DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
108 ARMY PENTAGON
WASHINGTON DC 20310-0108

FEB 14 2011

Honorable Barbara Boxer
Chairman
Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510-6175

Dear Chairman Boxer:

As required by Section 2036(b) of the Water Resources Development Act of 2007, I am submitting the third annual Status Report on Construction Projects Requiring Mitigation. This report reflects the status of compensatory mitigation work associated with U.S. Army Corps of Engineers Civil Works projects as of the end of Fiscal Year (FY) 2010.

Table 1 includes all projects/programs currently under construction by the Corps as indicated by funding in FY 2010. Table 2 lists the status of projects that require compensatory mitigation, as well as an estimate of the percentage of the construction and the mitigation that have been completed. Table 3 contains information on consultation on mitigation success with state and Federal resource agencies. In addition, the FY 2012 Budget Press Book accompanies this report and contains a complete list of all the Corps projects included in the FY 2012 President's budget. This information will be made available on the Corps Civil Works internet site concurrent with the release of the President's budget.

If you need additional information regarding the enclosed data, please contact Mr. Doug Lamont, my Deputy for Project Planning and Review at 202-761-0016. I am sending an identical letter to Senator Inhofe.

Very truly yours,

Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

Enclosures

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4 Enclosures

3rd Annual Status Report w/

1. Table 1. USACE Projects Under Construction During Fiscal Year 2010
2. Table 2. Status of Projects with Incomplete Compensatory Mitigation
3. Table 3. Annual Consultation on Success of Mitigation
4. FY 2012 President's Budget for the Civil Works Program

DEPARTMENT OF THE ARMY
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108 ARMY PENTAGON
WASHINGTON DC 20310-0108

FEB 14 2011

Honorable James M. Inhofe
Ranking Member
Committee on Environment and Public Works
456 Dirksen Senate Office Building
Washington, D.C. 20510-6175

Dear Senator Inhofe:

As required by Section 2036(b) of the Water Resources Development Act of 2007, I am submitting the third annual Status Report on Construction Projects Requiring Mitigation. This report reflects the status of compensatory mitigation work associated with U.S. Army Corps of Engineers Civil Works projects as of the end of Fiscal Year (FY) 2010.

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108 ARMY PENTAGON
WASHINGTON DC 20310-0108

FEB 14 2011

Honorable John L. Mica
Chairman
Committee on Transportation and Infrastructure
2165 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Mica:

As required by Section 2036(b) of the Water Resources Development Act of 2007, I am submitting the third annual Status Report on Construction Projects Requiring Mitigation. This report reflects the status of compensatory mitigation work associated with U.S. Army Corps of Engineers Civil Works projects as of the end of Fiscal Year (FY) 2010.

Table 1 includes all projects/programs currently under construction by the Corps as indicated by funding in FY 2010. Table 2 lists the status of projects that require compensatory mitigation, as well as an estimate of the percentage of the construction and the mitigation that have been completed. Table 3 contains information on consultation on mitigation success with state and Federal resource agencies. In addition, the FY 2012 Budget Press Book accompanies this report and contains a complete list of all the Corps projects included in the FY 2012 President's budget. This information will be made available on the Corps Civil Works internet site concurrent with the release of the President's budget.

If you need additional information regarding the enclosed data, please contact Mr. Doug Lamont, my Deputy for Project Planning and Review at 202-761-0016. I am sending an identical letter to Representative Rahall.

Very truly yours,

Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

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DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
108 ARMY PENTAGON
WASHINGTON DC 20310-0108

FEB 14 2011

Honorable Nick J. Rahall
Ranking Member
Committee on Transportation and Infrastructure
2163 Rayburn House Office Building
Washington, D.C. 20515

Dear Representative Rahall:

As required by Section 2036(b) of the Water Resources Development Act of 2007, I am submitting the third annual Status Report on Construction Projects Requiring Mitigation. This report reflects the status of compensatory mitigation work associated with U.S. Army Corps of Engineers Civil Works projects as of the end of Fiscal Year (FY) 2010.

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If you need additional information regarding the enclosed data, please contact Mr. Doug Lamont, my Deputy for Project Planning and Review at 202-761-0016. I am sending an identical letter to Chairman Mica.

Very truly yours,

Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

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# 3rd Annual Status Report on Construction Projects Requiring Mitigation Under Section 906 of the Water Resources Development Act of 1986

as required by Section 2036(b)
Water Resources Development Act of 2007

February 2011

## INTRODUCTION

This 3rd Annual Status Report on construction Projects Requiring Mitigation was prepared in response to the requirements of the Water Resources Development Act of 2007. For this 3rd Annual Report, the Corps of Engineers used a newly developed database which will allow more efficient tracking of the Corps mitigation work. It will also facilitate the preparation and presentation of data on mitigation progress in future reports.

Based on the overall information from Table 2 on the percentages of mitigation completed and construction completed, mitigation and construction activities are generally progressing at about the same rate.

TABLE 1 - USACE Projects under Construction during Fiscal Year 2010 - Table 1 lists 322 programs and/or projects that were allotted funds in FY 2010 in the Construction Account or Mississippi River and Tributaries Account. Programs such as the various environmental infrastructure authorities are represented by one line item.

TABLE 2 - Status of Projects with Incomplete Compensatory Mitigation - Table 2 outlines the status of the 82 projects with incomplete compensatory mitigation. Most projects from Table 1 are not be listed in Table 2 for a number of reasons, such as the actual construction may not have started, they may not require compensatory mitigation, or the mitigation may be complete. Acres listed under the column heading "Mitigation Total Acres of Land Acquired" are available for use mitigating project impacts through a range of real estate instruments. This may include acres within existing Corps project lands, mitigation banks, lands made available by other agencies, or lands below mean-low tide in coastal areas.

TABLE 3 – Annual Consultation on Success of Mitigation - Table 3 shows the results of the on-going ecological success consultation with federal and state resource agencies for 26 mitigation efforts. In order to initiate the success consultation, the compensatory mitigation construction features must at least in-part be accomplished, and data from the monitoring of the constructed mitigation feature must be available. Mitigation is considered complete when the Division Engineer determines the mitigation is successful based on monitoring results and the results of the consultation with the appropriate agencies regarding mitigation success as required by section 2036 (a)(4) of the Water Resources Development Act of 2007. Table 3 contains consultation information on 26 projects that had monitoring results available in FY 2010. An evaluation of the ecological success to date is also provided.

Eight projects reported last year have met the success criteria and are not included in this year's report. The mitigation measures ranged from the construction of 10 acres of in-lake habitat features at Bluestone Lake, West Virginia to planting a mix of almost 10,000 cottonwood and willows within 81 acres in New Mexico. Four additional projects listed on Table 3 have successfully mitigated for project impacts.

| Acronym | Division/District |
|---|---|
| LRD | GREAT LAKES AND RIVERS DIVISION |
| LRB | BUFFALO |
| LRC | CHICAGO |
| LRH | HUNTINGTON |
| LRL | LOUISVILLE |
| LRN | NASHVILLE |
| LRP | PITTSBURGH |
| MVD | MISSISSIPPI VALLEY DIVISION |
| MVK | VICKSBURG |
| MVM | MEMPHIS |
| MVN | NEW ORLEANS |
| MVP | ST PAUL DISTRICT |
| MVR | ROCK ISLAND |
| MVS | ST LOUIS |
| NAD | NORTH ATLANTIC DIVISION |
| NAB | BALTIMORE |
| NAN | NEW YORK |
| NAP | PHILADELPHIA |
| NWD | NORTHWESTERN DIVISION |
| NWK | KANSAS CITY |
| NWO | OMAHA |
| NWP | PORTLAND |
| NWS | SEATTLE |
| NWW | WALLA WALLA |
| POD | PACIFIC OCEAN DIVISION |
| POA | ALASKA |
| POH | HONOLULU |

| Acronym | Division/District |
|---|---|
| SAD | SOUTH ATLANTIC DIVISION |
| SAC | CHARLESTON |
| SAJ | JACKSONVILLE |
| SAM | MOBILE |
| SAS | SAVANNAH |
| SAW | WILMINGTON |
| SPD | SOUTH PACIFIC DIVISION |
| SPA | ALBUQUERQUE |
| SPK | SACRAMENTO |
| SPL | LOS ANGELES |
| SPN | SAN FRANCISCO |
| SWD | SOUTHWESTERN DIVISION |
| SWF | FT WORTH |
| SWG | GALVESTON |
| SWL | LITTLE ROCK |
| SWT | TULSA |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| LRD | LRB | GREAT LAKES FISHERIES AND ECOSYSTEM RESTORATION, IL, IN, MN, OH & PA |
| LRD | LRB | NEW YORK STATE CANAL SYSTEM, NY |
| LRD | LRB | OHIO & NORTH DAKOTA ENVIRONMENTAL INFRASTRUCTURE, OH & ND (SECTION 594) |
| LRD | LRB | OKLAHOMA BEACH, NY (SECTION 111) |
| LRD | LRB | PRESQUE ISLE PENINSULA, PA (PERMANENT) |
| LRD | LRC | CALUMET REGION, IN |
| LRD | LRC | CHICAGO SANITARY AND SHIP CANAL DISPERSAL BARRIER, IL |
| LRD | LRC | COOK COUNTY INFRASTRUCTURE, IL |
| LRD | LRC | DES PLAINES RIVER, IL |
| LRD | LRC | INDIANA HARBOR, CONFINED DISPOSAL FACILITY, IN |
| LRD | LRC | INDIANA SHORELINE EROSION, IN |
| LRD | LRC | LAKE MICHIGAN WATERFRONT, IN |
| LRD | LRC | LITTLE CALUMET RIVER, IN |
| LRD | LRC | MCCOOK AND THORNTON RESERVOIRS, IL |
| LRD | LRE | GENESEE COUNTY, MI |
| LRD | LRE | GREEN BAY HARBOR, WI |
| LRD | LRE | HAMILTON DAM, MI |
| LRD | LRE | NEGAUNEE, MI |
| LRD | LRE | NORTHEASTERN MINNESOTA ENVIRONMENTAL INFRASTRUCTURE, MN |
| LRD | LRE | SAULT STE MARIE (REPLACEMENT LOCK), MI |
| LRD | LRE | ST. CLAIR RIVER AND LAKE ST. CLAIR, MI |
| LRD | LRH | BEACH CITY LAKE, OH SEEPAGE CORRECTION REHAB |
| LRD | LRH | BLUESTONE LAKE, WV |
| LRD | LRH | BOLIVAR DAM, OH SEEPAGE MAJOR REHAB |
| LRD | LRH | CENTRAL WEST VIRGINIA ENVIRONMENTAL INFRASTRUCTURE, WV (SECTION 571) |
| LRD | LRH | DOVER DAM, MUSKINGUM RIVER, OH (DAM SAFETY ASSURANCE) |
| LRD | LRH | GREENBRIER RIVER BASIN, WV |
| LRD | LRH | ISLAND CREEK BASIN IN AND AROUND LOGAN, WEST VIRGINIA |
| LRD | LRH | LEVISA AND TUG FORKS AND UPPER CUMBERLAND RIVER, VA, WV & KY |
| LRD | LRH | LOWER MUD RIVER, MILTON, WV |
| LRD | LRH | MARMET LOCK, KANAWHA RIVER, WV |
| LRD | LRH | MOHAWK DAM, OH SEEPAGE CORRECTION MAJOR REHAB |
| LRD | LRH | ROBERT C BYRD LOCKS AND DAM, OHIO RIVER, WV & OH |
| LRD | LRH | SOUTHERN AND EASTERN KENTUCKY ENVIRONMENTAL INFRASTRUCTURE, KY (SECTION 531) |
| LRD | LRH | SOUTHERN WEST VIRGINIA ENVIRONMENTAL INFRASTRUCTURE, WV (SECTION 340) |
| LRD | LRH | WINFIELD LOCKS AND DAM, KANAWHA RIVER, WV |
| LRD | LRL | CECIL M HARDEN LAKE DAM, IN (MAJOR REHAB) |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| LRD | LRL | HOLES CREEK, WEST CARROLLTON, OH |
| LRD | LRL | INDIANAPOLIS, WHITE RIVER (NORTH), IN |
| LRD | LRL | MARKLAND LOCKS AND DAM, KY & IN (REHAB) |
| LRD | LRL | MCALPINE LOCKS AND DAM, OHIO RIVER, KY & IN |
| LRD | LRL | MT ZION DAM, FULTON CO, IN |
| LRD | LRL | OHIO RIVER GREENWAY PUBLIC ACCESS, IN |
| LRD | LRL | OHIO RIVERFRONT, CINCINNATI, OH |
| LRD | LRL | OLMSTED LOCKS AND DAM, OHIO RIVER, IL & KY |
| LRD | LRL | PATOKA, MAJOR REHAB REPORT, IN |
| LRD | LRN | CENTER HILL LAKE, TN |
| LRD | LRN | CHICKAMAUGA LOCK, TENNESSEE RIVER, TN |
| LRD | LRN | CUMBERLAND COUNTY WATER SUPPLY, TN |
| LRD | LRN | KENTUCKY LOCK AND DAM, TENNESSEE RIVER, KY |
| LRD | LRN | PINHOOK CREEK, HUNTSVILLE, AL |
| LRD | LRN | WOLF CREEK DAM, LAKE CUMBERLAND, KY |
| LRD | LRP | BEAVER CREEK RESERVOIR, BEAVER AND SALEM TOWNSHIPS, PA |
| LRD | LRP | EAST BRANCH CLARION RIVER LAKE, PA |
| LRD | LRP | EMSWORTH LOCKS AND DAM, OHIO RIVER, PA |
| LRD | LRP | NORTHERN WEST VIRGINIA ENVIRONMENTAL INFRASTRUCTURE, WV |
| LRD | LRP | THREE RIVERS WET WEATHER DEMO PROGRAM, PA |
| LRD | LRP | WEST VIRGINIA AND PENNSYLVANIA FLOOD CONTROL, PA & WV |
| MVD | MVK | CHANNEL IMPROVEMENT, AR, IL, KY, LA, MS, MO & TN |
| MVD | MVK | J BENNETT JOHNSTON WATERWAY, LA |
| MVD | MVK | MISSISSIPPI ENVIRONMENTAL INFRASTRUCTURE, MS |
| MVD | MVK | MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN |
| MVD | MVK | RED RIVER BELOW DENISON DAM, LA, AR & TX |
| MVD | MVK | RED RIVER EMERGENCY BANK PROTECTION, AR & LA |
| MVD | MVK | YAZOO BASIN, MS [1] |
| MVD | MVM | BAYOU METO, AR |
| MVD | MVM | DESOTO COUNTY WASTEWATER TREATMENT, MS |
| MVD | MVM | GRAND PRAIRIE, AR |
| MVD | MVM | LOOMIS LANDING, AR |
| MVD | MVM | ST. FRANCIS BASIN, AR & MO |
| MVD | MVM | ST. JOHNS BAYOU - NEW MADRID FLOODWAY, MO |
| MVD | MVN | ASCENSION PARISH ENVIRONMENTAL INFRASTRUCTURE |
| MVD | MVN | ATCHAFALAYA BASIN, FLOODWAY SYSTEM, LA |
| MVD | MVN | ATCHAFALAYA BASIN, LA |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| MVD | MVN | ATCHAFALAYA BASIN, LA - HURRICANE PROTECTION |
| MVD | MVN | COMITE RIVER, LA |
| MVD | MVN | EAST BATON ROUGE PARISH ENVIRONMENTAL INFRASTRUCTURE, LA |
| MVD | MVN | EAST BATON ROUGE PARISH, LA |
| MVD | MVN | GRAND ISLE AND VICINITY, LA - HURRICANE PROTECTION PROJECT |
| MVD | MVN | INNER HARBOR NAVIGATION CANAL LOCK, LA |
| MVD | MVN | LAKE PONTCHARTRAIN AND VICINITY, LA - HURRICANE PROTECTION |
| MVD | MVN | LAROSE TO GOLDEN MEADOW, LA (HURRICANE PROTECTION) |
| MVD | MVN | LIVINGSTON PARISH ENVIRONMENTAL INFRASTRUCTURE |
| MVD | MVN | MISSISSIPPI DELTA REGION, LA |
| MVD | MVN | MORGANZA TO THE GULF OF MEXICO, LA - HURRICANE PROTECTION |
| MVD | MVN | NEW ORLEANS TO VENICE, LA - HURRICANE PROTECTION |
| MVD | MVN | SOUTHEAST LOUISIANA, LA - HURRICANE PROTECTION |
| MVD | MVN | WESTBAK AND VICINITY, NEW ORLEANS, LA - HURRICANE PROTECTION PROJECT |
| MVD | MVP | BRECKENRIDGE, MN |
| MVD | MVP | GRAND FORKS, ND - EAST GRAND FORKS, MN |
| MVD | MVP | LOCK AND DAM 3, MISSISSIPPI RIVER, MN (MAJOR REHAB) |
| MVD | MVP | NORTHERN WISCONSIN ENVIRONMENTAL ASSISTANCE, WI |
| MVD | MVP | ORWELL LAKE, MN |
| MVD | MVP | ROSEAU, MN |
| MVD | MVP | SHEYENNE RIVER, ND |
| MVD | MVP | UPPER MISSISSIPPI RIVER RESTORATION, IL, IA, MN, MO & WI |
| MVD | MVR | DES MOINES AND RACCOON RIVERS, IA |
| MVD | MVR | DES MOINES RECREATION RIVER AND GREENBELT, IA |
| MVD | MVR | LOCK AND DAM 11, MISSISSIPPI RIVER, IA (MAJOR REHAB) |
| MVD | MVR | LOCK AND DAM 12, MISSISSIPPI RIVER, IA (MAJOR REHAB) |
| MVD | MVR | LOCK AND DAM 19, MISSISSIPPI RIVER, IA (MAJOR REHAB) |
| MVD | MVS | ALTON TO GALE ORGANIZED LEVEE DISTRICTS, IL & MO |
| MVD | MVS | BOIS BRULE DRAINAGE AND LEVEE DISTRICT, MISSOURI |
| MVD | MVS | CAPE GIRARDEAU (FLOODWALL), MO |
| MVD | MVS | CHAIN OF ROCKS CANAL, MISSISSIPPI RIVER, IL (DEF CORR) |
| MVD | MVS | CHESTERFIELD, MO |
| MVD | MVS | EAST ST LOUIS & VICINITY (INTERIOR FLOOD CONTROL), IL |
| MVD | MVS | EAST ST LOUIS, IL |
| MVD | MVS | LOCK AND DAM 24, MISSISSIPPI RIVER, IL & MO (MAJOR REHAB) |
| MVD | MVS | LOCK AND DAM 27, MISSISSIPPI RIVER, IL (MAJOR REHAB) |
| MVD | MVS | MADISON AND ST. CLAIR COUNTIES, IL |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| MVD | MVS | MELVIN PRICE L AND D 2ND LOCK |
| MVD | MVS | MELVIN PRICE LOCK AND DAM, IL & MO |
| MVD | MVS | MERAMEC RIVER BASIN, VALLEY PARK LEVEE, MO |
| MVD | MVS | MISS RIVER BTWN THE OHIO AND MO RIVERS (REG WORKS), MO & IL |
| MVD | MVS | NUTWOOD DRAINAGE AND LEVEE DISTRICT, IL |
| MVD | MVS | ST LOUIS FLOOD PROTECTION, MO |
| MVD | MVS | STE GENEVIEVE, MO |
| MVD | MVS | WOOD RIVER LEVEE, DEFICIENCY CORRECTION AND RECONSTRUCTION, IL |
| NAD | NAB | ASSATEAGUE, MD |
| NAD | NAB | CHESAPEAKE BAY ENV RESTORATION AND PROTECTION, MD, VA & PA |
| NAD | NAB | LACKAWANNA RIVER, SCRANTON, PA |
| NAD | NAB | NORTHEAST COUNTIES ENVIRONMENTAL INFRASTRUCTURE |
| NAD | NAB | POPLAR ISLAND, MD |
| NAD | NAB | SOUTH CENTRAL PA ENVIRONMENTAL IMPROVEMENT PROGRAM, PA |
| NAD | NAB | WASHINGTON, DC & VICINITY |
| NAD | NAB | WYOMING VALLEY, PA (LEVEE RAISING) |
| NAD | NAE | CAMP ELLIS, SACO, MAINE |
| NAD | NAE | EDWARD MACDOWELL LAKE, NH |
| NAD | NAE | MUDDY RIVER, MA |
| NAD | NAN | ATLANTIC COAST OF NYC, ROCKAWAY INLET TO NORTON POINT, NY |
| NAD | NAN | BDOB ORCHARD BEACH, BRONX NY |
| NAD | NAN | BURLINGTON HARBOR BREAKWATER, VT |
| NAD | NAN | EAST ROCKAWAY INLET TO ROCKAWAY INLET AND JAMAICA BAY, NY |
| NAD | NAN | FIRE ISLAND INLET TO MONTAUK POINT, NY |
| NAD | NAN | HACKENSACK MEADOWLANDS,NJ |
| NAD | NAN | JOSEPH G MINISH HISTORIC WATERFRONT PARK,NJ |
| NAD | NAN | LAKE CHAMPLAIN WATERSHED INITIATE,VT |
| NAD | NAN | LONG BEACH ISLAND, NY |
| NAD | NAN | NEW YORK AND NEW JERSEY HARBOR, NY & NJ |
| NAD | NAN | NEW YORK CITY WATERSHED, NY |
| NAD | NAN | PASSAIC RIVER BASIN FLOOD MANAGEMENT,NJ |
| NAD | NAN | RAMAPO AND MAHWAH RIVERS, MAHWAH, NJ AND SUFFERN, NY |
| NAD | NAN | RARITAN BAY AND SANDY HOOK BAY(PORT MONMOUTH), NJ |
| NAD | NAN | RARITAN BAY AND SANDY HOOK BAY, NJ |
| NAD | NAN | RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ |
| NAD | NAN | SANDY HOOK TO BARNEGAT INLET, NJ |
| NAD | NAO | AIWW, BRIDGES AT DEEP CREEK, VA |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| NAD | NAO | CHESAPEAKE BAY OYSTER RECOVERY, MD & VA |
| NAD | NAO | JAMES RIVER CHANNEL, VA |
| NAD | NAO | NORFOLK HARBOR AND CHANNELS, CRANEY ISLAND, VA |
| NAD | NAO | NORFOLK HARBOR AND CHANNELS, VA (DEEPENING) |
| NAD | NAO | RICHMOND, VA (COMBINED SEWER OVERFLOW) |
| NAD | NAO | VIRGINIA BEACH, VA (HURRICANE PROTECTION) |
| NAD | NAP | BARNEGAT INLET TO LITTLE EGG HARBOR INLET, NJ |
| NAD | NAP | BRIGANTINE INLET TO GREAT EGG INLET (ABSECON ISLAND), NJ |
| NAD | NAP | BRIGANTINE INLET TO GREAT EGG INLET, BRIGANTINE ISLAND, NJ |
| NAD | NAP | CAPE MAY INLET TO LOWER TOWNSHIP, NJ |
| NAD | NAP | DELAWARE BAY COASTLINE, ROOSEVELT INLET TO LEWES BEACH, DE |
| NAD | NAP | DELAWARE COAST PROTECTION, DE |
| NAD | NAP | DELAWARE COAST, BETHANY BEACH TO SOUTH BETHANY BEACH |
| NAD | NAP | DELAWARE COAST, REHOBOTH BEACH TO DEWEY BEACH, DE |
| NAD | NAP | DELAWARE RIVER MAIN CHANNEL, NJ, PA & DE |
| NAD | NAP | GREAT EGG HARBOR INLET AND PECK BEACH, NJ |
| NAD | NAP | GREAT EGG HARBOR INLET TO TOWNSEND INLET, NJ |
| NAD | NAP | LOWER CAPE MAY MEADOWS, CAPE MAY POINT, NJ |
| NAD | NAP | SOUTHEASTERN PENNSYLVANIA, PA |
| NAD | NAP | TOWNSENDS INLET TO CAPE MAY INLET, NJ |
| NWD | NWK | BLUE RIVER BASIN, KANSAS CITY, MO |
| NWD | NWK | BLUE RIVER CHANNEL, KANSAS CITY, MO |
| NWD | NWK | KANSAS CITYS, MO & KS |
| NWD | NWK | MISSOURI & MIDDLE MISSISSIPPI RIVERS ENHANCEMENT, MO |
| NWD | NWK | MISSOURI R FISH AND WILDLIFE RECOVERY, IA, KS, MO, MT, NE, ND & SD |
| NWD | NWK | MISSOURI RIVER LEVEE SYSTEM, IA, NE, KS & MO |
| NWD | NWK | SWOPE PARK INDUSTRIAL AREA, KANSAS CITY, MO |
| NWD | NWK | TURKEY CREEK BASIN, KS & MO |
| NWD | NWO | ANTELOPE CREEK, NE |
| NWD | NWO | BIG SIOUX RIVER, SIOUX FALLS, SD |
| NWD | NWO | FT PECK DAM AND LAKE, MT |
| NWD | NWO | GARRISON DAM, LAKE SAKAKAWEA, ND |
| NWD | NWO | MISSOURI RIVER RESTORATION, ND |
| NWD | NWO | NORTH DAKOTA INFRASTRUCTURE, ND |
| NWD | NWO | RURAL MONTANA, MT |
| NWD | NWP | COLUMBIA RIVER FISH MITIGATION, WA, OR & ID |
| NWD | NWP | COLUMBIA RIVER TREATY FISHING ACCESS SITES, OR & WA |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| NWD | NWP | ELK CREEK LAKE, OR |
| NWD | NWP | GREEN PETER - FOSTER LAKES, OR |
| NWD | NWP | JOHN DAY LOCK AND DAM, OR & WA |
| NWD | NWP | LOWER COLUMBIA RIVER ECOSYSTEM RESTORATION, OR & WA |
| NWD | NWP | MOUNT SAINT HELENS SEDIMENT CONTROL, WA |
| NWD | NWP | WIILLAMETTE RIVER TEMPERATURE CONTROL, OR |
| NWD | NWS | CHIEF JOSEPH DAM GAS ABATEMENT, WA |
| NWD | NWS | DUWAMISH AND GREEN RIVER BASIN, WA |
| NWD | NWS | HOWARD HANSON DAM, WA |
| NWD | NWS | MUD MOUNTAIN DAM, WA |
| NWD | NWS | PUGET SOUND AND ADJACENT WATERS RESTORATION, WA |
| NWD | NWS | RURAL IDAHO, ID |
| NWD | NWS | RURAL MONTANA, MT |
| NWD | NWS | SHOALWATER BAY, WA |
| NWD | NWW | LITTLE WOOD RIVER, ID |
| NWD | NWW | LOWER SNAKE RIVER FISH & WILDLIFE COMPENSATION, WA, OR & ID |
| NWD | NWW | RURAL IDAHO, ID |
| POD | POA | AKUTAN HARBOR, AK |
| POD | POA | ALASKA COASTAL EROSION, AK |
| POD | POA | CHENA RIVER LAKES, AK |
| POD | POA | SITKA HARBOR, AK |
| POD | POA | ST PAUL HARBOR, AK |
| POD | POA | UNALASKA HARBOR, AK |
| POD | POH | HAWAII WATER MANAGEMENT, HI |
| POD | POH | IAO STREAM FLOOD CONTROL, MAUI, HI |
| POD | POH | KAHUKU STORM DAMAGE REDUCTION PROJECT, OAHU, HI |
| SAD | SAC | LAKES MARION AND MOULTRIE, SC |
| SAD | SAJ | BREVARD COUNTY, CANAVERAL HARBOR, FL |
| SAD | SAJ | CEDAR HAMMOCK, WARES CREEK, FL |
| SAD | SAJ | CENTRAL & SOUTHERN FLORIDA, FL |
| SAD | SAJ | DADE COUNTY, FL |
| SAD | SAJ | DUVAL COUNTY, FL |
| SAD | SAJ | EVERGLADES AND SOUTH FLORIDA ECOSYSTEM RESTORATION, FL |
| SAD | SAJ | FLORIDA KEYS WATER QUALITY IMPROVEMENTS, FL |
| SAD | SAJ | FORT PIERCE BEACH, FL |
| SAD | SAJ | JACKSONVILLE HARBOR, FL |
| SAD | SAJ | KISSIMMEE RIVER, FL |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| SAD | SAJ | LEE COUNTY, FL (REIMBURSABLE) |
| SAD | SAJ | MANATEE COUNTY, FL |
| SAD | SAJ | MANATEE HARBOR, FL |
| SAD | SAJ | MARTIN COUNTY, FL |
| SAD | SAJ | NASSAU COUNTY, FL |
| SAD | SAJ | PALM BEACH COUNTY, FL |
| SAD | SAJ | PINELLAS COUNTY, FL |
| SAD | SAJ | PONCE DE LEON INLET, FL |
| SAD | SAJ | PORT EVERGLADES HARBOR, FL |
| SAD | SAJ | PORTUGUES AND BUCANA RIVERS, PR |
| SAD | SAJ | RIO PUERTO NUEVO, PR |
| SAD | SAJ | ST JOHN'S COUNTY, FL |
| SAD | SAJ | TAMPA HARBOR, FL |
| SAD | SAM | ATLANTA ENVIRONMENTAL INFRASTRUCTURE, GA |
| SAD | SAM | COASTAL MISSISSIPPI WETLANDS RESTORATION (DEER ISLAND), MS |
| SAD | SAM | MOBILE PASS, AL |
| SAD | SAM | PANAMA CITY BEACHES, FL |
| SAD | SAM | TENNESSEE - TOMBIGBEE WATERWAY, AL & MS |
| SAD | SAS | HARTWELL LK,CLEMSON UPPER & LOWER DIVERSION, SC (DAM SAFETY) |
| SAD | SAS | RICHARD B RUSSELL DAM AND LAKE, GA & SC |
| SAD | SAS | SAVANNAH HARBOR DISPOSAL AREAS, GA & SC |
| SAD | SAS | SAVANNAH HARBOR EXPANSION, GA |
| SAD | SAW | BRUNSWICK COUNTY BEACHES, NC |
| SAD | SAW | CAROLINA BEACH AND VICINITY, NC |
| SAD | SAW | JOHN H KERR LAKE, VA & NC |
| SAD | SAW | ROANOKE RIVER UPPER BASIN, HEADWATERS AREA, VA |
| SAD | SAW | WEST ONSLOW BEACH AND NEW RIVER INLET, NC |
| SAD | SAW | WILMINGTON HARBOR, NC |
| SPD | SPA | ACEQUIAS IRRIGATION SYSTEM, NM |
| SPD | SPA | ALAMOGORDO, NM |
| SPD | SPA | CENTRAL NEW MEXICO, NM |
| SPD | SPA | EL PASO COUNTY, TX |
| SPD | SPA | MIDDLE RIO GRANDE FLOOD PROTECTION, BERNALILLO TO BELEN, NM |
| SPD | SPA | RIO GRANDE FLOODWAY, SAN ACACIA TO BOSQUE DEL APACHE, NM |
| SPD | SPA | SW VALLEY FLOOD DAMAGE REDUCTION, ALBUQUERQUE, NM |
| SPD | SPK | AMERICAN RIVER WATERSHED (COMMON FEATURES), CA |
| SPD | SPK | AMERICAN RIVER WATERSHED (FOLSOM DAM MODIFICATIONS), CA |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| SPD | SPK | AMERICAN RIVER WATERSHED (FOLSOM DAM RAISE), CA |
| SPD | SPK | CALFED LEVEE STABILITY PROGRAM, CA |
| SPD | SPK | FARMINGTON RECHARGE (SEC 502) |
| SPD | SPK | GUADALUPE RIVER, CA |
| SPD | SPK | KAWEAH RIVER, CA |
| SPD | SPK | LAKE DAVIS WATER TREATMENT PLANT |
| SPD | SPK | LITTLE DELL LAKE, UT |
| SPD | SPK | MERCED COUNTY STREAMS, CA |
| SPD | SPK | MID-VALLEY AREA LEVEE RECONSTRUCTION, CA |
| SPD | SPK | NAPA RIVER, CA |
| SPD | SPK | PLACER COUNTY SUB-REGIONAL WASTEWATER TREATMENT |
| SPD | SPK | RURAL UTAH |
| SPD | SPK | SACRAMENTO RIVER BANK PROTECTION PROJECT, CA |
| SPD | SPK | SACRAMENTO RIVER, GLENN-COLUSA IRRIGATION DISTRICT, CA |
| SPD | SPK | SAN LORENZO RIVER, CA |
| SPD | SPK | SOUTH SACRAMENTO COUNTY STREAMS, CA |
| SPD | SPK | STOCKTON METROPOLITIAN FLOOD CONTROL REIMBURSEMENT, CA |
| SPD | SPK | SUCCESS DAM, TULE RIVER, CA (DAM SAFETY) |
| SPD | SPK | TAHOE BASIN RESTORATION 108 |
| SPD | SPK | YUBA RIVER BASIN, CA |
| SPD | SPL | CITY OF INGLEWOOD |
| SPD | SPL | CITY OF SANTA CLARITA, CA |
| SPD | SPL | COLORADO LAGOON, CA |
| SPD | SPL | HARBOR/SOUTH BAY WATER RECYCLING STUDY, LOS ANGELES, CA |
| SPD | SPL | LOS ANGELES HARBOR MAIN CHANNEL DEEPENING, CA |
| SPD | SPL | LOS ANGELES RIVER DEMONSTRATION PROJECTS, CA |
| SPD | SPL | MURRIETA CREEK, CA |
| SPD | SPL | NOGALES WASH, AZ |
| SPD | SPL | RIO DE FLAG FLAGSTAFF, AZ |
| SPD | SPL | SAN LUIS REY RIVER, CA |
| SPD | SPL | SANTA ANA RIVER MAINSTEM, CA |
| SPD | SPL | SEC. 595 RURAL NV |
| SPD | SPL | TRES RIOS, AZ |
| SPD | SPL | TUCSON DRAINAGE AREA, AZ |
| SPD | SPN | CONTRA COSTA CANAL, CA (SEC 219) |
| SPD | SPN | CORTE MADERA CREEK, CA |
| SPD | SPN | HAMILTON AIRFIELD WETLANDS RESTORATION, CA |

| Table 1. USACE PROJECTS UNDER CONSTRUCTION DURING FISCAL YEAR 2010 | | |
|---|---|---|
| MSC | DISTRICT | PROJECT (OR PROGRAM) NAME |
| SPD | SPN | LLAGAS CREEK, CA |
| SPD | SPN | NAPA RIVER, SALT MARSH RESTORATION, CA |
| SPD | SPN | NORTHERN HALF MOON BAY (PRINCETON), CA |
| SPD | SPN | OAKLAND HARBOR (50 FOOT PROJECT), CA |
| SPD | SPN | PETALUMA RIVER, CA |
| SPD | SPN | SACRAMENTO DEEPWATER SHIP CHANNEL, CA |
| SPD | SPN | SAN FRANCISCO, CA (PIER 36) |
| SPD | SPN | SAN RAMON VALLEY RECYCLED WATER, CA |
| SPD | SPN | UPPER GUADALUPE RIVER, CA |
| SWD | SWF | BOSQUE RIVER WATERSHED, TX |
| SWD | SWF | CENTRAL CITY, FORT WORTH, UPPER TRINITY RIVER BASIN, TX |
| SWD | SWF | DALLAS FLOODWAY EXTENSION, TRINITY RIVER PROJECT, TX |
| SWD | SWF | GRAHAM, TX (BRAZOS RIVER BASIN) |
| SWD | SWF | JOHNSON CREEK, ARLINGTON, TX |
| SWD | SWF | SAN ANTONIO CHANNEL IMPROVEMENT PROJECT |
| SWD | SWG | BRAYS BAYOU, HOUSTON, TX |
| SWD | SWG | CLEAR CREEK, TX |
| SWD | SWG | CORPUS CHRISTI SHIP CHANNEL, TX |
| SWD | SWG | HOUSTON - GALVESTON NAVIGATION CHANNELS, TX |
| SWD | SWG | HUNTING BAYOU, HOUSTON, TX |
| SWD | SWG | SIMS BAYOU, HOUSTON, TX |
| SWD | SWG | TEXAS CITY CHANNEL (50-FOOT PROJECT), TX |
| SWD | SWL | CLEARWATER LAKE, MO |
| SWD | SWT | CANTON LAKE, OK |
| SWD | SWT | RED RIVER BASIN CHLORIDE CONTROL, TX & OK |
| SWD | SWT | RED RIVER BASIN CHLORIDE CONTROL, TX & OK |
| | | |
| **FOOTNOTE** | | |

**1. Yazoo Basin Projects** - The projects within the Yazoo Basin that are currently being constructed are the Delta Headwater Projects that reduce flooding and sedimentation in Northwest Mississippi, the Upper Yazoo Projects that were authorized to improve headwater flooding in the Yazoo Basin and the Big Sunflower River Construction project known as the Steele Bayou Project.

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| LRD | LRC | Little Calumet River, IN | 27 | 80 | 435.1 | 435.1 | A total of 435 acres are required to meet the compensatory mitigation requirement for the Little Calumet River project. Mitigation includes establishing functional bottomland hardwood forests and emergent wetlands offsite. | To date, all of the required land has been acquired. Restored: 3 acres of wet prairie, 42 acres of mesic/wet mesic prairie and 44 acres of wet oak savanna. | 2016 |
| LRD | LRH | Marmet Lock Replacement, WV (Kanawha River Navigation Study - Marmet Lock Replacement) | 100 | 100 | 58 | 58 | A total of 58 acres are required for on-site mitigation activities. Mitigation includes restoration of riverine riparian, hardwood forest, bottomland hardwood/riparian habitats. Aquatic mitigation included in-stream (Kanawha River) stone and timber dikes, rubble placement, root wads for habitat improvement. | Created 5.3 acres of riverine riparian habitat (emergent wetlands and embayment), upland hardwood forest plantings - 31Acres, bottomland hardwood/riparian - 4 acres planted, agricultural. lands - 18 acres planted with prairie grasses and mast seed (values change of 50-year planning period). | 2020 |
| LRD | LRH | R.C. Byrd Lock Replacement (Gallipolis Lock Replacement Project), WV & OH | 100 | 99.9 | 1026 | 1026 | A total of 1026 acres on and off-site were required for meeting the mitigation requirement for the R.C. Byrd lock replacement. | Developed 224 acres including emergent wetland creation on project lands; acquired and managing 820 acres off-site known as Greenbottom Swamp (emergent and scrub-shrub). Managing for Fish and Wildlife | 2014 |
| LRD | LRL | Cincinnati Metro Region, Duck Creek, OH | 100 | 95 | 23 | 23 | Riparian restoration (23 acres total) which includes reforestation (bottomland hardwood tree plantings) and placement of wood duck and squirrel nesting boxes. | All 23 acres of plantings completed enhancing wildlife habitat within riparian environment. | 2015 |
| LRD | LRL | Indianapolis, White River, IN | 0 | 0 | 29 | 0 | Riparian Restoration of 29 acres hardwoods reforestation and wetlands restoration and/or creation. | No accomplishments to date. Local sponsor looking for sites. | 2018 |
| LRD | LRL | Olmsted Lock and Dam, KY | 100 | 60 | 3463 | 3463 | Purchase of mitigation lands, increased water management capability on Ballard Wildlife Management Area (WMA), KY, monitoring of bald eagles and waterfowl populations, monitoring of freshwater mussel populations, support of development of restoration and propagation methodologies for mussels, and restoration of former clay mine site that serves as part of construction site. | Acquired 2063 acres of bottomland hardwoods, wetlands and agricultural lands for wildlife management, constructed water supply system providing wetland management capabilities on 1400 acres of Ballard Wildlife Management Area - State Lands, KY, and provide Kentucky Department of Fish and Wildlife Resources funding to monitor and construct or repair managed wetlands. Clay miniming area will be restored as construction progress allows. | 2023 |
| LRD | LRP | Lower-Mon-234 (Locks and Dams 2, 3 and 4, Monongahela River Project), WV & PA | 25 | 62 | 0 | 0 | Construction of design features into the Braddock Dam to increase water aeration and increase dissolved oxygen concentration in receiving water. A total of 396 acres are required to meet the compensatory mitigation requirement for the dams 2, 3, and 4 project on the Lower Monongahela River. Mitigation includes restoring shallow riverine habitat, establishing emergent wetlands, and ecosystem restoration of an abandoned strip mine. | Completed measure is the installation of a water quality gate for aeration in Braddock Dam and optimization of operational changes to augment low flow aeration at Dam 4. The remaining three mitigation features are integral to future construction activities and will be initiated when those construction activities are either initiated or completed. | 2030 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| MVD | MVK | Upper Yazoo Projects, MS | 74.6 | 70 | 16250 | 12130.9 | Purchase 16,250 acres of bottomland hardwood habitat, either cleared or agriculture land, for reforestation and management. | 12,130.94 acres of cleared frequently flooded agricultural lands have been purchased and 10,327.94 acres have been reforested to date. 1,503 acres are in moist soil management and 300 acres are scheduled to be reforested in 2012. 4,119.06 acres remain to be purchased. | 2015 |
| MVD | MVK | J Bennett Johnston Waterway, LA | 50 | 88 | 14000 | 7063.9 | Purchase 14,000 acres of bottomland hardwood lands for management and reforestation. Lands may be a mixture of agricultural for restoration or be already existing forest. | 7,063 acres have been purchased to date, effort is ongoing to acquire land from willing sellers. 6937 acres remaining. | 2015 |
| MVD | MVK | Mississippi River Levees-Const, AR, IL, KY, LA, MS, MO & TN | 98 | 83 | 5200 | 5094.7 | The Vicksburg District was required to reforest 5,200 acres of bottom land hardwoods. | Reforested approximately 5094 acres of bottom land hardwoods of the required 5200 acres | 2015 |
| MVD | MVM | Bayou Meto Basin, AR | 0 | 0 | 4093 | 100 | Purchase 4,093 acres of farmland. Restore hydrology and plant bottomland hardwood forest. | 100 acres has been purchased but site restoration has not been initiated. | 2021 |
| MVD | MVM | MS River Levees Construction, AR, IL, KY, LA, MS, MO & TN | 20 | 39 | 837 | 169 | Acquire 837 acres of farmland, restore hydrology, and plant bottomland hardwood forest. | To date 169 acres of farmland has been purchased. Site restoration has not been initiated. | 2025 |
| MVD | MVM | St Francis Basin Construction, AR & MO | 98 | 89 | 13500 | 13310 | Acquire and manage 13,500 acres of bottomland hardwood forest habitat. | 13,310 acres of bottomland hardwood forest habitat has been purchased and placed under management, 248 acres remaining to be purchased in MO. | 2020 |
| MVD | MVM | St.Johns Bayou-New Madrid Flw, MO | 18 | 7 | 8800 | 1600 | The existing NEPA record was set aside by the Federal District Court for the District of Columbia. The overall amount of required mitigation is being revised in a new NEPA document. | 1,600 acres of bottomland hardwood habitat has already been purchased, but mitigation efforts are on hold now due to litigation. | 2020 |
| MVD | MVM | West Tennessee Tributaries, TN | 41 | 41 | 32000 | 13527 | Court ordered 32,000 acres | 13,527 of 32,000 acres have been purchased to date. | 2026 |
| MVD | MVN | East Baton Rouge Parish LA (Amite River and Tributaries, Louisiana, East Baton Rouge Parish Watershed Flood Control Projects) | 0 | 11 | 397 | 0 | Habitat Mitigation: Replace in-kind 100% of the bottomland hardwood losses for each watershed--Acquire, reforest and manage 397 acres of cleared land for bottomland hardwood habitat; return lost vegetative cover along 29.55 linear miles of impacted stream banks in Blackwater Bayou, Beaver Bayou, Bayou Fountain, Ward Creek, and Jones Creek. | Mitigation efforts with willing land owners have not begun. | 2018 |
| MVD | MVN | Inner Harbor Navigation Canal Lock, LA | 0 | 1 | 85 | 0 | Acquire, revegetate and manage 85 acres of currently submerged land and shallow brackish water through beneficial use of dredged material, plantings, and management. | Mitigation plan has only recently been approved and construction related efforts beginning, so no mitigation work done yet. | 2036 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| MVD | MVN | Lake Pontchartrain 30000- Jefferson, LA | 100 | 100 | 10 | 10 | Construct breakwaters to protect wetlands and dredged material deposition to restore wetlands - 1,100 average annual acres total preserved/restored | This is in support of the existing hurricane levees. Mitigation, breakwater construction and wetland creation have been completed. | 2014 |
| MVD | MVN | Larose to Golden Meadow, LA (1985 Mitigation) | 100 | 95 | 4598 | 4598 | The required and authorized mitigation for the Larose to Golden Meadow 1985 Hurricane Protection Project calls for construction of a levee and water-control structure along the eastern boundary of the mitigation site; herein referred to as the Pointe-au-Chien WMA Mitigation Site. These features will serve to enhance the functional values of wetlands in the mitigation site. | The primary component of the 1985 Mitigation plan involved construction of a 7-mile long levee and 3 water control structures (weirs). These features were the backbone of a regional water management system intended to enhance existing degraded wetlands within the mitigation site proper. This site encompassed 4,598 acres in the publicly owned Pointe-au-Chien Wildlife Management Area. | 2013 |
| MVD | MVN | Mississippi River Levees Construction Program, LA | 75 | 75 | 24.8 | 20 | New Orleans District was required to mitigate for 24 acres of bottomland hardwood. | Reforested 20 acres of bottomland hardwood of the required 24 acres. | 2016 |
| MVD | MVP | LD3, Mississippi River - Construction (Mississippi River: Lock and Dam 3 Navigation Safety and Embankments, Minnesota and Wisconsin) | 80 | 0 | 314.3 | 561.9 | Interagency coordination determined that given the limited opportunities to provide functional mitigation features for affected channel border aquatic habitat in a cost effective manner, resource agencies concurred that an acceptable mitigation approach is to focus primarily on bottomland hardwoods restoration combined with freshwater marsh features. Acquisition and development of 313 acres is required. | All required acres for mitigation have been purchased.<br>78 acres have been successfully revegetated to date. | 2022 |
| MVD | MVR | Illinois Waterway Dredged Material Management Plan (Bulls Island), IL & IN | 100 | 50 | 1.5 | 1.5 | A 1 acre emergent cordgrass wetland. | 1.5 acres of credit were purchased from an a credited wetland bank. No additional mitigation is required. | 2010 (a) |
| MVD | MVR | Illinois Waterway Dredged Material Management Plan (LaGrange Pool - Beardstown), IL & IN | 100 | 100 | 0.5 | 0.5 | Three small, shallow breeding ponds were constructed. Each pond is less than one-half acre and less than 2 feet deep. | Three small, shallow frog breeding ponds were constructed, totaling less than one-half acre, and less than 2 feet deep. | 2010 (a) |
| MVD | MVR | Mississippi River Dredged Material Management Plan (Pool 19 - Kemps-Craigles), IL | 100 | 100 | 5.4 | 5.4 | 5.4 acres of farmed and prior converted wetland to revert to a floodplain forest wetland habitat. | 5.4 acres of riparian wetland was purchased and then farming ceased, allowing the land to return to natural vegetation.<br>800 saplings were also planted to offset the loss 2.7 acres of approximately 50 mature trees. The high quantity of saplings will offset the wetland value of the mature trees. | 2010 (a) |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| MVD | MVR | Des Moines & Raccoon Rivers, IA | 0 | 50 | 20.8 | 20.8 | 6.4 acres of upland forest<br>0.4 acres of bottomland forest<br>2.8 acres of emergent wetland<br>1.2 acres of herbaceous upland buffer<br>2.7 acres of open water | Mitigation plan has been approved. Construction should begin in 2011. | 2017 |
| MVD | MVS | Chain of Rocks, IL | 55 | 60 | 146.4 | 178.1 | Mitigation will consist of the development of 146.4 acres of habitats, including 134.7 acres of wetlands (92.4 acres forested and 42.3 acres herbaceous) and 11.7 acres of non-wetland bottomland forest. | In 2000 a 14-acre wet prairie was constructed. In 2004 62 acres of forested wetlands and non-wetland forest were established. In 2008 a 97-acre tract was acquired for establishment of 4 acres of forested wetlands, 8 acres of herbaceous wetlands, and 77 acres of non-wetland forest. A plan to establish these habitats has been prepared. | 2022 |
| MVD | MVS | Chesterfield, MO | 95 | 20 | 91.3 | 95 | The initial mitigation requirement for creation of 9.2 acres of emergent wetlands and 6.8 acres of forested wetlands changed to preservation of 73 acres of forested wetlands and restoration of 14 acres of cropland due to proximity to an airport. The plan also includes the creation of 4.3 acres of open water wetlands at a distance from the airport. | Construction completed for preservation of forested wetland. In 2006 95-acre tract acquired; conservation easement placed on property. In 2010 native grasses planted in 14-acre crop field within this tract to allow for reforestation through natural succession. | 2018 |
| MVD | MVS | St. Louis Flood Protection, MO | 0 | 10 | 0.1 | 0 | Compensate for loss of 0.1 acres of forested wetland by obtaining credits from a mitigation bank. | Suitable mitigation bank identified. | 2011 |
| NAD | NAN | Green-Brook, NJ (Segment U ) | 40 | 60 | 300 | 120 | During the 1997 SEIS agency consultation, CENAN proposed enhancing the habitat value for approximately 300 acres (to include forested wetland, emergent wetland, stream and forested upland) to compensate for the land affected by the project. CENAN has identified 39 potential mitigation sites within the basin, totaling 1,450 acres. Specific mitigation plans and the completion of permitting requirements will take place prior to construction. Project is being built in phases as it relates to being incrementally funded. | To date, 120 acres have been implemented consisting of riparian forest/streambank, upland and wetland forest, shrub/scrub and emergent wetlands and adjacent grasslands. | 2018 |
| NAD | NAN | Minish Park, NJ (Joseph G. Minish Waterfront Park and Historic Area) | 0 | 65 | 1.7 | 0 | Mitigation required: 1.68 acres of mitigation. | 0 acres implemented - may be deferred until after Superfund activities are completed. | 2017 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| NAD | NAN | NY & NJ Harbor (50') NY&NJ | 100 | 80 | 80 | 80 | The construction of approximately 57 acres of tidal wetlands over 4 sites (out of kind) within the NY/NJ Harbor estuary was required. Mitigation on lands owned by National Park Service, Towns of Woodbridge and Carteret, NJ and New York State. | To date, all sites have been constructed and monitoring has shown that the sites are functioning as designed. Both State Regulatory Agencies have spoken positively on the coordination and construction of the multiple project sites. | 2013 |
| NWD | NWK | Blue River Basin, K. C., MO | 0 | 45 | 0.5 | 0.5 | A total of 0.5 acre of wetland mitigation would be required for this project. Acquisition of real estate for the mitigation site and future management of the mitigation site would be the project sponsor's responsibility | The project is in design and 45% complete. Physical construction has not been initiated and the 0.5 acre of emergent wetland remains to be constructed. | 2015 |
| NWD | NWK | Blue River Channel, K.C., MO | 35 | 90 | 540 | 240 | A maximum of 442 acres of native grass and 98 acres of bottomland hardwood forest is required to mitigate for this project. Changes to the project design, as a result of value engineering studies, will likely result in less adverse impact to fish and wildlife habitat. | Mitigation complete to date is 240 acres of native grass planting. | 2026 |
| NWD | NWO | Perry Creek, Sioux City, IA | 100 | 80 | 46 | 46 | Mitigation plantings included 33 acres of native grass species, and 13 acres of tree and shrub plantings. | 46 acres mitigation required; consisting of grassland, shrub and tree plantings: all completed, but 3 acres need to be relocated. | 2011 |
| NWD | NWO | Western Sarpy/Clear Creek, NE | 33 | 40 | 278 | 278 | 40 acres wet meadow mitigation to offset immediate impact to 8.29 acres of wetlands and unknown predicted future impacts to wetlands.<br><br>Consultation with the FWS under ESA Section 7, resulted in project modifications over 238 acres and consisting of a levee setback and associated construction of a new side channel, reconnection of a previously destroyed side channel, reconstruction of an aggraded side channel, clearing of two islands of woody vegetation, and notching of a levee/tire revetment to create three side channels and sandbars. | Total mitigation of 40 acres of wet meadow; 2 acres conducted as a test plot to test methods that will be used to determine correct seeding rate, mulch cover and elevation of mitigation 40 acre wet meadow. ESA work has begun on the construction of chutes/backwaters on Vencil's island and the left descending bank of the Platte River. | 2019 |
| NWD | NWP | Columbia River Channel Improvement-Navigation, OR & WA | 99 | 99 | 388 | 388 | Mitigation for loss of 172 acres of agricultural lands, 50 acres of riparian habitat and 16 acres of wetland habitat. Issues surrounding mitigation site acquisition have now been resolved and mitigation is underway: 272 acres of mitigation at the following sites: Chumley, Webb, and Cottonwood. | Of the 388 total acres acquired for mitigation 70 acres of riparian forest planting is complete, 88.5 acres of emergent wetland habitat has been developed or enhanced and 96 acres of pasture management is accomplished yearly. Pasture lands are mowed annually through Corps funded O&M. The Cottonwood projects will be completed in 2011, in which all projects will then be managed under the Corps O&M program. | 2013 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| NWD | NWS | Howard Hanson Dam, WA (Additional Water Storage Project (Phase 1 only)) | 85 | 100 | 348.5 | 279.5 | Mitigation consists of: instream habitat restoration through culvert replacement engineered log jams and side channels; riparian planting, thinning, protection and conservation; management of forest, pasture and emergent marsh; and creation of elk forage habitat. | Set aside and managed 145 acres of riparian buffer, 11.43 acres of instream habitat including gravel bars for spawning and engineered log jams, plus 123 acres of elk pasture. Remaining real estate needs in-process. | 2017 |
| POD | POA | False Pass Harbor, AK | 100 | 100 | 1.2 | 1.2 | Mitigate impacts for loss of shallow subtidal marine habitat by breaching breakwater and placing 25 reef balls and monitoring recolonization by benthic species; monitor project effects on waterfowl abundance, distribution, and exposure to petroleum. | Constructed mitigation features included two 0.62-acre subtidal boulder fields placed 25 subtidal artificial reef structures (reef balls) to provide fish habitat. Incorporated a near-shore breach in one breakwater for fish passage through the harbor. Two years of algae monitoring is complete. Monitoring took take place in summers of 2009 and 2010 and indicates success. | 2011 |
| POD | POA | Seward Harbor, AK | 100 | 100 | 5.2 | 5.2 | Dredged material placement was required to create approximately 5 acres of soft-bottom habitat to mitigate loss of similar habitat used by shellfish and other invertebrates. | Mitigation created 5.15 acres of soft bottom seabed by the beneficial use of harbor dredged material. Re-colonization is normally rapid. No post construction monitoring will be conducted. | 2010 (a) |
| POD | POA | Unalaska Harbor | 100 | 80 | 0.2 | 0.2 | Compensatory in-kind mitigation is required to replace nearshore and intertidal habitat for sea otters, seals, waterfowl, and benthic communities by creating 30 rubble/boulder reef structures comprising approximately 0.2 acres in the intertidal and nearshore subtidal habitat lost during harbor construction. Monitoring is required to determine colonization by key marine organisms. Monitoring is also required to determine whether the project affects movement, abundance, or distribution of Steller's eiders or northern sea otters or is otherwise causing a taking of those species. | The construction of 30 reefs provide in-kind habitat of rocky intertidal and subtidal habitat that favors use by sea ducks and marine organisms that use more open habitat. This in-kind offsite mitigation is 100% complete. There are no recommendations to improve features at this time. | 2013 |
| POD | POA | Akutan Harbor, Ask | 100 | 2 | 41.7 | 41.7 | At conclusion of harbor construction, the Corps will monitor salinity in the stream to ensure that the project has not caused saltwater inflow that could affect fisheries habitat. The Corps, with consultation with USFWS and other appropriate agencies, could recommend appropriate measures and associated monitoring to ameliorate substantial adverse effects. | Although the acreage has been set aside by a conservation easement recorded prior to construction, success of mitigation will be determined by monitoring salinity in stream after construction is completed. Depending on salinity intrusion and affect on fisheries habitat additional measures may be required to ameliorate substantial adverse effects. At that time further consultation with agencies could develop study parameters to determine further actions. | 2014 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| SAD | SAJ | Cedar Hammock, Wares Creek, FL | 50 | 0 | 2.5 | 2.5 | Mitigation consists of restoring 2.53 acres of estuarine habitat at the Emerson Point Restoration Project by restoring tidal flow and removal of exotic plant species. | Mitigation construction is underway (site preparation) - 0 acres mitigation completed. | 2012 |
| SAD | SAJ | Herbert Hoover Dike, FL (Reach 1) | 100 | 34 | 9.2 | 9.2 | Remove and control invasive exotic Meleleuca and Australian Pine (9.2 acres). | Invasive exotics, Meleleuca and Australian Pine removed. Mitigation site is subject to periodic monitoring and maintenance to remove any subsequently invading exotics. | 2017 |
| SAD | SAJ | Herbert Hoover Dike, FL (Reaches 2 and 3) | 0 | 0 | 229.5 | 229.5 | The remaining 229.5 acres of disturbed wetlands would be restored by removal of exotic invasive plant species and establishment of native wetland species. | Mitigation not yet constructed. | 2016 |
| SAD | SAJ | IWW Jacksonville-Miami, FL (Construct Upland Disposal Sites IR-2 and SL-2) | 0 | 28 | 7.2 | 7.2 | (1) 5.95 acres of wetland mangrove and upper marsh creation from a former citrus grove by grading to establish hydrology and by planting. (2) perpetual conservation easement over an additional 1.23 acres of on-site wetlands. | Mitigation not yet constructed. | 2017 |
| SAD | SAJ | Martin County, FL (4th Periodic Renourishment) | 0 | 0 | 5 | 5 | Creation of nearshore artificial reef with concrete rubble (original mitigation for direct impacts) and additional mitigation for indirect impacts with concrete rubble or other suitable material (Current SEIS/LRR: Indirect impacts identified by the post-construction monitoring would be mitigated by creation of artificial reef). | Mitigation for 4th renourishment not yet constructed. | 2012 |
| SAD | SAJ | Miami Harbor Channel, FL (113083 Miami Harbor GRR) | 0 | 0 | 30.2 | 30.2 | -Restoration of approximately 24 acres of seagrass beds.<br>-the creation of artificial reef habitat: 5.4 acres for high relief hardbottom/reef habitat and 0.8 acres for low relief hardbottom/reef habitat. | Project and mitigation not yet started. | 2017 |
| SAD | SAJ | Rio De La Plata, PR (Northern Segment, Mameyal Community (Contract 1A)) | 0 | 0 | 85 | 85 | Northern Segment, Mameyal Community (Contract 1A), Mitigation:<br>create mangrove (21.3 acres), lagoon (10 acres), and herbaceous wetland habitat (53.7 acres). | Real Estate acquired to establish 21.3 acres of mangrove, 10 acres of lagoon, and 53.7 acres of herbaceous wetlands. | 2013 |
| SAD | SAJ | Rio Grande de Arecibo, PR | 0 | 25 | 7.2 | 7.2 | Restoration 7.2 acres of mangrove forest required for next phase. Restoration consists of clearing and grading, then planting with mangrove seedlings. | Future construction requires replacement of estuarine wetlands. Mitigation for future phases will be part of the phase 1 construction contract (awarded and underway). | 2016 |
| SAD | SAJ | Rio Puerto Nuevo, PR | 15 | 38 | 32.9 | 32.9 | Creation of 28 acres mangrove forest in project right-of-way plus 4.9 acres NE of improved channel. | 4.9 acres of mangrove adjacent to project already constructed and established. Remaining 28 acres to be constructed along with project construction. | 2015 |
| SAD | SAJ | San Juan Harbor, PR | 0 | 100 | 1.2 | 1.2 | 1.2 acres marine submerged aquatic vegetation established by raising and stabilizing bottom. | Mitigation not yet funded or started. | 2016 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| SAD | SAM | Tennessee - Tombigbee Waterway, AL & MS (Bevill Cross Current) | 0 | 90 | 50 | 28 | Compensatory mitigation for the proposed activity is required and the Corps will implement a three part plan addressing impacts to TTW Wildlife Mitigation lands, aquatic habitat, and bottomland hardwood wetlands along with a species specific management plan. The plan includes 1) preservation of 12 acres of predominantly bottomland hardwoods and wetlands of similar quality to those impacted, 2) control and removal of invasive/exotic species from 16 acres of Corps controlled surface waters, and 3) enhancement of 22 acres of bottomland hardwood through control of invasive/exotic species on Corps controlled reserve properties not currently bound by previous management agreements. | Mitigation implementation has not begun. | 2021 |
| SAD | SAS | Brunswick Harbor Deepening GA | 50 | 100 | 37.9 | 19.1 | The District is required to mitigate for impacts to 34.5 acres of essential fish habitat. This impact resulted from the creation of a beneficial use dredge material island (sometimes referred to as bird island) in St. Simon's Sound. The District is also committed to provide mitigation for impacts to 5.9 acres of salt marsh from the turning basin enlargement and 1 acre of salt marsh from future maintenance activities at Andrew's Island. | Restored 17.6 acre salt marsh and 1.0 acres of oyster flats at Andrew's I; restored 16.6 acres of intertidal sand flats at the bird island; restored 0.8 acres of intertidal rip-rap with oysters at the bird island; restored 1.0 acres of intertidal flats with oysters at the bird island; restored 0.7 acre of subtidal riprap at bird island. the project mitgation plan has been updated and additional activities are proceeding . | 2016 |
| SAD | SAS | R B Russell Dam & Lake, GA & SC | 50 | 90 | 0 | 0 | The Savannah District and South Carolina Department of Natural Resources agreed for commercial operation of pumped storage at the Richard B. Russell (RBR) Dam and Powerhouse. The items included in the agreement were: Construction of an O2 system approximately 5.5 miles upstream of JST Dam and Lake; five years of environmental monitoring once full capacity 4-unit pumped storage is achieved; Corps limitation to utilization of only two pumped storage units during the months of June through September until the O2 system is complete. | FY2010 funds were to be used for Access Road Improvements to the Oxygen System Site at JST Dam and Lake, to continue the construction contract for fabrication and installation of the Aboveground O2 system components, and to award a design-build contract for the Underwater O2 system components. The Aboveground Contract is scheduled to be completed in January 2011 while the Underwater Contract is scheduled for completion in December 2011. | 2016 |
| SAD | SAW | Manteo (Shallowbag) Bay, NC | 9.6 | 65 | 12 | 12 | 125 acres of aquatic habitat (oyster reef) for all project components. | 12 of 125 acres have been constructed thus far in association with completed project components; specifically associated with work in Wanchese Harbor and the disposal of dredged material on islands in the project vicinity (northern Dare County, NC). | 2020 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| SAD | SAW | Wilmington Harbor, NC - 96 Act | 52.94 | 69 | 732.8 | 662.8 | Island 13 - Restoration of 30.4 acres of primary nursery (including 3.4 acres of intertidal marsh) on Cape Fear River dredged material disposal island 13. Prevention of Degradation (POD) Lands - Acquisition of 700 acres of riparian wetland habitat buffer on the NE Cape Fear River, including the river shoreline and two tributaries (Tony's and Lagoon Creeks), which serves to protect 29 acres of estuarine primary nursery area. Fish passage at Lock and Dam #1 on the Cape Fear River - Construction of rock rapids on the downstream face of the dam to better facilitate anadromous fish passage upstream. | - Island 13: Construction of 30.4 acres of marsh and intertidal habitat is complete.<br><br>- POD Lands: Approximately 90% of the 700 required acres has been acquired including 29 acres of estuarine primary nursery area.<br><br>- Fish passage at Lock and Dam #1: Construction began in August 2010 and will be completed by March of 2013. | 2013 |
| SPD | SPK | American River - Bridge, CA | 75 | 100 | 64.2 | 64.2 | Mitigation required included 50 acres of oak woodland habitat, including 6 acres of riparian habitat, and 2.5 acres of seasonal wetland and 14.2 acres of habitat for Federally listed Valley Elderberry Longhorn Beetle. | The Goethe site (14.2 acres of elderberry habitat) was planted in 2006, and the Rossmoor site (56 acres of oak woodland/riparian habitat) is currently being planted. Mitigation bank credits were purchased in 2008. | 2015 |
| SPD | SPK | American River - Common Features (American River Common Features ), CA | 100 | 100 | 25.6 | 25.6 | The majority of impacts and associated mitigation for this project relate to the Federally listed valley elderberry longhorn beetle (VELB). Because they are host to this species, impacts to elderberry shrubs require mitigation under the ESA. Mitigation for this project has been accomplished, in most cases, on the consolidated sites referred to as the Goethe mitigation sites. | All mitigation sites have been established and are in the 10 year monitoring period. Some added funds will be needed to continue monitoring and for possible replanting. Conditions of the Biological Opinion have been partially met, and once the monitoring is completed they will have been fully met. Combining multiple projects on one site led to a large cost savings to the government and local sponsors as it is much more cost effective to maintain and monitor a single location than multiple sites. We also worked with the county parks department to find sites that would benefit the parks, have easy access and on-site water, which reduced the cost of installation (no wells required). | 2013 |
| SPD | SPK | American River - Folsom Outlet Mods (Joint Federal Project - Auxiliary Spillway), CA | 90 | 10 | 16.8 | 16.8 | Mitigation for the Joint Federal Project Flood Risk Management impacts include 1.8 acres riparian habitat, 0.21 acres chaparral habitat, and 1.38 acres oak woodland.<br><br>Mitigation for the Folsom Dam Modifications Staging Area includes 7.73 acres of habitat for the Federally listed Valley Elderberry Longhorn Beetle (VELB), 6.77 acres oak woodland, and 0.53 acres chaparral habitat. | Initial maintenance at 11.5 is complete, and coordination with the FWS is underway to turn the site over to the non-federal sponsor. Valley Elderberry Longhorn Beetle (VELB) monitoring, however, will continue. Sailor Bar is also doing well, though some replanting and additional watering were needed last year. VELB monitoring is continuing. Rossmoor Bar planting is ongoing, but success is expected based on application of lessons learned. | 2017 |

| Table 2. Status of Projects with Incomplete Compensatory Mitigation | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
| SPD | SPK | Glenn Colusa Gradient Facility / RM208 | 100 | 100 | 34.3 | 34.3 | (1) Short-term degradation to riverine habitat restored through natural processes following construction; (2) compensatory mitigation for loss or degradation of Shaded Riverine Aquatic (SRA) cover, riparian and elderberry habitat (supporting Federally listed Valley Elderberry Longhorn Beetle) by installing 34.3 acres of offsite and onsite riverine and riparian habitats (5.3 acres of shaded riverine aquatic cover habitat and 29 acres of riparian/elderberry habitat); and (3) providing suitable site conditions for natural reestablishment of emergent wetland habitat temporarily disturbed by construction. | 34.3 acres of habitat mitigation has been accomplished (5.3 acres of revetment at the project site was revegetated with riverine habitat and 29 acres of riparian floodplain terraces were planted near the project site). Mitigation monitoring has been completed, except for the GF onsite area. High river stages resulted in the loss of 1.4 acres of riverine cover onsite due to erosion. The GCID intake channel was planted in 2009 to compensate for loss of these plantings from erosion. Mitigation performance monitoring is in progress for the GF onsite area, and the 60% canopy cover success criterion is expected to be fully met in 2011. | 2011 |
| SPD | SPK | Guadalupe River San Jose, CA (Guadalupe River Project, Downtown San Jose, California) | 100 | 98 | 26.8 | 29.2 | Mitigation consists of monitoring (annual mitigation and monitoring reports published by sponsor and evaluated by Corps/agencies); adaptive management (annual meetings held with sponsor and agencies); and compensatory mitigation. Said mitigation, all installed, includes 21 acres of riparian (woody) vegetation, 23,895 linear feet of Shaded Riverine Aquatic (SRA) habitat and 25,190 square feet of new spawning habitat from placement of gravel and cobble in the river. | The Corps was responsible for the infill riparian and Shaded Riverine Aquatic (SRA) habitat mitigation plantings, plus the plating of the Reach A "offsite" (downstream of site) mitigation site. The sponsor was responsible for planting of the Guadalupe Creek "offsite" (upstream of Project site) mitigation site. | 2010 (a) |
| SPD | SPK | Kaweah Spillway Enlargement, CA | 90 | 100 | 5735.2 | 5735.2 | Based on adverse impacts associated with project construction, mitigation was required to include installation of 40 acres of riparian habitat, 7.19 acres of habitat for Federally listed Valley Elderberry Longhorn Beetle (VELB), and preservation of 4,388 acres of oak woodland and 1,300 acres of seasonal waterfowl habitat. | Mitigation accomplishments include establishment of 40 acres of riparian habitat and 7.19 acres of valley elderberry longhorn beetle (VELB) habitat; plus preservation of 4,388 acres of oak woodland habitat and creation of 1,300 acres of seasonal waterfowl habitat. | 2014 |
| SPD | SPK | Napa River, Napa, CA | 85 | 47 | 505.7 | 885.7 | The project did not include USACE-designated mitigation per se, but rather construction of site features in a manner avoiding or limiting adverse habitat impacts. All habitat creation, of 8 habitat types, was based on bank stabilization and vegetation establishment. | The Project has planted approximately 85% of the "mitigation" plantings and the remainder will be installed before Project completion in 2016. Most of the brackish emergent marsh, seasonal wetland, and tidal mudflat will be located in the onsite south wetland opportunity area/flowage easement area (SWOA/EA) "mitigation site." The other habitats (woodland, riparian, and shaded riverine aquatic) will be created within the Project limits. | 2016 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| SPD | SPK | Sacramento River Bank Protection CA-Construction (Setback Levee at River Mile 57.2R) | 90 | 5 | 24.4 | 0.4 | Mitigation will be required for the loss of heritage trees, impacts associated with the Valley Elderberry Longhorn Beetle resulting from transplanting elderberry plants within the project footprint, and effects to seasonal wetlands. | To mitigate for effects to Valley Elderberry Longhorn Beetle (VELB) habitat loss and heritage trees, elderberry shrubs were transplanted to a VELB mitigation bank. The transplants and additional planting of elderberry seedlings and associated native plants compensated for the adverse effects to the VELB, habitat loss and heritage trees. Success remains to be measured per agreement with the USFWS. Mitigation credits for temporal losses still need to be purchased as they become available. | 2015 |
| SPD | SPK | South Sacramento Co. Streams, CA | 100 | 50 | 433.5 | 433.5 | Mitigation was required for Giant Garter Snake, Vernal Pool Fairy & Tadpole Shrimp, wetlands impacts, Burrowing Owl, & Valley Elderberry Longhorn Beetle habitat. These impacts occurred in multiple years & in multiple streams in the project area. They are as follows, and construction & mitigation are completed except as noted.<br>GGS- 8.7 acres for Unionhouse Creek to Franklin, 22.86 acres for Unionhouse Creek Franklin-Center Parkway, 4.8 acres for '98-2002 construction, .24 acres for '04 design changes.<br>Vernal Pool Preservation- for fairy and tadpole shrimp- 9.18 acres<br>Seasonal wetland creation- 1.13 acres<br>VELB- 7 transplants<br>Burrowing Owl- 386 acres for impacts to various creeks | Mitigation bank credits complete for Giant Garter Snake, Vernal Pool Fairy & Tadpole Shrimp, wetlands impacts, & Valley Elderberry Longhorn Beetle habitat. The impacts occurred in multiple years and in multiple streams in the project area. Numbers are as follow:<br>GGS - 8.7 acres for Unionhouse Creek to Franklin, 22.86 acres for Unionhouse Creek Franklin-Center Parkway, 4.8 acres for '98-2002 construction, .24 acres for '04 design changes.<br>Vernal Pool Preservation- for fairy and tadpole shrimp- 9.1<br>VELB- 7 elderberry transplants<br>Burrowing owl- 386 acres<br>Combined seasonal wetland, emergent marsh, and riparian scrub-1.13 acres<br>386 upland acres were improved to support burrowing owls | 2011 (a) |
| SPD | SPK | Yuba River Basin CA (Marysville Ring Levee) | 20 | 20 | 11.2 | 11.4 | US Fish and Wildlife Services' Biological Opinion (BO) requires that 8.73 acres of woodland habitat be planted at an appropriate mitigation site. It also requires that 2.5 acres be set aside for elderberry shrub transplants and for planting associated natives. | Mitigation has not started for the Marysville Ring Levee project and is anticipated to begin in 2011. | 2013 |
| SPD | SPL | Murrieta Creek, CA (Phase I) | 100 | 100 | 5.8 | 5.8 | Mitigation required includes revegetation of an unmaintained habitat "corridor" with riparian cottonwood/willow vegetation within the modified channel. For Phase I, this habitat corridor is 70 feet wide and includes 2 4-foot tall "benches" that are periodically inundated based on the intensity of winter storms. Mitigation also includes revegetation of the channel side slopes with coastal sage scrub vegetation. | Revegetation of a approximately 3000 feet x 70 feet corridor as well as the adjacent side slopes. Mitigation monitoring is ongoing for 5 years. The project is in Year 2 of 5 for monitoring. | 2014 |

| Table 2. Status of Projects with Incomplete Compensatory Mitigation | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
| SPD | SPL | Nogales Wash, AZ | 36 | 45 | 11.5 | 11.5 | Compensatory mitigation measures include preservation of 2.7 acres of dense native riparian vegetation, and the revegetation of 8.81 acres along Nogales Wash and Potrero Creek (Areas A thru D) with native cottonwood, willow, and mesquite, accompanied by an appropriate assemblage of native understory vegetation. | Less than 1.5 acres in Area A successfully restored as of November 18, 2010. | 2018 |
| SPD | SPL | Rio De Flag - Flagstaff, AZ | 0 | 52 | 3 | 3 | Mitigation for impacts to cottonwood/willow include installation of 3.0 acres of riparian habitat preceded by exotic weed/invasives removal. Mitigation will be accomplished along the Rio de Flag within the project footprint. | There has been no mitigation accomplished to date. | 2021 |
| SPD | SPL | San Luis Rey River, CA | 70 | 100 | 241 | 195.5 | Mitigation (about 241 ac) is required for temporary and permanent impacts to waters of the U.S., waters of the State of California, riparian habitat, and vireo and southwestern willow flycatcher habitat. Mitigation entails preservation and restoration of riparian and vireo and flycatcher suitable habitat onsite and offsite of the project area. Maintenance of fish passage beneath bridges is required; boulders beneath bridges will be removed/reconfigured. An adaptive habitat management plan is required; will cover the project area, including areas to be preserved/restored and the flood risk management flow conveyance zone, and an off-site mitigation site. | Riparian habitat was established on-site prior to and during construction. About 32 ac created to meet preconstruction requirements. Mitigation requirements (preserve and restore), including Phases 1-3, would be met within the established area (~164 ac required on-site). Invasive plant control initiated in 2005; on-going within the project area; will fulfill requirements for Phases 1-3. Acquisition of off-site mitigation site by sponsor is in-progress (45.5 ac). Adaptive Habitat Management Plan in development. | 2017 |
| SPD | SPL | Santa Ana River Mainstem, CA | 75 | 83 | 3376 | 3266 | Restore 92 acres salt marsh, 5 acres freshwater marsh, ~1,257 acres of riparian habitat (mostly through non-native vegetation removal, with monitoring), and 11 acres perennial stream; trapping of nest-predating cowbirds; wildlife corridor improvements; develop and implement Habitat Management Plan for 1,100 floodplain acres downstream of Prado Dam; and develop and implement Multi-Species Habitat Management Plan for 764 acre preserve area downstream of Seven Oaks Dam. | Full restoration of approx. 450 acres of riparian habitat; partial restoration of approx. 900 acres of riparian habitat; restoration of 92 acres of salt marsh and 5 acres of freshwater marsh; initiated efforts to restore 11 acres perennial stream; ongoing mgmt of 1,864 acres of river wash/floodplain habitats; and acquisition/conservation of at least 150 acres outside of those habitat management areas. | 2015 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| SPD | SPL | Santa Maria River, CA | 0 | 95 | 85 | 85 | The permanent loss of 7.46 acres of native habitat would be fully mitigated through the creation of approx. 12 acres native riparian habitat through removal and revegetation of non-habitat project features. As part of the project approximately 73 acres of native habitat temporarily disturbed by project construction would be restored to pre project conditions with appropriate native habitat consistent with the natural conditions of the river. | Mitigation lands have been aquired. Mitigation Implementation has not begun yet. | 2020 |
| SPD | SPL | Tucson Drainage Area, AZ | 0 | 75 | 5.5 | 5.5 | Compensatory mitigation requirements include 5.5 acres of mitigation to replace 4.1 acres of desert riparian habitat that will be impacted by construction of the flood detention basin complex. | Mitigation site is currently under construction. | 2018 |
| SPD | SPN | Oakland Harbor Deepening 50', CA | 87 | 100 | 15 | 15 | Proposed dredging activities would result in the direct removal and loss of the eelgrass bed habitat. Mitigation for the potential loss of the eelgrass bed would consist of the establishment and long-term monitoring of an eelgrass bed with equal or greater spatial extent and density as that which already exists. | 0 acres of eelgrass habitat have been fully restored. 100% of the dredged material has been placed in the Middle Harbor area. The material is currently settling. After the substrate has settled, the topography will be modified and native vegetation will be planted. | 2018 |
| SPD | SPN | Upper Guadalupe River, CA | 25 | 2 | 21 | 21 | Restoration of stream habitat and the riparian zone in six reaches of the Upper Guadalupe River. Restoration of the first reach includes 1.8 acres of riparian planting, which has been completed. Remaining mitigation acreage for the project includes 19.2 acres of riparian planting. | 1.8 acres of riparian zone restoration plantings have been accomplished in the first reach to be constructed. Stream restoration areas in this reach have had construction activity (channel and floodplain reconfiguration) but no planting yet so are not complete. 0 acres of stream habitat and riparian zone restoration have been accomplished in the remainder of the project as these portions have had no construction yet. Mitigation work in these reaches will consist of riparian forest planting and aquatic habitat enhancement with channel modification and placement of large woody debris. | 2024 |
| SWD | SWF | Central City, Fort Worth, TX | 0 | 5 | 0 | 0 | Mitigation requirements include development of 1.43 acres of emergent wetland, establishment of 76.2 acres of riparian woodland, and establishment of 45.5 acres of upland forest. Additional requirements include management activities on 12.2 and 13.3 acres of existing riparian woodland and upland forest, respectively. | none yet. Mitigation cannot be constructed until after some of the project features are built. | 2025 |
| SWD | SWF | Dallas Floodway Extension, TX | 40 | 10 | 750 | 750 | Acquisition, planting, and management of 1,179 acres of additional project lands. | 745 acres of the have been acquired and 120 acres of that has been managed/planted. | 2025 |

## Table 2. Status of Projects with Incomplete Compensatory Mitigation

| Division | District | Project Name | Percent Mit Physically Complete | Percent Project Physically Complete | Mit Total Acres of Land Required | Mit Total Acres of Land Acquired | Mitigation Requirements | Mitigation Accomplishments to Date | Estimated Date of Success |
|---|---|---|---|---|---|---|---|---|---|
| SWD | SWF | Waco Lake Pool Raise, TX | 60 | 100 | 1540.3 | 1540.3 | Acquire and reforest approximately 1000 acres of land. Reforest another 540 acres for a total of 1540 acres. This would include creating a 174 acre wetland. | All of the land (1,000 acres purchased and 540 already Corps owned)has been purchased and fenced as required. There has been little success in the survival of plantings. | 2015 |
| SWD | SWG | Brays Bayou, TX | 70 | 65 | 27.9 | 27.9 | Construction of 27.9 acres of wetlands in Willow Waterhole Detention Basin in project area. | 20 acres of wetlands at Willow Waterhole Detention Basin have been constructed. | 2020 |
| SWD | SWG | Houston-Galveston Navigation Channel, TX | 100 | 85 | 172.9 | 172.9 | 172AC of oyster cultch (hard substrate for oyster reef development) and 0.43AC of colonial water bird rookery habitat require mitigation. | 172AC of oyster cultch has been placed in Galveston Bay and is monitored by Texas Parks & Wildlife Dept. Market-sized oysters found growing on pads. Alexander Island breakwater constructed and tree habitat replaced and in use. | 2010 (a) |
| SWD | SWL | Arkansas River Navigation Channel, AR&OK | 3 | 4 | 558.1 | 15.1 | 130 acres of Bottomland Forest and 248 acres of Marsh restoration. Relocation of approximately 30K mussels to Lake Dardanelle, relocation of approximately 60K mussels to Pool 2 and then using these individuals to recolonize the Canal. Throughout MKARNS, only scattered beds and patches of mussels were noted. Mitigation for mussel beds and patches that are located near construction areas will consist relocating bed or patches as needed. Gravel bar surveys in proposed dredging locations indicated that an estimated 165 acres of gravel would be impacted and would require mitigation by relocating or creating gravel bars. 15.1 acre island required for terns. | Although a 15.1 acre marsh and forest island was constructed primarily for terns no other project or mitigation construction has been accomplished. | 2020 |
| SWD | SWT | M5-CW Canton, OK, Dam Safety | 95 | 40 | 220 | 220 | 1. Relocation of existing prairie dog town<br>2. Replacement of lands licensed to OK Dept of Wildlife Conservation. | Acquisition of lands similar in function to those impacted. Lands to be added to State wildlife agency license area and managed by State for fish and wildlife. | 2011 |
| | | | | | | | | | |
| | | Footnote | | | | | | | |
| | | | | | | | | | |
| | | (a) means actual date | | | | | | | |

**Table 3 ANNUAL CONSULTATION ON SUCCESS OF MITIGATION as required by Section 2036 of WRDA 2007** January 2011

| Division | District | Project Name | Mitigation % Physically Complete | Mitigation Requirements | Consultation Date and Agency Name | | Evaluate Ecological Success to Date | Likelihood of Success | Projected Timeline for Achieving Success[1] | Recommendations for improving the likelihood of success made during consultation |
|---|---|---|---|---|---|---|---|---|---|---|
| LRD | LRC | Little Calumet River, IN | 27 | A total of 435 acres are required to meet the compensatory mitigation requirement for the Little Calumet River project. Mitigation includes establishing functional bottomland hardwood forests and emergent wetlands offsite. | 02-OCT-10 | Indiana Department of Natural Resources | Annual rate of return of mixed plant assemblage was determined to be successful for the Little Cal area, with rates from reseeding higher than expected.<br>Hobart Marsh area including the bottomland hardwood forest has the potential for meeting the same high success rate once the mitigation is completed. | Medium | 2016 | None provided. |
| LRD | LRL | Cincinnati Metro Region, Duck Creek, OH | 100 | Riparian restoration (23 acres total) which includes reforestation (bottomland hardwood tree plantings) and placement of wood duck and squirrel nesting boxes. | 30-NOV-10 | Hamilton County Parks and City of Cincinnati, Ohio - OH<br>Reynoldsburg Field Office - OH - OH | Greater than 70% survival after replanting areas that initially failed to meet contract specifications. Extra treatments for invasive species were applied as needed. | High | 2015 | Recommendations of consultation were to control growth of invasive plant species at mitigation site and monitor growth of broad leafed deciduous trees |
| LRD | LRL | Olmsted Lock and Dam, KY | 100 | Purchase of mitigation lands, increased water management capability on Ballard Wildlife Management Area (WMA), KY, monitoring of bald eagles and waterfowl populations, monitoring of freshwater mussel populations, support of development of restoration and propagation methodologies for mussels, and restoration of former clay mine site that serves as part of construction site. | 01-APR-10 | Kentucky Field Office - KY - KY<br>Kentucky Department of Fish and Wildlife Resources - KY | Constructed mitigation functions progressing. Mussels have been reduced somewhat by impacts of the invasive zebra mussel. Bald eagle nests and wintering populations have increased. Migratory waterfowl numbers have increased. | High | 2023 | Continue activities as scheduled. |
| LRD | LRP | Lower-Mon-234 (Locks and Dams 2, 3 and 4, Monongahela River Project), WV & PA | 25 | Construction of design features into the Braddock Dam to increase water aeration and increase dissolved oxygen concentration in receiving water. A total of 396 acres are required to meet the compensatory mitigation requirement for the dams 2, 3, and 4 project on the Lower Monongahela River. Mitigation includes restoring shallow riverine habitat, establishing emergent wetlands, and ecosystem restoration of an abandoned strip mine. | 28-FEB-06 | USEPA Wheeling Field Office - WV<br>Pennsylvania Department of Environmental Protection<br>Pennsylvania Fish and Boat Commission<br>USFWS Field Office - PA - PA<br>Pennsylvania Game Commission - PA | Braddock Dam water quality gate is operating as designed for low flow reaeration. Meeting the success criteria for this requirement. Remaining mitigation activities are pending project implementation. | Medium | 2030 | Future consultation on mitigation closer to future construction |

**Table 3 ANNUAL CONSULTATION ON SUCCESS OF MITIGATION as required by Section 2036 of WRDA 2007** January 2011

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| MVD | MVN | Lake Ponchartrain 30000-Jefferson, LA | 100 | Construct breakwaters to protect wetlands and dredged material deposition to restore wetlands - 1,100 average annual acres total preserved/restored | 31-MAR-07 | USFWS - LA | Site visit documented mitigation failure. A new plan and Environmental assessment have been developed and will be implemented upon approval. | Due to failure a new plan has ben developed | 2014 | None provided. |
| MVD | MVN | Larose to Golden Meadow (1985 Mitigation), LA | 100 | The required and authorized mitigation for the Larose to Golden Meadow 1985 Hurricane Protection Project calls for construction of a levee and water-control structure along the eastern boundary of the mitigation site; herein referred to as the Pointe-au-Chien WMA Mitigation Site. These features will serve to enhance the functional values of wetlands in the mitigation site. | 18-NOV-10 | Louisiana Department of Wildlife and Fisheries | All water control structures and levee construction was completed in May 2002, thereby meeting the primary success criteria. However, ecological success was set back due to hurricanes. It is estimated full success will be achieved in 2 years barring additional hurricane damage. | High | 2013 | None provided. |
| MVD | MVR | Illinois Waterway Dredged Material Management Plan (LaGrange Pool - Beardstown), IL | 100 | Three small, shallow breeding ponds were constructed. Each pond is less than one-half acre and less than 2 feet deep. | 16-JUN-10 | Illinois Department of Natural Resources | Very successful. Full success was achieved during May of 2010. | High | 2010 (a)2 | None provided. |
| MVD | MVR | Mississippi River Dredged Material Management Plan (Pool 18-Keithsburg), IL | 100 | Wetland impacts from Placement Site 3 (Willow Bar Island Temporary Transfer Site) were mitigated at a 13.9-acre wetland site adjacent to Huron Chute and upstream from Hawkeye-Dolbee Diversion Channel.<br><br>Site 13 (Kingston Bar III) were mitigated at an 11.3-acre swale adjacent to the placement site. Mitigation efforts included placing and replanting the placement site, creating ephemeral pools, and planting trees within the site. | 13-JAN-10 | Mark Twain National Fish and Wildlife Refuge | Completely successful. | High | 2010 (a) | None provided. |

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| NAD | NAN | NY & NJ Harbor (50') NY&NJ | 100 | The construction of approximately 57 acres of tidal wetlands over 4 sites (out of kind) within the NY/NJ Harbor estuary was required. Mitigation on lands owned by National Park Service, Towns of Woodbridge and Carteret, NJ and New York State. | 15-JUN-10<br><br>30-JUN-10 | New York Department of Environmental Conservation NY<br><br>New Jersey Department of Environmental Protection | Based on site visits and quarterly monitoring, the interagency monitoring team review the results and determine if adaptive management is necessary. Mitigation at all sites is scheduled to be on target. Presently would estimate 80% on target for all four sites. At Elders Point East, high and low marsh vegetation is flourishing and promoting the return of wildlife. The water flow at the Joseph P. Medwick Park site has been reestablished and native fish and wildlife have returned. In addition to the tidal flow returning to the Key Span site, the area is also providing vegetation for nesting birds. Project at Woodbridge Creek has restored the water flow to the site and as a result fish species are creating nurseries there, and bird and wildlife habitats are returning to the site. | High | 2013 | None provided. |
| NWD | NWO | Perry Creek, Sioux City, IA | 100 | Mitigation plantings included 33 acres of native grass species, and 13 acres of tree and shrub plantings. | 03-JAN-11 | Field Supervisor - IA | Vegetation planted but contrary to management plan, was mowed instead of being allowed to grow to natural height. | High | 2011 | Allow plants to grow |
| NWD | NWP | Columbia River Channel Improvement - Navigation, OR & WA | 99 | Mitigation for loss of 172 acres of agricultural lands, 50 acres of riparian habitat and 16 acres of wetland habitat. Issues surrounding mitigation site acquisition have now been resolved and mitigation is underway: 272 acres of mitigation at the following sites: Chumley, Webb, and Cottonwood. | 20-JAN-10 | US Fish and Wildlife Service | All three mitigation sites are visited by the multi-agency adaptive management team of federal and state agencies which tour the sites annually. This team will continue to monitor the successes of these three project to ensure projects meet their intended purpose. | High | 2013 | None provided. |
| POD | POA | False Pass Harbor, AK | 100 | Mitigate impacts for loss of shallow subtidal marine habitat by breaching breakwater and placing 25 reef balls and monitoring recolonization by benthic species; monitor project effects on waterfowl abundance, distribution, and exposure to petroleum. | 30-JUN-10 | Anchorage Ecological Field Office, US Fish and Wildlife Service - AK | Monitoring indicates functional success for recolonization of benthic communities on breakwaters and reefballs. Monitoring to date of waterfowl indicate ecologically success likely. Monitoring of petroleum and eider exposure is complete and shows no project effect. | High | 2011 | None provided. |

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| POD | POA | Seward Harbor, AK | 100 | Dredged material placement was required to create approximately 5 acres of soft-bottom habitat to mitigate loss of similar habitat used by shellfish and other invertebrates. | 09-DEC-10 | Anchorage Ecological Field Office, US Fish and Wildlife Service - AK | Success is assumed due to normally rapid/consistent recolonization as verified in other areas with similar conditions. A site inspection conducted 7 December 2010 verified that the constructed soft-bottom is as designed. | High | 2010 (a) | None provided. |
| POD | POA | Unalaska Harbor, AK | 100 | Compensatory in-kind mitigation is required to replace nearshore and intertidal habitat for sea otters, seals, waterfowl, and benthic communities by creating 30 rubble/boulder reef structures comprising approximately 0.2 acres in the intertidal and nearshore subtidal habitat lost during harbor construction. Monitoring is required to determine colonization by key marine organisms. Monitoring is also required to determine whether the project affects movement, abundance, or distribution of Steller's eiders or northern sea otters or is otherwise causing a taking of those species. | 30-JUL-10 | Anchorage Ecological Field Office, US Fish and Wildlife Service - AK | Success to date is promising. 2010 monitoring indicates that constructed rubble reefs are being colonized by algae at a rate greater than expected. Colonization of the constructed reefs will be monitored two more years and will be completed in the summer of 2012. Post-construction monitoring of sea birds and mammals will begin in the winter of 2011/12 and will continue through the winter of 2012/13. | High | 2013 | None provided. |

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| SAD | SAW | Manteo (Shallowbag) Bay, NC | 9.6 | 125 acres of aquatic habitat (oyster reef). | 22-SEP-10 | North Carolina Oyster Restoration Steering Committee - NC | 12 of 125 acres have been constructed thus far in association with completed project components. Relatively low spat fall values and high oyster disease incidence occurred during the three year monitoring period for oyster reefs in the project vicinity (northern Dare County, NC) including the six monitored mitigation sites. At the conclusion of monitoring activity (2000), spat fall values at 4 of 6 sites ranged from 0.07 to 2.5 where 1.0 is considered fully successful. 'Cedar Bush Bay' and 'Nags Head Cove' were considered fully successful. 'Cat Shoal' and 'Old House Rocks' displayed partial degrees of success. 2 of 6 sites (Pea Island and Rodanthe) were not able to be located. As a result of these monitoring results, future reefs will be proposed as high relief reefs. | Medium | 2020 | None provided. |
| SAD | SAW | Wilmington Harbor, NC - 96 Act | 52.94 | Island 13 - Restoration of 30.4 acres of primary nursery (including 3.4 acres of intertidal marsh) on Cape Fear River dredged material disposal island 13.<br><br>Prevention of Degradation (POD) Lands - Acquisition of 700 acres of riparian wetland habitat buffer on the NE Cape Fear River, including the river shoreline and two tributaries (Tony's and Lagoon Creeks), which serves to protect 29 acres of estuarine primary nursery area.<br><br>Fish passage at Lock and Dam #1 on the Cape Fear River - Construction of rock rapids on the downstream face of the dam to better facilitate anadromous fish passage upstream. | 01-SEP-05 | North Carolina Division of Marine Fisheries | Complete success at Island 13 was achieved and consultation completed as of September 2005. The North Carolina Division of Marine Fisheries (NCDMF) determined the Island 13 system displayed functional characteristics similar to natural marshes of the same type.<br><br>POD lands in their entirety are expected to be acquired in FY 2011. This is a preservation component of the mitigation plan and over 90% of the area has been secured.<br><br>Fish Passage at Lock and Dam #1 on the Cape Fear River is not yet complete. | High | 2013 | None provided. |

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| SPD | SPK | American River - Bridge, CA | 75 | Mitigation required included 50 acres of oak woodland habitat, 6 acres of riparian habitat, 2.5 acres of seasonal wetland and<br>14.2 acres of habitat for Federally listed Valley Elderberry Longhorn Beetle. | 16-JUN-10 | U.S. Fish and Wildlife Service - Corps Project Branch - CA | The Goethe East Site (14.2 acres) of valley elderberry longhorn beetle habitat, has been installed for a few years now, and the required surveys relative to plant survival criteria indicate that with a few more years of watering the site will meet the indicators for success, to include plant abundance and health. The Rossmoor Bar (oak woodland and riparian - 56 acres)site is currently being planted, but with application of lessons learned from other sites, success is expected. | High | 2015 | None provided. |
| SPD | SPK | American River - Common Features (American River Common Features ), CA | 100 | The majority of impacts and associated mitigation for this project relate to the Federally listed valley elderberry longhorn beetle (VELB). Because they are host to this species, impacts to elderberry shrubs require mitigation under the ESA. Mitigation for this project has been accomplished, in most cases, on the consolidated sites referred to as the Goethe mitigation sites. | 15-JUN-10 | Sacramento Field Office - CA | All mitigation has been implemented for the Common Features Project. Because some sites are not performing well, they are all being maintained by the Corps until they can be handed over to the non-Federal Sponsor. Both the Mayhew site and the RM 11.5 sites should be handed over in the next year. One lesson learned is that watering of the sites needs to be extended beyond the original 3 year establishment period, because once water is removed site survival seems to decrease. | High | 2013 | None provided. |
| SPD | SPK | American River - Folsom Outlet Mods (Joint Federal Project - Auxiliary Spillway), CA | 90 | Mitigation for the Joint Federal Project Flood Risk Management impacts include 1.8 acres riparian habitat, 0.21 acres chaparral habitat, and 1.38 acres oak woodland.<br><br>Mitigation for the Folsom Dam Modifications Staging Area includes 7.73 acres of habitat for the Federally listed Valley Elderberry Longhorn Beetle (VELB), 6.77 acres oak woodland, and 0.53 acres chaparral habitat. | 30-JUN-10 | Sacramento field office - CA | Mitigation at sites 11.5 and Sailor Bar are on track to be successful based on survival rates, increased density and plant vigor. Planting at Rossmoor Bar (1.38 acres of oak woodland)has just been completed, the site is expected to succeed. | Medium | 2017 | None provided. |

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| SPD | SPK | Glenn Colusa Gradient Facility / RM208, CA | 100 | (1) Short-term degradation to riverine habitat restored through natural processes following construction; (2) compensatory mitigation for loss or degradation of Shaded Riverine Aquatic (SRA) cover, riparian and elderberry habitat (supporting Federally listed Valley Elderberry Longhorn Beetle) by installing 34.3 acres of offsite and onsite riverine and riparian habitats (5.3 acres of shaded riverine aquatic cover habitat and 29 acres of riparian/elderberry habitat); and (3) providing suitable site conditions for natural reestablishment of emergent wetland habitat temporarily disturbed by construction. | 04-JAN-10 | US Fish and Wildlife Service<br>National Marine Fisheries Service Southwest Region | Resource agencies consulted agree, based on surveys for plant growth, health and canopy cover criteria, that all mitigation areas except for the Gradient Facility onsite have achieved mitigation success. The Gradient Facility onsite area is expected to fulfill all success criteria in 2011 with the successful establishment of 800 linear feet of willows along the riverbank to provide SRA cover with at least 60% canopy cover. | High | 2011 | Replanting of areas to replace plants lost by erosion |
| SPD | SPK | Guadalupe River San Jose CA (Guadalupe River Project, Downtown San Jose, California) | 100 | Mitigation consists of monitoring (annual mitigation and monitoring reports published by sponsor and evaluated by Corps/agencies); adaptive management (annual meetings held with sponsor and agencies); and compensatory mitigation. Said mitigation, all installed, includes 21 acres of riparian (woody) vegetation, 23,895 linear feet of Shaded Riverine Aquatic (SRA) habitat and 25,190 square feet of new spawning habitat from placement of gravel and cobble in the river. | 16-JUN-10 | Ecological Services-Sacramento Area Office - CA | High mitigation success has been achieved to date based on surveys for tree and shrub survival and density, and as documented in Mitigation and Monitoring Reports. The presence of transients/homeless is damaging mitigation sites, especially understory and shade areas. | High | 2010 (a) | None provided. |

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| SPD | SPK | Kaweah Spillway Enlargement, CA | 90 | Based on adverse impacts associated with project construction, mitigation was required to include installation of 40 acres of riparian habitat, 7.19 acres of habitat for Federally listed Valley Elderberry Longhorn Beetle (VELB), and preservation of 4,388 acres of oak woodland and 1,300 acres of seasonal waterfowl habitat. | 13-APR-10 | FWS Corps Projects Branch Sacramento Field Office - CA | At the Davis Ranch site,(4,388 acres) success criteria was met when the site was purchased by the non-Federal sponsor and the O&M manual was finalized. The site has been turned over to the non-Federal sponsor.<br><br>The Dry Creek site (40 acres) has had a couple of replants due to fire and grazing damage. The site is also on its way to meeting success criteria to include canopy density and vigor, areal cover and habitat structure.<br><br>Tulare Lakebed Site (1,300 acres) has met the success criteria and has been turned over to the sponsor.<br><br>The elderberry site consists of 4 individual sites planted at various times between 2001 and 2006. All sites are on their way to meeting the 60% survival criteria identified in the ESA Biological Opinions. | High | 2014 | -keep on with current inspections and surveys |
| SPD | SPK | Napa River, Napa, CA | 85 | The project did not include USACE-designated mitigation per se, but rather construction of site features in a manner avoiding or limiting adverse habitat impacts. All habitat creation, of 8 habitat types, was based on bank stabilization and vegetation establishment. | 01-APR-08 | US FWS-Ecological Services-Sacramento Area Office - CA | Subject native plantings have been highly successful to date. Some invasives have shown up, but have been and will be controlled by the project sponsor to sustain required habitat values. Success has been measured in terms of vegetative cover percentage, and percentage of surviving native plants, where 80% is the success threshold. | High | 2016 | -monitor and eradicate new infestations of invasive plants |

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| SPD | SPL | San Luis Rey River, CA | 70 | Mitigation (about 241 ac) is required for temporary and permanent impacts to waters of the U.S., waters of the State of California, riparian habitat, and vireo and southwestern willow flycatcher habitat. Mitigation entails preservation and restoration of riparian and vireo and flycatcher suitable habitat onsite and offsite of the project area. Maintenance of fish passage beneath bridges is required; boulders beneath bridges will be removed/reconfigured. An adaptive habitat management plan is required; will cover the project area, including areas to be preserved/restored and the flood risk management flow conveyance zone, and an off-site mitigation site. | 01-FEB-08 | California Department of Fish and Game | Riparian habitat has been established throughout most of the project area. Criteria for percent cover, density, and diversity are being met in most areas, however, invasive exotic plant species are present. Invasive exotic plant eradication efforts are in-progress. Preconstruction mitigation requirement for occupied vireo habitat has been met on-site (32 ac). | High | 2017 | None provided. |
| SPD | SPL | Santa Ana River Mainstem, CA | 75 | Restore 92 acres salt marsh, 5 acres freshwater marsh, ~1,257 acres of riparian habitat (mostly through non-native vegetation removal, with monitoring), and 11 acres perennial stream; trapping of nest-predating cowbirds; wildlife corridor improvements; develop and implement Habitat Management Plan for 1,100 floodplain acres downstream of Prado Dam; and develop and implement Multi-Species Habitat Management Plan for 764 acre preserve area downstream of Seven Oaks Dam. | 15-JUN-10 | Carlsbad Field Office - CA | To date all mitigation sites have met or exceeded expectations. 92 acres salt marsh and 5 acres freshwater marsh have been fully restored. Success criteria were met in that initial plantings survived through establishment period, and areas have continued to function as designed. Arundo biomass removed from over 1000 acres of floodplain. Cowbird trapping program underway. Floodplain acreage acquired downstream of Prado and Seven Oaks Dams and Habitat Management Plan developed for downstream of Prado. Fairview Park plant installation has been completed, but the vegetation has not yet matured to meet overall success criteria. Additional mitigation features will be added as construction continues. | High | 2015 | None provided. |

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| SWD | SWF | Waco Lake Pool Raise | 60 | Acquire and reforest approximately 1000 acres of land. Reforest another 540 acres for a total of 1540 acres. This would include creating a 174 acre wetland. | 01-OCT-09 | Texas Parks and Wildlife Department Arlington Ecological Field Office - TX | The current survival rate of planting has been close to zero. The City has changed methodologies for planting and implemented different water methods for the initial establishment of trees, but with little success. The City and the Corps will have to undergo additional consultation in FY11 to determine if the mitigation as proposed is sustainable or what can be done to make it sustainable. Once this is determined, the monitoring will have to be extended to ensure mitigation success. | Medium | 2015 | None provided. |
| | | Footnotes | | | | | | | | |
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| | | 1. Evaluation of all constructed mitigation operated and maintained by a non-Federal sponsors transitions to the Corps Inspection of Completed Projects Program. | | | | | | | | |
| | | 2. (a) Date mitigation succes was achieved | | | | | | | | |
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