addresses the erosion and sewage concerns voiced by the community.



Figure 20. Severe Erosion Study map of Hardy Creek. Sites were selected based on desktop investigations, local interest, and water quality sampling sites.

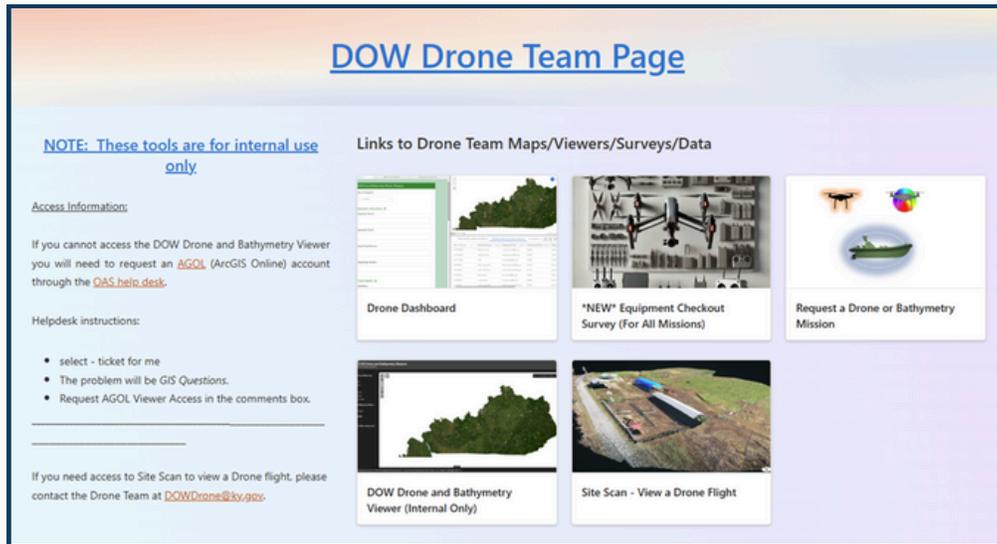


Figure 21. The Drone Team's new Home Page houses all the forms, dashboards, and collected data.

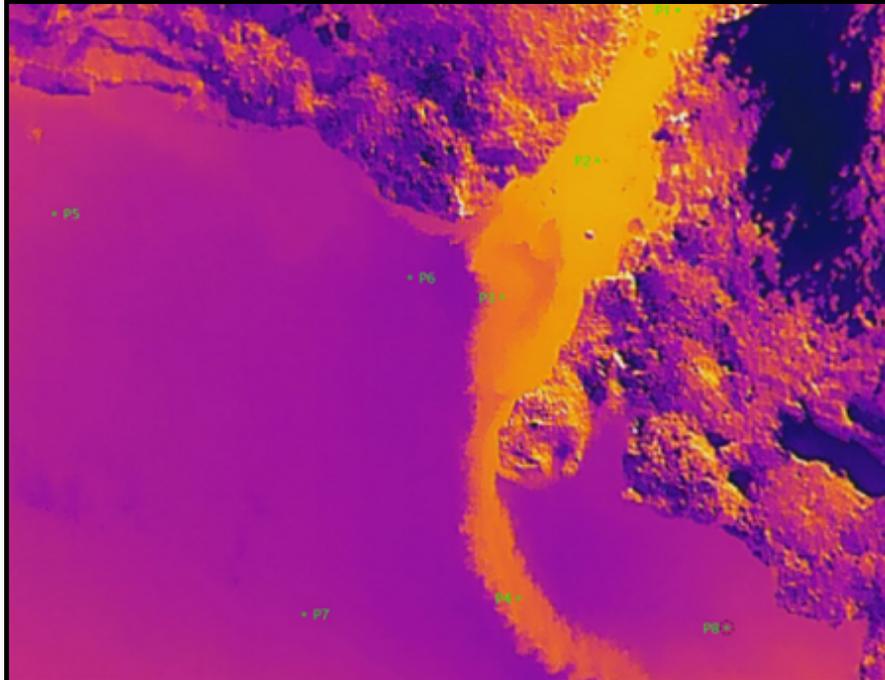


Figure 22 Thermal Imagery taken of a spring flowing into Elkhorn Creek, the spring water is significantly warmer than the creek water and can be seen on the imagery as bright orange in contrast to the purple of the colder water.

Mapping Resources

The division has a tremendous amount of data for streams, rivers, lakes, springs, and groundwater across the state, but it can be cumbersome and difficult for interested parties to use and analyze. The division has continued to update the data resource tools to better communicate data and assist with the 319(h) Grant Program.

Water Health Portal 2.0

The Water Health Portal is a one stop shop for all of Kentucky's water health information. This viewer provides the status of surface water uses for all assessed streams, springs, and lakes. From swimming, to fishing, to drinking water use, this viewer provides detailed information in an easily accessible format (Figure 23).

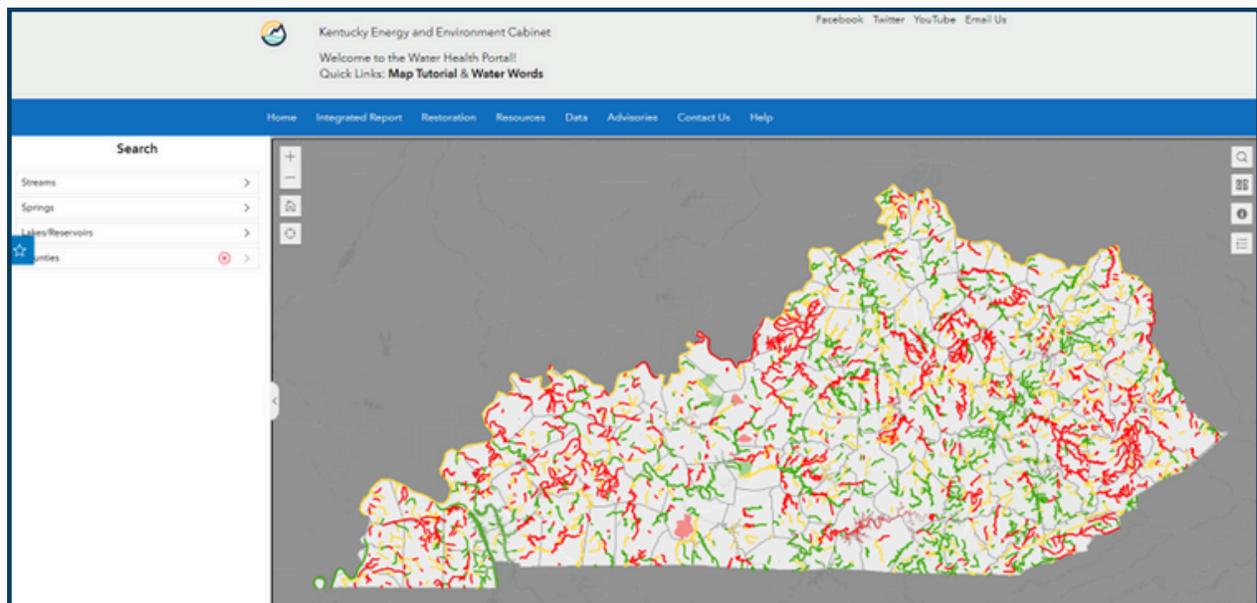


Figure 23. Water Health Portal landing page.

The WHP also identifies Kentucky Outstanding State Resources Waters (OSRW) and connects to studies and reports on various streams. Each assessed segment includes an Assessment Unit Summary which provides additional details on the assessed designated use, county, assessment date, and description (Figure 24).

Assessment Unit Summary

- **Unit Name:** Rolling Fork 40.7 to 53.6
- **AU ID:** KY-2859
- **Description:** Pottinger Creek to 0.8 River Mile Upstream of KY-84 Stiles Road/Howardstown Road
- **County:** Nelson, Larue
- **Overall Category:** 2
- **Assessment Date:** 12/16/2019









 **Warm Water Aquatic Habitat is full support, category 2**

Basis for Listing: Designated use found to be fully supporting, basis for listing is not applicable.

Monitoring:

- **Data Types:** Biological
- **Sampling Date:** 06/09/1999
- **Programs:** Intensive Surveys - Third Party

 **Primary Contact Recreation is not assessed, category 3**

 **Secondary Contact Recreation is not assessed, category 3**

 **Fish Consumption is not assessed, category 3**

 **Domestic Water Supply is not assessed, category 3**

 **Outstanding State Resource Water is not applicable**

Figure 24. Assessment Unit Summary from the Water Health Portal.

319 Grant Reporter

The online 319 Grant Reporter is a mapping and report-generating program that allows users to search for their watershed of interest and identify information necessary for 319(h) Grant funding applications. Users will be able to search for their watershed using stream name, county, hydrologic unit (HUC), or by scrolling to its location (Figure 25).



Figure 25. 319 Grant Reporter landing page

Once the correct watershed is selected, users will know in which major river basin it is located, whether it has been assessed to meet its designated uses, has a Total Maximum Daily Load Allocation (TMDL), is located in a Source Water Protection Zone (SWPP), or has any assigned special designations such as OSRW or a Priority Watershed. Users can download and print a copy of the report and attach it to the 319(h) Grant application or use it for any other purpose. The 319 Grant Reporter is in the process of being moved to Arc Experience Builder and a new version is expected to be revealed in the winter of 2025/2026.

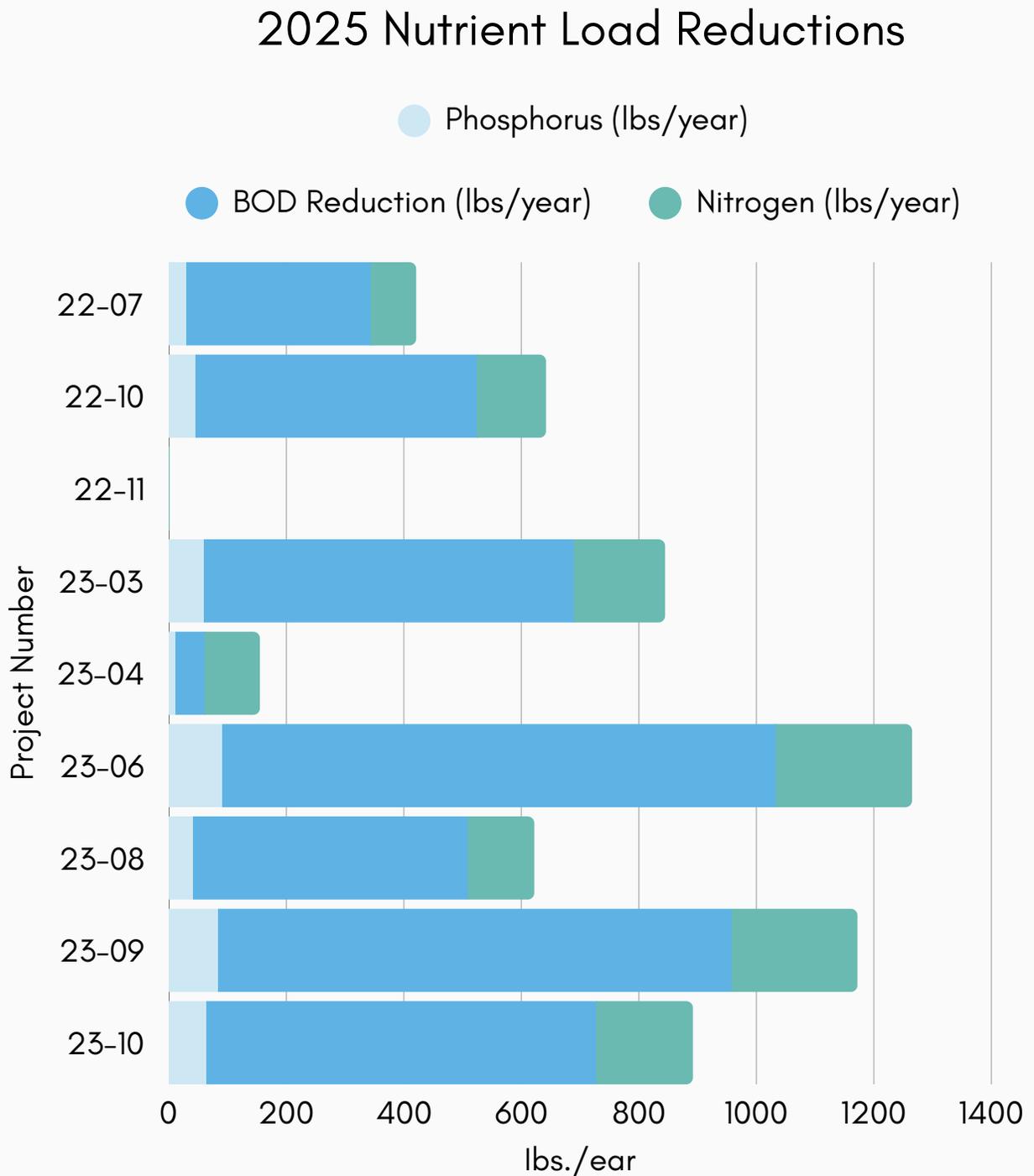
For more information about the 319(h) Grant Program please check out the Kentucky Division of Water's 319(h) Grant Program Funding page.

NPS LOAD REDUCTION REPORT TABLES AND GRAPHS

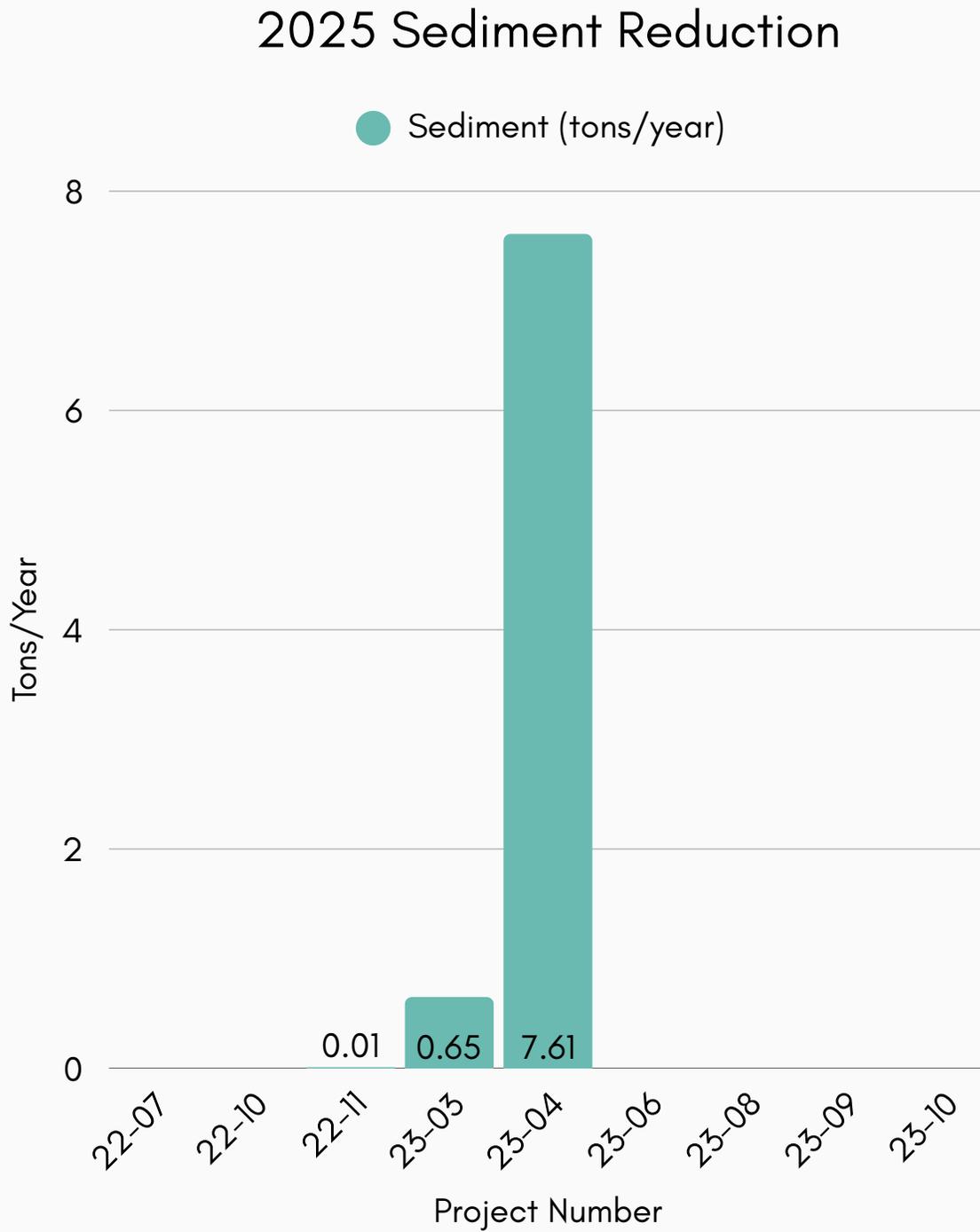
Table 4. 2025 Load Reductions

Award Year	State Project Number	Project Title	Load Reductions				
			Nitrogen (lbs/year)	Phosphorus (lbs/year)	BOD Reduction (lbs/year)	Sediment (tons/year)	E.coli (CFU/year)
2022	22-07	Agriculture/Watershed Coordinator for Chestnut Creek HAP	77	30	314	0	823000000
2022	22-10	South Fork of Little River Watershed Based Plan Implementation Phase 2	117	46	479	0	325000000
2022	22-11	Basin Design, Retrofit, and Education Project North Fork Curry's Fork Subwatershed	0.21	0.04	1.2	0.01	0
2023	23-03	KWA Community Action for Clean Water (Mini-grants)	155.08	60.41	629.15	0.65	270000000
2023	23-04	Upper Buck Creek Watershed Project	94	12	49	7.61	157000000
2023	23-06	Continued Banklick Watershed Plan Implementation	231	91	943	0	514000000
2023	23-08	Redbird River Septic and Education Project	112	42	468	0	258000000
2023	23-09	Chestnut Creek HAP	214	84	874	0	106000000
2023	23-10	Hinkston Creek Watershed Improvement Plan	163	64	665	0	123000000

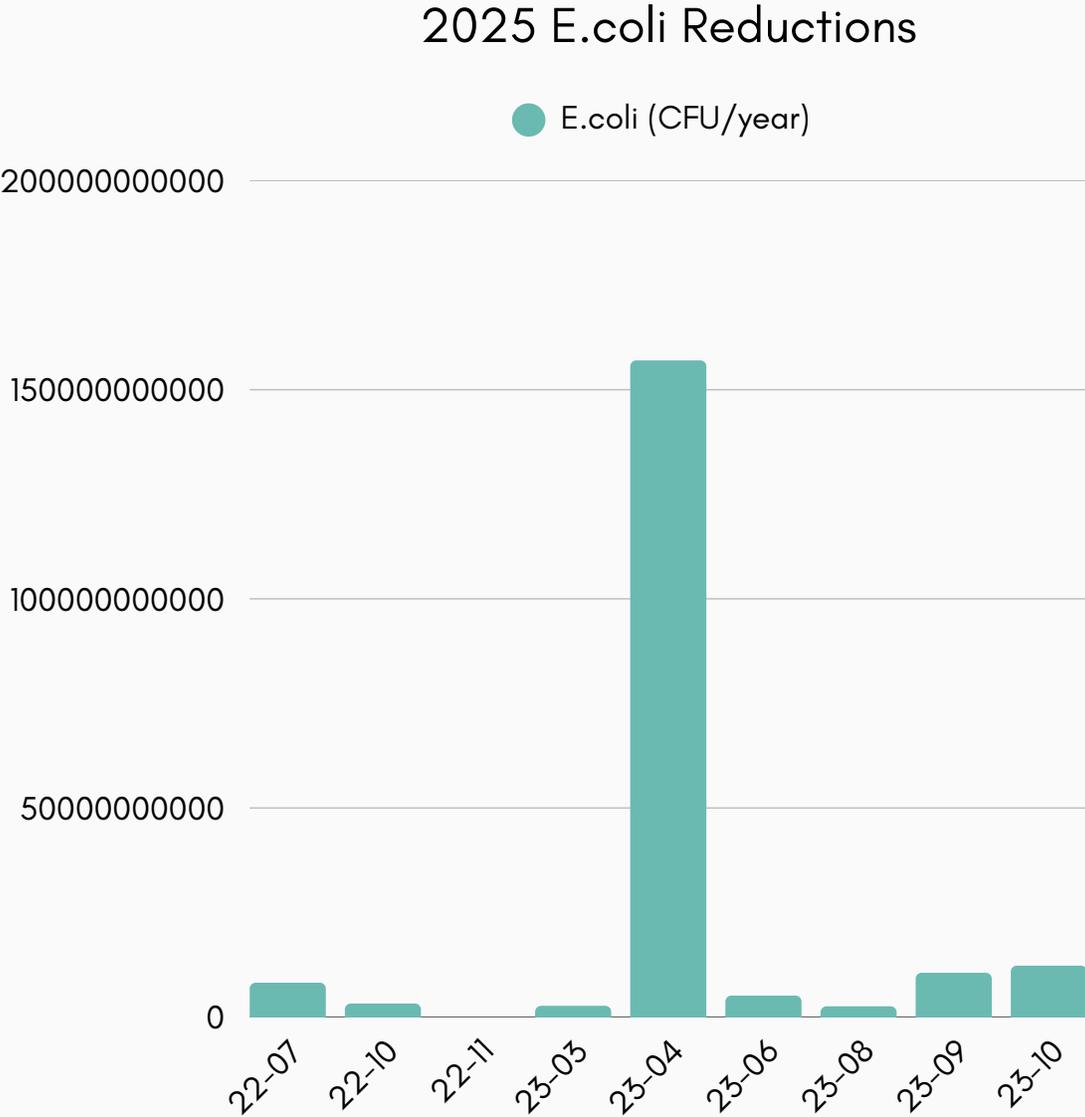
Graph 1. 2025 Nutrient Load Reductions



Graph 2. 2025 Sediment Reduction



Graph 3. 2025 E.coli Reductions



NPS GOALS AND COMMITMENTS TABLES

Long Term Goal 1 Restore Nonpoint Source Impaired Waters			
Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 1 Prioritize watersheds for restoration potential.	Utilize EPA Recovery Potential Screening Tool to select watersheds for implementation, within existing watershed planning areas.	Number and list of watersheds identified as recoverable within areas of watershed plans.	In FFY2025, DOW completed refining the RPST with Kentucky specific metrics and compiled the resulting recoverable watersheds into a "Pathogen-Impaired Watersheds Selected for Recovery Potential" Report that identified 47 watersheds. Of these watersheds three are within watershed planning areas: Sulphur Creek-Chaplin River, Bear Creek- Red Bird River, and Hector Branch- Red Bird River. The two watersheds in Red Bird River are receiving targeted implementation via 319(h) Projects. Additionally, areas within Levisa Fork, Goose Creek, and Rockcastle were identified as recoverable and there are discussions of watershed planning in those areas.
		Number and list of recoverable watersheds receiving targeted implementation.	
Objective 1 Prioritize watersheds for restoration potential.	Utilize EPA Recovery Potential Screening Tool to identify 303(d) listed impaired watersheds that have a high potential of showing measureable water quality improvement after targeted implementation	Number of watersheds identified as recoverable for pathogens.	In FFY2025, DOW completed refining the RPST with Kentucky specific metrics and compiled the resulting recoverable watersheds into a "Pathogen-Impaired Watersheds Selected for Recovery Potential" Report that identified 47 watersheds. Of these watersheds three are within watershed planning areas: Sulphur Creek-Chaplin River, Bear Creek- Red Bird River, and Hector Branch- Red Bird River. The two watersheds in Red Bird River are receiving targeted implementation via 319(h) Projects. Additionally, areas within Levisa Fork, Goose Creek, and Rockcastle were identified as recoverable and there are discussions of watershed planning in those areas.
		Number of recoverable watersheds receiving targeted implementation.	
Objective 2 Monitor and assess Kentucky's waters.	Conduct monitoring and perform assessments of Kentucky's waters in conjunction with the watershed framework.	Number of stream miles assessed.	Kentucky's 2025 305(b) list has 3,168 assessment units, representing 13,691.8 river miles, 213,075 lake/reservoir acres, and 192,514 springshed acres.
		Number of stream miles impaired by NPS pollution.	Of the 3,168 assessment units on the 2025 305(b), 2,154 assessment units are impaired for at least one designated use. Broken down by waterbody type, 2,071 rivers/streams are impaired totaling 9,552.8 river miles.
		Number of pollutant/waterbody combinations impaired by NPS pollution.	The 2025 303(d) has 3,070 pollutant-waterbody combinations in need of a TMDL.
	Conduct monitoring and perform assessments of targeted watersheds for the development of new watershed plans or to revise existing plans.	Number of stream miles with assessments completed in preparation for watershed plan development or improvement.	Approximately 69.25 miles of streams were assessed for watershed plans as part of the 2024 Integrated Report. Updated assessed mileage will be presented upon completion of the next Integrated Report.
Number of streams with monitoring being conducted in preparation for watershed plan development or improvement.		During FFY2025, DOW staff or contractors conducted water quality monitoring in 11 watershed in preparation for developing or amending watershed plan: Hardy Creek, Beargrass Creek, Upper Buck, Limestone and Kennedy Creeks, Montgomery Creek, West Fork Red River Whippoorwill Creek, Dry Fork, Pleasant Grove Creek, Wolf Run.	

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 2 Monitor and assess Kentucky's waters cont.	Conduct monitoring and perform assessments of watersheds targeted through the Division of Water's Success Monitoring Program.	Number and list of streams prioritized through the Division's Success Monitoring program with completed assessments.	In 2025, six previously assessed streams were prioritized for Success Monitoring based upon collaborative planning between Kentucky and Tennessee in the Red River watershed. The data collected in 2025 are intended for assessment in a future IR cycle. The individual streams, including assessment unit river miles are listed: West Fork Red River (14.65-26.8), Montgomery Creek (0.0-11.1), West Fork Red River UT 0.6 (0.0-5.9), Whippoorwill Creek UT (0.0-1.2), Dry Fork (0.0-7.3), Whippoorwill Creek (0.0-13.25), Pleasant Grove Creek (0.0-2.3)
		Number and list of streams that have a documented change in use support awaiting EPA approval.	For FFY2025, there are no streams awaiting EPA approval for a documented change in use support.
		Number and list of streams that have a documented delisting approved by EPA.	During the FFY2025 cycle, EPA approved the removal of 32 pollutant-waterbody combinations from the 303(d) list that have been attributed to the applicable water quality standard being attained based on new data (an additional 103 delistings are due to a clarification of listing cause or address prior listings where the original basis for listing was incorrect): Bark Camp Creek, Beaver Creek, Brush Creek, Caney Creek, Clear Creek, Crooked Creek, Dennis O'Nan Ditch, Drakes Creek, East Fork Beech Fork, Fleming Creek, Green River, Guist Creek Lake, Halls Creek, Levisa Fork, Little Barren River, Little Beaver Creek, Metropolis Lake, Pennsylvania Run, Renfro Creek, Silver Creek, South Fork Panther Creek, Three Forks Creek, Tradewater River, Upper Jacks Creek
	Continue to implement a Division level watershed Success Monitoring Program.	Maintain and continue to update GIS layers for BMP implementation tracking tool.	Spreadsheets of on the ground BMP implementation data is compiled from internal and external state and federal agencies at least annually. GIS coverages were completed in 2019 and are updated with continuing implementation and used to evaluate potential for changes in watershed status.
		Number of watersheds identified as needing success monitoring.	For FFY2025, DOW monitoring was conducted in one watershed identified as needing baseline data for watershed planning or success monitoring: Lower Howard Creek.
		Conduct annual meeting to coordinate locations appropriate for success monitoring within the watershed framework.	DOW staff is actively conducting meetings with NRCS, KY Division of Conservation, and the Division of Abandoned Mine Lands to gather information about on the ground BMP implementation as well as coordinating locations for program effectiveness or success monitoring. Additionally, internal DOW meetings are regularly being held to develop success monitoring program annual monitoring targeted watersheds.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 2 Monitor and assess Kentucky's waters cont.	Conduct post-BMP implementation Water Quality Monitoring for National Water Quality Initiative (NWQI) watersheds.	Evaluate NWQI watersheds annually to determine needs, and design success monitoring plan as appropriate.	NRCS did not designate any new NWQI watersheds for FFY2025. DOW and NRCS are working to identify watersheds for success monitoring where NWQI investments are sufficient to influence local water quality. In 2025, NRCS requested approval from DOW to discontinue implementation in the first NWQI watershed restarted in 2021 (Clarks River) due to lower than anticipated participation. Available resources will be re-allocated to needs in other NWQI and MRBI watersheds.
		Implement NWQI success monitoring as needed.	DOW is working with NRCS to evaluate the scale of implementation in NWQI watersheds such as Clarks Creek, Canoe Creek, and Upper Nolin River. NRCS has indicated that additional implementation in these NWQI watersheds will be required before success monitoring would be appropriate.
		Compile water quality data for trend analysis in NWQI watersheds as needed.	DOW provided extensive water quality data and supporting documentation to NRCS for the proposed 2025 NWQI planning year watersheds, which were not ultimately approved by NRCS leadership. DOW provided information on water quality conditions and watershed characteristics.
		Number of NWQI BMPs per selected HUC 12.	DOW has not received information about BMPs implemented in NWQI watersheds. DOW did work with NRCS to quantify BMP installation in NRCS source water priority protection areas (SWPPA), which indicated over 27,000 practices on over 700,000 acres from 2020-2024.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 3 Implement the Nonpoint Source component of Approved TMDLs of restoration strategies in prioritized impaired watersheds.	Coordinate with the Division's TMDL Program to implement the nonpoint source pollution component of approved TMDLs in areas with approved watershed plans	Coordinate with the Division's TMDL Program to implement the nonpoint source pollution component of approved TMDLs in areas with approved watershed plans.	The Watershed Management Branch, including Nonpoint Source met consistently with the Water Quality Branch, including the TMDL section. These meetings set goals for the year and created smaller working groups to accomplish those established goals. The NPS program continues to work closely with the TMDL program to identify TMDL Alt areas.
		Number of sub-grantee projects implementing BMPs in watersheds with approved TMDLs.	In FFY2025 four (4) watersheds with implemented BMPs have individual TMDLs: Chestnut Creek, Currys Fork, South Fork Little River, Upper Straight Creek,. Two (2) watersheds with implemeneted BMPs have statewide TMDLS: Red Bird River, Hinkston
	Coordinate with the Division's TMDL program to prioritize, develop, and/or implement TMDL Alternative Plans.	Number and list of watersheds prioritized for TMDL Alternative Plan development.	Sanitation District 1 in Northern Kentucky continues to work with DOW to complete an Alternative Restoration Plan for the Woolper Creek watersheds. Woolper Creek watershed has an EPA accepted watershed plan. Two (2) additional watersheds are being considered for potential TMDL Alternative Plan development: McDougal & Castleman Creek, and North Fork Kentucky River (Whitesburg tributaries). McDougal & Castleman Creek and North Fork Kentucky River have accepted watershed plans.
		Number and list of watersheds with approved TMDL Alternative Plans.	Currently the state of Kentucky has completed four (4) TMDL Alternative Plans: Sulphur Creek, Gunpowder Creek, Threemile Creek, and Banklick Creek.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 4 Implement restoration strategies for prioritized impaired watersheds that will result in measurable water quality improvements.	Continue development and implementation of accepted watershed plans.	Number and list of watershed plans currently under development.	During FFY 2025, DOW worked with contractors toward development of eight additional watershed plans: Bee Creek, Clayton Creek, Glenns Creek, Hardy Creek, Jennings Creek, Lake Linville, Lower Pitman Creek, Upper Paint Lick Creek. Glenns Creek has been submitted and is currently under EPA review.
		Number and list of watershed plans approved by EPA Region 4 for implementation.	During FFY2025, DOW had 31 watershed plans accepted by the EPA: Bacon Creek, Banklick Creek, Brushy Creek, Cane Run, Chestnut Creek, Clark's Run- Dix River, Corbin City Reservoir, Curry's Fork, Damon Creek, Darby Creek, Dry Creek, Gunpowder Creek, Hancock Creek, Hanging Fork- Dix River, Hinkston Creek, Lower Howards Creek, McDougal & Castleman Creeks, Middle Fork Beargrass Creek , North Fork Kentucky River, Pleasant Run, Red Bird River, Red River Gorge, Rock Creek, South Fork Little River, Stockton Creek, Sulphur Creek, Ten Mile (Eagle Creek), Triplett Creek, West Hickman, Wolf Creek, Woolper Creek
		Number and list of watershed plans approved by EPA Region 4 for implementation actively being implemented.	During FFY2025, DOW had 11 watershed plans approved by EPA Region 4 for implementation actively being implemented: Beargrass Creek, Banklick Creek, Cane Run, Chestnut Creek, Curry's Fork, Hinkston Creek, Red Bird River, South Fork Little River, Wolf Run, Whitesburg, Red River Gorge
	Work to develop local capacity and implement actions necessary to address the pollution in prioritized watersheds.	Number of active watershed groups.	During FFY2025, there have been approximately 83 organizations involved in developing, implementing, or supporting watershed programs and activities. The river basin coordinators are actively working to support and coordinate with these groups and continue to increase new group interest in water quality.
		Number of partner and/or stakeholder meetings attended.	NPS personnel attended approximately 265 partners meetings in FFY2025.
	Objective 5 Decrease input of pollutants from agricultural sources.	Support projects that educate the agricultural community.	Number of sub-grantee projects with an agricultural BMP demonstration event or educational component.
Provide financial and technical support to educate producers about the Agriculture Water Quality Act and nutrient management strategies.			Staff attended 4 quarterly AWQA meetings during FFY2025; 8/22/24, 11/21/24, 2/6/25 and 5/8/25. DOW had two projects focused on nutrient management and support for agricultural producers and landowners; UK CES (23-02), UK CES (24-02).
Provide financial and/or technical support for the implementation of BMPs that reduce nonpoint source pollution from agricultural sources.		Number of sub-grantee projects implementing BMPs to address agricultural sources of nonpoint source pollution.	During FFY2025, DOW had one projects implement BMPs to address agricultural sources of NPS pollution: Upper Buck (23-04)

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 5 Decrease input of pollutants from agricultural sources cont.	Coordinate with NRCS and KY Division of Conservation to implement BMPs.	Coordinate with KY DOC to fund BMPs in priority watersheds.	We are currently coordinating with KY DOC for flood mitigation efforts of agriculture land in Daviess County
		Coordinate with NRCS to fund BMPs in priority watersheds.	The Upper Buck Creek (23-04) and Red River Gorge (24-10), projects coordinate with NRCS to fund BMPs in their respective river basins. DOW also coordinates with NRCS in the Lake Linville, Renfro Creek, and Roundstone Creek priority watersheds to fund BMPs. We are currently coordinating with NRCS in the Licking Basin for community flood mitigation, using their Wetland Reserve Easment (WRE) practice. Wetlands are showing (modeling numbers) a great possibility for community flood mitigation practices.
	Coordinate with NRCS to identify and prioritize NWQI watersheds.	Number of NWQI watersheds identified.	NRCS didn't designate any new NWQI watersheds in Kentucky for the FFY2025 year. Work continues in the existing watersheds of Little River, Nolin River and Canoe Creek.
	Participate in state wide meetings and conferences that have a focus on Agriculture and Water Quality	Attend two (2) USDA NRCS State Technical meetings per year. Track number attended.	DOW attended the four USDA NRCS State Technical Committee meeting scheduled during the FFY2025 year.
		Participate in the four (4) quarterly Kentucky Agriculture Water Quality Authority Meetings per year.	The Kentucky Agriculture Water Quality Authority met four times this year and Division of Water staff attended each meeting.
		Participate in the Kentucky Agriculture Science and Monitoring Committee meetings.	DOW participated in all scheduled KASMC meetings in FFY2025.
		Number of staff attending agriculture related technical training.	NPS personnel attended agriculture related trainings/webinars including events such as: NACD U&C webinar- Edible Ecosystems: The science and soil of food forests OAK webinar: Small spaces, whole ecosystems: Conservation on small-scale and urban farms, OAK Field Day- Conservation on an Urban Farm, USDA Agricultural Outlook Forum webinar
		Present information or a booth at one (1) agriculture related event each year.	NPS personnel presented information at the following agriculture related events in FFY 2025: NACD U&C Webinar- Edible Ecosystems: The science and soil of food forests OAK Webinar: Small spaces, whole ecosystems: Conservation on Small-scale and Urban Farms, OAK Field Day- Conservation on an Urban Farm EEC Information Booth- KY State Fair, Carter Co. Farm & Family Day, OCCD Field Day.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 6 Decrease input of pollutants from developed lands.	Provide financial and technical support for the implementation of green infrastructure (GI), low-impact-development (LID), and stormwater management BMPs.	Number of sub-grantee projects implement GI, LID, and/or stormwater management BMPs.	During FFY2025, DOW had six projects implementing GI, LID, and/or stormwater management BMPs. Projects were selected that either implement or are creating designs for these BMPs: Banklick (23-06), Wolf Run (23-07), Whitesburg Tributaries (24-06), Mt. Sterling-Hinkston Creek (24-07), Curry's Fork Basin (24-08), and Middle Fork Beagrass Creek (24-09)
		Attend a minimum of one (1) stormwater management training event per year.	NPS staff attended and presented at the Kentucky Stormwater Association (KSA) Annual Conference in FFY2025. This conference serves as a forum for information and technology transfer with regards to GI practices, general stormwater management strategies, and MS4 program implementation. NPS personnel also attended KSA quarterly meetings as they occurred and participated in various stormwater focused trainings and webinars.
	Coordinate with Kentucky Emergency Management to incorporate GI, LID, and/or stormwater management BMPs that address nonpoint source pollution into the State Hazard Mitigation Plan.	Participate in "Incorporating Green Infrastructure and Low Impact Development into State Hazard Mitigation Plan" grant project.	NPS staff attended and presented at the Kentucky Stormwater Association (KSA) Annual Conference in FFY2025. This conference serves as a forum for information and technology transfer with regards to GI practices, general stormwater management strategies, and MS4 program implementation. NPS personnel also attended KSA quarterly meetings as they occurred and participated in various stormwater focused trainings and webinars.
		Number of NPS BMPs included in the State Hazard Mitigation Plan.	As of FFY2025 no NBS recommendations were integrated into the State Hazard Mitigation Plan; however, NPS staff presented Nbs for flood mitigation at the annual KAMM conference and are making inroads with key partners to add NBS as a part of the flood mitigation strategy in our SHMP.
		Provide updated GIS resources to KAMM program annually.	GIS layers are updated annually. NPS staff presented at the 2025 KAMM Annual Conference on using Nature-based Solutions for Flood Mitigation and Building partnership toward multi-state planning.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 6 Decrease input of pollutants from developed lands cont.	Support Kentucky's MS4 program.	Number of Kentucky Stormwater Association meetings attended.	In FFY2025, NPS staff presented at one Kentucky Stormwater Association quarterly meeting, and presented at the 2025 KSA Annual Conference.
		Provide technical and/or educational support to MS4 communities.	In FFY2025, NPS and Basin Team continued their partnership with the MS4 program to develop NPS-related support materials. Partnership examples include: general education on MS4 practices and planning for MS4 education and outreach materials. In addition, Planning efforts between DOW's NPS Program and the KSA Board are underway to develop a strategic plan for using 319(h) funding to increase the effectiveness of local stormwater programs on a statewide basis. NPS personnel normally seek ways to support MS4 communities in meeting their MCM 1 and 2 goals by providing environmental education material and support for field days and events.
		Provide technical and/or educational support for the DOW MS4 program.	NPS personnel and DOW MS4 program are in regular communication to establish methods of supporting Kentucky's MS4 communities.
		Provide updated GIS resources to MS4 program annually.	GIS layers are updated annually and are available by request from DOW.
Objective 7 Preserve the critical ecosystem functions which forestlands provide and reduce NPS pollution resulting from forestry related activities.	Support watershed projects that focus on sustainable forestry management with water quality being the primary concern.	Number of sub-grantee projects that incorporate forest management BMPs to protect water quality.	During FFY2025, DOW had the following projects implementing forest management BMPs: Banklick (23-06), Red River Gorge (24-10)
		Attend at least one (1) Forest Conservation Act BMP Board meeting per year.	The KFCA Board did not hold a meeting in FFY2025.
	Work with partners to protect and enhance forestlands for the purposes of protecting or restoring water quality, water supply, and aquatic habitat.	Provide technical and/or educational support for Forest Conservation Act BMP implementation.	The University of Kentucky Forestry Extension is distributing and training on the updated KY Forestry BMP Field Guide that was completed in FFY 2018. DOW also provides support through maintenance of the Special Use Waters interactive map, which shows waters of special concern for logging operations.
		Number of active partnerships working on forestry related projects to reduce NPS pollution in Kentucky.	The NPS section is actively working with partners on forestry related issues including the University of Kentucky Department of Forestry and Natural Resources, the Office of State Nature Preserves, the US Office of Surface Mining Reclamation and Enforcement's Appalachian Regional Reforestation Initiative, Daniel Boone National Forest, and the Kentucky Woodland Owners Association. The NPS section is working with partners on forestry related projects including: Red River Gorge Septic & Ed (24-10), Whitesburg (24-06)

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 8 Protect and monitor Kentucky's groundwater.	Provide technical and/or financial support for the assessment of groundwater impacts from nonpoint source pollution.	Number of springs sampled.	In FFY 2025, 30 springs were sampled.
		Number of groundwater samples collected for E. coli.	Zero groundwater samples were collected for <i>E.coli</i> in FFY2025.
		Number of groundwater samples collected for pesticides.	in FFY2025, 93 groundwater samples for pesticides were collected.
	Provide technical and/or financial support for groundwater protection plans (GPP).	Number of GPP field reviews conducted.	Four field reviews were conducted in FFY2025.
		Number of GPPs approved.	In FFY2025, 70 GPPs were approved.
	Objective 9 Decrease nonpoint source pollution from onsite wastewater sources in Kentucky's water bodies.	Provide financial, technical, and/or educational support to projects that decrease the negative impacts on water quality from sewage	Number of sub-grantee projects that implement the onsite wastewater components of an accepted watershed plan.
Number of sub-grantee projects with an educational component for onsite wastewater treatment.			During FFY2025, DOW had six projects with an educational component for onsite wastewater treatment: Kentucky Watershed Network Mini-Grants (23-03), Banklick (23-06), Red Bird River Septic(23-08), Chestnut Creek HAP (23-09), Hinkston Creek (23-10), South Fork Little River (22-10)
Coordinate with partners to decrease impacts from onsite wastewater.		Number of partner meetings attended.	NPS personnel attended six partner meetings to decrease impacts from onsite wastewater.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 10 Protect and restore waters at risk from recreational impacts.	Provide technical and/or financial support for Kentucky's Volunteer Lakes Monitoring Program (for the identification of harmful algal blooms (HABs).	Number of active volunteers.	DOW currently has 56 active volunteers monitoring lakes across the state.
		Number of volunteers receiving trainings.	DOW held seven lake training workshops in the reporting period with 21 new volunteers trained.
		Number of sites sampled.	For FFY2025, there were 294 lake monitoring reports submitted in this reported.
	Provide technical and/or financial support for projects that implement BMPs in watersheds with recreation use impairments.	Number of sub-grantee projects implementing BMPs in watersheds with recreation use impairments.	During FFY2025, DOW had eleven projects implementing BMPs in recreation-impaired watersheds: South Fork Little River (22-10), Banklick (23-06), Wolf Run (23-07), Red Bird River (23-08), Chestnut Creek (23-09), Hinkston Creek (23-10), Whitesburg (24-06), Mt. Sterling/Hinkston Creek (24-07), Curry's Fork (24-08), Beargrass Creek (24-09), Red River Gorge (24-10)
	Provide technical and/or educational support for Harmful Algal Bloom issues.	Number of meetings and/or technical support provided .	NPS personnel are actively engaged in internal and external efforts to address Harmful Algal Blooms. Within the Division, staff coordinate with the Water Quality Branch to provide coordination with local volunteer monitors to address identification, reporting, and safety issues with HABs. NPS personnel continue to collaborate with the creators of the BloomWatch App to roll out the app to volunteer monitors in the Commonwealth through Watershed Watch in Kentucky's Lakes Monitoring Program. The NPS Section also hired a summer intern who designed and ran HAB focused outreach that was distributed via social media and newsletter for the Volunteer Lake Monitoring Program.
Objective 11 Decrease nonpoint source pollution from resource extraction.	Provide technical and/or financial support for reducing nonpoint source pollution due to resource extraction activities.	Coordinate with the KY Division of Abandoned Mine Lands to prioritize restoration of acid mine drainage sites on a statewide basis and within watershed planning areas.	DOW Staff are actively coordinating with the KY Division of Abandoned Mine Lands to target implementation of AMD sites on a statewide basis and within watershed planning areas.
		Number of sub-grantee projects implementing BMPs in areas with resource extraction activities.	In FFY2025, there were no active projects implementing BMPs in resource extraction areas. DOW staff are working to build capacity for implementation in areas affected by resource extraction.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 12 Decrease the negative impacts of excessive sedimentation in Kentucky's Streams.	Provide financial, technical, and/or educational support for projects that implement sediment control BMPs.	Develop and/or distribute guidance and/or educational materials for stream and riparian buffer maintenance.	DOW routinely distributes the Central Kentucky Backyard Stream Guide and has developed several fact sheets about the importance of riparian buffer zones. These resources are available upon request or online.
		Number of sub-grantee projects implementing riparian buffer BMPs or tree plantings.	During FFY2025, DOW had five projects implementing riparian buffer BMPs or tree plantings: Banklick (23-06), Red River Gorge (24-10), KWA Seed Grants (23-03), Whitesburgs (24-06), Curry's Fork (22-11)
		Number of projects monitoring for sediment impairments.	For FFY2025, DOW had five projects for sediment impairments: Upper Buck Creek (23-04), Limestone Creek (Private Funding), Beargrass (22-08) (24-09), Hardy Creek (24-05)
	Target additional sources of funding for stream restoration projects that will positively address sediment impaired streams.	Coordinate efforts with the USDA Natural Resources Conservation Service to help target conservation program funding toward priority watersheds and the implementation of accepted Watershed Plans.	DOW engages in direct programmatic coordination with NRCS by requesting that priority and impaired watersheds receive priority funding through NRCS programs. DOW also coordinates on-the-ground implementation efforts with County Conservation Districts and local NRCS staff. In FFY2025, Kentucky Division of Water worked with NRCS to track implementation of BMPs in source water priority protection areas (SWPPA). This collaboration identified over 27,000 practices on over 700,000 acres in Kentucky from 2020 to 2024 that benefitted from a prioritization plan developed by DOW and NRCS in 2020.
		Coordinate stream restoration efforts with the KY Department of Fish and Wildlife Resources and Northern KY University to help target Fees in Lieu of Mitigation (FILO) funding toward priority watersheds and the implementation of accepted Watershed Plans.	DOW consistently seeks opportunities for watershed projects to pursue Fees in Lieu of Mitigation funding. The NPS team and KDFWR had a meeting to establish more collaboration in the future and members of KDFWR were invited and participated in the 319 rank and review process.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 13 Support education and outreach.	Support education and outreach efforts across Kentucky.	Number of student and/or stakeholder contacts per year.	NPS personnel interacted with over 13,400 at outreach events throughout Kentucky.
		Number of educational events participated in.	NPS personnel attended approximately 41 educational events in FFY2025.
	Update nonpoint source website pages, and continue social media presence.	Number of followers for the I Love KY Water Facebook page.	The "I Love KY" Water Facebook was deactivated.
		Annually update information on DOW NPS website.	DOW Nonpoint Source Program web pages are updated quarterly. The NPS grant web pages are updated once per year.
	Develop and maintain nonpoint source pollution educational materials.	Number of educational materials developed or updated.	NPS created and updated education and outreach materials for audiences of all ages. For the younger audiences NPS created a display case with mussel shells collected from the Licking and Green Rivers, along with a teaching set to use during Envirothon. The NPS staff also created a watershed coloring handout activity, and an Ollie the Otter water conservation word search. For adults, the NPS staff updated the Stream Health Pocket Guide that is a waterproof picture friendly brochure to help identify macroinvertebrates. New brochures highlighting nature-based solutions; protecting your source water, and protecting Kentucky's water resources: a permitting guide. Also, NPS created new flyers for our Volunteer Lake Monitoring Program along with three VLMP newsletter, to get audiences interested in getting connected with the health of their local reservoir. The team created/updated tier I and tier II training booklets and presentations for the VLMP program. New infographics were created on the peach blossom jelly, sucker fish, snapping turtles, duck week, and lake safety. NPS staff also updated flyers, handouts, and brochures with current standards.
	Support the Watershed Watch program in Kentucky.	Number of active volunteers.	For FFY2025, there have been the many changes in participation in the KY Watershed Watch program. There are currently 510 active volunteers in the program.
		Number of volunteers receiving trainings.	There were 19 in person KY Watershed Watch training workshops held in 2025, with 73 new volunteers being trained across the state. The new KY Watershed Watch training consist of first an online training with five modules to go through and completing a quiz after each module then the participant is eligible for an in person training which is a hands on training with the chemistry equipment. There are currently 38 participants that have completed or are in the process of completing the online training before they are eligible for an inperson training.
		Number of sites sampled.	The KY Watershed Watch program had 379 sites that performed bacteria testing thru the R card method. There were 39 sites that performed the R card method but also delivered a sample to a professional lab for E. coli testing. The Upper Cumberland basin has not shared any of their sampling results with the KY Watershed Watch program.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 13 Support education and outreach cont.	Provide financial and technical support for Project WET implementation in Kentucky.	Number of Project WET educator/facilitator trainings.	DOW has formed a partnership with the Kentucky Association for Environmental Education (KAEE) to coordinate project trainings and further promote water education in Kentucky. For FFY2025, there were 14 Project Wet workshops for educators.
		Number of teachers trained.	For FFY2025, Project Wet reached 217 facilitators and educators.

Long Term Goal 2 Protect waters currently meeting designated			
Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 1 Promote the identification and protection of healthy watersheds throughout Kentucky.	Provide technical and/or financial support for land conservation programs.	Coordinate annually between NPS and Wild Rivers program to prioritize land for conservation.	The Wild Rivers program has identified the Rockcastle River as a priority for conservation. Both the Wild Rivers program and the NPS section representatives are board members for the Rockcastle Conservation Initiative.
		Coordinate annually between NPS and Heritage Land Conservation program to prioritize land for conservation.	The Rockcastle River Watershed remains a priority area for conservation and protection.
	Provide technical and/or financial support for sub-grantee projects that implement the protection components of an approved watershed plan.	Number of sub-grantee projects implementing the protection component of an approved watershed plan.	In FFY2025, one projects implemented the protection component of a watershed plan: Banklick (23-06)
		Number of watershed planning areas with Special Use Waters.	For FFY2025, there have been four watershed plans accepted for implementation with protection of a Special Use Water as their primary focus: Sulphur Creek, Red River, Red Bird River, and Brushy Creek. Other approved watershed plans that have Special Use Waters within their boundaries include: Rock Creek, Woolper Creek, Chestnut Creek, and Lower Howards Creek.
	Develop and implement a NPS Program strategy for better coordination with the Healthy Watersheds program.	Number and list of current priority Healthy Watersheds.	During FFY2025, 20 HUC 12s were identified with the Restoration and Protection Screening Tool: 060102060404, 051301040504, 051301040509, 051301040505, 051301030106, 051301030105, 051301030101, 051301030102, 051100011301, 051301040508, 051100010807, 051100010808, 051100010806, 051100010805, 051301010902, 051100010709, 051100010701, 051100010704, 051100010703, 051301010701.
		Number and list of new priority Healthy Watersheds.	Twenty HUC 12s were identified with the Restoration and Protection Screening Tool in FFY2025. The list includes: 060102060404, 051301040504, 051301040509, 051301040505, 051301030106, 051301030105, 051301030101, 051301030102, 051100011301, 051301040508, 051100010807, 051100010808, 051100010806, 051100010805, 051301010902, 051100010709, 051100010701, 051100010704, 051100010703, 051301010701.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 2 Prioritize Source Water and Wellhead Protection areas for protection from nonpoint sources of pollution.	Coordinate with the Division's Source Water Protection Program to identify and reduce nonpoint source pollution in source water protection areas.	Number and list of Source Water Protection Areas with an approved watershed plan.	There are currently 25 approved watershed planning areas that include a designated Source Water Protection area: Bacon Creek, Banklick Creek, Cane Run, Chestnut Creek, Clarks Run, Corbin City Reservoir, Currys Fork, Darby Creek, Dry Creek, Glenss Creek, Gunpowder Creek, Hancock Creek, Hanging Fork, Hinkston Creek, Lower Howards Creek, McDougal & Castleman Creeks, North Fork: Whitesburg Tributaries, Red Bird River, Red River, Rock Creek AML, South Fork Little River, Stockton Creek, Ten Mile Creek, Triplett Creek, West HickmanCreek , Woolper Creek
		Number and list of Source Water Protection Areas with an approved watershed plan that is being actively implemented.	There are currently 11 active watershed plans that are actively implementing best management practices and education & outreach in Source Water Protection Areas: Banklick Creek, Chestnut Creek, Currys Fork, Dry Creek, McDougal & Castleman Creeks, Gunpowder Creek, Hinkston Creek, Red Bird River, Red River, South Fork Little River, Whitesburg Tributaries
		Number of Source Water Protection Plans developed and/or updated.	Zero Source Water Protection Plans were updated or developed for surface water sources in FFY 2025.
	Provide technical assistance for projects protecting source water and promoting groundwater recharge	Staff attend at least one technical event per year on protection of drinking water sources.	DOW staff regularly attend Area Development District Water Management Council meetings, provide technical assistance for drafting and completing Source Water Protection Plan updates, in addition to attending and presenting at Source Water/Wellhead Protection planning public meetings.
	Coordinate with the Division's Wellhead Protection Program to identify and reduce nonpoint source pollution in wellhead protection areas.	Number and list of Wellhead Protection Areas with an approved watershed plan.	There are currently five accepted watershed plans that contain DOW Wellhead Protection Areas: Bacon Creek, Cane Run, Gunpowder Creek, Pleasant Run, Red River
		Number and list of Wellhead Protection Areas with an approved watershed plan that is being actively implemented.	There are four active watershed plans that are currently being implemented that contain a DOW Wellhead Protection Area: Campton (Red River), Green River Valley (Bacon Creek), Georgetown Municipal (Cane Run), and Camp Turnabout (Gunpowder Creek).
		Number of Wellhead Protection Plans developed and/or updated.	In FFY2025, 28 Wellhead Protection Plans for groundwater sources were updated: Milton Water & Sewer Department, Greater Fleming Co WT Comm, Arch Chemicals Inc (Monument Chemical Ky, LLC), New Concord Dollar General Store, Hickman Water Department, LBL Hillman Ferry A, B, & C, LBL Camp Energy, LBL Cravens Bay, LBL Fenton Lake Access, LBL Maintenance Center, LBL Off Hwy Vehicle Area, LBL Woodland Nature Center, LBL Wranglers Camp, Pine Mt Settlement School, Wheelwright Utility Commission, Ellis Park Race Course, Worthington Municipal Water Works, Arlie Boggs Elementary School, Buzzard Rock Resort And Marina, Oldham County Water District, North Marshall Water District #1 A, Wickliffe Municipal Water System, Brandenburg Water Works, Trimble Co Water District #1, Western Mason Co Water District, Western Shores, Carrollton Utilities, Campton Water System

Long Term Goal 3 Efficient and effective implementation of Kentucky's Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 1 Develop NPS program components to increase program effectiveness and maintain current program staff.	Develop tools for increased efficiency.	Complete development of a tracking spreadsheet for Watershed Based Plans.	The Watershed Plan tracking spreadsheet was developed during FFY2014 and is updated annually. Watershed Plan summary documents are under development for all "Accepted" watershed plans. WSP summary documents are the next step to organize and share information regarding WSPs with stakeholders and work toward future implementation projects.
		Transfer electronic project management and storage for 319(h) projects to the Department's new ARM database.	During FFY2025, the NPS team determined that TEMPO would not be the best project management tool for 319(h) grant projects. The NPS team is currently investigating future options.
	Maintain staffing for effective NPS program coordination and on the ground implementation.	Number of DOW NPS technical staff.	During FFY2025, all staff positions were filled.
		Number of Basin Coordinators.	DOW partners with and/or employees seven Basin Coordinators to cover Kentucky's major River Basin Management Units.
		Number of Watershed Coordinators implementing watershed plans.	DOW helped maintain eleven Watershed Coordinators who implement accepted watershed plans. This includes Banklick Creek, Middle Fork Beargrass Creek, Chestnut Creek, Curry's Fork, Hinston Creek, Red River Gorge, Red Bird River, Upper Buck, South Fork Little River, Whitesburg (two WCs).
	Provide professional development for watershed management to increase program effectiveness.	Number of training events hosted and/or attended.	In FFY 2025, the NPS team attended or hosted approximately 29 training events

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 2 Meet federal requirements.	Reduce KY's NPS Program Un-liquidated Funding Obligation to less than 20%, and maintain that level throughout the Federal Fiscal Year.	Drawdown percentage in comparison to ULO goal of 20%.	EPA no longer tracks ULO percentages. DOW records indicate a 24% ULO for FFY2025. The open project years are on track to be fully spent by the grant deadlines. That being said, KY's NPS Program will continue to make additional adjustments in an effort to keep the ULO percentage as low as possible.
		Continue to manage KY's NPS sub-grantee projects with the goal of completing work in a 2.0 to 3.0 year contract timeframe.	Sub-grantee project contracts continue to operate on a two-year time frame as of FFY2017.
	Complete EPA required Grants Reporting and Tracking (GRTS) information updates.	Enter new projects into GRTS within ninety (90) days after grant award.	All of the new projects selected for FFY2025 funding are currently entered into GRTS.
		Complete bi-annual project status updates in March 30 and September 30 of each year.	Biannual project status updates were completed in FFY2025 (March and September).
		Conduct bi-annual maintenance on EPA Mandated Elements.	Maintenance of the EPA Mandated Elements information was performed in GRTS to any/all applicable projects.
		Enter calculated project load reductions by February 28th of each year.	All load reductions generated during the FFY 2025 time period were calculated and entered into GRTS by the deadline.
	Submit Kentucky's Nonpoint Source Annual Report to EPA Region 4 by December 31st of each year.	Submission of Annual Report.	The FFY2025 NPS Program Annual Report will be submitted to EPA Region 4.
	Submit at least one (1) Nonpoint Source Success Story to fulfill the requirements of WQ-10 by August 1st of each year.	Number of watersheds delisted and possible for WQ-10 development.	For FFY2025, 90 stream segments were approved for delisting of at least one impairment parameter with the 2024 Integrated Report.
		Number of success stories submitted to EPA Region 4 this year.	Two Nonpoint Source Success Stories were submitted to EPA meeting this requirement. The Fleming Creek Type 1 Success Story (WQ-10) was submitted in April prior to the September 30, 2025 deadline. DOW also submitted it's first Type 5 Success Story in July 2025 about progress in Sulphur Creek.
		Number of Kentucky Success stories on EPA webpage.	EPA posted fourteen (14) of Kentucky's Nonpoint Success Stories on their webpage. The 2025 NPS Success Stories are still going through EPA review and not yet posted EPAs webpage as of September 2025.

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 2 Meet federal requirements cont.	Review and approve all Nonpoint Source Sub-grantee Quality Assurance Project Plans (QAPP) prior to monitoring activities.	Number of approved sub-grantee QAPPs.	Quality Assurance Project Plans are developed and approved for all Nonpoint Source Program water quality data collection efforts conducted by sub-grantees. QAPPs are approved by Quality Assurance staff prior to data collection. In FFY 2025, no projects required QAPP development or approval.
		Number of data packages reviewed.	DOW Quality Assurance Staff reviewed four data packages for: Jennings Creek, Wolf Run, Mill Creek, Glenss Creek

Objectives and Actions			
Objectives	Actions	Tracking Measures	2025 Response
Objective 3 Provide technical assistance and support to the division regarding watershed impacts and the watershed perspective.	Participate in DOW projects requiring technical experience from NPS staff.	Assist with finalizing and/or implementing the Kentucky Nutrient Reduction Strategy.	The Kentucky Nutrient Reduction Strategy was updated in 2022 and has had continued implemented ever since. Progress is cataloged on EEC's Nutrient Reduction website at eec.ky.gov/nutrientreduction . A biennial report of progress for 2023 and 2024 was released in FFY2025 and available at https://storymaps.arcgis.com/stories/e9ef82eaaadf04ccd907829029f2b017c .
		Provide water quality monitoring data for inclusion in the Integrated Report.	All water quality data collected through the NPS Program, whether collected as pre-watershed plan development baseline or post-watershed plan implementation success monitoring is submitted to DOW Water Quality Branch to be used in the assessment of watersheds for the Integrated Report and TMDL development if applicable.
	Update the Watershed Framework.	Number of Basin Status Updates and/or Report Cards issued.	The Basin Status Report template was replaced with a combination of education and outreach materials. The Kentucky Water Health Portal and Kentucky Integrated Report Hub Site serve as the primary resources to communicate information previously contained within Basin Status Reports. During FFY 2025 NPS personnel also collaborated with Watershed Watch in Kentucky to develop and produce Basin Report Cards based on volunteer data collected during the 2024 field season.
		Annually update the Kentucky Water Health Portal.	The Kentucky Water Health Portal is updated with each new Integrated Report to Congress (IR) release. The Water Health Portal was most recently updated with the 2024 IR in the fall of 2024.
		Update priority watersheds as determined by the River Basin Coordinators and Basin Team members.	During FFY 2022, Basin Team Priority Areas were finalized, published, and integrated into the 319 and State Revolving Fund programs. No updates were made in FFY 2025.

NPS Program Commitments		
Objectives	Actions	2025 Response
General Program Management & Oversight	Provide Administrative, Financial, and Technical oversight for FFY 2025 NPS Program sub-grantee projects.	The KY Division of Water's Nonpoint Source Program provides Administrative, Financial, and Technical support for approximately 50 sub-grantee projects at any given point in time. This work is in addition to providing the same type assistance to watershed groups, Health Departments, and Conservation Districts for the development of future projects. Coordination with local, state, and federal government agencies is also done on a regular basis to create synergistic on-the-ground watershed plan implementation efforts.
	Obligate all grant funding within one year of grant award date.	Obligation of grant funding for FFY2025 is complete.
	Submit 2021 Grant closeout package to EPA R4.	The 2021 Grant closeout package was submitted to EPA R4 by the deadline.
	Maintain NPS Program Watershed Project GIS Coverage.	Kentucky's Nonpoint Source Program GIS Coverage was updated annually in spring 2025.
	Maintain NPS Program webpages - Update Watershed Plans and Watershed Plan Maps.	Kentucky's Nonpoint Source Program web pages were updated annually in December (at minimum). The web links to accepted Watershed Plans, and the Watershed Plan Maps have been updated.
	Attend EPA Region 4 Biennial NPS Conference.	We anticipate attending the next Region 4 Biennial Conference when it is announced for FFY2026.
	Attend EPA National Biennial NPS Conference.	Two representatives of the KY Division of Water, Watershed Management and Nonpoint Source Program attended the National Nonpoint Source Program Conference in Minneapolis in November, 2023. We anticipate attending the National Biennial NPS Conference in Fall 2025.
National Water Quality Initiative	Continue to support the Hinkston Creek Watershed Coordinator that will work toward increased implementation of the Hinkston Creek Watershed Plan.	In FFY 2025 the Division continued to support the Hinkston Creek Watershed Coordinator to implement the Hinkston Creek Watershed Plan.
	Work with KY NRCS on NWQI Pilot Project in "TBD" watershed.	DOW met with NRCS multiple times in FFY2025 to coordinate NWQI and MRBI project initiatives. Work continues in Hinkston Creek, Canoe Creek, Lower Green and Upper Nolin watersheds.
NRCS Focused Conservation Projects	Work with KY NRCS as needed to implement water focused best management practices throughout the Commonwealth through the new NRCS Focused Watershed Projects	Kentucky NRCS has moved on from Focused Watershed Projects to NWQI and MRBI project planning and implementation.
	Continue development of Success Monitoring Program by compiling watershed scale implementation data.	The Nonpoint Source Program continues to provide 319 program implementation data for the Division's Success Monitoring Program. In FFY2025, 319(h) Program implementation data from 2024 was integrated into DOW's water quality database (KATTS) to facilitate watershed planning efforts and improve public data engagement.

NPS Program Commitments		
Objectives	Actions	2025 Response
Watershed Success Monitoring Program	Conduct baseline water quality monitoring prior to watershed plan development	Kentucky's watershed planning efforts are built on the foundation of good quality in-stream water quality data. Water quality data is analyzed and interpreted to identify the cause and source of pollution issues in every watershed plan. Additionally, pre-implementation water quality data sets a baseline for which post-implementation data can be compared to assess implementation effectiveness. During FFY2025, Kentucky Division of Water Biologists monitored water quality parameters in Upper Salt River, Hardy Creek, Limestone and Kenneyd Creeks, Upper Buck Creek, Red River, Upper Elkhorn Creek, and Jessamine Creek.
	Conduct watershed success monitoring for watershed plan implementation projects.	The Kentucky Division of Water continues to develop its Success Program through enhanced communication between the Nonpoint Source Section and the Water Quality Branch in an effort to set joint priorities and determine standard operating procedures to trigger monitoring activities in areas with BMP implementation. In FFY2025, success monitoring was completed for the Red River watershed.
Grant Reporting and Tracking System	Enter FFY 2024 Load Reductions into GRTS.	FFY 2024 Load Reductions for Nitrogen, Phosphorous, and Sediment were calculated for all projects that implemented on-the-ground Best Management Practices (BMP). Those load reductions were entered into the GRTS database by the March, 31 2025 deadline along with specific BMP description information.
	Attend National GRTS Conference.	DOW anticipates attending the National GRTS Conference when it is announced.
	Complete GRTS project status updates.	All NPS sub-grantee project biennial status updates and mandated elements updates were completed.
	Enter FFY 2025 Sub-grantee projects into GRTS.	All FFY2025, Sub-grantee projects have been entered into GRTS.
EPA Required Reporting	Submit Initial Annual Nonpoint Source Program Workplan to EPA R4.	An updated version of Kentucky's FFY2025 Nonpoint Source Program Workplan was submitted to EPA Region 4.
	Submit Annual Report to EPA R4.	Kentucky's Nonpoint Source Program Annual Report was submitted to EPA region 4 by the December 31, 2024 deadline.
	Submit WQ-10 Nonpoint Source Success Story to EPA R4.	Two Nonpoint Source Success Stories were submitted to EPA meeting this requirement. The Fleming Creek Type 1 Success Story (WQ-10) was submitted in April prior to the September 30, 2025 deadline. DOW also submitted it's first Type 5 Success Story in July 2025 about progress in Sulphur Creek.
	Submit Watershed Plans to EPA R4 for review and comment.	In September of 2025 the Glenss Creek Watershed Plan was submitted to EPA for review and comment.
2019 KY NPS Management Plan Goals, Objectives, Strategies	The KY Division of Water will work to update the KY NPS Program 5-Year Management Plan.	KY Division of Water was granted an extension in FFY2025 to update it's NPS Program 5-Year Management Plan after finalization of national NPS Guidelines. A draft NPS Program 5-Year Management Plan is in progress for FFY 2026 submittal.