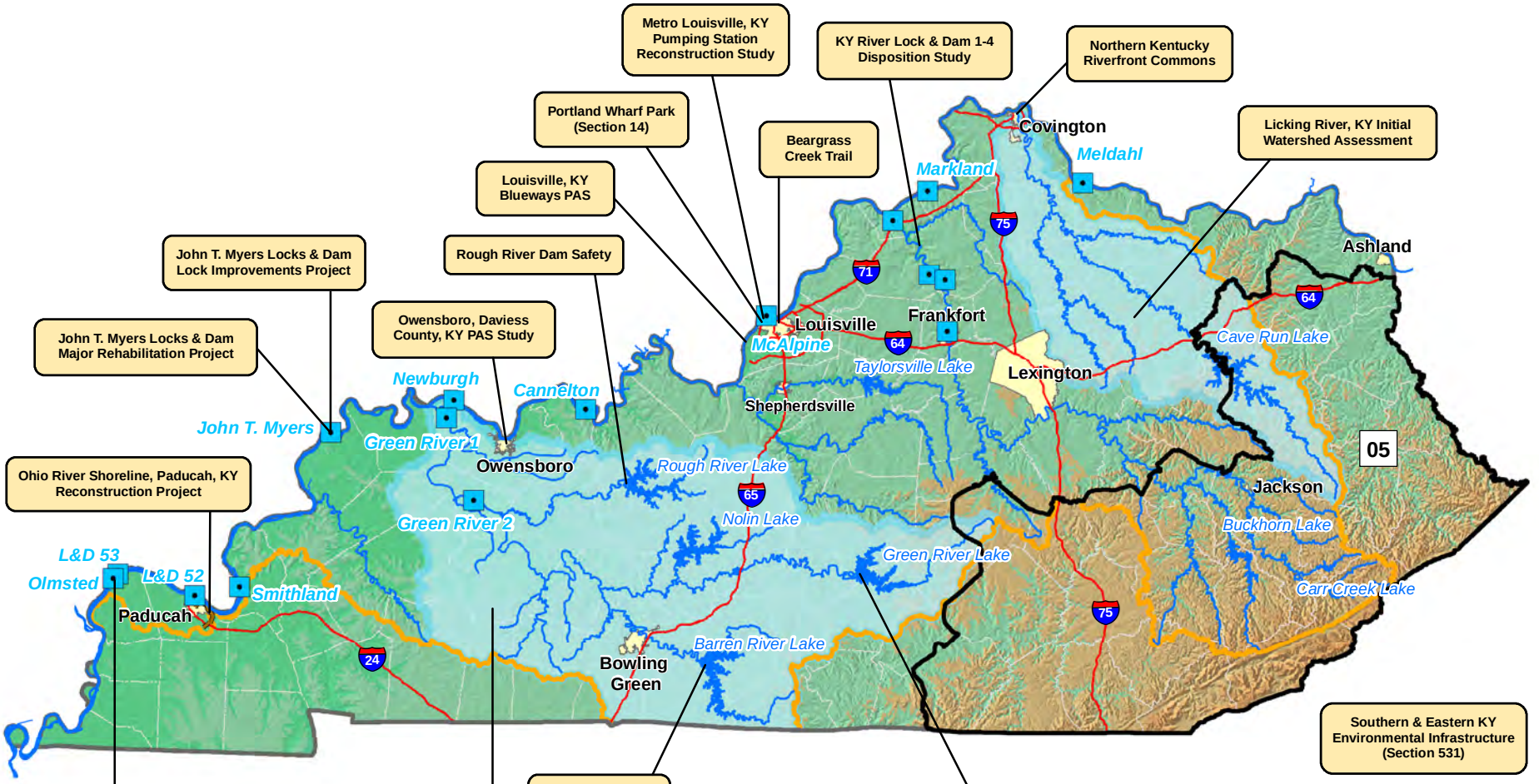
Congressional District: KY 05



ROUGH RIVER, KY DAM SAFETY

February 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Rough River Lake Dam, KY; Dam Safety Major Rehabilitation

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

Project Phase: Construction

Summarized Financial Data:

Estimated Federal Cost	$149,800,000
Estimated Non-Federal Cost	$0
Total Estimated Project Cost	$149,800,000
Allocation thru FY15	$31,800,000
Balance to Complete after FY15	$118,000,000
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	TBD

Project Location: The dam site is located on Rough River, 89.3 miles east of the confluence with the Green River.

Project Description: Repairs are necessary to ensure the dam continues to function as it was designed for another 50 plus years. Through investigations, analyses, and enhanced monitoring the Corps identified compelling evidence to warrant remedial construction. The specific concern with Rough River is the karst features of specific geologic formations that lie beneath the dam. There has been no surface distress observed at the dam related with these features; however, these formations have been identified to have the potential to weaken the dam embankment. Enhanced monitoring throughout the study has indicated that adverse seepage flow may be developing within these features following the 2011 record pool. It is imperative to address these potential concerns before they worsen over time.

Project Status: The Corps completed a Dam Safety Modification Report (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. 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.

Non-Federal Sponsor: There is an existing water storage agreement with the City of Leitchfield and there is a water storage agreement with Grayson County under development.

Where We Are Now: The planned two-phased construction project will rehabilitate the foundation to eliminate seepage concerns. The construction will involve grouting of the bedrock as an initial phase. Based on the conditions encountered, a decision will be made whether to go to Phase 2 which could involve a deep concrete

cutoff wall through the embankment and into the foundation rock. 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 grouting contract (Phase 1B) was awarded in April 2015 to Advanced Construction Techniques, Inc. The contractor has completed the site preparation and initiated drilling and grouting in November 2015. The Phase 1B contract is scheduled for completion in May 2016. Depending on the information obtained during this contract and the subsequent analysis, April 2016 will be the approximate decision point as to the final repair (cut-off wall, additional grouting, or other).

Issues and Other Information: In 2005, USACE began evaluating the risks at Corps operated dams. We developed risk reduction, risk assessment, and risk management procedures for implementing a nationwide evaluation process that prioritizes the funding and allocation of dam safety resources USACE-wide. USACE began an approach to consistently take appropriate actions to address our dam safety issues. Rough River Dam began this process in 2005 with a screening assessment which gave it priority for further investigations and study. This USACE national initiative prioritizes remedial repairs to address our aging infrastructure.

Since Rough River Dam was constructed, the dam safety community has developed a greater appreciation of what impact karstic bedrock features can have. We have seen this at Wolf Creek Dam which resulted in settlement of the earthen embankment.

The proposed work will include filling cracks, fissures and other openings in the bedrock that underlies the earthen dam. Construction began in 2014 and the duration will be three to six years depending on the final repair and the availability of funding. This project will have several phases all of which should have minimal impacts to the community. The first phase began with the movement of State Hwy 79 to the lake side of the dam. This phase is necessary to ensure that traffic flow on State Hwy 79 is not interrupted and will allow heavy construction equipment to access the crest of the dam to perform the necessary construction. Injection of grout via bore holes across the dam will then occur. Once this is complete, if determined necessary, a concrete cut-off wall will be installed across the dam alignment. After the construction, the surface of the dam will be restored and its appearance will look much as it does currently.

Changes to lake operations that would impact normal public use will be minimized as much as possible. The Corps does not anticipate a prolonged drawdown of the reservoir pool and will utilize normal pool levels to schedule construction accordingly. However, at some point during the construction it may be necessary to temporarily hold the lake below the normal recreation pool level (summer pool 495 feet).

The Corps' Louisville District 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.

Portland Wharf, Louisville, Kentucky

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Ohio River, Portland Wharf Park & Louisville Riverwalk Section 14 Emergency Streambank Stabilization Project

Authorization: Section 14 of the 1946 Flood Control Act, as amended.

Project Phase: Design & Implementation (D&I)

Summarized Financial Data:

Estimated Federal Cost	$1,678,000
Estimated Non-Federal Cost	$904,000
Total Estimated Project Cost	$2,582,000
Allocation thru FY15	$222,000
FY16 President's Budget	$0
FY16 Allocation to Date	$206,700
FY17 President's Budget	$0
Balance to Complete D&I	$1,249,300

Project Location: The project area is located in Jefferson County, Kentucky along the left descending bank of the Ohio River approximately two miles west of the Louisville Central Business District. The project is located in the 3rd Congressional District.

Project Description: There are two areas threatened by erosion within the study area: Portland Wharf Park and a segment of the Louisville River walk adjacent to Shawnee Golf Course. Portland Wharf was the historic riverboat landing for the City of Portland founded in 1811. The Wharf is part of an archaeological site known as "Portland Proper". Portland Proper is listed on the National Register of Historic Places (NRHP) and its limits encompass the entirety of the Portland Wharf Park.

Based on the alternatives considered, full bank build out using riprap with live stakings comprised of native species at the top of bank has proven to be the least cost alternative and least impactful to cultural and environmental resources for stabilizing these two sections of river bank. The estimated cost of the project is $2.5M.

Project Status: Active

Non-Federal Sponsor: Louisville/ Jefferson County Metro Government

Where We Are Now: The Feasibility Report was approved in June 2015 and the Project Partnership Agreement was executed in September 2015. Final design is currently underway.

Issues and Other Information: None

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Map

PADUCAH, KY

March 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Official Title: Ohio River Shoreline, Paducah, KY (Paducah, KY LFPP) Reconstruction Project

Authorization: Section 5077 of the Water Resources Development Act (WRDA) of 2007, Public Law 110-114; and Section 7002 of the Water Resources Reform and Development Act (WRRDA) 2014

Project Phase: Preconstruction Engineering and Design (PED)

Summarized Financial Data:

Estimated Federal Cost	$13,169,000
Estimated Non-Federal Cost	$7,091,000
Allocation through FY15	$880,400
Balance to Complete[1]	TBD
FY16 President's Budget	$5,500,000
FY16 Allocation	$0
FY17 President's Budget	$0

[1] Cost could potentially increase and are currently under review

Pump Station #2 discharge pipes supported by scaffolding

Project Location: The Paducah, Kentucky Local Flood Protection Project is located in McCracken County, Kentucky, on the left bank of the Ohio River, 934.4 miles below Pittsburgh, Pennsylvania.

Project Description: The project consists of rehabilitation work to the existing floodwall/levee which will involve repair/replacement of aging pumping station equipment, corrugated metal pipes, concrete, and other appurtenant features.

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Project Status: A design agreement was executed on 14 March 2013; this agreement was a standard design agreement and was initially used in 2013 to allow commencement of design. An amended design agreement, to include the non-Federal Sponsor's work-in-kind contributions, was executed on 9 April 2015. A Memorandum of Understanding (MOU) was executed in September 2015 that will allow the non-Federal sponsor to repair, replace, and/or rehabilitate Pump Station #9. Another MOU is expected to be executed in FY16 that will allow the non-Federal sponsor to repair, replace, and/or rehabilitate Pump Station #2 Funding was included for the FY16 President's Budget but was not appropriated. Funding was also included for the FY17 President's Budget but was not approved as a New Start.

Non-Federal Sponsor: The City of Paducah, Kentucky

Where We Are Now: The Chief's Report was signed on 16 May 2012. A Project Management Plan (PMP) and amended design agreement was coordinated and developed with the non-Federal Sponsor. The first of multiple phases of design is scheduled to be Ready-To-Advertise in May 2016, with a construction award depending upon funding availability.

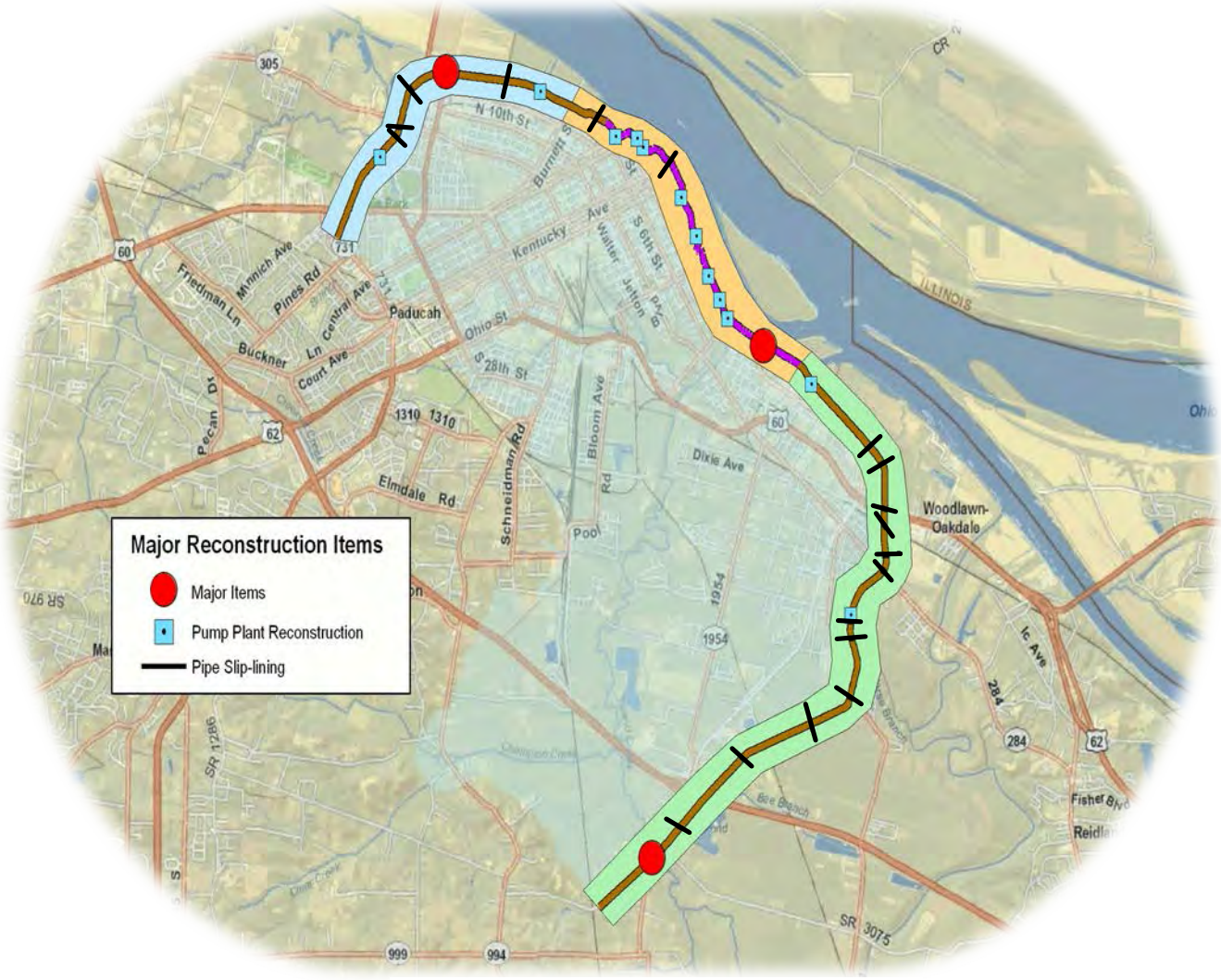
Issues and Other Information: The Paducah, KY Local Flood Protection Project was removed from the Rehabilitation Inspection Program under Public Law 84-99, in the fall of 2007, because of corroded metal drainage pipes. The City of Paducah risked FEMA decertification of its local flood protection project if it did not soon repair corroded metal pipes that drain normal storm water runoff through the earthen levee and into the river. Failure of those drainage pipes could cause interior flooding or breach the earthen levee, and thus threaten the local population and damage properties. The City completed repair of the pipes and was recertified in the Rehabilitation Inspection Program in January 2010. Section 5077 of WRDA 2007 authorized the project and contained language indicating that the "Secretary shall complete a feasibility report" and, if feasible, "carry out the project at a total cost of $3,000,000." Section 2003 of WRDA 2007 indicates non-Federal interests may receive in-kind credit for costs of planning, design, management, mitigation, construction, and construction services. However, Corps of Engineer's policy requires a Feasibility Study be completed before a Non-Federal Sponsor can receive credit. The Office of the Assistant Secretary of the Army executed an In-Kind Memorandum of Understanding with the City of Paducah on November 17, 2008, which enabled the City to proceed with the repair of the culverts in advance of the completion of the feasibility study and for the City to receive credit towards its cost share requirement if and when the project proceeds to construction.

Emergency work was completed by the Non-Federal Sponsor in July 2014 on pump station Number 2 for $391,356.

The estimated total project cost, as developed as part of the feasibility study, was authorized in WRDDA 2014 for $20,700,000. Estimated project costs have increased since this authorization. A limited Post Authorization Change Report (PACR) is being develop to request additional funding authorization.

Woodward Hollow

Nicked Impeller Blade



Paducah, KY Project Map

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Map

City of Owensboro, Daviess Co., KY

March 2016

U.S. ARMY CORPS OF ENGINEERS BUILDING STRONG®

Official Title: Owensboro, Daviess County, KY, PAS Study

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

Project Phase: Planning Assistance to States

Summarized Financial Data:

Estimated Federal Cost	$110,000
Estimated Non-Federal Cost	$110,000
Total Estimated Project Cost	$220,000
Allocation thru FY15	$110,000
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete	$0

Project Location: This study area includes Daviess County, KY; including the City of Owensboro on the southern bank of the Ohio River in western Kentucky. Owensboro is the county seat of Daviess County.

Project Description: In August 2014, the Daviess County Drainage Advisory Committee (DAC) oversaw the preparation of a Storm Water Master Plan to establish goals for flood mitigation within the County, develop flood mitigation alternatives, and estimate the cost associated with these alternatives. The goals of the flood mitigation efforts identified in the Master Plan were to remove 30% of the current land area flooded by primary waterways; and to keep major public road crossings from being flooded. The Phase I Master Plan evaluated a number of flood mitigation alternatives including levees, channels, roadway modifications, and detention storage. Further evaluation was recommended to better define the effectiveness of the alternatives.

In February 2014, a Letter of Intent was received from the Daviess County Fiscal Court requesting Louisville District assistance with the Phase II Master Plan. Phase II includes: Developing estimates of project benefits to better assess the cost effectiveness of the proposed solutions; refining the desired level of protection; exploring regulatory requirements, and operations and maintenance costs. The focus is on detailed evaluation of flood mitigation alternatives for 12 streams in the County.

Project Status: A Letter Agreement formally initiating the study was executed in June 2015. Non-federal funds were received in August 2015 and the study is currently underway with an expected completion date of June 2016 using funds received through FY 15.

Non-Federal Sponsor: Daviess County, KY

Where We Are Now: Conducting surveys and reviewing existing models.

Issues and Other Information: None.

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Olmsted Locks and Dam Project

February 2016

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 in 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. 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.

Project Status: The two 110' X 1200' locks and approach walls are complete. The fixed weir on the Kentucky bank is complete. As of 01 February 2016, all eighteen dam tainter gate shells are set and tainter gate #1 and #2 are erected. In the navigable pass section, eight of twelve paving blocks, the right boat abutment, and six of twelve navigable pass shells have been set in the river. Foundation pile driving operations for the navigable pass are underway. Current schedule is to be dam operational in October 2018 and project complete in March 2022.

Summarized Financial Data

2012 PACR	$3,099,000,000
2014 Total Estimated Project Cost (NWW certified)	$3,098,573,000
Estimated Federal Cost	$2,047,852,000
Estimated Inland Waterways Trust Fund Cost	$1,050,721,000
Allocation thru FY16 including ARRA allocation thru 30 Sept 15	$2,227,402,000
FY 16 Budget/Capability	$180,000,000/$268,000,000
FY 17 Budget	$225,000,000
Benefit to Cost Ratio (at 7%)	3.4
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 project authorization was increased on 17 October 2013 as part of a Continuing Appropriations Act, 2014 for $2,918,000,000. The project was cost shared 50/50 with the Inland Waterways Trust Fund (IWTF) through FY2013. The FY2014 Omnibus Appropriation Act changed the split of IWTF and federal cost share to 25/75 for FY2014 only. Water Resources Reform and Development Act of 2014 changed the IWTF and federal cost share to 15/85 beginning 1 October 2014.

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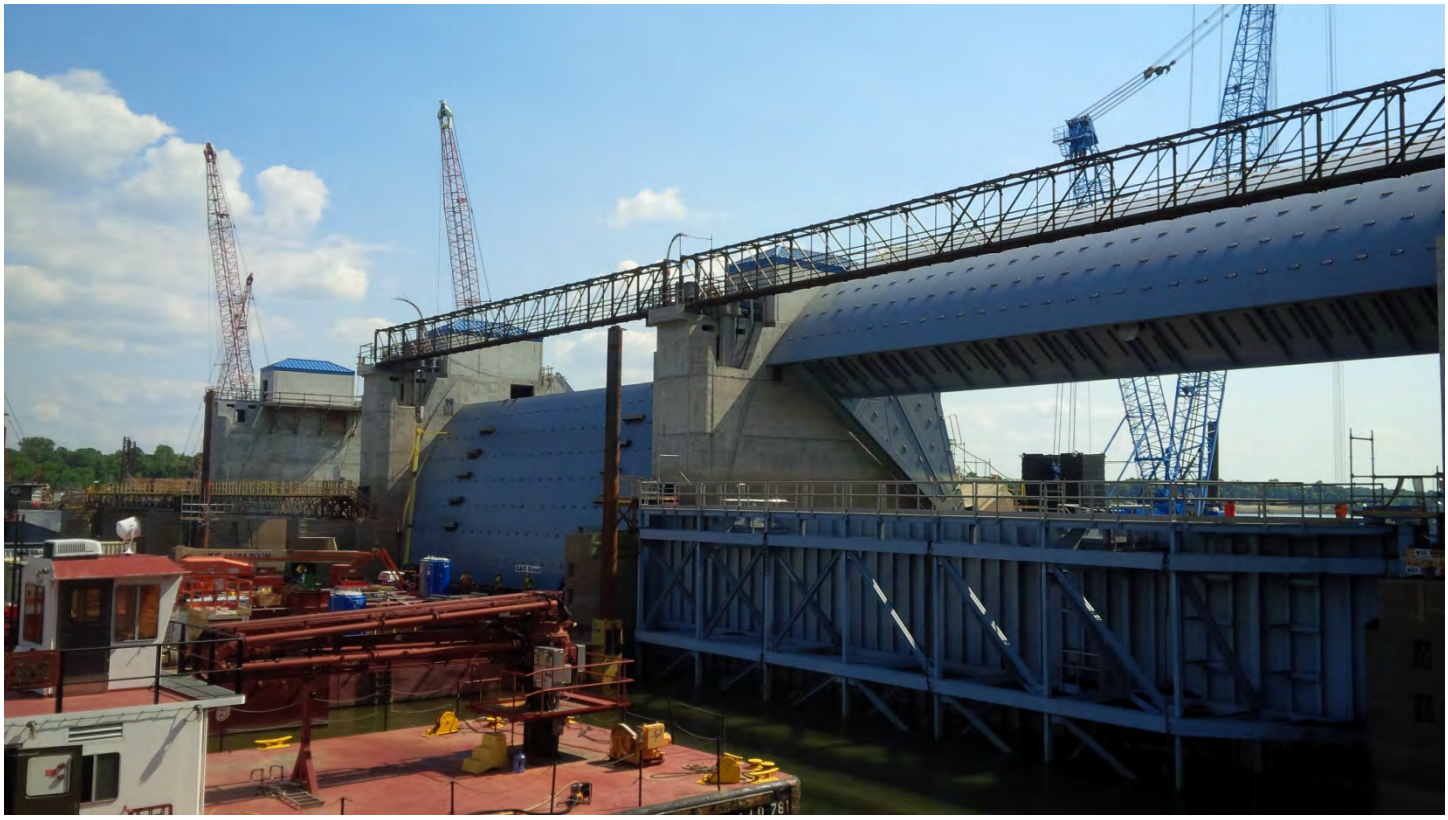
As of 01 February 2016, $2,123,787,491 has been expended on the project. The annual average benefits from the Olmsted project are approximately $640M.

Upcoming Actions: The Government and navigation industry stakeholders are exposed to significant increased economic risk given the failing condition of Locks & Dams 52 & 53. Accordingly, efficient completion of the Olmsted project construction is the only sustainable mitigation measure available. Continued capability funding is required to meet a dam operational date of October 2018. Without annual capability level funding in place, the dam operational date will likely slip one or more years reverting to the less than optimum operational timeframe of September 2020 contemplated in the PACR forgoing approximately $1.28B in benefits.



Tainter Gates #1 and #2

Northern KY Riverfront

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Northern Kentucky Riverfront

Authorization: Senate Committee of Environment and Public Works Resolution dated December 17, 1987

Project Phase: Feasibility

Summarized Financial Data:

Estimated Federal Cost	$600,000
Estimated Non-Federal Cost	$600,000
Total Estimated Project Cost	$1,200,000
Allocation thru FY15	$208,000
FY16 President's Budget	$0
FY16 Allocation	$392,000
FY17 President's Budget	$0
Balance to Complete	$0

Project Location: The Northern Kentucky Riverfront study area is a corridor approximately 12 miles long and ½ mile wide, along the left bank of the Ohio River in Northern Kentucky in the communities of Bellevue, Covington, Dayton, Ft. Thomas, Ludlow, and Newport.

Project Description: A feasibility level study is being performed for ecosystem restoration and compatible recreation along the Ohio River and the mouth of the Licking River. The primary goal is to restore riparian structure and function, including geomorphology, vegetation and wildlife, with the potential added benefit of enhancing compatible public access to the rivers. Incidental benefits also include providing additional retention time for stormwater and flood waters.

Project Status: Several public and stakeholder meetings have been held, demonstrating high interest, and generating useful information. The most recent meeting was the April 21-24, 2014 SMART Planning Charette with full vertical team integration.

Non-Federal Sponsor: Northern Kentucky Port Authority

Where We Are Now: The study is being resumed after a one year delay because of lack of Federal funding. The study was recently approved for the receipt of completion funds in FY 16. The study schedule and scope of work will be reviewed and documented in updates to the Project Management Plan. Vertical team coordination will be resumed and preparation for and conduct of field work scheduled.

Issues and Other Information: Sponsor funds in the amount of $250,000.00 are immediately available. The balance of sponsor funds will be required to complete the feasibility study.

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Map

METRO LOUISVILLE, KY, FLOOD PROTECTION SYSTEM

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Metro Louisville, KY, Flood Protection Project Reconstruction Study

Authorization: Section 4044 of the Water Resources Development Act (WRDA) of 2007, Public Law 110-114

Project Phase: Feasibility Study

Summarized Financial Data:

Estimated Federal Cost	$1,000,000
Estimated Non-Federal Cost	$1,000,000
Total Estimated Project Cost	$2,000,000
Allocation thru FY15	$0
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete Project	$1,000,000

Project Location: The Metro Louisville, Kentucky Local Flood Protection Project is located in Jefferson County, Kentucky, on the left bank of the Ohio River.

Project Description: The project consists of a levee and floodwall system, with numerous pumping stations for maintaining interior drainage in times of flooding. The project was constructed between March 1947 and March 1956, and was assigned to local interests in February 1957. The project affords protection for loss of life and property damage to the City of Louisville against an Ohio River flood equal to the maximum flood of record (January 1937). The project is operated and maintained by the Louisville and Jefferson County Metropolitan Sewer District (MSD). The feasibility study will consist of an investigation of the rehabilitation work needed for the repair/replacement of aging project features including floodwalls, and pumping station equipment constructed as a part of the project which was originally authorized by Section 4 of the Flood Control Act of June 28, 1938 (52 Stat. 1217).

Project Status: An Initial Appraisal was completed in 2008. At that time the preliminary estimate of rehabilitation cost was $108 million for major rehabilitation of the pumping stations and equipment, only. MSD is finalizing a Capital Improvements Plan which will include the estimated rehab costs for the flood protection system, including, but not limited to the pumping stations.

Non-Federal Sponsor: The Louisville and Jefferson County Metropolitan Sewer District.

Where We Are Now: Awaiting funds to initiate a cost shared feasibility study.

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Map

Issues and Other Information: The Initial Appraisal study was undertaken under the authority of Section 216 of the 1970 Flood Control Act, which authorizes the Corps of Engineers to review operations of completed projects, when found advisable due to changed physical, economic, or environmental conditions. This study examined ten pumping stations over 50 years old and determined that federal involvement in a detailed study to reconstruct or replace the pumping stations is warranted. The feasibility study authority contained in Section 4044 of the Water Resources Development Act of 2007 did not limit the study to the pumping stations, but authorized the investigation of measures to address the rehabilitation of the project. Project features including the pumping stations have been in service for sixty years, and although well maintained, pose a risk to system reliability. In 2004, MSD commissioned a study of the pumping stations in an effort to determine potential problems and prioritize resources to aid in resolution of these problems. The pump motors in these stations are all the originals. The motor insulation is, given its age, expected to be cotton, asbestos, or a combination thereof. This insulation has exceeded its predictable useful life. The motor control switchgear is the original, 1950's vintage switchgear. Included are oil circuit breakers, protective relaying, potential transformers, current transformers, meters, and wiring. This equipment has also exceeded its life expectancy and has become increasingly difficult to service due to a scarcity of parts. The existing switchgear operation relies on a multitude of mechanical movements of numerous parts to perform its functions. Due to its age, replacement of broken or worn out parts sometimes results in nationwide searches for expensive, rare, used parts. As years pass, obsolescence is getting progressively worse and chances of equipment failure are increasing, especially when placed under heavy loads.

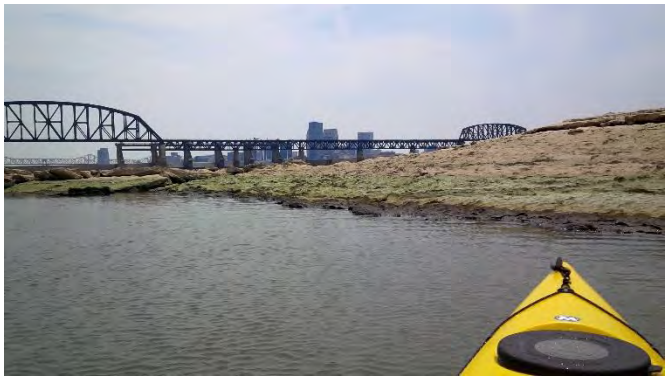
Increased development in the watersheds upstream and in the project area combined with the current reality of larger, more frequent severe weather resulted in a need to evaluate and determine the existing flood protection system's capacity to manage the increased flood runoff. The area protected by the Louisville flood protection system, includes a major medical complex in downtown Louisville, which is also the location of University Hospital, the region's major trauma center. The Fifth Street pumps protect the downtown entertainment district as well as the national headquarters for Humana. Also included within the line of protection are the University of Louisville main campus as well as Old Louisville, the nation's largest Victorian neighborhood, and a National Register District.

Louisville KY Blueways PAS

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Louisville, KY Blueways, Planning Assistance to States Study (PAS)



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

Project Phase: Study

Summarized Financial Data:

Estimated Federal Cost	$70,000
Estimated Non-Federal Cost	$70,000
Total Estimated Project Cost	$140,000
Allocation thru FY15	$70,000
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete	$0
	$0

Project Location: The study area is located in Jefferson County, Kentucky (3rd Congressional District).

Project Description: The purpose of this Planning Assistance to States (PAS) project is to investigate the critical issues associated with creation of specific infrastructure along the Ohio River (lower pool) from the McAlpine Locks and Dam downstream to the end of Chickasaw Park, including: 1) boat access to the Ohio River; 2) canoe/kayak access to the Ohio River; 3) restoration of an existing pond for safe fishing and flat water canoe instruction; and 4) soft surface trail improvements along the Ohio River.

Project Status: Active

Non-Federal Sponsor: Louisville/Jefferson County Metro Government

Where We Are Now: Study is underway with completion scheduled for February 2016.

Issues and Other Information: None.

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Map

Licking River, KY IWA

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Licking River, KY, Initial Watershed Assessment

Authorization: Section 729 WRDA 1986, as amended by WRDA 2000.

Project Phase: Initial Watershed Assessment (IWA)

Summarized Financial Data:

Estimated Federal Cost	$100,000
Estimated Non-Federal Cost	$29,300
Total Estimated Project Cost	$129,300
Allocation thru FY15	$100,000
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete	$0

Project Location: The Licking River watershed is within the Commonwealth of Kentucky, and includes parts of Kentucky's 4th, 5th, and 6th Congressional Districts. The watershed is identified with the 8-digit hydrological unit code (HUC) 05100101. The main stem of the river flows north northwest 320 miles from its headwaters to its confluence with the Ohio River near Cincinnati, OH. It drains an area of roughly 3,600 square miles.

Project Description: The purpose of the Initial Watershed Assessment is to engage stakeholders in the identification of problems, needs and opportunities in the watershed and to prioritize those into a draft comprehensive watershed master plan.

Project Status: Active.

Non-Federal Sponsor: The non-federal sponsor for completion of the IWA is the KY Division of Water. The ability to continue beyond the IWA into a Final Watershed Assessment (FWA) is dependent on the identification of a non-federal cost share sponsor. Discussions are underway with potential sponsors for preparation of the Final Watershed Assessment.

Where We Are Now: A GIS inventory of existing data has been assembled, and outreach meetings held to identify water resources priorities within the watershed. Additional stakeholder meetings will be conducted to complete the watershed assessment.

Issues and Other Information: A cost share sponsor is required to initiate and complete the Final Watershed Assessment. With the passage of the Water Resources and Reform Development Act (WRRDA) of 2014, there is no longer 100% federal funding for Initial Watershed Assessments prior to initiating a Final Watershed Assessment. A cost share sponsor is required from the onset of the FWA.

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Map

KY RIVER LOCKS 1-4

March 2016

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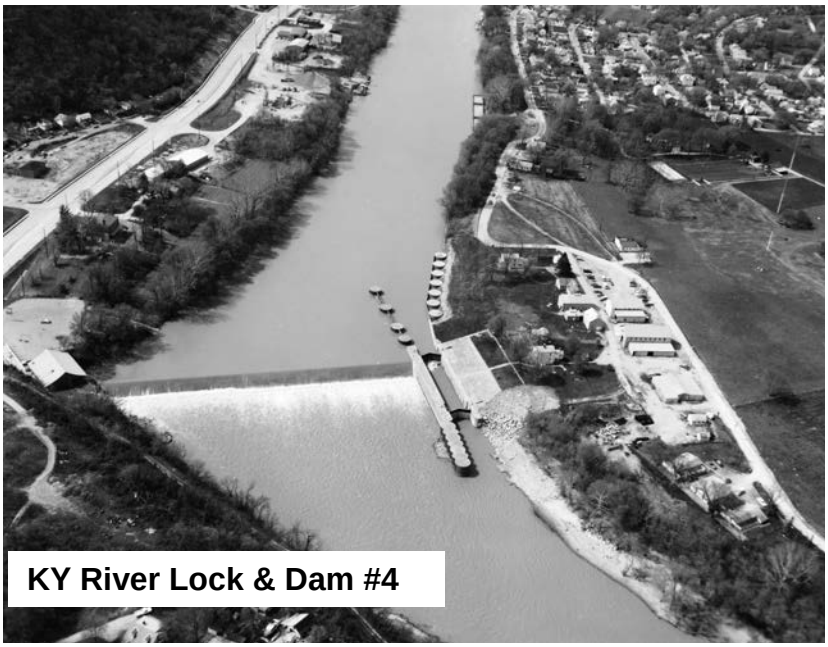
KY River Lock & Dam #4

Official Title: Kentucky River Locks 1-4, KY, Disposition Study

Authorization: Section 216 of the Flood Control Act (FCA) of 1970, Public Law 91-611

Project Phase: Feasibility Study

Summarized Financial Data:

Estimated Federal Cost	$700,000
Estimated Non-Federal Cost	$0
Total Estimated Project Cost	$700,000
Allocation thru FY15	$0
FY 16 President's Budget	$0
FY 16 Allocation	$400,000
FY 17 President's Budget	TBD
Balance to Complete Project	$300,000

Project Location: Kentucky River Locks 1-4 are located on the Kentucky River between its confluence with the Ohio River (545.9 miles below Pittsburgh, Pennsylvania) and KY River Mile 65.0 at Frankfort, Kentucky.

Project Description: The feasibility study would document and evaluate potential alternatives for the disposal of the existing inland navigation facilities.

Project Status: The existing navigation facilities no longer perform their authorized Federal navigation purpose, and it is highly unlikely that this condition will ever improve.

Non-Federal Sponsor: N/A

Where We Are Now: Awaiting funding to initiate the planning process required for disposition studies of this nature.

Issues and Other Information: Commercial navigation on the Kentucky River has been a Corps mission responsibility since the late 19th century, involving 14 lock & dam facilities. Navigation on the Kentucky River began a steadily decline in the mid 20th century until it was determined in the mid-1970's that a Federal interest in continued operation of Locks and Dams 6-14 no longer existed. In WRDA 1986 Congress authorized the disposition of Locks and Dams 5-14. During the period 1996 - 2006, Locks and Dams 5-14 were transferred by Quitclaim deed to the Kentucky River Authority. Locks 1-4 are currently operated by the Kentucky River Authority under a lease agreement with the Corps.

In 1988 the Corps completed the Lower Kentucky River Navigation Modernization Feasibility Study, concluding that modernization of the navigation system on the Lower Kentucky River (Locks and Dams 1-4) would not be economically justifiable, and does not warrant further study. Navigation data through Locks and Dams 1-4 has not been collected or monitored by the Corps since 2002.

Map

DAM SAFETY, KENTUCKY

February 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Corps of Engineers Dam Safety Program; Kentucky Dams - Dam Safety Portfolio Risk Management

Project Phase: Routine Dam Safety Inspection and Assessment / Risk Studies

Summarized Financial Data: The Dam Safety Risk Studies are part of a national program with funds distributed by the Corps of Engineers (COE) Headquarters Dam Safety Office on a priority basis

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)

Non-Federal Sponsor: N/A

Study and Program Information: During normal operations, these dams are routinely inspected daily, weekly, and monthly by COE 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 COE 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.

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 2 study may be undertaken to gather the necessary data to reduce the uncertainty. The results of these studies are presented to the COE 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 is in need of 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.

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Map

Project Location: Barren Lake Dam, KY

Project Status:

* SPRA (Screening for Portfolio Risk Analysis): 2007
* DSAC (Dam Safety Action Classification) Rating: Class 3
* IRRMP (Interim Risk Reduction Measures Plan): Completed 6 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).

Where We Are Now: Routine O&M surveillance and monitoring program.

Project Location: Buckhorn Lake Dam, KY

Project Status:

* 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).

Where We Are Now: Routine O&M surveillance and monitoring program.

Project Location: Carr Creek Lake Dam, KY

Project Status:

* 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

Where We Are Now: Routine O&M surveillance and monitoring program.

Project Location: Cave Run Lake Dam, KY

Project Status:

* SPRA (Screening for Portfolio Risk Analysis): 2009
* DSAC (Dam Safety Action Classification) Rating: Class 3
* IRRMP (Interim Risk Reduction Measures Plan): Completed 27 July 2010
* 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).

Where We Are Now: Routine O&M surveillance and monitoring program.

Project Location: Green River Lake Dam, KY

Project Status:

* SPRA (Screening for Portfolio Risk Analysis): 2006
* DSAC (Dam Safety Action Classification) Rating: Class 3
* IRRMP (Interim Risk Reduction Measures Plan): Completed 9 April 2008
* The findings of the Phase 2 Issue Evaluation Study (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 on the right abutment of dike and to update the current IRRMs.

Where We Are Now: Remedial construction is not warranted at this time and the dam was re-classified to a DSAC 3. This structure has been reprioritized in the risk study queue.

Project Location: Nolin Lake Dam, KY

Project Status:

* 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
* The findings of the Phase 2 Issue Evaluation Study (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.

Where We Are Now: Remedial construction is not warranted at this time and the dam was re-classified to a DSAC 3. This structure has been reprioritized in the risk study queue.

Project Location: Rough River Lake Dam, KY (See detailed Fact Sheet for additional information)

Project Status:
* 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.

Where We Are Now?
FY 2014: 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.
FY 2015: The second construction contract (Phase 1B) was awarded in May 2015 and consists of exploratory drilling and grouting.
FY 2016: Construction work continues with exploratory drilling and grouting with a scheduled completion date of June 2016. Depending on the results of the grouting, a decision will be made on whether to construct a full depth concrete cutoff wall.

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Map

Project Location: Taylorsville Lake Dam, KY

Project Status:

* 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

Where We Are Now: Routine O&M surveillance and monitoring program.

J. T. MYERS MAJOR REHAB

March 2016

U.S. ARMY CORPS OF ENGINEERS BUILDING STRONG®

Official Title: John T. Myers Locks and Dam Major Rehabilitation Project

Authorization: Section 6 of the Rivers and Harbors Act, approved 3 March 1909

Project Phase: Feasibility

Summarized Financial Data:

Estimated Federal Cost	$11,300,000
Estimated Non-Federal Cost	$0
Total Estimated Project Cost	$11,300,000
Allocation thru FY15	$0
Balance to Complete	$0
FY16 Allocation	$0
FY17 President's Budget	$0

Project Location: John T. Myers Locks and Dam are located at Ohio River Mile 846.0, about 3 miles below Uniontown, KY.

Project Description: The John T. Myers navigation facility consists of a 1200-foot long main lock chamber, a 600-foot auxiliary lock, a high lift dam with 10 tainter gates, and a fixed weir section. In the 1990's the gated-dam was observed to have sustained significant structural damage with repair costs potentially exceeding the current inland waterways navigation major rehabilitation threshold.

A Major Rehab Evaluation study was initiated in 2001. Engineering risk analysis of the observed erosion of the large holes in the reinforced concrete stilling basin, piers, and baffle blocks within several gate bays of the dam determined a high probability of failure by 2020. Failure of a stilling basin could result in loss of the navigation pool which, during low river stages, would cease commercial traffic, disrupt municipal and industrial water intakes, and cause potential damage to marinas and fleeting facilities. This was a major finding in the report and a large part of the proposed Major Rehab scope of work. A draft report was completed in 2005. Comments from USACE HQ required additional analysis.

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Map

In 2014 the condition of the stilling basin erosion and other components of the J.T. Myers Dam were reassessed. The economic analysis and risk and reliability engineering analyses of the required repairs were updated. Observed stilling basin scour has not progressed in the last 10 years. Accordingly the probability of failure for this significant part of the major rehab scope is low and does not economically justify the cost of repairs to the dam using a dewatering box.

Other areas of concern include seizing of hinged-brackets that attach hoisting cables to the tainter gates and major maintenance needs for operating machinery and associated electrical service and controls still exist. As determined by risk and reliability analyses, various structural, mechanical and electrical components of the navigation dam will be repaired or replaced based on the maintenance priorities of the Ohio River navigation system.

Project Status: The Corps of Engineers Louisville District conducted a Major Rehabilitation Evaluation project in accordance with Appendix E of ER 1105-2-100. The Project Delivery Team (PDT) has verified that the preliminary repair costs of various required repair items that meet risk and economic viability considerations totals less than the $20 Million cost thresholds to be included in the Corps Major Rehab program. Operation and Maintenance (O&M) funds are being used to complete the report and the associated reviews.

Non-Federal Sponsor: As a Major Rehab project the cost would be cost-shared 50/50 with the Inland Waterways Trust Fund (IWTF). As major maintenance items future actions will be 100% federal funded under O&M program funds.

Where We Are Now: The PDT will complete a Major Maintenance Report which will consolidate and summarize project findings. The completed report will be provided in March 2016 to the Louisville District Operations Division for their use in preparing future maintenance O&M funded work packages.

Issues and Other Information: A Value Engineering workshop was held in November 2015 that identified the potential scope for capital investments over the next 15 years.

J. T. MYERS LOCK EXTENSION

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: John T. Myers Lock and Dam, Indiana and Kentucky

Authorization: Water Resources Development Act (WRDA) 2000, Public Law 106-541

Project Phase: Construction

Summarized Financial Data:

Estimated Federal Cost	$226,561,000
Estimated Non-Federal Cost	$216,239,000
Total Estimated Project Cost	$442,800,000
Allocation thru FY15 1/	$19,456,946
Balance to Complete	$423,343,054
FY 16 President's Budget	$0
FY 16 Allocation	TBD
FY 17 Present's Budget	TBD

1/ Includes funds ($10,110,000) provided by the American Recovery and Reinvestment Act of 2009 (ARRA), Public Law 111-5, which are not cost shared with IWTF appropriations.

Project Location: The project is located on the right bank of the Ohio River at river mile 846.0, approximately 3.5 miles downstream of Uniontown, Kentucky, with the lock chambers towards the Indiana shore.

Project Description: The John T. Myers Lock Extension Project will extend the existing 600-foot long auxiliary lock chamber to a 1,200-foot long lock chamber. This effort will give the navigation facility twin 1,200-foot locks for inland navigation tow traffic. This additional lock capacity will enable the facility, in operation since 1969, to manage tow traffic during planned and unscheduled main lock closures without significant delays to inland navigation. Many contracts are required to design and construct the project. Preconstruction, Engineering and Design (PED) efforts since 2000 have included hydraulic model studies and engineering analysis and foundation explorations towards preparation of project plans and specifications.

In September 2004, the Corps awarded the first site preparation contract for construction of an Operations Support Facility. Those construction activities were completed in late 2005. The remaining site preparation contracts will include: a) excavation of the river bank to widen the upper lock approach; b) construction of a Resident Engineer's building; c) miter gate storage area, with spare gate; and d) implementation of aquatic mitigation. Based upon physical modeling, it is necessary to widen the upper approach area for downbound entry of commercial towing vessels into the extended auxiliary lock chamber. The spare miter gate will allow the Corps to expedite both scheduled maintenance activities and emergency repairs to the existing lock miter gates. Environmental mitigation will involve installation of a series of in-water features, over three consecutive summer and fall low water seasons, to enhance aquatic habitat in the nearby vicinity of the project. Upon receipt of additional funding the Corps would proceed towards award of the remaining contracts. The Corps plans to award two contracts to construct the lock extension and its new approach walls.

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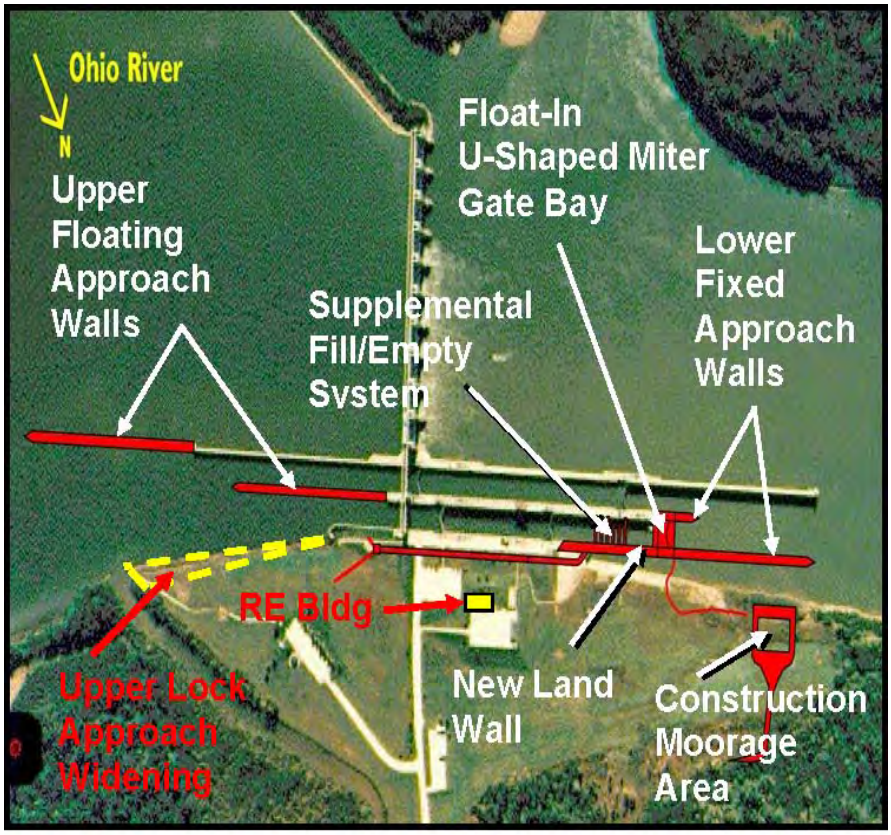
Map



Project Status: The Corps of Engineers has suspended design of the project until receipt of additional funds. The American Recovery and Reinvestment Act of 2009 provided the Corps of Engineers with funding to award the contracts for construction of the upper lock approach widening and Resident Engineer's building. The approach widening contract was awarded on December 17, 2009 and was substantially complete in July 2012. The Resident Engineer's Building was awarded on March 31, 2010, and was substantially complete in December 2011.

The construction of the remaining work will be accomplished by award of both fully and incrementally-funded contracts. The schedule will be developed upon receipt of additional funds.

Award FY	Contract Funding	Description of Contract Work
2010	Fully Funded	Upper Bank site prep and Access Road (ARRA-funded)
2010	Fully Funded	Construction of Resident Engineer's building (ARRA-funded)
TBD	Fully Funded	Spare miter gate and storage area
TBD	Fully Funded	Aquatic mitigation
TBD	Incremental	Construction of lock extension
TBD	Incremental	Construction of lock approach walls

Non-Federal Sponsor: The project is cost shared 50/50 with the Inland Waterways Trust Fund.

Where We Are Now: Awaiting funds to continue design and construction of the lock extension project.

Issues and Other Information: The John T. Myers project passes the highest tonnage of all the Ohio River high lift locks with a 600-foot auxiliary chamber. Currently, approximately 73 million tons of commodities were shipped through the J. T. Myers locks in 2010. The project authorization was a product of the Ohio River Mainstem Systems Study, which used a regional systems approach to address the investments needed to provide an efficient navigation system on the Ohio River mainstem through 2060. This project represents a reinvestment in the river transportation infrastructure.

Green River Watershed, KY

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Green River Section 729 Watershed Assessment

Authorization: This study is authorized by Section 729 of the Water Resources Development Act (WRDA) 1986, as amended by WRDA 2000.

Project Phase: Final Watershed Assessment

Summarized Financial Data:

Estimated Federal Cost	$220,000
Estimated Non-Federal Cost	$40,000
Total Estimated Project Cost	$260,000
Allocation thru FY15	$220,000
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete	$0

Project Location: The Green River Watershed, with a drainage area of 9,230 square miles, is located in west-central Kentucky with a small portion in north-central Tennessee. The Green River is one of the most significant freshwater aquatic ecosystems in North America.

Project Description: The District prepared a Section 729 Initial Watershed Assessment (IWA) for the Green River Watershed in 2011. The conclusion of the IWA recommended the development of a Final Watershed Assessment (FWA) for the Green River Watershed. In 2012, LRL executed a cost share agreement with The Nature Conservancy to complete the FWA. The FWA documents the problems identified by stakeholders within the watershed, including existing conditions, possible causes and potential solutions which may be implemented by local decision makers, watershed groups, state resource agencies and federal agencies. Utilization of this FWA should inform comprehensive action for managing land and water resources within the watershed via a holistic process which reflects the interdependency of land owners and water users, competing demands on water resources and the desires of the stakeholders.

Project Status: Active.

Non-Federal Sponsor: The Kentucky Chapter of The Nature Conservancy is the Non-Federal Sponsor for the cost shared phase of the Watershed Assessment.

Where We Are Now: The Final Watershed Assessment was approved by USACE HQS in October 2015 and is currently under review by OASA (CW) office.

Issues and Other Information: None.

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Map

Green River Dam Modification, KY

March 2016

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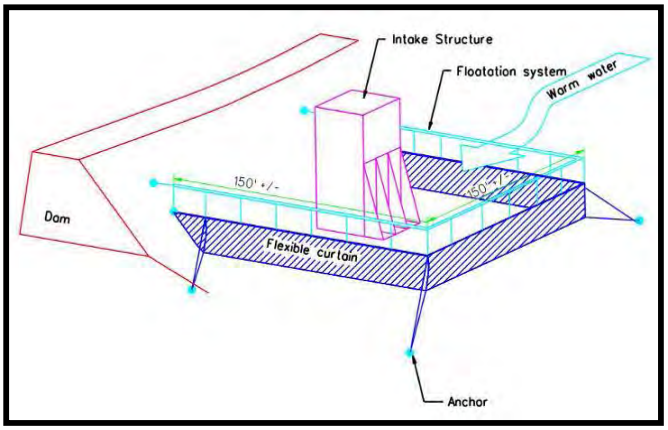

Official Title: Green River Lake Dam Outlet Modification Study

Authorization: Section 1135 of the Water Resources Development Act of 1986 (P.L. 99-662), as amended

Project Phase: Design & Implementation

Summarized Financial Data

Estimated Federal Cost	$1,034,810
Estimated Non-Federal Cost	$344,937
Total Estimated Project Cost	$1,379,747
Allocation thru FY15	$125,000
FY16 President's Budget	$0
FY16 Allocation	$70,000
FY17 President's Budget	$0
Balance to Complete	$964,810

Project Description: The upper Green River is rated the fourth highest stream in aquatic biodiversity in the United States. The most critical stretch is about 114 stream miles long between Lock and Dam 6 in Mammoth Cave National Park on the lower end and Green River Lake Dam on the upper end. The continued enhancement and preservation of this critical stretch of the Green River is a high priority for conservation professionals. The proposed project includes the modification of the Green River Lake Dam with the installation of a flexible curtain as a submerged weir. This modification would allow for the Corps of Engineers to meet temperature targets for water releases from Green River Lake 80 to 90% of the year, which will benefit reproduction of aquatic species downstream of Green River Lake.

Project Location: The Green River Lake Dam is located in Taylor County, Kentucky approximately 10 miles from the City of Campbellsville.

Project Status: Active

Non-Federal Sponsor: TBD

Where We Are Now: The feasibility report was approved in September 2015. USACE is currently identifying non-federal sponsors to execute a Project Partnership Agreement and initiate the design phase of the project.

Issues and Other Information: None

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GREEN & BARREN RIVERS DISPOSITION

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Green & Barren Rivers, KY Locks and Dams Disposition Study

Authorization: Section 216 of the Flood Control Act of 1970 (P.L. 91-611)

Project Phase: Feasibility Study

Summarized Financial Data:

Estimated Federal Cost	$338,000
Estimated Non-Federal Cost	$0
Total Estimated Project Cost	$338,000
Allocation through FY15	$338,000
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete	$0

The Feasibility phase is complete. Upon receipt of funding, the Preconstruction, Engineering and Design phase of the project will be initiated.

Project Location: The Green River enters the Ohio River just upstream of Henderson, Kentucky. Major tributaries include the Barren River, Rough River, and the Nolin River. The area specifically involved in the study is the Green River between Lock and Dam 3 at River Mile 108.5 upstream to the furthest extent of the pool above Lock and Dam 6 at River Mile 181.7, and the Barren River from its confluence with the Green River upstream to the furthest extent of the pool above Lock and Dam 1, at River Mile 15.0.

Project Description: Green River Locks and Dams 3 through 6 and Barren River Lock and Dam 1 were authorized by Congress for navigation, but are no longer in use. The facilities and the pools are no longer operated for navigation purposes; however, USACE still has administrative accountability of the properties, and periodically inspects the facilities. The study provided recommendations regarding the deauthorization and disposition of the facilities and reassessed the condition and safety of the structures. The recommended plan is to deauthorize commercial navigation at Green River Locks and Dams 3, 4, 5 and 6 and Barren River Lock and Dam 1. Following deauthorization, a logical next step would be to seek disposal of these properties and facilities through the established USACE and GSA procedures as outlined in the Federal Property and Administrative Services Act of 1949 and Army regulations.

Project Status: Active

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Non-Federal Sponsor: N/A

Where We Are Now: The Chief of Engineer's report was signed in April 2015 and the 120 day review by the ASA(CW) was completed in June 2015. Currently, the Chief of Engineers report package is under review by OMB.

Issues and Other Information: None

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Map

SOUTHERN AND EASTERN KENTUCKY ENVIRONMENTAL INFRASTRUCTURE

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

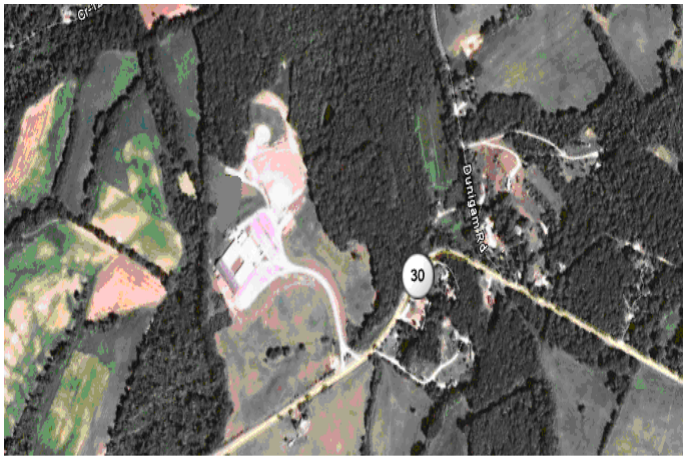
Official Title: Southern and Eastern Kentucky Environmental Infrastructure Program

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

Project Phase: Design and Construction

Summarized Financial Data:

Authorized Program Limit:	$40,000,000
FY16 Allocation	$1,643,000
Appropriations through FY16	$29,999,282



Tyner Elementary Wetland Waste Treatment Project, Jackson County, Kentucky

Project Location: In the Water Resources Development Act (WRDA) of 1999 (Public Law 106-53), Section 531, Congress provided authority for the U.S. Army Corps of Engineers to provide design and construction assistance to non-Federal interests for water related environmental infrastructure projects and resource protection and development projects on publicly held lands in southern and eastern Kentucky.

Project Description: 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 Pittsburgh, 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 outlining the project scope, cost, and responsibilities for implementation.

Below is a listing and brief description of the ongoing Section 531 projects currently underway by the Louisville District:

- West Liberty, Kentucky Infrastructure Project - Design and construction of new sewer systems in downtown West Liberty, Kentucky at a cost of $800,000. Fifty households and two businesses will be connected to the municipal sewer system. These actions will connect everyone within city limits to the municipal sewer system. Fifty-two failing septic systems will be eliminated along with a known sanitary sewer overflow and a failing pump station. Construction is complete, and final invoices are being prepared by the sponsor. The project will be closed out by 31 May 2016.
- Quillens Chapel, Kentucky Sewer Project - The design and construction of sewer systems to extend sewer service to 200 households at an estimated cost of $366,667. The project is expected to eliminate 30 straight pipe discharges, over 70 failed or failing septic systems, and three holding tanks. Construction is complete and fiscal closeout is anticipated by 30 April 2016.

- Magoffin County, Kentucky Sewer Project – The Magoffin County 531 project will provide public sanitary sewer service to a new Industrial Park as well as up to 100 homes in the county west of Salyersville along the US 460 corridor. These 100 homes currently utilize individual septic systems or directly discharge water into local streams. Execution of the Project Partnership Agreement is anticipated in May 2016.

Issues and Other Information: None

BEARGRASS CREEK GREENWAY, LOUISVILLE, KY

March 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Official Title: Connection of the Beargrass Creek and Butchertown Greenways – Planning Assistance to States

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

Project Phase: Study

Summarized Financial Data:

Estimated Federal Cost	$75,000
Estimated Non-Federal Cost	$75,000
Total Estimated Project Cost	$150,000
Allocation thru FY15	$75,000
FY 15 President's Budget	$0
FY 16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete	$0

Project Location: The study area is located in Jefferson County, Kentucky (3rd Congressional District).

Project Description: The master planning effort will evaluate alternatives and develop a rough order of magnitude cost estimate for an off-road, shared-use path connection between the western end point of the Beargrass Creek Greenway at Irish Hill and the eastern end point of the Butchertown Greenway; recommend updates to trail amenities along the existing and potential shared use path from Grinstead Drive at Lexington Road to River Road; and recommend ecosystem restoration opportunities for Beargrass Creek.

Project Status: Active

Non-Federal Sponsors: Louisville Metro Parks.

Where We Are Now: Study is Underway with an expected completion date in December 2016.

Issues and Other Information: None

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Map

Barren River Lake, KY Water Supply

March 2016

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Official Title: Barren River Lake, KY Water Supply Reallocation Investigation

Authorization: Section 216, 1970 Flood Control Act (P.L. 91-611)

Project Phase: Feasibility

Summarized Financial Data

Estimated Federal Cost	$121,500
Estimated Non-Federal Cost	$121,500
Total Estimated Project Cost	$243,000
Allocation thru FY15	$0
FY16 President's Budget	$0
FY16 Allocation	$0
FY17 President's Budget	$0
Balance to Complete Feasibility	$121,500

Project Description: Bowling Green Municipal Utilities (BGMU) serves over 90,000 people in Warren County, Kentucky with drinking water. In the next 50 years, the City of Bowling Green is facing a critical water shortage, especially if the region continues with its present rate of growth.

The Louisville District executed a contributed funds agreement with the City of Bowling Green on July 3, 2014 to investigate the impact of providing additional release from Barren River Lake during certain drought periods. During most periods, Barren River's flow at Bowling Green provides ample volume to meet the needs of BGMU. It is only during periods of drought that flow augmentation from Barren River Lake would be required. The initial water supply analysis was completed in October 2015 and determined that there is sufficient storage available to proceed into a full feasibility study.

Project Location: The Barren River Lake project is located in south central Kentucky, approximately 23 miles southwest of Bowling Green, Kentucky. The dam site is on Barren River, 79.2 miles above its confluence with the Green River.

Project Status: Awaiting Federal funding to initiate the Feasibility Study.

Local Sponsor: City of Bowling Green, KY.

Where We Are Now: Bowling Green Municipal Utilities submitted a Letter of Intent to initiate the Feasibility Study on May 15, 2015.

Issues and Other Information: None

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