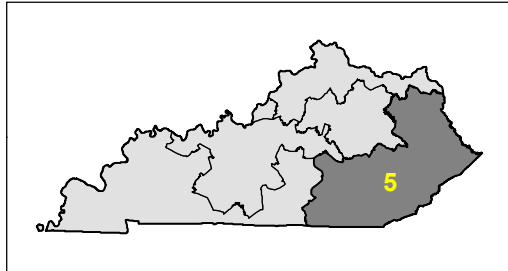
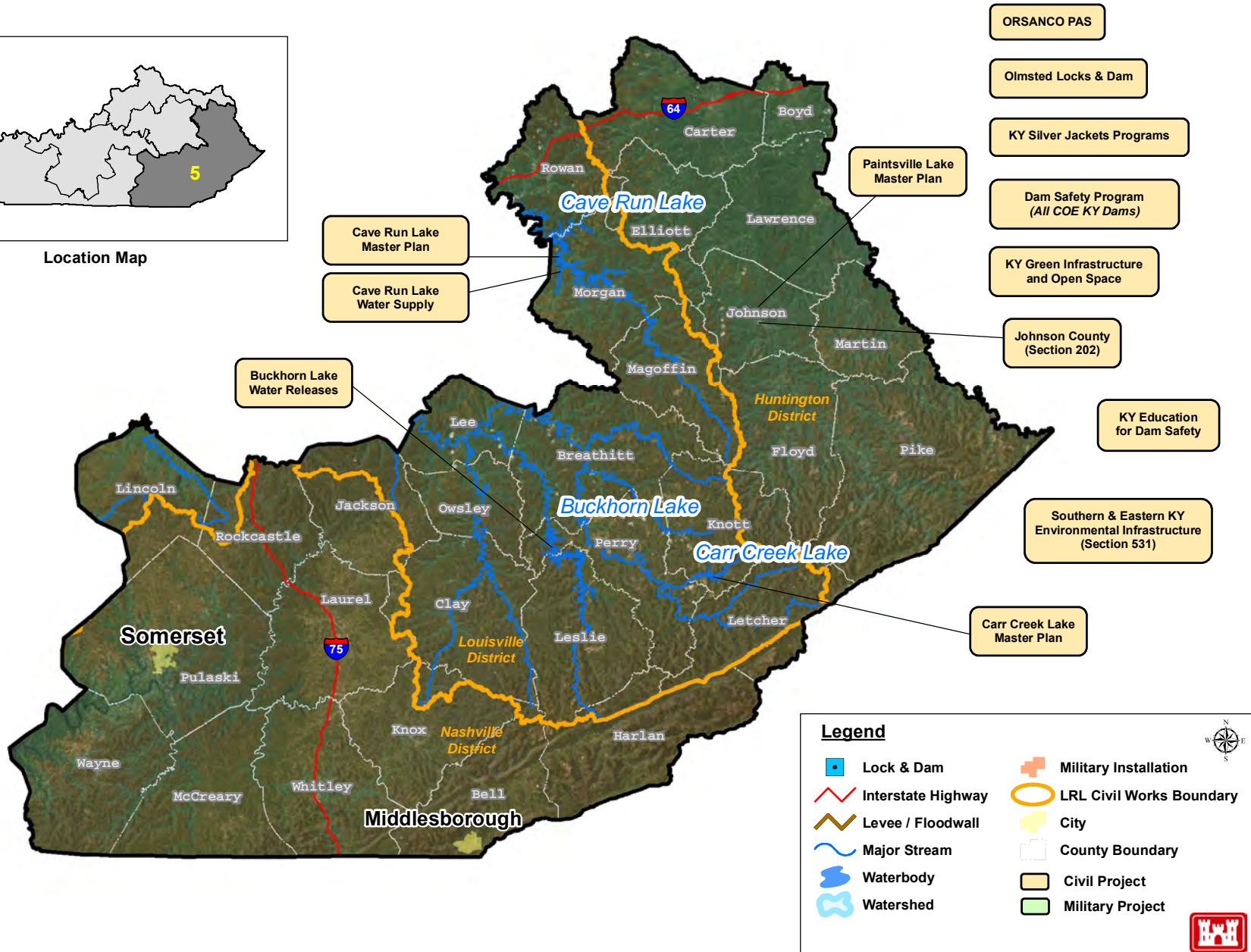


# CONGRESSIONAL DISTRICT KY05



Location Map



## Legend

- |                    |                          |
|--------------------|--------------------------|
| Lock & Dam         | Military Installation    |
| Interstate Highway | LRL Civil Works Boundary |
| Levee / Floodwall  | City                     |
| Major Stream       | County Boundary          |
| Waterbody          | Civil Project            |
| Watershed          | Military Project         |



## Buckhorn Lake, Kentucky Master Plan Update



*Buckhorn Lake – Buckhorn, Kentucky*

### Current Phase:

Master Plan Update

### Location and Description:

Buckhorn Lake is situated in Leslie and Perry counties on the Middle Fork of the Kentucky River in the foothills of the Cumberland Plateau, offering the scenic beauty of the Appalachian Mountain Range. The dam is located near the small community of Buckhorn, Kentucky, about 100 miles southeast of Lexington and 30 miles west of Hazard.

Buckhorn Lake was authorized under the Flood Control Act of 1938. The Louisville District, Corps of Engineers designed, constructed, and operates the project to reduce flood damages downstream from the dam. The lake also provides water supply and serves to augment low-flow conditions downstream in the interest of water quality control. In addition, the lake provides varied recreational opportunities.

### Summarized Financial Data:

	<u>Master Plan</u>
Estimated Federal Cost	\$262,350
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$262,350
Allocation thru FY21	\$0
Balance to Complete after FY21	\$262,350
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$20,000
FY23 President's Budget	TBD

### Authorization:

Flood Control Act of 1938

### FY21 Activities

None. Funds were not available.

### FY22 Planned Activities:

Update of the Master Plan will be initiated, including preparation of the Project Management Plan (PMP) as well as public and scoping meetings.

### Issues and Other Information:

None

### Congressional Interest:

SEN Mitch McConnell (KY)

SEN Rand Paul (KY)

Rep. Harold (Hal) Rogers (KY-05)

## Carr Creek Lake, Kentucky Master Plan Update



*Carr Creek Lake – Sassafras, Kentucky*

### Current Phase:

Master Plan Update

### Location and Description:

Carr Creek Lake is located in the mountainous region of southeastern Kentucky, about 16 miles from Hazard and 18 miles from Whitesburg. The dam is located 8.8 miles above the mouth of Carr Fork, a tributary of the North Fork of the Kentucky River.

Carr Creek Lake, KY was authorized by the Flood Control Act approved 23 October 1962 (Public Law 87-874 87th Congress). The Louisville District, Corps of Engineers designed, constructed, and operates the project. The project serves as one unit of the comprehensive plan for the Ohio River Basin to reduce the flood stages downstream from the dam. The lake provides water supply storage and operates to increase natural low-flow conditions downstream of the dam in the interest of water quality control. Also, the lake offers boating, fishing, swimming, and other recreational activities to the general public. During the Fall and Winter months, the lake is kept at a relatively low level, referred to as winter pool. Should heavy rains occur, surface water runoff is stored in the lake until the swollen streams and rivers below the dam have receded and can handle the release of the stored water without damage to lives and property.

The Master Plan update will provide guidance for the preservation, conservation, restoration, maintenance, management, and development of project lands, waters and associated resources located at Carr Creek Lake.

### Summarized Financial Data:

	<u>Master Plan</u>
Estimated Federal Cost	\$262,350
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$262,350
Allocation thru FY21	\$262,350
Balance to Complete after FY21	\$0
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$0
FY23 President's Budget	TBD

### Authorization:

Flood Control Act approved 28 June 1938 (Public Law No. 526, 79<sup>th</sup> Congress, 2nd Session)

### FY21 Activities

Update of the Master Plan was initiated, including preparation of the draft Project Management Plan, Project Delivery Team selection, and literature review. Conducted site visit and data/inventory collections.

### FY22 Planned Activities:

Preparation and public review of the draft Master Plan and Environmental Assessment (EA). Finalize the draft report after Public Review. The Master Plan is scheduled for completion in September 2022.

### Issues and Other Information:

The completed update with public involvement will maintain the Corps' mission of balancing recreational development and use with the goal of conservation of natural and cultural resources.

### Congressional Interest:

SEN Mitch McConnell (KY)  
SEN Rand Paul (KY)  
REP Thomas Massie (KY)  
REP Harold (Hal) Rogers (KY)





## Cave Run Lake, KY Water Supply Reallocation Project



Cave Run Lake, KY

**Current Phase:**  
Feasibility Study

### **Location and Description:**

Cave Run Lake is located in Rowan, Menifee, Morgan, and Bath counties on the Licking River. The Dam is about 173.6 miles above the mouth, 4 miles upstream of Farmers, Kentucky, and 84 miles southeast of Cincinnati, OH.

Cave Run Lake was authorized under the Flood Control Acts approved 22 June 1936 and 28 June 1938. The Corps of Engineers, Louisville District designed, constructed, and operates the project for flood control in the Licking River Valley to reduce flood flows in the Ohio River. During the Fall and Winter months, when excessive rainfall is likely, the lake is kept at a relatively low level, referred to as winter pool. Should heavy rains occur, surface water runoff is stored in the lake until swollen streams and rivers below the dam have receded and can handle the release of the stored water without damage to lives or property.

The Morehead Utility Plant Board (MUPB) has served as the utility arm of the City of Morehead, KY treating and distributing water since 1950. MUPB serves over 60,000 people in Rowan and Bath Counties, Kentucky with drinking water. MUPB currently withdraws water supply from the Licking River, however the permit is for 6.5 Million Gallons per Day (MGD). Kentucky Division of Water will not allow more than what is currently permitted.

### **Summarized Financial Data:**

	<b><u>Feasibility</u></b>
Estimated Federal Cost	\$0
Estimated Non-Federal Cost	\$300,000
Total Estimated Project Cost	\$300,000
Allocation thru FY21	\$0
Balance to Complete after FY21	\$0
FY22 Final Appropriation	\$0
FY22 Allocation (thru JAN 2022)	\$0
FY23 President's Budget	\$0

### **Authorization:**

Water Supply Act of 1958, Title III (Public Law 85-500 – codified as amended at 43 U.S.C. § 390b)

### **FY21 Activities:**

Funding from the Non-Federal sponsor was received, and the reallocation study was initiated. The water demand analysis was prepared and reviewed. The array of water supply alternatives was developed.

### **FY 22 Planned Activities:**

The Draft Report and Integrated Environmental Assessment (EA) were reviewed and finalized. The Final Report with the Integrated EA was submitted to the USACE Division office in March 2022. HQUSACE will be receiving all required materials for review in April 2022. The FONSI is scheduled to be signed by the District Commander in June 2022. The amended Water Supply Agreement is currently scheduled to be executed in September of 2022. The amount proposed will increase from 6.5 MGD to 9.5 MGD, which equates to 3,319 acre-feet of storage.

### **Issues and Other Information:**

Typically, the feasibility study is cost shared 50% Federal and 50% Non-Federal. Due to the importance of this study to the Sponsor, a Contributed Funds Agreement was executed with the Non-Federal sponsor to complete the study at full Non-Federal expense.

### **Congressional Interests:**

SEN Mitch McConnell (KY)  
SEN Rand Paul (KY)  
REP Harold (Hal) Rogers (KY)  
REP Andy Barr (KY)



## Cave Run Lake, Kentucky Master Plan Update



*Cave Run Lake*

### **Current Phase:**

Master Plan Update

### **Location and Description:**

Cave Run Lake is located in Rowan, Menifee, Morgan, and Bath counties on the Licking River. The Dam is about 173.6 miles above the mouth, about 4 miles upstream of Farmers, Kentucky and 84 miles southeast of Cincinnati, OH.

Cave Run Lake was authorized under the Flood Control Acts approved 22 June 1936 and 28 June 1938. The Corps of Engineers, Louisville District designed, constructed, and operates the project for flood control in the Licking River Valley to reduce flood flows in the Ohio River. During the Fall and Winter months, when excessive rainfall is likely, the lake is kept at a relatively low level, referred to as winter pool. Should heavy rains occur, surface water runoff is stored in the lake until swollen streams and rivers below the dam have receded and can handle the release of the stored water without damage to lives or property.

### **Authorization:**

Flood Control Act approved 22 June 1936 (Public Law No. 738, 74<sup>th</sup> Congress, 1<sup>st</sup> Session) and Flood Control Act approved 28 June 1938 (Public Law No. 761, 75<sup>th</sup> Congress, 3<sup>rd</sup> Session).

### **Summarized Financial Data:**

	<b><u>Master Plan</u></b>
Estimated Federal Cost	\$275,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$275,000
Allocation thru FY21	\$275,000
Balance to Complete after FY21	\$0
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$0
FY23 President's Budget	TBD

### **FY21 Activities:**

A draft Master Plan and Environmental Assessment (EA) were completed and reviewed following the District Quality Control (DQC) process.

### **FY22 Planned Activities:**

Conduct public review of the Master Plan and EA. Address any comments received from the public review and finalize the Master Plan and EA. Final District approval and distribution of completed Master Plan update. Completion is scheduled for April 2022.

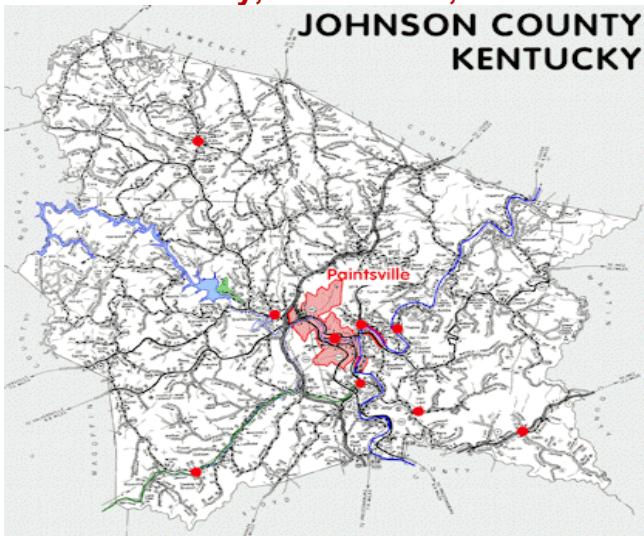
### **Issues and Other Information:**

Most property at Cave Run Lake is owned by the Forest Service. The Master Plan update focused on USACE-owned lands only, with the intention of supplying information to a larger lake-wide Master Plan effort planned by the Forest Service at a later date.

### **Congressional Interest:**

SEN Mitch McConnell (KY)  
SEN Rand Paul (KY)  
REP Harold Rogers (KY)  
REP Andy Barr (KY)



**Johnson County, Section 202, KY***Paintsville and Johnson County, Kentucky***Current Phase:**

Design and Construction

**Location and Description:**

Johnson County is located approximately three hours east of Louisville, Kentucky and is home to over 20,000 residents. The City of Paintsville is the County Seat with a population of just over 3,000 residents and is flood prone as a result of backwater from the Levisa Fork of the Big Sandy River as well as headwater flooding from Paint Creek. This Flood Risk Management (FRM) project will evaluate and implement structural solutions to protect the City of Paintsville as well as develop a non-structural solution. Implementation of the project will be done in three phases.

**Authorization:** Section 202 of the 1981 Energy and Water Development Appropriations Act (PL 96-367; 94 STAT. 1339), as amended.

**FY21 Activities:** The Detailed Project Report was completed, and the Director's Report was signed on 23

**Summarized Financial Data:**

Estimated Federal Cost	\$118,000,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$118,000,000
Allocation thru FY21	\$9,400,000
Balance to Complete after FY21	\$108,600,000
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$0
FY23 President's Budget	TBD

April 2021. The Project Partnership Agreement was executed on 12 May 2021. Phase II design (60%) was completed.

**FY22 Planned Activities:**

Phase I - Advertise Design Contract  
[Flood Warning Emergency Evacuation Plan]

Phase II - Advertise East-West Construction Contract  
[Levees/floodwalls at the courthouse/jail, King's Addition neighborhood, and borrow area]

Phase III - Continue design efforts  
[Levee/floodwall system located on the North and South sides of Paint Creek]

Engineering Documentation Report/Supplemental Environmental Assessment (EDR/SEA) – Complete draft EDR/SEA and review of the documents. Hold Public Meeting. Address comments received from Public Meeting and finalize the EDR/SEA.

**Congressional Interest:**

SEN Mitch McConnell (KY)

SEN Rand Paul (KY)

REP Harold (Hal) Rogers (KY)





## Southern and Eastern Kentucky Environmental Infrastructure Program



**Current Phase:** Varies per project.

### **Location and Description:**

Southern and Eastern Kentucky.

The Section 531 Program is cost shared with a non-Federal sponsor and requires a local match of 25%. The Huntington District, Corps of Engineers is the overall program manager, with responsibility for project implementation assigned to the Nashville, Huntington, and Louisville Districts, as determined by the location of the projects. Prior to design and/or construction of a Section 531 project, the Corps and the non-Federal sponsor enter into a Project Partnership Agreement (PPA) outlining the project scope, cost, and responsibilities for implementation.

### **Authorization:**

Section 531 of the Water Resources Development Act of 1996 (Public Law 104-303), as amended.

### **Summarized Financial Data:**

	<b><u>Study</u></b>
Authorized Program Limit	\$40,000,000
FY 21 Allocation	\$2,000,000

### **Louisville District Section 531 Projects:**

- City of Hyden, Leslie County, Kentucky – The project entails design and construction of approximately three miles of sewer force main and 50 grinder pumps to fifty households in the City of Hyden. This project will mitigate environmental contamination by replacing the

25 failing septic systems and 14 straight pipe sewer systems within the project area. Total project cost is estimated at \$766,667. PPA executed on March 23, 2018. FONSI signed in October 2020.

- Roxana, Letcher County, Kentucky – The project consists of design and construction of approximately 50,000 linear feet of 10-inch through 3-inch water transmission main along with elevated storage tank and booster pump station to support the construction and operation of an 800-acre Federal correctional facility in Roxana, Kentucky. The extension would provide access to potable water to approximately 100 households. Total project cost is estimated at \$1,433,333. PPA executed on March 21, 2018. FONSI signed in February 2019.
- Mount Vernon, Rock Castle County, Kentucky – The project will consist of the design and construction of improvements to the public drinking water plant. Currently the public water is very unpalatable, and the improvements will directly increase the quality of life for residents. Total project cost is estimated at \$1,000,000. PPA executed on February 25, 2019. FONSI signed in December 2020.
- City of Hazard, Perry County, Kentucky – The project will consist of the design and construction of improvements to the Buckhorn Dam Tailwater Channel Raw Water Intake Structure. Currently the public water is very unpalatable, and the improvements will directly increase the quality of life for residents. Total project cost is estimated at \$1,433,333. The Preliminary Engineering Report was received in February 2022.
- Troublesome Creek Environmental Authority, Perry County, Kentucky – The project will consist of the design and construction of improvement of the Sewer Collection Project Phase III. Total project cost is estimated at \$623,333. The Preliminary Engineering Report was received in February 2022.

### **Issues and Other Information:**

The FY21 allocation has been reached.

### **Congressional Interest:**

SEN Mitch McConnell (KY)

SEN Rand Paul (KY)

REP Harold (Hal) Rogers (KY)



## Dam Safety, Kentucky

### Kentucky Dams - Special Studies



*Barren Lake Dam, KY*

#### **Current Phase:** Study

**Project Location:** Barren Lake Dam, Buckhorn Lake Dam, Carr Creek Lake Dam, Cave Run Lake Dam, Green River Lake Dam, Nolin Lake Dam, Rough River Lake Dam, and Taylorsville Lake Dam (See next pages for site specific information)

#### **Study and Program Information:**

During normal operations, these dams are routinely inspected daily, weekly, and monthly by USACE Operations staff and annually by Louisville District Dam Safety staff. The dam also receives a comprehensive inspection every five years by a multi-discipline team of Louisville District engineers.

The USACE has instituted a “risk informed” dam safety program. The initial step was conducting a Screening Portfolio Risk Assessment (SPRA). A team of engineers conducted a screening level review of the dam’s construction, performance history, and instrumentation to evaluate current dam behavior, as well as economic consequences and the population at risk of potential dam failure. After the initial screening, the risk is re-evaluated every ten years as part of a routine Periodic Assessment (PA) in conjunction with the 5-year comprehensive site inspection. The findings are reviewed by the Dam Senior Oversight Group (DSOG) and a Dam Safety Action Classification (DSAC) rating is assigned based upon confirmed or unconfirmed dam safety issues and the combination of life or economic consequences should failure occur. The DSAC ratings are used to prioritize further study to confirm the proposed dam safety issues. If the DSAC rating is 1 through 3, an Interim Risk Reduction Measures (IRRM) Plan is established while further investigations are conducted and/or remedial actions are implemented as necessary.

#### **Summarized Financial Data:**

The Dam Safety Special Studies are part of a national program with funds distributed by the Corps of Engineers (USACE) Headquarters Dam Safety Office on a priority basis

The first study phase is an Issue Evaluation Study (IES) which confirms the dam safety issue. Should more information be necessary to confirm the issues, an IES Phase II study may be undertaken to gather the necessary data to reduce the uncertainty. The results of these studies are presented to the USACE Risk Management Center (RMC) and the DSOG. The results may indicate the need to progress to the next phase of study or reduce the DSAC rating for the dam. If the case is made that the dam needs remedial construction, then the project moves to the Dam Safety Modification Report (DSMR). The DSMR report analyzes potential remedial construction elements to determine the best “fix” to reduce the overall project risk. These studies and remedial construction are prioritized based upon the relative risk estimates at each stage to best make use of the available funding and resources.

#### **Congressional Interests:**

SEN Mitch McConnell (KY)  
SEN Rand Paul (KY)





**Individual Project Status:**

**Barren Lake Dam, KY**

- \* SPRA (Screening for Portfolio Risk Analysis): 2007
- \* DSAC (Dam Safety Action Classification) Rating: Class 4
- \* IRRMP (Interim Risk Reduction Measures Plan): N/A since it is DSAC 4
- \* IES (Issue Evaluation Study): Not required since it is a DSAC 4
- \* FY2022 Planned Activities: Routine O&M surveillance and monitoring program.

**Buckhorn Lake Dam, KY**

- \* SPRA (Screening for Portfolio Risk Analysis): 2008
- \* DSAC (Dam Safety Action Classification) Rating: Class 3
- \* IRRMP (Interim Risk Reduction Measures Plan): Completed 15 April 2009
- \* IES (Issue Evaluation Study): In the queue for study. The IES Report will address concerns with unacceptable foundation conditions and associated seepage in order to remove uncertainty and lower project risk. This will determine if the work needs to continue to complete a full Dam Safety Modification Report (DSMR).
- \* FY2022 Planned Activities: Routine O&M surveillance and monitoring program.

**Carr Creek Lake Dam, KY**

- \* SPRA (Screening for Portfolio Risk Analysis): 2008
- \* DSAC (Dam Safety Action Classification) Rating: Class 4
- \* IRRMP (Interim Risk Reduction Measures Plan): N/A since it is DSAC 4
- \* IES (Issue Evaluation Study): Not required since it is a DSAC 4
- \* FY2022 Planned Activities: Routine O&M surveillance and monitoring program.

**Cave Run Lake Dam, KY**

- \* SPRA (Screening for Portfolio Risk Analysis): 2009
- \* DSAC (Dam Safety Action Classification) Rating: Class 4
- \* IRRMP (Interim Risk Reduction Measures Plan): Completed 27 July 2010
- \* IES (Issue Evaluation Study): Not required since it is a DSAC 4.
- \* FY2022 Planned Activities: Routine O&M surveillance and monitoring program.



### **Green River Lake Dam, KY**

- \* SPRA (Screening for Portfolio Risk Analysis): 2006
- \* DSAC (Dam Safety Action Classification) Rating: Class 4
- \* IRRMP (Interim Risk Reduction Measures Plan): N/A since it is DSAC 4
- \* IES (Issue Evaluation Study): Not required since it is a DSAC 4
- \* Note: The findings from the previous Phase 2 IES risk analysis were presented to the Risk Management Center (RMC) in November 2011 and to the Dam Senior Oversight Group (DSOG) in February 2012. The RMC and DSOG agreed with the report recommendation that the project be reclassified to a DSAC 3 based on the results of the risk analysis. Remedial construction is not warranted at this time. This structure has been reprioritized in the risk study queue. The DSAC rating was subsequently revised to a 4 in 2017 after a Periodic Assessment.
- \* FY2022 Planned Activities: Routine O&M surveillance and monitoring program.

### **Nolin Lake Dam, KY**

- \* SPRA (Screening for Portfolio Risk Analysis): 2006
- \* DSAC (Dam Safety Action Classification) Rating: Class 3
- \* IRRMP (Interim Risk Reduction Measures Plan): Completed 8 April 2008
- \* IES (Issue Evaluation Study): The findings of the Phase 2 IES risk analysis were presented to the Risk Management Center (RMC) in November 2011 and to the Dam Senior Oversight Group (DSOG) in February 2012. The RMC and DSOG agreed with the report recommendation that the project be reclassified to a DSAC 3 based on the results of the risk analysis. Other recommendations were to install additional instrumentation in right and left abutments, and to update the current IRRMs. Remedial construction is not warranted at this time. This structure has been reprioritized in the risk study queue.
- \* FY2022 Planned Activities: Routine O&M surveillance and monitoring program.

### **Rough River Lake Dam, KY (See detailed Fact Sheet for additional information)**

- \* DSAC (Dam Safety Action Classification) Rating: Class 2
- \* IRRMP (Interim Risk Reduction Measures Plan): Completed 15 April 2008
- \* A Dam Safety Modification Report (DSMR) was completed in July 2012. The DSMR addressed unacceptable foundation conditions and associated seepage and identified a need for major rehabilitation in order to remove uncertainty and lower project risk.
- \* There is no emergency or imminent threat. However, failure of this dam from seepage/piping would result in catastrophic effects downstream including loss of life and significant economic losses.
- \* FY 2022 Planned Activities: The Phase 2 Cutoff Wall contract advertisement was scheduled for December 2017 but was cancelled due to concerns regarding the structural integrity of the existing conduit during and after construction of the proposed cutoff wall. The Project Delivery Team reevaluated design features as part of a Supplement to the previously-approved DSMR.



**Taylorsville Lake Dam, KY**

- \* SPRA (Screening for Portfolio Risk Analysis): 2009
- \* DSAC (Dam Safety Action Classification) Rating: Class 4
- \* IRRMP (Interim Risk Reduction Measures Plan): N/A since it is DSAC 4
- \* IES (Issue Evaluation Study): Not required since it is a DSAC 4
- \* FY2022 Planned Activities: Routine O&M surveillance and monitoring program





## Kentucky Education for Dam Safety (KEDS)



### Current Phase:

N/A

### Location and Description:

This Project will deliver an educational outreach program to local officials and first responders focusing on dam safety awareness and education. Topics will include inspections, best practices, USACE inundation maps, and importance of Emergency Action Plans.

As infrastructure ages, the Kentucky Silver Jackets Team realized there is a widespread lack of knowledge regarding dams & dam safety by local officials throughout the Commonwealth. The KEDS campaign will consist of a series of three workshops held in targeted areas chosen by the Commonwealth to maximize participation (Rough River Lake, Cave Run Lake, and Kentucky Dam Village). Partners in development of the program will include representatives from the USACE, NRCS, TVA, Kentucky Department for Environmental Protection, Kentucky Division of Water, and Kentucky Association of Mitigation Managers. The Program will focus on general dam awareness, inspection criteria, maintenance, best practices, practices to avoid, information on available inundation maps (from both USACE and Kentucky) and emphasize the importance of developing Emergency Action Plans. In addition, roles & responsibilities of federal, state, local, and private individuals will be discussed with regards to dam ownership. Dams discussed at the workshops would include USACE reservoir dams, dams owned/operated by other federal agencies, state agencies, local communities, and private individuals.

### Summarized Financial Data:

	<u>Feasibility</u>
Estimated Federal Cost	\$85,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$85,000
Allocation thru FY2021	\$0
Balance to Complete after FY21	\$85,000
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$85,000
FY23 President's Budget	TBD

### Authorization:

Section 206 of the Flood Control Act of 1960 (PL 86-645).

### FY 21 Activities:

N/A

### FY22 Planned Activities:

Develop and deliver workshops to entities across Kentucky relating to dam safety.

### Issues and Other Information:

None

### Congressional Interest:

SEN Mitch McConnell (KY)  
 SEN Rand Paul (KY)  
 REP James Comer (KY)  
 REP Brett Guthrie (KY)  
 REP John Yarmuth (KY)  
 REP Thomas Massie (KY)  
 REP Hal Rogers (KY)  
 REP Andy Barr (KY)



## Kentucky Green Infrastructure & Open Space Analysis



### Current Phase: Study

### Location and Description:

This study analyzes existing data to prioritize areas within the state in which open space and green infrastructure would be most suited.

Partners in this effort include the US Army Corps of Engineers, Kentucky Division of Water, Federal Emergency Management Agency, Kentucky State Nature Preserves, The Nature Conservancy, and the Kentucky Association of Mitigation Managers (KAMM). A statewide analysis of current green infrastructure, open space, and wetland inventories based upon available GIS datasets will be performed as well as target areas in which these methods could be utilized in the future.

LIDAR and topographic datasets are being analyzed and modeled in order to estimate the amount of storage available in green/open spaces across the Commonwealth. Louisville, Paducah, and Henderson metropolitan areas will be further analyzed and highlighted as model/example communities due to their history of incorporating green infrastructure and open space development.

From this analysis maps will be developed that will be incorporated into the Kentucky State Hazard Mitigation Plan as potential mitigation strategies for flooding. Maps and analysis would also be shared at statewide and regional water resource planning conferences.

### Authorization:

Section 206 of the Flood Control Act of 1960 (PL 86-645).

### Summarized Financial Data:

	<u>Feasibility</u>
Estimated Federal Cost	\$110,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$110,000
Allocation thru FY21	\$110,000
Balance to Complete after FY21	\$0
FY22 Final Appropriation	TBD
FY22 Allocation (thru Jan 2022)	\$0
FY23 President's Budget	TBD

### FY 21 Activities:

Initiated and completed geographic and inventory analyses centering on open space planning and green infrastructure. Presented results at 2021 KAMM conference. Produced report with methodology and results.

### FY22 Planned Activities:

Finalize the report and project closeout. Scheduled for March 2022

### Issues and Other Information:

None

### Congressional Interest:

SEN Mitch McConnell (KY)  
SEN Rand Paul (KY)  
REP James Comer (KY)  
REP Brett Guthrie (KY)  
REP John Yarmuth (KY)  
REP Thomas Massie (KY)  
REP Harold (Hal) Rogers (KY)  
REP Andy Barr (KY)



## Kentucky Silver Jackets Program



### Current Phase:

Active

### Location and Description:

Projects are located throughout the Commonwealth of Kentucky.

Silver Jackets teams in states across the United States bring together multiple state, federal, and sometimes tribal and local agencies to learn from one another in reducing flood risk and other natural disasters. By applying their shared knowledge, the teams enhance response and recovery efforts when such events do occur. While some states do not use the "Silver Jackets" name, there are a growing number of states applying the Silver Jackets approach – the ultimate goal is a state-led interagency team in every state. No single agency has all the answers but leveraging multiple programs and perspectives can provide a cohesive solution.

Although each state Silver Jackets team is unique, common agency participants include state agencies with mission areas of hazard mitigation, emergency management, floodplain management, natural resources management or conservation, etc. Federal participation typically includes the U.S. Army Corps of Engineers and the Federal Emergency Management Agency and often others such as the National Weather Service and the U.S. Geological Survey.

### Authorization:

USACE Flood Risk Management Program

### Current Kentucky Silver Jackets FPMS Efforts:

- Kentucky Green Infrastructure & Open Space Analysis – This project utilized national land cover data, LIDAR, wetland inventories, & other GIS data to identify statewide green infrastructure/open space areas for incorporation into Kentucky's State Hazard Mitigation Plan. This effort was completed in FY 22.
- Kentucky Education for Dam Safety – This project will develop an educational outreach program to local officials and first responders focusing on dam safety awareness and education. Topics will include inspections, best practices, USACE inundation maps, and importance of Emergency Action Plans.

### Non-Federal Sponsors:

- Kentucky Division of Water
- Kentucky Emergency Management Agency
- Kentucky Department for Local Government
- Kentucky Geological Service
- Kentucky Association of Mitigation Managers
- Multiple Local Governments and Agencies

### Federal Sponsors:

- U.S. Army Corps of Engineers (USACE)
- Federal Emergency Management Agency (FEMA)
- Natural Resources Conservation Service (NRCS)
- U.S. Geological Survey (USGS)
- National Weather Service (NWS)
- Environmental Protection Agency (EPA)
- Tennessee Valley Authority

### Activities for FY 2022:

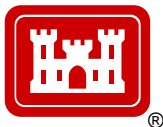
Continue to coordinate with state and federal agencies across the Commonwealth in order to better reduce flood risks in Kentucky.

### Issues and Other Information:

None







# OLMSTED LOCKS AND DAM PROJECT

As of: 9 March 2022

**U.S. ARMY CORPS OF ENGINEERS**

**BUILDING STRONG®**

**Official Title:** Locks and Dam 52 and 53 Replacement Project (Olmsted Locks and Dam), IL and KY

**Location:** The project is located near Olmsted, IL near Ohio River Mile 964.4.

**Purpose:** Construct the new Olmsted Locks and Dam to replace Ohio River Locks and Dams 52 & 53. Demolish Locks and Dams 52 & 53 once Olmsted is operational.

**Project Description and Background:** The project consists of two 110' X 1200' locks adjacent to the Illinois bank, and a dam comprised of five Tainter gates, 1400' of boat-operated wickets and a fixed weir. The proposed replacement structure will eliminate Ohio River Locks & Dams 52 & 53. Locks & Dams 52 & 53 were completed in 1929 and the temporary 1,200' long lock chambers were added in 1969 at Locks & Dam 52 and 1979 at Locks & Dam 53. The antiquated design and age of these structures make it impossible to meet current traffic demands without significant delays. The existing structures have deteriorated structurally and are overstressed during normal operating conditions. Existing wicket dam has missing sections and wickets that will not raise making it very difficult to maintain pool during low water. The temporary locks at Locks & Dam 52 & 53 have significantly passed their 15-year design life.

This strategic reach of the Ohio River provides a connection between the Mississippi River, Tennessee River and Cumberland River. More tonnage passes this point than any other place in America's inland navigation system. In 2011, 91 million tons (Locks & Dam 52), traversed this portion of the Ohio River. 25% of all coal shipped on the inland waterways transits Locks & Dam 52, destined for many of the 50 power plants located on the Ohio River System or the 17 power plants located in eight states on the Upper or Lower Mississippi River.

**Current Status and Outstanding Issues:** Early operation of Olmsted and unseasonably high river elevations from Sept 2018 to Aug 2019 impacted the ability to complete all remaining work on the Dam as scheduled. The Dam contract is now complete with all work done and the contractor has demobilized from the site.

The two 110' X 1200' locks and approach walls are complete. All damming surfaces to include left boat abutment, right boat abutment, 5 Tainter gates, fixed weir on the Kentucky bank, and all twelve navigable pass shells containing wickets are complete and operable. In addition, the following project components have also been completed; Harbor Access, Resident Office Conversion (Pole Barns), Refurbish Bulkheads, Locks & Dams 52 and 53 Landside Demo and Final Site Restoration.



Work currently under contract: Z-Drive Workboat 65% complete, Locks & Dam 52 Marine Demo 80% complete, Locks & Dam 53 Marine Phase II 35% complete and Historic Book 20% complete.

Remaining work to complete the project (Maintenance crane and Floating Mooring Bit Extensions) are progressing through design with procurement scheduled for 3rd Qtr. FY22.

**Summarized Financial Data:**

2012 PACR	\$3,099,000,000
2018 Total Estimated Project Cost (NWW certified)	\$2,867,296,000
Estimated Federal Cost	\$1,856,981,000
Estimated Inland Waterways Trust Fund Cost	\$1,010,315,000
Allocation thru FY21 including ARRA allocation thru 30 Sept 15	\$2,853,402,000
Benefit to Cost Ratio (at 7%)	1.98
Non-Federal Sponsor	N/A

The Olmsted Locks & Dam project was authorized by Section 3(a)(6) of the Water Resources Development Act (WRDA) of 1988. The authorized project cost was increased on 17 October 2013 as part of a Continuing Appropriations Act, 2014 to \$2,918,000,000. The project was funded 50%/50% from the General Treasury and the Inland Waterways Trust Fund (IWTF) through FY2013. The FY2014 Omnibus Appropriation Act changed the split of IWTF and General Treasury funds to 25%/75% for FY2014 only. Water Resources Reform and Development Act of 2014 changed the IWTF and General Treasury shares to 15%/85% beginning 1 Oct 2014. As of 30 Sep 2021, \$2.725B has been expended on the project. The most recent (2018) economic update forecast annual average benefits at \$236M. PACR annual benefits were calculated at \$640M.

**Upcoming Actions:** Olmsted was put into service on 6 Sep 2018 ahead of the scheduled 1 Oct 2018 date, and 4 years ahead of the PACR milestone, to mitigate significant economic exposure to industry stakeholders given the failing condition of Locks & Dams 52 & 53. This early operational date and subsequent unseasonable extended high-water event impacted completion of several critical items of the dam to include isolation piles and shell patching. An additional \$63M was received through the FY20 Work Plan for project delays due to the high-water impact to the cost-reimbursement contract extension and procurement of remaining work. LRL continues to actively prosecute completion of remaining work and to complete the project ahead of the Cost Scheduled Risk Analysis date of 2026.

**HQs POC:** Ryan Fisher, CECW-LRD, 202-761-1379





Olmsted Locks and Dam November 2019



## Ohio River Valley Sanitary Commission Development of a Basin-Wide Strategic Plan



States joined in the Ohio River Valley Sanitary Commission compact formed in 1948

### **Current Phase:**

Planning Assistance to States (PAS) Study

### **Location and Description:**

This study will be a collaborative effort to create an actionable plan that will prioritize regional goals and objectives for general improvements in economic health, ecological well-being, and quality of life for residents throughout the Basin.

### **Authorization:**

Section 22(a) (1) of the Water Resources Development Act of 1974 (Public Law 93-251), as amended.

### **FY21 Activities:**

Released the Final Report to the non-federal sponsor, stakeholders, the public, and Congressional interests. Phase I was completed. Scoped and implemented Phase II.

### **Summarized Financial Data:**

	<b><u>Study</u></b>
Estimated Federal Cost	\$200,000
Estimated Non-Federal Cost	\$200,000
Total Estimated Project Cost	\$400,000
Allocation thru FY21	\$200,000
Balance to Complete after FY21	\$0
FY22 Final Appropriation	TBD
FY22 Allocation (thru Jan 2022)	\$0
FY23 President's Budget	TBD

### **FY22 Planned Activities:**

Closeout of three Phase II projects.

### **Issues and Other Information:**

Excess funds from Phase I were used to implement the Phase II project which entails three smaller reports: a data management plan, a long-term water resource plan, and a water trail plan.

### **Congressional Interest:**

All Congressional Members in Kentucky, Indiana, Ohio, and Illinois

## Paintsville Lake, Kentucky Master Plan Update



*Paintsville Lake*

### **Current Phase:**

Master Plan Update

### **Location and Description:**

Paintsville Lake is approximated five miles northwest of Paintsville, KY in Johnson and Morgan Counties in eastern Kentucky. Paintsville Lake was built on Paint Creek, approximately seven miles upstream from the confluence of the creek with the Levisa Fork.

Paintsville Lake was authorized under Section 204 of the Flood Control Act of 1965. The Huntington District, Corps of Engineers designed, constructed, and operates the project for the purposes of flood risk management, water supply, low-flow augmentation, fish and wildlife enhancement, and recreation.

The dam was completed in 1983 and serves a drainage area of 92.5 square miles.

The project has eight recreation areas including Paintsville Lake State Park and a 27-acre 1850's working farm that includes a historic home listed on the National Registry of Historic Places. It averages one million visitors a year, contributing \$31.5 million to the local economy and supporting 340 jobs.

### **Summarized Financial Data:**

	<b><u>Master Plan</u></b>
Estimated Federal Cost	\$300,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$300,000
Allocation thru FY21	\$300,000
Balance to Complete after FY21	\$0
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$0
FY23 President's Budget	TBD

### **Authorization:**

Flood Control Act approved 22 June 1936 (Public Law No. 738, 74<sup>th</sup> Congress, 1<sup>st</sup> Session) and Flood Control Act approved 28 June 1938 (Public Law No. 761, 75<sup>th</sup> Congress, 3<sup>rd</sup> Session)

### **FY21 Activities:**

The draft Master Plan and integrated Environmental Assessment were completed.

### **FY22 Planned Activities:**

Internal reviews and quality control measures will be conducted to prepare the Master Plan documents for public release and review. Public comments will be addressed, and the report will be finalized. The Master Plan is scheduled for completion in May 2022.

### **Issues and Other Information:**

The Louisville District, Corps of Engineers is executing the Master Plan update on behalf of the Huntington District.

SEN Mitch McConnell (KY)  
SEN Rand Paul (KY)  
REP Harold Rogers (KY)

