



WABASH LEVEE UNIT NO. 5 LEVEE REHABILITATION (2011 Flood Event)

June 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Official Title: Wabash Levee Unit No. 5 Levee Rehabilitation

Authorization: Public Law 84-99

Project Phase: Engineering and Design

Summarized Financial Data:

Estimated Federal Cost	\$7,590,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$7,590,000
FCCE funds for E&D through FY15	\$561,800
Balance to Complete	TBD
FY16 President's Budget	N/A
FY16 Allocation	N/A
FY17 President's Budget	N/A



<u>Project Location</u>: The Wabash Levee Unit #5 Levee Rehabilitation Project is located in Gibson and Posey Counties in Indiana on the left bank of the Wabash River and on the right bank of the White River.

<u>Non-Federal Sponsor</u>: Committee for Care and Maintenance for the Care of Wabash Levee Unit 5 Levee

<u>Project Description</u>: The project consists of rehabilitation work to the existing levee, which was damaged in the 2011 Flood Event. Repairs will include installation of seepage berms in areas that had sand boils.

<u>Project Status</u>: The Project Information Report (PIR) report was approved on 8 January 2016 and a fund request to complete Engineering, Design, and Environmental activities (in accordance with the National Environmental Policy Act – NEPA) has been submitted. Currently awaiting receipt of funds in order to move forward.



Where We are Now: Upon receipt of funds, continuation of Engineering and Design will proceed, along with Environmental site clearances of the proposed borrow areas.



WABASH LEVEE UNIT NO. 5 LEVEE REHABILITATION (2013 Flood Event)

June 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Official Title: Wabash Levee Unit No. 5 Levee Rehabilitation

Authorization: Public Law 84-99

Project Phase: Engineering and Design

Summarized Financial Data:

Estimated Federal Cost	\$3,055,820
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$3,055,820
FCCE funds for E&D through FY15	\$0
Balance to Complete	TBD
FY16 President's Budget	N/A
FY16 Allocation	N/A
FY17 President's Budget	N/A



<u>Project Location</u>: The Wabash Levee Unit #5 Levee Rehabilitation Project is located in Gibson and Posey Counties in Indiana on the left bank of the Wabash River and on the right bank of the White River.

<u>Non-Federal Sponsor</u>: Committee for Care and Maintenance for the Care of Wabash Levee Unit 5 Levee



Project Description: The project consists of rehabilitation work to the existing levee, which was damaged in the 2013 Flood Event.
Repairs will include installation of seepage berms in areas that had sand boils, and relief wells in areas where seepage berms cannot be constructed due to space limitations.

<u>Project Status</u>: The Project Information Report (PIR) was approved on 8 January 2016 and a fund request to complete Engineering and Design has been submitted. Currently awaiting the receipt of funds in order to move forward.

<u>Where We are Now</u>: Upon receipt of funds, continuation of Engineering and Design will proceed.



GILL TOWNSHIP LEVEE REHABILITATION (2013 Flood Event)

June 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Official Title: Gill Township Levee Rehabilitation

Authorization: Public Law 84-99

Project Phase: Engineering and Design

Summarized Financial Data:

Estimated Federal Cost	\$1,281,111
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$1,281,111
FCCE funds for E&D through FY15	\$0
Balance to Complete	TBD
FY16 President's Budget	N/A
FY16 Allocation	N/A
FY17 President's Budget	N/A



<u>Project Location</u>: The Gill Township Levee Rehabilitation Project is located in Sullivan County, Indiana on the left bank of the Wabash River.

Non-Federal Sponsor: Gill Township Levee Association

<u>Project Description</u>: The project consists of rehabilitation work to the existing levee, which was damaged in the 2013 flood event. The recommended repair includes installation of relief wells to intercept excessive seepage pressures between the levee and the pump station.



Project Status: The Flood Event of 2015 revealed that the original intended repair would be insufficient to repair the damage that occurred in the 2013 flood event. An addendum letter was sent to LRD for approval. The addendum detailed the changes to the recommended repairs based on observations made during the 2015 flood event.

<u>Where We are Now:</u> The addendum letter was approved on 23 March 2016 and a fund request to complete Engineering and Design has been submitted. Currently awaiting the receipt of funds in order to move forward.



DAM SAFETY, INDIANA

June 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

<u>Official Title</u>: Corps of Engineers Dam Safety Program; Indiana Dams - Dam Safety Portfolio Risk Management

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

<u>Summarized Financial Data</u>: 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

<u>Project Location</u>: Brookville Lake Dam, Cagles Mill Lake Dam, CM Harden Lake Dam, Mississinewa Lake Dam, Monroe Lake Dam, Patoka Lake Dam, J.E. Roush Lake Dam & Markle Levee, and Salamonie Lake Dam (See next pages for site specific information)

Non-Federal Sponsor: N/A

<u>Study and Program Information</u>: 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 reevaluated 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 Senior Oversight Group 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. If more information is 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 Dam Senior Oversight Group (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.

Project Location: Brookville Dam, IN



Project Status:

- * SPRA (Screening for Portfolio Risk Analysis): 2007
- * DSAC (Dam Safety Action Classification) Rating: Class 4
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 11 March 2009
- * 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 4 based on the results of the risk analysis.

<u>Where We Are Now</u>: Remedial construction is not warranted at this time and the dam was re-classified to a DSAC 4. The project is following the routine O&M surveillance and monitoring program.

Project Location: Cagles Mill Dam, IN



Project Status:

- * SPRA (Screening for Portfolio Risk Analysis): 2007
- * DSAC (Dam Safety Action Classification) Rating: Class 4
- * IRRMP (Interim Risk Reduction Measures Plan): N/A since it is DSAC 4
- * IES (Issue Evaluation Study): Not required since it is a DSAC 4

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

Project Location: Cecil M Harden Dam, IN



Project Status:

- * SPRA (Screening for Portfolio Risk Analysis): 2009
- * DSAC (Dam Safety Action Classification) Rating: Class 3
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 30 June 2010
- * The findings of the Issue Evaluation Study (IES) risk analysis were presented to the Risk Management Center (RMC) in September 2013 and to the Dam Senior Oversight Group (DSOG) in October 2013. The RMC and DSOG agreed with the report recommendation that the project be reclassified from a DSAC 2 to a DSAC 3 based on the results of the risk analysis. Another recommendation was to pursue subsurface exploration and instrumentation at the ridgeline and dam abutments.

<u>Where We Are Now:</u> Remedial construction is not warranted at this time and the dam was re-classified to a DSAC 3. A Scope of Work and estimate is being prepared for subsurface exploration and instrumentation at the ridgeline and dam abutments. This work will be performed when funding is available. This structure has been reprioritized in the risk study queue.

Project Location: Mississinewa Dam, IN



Project Status:

- * SPRA (Screening for Portfolio Risk Analysis): 2009
- * DSAC (Dam Safety Action Classification) Rating: Class 2
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 27 July 2010
- * IES (Issue Evaluation Study): As a result of the 2014 Periodic Assessment, the dam was downgraded to a DSAC 2 rating. The IES Phase 2 was initiated in August 2015. 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).

<u>Where We Are Now:</u> IES Phase 2 work was initiated in August 2015. Additional field surveys have been performed and a Drilling and Instrumentation Plan is being developed. The drilling and instrumentation are scheduled for completion in October 2016.

Project Location: Monroe Dam, IN

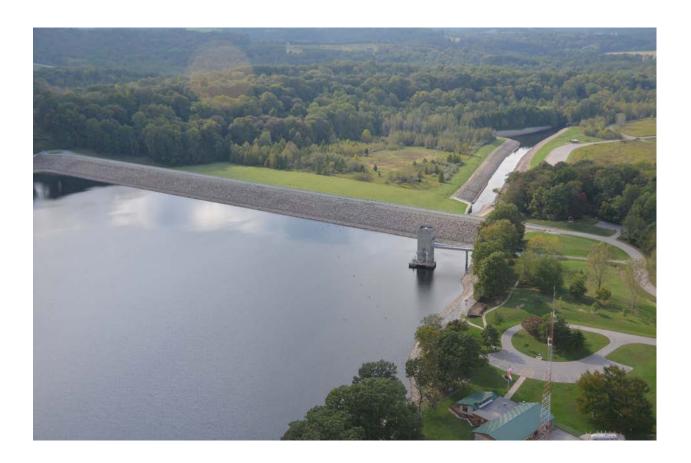


Project Status:

- * 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: Patoka Dam, IN



Project Status:

- * SPRA (Screening for Portfolio Risk Analysis): 2008
- * DSAC (Dam Safety Action Classification) Rating: Class 4
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 30 April 2009
- * IES (Issue Evaluation Study): The IES was initiated in February 2014. The IES terminated at an early stage and a Semi Quantitative Risk Assessment (SQRA) was completed in August 2015. The DSAC rating was changed from a DSAC 2 to a DSAC 4. Remedial construction is not warranted at this time. This structure has been reprioritized in the risk study queue.

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

Project Location: J.E. Roush Dam, IN



Project Status:

- * SPRA (Screening for Portfolio Risk Analysis): 2005
- * DSAC (Dam Safety Action Classification) Rating: Class 3
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 6 November 2007
- * The findings of the Dam Safety Modification Report (DSMR) were presented to the Risk Management Center (RMC) in March 2010 and the Dam Senior Oversight Group (DSOG) in June 2010. Based on the reviews, the study was converted from the existing DSMR to a Phase 2 Issue Evaluation Study (IES).
- * The findings of the Phase 2 IES risk analysis were presented to the RMC in March 2013 and to the DSOG in April 2013. 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 continue the increased instrumentation monitoring and collecting of performance data and to update the current IRRMs.

<u>Where We Are Now</u>: 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: Salamonie Dam, IN



Project Status:

- * SPRA (Screening for Portfolio Risk Analysis): 2005
- * DSAC (Dam Safety Action Classification) Rating: Class 4
- * IRRMP (Interim Risk Reduction Measures Plan): Completed 6 November 2007
- * The Dam Safety Modification Report (DSMR) was reviewed by the Risk Management Center (RMC) in March 2010 and the Dam Senior Oversight Group (DSOG) in June 2010. Based on the reviews, the title of the study was changed to an Issue Evaluation Study (IES). The report was revised and the IES was completed in April 2011. The DSOG re-classified this dam from a DSAC 2 to a DSAC 4.

<u>Where We Are Now</u>: Remedial construction is not warranted at this time and the dam was re-classified to a DSAC 4. This structure has been reprioritized in the risk study queue.



J. T. MYERS MAJOR REHAB

July 2016

.S. ARMY CORPS OF ENGINEERS
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 gateddam 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.



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.

<u>Project Status</u>: 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. The final report was completed 8 April 2016 using Operation and Maintenance (O&M) funds.

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.

<u>Where We Are Now</u>: The completed report was submitted in April 2016 to the Louisville District Operations Division for their use in preparing future maintenance O&M funded work packages.

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



Bee Slough, Evansville, IN

U.S. ARMY CORPS OF ENGINEERS

_____July 2016__ BUILDING STRONG®

Official Title: Bee Slough, Evansville, IN

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

Project Phase: Feasibility

Project Location: The project is located in Evansville, Indiana, along both sides of the local flood risk management project near the Evansville wastewater treatment facility and on the Ohio River floodplain, near Ohio River Mile 792. This project is in Indiana's 8th Congressional District.



<u>Project Description</u>: The feasibility phase of this study will address ecosystem restoration to provide aquatic, wetland and riparian habitat. The project involves restoration of wetlands and riparian woodlands along Bee Slough. While a general area is under consideration exact acreage to be restored has not yet been determined.

Summarized Financial Data:

Estimated Federal Cost	\$300,000
Estimated Non-Federal Cost	\$200,000
Total Estimated Project Cost	\$500,000
Balance to Complete	\$200,000
Allocation thru FY15	\$100,000
FY16 President's Budget	\$0
FY16 Allocation	\$0
FY17 President's Budget	\$0

<u>Project Status</u>: UASCE and the City of Evansville have had discussions about the project scope and signing a Feasibility Cost Sharing Agreement. The primary concern is the schedule of the study compared with ongoing work to meet a consent decree signed with the EPA this spring.

Non-Federal Sponsor: TBD

<u>Where We Are Now</u>: The Federal Interest Determination (FID) was approved by LRD on Dec 30, 2015. We are now working to develop a Project Management Plan and negotiate a Feasibility Cost Sharing Agreement (FCSA) with a non-Federal Sponsor.

Issues and Other Information: None



Evansville Stillwater Harbor, IN

March 2016

U.S. ARMY CORPS OF ENGINEERS

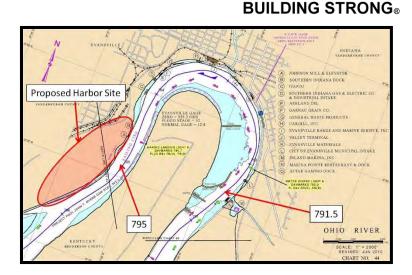
Official Title: Evansville Stillwater Harbor, IN

Authorization: House Report, May 7, 1997.

Project Phase: Feasibility

Summarized Financial Data:

Estimated Federal Cost	\$2,650,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$2,650,000
Allocation thru FY15	\$0
Balance to Complete Feasibility	\$2,650,000
FY16 President's Budget	\$0
FY 16 Allocation	\$0
FY 17 President's Budget	\$0
Balance to Complete	\$2,650,000



<u>Project Location</u>: The project area is located in Evansville, Indiana on the right descending bank between Ohio River Mile (RM) 795 and 796.

<u>Project Description</u>: The project would create a still water harbor by notching into the land area to provide for barge fleeting and unloading of barges out of the Ohio River channel. The land portion of the intermodal facility would be connected to an adjacent railroad yard for train transportation and to surface streets for freight truck traffic and unloading. The remainder of the land-based portion would be warehousing and storage facilities for container shipments and commodities to be brought in by barge, rail, and truck.

The purpose of this facility is to provide for the anticipated increase in container shipments of goods and commodities to and from Asian markets and Midwest markets. Evansville's strategic location on the Ohio River positions it as the northern most point for barge traffic from the Gulf of Mexico to connect with CSX and Norfolk Southern Rail Lines for further interior movement of containers in international and domestic trade. With the current construction of Sea Point, the proposed container dock at mile marker 12.2 above Head of Passes near the mouth of the Mississippi River near Venice, Louisiana, the international container trade has been projected to expand significantly.

Project Status: Active

Non-Federal Sponsor: City of Evansville, Indiana

<u>Where We Are Now</u>: This study was converted from the Continuing Authorities Program to a General Investigation and the 905(b) Reconnaissance Report was approved in August 2012.

<u>Issues and Other Information</u>: Section 105(a) of Public Law 99-662 (WRDA 1986) specifies a 50 percent non-Federal cost share for all feasibility studies, except for studies of "inland waterway system" improvements. The law does not define that system, and current Army policy is to limit the exemption to the waterways subject to waterway fuel taxes. Since the Ohio River system is subject to the taxes, it is not anticipated that non-Federal funds will be required for a feasibility study of the Evansville Stillwater Harbor.



J. T. MYERS LOCK EXTENSION

March 2016

U.S. ARMY CORPS OF ENGINEERS

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

<u>Authorization</u>: 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**

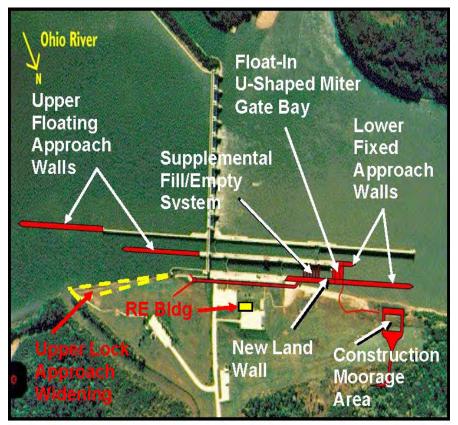


1/ Includes funds (\$10,110,000) provided by the American Recovery and Reinvestment Act of 2009 (ARRA), Public Law 111-5, which are not cost shared with IWTF appropriations.

<u>Project Location</u>: 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.



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.

<u>Issues and Other Information</u>: 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.



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.

<u>Purpose</u>: 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.

<u>Project Status</u>: 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.

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.

<u>Upcoming Actions</u>: 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