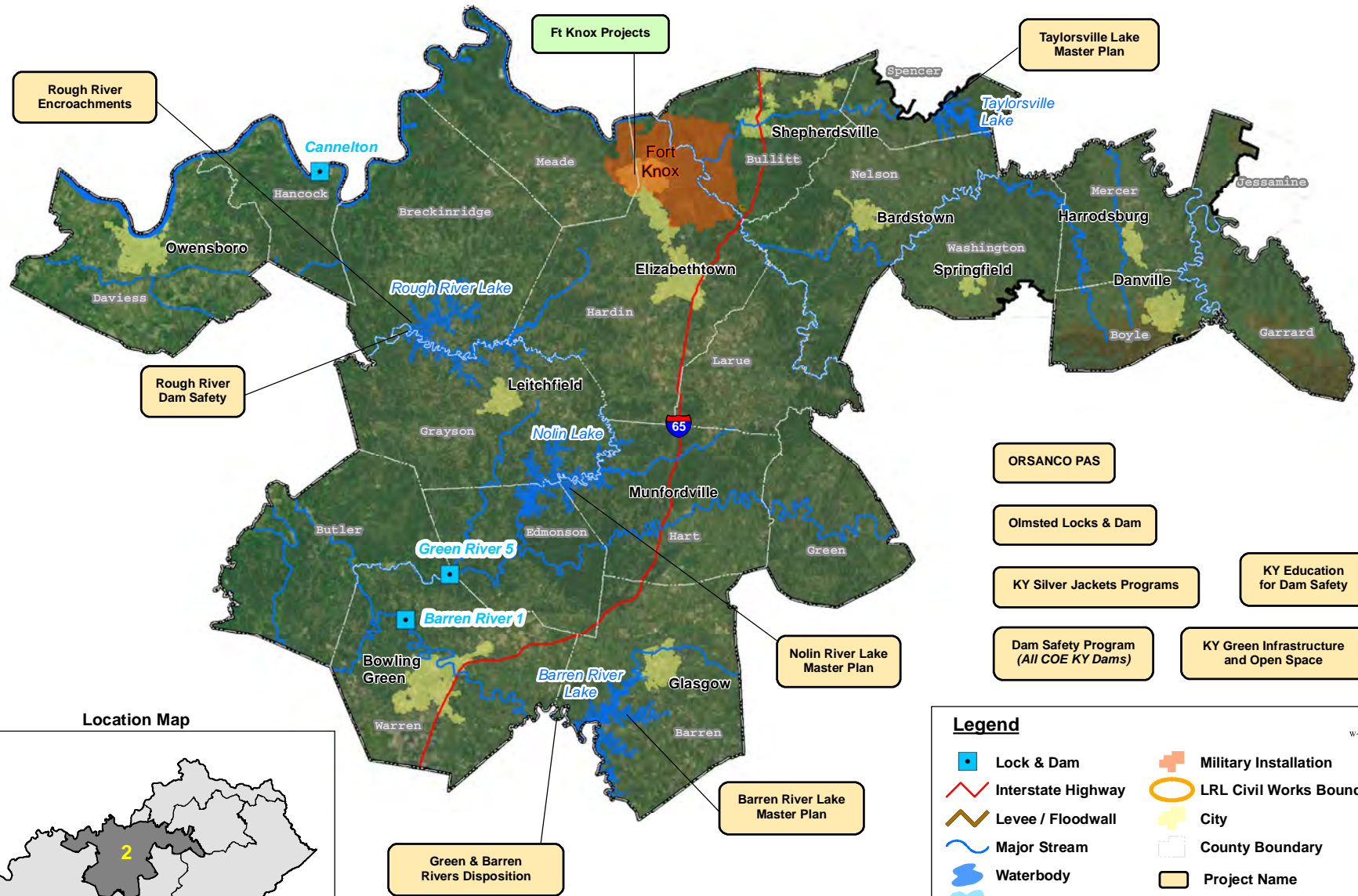


CONGRESSIONAL DISTRICT KY02



Barren River Lake, Kentucky Master Plan Update



Barren River Lake – Project Area Map

Current Phase:

Master Plan Update

Location and Description:

Barren River Lake is located in Barren, Allen, and Monroe counties on the Barren River. The Dam is about 79.2 miles above the confluence with the Green River, about 13 miles southwest of Glasgow, Kentucky, and 95 miles south of Louisville, Kentucky.

Barren River Lake was authorized under the Flood Control Act approved 28 June 1938. The Louisville District, Corps of Engineers designed, constructed, and operates the project for flood control in the Barren 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 Master Plan update will provide guidance for the preservation, conservation, restoration, maintenance, management, and development of project lands, waters and associated resources located at Barren River Lake.

Summarized Financial Data:

	<u>Master Plan</u>
Estimated Federal Cost	\$295,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$295,000
Allocation thru FY21	\$295,000
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 28 June 1938 (Public Law No. 761, 75th Congress, 3rd Session)

FY21 Activities:

The draft Master Plan and Environmental Assessment (EA) were completed, reviewed, and checked for quality control.

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 March 2022.

Issues and Other Information:

None.

Congressional Interest:

Sen. Mitch McConnell (KY)
Sen. Rand Paul (KY)
Rep. Brett Guthrie (KY)



Green River Locks and Dams 3, 4, 5 & 6 and Barren River Lock and Dam 1 Disposal



Green River Lock and Dam 3 (Rochester, Kentucky)

Current Phase:

Disposal

Location and Description:

Five Locks and Dams on the Green and Barren Rivers in south-central Kentucky are no longer used for their original authorized purpose of commercial navigation. The Louisville District completed a Disposition Study in 2014 to evaluate the formerly used navigation facilities and to make recommendations regarding the possible deauthorization and/or disposal of the facilities.

All five projects were deauthorized in the 2016 Water Resources and Infrastructure Improvements to the Nation (WIIN) Act which included language directing disposal to identified recipients.

Section 1311 of the Water Resources Development Act (WRDA) 2018 clarified that Green River Lock & Dam 5 and Barren River Lock & Dam 1 may be removed under USACE ownership and that contributed funds could be used to accomplish the removal.

Statutory compliance with Section 106 of the National Historic Preservation Act and Section 7 of the Endangered Species Act are required prior to disposal.

Authorizations:

Section 1315 of the Water Infrastructure Improvements for the Nation Act (WIIN) of 2016.

Section 1311 of the Water Resources Development Act (WRDA) 2018.

Summarized Financial Data:

	<u>Disposal</u>
Estimated Federal Cost	\$285,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$285,000
Allocation thru FY21	\$285,000
Balance to Complete after FY21	\$0
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$0
FY23 President's Budget	TBD

FY21 Activities:

Physical removal of Green River 5 was initiated in June 2021 starting with site preparation and the removal of the lock chamber. Work ceased in October 2021 due to inclement weather and high water. The Interagency Agreement and Project Management Plan was signed and executed for Barren River 1 allowing USACE to receive USFWS funds for scheduled work.

FY22 Planned Activities:

Continue partnerships with the working group. Complete Section 106 coordination for all locks and dams. Finish the physical removal of Green River 5 and Barren River 1. Finalize disposal packages for Green River 3 and Green River 4 to transfer the property. Complete the transfer of the former Green River Lock and Dam 6 site.

Issues and Other Information:

Inclement weather and high water reduced the period of in-water work by several weeks. USFWS has stabilized the work site and USACE engineers believe the site is stabilized efficiently to withstand the next six months. Work at Green River 5 will resume in the Spring 2022 when water levels permit safe in-water work.

Congressional Interest:

SEN Mitch McConnell (KY)
SEN Rand Paul (KY)
REP Brett Guthrie (KY)
REP James Comer (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:

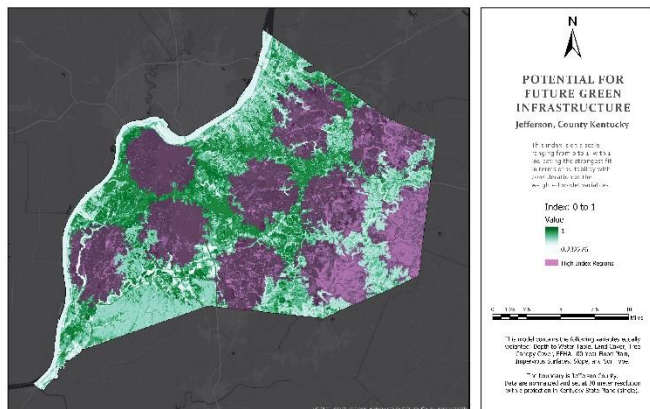
None

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



1. DATE OF AERIAL PHOTOGRAPHY IS DECEMBER 2011.
2. AIRCRAFT ACCESS TO THIS SITE WAS LIMITED TO ONE ATTEMPT. THIS WAS DUE TO THE FACT THAT THE AIRCRAFT WAS NOT ABLE TO LAND AT THIS LOCATION.

Construction

Construct a Digital Air/Ground Integrated Range (DAGIR) at Fort Knox, KY. This upgrade to the Fort Knox Yano Range includes range operations control area, range control tower, operations/storage building, renovation of the After Action Review (AAR) building, renovation of covered mess, renovation of ammo loading dock, and upgrade of the unit staging area. A total of 4,010 SF of new facilities will be constructed. Demolish 2 buildings at Fort Knox.

FY19 Military Construction, Army

Continue with execution of the construction contract.

Continue with execution of the construction contract with completion expected in the 1st Quarter of FY23.
Beneficial Occupancy Date is schedule on 30 Nov 2022.

Started UXO clearance in Sep 2019. Only the second range of this type in Army inventory. On October 2019 the Huntsville District (HNC) notified Louisville District (LRL) the UXO cleanup was taking more effort than anticipated and HNC run out of funds for the cleanup. On 13 Dec 2019, DAMO-TRS approved \$1M to provide UXO construction support services and on 20 Dec 2019 HNC informed that G3 identified funding to complete the UXO clearance of the project site south and north of the Rolling Fork River in the approximate amount of \$10M. HNC got a funding assurance email endorsed by the G8/Comptroller in Jan 2020, so LRL issued a partial NTP to allow the Construction Contractor to perform work in the Range Operations Control Area (ROCA) on 6 Feb 2020. HNC awarded a new UXO contract on 19 May 2020 and issued the NTP on 29 Jun 2020. HNC informed LRL on 17 Jul 2020 the UXO Contractor started intrusive operations on 13 Jul 2020. On 27 Aug 2020 HNC informed LRL the UXO Contractor completed all work south of the Rolling Fork River and LRL issued a NTP #2 for all work south of the river on 28 Aug 2020. The UXO Contractor completed all work north of the Rolling Fork River in Oct 2020 and LRL issued a NTP #3 for all work north of the river on 10 Nov 2020.

Construction	\$24.7M
Estimated Federal Cost	\$26,000,000

Sen. Mitch McConnell
Sen. Rand Paul
Rep. Brett Guthrie

Fort Knox, KY – Van Voorhis Elementary School



Current Phase:
Construction

Location and Description:
Construct Van Voorhis Elementary School at Ft. Knox, KY. Demolish existing Van Voorhis Elementary School.

Authorization:
FY20 DODEA MILCON

FY22 Activities:

Construction execution with all construction phases to be completed in Q1 FY26.

FY23 Planned Activities:

Continue construction for Phase 1 & 2.

Issues and Other Information:

Project turnover Phase 1 & 2 is 09 OCT 24.
All construction phases to be completed in Q1 FY26 to include Demo & Bus Loop.

Summarized Financial Data:

Construction

Estimated Federal Cost	\$62,230,000
Award	\$58,989,000

Congressional Interest:

Sen. Mitch McConnell
Sen. Rand Paul
Rep. Brett Guthrie



Nolin Lake, Kentucky Master Plan Update



Nolin Lake

Current Phase:

Master Plan Update

Location and Description:

Nolin Lake is located in Edmonson, Grayson, and Hart counties on the Nolin River. The Dam is about 7.8 miles above the Nolin River and about 70 miles southwest of Louisville, KY.

Nolin Lake was authorized under the Flood Control Act of 1938. The Louisville District, Corps of Engineers designed, constructed, and operates the project for flood control in the Nolin and Green River Valleys 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 Master Plan update will provide guidance for the preservation, conservation, restoration, maintenance, management, and development of project lands, waters, and associated resources located at Nolin Lake.

The Corps also developed the lake for municipal and industrial water supply. Edmonson County has contracted with the Corps for water supply storage.

Summarized Financial Data:

	<u>Master Plan</u>
Estimated Federal Cost	\$302,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$302,000
Allocation thru FY21	\$302,000
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 28 June 1938 (Public Law No. 761, 75th Congress, 3rd Session)

FY21 Activities:

The Master Plan and Environmental Assessment updates were completed, reviewed, and checked for quality control.

FY22 Planned Activities:

Final District approval and distribution of the completed Master Plan update is in progress, with completion scheduled for March 2022.

Issues and Other Information:

None.

Congressional Interest:

SEN Mitch McConnell (KY)
SEN Rand Paul (KY)
REP Brett Guthrie (KY)
REP James Comer (KY)





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



MEMBER STATES

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:

	<u>Study</u>
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

Rough River Lake, Kentucky Master Plan Update



Rough River Lake – Falls of Rough, Kentucky

Current Phase:

Master Plan Update

Location and Description:

Rough River Lake is situated in Breckinridge, Hardin, and Grayson counties in south central Kentucky. The dam is located on the Rough River near the community of Falls of Rough, about 20 miles from Leitchfield and 95 miles southwest of Louisville, Kentucky.

Rough River 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 Corps, in cooperation with the Commonwealth of Kentucky, manages the 5,100-acre lake and over 9,300-acres in-fee land for wildlife, fisheries, and recreation.

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
President's Budget for FY22	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 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. James Comer (KY-1)
Rep. Brett Guthrie, (KY-2)

Rough River Lake, KY Flowage Easement Encroachment Resolution



Current Phase:

Processing landowner resolution requests.

Location and Description:

Rough River Lake is located in rural Breckinridge, Grayson, and Hardin counties, Kentucky. The United States of America purchased 318 miles of flowage easement surrounding Rough River Lake. The flowage easement grants the Corps of Engineers a perpetual right to overflow, flood, and submerge the easement area, consistent with project operations, and prohibit habitable structures from being constructed. Rough River is surrounded by over 151 residential developments and there is an estimated 438 existing habitable structure encroachments located on flowage easement. The project consists of releasing the flowage easement or human habitation restriction, if certain requirements are met, to resolve these encroachments.

Authorization:

Rough River Lake Flowage Easement Encroachment Resolution Plan, approved 3 Jan 2017

Memorandum, ASA-CW, dated 3 Jan 2017, Subject: Rough River Lake Flowage Easement Encroachment Resolution Plan

Memorandum, ASA-CW, dated 20 June 2019, Subject: Additional Guidance for Rough River Lake Flowage Easement Encroachment Resolution

Memorandum, ASA-CW, dated 23 Sep 2021, Subject: Implementation Guidance for Section 328 of the Water Resources Development Act (WRDA) of 2020, Extinguishment of Flowage Easements, Rough River Lake, Kentucky

Prior Activities:

The America's Water Infrastructure Act of 2018 (Public Law 115-270), Title I, Subtitle A, Section 1175 prohibited the Corps of Engineers from collecting from eligible property owners any administrative fee associated with resolving a flowage easement encroachment at Rough River Lake. All administrative fees collected have been refunded. Property owners are still required to obtain at their expense a private-property survey and septic inspection.

The Water Resources Development Act of 2020 (Public Law 116-260), Title III, Section 328 requires the extinguishment of any flowage easement or portion of flowage easement held by the United States on developed land of the landowner at Rough River Lake that is above elevation 534' m.s.l. and is not required to address backwater effects. Additionally, \$10M was authorized to implement guidance.

The Assistant Secretary of the Army, Civil Works (ASA(CW)) authorized the Corps to release the flowage easement over the entire tract above elevation 534' m.s.l. (Scenario A properties). In addition, the ASA (CW) authorized the Corps to release the flowage easement on vacant lands above elevation 534' m.s.l. that are encumbered by flowage easement.

FY 22 Planned Activities:

The Project Delivery Team will continue to process resolution requests. It is estimated 50 packages can be processed per year.

For Scenario A and vacant land, dispose flowage easement on the tract above elevation 534' m.s.l. to the underlying landowner, upon their request, as long as the property is not required to address backwater effects.

For Scenarios B and C, if the requirements for the release of human habitation restriction can be met, execute a release on the portion of the structure below the 534' m.s.l. If requirements for the release of human habitation restriction cannot be met, enforce the terms of the easement by requiring removal of the entire or portion of the structure below 534' m.s.l. where practical.

To date, there is an estimated total of 438 unresolved encroachments (295-Scenario A; 91-Scenario B; 52-Scenario C). A Quitclaim Deed has been executed for 28-Scenario A, 9-Scenario B, 1-Scenario C, and 10-Vacant properties. An additional 166 encroachments have been resolved by either removal, issuance of a Consent to Easement or a determination that the habitable structure is no longer encroaching.

Summarized Financial Data:

FY17 Work Plan (WP142314)	\$1,900,000
Flowage easement survey contract	
FY18 Pres Budget (WP27025)	\$250,000
FY19 Work Plan	\$100,000
FY19 Remaining Item (NRM)	\$150,000
In the FY19 Energy & Water Bill	
FY20 Remaining Item (NRM)	\$250,000
In the FY19 Energy & Water Bill	
FY21 Work Plan (WP352683)	\$320,000
FY22 Work Plan (WP452683)	\$100,000

Congressional Interests:

SEN Mitch McConnell (KY)
SEN Rand Paul (KY)
REP Brett Guthrie (KY)



Taylorsville Lake, Kentucky Master Plan Update



Taylorsville Lake – Taylorsville, Kentucky

Current Phase:

Master Plan Update

Location and Description:

Taylorsville Lake is located on the Salt River beginning at River Mile 78, about 5 miles west of Glensboro, and extends downstream to the dam at River Mile 60. The lake is 18 miles long and extends into portions of Spencer, Nelson, and Anderson Counties of Kentucky. The dam is located about 20 miles from Exit 23 on the Gene Snyder in Louisville, KY and about 50 miles southwest of Lexington, KY.

Taylorsville Lake was authorized under the Flood Control Act of 1966 (PL 89-789). The Louisville District, Corps of Engineers designed, constructed, and operates the 3,050 acres of water for flood control, quality water storage, outdoor recreation, and fish and wildlife preservation and enhancement. 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 Taylorsville 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, 79th Congress, 2nd Session)

FY21 Activities

Update of the Master Plan was initiated, including preparation of a draft Project Management Plan, Project Delivery Team selection, and literature review. Conducted site visit and collected inventory data. Held scoping meetings with stakeholders and the public to collect input for updates to the current Master Plan.

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:

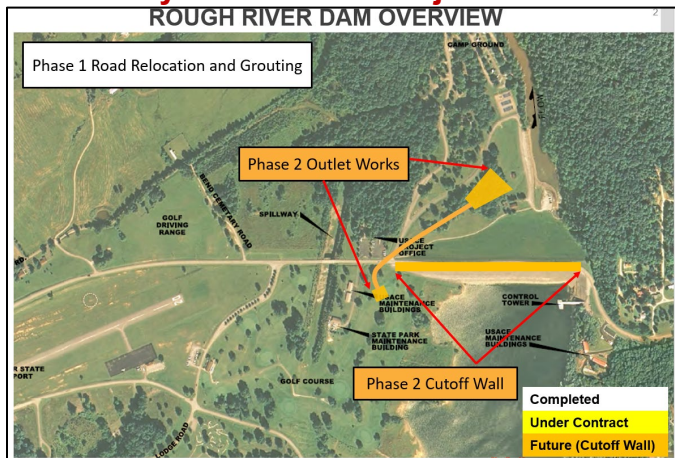
The completed update with public involvement will maintain the Corps' mission of balancing recreational development and use with the goal of conservation of natural and cultural resources.

Congressional Interest:

SEN Mitch McConnell (KY)
SEN Rand Paul (KY)
REP Brett Guthrie (KY)
REP Thomas Massie (KY)
REP Andy Barr (KY)



Rough River, Kentucky Dam Safety Modification Project



Rough River dam safety modification overview

Current Phase: Construction

Location and Description:

The dam site is located on Rough River, 89.3 miles east of the confluence with the Green River. The project consists of two phases of rehabilitation work to the dam foundation to eliminate seepage concerns. The first phase of construction consisted of grouting of the bedrock. The first construction contract (Phase 1A) was awarded in March 2014 and completed in September 2015. This contract relocated KY State Hwy 79, which crosses the dam, to the upper slope of the dam. The exploratory drilling and grouting contract (Phase 1B) was awarded in April 2015 to Advanced Construction Techniques, Inc. and was physically completed in May 2017. Based on the conditions encountered, a decision was made to proceed to Phase 2, which involves a deep concrete cutoff wall through the embankment and into the foundation rock.

Authorization:

Flood Control Act (Public Law 761, 75th Congress, 28 June 1938)

FY 21 Activities:

The Project Delivery Team (PDT) completed final design reviews of the modified Tentatively Selected Plan which includes a cutoff wall into the dam foundation and a new outlet works in the left abutment. The outlet works will consist of a new approach channel, tower, a conduit tunneled through rock, stilling basin, and retreat channel to connect to the existing river channel. The new outlet works is needed to allow the cutoff wall to sever the existing conduit with the cutoff wall and allow for a complete seepage barrier into the foundation. All reviews and certifications were completed except for the final BCOES review, which will be completed in FY22. The final Dam Safety Modification Report (DSMR) Supplement was approved by US Army Corps of Engineers (USACE) HQ and notification of the ASA(CW) occurred on 22 Feb 2021. On 30 Aug 2021 USACE-HQ

Summarized Financial Data:

	<u>Construction</u>
Estimated Federal Cost	\$398,182,000*
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$398,182,000*
Allocation thru FY21	\$117,414,000
Balance to Complete after FY21	\$280,768,000
FY22 Final Appropriation	TBD
FY22 Allocation (thru Jan 2022)	\$0
FY23 President's Budget	TBD

Note * - Fully funded cost estimate

officially recommended approval of a Continuing Contract Clause (CCC) for FY23 by ASA(CW).

FY 22 Planned Activities:

The PDT finalized the Phase 2 design and started the process of updating the Risk Assessment for the project in FY22 which will continue into FY23. Additional funding mechanisms to fund the construction of the project are also being explored. ASA(CW) endorsement of the Supplemental DSMR occurred on 20 Oct 2021.

Issues and Other Information:

USACE completed a DSMR in July 2012. The DSMR addressed unacceptable risk due to foundation conditions that can be found when a dam is constructed on karst geology (solutioned limestone). The report recommended major rehabilitation to ensure the structure's integrity and lower the project's risk. As a result of the first phase of construction, the Dam Safety Action Classification (DSAC) was changed from DSAC 2 to DSAC 3. This reduction in risk is temporary and the installation of a cutoff wall is still needed to provide the necessary long-term risk reduction. However, the DSAC change has reduced the likelihood of receiving funding in the budget for the final phase of construction. While the dam is currently operating as intended and there is no emergency or imminent threat, failure of the dam would result in catastrophic effects downstream, including potential loss of life and significant economic losses.

Changes to lake operations that would impact normal public use will be minimized as much as possible. However, at some point during the construction it may be necessary to hold the lake below the normal recreation pool level (summer pool 495 feet). USACE will be responsible for communicating project status with coordination from local, state and federal agencies and other stakeholders. Rough River Lake staff will aid in the future public awareness campaign. After the construction, the surface of the dam will be restored, and its appearance will look much as it does currently.

Congressional Interests:

SEN Mitch McConnell (KY)
SEN Rand Paul (KY)
REP Brett Guthrie (KY)

