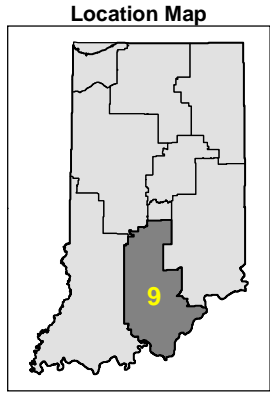
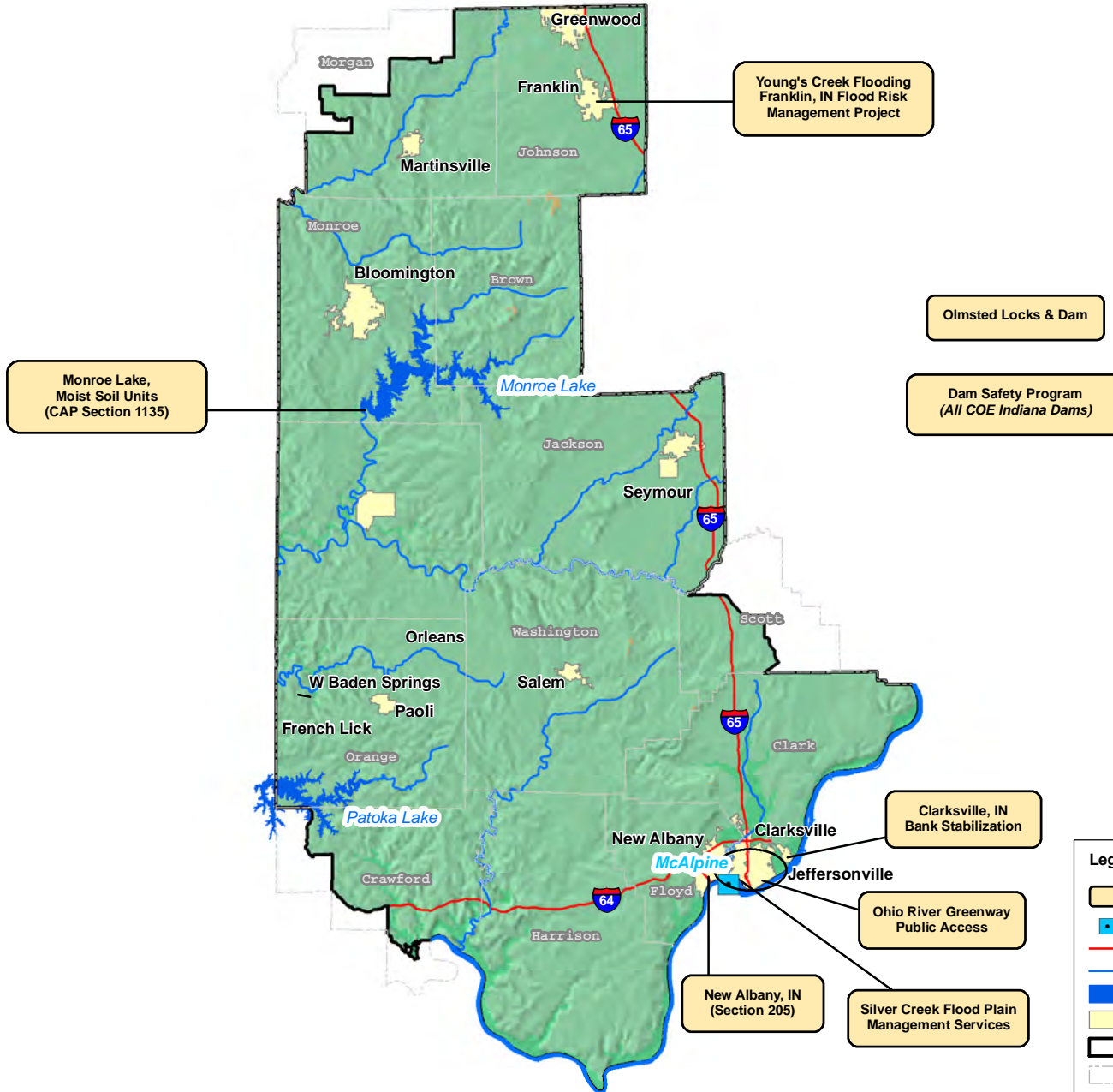




# Congressional District: IN 09



**Legend**

- Project Name
- Locks & Dams
- Interstate Highways
- Major Streams
- COE Reservoirs
- Major Cities
- Congressional District
- County Boundary



# DAM SAFETY, INDIANA

June 2016

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

**Official Title:** Corps of Engineers Dam Safety Program; Indiana 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:** 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

**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 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.

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**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.

**Where We Are Now:** 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.

**Where We Are Now:** 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).

**Where We Are Now:** 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.

**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:** 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.

**Where We Are Now:** 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.



# Silver Creek FPMS, Clarksville, IN

July 2016

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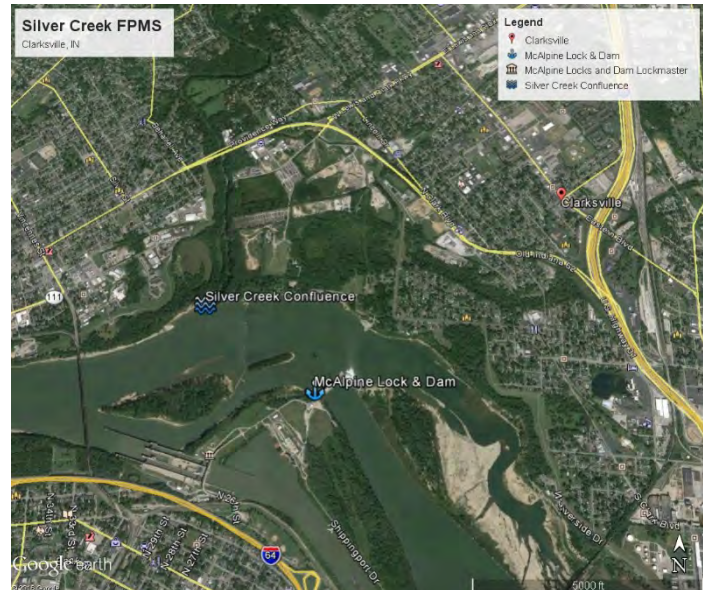
**Official Title:** Silver Creek Floodplain Management Services (FPMS), Clarksville, IN

**Authorization:** Section 206 of the Flood Control Act of 1960 (PL 86-645), as amended

**Project Phase:** Feasibility

**Project Location:** The project is located in Clarksville, IN at the confluence of Silver Creek and the Ohio River. Clarksville, IN is in Indiana's 9<sup>th</sup> Congressional District.

**Project Description:** This FPMS effort was requested by Clarksville, IN to examine the effects of flow through and around the McAlpine Lock and Dams on the shoreline near the confluence of Silver Creek and the Ohio River.



## **Summarized Financial Data:**

Estimated Federal Cost	\$280,000
Estimated Non-Federal Cost	\$0
Total Estimated Project Cost	\$280,000
Allocation thru FY15	\$190,000
Balance to Complete	\$90,000
FY16 President's Budget	\$0
FY16 Allocation	\$0
FY17 President's Budget	\$0

**Project Status:** Field data collection in the Ohio River is scheduled to take place in July. This data will be used by the USACE Engineering Research and Development Center to build a new Hydrologic Model of the area.

**Non-Federal Sponsor:** N/A

**Where We Are Now:** Awaiting field data collection.

**Issues and Other Information:** None

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# Monroe Lake, MSUs

March 2016

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**Official Title:** Monroe Lake, Moist Soil Units

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

**Project Phase:** Feasibility

**Summarized Financial Data:**

Estimated Federal Cost	\$300,000
Estimated Non-Federal Cost	\$200,000
Total Estimated Project Cost	\$500,000
Allocation thru FY15	\$50,000
FY16 President's Budget	\$0
FY16 Allocation	\$183,600
FY17 President's Budget	\$0
Balance to Complete	\$66,400



**Project Location:** The project proposed for modification is the Monroe Lake Reservoir. Monroe Lake is in the lower Wabash River watershed, 10 miles southeast of Bloomington, IN. This project is in Indiana's 9th Congressional District.

**Project Description:** The feasibility phase of this study will address ecosystem restoration to provide aquatic, wetland and riparian habitat adjacent to Monroe Lake. These habitat types will be restored where similar habitat was flooded out when Monroe Lake was designed and built. These different habitats will enhance flora diversity and benefit a diverse array of fish and avian species, including threatened and endangered species.

**Project Status:** The Feasibility Cost Sharing Agreement was executed in October 2015.

**Non-Federal Sponsor:** Indiana Department of Natural Resources

**Where We Are Now:** The Feasibility Study is underway.

**Issues and Other Information:** None



# YOUNGS CREEK, FRANKLIN, INDIANA

March 2016

U.S. ARMY CORPS OF ENGINEERS

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**Official Title:** Youngs Creek Flooding, Franklin, Indiana, Flood Risk Management Project

**Authorization:** Section 205 of the 1948 Flood Control Act (P.L. 80-858), as amended.

**Project Phase:** Feasibility

**Summarized Financial Data:**

Estimated Federal Cost	\$300,000
Estimated Non-Federal Cost	\$200,000
Total Estimated Project Cost	\$500,000
Allocation thru FY15	\$86,400
FY16 President's Budget	\$0
FY16 Allocation to Date	\$0
FY17 President's Budget	\$0
Balance to Complete	\$213,600



**Project Location:** Youngs Creek flows through the City of Franklin, Indiana, which lies in Johnson County and is located in south-central Indiana. Indianapolis, Indiana, is located about 20 miles to the north of Franklin. I-65 connects Franklin to Indianapolis to the north.

**Project Description:** The Youngs Creek watershed is 124 square miles and regularly experiences flooding every two-three years. The 2008 flood event caused over \$180M in damages to government services, residences, and businesses. This study will evaluate possible flood risk management solutions.

**Project Status:** The Federal Interest Determination report to identify preliminary measures to address the flooding, and to evaluate the potential for Federal participation in the design and construction of those measures was approved March 9, 2015.

**Non-Federal Sponsor:** City of Franklin, Indiana

**Where We Are Now:** Negotiations for the Feasibility Cost Share Agreement (FCSA) with the City of Franklin are underway.

**Issues and Other Information:** None

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# Olmsted Locks and Dam Project

February 2016

U.S. ARMY CORPS OF ENGINEERS

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**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.

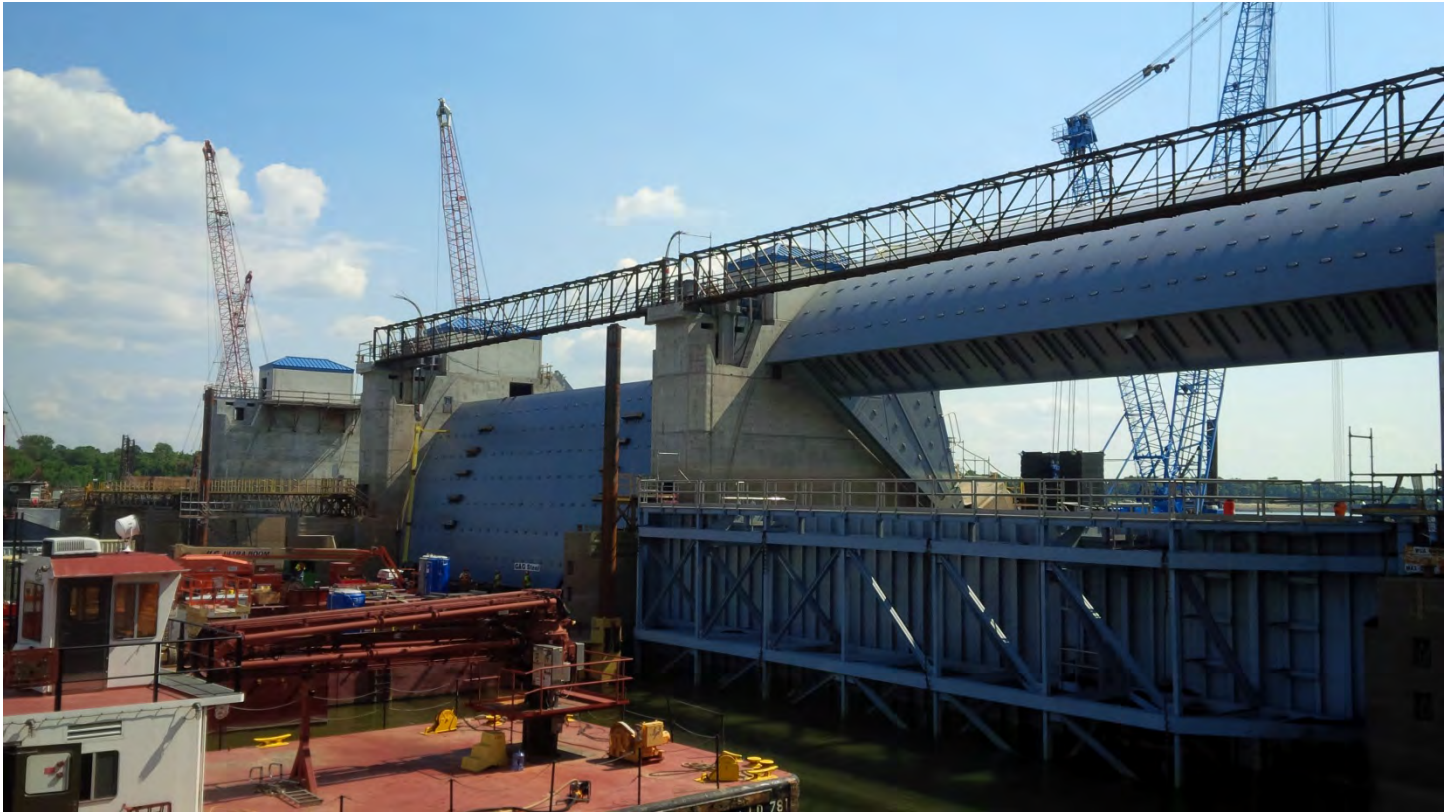
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As of 01 February 2016, \$2,123,787,491 has been expended on the project. The annual average benefits from the Olmsted project are approximately \$640M.

**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



# Clarksville, IN Erosion

March 2016

U.S. ARMY CORPS OF ENGINEERS

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**Official Title:** Clarksville, IN Erosion

**Authorization:** Section 9 of the 1946 Flood Control Act (33 USC 701q), as amended

**Project Phase:** Preconstruction, Engineering, and Design

**Summarized Financial Data:**

Estimated Federal Cost	TBD
Estimated Non-Federal Cost	TBD
Total Estimated Project Cost	TBD
Allocation thru FY15	\$0
Balance to Complete	\$TBD
FY16 President's Budget	\$0
FY16 Allocation	\$0
FY 17 President's Budget	\$0



**Project Location:** Clarksville is in Indiana's 9th Congressional District. The study area is located along the north shore of the Ohio River between Mile 605.5 and 606.5.

**Project Description:** Riverbank erosion is threatening a portion of the Falls of the Ohio National Wildlife Conservation Area; a portion of the Ohio River Greenway Public Access project; Emery Crossing Road/Harrison Lane; Mill Creek Bridge; Lewis & Clark Bicentennial Park; and the George Rogers Clark Homesite. Local interests believe that the erosion is primarily due to the operation of the lower tainter gates of McAlpine Locks and Dam. Erosion has been occurring in this area for over 40 years and several attempts to stabilize the bank have not completely taken care of the problem.

**Project Status:** A follow-up Assessment Report was completed, outlining the problem as well as previous efforts undertaken by local government as well as the US Army Corps of Engineers to remedy the erosion over the past 40+ years. The District has also had numerous meetings with the Town of Clarksville to discuss the erosion, and the fact that further funds are needed to design a solution. Currently, a Flood Plain Management Study (FPMS) is underway which will include modeling of the river currents adjacent to the site.

**Non-Federal Sponsor:** Town of Clarksville, IN

**Where We Are Now:** Funding is needed to design and construct a solution to the erosion problem.

**Issues and Other Information:** District personnel continue to coordinate with Town of Clarksville Officials through the process.





# OHIO RIVER GREENWAY, IN

March 2016

U.S. ARMY CORPS OF ENGINEERS

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**Official Title:** Ohio River Greenway Public Access Project, Indiana

**Authorization:** Section 559 of the Water Resources Development Act (WRDA) of 1996, Public Law 104-303

**Project Phase:** Construction

**Summarized Financial Data:**

Estimated Federal Cost	\$21,050,000
Estimated Non-Federal Cost	\$21,050,000
Total Estimated Project Cost	\$42,100,000
Allocation thru FY15 1/	\$11,300,000
Balance to complete after FY15	\$9,750,000
FY16 President's Budget	\$0
FY16 Allocation	\$0
FY17 President's Budget	\$0



1/ Allocation thru FY13 includes \$1,743,000 of ARRA funds.

**Project Location:** The project is located across from Louisville, Kentucky, and adjoins the McAlpine Locks and Dam project and the Falls of the Ohio National Wildlife Conservation Area in the Indiana communities of Jeffersonville, Clarksville, and New Albany. The greenway corridor is seven miles long.

**Project Description:** The project is being designed and constructed to provide access to the Ohio River and its environmental and recreation amenities. Access would be provided by a parkway, pedestrian and bicycle pathways, interpretive areas, passive recreation areas and trails, and it would integrate the existing and planned riverside development including the Falls of the Ohio State Park and Interpretive Center/Museum, the National Wildlife Conservation Area, and other federal and local river related facilities.

**Project Status:** FY09 carry-over funds, in the amount of \$933,715, and a small portion of the \$969,000 FY10 funds were used in FY10 to complete plans and specifications for two additional segments of the project. ARRA funds, in the amount of \$1,743,000, were used to award two construction contracts in FY 10. Both contracts, one for a segment in Clarksville and the other for a segment in New Albany, were awarded in July 2010. \$1.9M of the \$3.643M received in ARRA funds has been reprogrammed because the non-Federal sponsor could not come up with matching funds. FY10 carry-over funds were used in FY11 to continue with design of another segment in Clarksville. Construction of the Clarksville segment was completed in 2011. Construction of the New Albany segment was completed in 2012.

**Non-Federal Sponsors:** Ohio River Greenway Commission, City of Jeffersonville, Town of Clarksville, and the City of New Albany, Indiana

**Where We Are Now:** Additional non-Federal funds are needed to design another segment of the project.

**Issues and Other Information:** The project was in the President's Budget in fiscal years 2001 through 2005. The project was suspended from budgeting in FY 2006 because of constrained budgets and higher priorities within the Corps.



# New Albany, IN Section 205

February 2016

U.S. ARMY CORPS OF ENGINEERS

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**Official Title:** New Albany, IN, Section 205

**Authorization:** Section 205 of the 1948 Flood Control Act (P.L. 80-858), as amended

**Project Phase:** Feasibility

**Project Location:** New Albany is in Indiana's 9th Congressional District. The area of New Albany of concern is the Falling Run watershed, which is the largest and most developed watershed draining the City of New Albany.

**Project Description:** Flood risk exists due to 258 parcels with at least one structure in the Falling Run 100-Year floodplain and 112 structures in its floodway.

**Project Status:** A Federal Interest Determination (FID) was completed and approved. This initial assessment was used to scope a feasibility study and negotiate a Feasibility Cost Sharing Agreement (FCSA) with a non-Federal Sponsor.

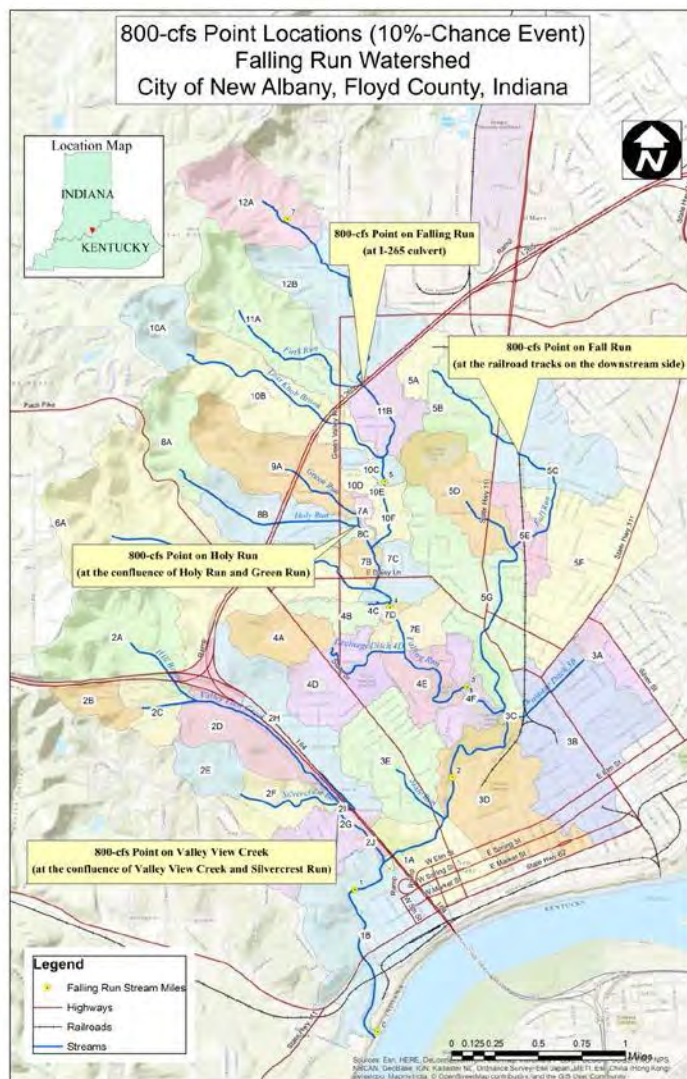
**Non-Federal Sponsor:** City of New Albany, IN

**Where We Are Now:** Both the non-Federal Sponsor and USCE are reviewing a draft FCSA.

**Issues and Other Information:** None

**Summarized Financial Data:**

Estimated Federal Cost	\$275,000
Estimated Non-Federal Cost	\$175,000
Total Estimated Project Cost	\$450,000
Allocation thru FY15	\$100,000
Balance to Complete	\$175,000
FY16 President's Budget	\$0
FY16 Allocation	\$0
FY17 President's Budget	\$0



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