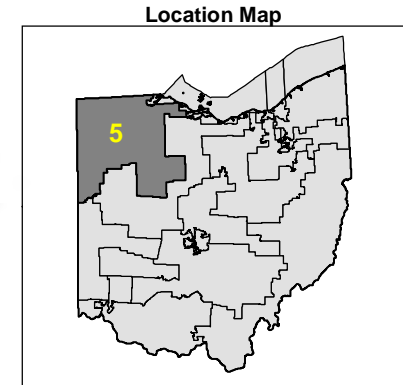
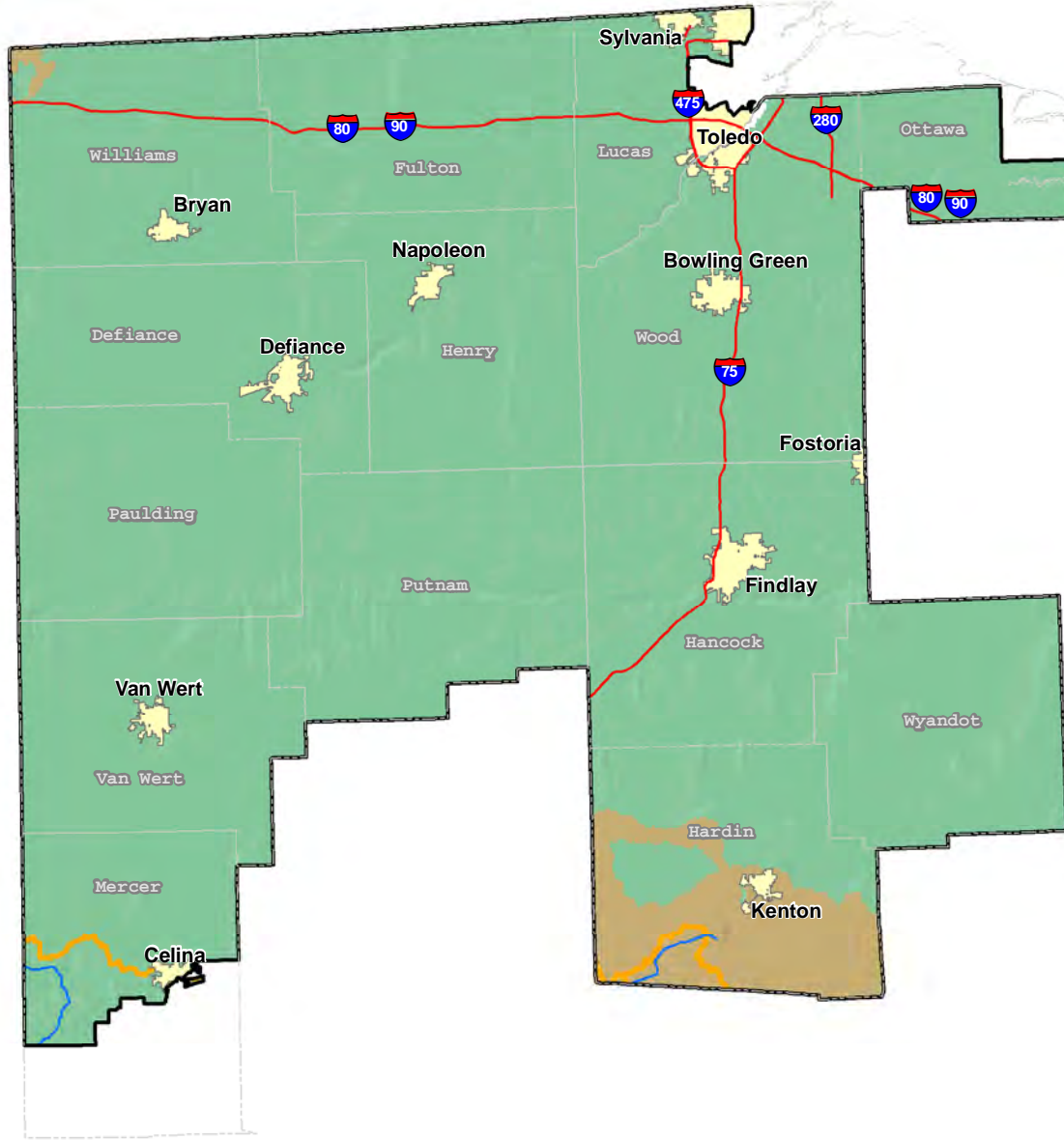


# Congressional District: OH 05



Dam Safety Program  
All COE OH Dams

Environmental Infrastructure, OH  
(Section 594)

Olmsted Locks & Dam

**Legend**

- Project Name
- Interstate Highways
- Major Streams
- COE Reservoirs
- Major Cities
- Congressional District
- County Boundary
- Louisville District Civil Works Boundary





# 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.

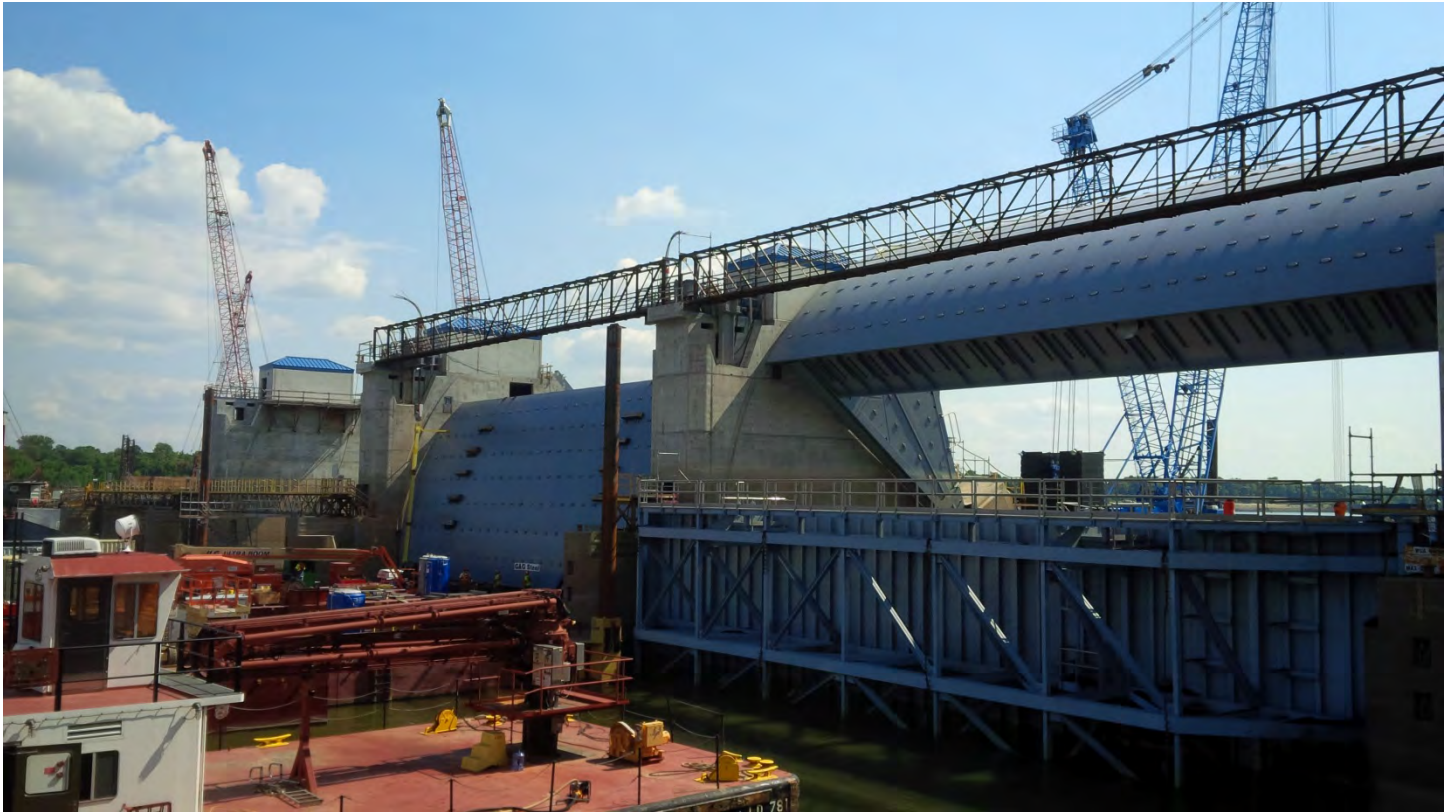
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As of 01 February 2016, \$2,123,787,491 has been expended on the project. The annual average benefits from the Olmsted project are approximately \$640M.

**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



# DAM SAFETY, OHIO

February 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

**Official Title:** Dam Safety and Seepage/Stability Correction Program; Ohio Dams - Dam Safety Special Studies

**Project Phase:** Study

**Summarized Financial Data:** The Dam Safety Special 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:** Caesar Creek Lake Dam, C.J. Brown Lake Dam, W.H. Harsha Lake Dam, and West Fork 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 II 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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**Project Location:** Caesar Creek Lake Dam, OH



**Project Status:**

- \* 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).

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

**Project Location:** C.J. Brown Lake Dam, OH



**Project Status:**

- \* 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

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

**Project Location:** W.H. Harsha Lake Dam, OH



**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.



**Project Location:** West Fork Lake Dam, OH



**Project Status:**

- \* 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).

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



# ENVIRONMENTAL INFRASTRUCTURE, OH SEC 594

March 2016

**Official Title:** Ohio Environmental Infrastructure Program

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

**Project Phase:** Design and Construction

**Summarized Financial Data:**

Authorized Program Limit	\$240,000,000
FY16 Allocation	\$7,000,000
Appropriations through FY 16	\$132,900,000



**Project Description:** 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.

**Project Status:** Varies depending on each project.

**Non-Federal Sponsor:** Dependent on projects.

**Status:** Below is a listing and brief description of the ongoing Section 594 projects currently underway by the Louisville District:

- 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.
- Yellow Springs, OH, McGregor Center for Business and Education Park - The Village of Yellow Springs is developing a park that will house the McGregor campus of Antioch University and a commerce park of spin-off businesses. The project will consist of the design and construction of water supply, wastewater, and surface water protection facilities for the park at an estimated cost of \$596,000. Discussions are underway with the Village regarding reducing the scope of the original project.
- University of Dayton, Brown and Stewart Streets Project, OH - The University of Dayton has purchased a tract of land on its western border and is developing it for expansion of university facilities. 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.
- Springfield, OH, Airport - Design and construct a sanitary sewer from the Springfield Airport to the Southern Interceptor Sewer, a water pressure booster station for fire protection at the airport, and upgrades to sanitary sewers and a sanitary sewer lift station in the airport area at an estimated cost of \$5,071,724.
- Trotwood, OH - The City of Trotwood is participating in the redevelopment of a vacant retail center. As part of the project, the city intends to relocate and redesign a stream to improve the water quality of the drainage from the site. The project consists of the design and construction of the relocated waterway. The estimated cost of the project is \$992,000.

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- Clark State College, OH - The Clark State Community College Water and Sewer Project consists of four separable elements, the Disaster Remediation Training House Project, the Leffel Lane Campus Water Pressure Improvement Project, the Leffel Lane Campus Storm Sewer and Water Line Relocation Project, and the Clark State Community College Creative Arts and Conference Center Project. A total of 1,934 linear feet of water line, 1,040 linear feet of sanitary sewer and 1,920 linear feet of storm sewer will be installed as well as a booster pump station. The estimated cost of these elements is \$1,333,333.
- Fairview Commons, OH – The project consists of the design and construction of water supply/drainage lines and storm water control measures associated with the development of the Fairview Commons fitness park on the former site of the Fairview Elementary School. The project cost is estimated at \$400,000.
- City of Blanchester, OH – The project consists of design and construction of a water main to replace a 1920's era water main in the center of the business district. The project cost is estimated at \$266,667.

**Issues and Other Information:** None