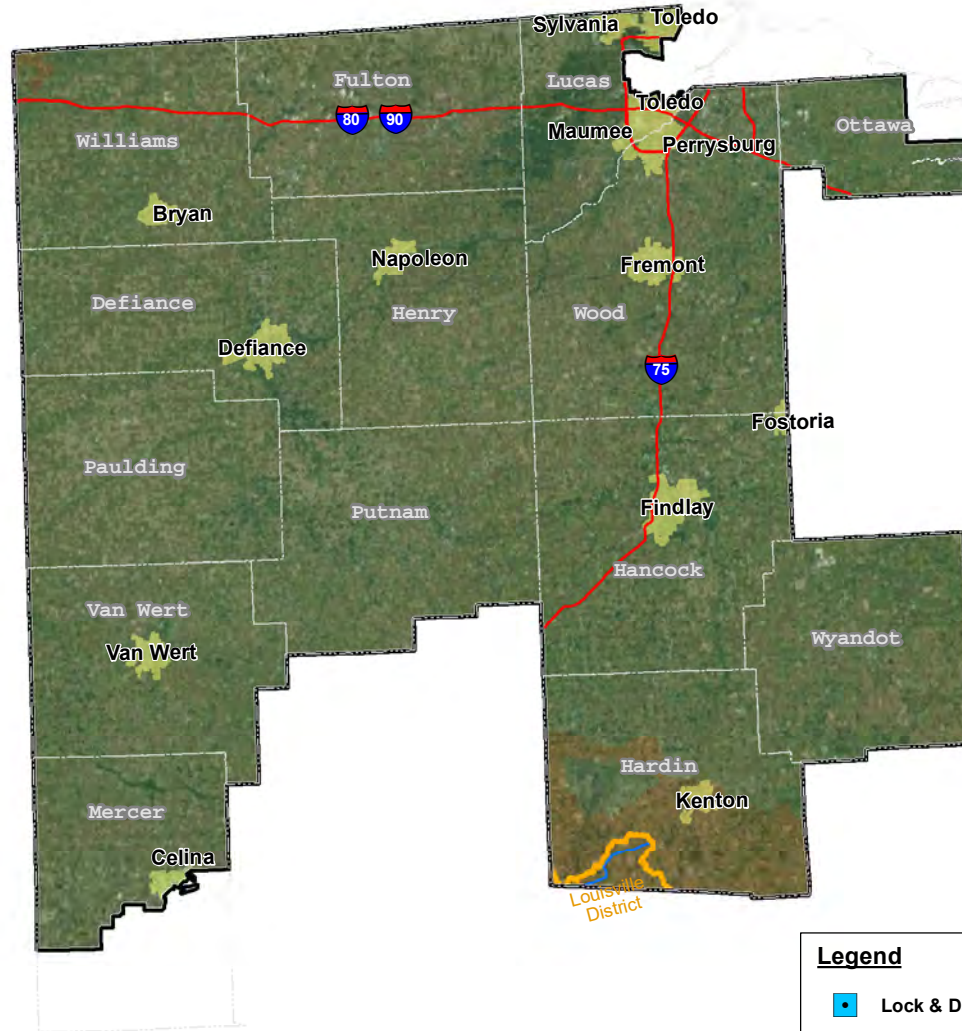


CONGRESSIONAL DISTRICT OH05



Dam Safety Program
COE OH Dams

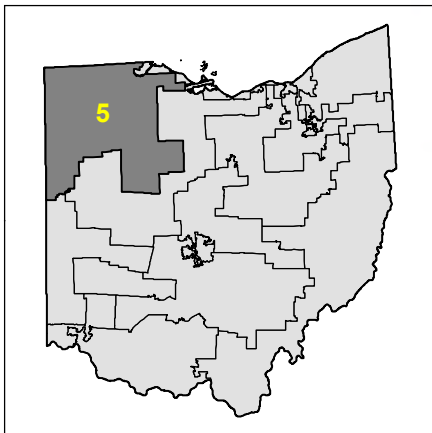
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Environmental Infrastructure, OH
(Section 594)

Ohio River Locks and Dams
Master Plan

Olmsted Locks & Dam

Location Map



Legend

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



Dam Safety, Ohio Ohio Dams - Special Studies



Caesar Creek Lake Dam, OH

Current Phase: Study

Project Location:

Caesar Creek Lake Dam, C.J. Brown Lake Dam, W.H. Harsha Lake Dam, and West Fork Lake Dam (See below 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 is in need of remedial construction then the project moves to the Dam Safety Modification Report (DSMR). The DSMR 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 Rob Portman (OH)
SEN Sherrod Brown (OH)



Individual Project Status:

Caesar Creek Lake Dam, OH

- * SPRA (Screening for Portfolio Risk Analysis): 2008
- * DSAC (Dam Safety Action Classification) Rating: Class 3
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 9 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.

C.J. Brown Lake Dam, OH

- * 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.

W.H. Harsha Lake Dam, OH

- * SPRA (Screening for Portfolio Risk Analysis): 2009
- * DSAC (Dam Safety Action Classification) Rating: Class 3
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 24 February 2018.
- * 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.

West Fork Lake Dam, OH

- * SPRA (Screening for Portfolio Risk Analysis): 2008
- * DSAC (Dam Safety Action Classification) Rating: Class 3
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 17 April 2009
- * IES (Issue Evaluation Study): Not started. 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.



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



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

Current Phase:

Planning Assistance to States (PAS) Study

Location and Description:

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

Authorization:

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

FY21 Activities:

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

Summarized Financial Data:

	<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



Ohio and North Dakota Environmental Infrastructure Program



Tech Town Conceptual Design

Current Phase:

Varies per project.

Location and Description:

The State of Ohio.

The Section 594 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 594 project, the Corps and the non-Federal sponsor enter into a Project Partnership Agreement outlining the project scope, cost, and responsibilities for implementation

Authorization:

Section 594 of the Water Resources Development Act of 1999 (Public Law 106-53), as amended.

Summarized Financial Data:

Design/Construction

Authorized Program Limit	\$60,000,000
FY21 Allocation	\$ 9,075,000

Issues and Other Information:

None

Louisville District Section 594 Projects:

- Tech Town, OH - Sewer Infrastructure Project - Design and construction of new and replacement sewer, water, and drainage systems in downtown Dayton, Ohio at a cost of \$4,391,467. The infrastructure will support a high-tech industrial site as part of Dayton's effort to revitalize downtown Dayton and the waterfront.
- University of Dayton, Brown and Stewart Streets Project, OH - The project consists of the design and construction of the water supply, wastewater, and surface drainage facilities for the proposed development at an estimated cost of \$6,576,000. Sponsor has proposed a change to the footprint of the project that will require a new PPA. A new Preliminary Engineering Report was received in February 2022.
- Preble County, OH – This project will consist of the design and construction of a new wastewater collection and treatment system. Estimated total project cost is \$1,366,666. PPA was executed on September 23, 2019. Property for the WWTP was acquired in October 2020, however outflow lot is still trying to be obtained. Team is working on EA/FONSI.
- Logan County, OH – The Lewistown Sewer System project was selected for FY19. The project consists of the design and construction of a new collection system to separate storm water and sanitary sewers in Lewistown. Total project cost estimated at \$1,333,333. PPA executed on September 17, 2019. The FONSI was signed in the Summer of 2021 and construction is scheduled to begin in Spring 2022.
- Madison County, OH – The Summerford Sanitary Sewer Collection project was selected for FY19. The project consists of the design and construction of a new collection system to separate storm water and sanitary sewers in Summerford. Total project cost estimated at \$1,333,333. PPA was executed on September 23, 2019. FONSI signed in September 2020. Team seeking concurrence with Ohio SHPO.
- Wayne Lakes, OH – The Village of Wayne Lakes was selected for FY20. Total project cost is \$1,325,925. The project will provide a new sanitary sewage collection system. The Project Partnership Agreement was signed on January 7, 2021. FONSI is expected 2nd quarter of FY22.
- Russells Point, OH – The Village of Russells Point was selected for FY20. Total project cost is \$1,325,925. The project will provide storm sewer improvements. The Project Partnership Agreement



was signed on May 26, 2021. FONSI is expected to be complete the 2nd Quarter of FY22.

- New Madison, OH – The Village of New Madison was selected for FY21. Total project cost is \$1,433,333. This project will assist in providing a new lift station and Wastewater Treatment Plant expansion which will also treat the Village of Wayne Lakes wastewater (5miles north) via force main. The Project Partnership Agreement was signed on September 22, 2021.

Congressional Interest:

SEN Sherrod Brown (OH)
SEN Rob Portman (OH)
REP Jim Jordan (OH)
REP Warren Davidson (OH)
REP Michael Turner (OH)



Ohio River Locks and Dams Master Plan



Robert C. Byrd Locks and Dam

Current Phase:

Regional Master Plan Update

Location and Description:

The Regional Master Plan consists of the six locks and dams along the Ohio River including areas in West Virginia, Kentucky, and Ohio. The locations are listed below from east to west.

Willow Island Locks and Dam is located on the Ohio River, 161.7 miles downstream from Pittsburgh, PA, and 3.4 miles upstream from Waverly, WV.

Belleville Locks and Dam is located on the Ohio River at mile 204. Belleville Locks sit 203.9 miles below Pittsburgh, PA, and 0.5 miles below Belleville, WV.

Racine Locks and Dam is located on the Ohio River, 237.5 miles below Pittsburgh, PA and 1.5 miles downstream from Letart Falls, OH.

Robert C. Byrd Locks and Dam is located on the Ohio River, 279.2 miles below Pittsburgh, PA, and 9 miles below the City of Gallipolis, OH.

Greenup Locks and Dam is located on the Ohio River, 341.0 miles below Pittsburgh, PA, and 5.0 miles below Greenup, KY.

Meldahl Locks and Dam is located at mile 436 of the Ohio River in Felicity, Ohio. It is 436.2 miles below Pittsburgh, PA, and 1.7 miles below Chilo, OH.

The locks and dams operate under the authority of the River and Harbor Act of 3 March 1909, Sixtieth Congress, 2nd Session.

The purpose of the locks and dams is to create a series of steps which river tows and other boats either climb or descend as they travel upstream or downstream. Additionally, the locks and dams provide the opportunity for public recreation and wildlife and vegetative habitats. Belleville and Greenup are also equipped with privately-owned hydroelectric plants.

Summarized Financial Data:

	<u>Master Plan</u>
Estimated Federal Cost	\$450,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$450,000
Allocation thru FY21	\$450,000
Balance to Complete after FY21	\$0
FY22 Final Appropriation	TBD
FY22 Allocation (thru JAN 2022)	\$0
FY23 President's Budget	TBD

Authorization:

River and Harbor Act of 3 March 1909, Sixtieth Congress, 2nd Session. Flood Control Act of 1944 and amendments.

FY21 Activities:

The Louisville (LRL) and Huntington (LRH) Districts worked together to complete all site visits, background information, public scoping, and draft resource objectives.

FY22 Planned Activities:

Complete draft report and public review. Address public comments and finalize the report. The Master Plan is scheduled for completion in June 2022.

Issues and Other Information:

None.

Congressional Interest:

Greenup – Mitch McConnell (KY), Rand Paul (KY), Sherrod Brown (OH), Rob Portman, (OH), Thomas Massie (KY-4), Hal Rogers (KY-5), Bill Johnson (OH-6)

Meldahl – Sherrod Brown (OH), Rob Portman, (OH), Mitch McConnell (KY), Rand Paul (KY), Brad Wenstrup (OH-2), Thomas Massie (KY-4)

RC Byrd – Joe Manchin (WV), Shelley Moore Capito (WV), Sherrod Brown (OH), Rob Portman, (OH), Carol Miller (WV-3), Bill Johnson (OH-6)

Willow Island – Sherrod Brown (OH), Rob Portman, (OH), Joe Manchin (WV), Shelley Moore Capito (WV), Bill Johnson (OH-6), David McKinley (WV-1)

Racine – Joe Manchin (WV), Shelley Moore Capito (WV), Sherrod Brown (OH), Rob Portman, (OH), Bill Johnson (OH-6), Carol Miller (WV-3)

Belleville – Joe Manchin (WV), Shelley Moore Capito (WV), Sherrod Brown (OH), Rob Portman, (OH), David McKinley (WV-1), Alexander Mooney (WV-2), Bill Johnson (OH-6)





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