SUBJECT: Chickamauga Lock, Tennessee River, TN

PROJECT DESCRIPTION: Chickamauga Lock is seven miles northeast of Chattanooga, TN, Hamilton County, Tennessee River mile 471. A new 110'x 600' lock will replace the existing lock. The old lock has a unique problem associated with concrete expansion from alkali-aggregate reaction that will eventually require closure of the lock. Closure of the existing lock before a new lock is in place will cause 318 miles of river above Chattanooga to be shut off, including river access to Knoxville and Department of Energy facilities at Oak Ridge, TN, and two TVA nuclear power plants. Based on optimum funding, project completion is estimated in FY15.

FUNDING STATUS: \$000's

EST	ALLOC	CONFERENCE	AARA	FY11	
TOTAL	THRU	ALLOWANCE	APPROVED	BUDGET	BAL to
COST	<u>FY09</u>	<u>FY 10</u>	<u>AMT 1/</u>	<u>AMT</u>	COMP
374,500	135,775	1,000	62,654	0	175,071

1/ The Recovery Act stipulates that Recovery Act funds for IWTF projects will not be cost shared.

FY 10 ACTIVITIES:

- Complete Cofferdam construction.
- Complete consolidation of Lock design documents.

FY 10 MILESTONES:

- Completion of lock design documents for award (Sep 10)
- Complete Cofferdam (Sep 10)

ISSUES:

- Concrete growth will continue to affect lock operations leading to failure and closure of the lock.
- Analysis of existing anchors indicates that replacement will be required beginning in 2013 at a cost of approximately \$25M.
- Upon completion of the Cofferdam contract next summer, on-site construction activities will cease, ARRA funded fabrication will continue off-site until mid-2012 when the guide walls are completed. Project construction would become inactive after 2012 if there is not a solution to the IWTF shortage.

SUBJECT: Kentucky Lock and Dam, Tennessee River, KY

PROJECT DESCRIPTION: Project is adjacent to existing 110' X 600' Lock at Mile 22.4 of the Tennessee River in western Kentucky and includes construction of 110' X 1200' lock landward of the existing lock, relocations of Tennessee Valley Authority power lines, Paducah & Louisville Railroad, Highway 62/641 and several smaller access roads.

FUNDING STATUS: \$000's

EST	ALLOC	CONFERENCE	AARA	FY11	
TOTAL	THRU	ALLOWANCE	APPROVED	BUDGET	BAL to
COST	<u>FY09</u>	<u>FY 10</u>	<u>AMT 1/</u>	<u>AMT</u>	COMP
713,400	279,112	945	65,560	2,868	364,915

1/ The Recovery Act stipulates that Recovery Act funds for IWTF projects will not be cost shared.

FY 10 ACTIVITIES:

- Continue Superstructure Construction Contract
- Continue Upstream Lock Monoliths Construction Contract
- Continue miter gates, lock electrical, and lock bridges Plans and Specifications

FY 10 MILESTONES:

- Award Upstream Lock Monoliths Construction Contract (Jan 2010)
- Complete Railroad relocation and of Highway relocation (June 10)
- Complete Powerhouse Island Warehouse construction contract (Jul 10)

ISSUES:

The ARRA funding level of \$65.6M for the KY Lock project will allow critical path activities to resume until the second quarter of FY 12. Beyond the third quarter of FY 12, progress on the project will probably depend on the health of the IWTF. It is possible the project will be mothballed beginning in FY 12.

SUBJECT: Olmsted Locks and Dam, Ohio River, IL & KY

PROJECT DESCRIPTION: The project is located about 1.8 miles below Locks & Dam 53 in Ballard County, KY and Pulaski County, IL (Ohio River Mile 964.4). The project consists of twin 110-foot wide by 1,200–foot long lock chambers located near the Illinois shoreline, and a dam consisting of five (5) tainter gates and a 1,400-foot long navigable pass with moveable wickets that can be raised or lowered for navigation purposes. The project replaces Locks and Dams 52 and 53 which will be demolished. Based on optimum funding, project completion is estimated in FY 16 with Locks and Dams 52 and 53 demolition completed in FY 18.

FUNDING STATUS: \$000's

EST	ALLOC	CONFERENCE	AARA	FY11	
TOTAL	THRU	ALLOWANCE	APPROVED	BUDGET	BAL to
COST	<u>FY09</u>	<u>FY 10</u>	<u>AMT 1/</u>	<u>AMT</u>	COMP
2,044,000	1,102,040	101,521	4,906	136,000	699,533

1/ The Recovery Act stipulates that Recovery Act funds for IWTF projects will not be cost shared.

FY 10 ACTIVITIES:

- Continue dam construction
- Continue engineering during construction and supervision and administration activities for construction contracts
- Continue environmental monitoring
- Continue maintenance of completed work

FY 10 MILESTONES:

- Complete the fabrication of the first four shells (Sep 2010)
- Set first shell (SBS-1) (Sep 10)
- Complete driving of piles for the cutoff wall (Jun 10)
- Start driving foundation piles for tainter gate area. (Jun 10)
- Complete installation of marine skidway rails (Jan 10)

ISSUES:

- Reauthorization is required by FY 2013 to increase the cost above the authorized cost limit of \$1.5B.
- Sustained efficient funding to complete dam construction.

SUBJECT: Markland Locks and Dam, Kentucky (Major Rehabilitation)

PROJECT DESCRIPTION: The project is located on the Ohio River at mile 531.5 in Gallatin County, Kentucky, approximately 58 river miles west of Cincinnati, Ohio. The project was placed in operation in June 1964. The existing dam consists of 12 operating tainter gates and is approximately 1,395 feet long. A portion of the dam is a licensed hydroelectric facility operated by the Duke Energy Corporation and rated at 81,000 KVA. There are two locks at the project: the main chamber is 1,200 feet X 110 feet and the auxiliary chamber measures 600 feet X 110 feet. The project is a unit of the U.S. Inland Waterways navigation system on the Ohio River and is ranked 12th in the nation based on tons of commodities transiting the lock. The project consists of construction of a miter gate assembly pier, fabrication and installation of new miter gates in the 1200-foot main chamber and fabrication and installation of new culvert valves for the main chamber.

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FY11	AARA	CONFERENCE	ALLOC	EST	
BUDGET	APPROVED	ALLOWANCE	THRU	TOTAL	

FUNDING STATUS: \$000's

1/ The Recovery Act stipulates that Recovery Act funds for IWTF projects will not be cost shared.

AMT 1/

10,135

FY 10

945

AMT

5,400

BAL to

COMP

0

FY 10 ACTIVITIES:

COST

35,844

- Fabrication of the miter gates
- Fabricate milling machine Contract

FY09

19,364

- Construction of Miter Gate Assembly Pier
- Fabricate Culvert Valves
- Continue engineering during construction and supervision and administration activities for construction contracts

FY 10 MILESTONES:

- Complete the milling machine contract (May 2010)
- Complete Miter Gate Assembly Pier Contract (Sep 2010)
- Take delivery of down stream miter gates (Mar 2010)

ISSUES: None

SUBJECT: Locks and Dams 2, 3 & 4 Monongahela River, PA

PROJECT DESCRIPTION: The project is located between river miles 11.2 and 41.5, above the mouth of the Monongahela River at the "Point" in Pittsburgh, PA. It includes replacement of the fixed crest dam at Braddock Locks and Dam (L/D 2), with a new gated dam; construction of new locks at Charleroi (L/D 4); removal of L/D 3; dredging existing Pool 3; and adjustment of publicly owned shoreside facilities adversely affected by the project.

FUNDING STATUS: \$000's

EST	ALLOC	CONFERENCE	ARRA	FY11	
TOTAL	THRU	ALLOWANCE	APPROVED	BUDGET	BAL to
COST	<u>FY09</u>	<u>FY 10</u>	<u>AMT 4/</u>	AMT	COMP
1,700,000	475,039	6,210	84,000	2,000	1,132,751

1/ The Recovery Act stipulates that Recovery Act funds for IWTF projects will not be cost shared.

District is updating the project cost estimate. The unapproved fully funded risk-based working estimate is \$1.7B. The revised fully funded estimate will be submitted to higher headquarters in Fiscal Year 2010. Risk included in the revised fully funded project estimate includes significant project schedule extension due to funding uncertainties related to the Inland Waterways Trust Fund (IWTF) and the limited use of continuing contracts.

The current 902 authorization limit is estimated to be \$1.1B. Through FY 2009, the project received \$461M, \$639M below the current 902 authorization limit. The project team will prepare a Post Authorization Change Request (PACR) upon approval of the revised cost estimate; a submission date has not yet been scheduled.

FY 10 ACTIVITIES:

- Continue construction of the Charleroi River Wall and Guard Walls using ARRA funding. Estimated completion date for the River Wall is Jan 2011. Estimated completion date for the Guard Walls is September 2011.
- Substantially complete the P&S for the Charleroi River Chamber
- Complete fabrication of Charleroi River Chamber Miter Gates, Floating Mooring Bitts, Maintenance Bulkheads, and Filling Valves
- Continue prior year relocations

FY 10 MILESTONES:

- No significant contract awards
- Complete updated project cost estimate

ISSUES:

- IWTF uncertainty significantly increases risk of the reliable operation of Lock and Dam 3 and the only lock chamber at Charleroi
- ASA approval will be required for a task order for the Charleroi River Chamber P&S
- IWTF uncertainty results in an unknown project completion date that ranges from the late 2020's to the early 2030's, or beyond
- Dam 3 is Dam Safety Action Classification (DSAC) Rating I. Completed "bandaid" emergency repair in 2008 which was estimated to be a 5-10 year fix.
- Charleroi Dam was rated DSAC II in 2009 due to the downstream stilling basin.

SUBJECT: Emsworth Locks and Dam, Ohio River, PA

PROJECT DESCRIPTION: Emsworth L&D is located 6.2 miles downstream of the Point in Pittsburgh on the Ohio River and is the oldest navigation facility on the Ohio River, dating back to 1922. Emsworth navigation pool is maintained by the use of two gated dams. The dams are presently in an exigent situation and categorized as Dam Safety Action Classification 1 – urgent and compelling. There are 10 foot deep scour holes and 65 percent of the erosion protection was missing downstream of the dams. Proposed project includes replacement of the dam gates, gate hoisting machinery, electrical power and distribution systems, dam bulkheads and lifting equipment, and scour protection systems. Based on optimum funding, this project will complete in FY 14.

EST	ALLOC	CONFERENCE	AARA	FY11	
TOTAL	THRU	ALLOWANCE 1/	APPROVED	BUDGET	BAL to
COST	<u>FY09</u>	<u>FY 10</u>	<u>AMT 2/</u>	<u>AMT</u>	COMP
160,000	103,467	23,619	23,000	11,500	0

FUNDING STATUS: \$000's

1/Due to the IWTF shortfall only \$2M to \$11.23M will be allocated depending on available funding.

2/ The Recovery Act stipulates that Recovery Act funds for IWTF projects will not be cost shared.

FY 10 ACTIVITIES:

- Continue Main Channel Dam Gate and Scour construction base contract and options
- Continue Back Channel Dam Right Abutment stabilization (ARRA funded)
- Continue Back Channel Dam Service Bridge rehabilitation
- Award and initiate the \$17,659,363 Back Channel Scour Protection and Left Abutment Stabilization base contract (ARRA funded)

FY 10 MILESTONES:

• Award Back Channel Scour Protection and Left Abutment Stabilization contract (Apr 10)

ISSUES:

• The downstream scour protection at the Emsworth Dam and dam lift gates at the Emsworth Main Channel Dam are unreliable. The probability that scour and gate

failure would lead to loss of the Pittsburgh navigation pool exceeds established standards. Loss of pool could occur until all of the lift gates and scour protection are replaced. Loss of pool would cause substantial impacts to navigation and the regional economy.

• The \$9,229,525 IWTF-funded Back Channel Scour Protection and Left Abutment Stabilization contract option can be awarded anytime until 30 April 2011.