2017 Report to Congress on Future Water Resources Development

March 2017
Report to Congress on Future Water Resources Development

This 2017 Report to Congress on Future Water Resources Development (Annual Report) is in response to section 7001 of the Water Resources Reform and Development Act (WRRDA) of 2014, which requires that the Secretary of the Army submit an annual report to Congress that identifies potential future water resources development through feasibility reports, proposed feasibility studies, and proposed modifications to authorized water resources development projects or studies.

Section 7001 requires a notice to be published in the Federal Register requesting proposals for proposed feasibility studies and proposed modifications to authorized water resources development projects and feasibility studies to be submitted by non-Federal interests. This report reflects information provided by non-Federal interests in response to that notice as well as the inclusion of a Post Authorization Change Report to support an increase in authorized project cost.

The section also directed that “the Secretary shall include in the annual report only those feasibility reports, proposed feasibility studies, and proposed modifications to authorized water resources development projects and feasibility studies that:

(i) are related to the missions and authorities of the Corps of Engineers;
(ii) require specific congressional authorization, including by an Act of Congress;
(iii) have not been congressionally authorized;
(iv) have not been included in any previous annual report; and
(v) if authorized, could be carried out by the Corps of Engineers.”

On May 20, 2016, the United States Army Corps of Engineers (Corps) published in the Federal Register a notice for proposals from non-Federal interests. The deadline for submitting proposals was September 19, 2016. All submitted proposals were evaluated against the five criteria set forth in section 7001 and are presented in one of two tables in this Annual Report. The first table, included in this main report, contains proposals that meet the criteria and a Post Authorization Change Report to support an increase in authorized project cost. The second table, included as an appendix, contains proposals that did not meet those criteria.

The notice in the May 20, 2016 Federal Register sought to clarify the process under which proposals would be evaluated against the criteria in developing the 2017 Annual Report in order to provide more transparency to non-Federal interests. How proposals were evaluated under each criteria are described below.

Criteria 1. Related to the missions and authorities of the Corps

Proposals are generally considered related to the missions and authorities of the Corps when they involve a proposed or existing Corps water resources project or effort whose primary purpose is flood and storm damage reduction, commercial navigation, or aquatic ecosystem restoration. Proposals for related purposes, such as for recreation, hydropower, or water supply, may be eligible for inclusion if undertaken in
conjunction with a project or effort involving one or more of those primary purposes.

Criteria 2. Require specific congressional authorization, including by an Act of Congress

Proposals are considered to require congressional authorization in the following cases:

- **Proposals Seeking Construction Authorization**
  - Signed Chief of Engineers’ Reports
  - Non-Federal feasibility reports submitted for review to the Secretary of the Army under Section 203 of WRDA 1986, as amended;
  - Ongoing feasibility studies that are expected to result in a Chief’s Report or on-going non-Federal feasibility studies that have not yet been submitted to the Secretary of the Army under Section 203 of WRDA 1986, as amended; and
  - Proposed modifications to authorized water resources development projects requested by non-Federal interests through the WRRDA 2014 Section 7001 process.

- **Proposals Seeking Study Authorization**
  - New feasibility studies proposed by non-Federal interests through the WRRDA 2014 Section 7001 process will be evaluated by the Corps to determine whether or not there is existing study authority; and
  - Proposed modifications to studies requested by non-Federal interests through the WRRDA 2014 Section 7001 process.

As stated in the May 20, 2016 Federal Register Notice, the following types of proposals are not considered eligible to be included in the Annual Report, although they will be included in the appendix for transparency:

- Proposals for modifications to non-Federal activities where the Corps has provided previous assistance, except for specifically authorized environmental infrastructure projects as provided in Section 1157 of the Water Resources Development Act (WRDA) of 2016 (Title I of P.L. 114-322).
- Proposals for construction of a new water resources development project (i.e. a project unrelated to any currently authorized water resource development project) that is not the subject of a completed or ongoing feasibility study.

Criteria 3. Have not been congressionally authorized

A proposal is considered to have not been congressionally authorized if all the specific elements contained in the proposal were not included in any previous authorization.

Criteria 4. Have not been included in the report table of any previous Annual Report to Congress on Future Water Resources Development
Proposals included in the report table in a previous Report to Congress on Future Water Resources Development are not eligible to be included in the table included in this report. Proposals previously included in an appendix may be resubmitted for consideration for inclusion in subsequent reports.

Criteria 5. If authorized, could be carried out by the Corps

Unless some institutional impediment exists (e.g. state laws), proposals meeting the other criteria are generally considered to be implementable by the Corps if authorized by Congress. As discussed below, additional steps are required before the Corps can begin implementation.

The Federal Register notice identified specific requirements that all water resources development projects, whether following the Corps' traditional Chief of Engineers Report process or Section 7001 of WRRDA 2014, must generally meet before the Corps can proceed to construction. These requirements include: (1) the project is authorized for construction by Congress; (2) the Secretary, or other appropriate official, has approved a current decision document with the Administration's position on the project (this may occur prior to or subsequent to authorization); and, if appropriate, has transmitted that report to Congress; and (3) funds for construction have been appropriated for the project.

The second of these requirements is important for section 7001 proposals because a current decision document is the basis for Administration support for budgeting decisions for projects. Current decision documents provide updated information on the scope of the potential project and demonstrate a clear Federal interest, including an assessment of whether the proposal is:

- Technically sound, economically viable and environmentally acceptable.
- Compliant with environmental and other laws, including but not limited to the National Environmental Policy Act, the Endangered Species Act, Coastal Zone Management Act, and the National Historic Preservation Act.
- Compliant with statutes related to water resources development including, but not limited to, the various water resources provisions pertaining to the authorized cost of projects, level of detail, separable elements, fish and wildlife mitigation, project justification, matters to be addressed in planning, and the 1958 Water Supply Act.

While under the traditional authorization process, the Chief's Report serves as the current decision document that is transmitted to Congress prior to authorization, projects authorized based on a proposal submitted under Section 7001 will not have a completed Corps decision document and, therefore, would lack a basis for Administration support for implementation. Clearly identifying these requirements allows for a more transparent process should any of the non-Federal proposals become authorized based on this Annual Report.

The Federal Register notice also noted two other important considerations for non-Federal sponsors preparing proposals. First, if Congressional authorization of a new feasibility study results from inclusion in this report, it is anticipated that such authorization would be for the
study only and not for construction. Second, a Post Authorization Change Report (PACR) is required to be completed to support potential project modifications, updates to project costs, and increases to the maximum cost of a project established by section 902 of WRDA 1986, as amended (902 limit). Although PACRs may not include feasibility analysis because these PACRs support project modifications, they may be considered for inclusion in the report if the recommendations require authorization.

Of the 53 proposals submitted for the 2017 Annual Report, 31 were proposals for new feasibility studies, 18 were proposals for modifications to existing projects or changes to legislation, and 4 were proposals for a study modification. Of these proposals, 13 met the criteria and are listed in the main report table. The remaining 40 proposals that did not meet the criteria are included in the appendix with an explanation of which specific criteria were not met. (All 53 proposals provided by non-Federal interests for the 2017 Annual Report are available at http://www.usace.army.mil/Missions/Civil-Works/Project-Planning/Legislative-Links/wrrda2014/wrrda2014_proposals/.)

The two primary reasons proposals are included in the Appendix are that either authority already exists to perform the requested work or the proposal did not fit within the identified Corps core mission areas. It is important to note that where authority already exists to undertake the efforts described in the proposals, inclusion in the Appendix to the 2016 Annual Report does not preclude the Army from carrying out either the study or construction.

WRDA 2016 authorized all the feasibility reports that appeared in previous Annual Reports as well as the eight feasibility reports that have been completed with signed Chief’s Reports since submission of the 2016 Annual Report on February 1, 2016.

Reports for twenty-eight newly authorized projects have completed Army review and have been officially transmitted to Congress by the Secretary with the views of the Administration. For these projects to proceed to construction, the requirements for appropriations remain to be satisfied. These 28 include 22 that were included in the 2016 Annual Report (South San Francisco Bay Shoreline, California; Central Everglades Planning Project, Florida; Flagler County, Florida; Port Everglades, Florida; Upper Des Plaines River and Tributaries, Illinois and Wisconsin; Manhattan, Kansas; Upper Turkey Creek, Kansas; West Shore of Lake Pontchartrain, Louisiana; Calcasieu Lock, Louisiana; Armourdale and Central Industrial District Levee Units, Missouri and Kansas; Bogue Banks, North Carolina; Portsmouth Harbor, New Hampshire and Maine; Hereford Inlet, New Jersey; Charleston Harbor, South Carolina; Edisto Beach, South Carolina; Mill Creek, Tennessee; Brazos Island Harbor, Texas; Leon Creek, Texas; Skokomish River, Washington; and Lower Willamette, Oregon; Little Diomede, Alaska; Los Angeles River, California) and 6 feasibility report that were completed since the submission of the 2016 Annual Report, (Craig Harbor, Alaska; West Sacramento, California; American River Common Features, California; Upper Ohio River, Pennsylvania; Puget Sound, Washington; and Princeville, North Carolina).

There are two newly authorized projects under WRDA 2016 that have not been transmitted to Congress, one that was included in the 2016 Annual Report, Encinitas-Solana, California, and one feasibility report with Chief’s Reports signed since submission of the 2016 Annual Report,
Southwest Coastal Louisiana. For these projects to proceed to construction, the Secretary needs to transmit them to Congress and the requirements for appropriations remain to be satisfied.

WRDA 2016 also authorized seven completed post authorization reports for projects requiring authorization for exceeding their maximum authorized costs under Section 902 of the Water Resources Development Act of 1986, as amended (P.L. 99-662). Those projects: Blue River Basin, Missouri; Swope Park Industrial Area, Missouri; Turkey Creek, Kansas and Missouri; Picayune Strand, Florida; Rio de Flag, Arizona; Houston-Galveston Navigation Channel, Texas; Ohio River Shoreline, and Paducah, Kentucky; have been transmitted to Congress by the Secretary. One additional post-authorization change report, Savannah Harbor Expansion Project, Georgia, has also been transmitted to Congress but was not authorized in WRDA 2016. It is included in the main report table of this Annual Report. Congress must authorize the project at the new cost in order for the project to be completed.

The Senior Official performing the duties of the Assistant Secretary of the Army (Civil Works) certifies that, based on the information received from the non-Federal interests, each proposed feasibility study and proposed modification to an authorized water resources development project or feasibility study included in this main report meets the criteria established in WRRDA 2014 Section 7001. The information contained in proposals provided by non-Federal interests has not been revised or developed by the Corps or Army and the proposals are not endorsed by the Corps or Army. This report is in response to the requirements of Section 7001 only and does not reflect program, policy, or budgeting priorities.

Report Table:
- Signed Chief's Reports
  - Transmitted to Congress
  - Under Army review
- Transmitted 902 Reports
- Proposal Report

Appendix:
- Proposal Appendix
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Savannah Harbor Expansion Project</td>
<td>GA</td>
<td>GA Department of Transportation</td>
<td>902 PACR</td>
<td>Approved 902 Report transmitted to Congress</td>
<td>Increase in authorized project cost</td>
<td>Updated BCR at 2.875% is 7.3 to 1.</td>
<td></td>
<td>$677,613,600</td>
<td>$229,829,400</td>
<td>$973,443,000</td>
<td>Projects which have project cost increases that have been transmitted by AASHTO to Congress.</td>
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### New Federal Interest

<table>
<thead>
<tr>
<th>Name of Proposal or Feasibility Report</th>
<th>State</th>
<th>Proposal Type</th>
<th>All proposed modifications to WRDA '86 in 2017 Report</th>
<th>Modification to Authorized Project</th>
<th>Status Notes</th>
<th>Benefits (Summarized from Proposal)</th>
<th>Proposed Federal Cost</th>
<th>Estimated Non-Federal Cost</th>
<th>Total Estimated Costs</th>
<th>Requirements for certification (all money in millions of dollars, less any appropriated in law)</th>
</tr>
</thead>
</table>

#### San Juan River

**San Juan River Waterway Navigation Project Modification**

**Proposal submitted in 2017.**

- **Location:** Tucumcari, New Mexico
- **Description:** Proposed modifications to the existing channel, including an increase in the depth of the navigation channel and the installation of a bridge over the river.

**Estimated Federal Cost:** $5,140,000

- **Total Estimated Costs:** $5,140,000

**Requirements for certification (all money in millions of dollars, less any appropriated in law):**

- **Federal share:** 70% of total costs
- **Non-Federal share:** 30% of total costs
- **Potential benefits:** Improved navigation for commercial vessels, reduced flood risk, and enhanced ecosystem connectivity.

#### San Diego River

**San Diego River 1, 2 and 3 Levee System Modification and Feasibility Study**

**Proposal submitted in 2017.**

- **Location:** San Diego, California
- **Description:** Proposed modifications to the existing levee system, including the construction of new levees and the expansion of existing levees.

**Estimated Federal Cost:** $5,140,000

- **Total Estimated Costs:** $5,140,000

**Requirements for certification (all money in millions of dollars, less any appropriated in law):**

- **Federal share:** 70% of total costs
- **Non-Federal share:** 30% of total costs
- **Potential benefits:** Improved flood protection, enhanced ecosystem connectivity, and reduced stormwater runoff.

#### Lake Powell

**Lake Powell Baseline Navigation Project**

**Proposal submitted in 2017.**

- **Location:** Glen Canyon, Arizona
- **Description:** Proposed modifications to the existing navigation channel, including an increase in the depth of the channel and the installation of a navigation control structure.

**Estimated Federal Cost:** $5,140,000

- **Total Estimated Costs:** $5,140,000

**Requirements for certification (all money in millions of dollars, less any appropriated in law):**

- **Federal share:** 70% of total costs
- **Non-Federal share:** 30% of total costs
- **Potential benefits:** Improved navigation for commercial vessels, reduced flood risk, and enhanced ecosystem connectivity.

### Table: Non-Federal Cost

<table>
<thead>
<tr>
<th>Project</th>
<th>Estimated Federal Cost</th>
<th>Estimated Non-Federal Cost</th>
<th>Total Estimated Costs</th>
</tr>
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<tbody>
<tr>
<td>San Juan River Project</td>
<td>$5,140,000</td>
<td>$5,140,000</td>
<td>$5,140,000</td>
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<tr>
<td>San Diego River Project</td>
<td>$5,140,000</td>
<td>$5,140,000</td>
<td>$5,140,000</td>
</tr>
<tr>
<td>Lake Powell Project</td>
<td>$5,140,000</td>
<td>$5,140,000</td>
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### Table: Financial Summary

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<th>Project</th>
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<th>Estimated Non-Federal Cost</th>
<th>Total Estimated Costs</th>
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<td>$5,140,000</td>
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**As identified by non-Federal interests in their proposals.**
The purpose of the project is to provide a study authority for Tangier Island, VA, which is located in the Eastern Shore of Virginia. Tangier Island is defined as a tidal island located in the Chesapeake Bay. The project would provide a study authority for the island and protect the island's unique cultural and natural resources. The project would enable the island to continue to exist in its current form and preserve its unique cultural and natural resources.

**Benefits**
- Increased property values and economic opportunities.
- Protection of the island's unique cultural and natural resources.
- Improved access to essential services.

**Estimated Federal Cost**
$1,500,000

**Estimated Non-Federal Cost**
$1,500,000

**Total Estimated Cost**
$3,000,000
Purpose

To report that the non-Federal sponsor has acquired matching funds to complete study and Proposal does not relate to a primary function of the Corps of Engineers.

Benefits

The Alaska Deep-Draft Arctic Port project will provide critical infrastructure to support the staging of assets and resources necessary to respond to the protection of human life and the marine environment in the Arctic region. Presently, these resources in transit to support the U.S. military and various scientific/industrial activities are significant in volume and value, and are primarily transported by the existing commercial port in Nome. The Nome Port Facility, with expanded protective infrastructure, would greatly benefit the U.S. Coast Guard and the Department of Defense thirty (30) miles above the Arctic Circle who could then effectively and efficiently transport over $103,000,000 worth of goods such as heating fuel and gasoline, building materials, and groceries and goods at both ends of the transportation chain. (3) benefit from the expanded commercial and subsistence harvest due to increased access to subsistence hunting, marine resources, and access to the commercial portion of the harbor; and provide a harbor of refuge for both commercial and subsistence harvesters. The protection of human life. The current practice of flood fighting during storms places equipment operators in extremely hazardous conditions. And, erosion also threatens the traditional sharing and subsistence harvesting, as an archeological site that has been occupied for over 2,500 years. Finally, Barrow is the hub for the region’s eight communities and serves as the regional government. (4) benefit the commercial & subsistence fisheries. The development of navigational improvements and a deep water facility at Cape Blossom would (1) allow goods to be more economically transported to Kotzebue and the ten surrounding communities by replacing the time-consuming and costly lightering of goods such as heating fuel and gasoline, building materials, and groceries and goods at both ends of the transportation chain. (2) benefit the U.S. Coast Guard and the Department of Defense thirty (30) miles above the Arctic Circle who could then effectively and efficiently service the “Northwest Passage” located in and around the U.S. Arctic and the State of Alaska; (b) benefit energy and resource development, and (c) allow large vessels close to the harbor (port of refuge through the Bering Strait & Churchill bar, and (d) benefit the commercial & subsistence fisheries. The development of navigational improvements and a deep water facility at Cape Blossom would (1) allow goods to be more economically transported to Kotzebue and the ten surrounding communities by replacing the time-consuming and costly lightering of goods such as heating fuel and gasoline, building materials, and groceries and goods at both ends of the transportation chain. (2) benefit the U.S. Coast Guard and the Department of Defense thirty (30) miles above the Arctic Circle who could then effectively and efficiently service the “Northwest Passage” located in and around the U.S. Arctic and the State of Alaska; (b) benefit energy and resource development, and (c) allow large vessels close to the harbor (port of refuge through the Bering Strait & Churchill bar, and (d) benefit the commercial & subsistence fisheries. The project provides a hard slope (sea-bird habitat, and national security. We would value all benefits at a minimum of one billion dollars. The proposed project will facilitate the development of a nearby rock quarry, which reduces costs for importing rock for construction and road construction. In addition, the expansion of the rock quarry would provide jobs for local residents and generate an estimated $23,000,000 in economic activity for the community. The expansion of the rock quarry would also benefit the U.S. Coast Guard and the Department of Defense thirty (30) miles above the Arctic Circle who could then effectively and efficiently service the “Northwest Passage” located in and around the U.S. Arctic and the State of Alaska; (b) benefit energy and resource development, and (c) allow large vessels close to the harbor (port of refuge through the Bering Strait & Churchill bar, and (d) benefit the commercial & subsistence fisheries.

NOTE: Information on non-Federal interests was not verified, revised or developed by USACE, Army, or UMB

Name of Proposal or Feasibility Report

Alaska Deep-Draft Arctic Port System Study

Modification to Authorized Project

New Study Authorization

Unmet Section 7001 Criteria / Reason in Appendix

Total Estimated Costs (Direct from Proposal)

Unmet Section 7001 Criteria / Reason in Appendix

Does not require congressional authorization. Study authority exists. (Criteria 2 and 3).

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$44,000,000

$27,000,000

$10,000,000

$15,000,000

$215,000,000

$48,000,000

$44,000,000

$23,000,000

$4,000,000
### Name of Proposal or Feasibility Report

<table>
<thead>
<tr>
<th>State(s)</th>
<th>Proposal Type</th>
<th>Purpose</th>
<th>Benefits</th>
<th>Total Estimated Costs (Directly from Proposal)</th>
<th>Unmet Section 7001 Criteria / Reason in Appendix</th>
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<tbody>
<tr>
<td>CA</td>
<td>Modification to Authorized Project</td>
<td>Modification to Authorized Study New Study Authorization</td>
<td>Study to determine if Corps participation is warranted to address deficiencies that prevent the project from functioning as authorized due to required environmental limitations and deficiencies resulting from a lack of maintenance, have been addressed.</td>
<td>$2,000,000</td>
<td>$8,420,000</td>
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<tr>
<td>CT</td>
<td>Modification to Authorized Project</td>
<td>Modification to Authorized Study New Study Authorization</td>
<td>The Corps of Engineers constructed flood control features for the City of Hartford following severe floods in 1969 and 1985. Construction was started in 1968. The final increment was completed in 1989. The project protects the South End, Newington, and other areas immediately downstream of the project. The project is currently being operated by the City of Hartford.</td>
<td>$19,010,000</td>
<td>$0</td>
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### Proposal Description

**El Segundo Dam Rehabilitation Project**

- **Purpose:** To complete the rehabilitation of the flood reduction system to ensure it provides the appropriate level of protection to residents and others working and living within the protected area of the levee.
- **Benefits:** Additional non-monetary benefits include opportunities for storm/flood water recharge and supply augmentation strategies within the project's limits to assist the State and local communities in addressing continued drought and future water supply/demand imbalance, and promoting opportunities for future open space designation.

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- **Benefits:** Additional non-monetary benefits include opportunities for storm/flood water recharge and supply augmentation strategies within the project's limits to assist the State and local communities in addressing continued drought and future water supply/demand imbalance, and promoting opportunities for future open space designation.
This proposal, in general summary, requests a partnership for removal of septic tanks. This is to address increased flooding due to overuse of septic systems in residential areas, which is causing negative effects on nearby waterways and wildlife. The goal of the analysis is to provide an economically feasible risk reduction option for communities within the Southeast Louisiana Project (SELA). Desired flood protection consists of improving approximately 4.1 miles of levees and 10.4 miles of floodwall. The proposal is a modification to the payment structure to the State of Illinois for an Authorized U.S. Army Corps of Engineers project. As a result there is no change to the existing benefits of the proposed project.

The purpose of the 1077-1085 Regional Drainage Report is to identify risk structures within the Slidell area through a hydraulic analysis and recommend alternative risk reduction options to improve flood stage elevations. The study area includes approximately 25 square miles within the Slidell area. The study area is divided into 36 sub-basins. The design is based on a post-1938 flood event. This effort will identify risk structures within the Slidell area and recommend risk reduction options to reduce flood risk in the study area. The study includes assessment of hydraulic and hydrologic analyses and recommend alternative risk reduction options. The project is designed to provide benefits to the residents of Slidell and the surrounding areas by reducing flood damage and improving public safety. This feasibility study will assess flood protection for the W-14 Canal Basin in St. Tammany Parish as part of the Southeast Louisiana (SELA) region. The proposal does not require congressional authorization. Study authority exists.

The purpose of the Alumpa River Regional Detention Pond is to identify risk structures in St. Tammany Parish through a hydraulic analysis and recommend alternative risk reduction options to address local flooding in the area and provide floodplain land use planning while addressing water quality from upstream tributaries. The goal of the analysis is to provide an economically feasible risk reduction measure to reduce flooding in the area while minimizing negative effects to water surfaces and drainage basins. Preiminary analysis of detention ponds includes construction of a detention pond to provide roughly 600 acre-feet of storm water detention.

Lake Okeechobee Everglades Ecosystem Protection

The purpose of this proposal is to assess the feasibility of removing the septic tanks from unsewered subdivisions in the Southeast Louisiana Project (SELA) area. The study area includes approximately 25 square miles within the SELA area. This proposal is a modification to the payment structure to the State of Illinois for an Authorized U.S. Army Corps of Engineers project. As a result there is no change to the existing benefits of the proposed project.
Baya Bouchitse Regional Detention Pond

- Purpose: The purpose of the Baya Bouchitse Detention Pond analysis is to identify risk structures along the Black River study area through a hydrologic and hydraulic analysis and recommend mitigation options to lower water surface profiles in the drainage basin. Preliminary analysis of mitigation options includes construction of a 90-acre detention pond. The detention pond will provide upstream detention and attenuate the peak flows. The goal of the analysis is to provide an economically feasible risk reduction measure to reduce flood risk in the study area. The area benefiting from the Bayou Bouchitse Regional Detention Pond has had a total of 35,497.264 feet of flood claims since 1993. 90% of the flooding has occurred since 1995. The construction of the pond will benefit a total of 3,048 structures. The pond will increase the resiliency of the area and enhance the residents’ quality of life.

- Benefits: The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Costs: $17,912,168

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Baya Lacourse/A11 Corridor Pond

- Purpose: The purpose of the Bayou Lacourse/A11 Corridor Pond analysis is to identify risk structures along the Bayou Lacourse/A11 study area through a hydrologic and hydraulic analysis and recommended mitigation options to lower water surface profiles in the drainage basin. Preliminary analysis of mitigation options include construction of a 120-acre detention pond. The detention pond will provide upstream detention and attenuate the peak flows. The goal of the analysis is to provide an economically feasible risk reduction measure to reduce flood risk in the study area. The area benefiting from the Bayou Lacourse/A11 Detention Pond in total of 118 structures. The pond will increase the resiliency of the area and enhance the residents’ quality of life.

- Benefits: The construction of the Bayou Lacourse/A11 Detention Pond will provide benefits to 118 structures. The pond will increase the resiliency of the area and enhance the residents’ quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Costs: $6,850,385

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Belair North Detention Pond

- Purpose: The purpose of the Belair North detention pond analysis is to identify risk structures along the Belair study area through a hydrologic and hydraulic analysis and recommended mitigation options to lower water surface profiles in the drainage basin. Preliminary analysis of mitigation options include construction of a 90-acre detention pond. The construction of the Belair and Belair South Regional Detention Ponds will provide a total of 2,366 structures. The pond will reduce the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Benefits: The construction of the Belair North and Belair South Regional Detention Ponds will provide a total of 2,366 structures. The pond will reduce the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Costs: $24,408,096

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Belair South Detention Pond

- Purpose: The purpose of the Belair South detention pond analysis is to identify risk structures along the Belair study area through a hydrologic and hydraulic analysis and recommended mitigation options to lower water surface profiles in the drainage basin. Preliminary analysis of mitigation options include construction of a 90-acre detention pond. The construction of the Belair North and Belair South Regional Detention Ponds will provide a total of 2,366 structures. The pond will reduce the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Benefits: The construction of the Belair North and Belair South Regional Detention Ponds will provide a total of 2,366 structures. The pond will reduce the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Costs: $13,193,132

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Big Branch Detention Pond

- Purpose: The purpose of the Big Branch Detention Pond analysis is to identify risk structures within the Big Branch study area through a hydrologic and hydraulic analysis and recommend mitigation options to lower water surface elevations to reduce flood risk in the study area. The area benefiting from the Big Branch Detention Pond has a total of 681 structures. The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Benefits: The construction of the Big Branch Detention Pond will benefit a total of 681 structures. The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Costs: $34,172,096

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Black River Drainage Study

- Purpose: The purpose of the Black River Drainage Study is to identify risk structures within the Black River study area through a hydraulic and hydraulic analysis and recommend mitigation options to lower water surface elevations to reduce flood risk in the study area. The study area includes Benton River and the Black River, within the Ruelle Du Chene Subdivision in St. Tammany Parish. The goal of the analysis is to provide an economically feasible risk reduction measure to lower flood risk in the area while minimizing negative affects to water surface profiles along Black River and its tributaries. Preliminary analysis of mitigation options includes construction of detention ponds in the River Creek and Automatic Creek Subdivision, and replacement of existing culverts.

- Benefits: The project will improve drainage area and reduce the risk of flooding for several subdivisions in the Black River Tributary Basin.

- Costs: $16,931,080

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Bonnie Street Floodgate

- Purpose: The purpose of the Bonnie Street Floodgate analysis is to identify risk structures along the Bonnie Street study area in St. Tammany Parish through a hydrologic and hydraulic analysis and recommended mitigation options to reduce flood risk in the study area. The goal of the analysis is to provide an economically feasible risk reduction measure to lower flood risk in the area while minimizing negative affects to water surface profiles in the drainage basin. Preliminary analysis of mitigation options includes construction of Floodgate to span a break in the existing levee that protects residential and commercial structures through storms with high flow. Due to the proximity of Bonnie Road, extending the roadway to the top of the levee height is not practical and would create a safety hazard.

- Benefits: The project will reduce coastal storm surge within the existing levee structure.

- Costs: $108,1370

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

East Fork Little Bogue Falaya Detention Pond

- Purpose: The purpose of the East Fork Little Bogue Falaya Detention Pond analysis is to identify risk structures along the study area. The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Benefits: The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Costs: $7,112,586

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Frisco Park Scissotail Palapa Detention Pond

- Purpose: The purpose of the Frisco Park Scissotail Palapa Detention Pond analysis is to identify risk structures along the study area. The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Benefits: The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Costs: $16,931,080

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Inactive Works Efficient Force Main

- Purpose: The purpose of the Inactive Works Efficient Force Main analysis is to identify risk structures along the study area. The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Benefits: The purpose of the wastewater consolidaton program is to improve water quality in the Parish by eliminating wastewater discharges from un-regulated areas and package WWTPs through treatment of these flows as Regional WWTPs. The un-incorporated areas surrounding the City of Slidell is home to some of the most densely populated areas in the Parish. Approximately 25% of the East St. Tammany WWMA population is currently un-sewered. The remaining 75% of the population is served by several privately owned and Parish owned facilities of various ages and conditions. A consolidated wastewater treatment facility allows for consistently treated effluent to be discharged in a single location, thus improving surface water quality within the Parish. Waterfall assessment of the treated effluent has the potential to restore degraded marsh, while also offering the benefit of less stringent discharge regulations, which translates to lower treatment costs.

- Costs: $10,961,019

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

Latrobe Bouchitse Detention Pond

- Purpose: The purpose of the Latrobe Bouchitse Detention Pond analysis is to identify risk structures in St. Tammany Parish through a hydrologic and hydraulic analysis and recommended mitigation options to reduce flood risk in the study area. The area benefiting from the Latrobe Bouchitse Regional Detention Pond has a total of 6,748 structures. Some 18% of the structures are located within the floodplain. Preliminary analysis of mitigation options includes construction of a 500-acre detention pond. The detention pond will provide upstream detention and attenuate the peak flows.

- Benefits: The Latrobe Bouchitse Detention Pond analysis of 1,078 structures. The detention pond will provide upstream detention and attenuate the peak flows.

- Costs: $9,800,578

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.

New Study Authorization

- Government New Study Authorization

- Purpose: The purpose is to reduce flooding in the area while minimizing negative affects to water surface profiles in the drainage basin. Preliminary analysis of mitigation options includes construction of a 100-acre detention pond. The detention pond will provide upstream detention and attenuate the peak flows. The construction of the Latice Branch Detention Pond will benefit a total of 116 structures. The pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

- Benefits: The construction of the Latice Branch Detention Pond will benefit a total of 116 structures. The detention pond will provide upstream detention and attenuate the peak flows.

- Costs: $12,915,285

- Unmet Section 7001 Criteria / Reason in Appendix: This project will reduce coastal storm surge within the existing levee structure.
Proposal does not relate to a primary 
control responsibility.

Robert Road Detention Pond
LA
St. Tammany Parish
Government
New Study Authorization

The Robert Road Detention Pond Expansion will increase the existing storm detention storage capacity to 180 acre-feet. The Pond will benefit a total of 1,883 structures. 188 structures flooded in the March, 2016 flood event. The Pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

$1,883,002
Proposal does not relate to a primary 
control responsibility.

Sedgefield Case
Pavement
Improvements
LA
St. Tammany Parish
Government
New Study Authorization

The proposed modification will prevent two existing pavement segments and will consist of 11 feet on both sides of the roadway. This will prevent the Pond from overflowing into the roadway. The Pond will benefit a total of 675 structures. The Pond will increase the resiliency of the area and enhance the resident’s quality of life.

$1,000,000
Proposal does not relate to a primary 
control responsibility.

Upper Tchefuncte Detention Pond
LA
St. Tammany Parish
Government
New Study Authorization

The area of the Upper Tchefuncte Detention Pond will benefit a total of 6,760 structures. 74 structures flooded in the March, 2016 flood event. The Pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

$5,555,000
Proposal does not relate to a primary 
control responsibility.

Venchy Branch Detention Pond
LA
St. Tammany Parish
Government
New Study Authorization

The Venchy Branch Detention Pond will benefit a total of 2,292 structures. 188 structures flooded in the March, 2016 flood event. The Pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

$33,814,685
Proposal does not relate to a primary 
control responsibility.

W-14 West Diversion East
LA
St. Tammany Parish
Government
New Study Authorization

The W-14 West Diversion East Pond will benefit a total of 11,200 structures. The Pond will increase the resiliency of the area and enhance the resident’s quality of life. It will also reduce the amount of work days that are missed due to storm related clean-up.

$5,787,570
Proposal does not relate to a primary 
control responsibility.

Albuquerque Bernalillo Water Governing Authority
NM

Reauthorization for Albuquerque Bernalillo Water Governing Authority

The proposed definition allows for more flexibility for storage of San Juan-Chama and Rio Grande water in Albuquerque reservoir. This provides additional flexibility to manage the storage and release of water for municipal and industrial, environment, and the basin compact compliance. Currently, 15% reservoir has the ability to store this system water along with Juan-Chama water, but is primarily focused on storing Bonito Reservoir water. The Water Authority set aside 18,500 acre-feet of space in Albuquerque reservoir as an environmental pool to store and release water for the Albuquerque Water Authority’s projects to provide habitat for endangered species. This language would allow for storage of this basin system water to support other opportunities for sustainable water use within the environmental pool.

$0
Proposal does not relate to a primary 
control responsibility.
<table>
<thead>
<tr>
<th>Name of Proposal or Feasibility Report</th>
<th>State(s)</th>
<th>Non-federal Interest</th>
<th>Proposal Type (As Identified in Proposal)</th>
<th>Feasibility Report (New Project Authorization)</th>
<th>Modification to Authorized Project</th>
<th>Modification to Authorized Study</th>
<th>New Study Authorization</th>
<th>Purpose (Summarized from Proposal)</th>
<th>Benefits (Summarized from Proposal)</th>
<th>Total Estimated Costs (Directly from Proposal)</th>
<th>Unmet Section 7001 Criteria / Reason in Appendix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterbury Dam Spillway Replacement</td>
<td>VT</td>
<td>State of Vermont, Agency of Natural Resources</td>
<td>Modification to Authorized Project</td>
<td>Feasibility Report (New Project Authorization)</td>
<td>Modification to Authorized Project</td>
<td>Modification to Authorized Study</td>
<td>New Study Authorization</td>
<td>If the two proposals concerning Waterbury Dam are read as separate aspects of a single water resources problem, then what the proposal seeks is actually authorization of a new feasibility study. In essence, the proposer specifies three problems with the existing conditions: (1) changes in the hydrology and hydraulics of the Winooski River basin likely have changed the optimal project scale; (2) age and wear of the dam have reduced its capacity to generate flood risk management benefits and increased the probability of its failure, thereby increasing the risk of catastrophic loss of lives and properties of people living within the Winooski River basin, and (3) there is an opportunity to effect aquatic ecosystem restoration in connection with structural alterations of the dam.</td>
<td>Loss of the use of the Tainter gates/spillway could result in an annual damage of $1,971,000 due to increased downstream flooding.</td>
<td>$46,000,000</td>
<td>Does not require congressional authorization. Study authority exists. (Criteria 2 and 3).</td>
</tr>
</tbody>
</table>