

2018 Report to Congress on Future Water Resources Development

February 2018

Report to Congress on Future Water Resources Development

This 2018 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 studies and projects 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 six signed Chief's Reports recommending authorization of a water resources development project.

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 April 11, 2017, 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 August 9, 2017. 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 six signed Chief's Reports recommending authorization of a water resources development project. The second table, included as an appendix, contains proposals that did not meet those criteria.

The notice in the April 11, 2017 Federal Register sought to clarify the process under which proposals would be evaluated against the criteria in developing the 2018 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's Reports;
 - Non-Federal feasibility reports submitted for review to the Secretary of the Army under Section 203 of WRDA 1986, as amended, under Administration review;
 - Ongoing feasibility studies that are expected to result in a Chief's Report;
 - Proposed modifications to environmental infrastructure projects that were authorized prior to the date of enactment of the Water Resources Development Act of 2016 (December 16, 2016); 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 Section 7001 of WRRDA 2014 process will be evaluated by the USACE to determine whether or not there is existing study authority.

As stated in the April 11, 2017 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 projects where USACE has provided previous technical assistance. Authorization to provide technical assistance does not provide authorization of a water resources development project.
- Proposals for construction of a new water resources development project that is not the subject of a currently authorized USACE project or a complete or ongoing feasibility study.
- Proposals that do not include a request for a potential future water resources development project through completed feasibility reports, proposed feasibility studies, and proposed modifications to authorized projects or studies.

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 main 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's 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, the 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). Therefore, PACRs may be included for consideration if the recommendations require authorization.

All feasibility reports with signed Chief's Reports that have not been authorized or previously included in an annual report are included in this report. Since submission of the 2017 Annual Report, six feasibility reports have signed Chief's Reports and are under Army review. The proposed projects meet the five criteria and are accounted for in the report table. In order for these proposed projects to proceed to construction, Congress must authorize and fund these projects. The Chief's Reports under review are St. Johns County, Florida; St. Lucie County, Florida; Ala Wai Canal, Hawaii; Mamaroneck-Sheldrake Rivers, New York; Houston Galveston Navigation Channel Extension, Texas; and Sabine Pass to Galveston Bay, Texas.

Of the 34 proposals submitted for the 2018 Annual Report, 18 were proposals for new feasibility study authorization and 16 were for modifications to existing projects. Of these proposals, 7 met the criteria and are listed in the main report table. The remaining 27 proposals that did not meet the criteria are included in the appendix with an explanation of which specific criteria were not met. (All 34 proposals provided by non-Federal interests for the 2018 Annual Report are available at http://www.usace.army.mil/Missions/Civil-Works/Project-Planning/Legislative-Links/wrrda2014/wrrda2014_proposals/.)

The primary reason proposals are included in the Appendix is that authority already exists to perform the requested work. It is important to note that where authority already exists to undertake the efforts described in the proposals, inclusion in the Appendix to the 2018 Annual Report does not preclude the Army from carrying out either the study or construction.

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
- Proposal Report

Appendix:

- Proposal Appendix

2018 Main Report Table
Chief's Reports

Name of Proposal or Report	State(s)	Non-federal Interest	Proposal Type	Status Notes	Purpose* (Summarized from Chief's Report)	Benefits* (Summarized from Chief's Report)	Estimated Federal Cost	Estimated Non-Federal Cost	Total Estimated Costs (October 2017 price levels)	Requirements for Implementation (All must be authorized by Congress in law and receive appropriations in law)
Projects which have signed Chief's Reports										
St. Johns County	FL	St. Johns County, FL	Feasibility Report	Signed Chief's Report in Review	Coastal storm risk management along 2.6 miles of shoreline within the Vilano Beach reach and a small portion of the South Ponte Vedra Beach reach in St. Johns County, Florida.	The average annual economic benefits are estimated to be \$2,653,000, with average annual net benefits \$622,000. The recommended plan is expected to reduce coastal storm damages to a hurricane evacuation route that also serves as the primary post-storm emergency response and recovery route. In addition, the plan will establish of 3.2 acres of beach habitat that will provide suitable nesting habitat for Federal threatened and endangered species such as the loggerhead, green, Kemp's ridley, hawksbill, and leatherback sea turtles and the rufa red knot and piping plover shorebirds.	\$5,712,000 initial construction, \$9,484,000 periodic renourishment, total \$15,196,000	\$19,122,000 initial construction, \$44,099,000 periodic renourishment, total \$63,221,000	\$78,417,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
St. Lucie County	FL	St. Lucie County, FL	Feasibility Report	Signed Chief's Report in Review	Coastal storm risk management along 3.3 miles of shoreline within the South Hutchinson Island in St. Lucie County, Florida, to the Martin County line.	Average annual economic benefits \$3,007,000, with average annual net benefits \$1,672,000. Reduction of coastal storm damages to a hurricane evacuation route that also serves as the primary post-storm emergency response and recovery route. Establishment of 3.3 miles of beach habitat that will provide suitable nesting habitat for Federal threatened and endangered sea turtles and shorebirds.	\$7,097,000 initial construction, \$8,915,000 periodic renourishment, total \$16,012,000	\$13,179,000 initial construction, \$24,105,000 periodic renourishment, total \$37,284,000	\$53,296,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Ala Wai Canal	HI	State of Hawaii	Feasibility Report	Signed Chief's Report in Review	Flood Risk management of the Ala Wai Canal Watershed.	The equivalent average annual benefits are estimated to be \$48,331,000, with net average annual benefits of \$35,214,000. The selected plan is estimated to be 99 percent reliable in protecting portions of the study area from a flood, which has a one percent chance of occurrence in any year (100-year flood). The selected plan would reduce average annual flood damages by about 90 percent and would leave average annual residual damages estimated at \$5,388,000.	\$199,237,000	\$107,281,000	\$306,518,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Mamaroneck-Sheldrake Rivers	NY	New York State Department of Environmental Conservation	Feasibility Report	Signed Chief's Report in Review	The purpose of the recommended plan is to provide flood risk management in the Village of Mamaroneck by deepening and widening the Mamaroneck and Sheldrake Rivers.	The recommended plan is estimated to reduce equivalent annual damages (EAD) by 89%, approximately \$3,490,000. Based on a 2.75% discount rate for fiscal year 2018 and a 50-year period of analysis, the total average annual benefits are estimated to be \$3,860,000 that provides a level of performance ranging from 50 year to 200 year flood event.	\$51,920,000	\$27,960,000	\$79,880,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Houston Galveston Navigation Channel Extension	TX	Port of Galveston	Feasibility Report	Signed Chief's Report in Review	The purpose of the recommended plan is to increase navigation efficiency on the Galveston Harbor Channel.	The recommended plan includes deepening the last 2,571 feet of the existing Galveston Harbor Channel from -41 feet to -46 feet MLLW to contribute to the economic efficiency of commercial navigation in the region.	\$10,239,000	\$5,386,000	\$15,625,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Sabine Pass to Galveston Bay	TX	Jefferson County Drainage District, Orange County, TX, and Velasco Drainage District	Feasibility Report	Signed Chief's Report in Review	The purpose of the recommended plan is to reduce the risks of tropical storm surge impacts in Orange, Jefferson, and Brazoria Counties through the construction of structural measures.	The recommended plan includes (i) increasing the level of performance and resiliency of the existing Port Arthur and Vicinity Hurricane Flood Protection Project (HFPP) in Jefferson County, Texas; (ii) the construction of approximately 26.7 miles of a levee/floodwall system along the edge of Sabine and Naches River floodplains from Orange, TX to the vicinity of Orangefield, TX; and (iii) increasing the level of performance and resiliency of the existing Freeport and Vicinity HFPP in Brazoria County, TX. The recommended plan is intended to prevent damages to structures and content and critical infrastructure from coastal storm surge and waves.	\$2,157,202,000	\$1,161,570,000	\$3,318,772,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.

2018 Main Report Table

Name of Proposal or Report	State(s)	Non-federal Interest All proposals included in the Main Report demonstrated, to the extent practicable, local support and the financial ability to provide the non-Federal cost share.	Proposal Type (As Identified in Proposal)	Purpose (Summarized from Proposal)	Benefits (Summarized from Proposal)	Estimated Federal Cost*	Estimated Non-Federal Cost*	Total Estimated Costs*	Requirements for Implementation (All must be authorized by Congress in law and receive appropriations in law)
NOTE: Information by non-Federal interests was not verified, revised or developed by USACE, Army, or OMB									
Proposals submitted in 2017.									
Feasibility Study to formulate a Water Quality Monitoring Program in the Lower Mississippi River (LMR) and planning, engineering and design feasibility for eight conservation reach habitat areas.	AR, KY, LA, MO, MS, TN	The Nature Conservancy	Feasibility Study	The purpose of the proposal is for a New Start feasibility study to investigate a proposed water quality monitoring program and ecosystem restoration opportunities in the eight Conservation Reach Habitats based on recommendations from the Lower Mississippi River Resource Assessment.	The LMRRA recommends eight conservation reach restoration studies. Reaches are spatially distributed throughout the lower 290 river miles, almost 30% of the river, and range between 32 to 43 river miles. Studies would encompass both ecosystem restoration and recreation enhancement. The Lower Mississippi River Conservation Committee (LMRCC) Restoring America's Greatest River (RAGR) initiative has identified 104 potential projects within these reaches. The LMR ecosystem is managed to reduce flood risk and benefit commercial navigation. Impacts of riverine management potentially include impacts to species and habitat diversity and complexity, and have reduced or eliminated hydrological connectivity between the main channel and other aquatic habitats.	\$53,000,000	\$3,050,000	\$56,050,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
San Luis Rey River Flood Control Protection Project	CA	City of Oceanside, CA	Modification to an Authorized USACE Project	The purpose of this proposal is to increase the authorized cost for the San Luis Rey River project (902 limit issue). The project requires a cost increase to complete substantial environmental compliance requirements. The project was originally authorized pursuant to the Flood Control Act of 1965 Section 201, and physical construction of the levees were completed in 2000 but the final operation and maintenance manual was not completed due to changes in environmental conditions and additional Endangered Species Act (ESA) requirements. In 2008, a Post Authorization Decision Document modified the project construction completion and O&M plan to address those requirements. Environmental and other requirements have further increased the needed project cost. The current authorized project cost is \$81,600,000.	Without an increase to the authorized project cost, the project will be further impacted by an inability to perform environmental commitments. This could complicate project completion and further delay project turn over, which will cause additional flood risk to the local community as the project will not be maintained appropriately. A cost increase will allow the project requirements to be continued while the PAC Report is finalized to address other work needed.	\$86,953,000	\$28,984,000	\$115,937,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Success Reservoir Enlargement Project	CA	State of California and Lower Tule River Irrigation District	Modification to an Authorized USACE Project	The purpose of this proposal is to increase flood protection for the City of Porterville and for the County of Tulare communities, including downstream agricultural lands. The proposal seeks authorization for an increase in the total project costs needed to account for (a) mitigation for upstream and downstream effects, and (b) incorporation of design changes from recent failure events at Oroville Dam in California.	The primary benefits are in the form of flood protection. The proposal notes that based on historic floods and increased storm frequency over the past 36 years, there are high risks for serious flooding. The 10,115 damageable structures in the floodplain (and their contents) have an estimated value of approximately \$1.6 billion.	\$38,200,000	\$20,800,000	\$59,000,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Northshore Flood Risk Reduction	LA	St. Tammany Parish	Feasibility Study	This proposal requests a new start study and construction authorization to identify strategic placement of floodplain storage within the St. Tammany Parish major drainage systems. In 2016, St. Tammany Parish experienced two devastating flood events in March and August. The March 2016 flooding caused nearly 150 road closures and damages to over 700 structures, some of which were damaged again in August. With the rapid growth of the community and continued encroachment on the floodplains, the expected repetitive loss structures, economic damages, and disruption to transportation and industry will increase as a result of future events. An evaluation of flood risk management alternatives in the area is needed to combat damages caused by future events.	St. Tammany Parish is a major metropolitan area of New Orleans, a major transportation corridor (U.S. Interstates 10, 12, and 59) providing a primary evacuation route for New Orleans, and a regional base for the oil, gas and offshore industries. Total flood insurance claims in St. Tammany Parish from January 1978 to June 30, 1998 have totaled \$1.5 Billion in payments with 22,969 total claims paid during that time period. Of the total claims paid, 2,460 were repetitive loss claims. Since 2008, the community has witnessed record breaking or near record breaking stages at every stream gauge. Flooding occurs also during higher frequency rainfall events.	\$38,500,000	\$13,500,000	\$52,000,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Trinity River & Tributaries Channel to Liberty Navigation Improvements Study	TX	Trinity River Authority of Texas	Feasibility Study	This proposal requests that USACE conduct a feasibility study to re-establish and improve to Liberty, Texas the navigation features of the Trinity River & Tributaries (TR&T) project. The historic navigation features of the TR&T project consist of the Federally authorized shallow-draft three-channel navigation system to include the Channel of Liberty, Anahuac, and Channel to Smith Point channels. The Anahuac Channel, extends 5.6 miles from Upper Trinity Bay to the Trinity River mouth. Channel to Liberty proceeds 41.4 miles from the Trinity River mouth to Port of Liberty. Channel to Smith Point channel extends from the Houston Ship Channel along Trinity Bay's east shore to 1-mile south of Anahuac, TX. Since the mid-1990s, barge transported commodity tonnage has declined.	The Trinity River & Tributaries (TR&T) navigation system could potentially serve as a gateway for barge traffic at Liberty, TX, by offering substantially lower transportation costs on a per-ton-basis, as compared to movement of cargo by rail or truck. Deeper and wider channels for the TR&T navigation system would improve estimated transportation cost savings by reducing light loading and other operational inefficiencies, and attract future waterborne transport of products to support the oil and gas industry, such as: manufactured steel products, estimated at potentially 400,000 tons/year; and, mineral products, estimated in-excess of 1,000,000 tons/year. Cost analysis of Liberty to New Orleans indicated that shipping a ton of agricultural product by barge rather than truck would result in a per ton savings of \$8.25/\$19.09.	\$13,020,000	\$4,380,000	\$17,400,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.

*As identified by non-federal interests in their proposals

2018 Main Report Table

Name of Proposal or Report	State(s)	Non-federal Interest All proposals included in the Main Report demonstrated, to the extent practicable, local support and the financial ability to provide the non-Federal cost share.	Proposal Type (As Identified in Proposal)	Purpose (Summarized from Proposal)	Benefits (Summarized from Proposal)	Estimated Federal Cost*	Estimated Non-Federal Cost*	Total Estimated Costs*	Requirements for Implementation (All must be authorized by Congress in law and receive appropriations in law)
Norfolk City-wide Coastal Storm Risk Management Feasibility Study – Construction Authorization Proposal	VA	City of Norfolk, VA	Feasibility Study	The City of Norfolk Coastal Storm Risk Management study is one of the NACCS focus areas. The study is currently on-going, with a successful Tentatively Selected Plan (TSP) occurring on 16 August 2017. The draft report features a tentatively selected plan which includes four storm surge barriers, a downtown floodwall and accompanying infrastructure, multiple non-structural components, as well as recommendations for Natural and Nature based features. The proposal submitted by the non-federal sponsor, the City of Norfolk, requests construction authorization of this project.	Total average annual future without project damages are estimated to be \$231,000,000. Implementation of the TSP is anticipated to have annual net benefits of \$84,839,000. The benefit cost ratio for the TSP is 2.4. Separable elements of the plan, in order of priority for the NFS, include the downtown flood wall (Ghent-Downtown-Harbor Park Barrier System) with a benefit-to-cost ratio (BCR) of 5.5, the Pretty Lake Surge Barrier with a BCR of 3.1 and the Lafayette Surge Barrier with a BCR of 1.4. In addition to the economic structural damages avoided, the project would provide tremendous benefit to critical transportation corridors used for evacuation routes, military installation access (including the largest Naval Station in the world), and medical facilities.	\$1,230,343,850	\$663,185,150	\$1,893,529,000	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.
Norfolk Harbor and Channels – Thimble Shoal Widening	VA	Virginia Port Authority	Modification to an Authorized USACE Project	The Norfolk District is currently partnering with the Virginia Port Authority (VPA) to study deepening and widening of the Norfolk Harbor and Channels project. The study recently completed the TSP milestone on 21 August 2017. This proposal requests construction authorization for widening of the Thimble Shoal Channel. The channel is currently authorized to a width of 1000 feet. The proposal requests authorization to a width of 1400 feet.	The widening of the Thimble Shoal Channel was evaluated first as part of a ship simulation activity to determine the safe widths needed for meeting. The channel is currently 1000 feet wide. It was agreed that 1200 and 1400 foot increments would be evaluated. Although the proposal suggests widening to 1400 feet, the NED plan recommended as the TSP is a widening of 1200 feet which resulted in net annual benefits of \$913,000 with a BCR of 2.18 (this reflects the widening as a separable element). The existing Thimble Shoal Channel is not wide enough to accommodate a safe meeting of the largest container vessels with any other vessel, which results in a common restriction to one way traffic. Widening of the channel would improve port operations and improve US Navy readiness.	\$69,523,837	\$38,218,014	\$107,741,851	To obtain Administration support for implementation, the Secretary, or other appropriate official, must approve a current decision document, including obtaining the Administration's position on the project, and, if appropriate, transmit the decision document and/or the Administration's position to Congress.

*As identified by non-federal interests in their proposals

2018 Appendix Table

Name of Proposal or Report	State(s)	Non-federal Interest	Proposal Type (As Identified in Proposal)	Purpose (Summarized from Proposal)	Benefits (Summarized from Proposal)	Total Estimated Costs (Directly from Proposal)	Unmet Section 7001 Criteria / Reason in Appendix
NOTE: Information by non-Federal interests was not verified, revised or developed by USACE, Army, or OMB							
Juneau/Auke Bay Floating Wave Attenuator	AK	Port of Juneau (City & Borough of Juneau)	Feasibility Study	This proposal requests a feasibility study in Auke Bay, Juneau, Alaska for protection of the marina from wind-driven and vessel wakes and opportunity to expand the existing small boat harbor which is critically over capacity. The harbor serves commercial and non-commercial users including large commercial fishing vessels, the U.S. Coast Guard and NOAA vessels, small cruise ships, recreational vessels and others. The study will consider the feasibility of replacing the existing aging breakwater with a floating breakwater or other similar wave attenuation.	Based on the current wait list in Auke Bay, Juneau, Alaska, there is a need to expand capacity by 124% for permanent moorage. The harbor serves the commercial fishing fleet, commercial charters, cruise ships, local recreational users, and NOAA, Coast Guard, and Fish and Game vessels.	\$39,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Lowell Creek Tunnel O&M Authority	AK	City of Seward, AK	Modification to an Authorized USACE Project	The City of Seward is requesting a change to Section 5032 of WRDA 2007, which transferred the long-term maintenance responsibility of the Lowell Creek Diversion Tunnel to USACE until November 8, 2022, to eliminate the date on long-term maintenance until the Corps identifies and constructs an alternative flood diversion system.	The USACE is responsible for replacing or repairing worn out portions of the concrete lined tunnel, the tunnel inlet, and the tunnel outlet structures, or returning a deteriorated features of such structures back to original condition. The USACE has budgeted about \$3 million in FY16-17 for rehab and repair of the tunnel system. Section 5032 of WRDA 2007 also authorizes study and construction of an alternative solution; however, the study is not due to be complete until August 2019, with funding and construction anticipated to take multiple years. Failure of the system could result in immediate and catastrophic loss of life and property. The City of Seward responds to each rain event through major gravel removal efforts that put life and property at risk.	\$10,000,000	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
Three Mile Creek Ecosystem Restoration Study	AL	City of Mobile, AL	Feasibility Study	The purpose of this proposal is to develop a project to restore the value and function of 1500 acres of impaired wetlands and restore lost riparian and aquatic habitats to repopulate threatened and endangered species along the creek. These species include the Wood Stork, Black Pine Snake, Eastern Indigo Snake and the Gulf Sturgeon. Due to urbanization since the 1970's, a significant increase in impervious surfaces and runoff led to several channelization projects, including a USACE flood control project on the creek in 1987. These projects had unintended consequences to the creek's habitat. Protecting the City's natural resources at a watershed scale is a key element in the City's overall plan and an important quality of life issue for public. Recreation is also a key component to reconnect residents to the creek.	The anticipated benefits are primarily non-monetary in nature and would be in terms of the net quantity and/or quality of the ecosystem's resources. The TMC watershed drains into the Mobile River which connects to the Mobile Bay and its ecosystem. A systems approach to restoration of this complex system could help restore the degraded aquatic habitat of the TMC watershed, as well as provide benefits to the Mobile Bay's ecosystem. Regional Economic Development (RED) and Other Social Effects (OSE) benefits are also anticipated from incorporation of greenway trail components which could provide recreation benefits for approximately 70,000 people.	\$33,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Lytle and Cajon Creek Channel Improvements Project – Riverside Avenue Groins Project Modification Request	CA	San Bernardino County Flood Control District	Modification to an Authorized USACE Project	The purpose for this proposal is for a modification to an authorized USACE project to deauthorize some features from the Lytle and Cajon Creek channel improvement project, which was constructed pursuant to the Flood Control Act of 1944 and completed in 1948. The City of Rialto has approved a developer's plan for mixed-use residential and commercial development which will include construction of a 6- or 7-mile long revetment along part of Lytle Creek. The sponsor of the Lytle project, San Bernadino County, has stated that the new revetment will make portions of the authorized project (approximately 5 groins) no longer necessary and proposes to remove those features from the authorized project. The remaining parts of the authorized project would be unchanged.	The proposal approval would yield primarily local benefits. The developer will assume all design and construction costs, including the removal of the 5 groins, if groin features were deauthorized. The Lytle Creek Ranch development project will include 2,500 acres of master planned community and provide homes for over 8,000 families and 850,000 square feet of commercial offices and industrial space. The estimate includes the creation of approximately 3,400 permanent jobs and preserves about 834 acres of habitat open space. The project also requires 404 permit.	\$0	The non-Federal interest is requesting the deauthorization of portions of an existing project. Deauthorization of existing USACE projects is not consistent with WRRDA 2014 Section 7001(c)(1)(A).

2018 Appendix Table

Name of Proposal or Report	State(s)	Non-federal Interest	Proposal Type (As Identified in Proposal)	Purpose (Summarized from Proposal)	Benefits (Summarized from Proposal)	Total Estimated Costs (Directly from Proposal)	Unmet Section 7001 Criteria / Reason in Appendix
San Diego River 1, 2, and 3 Levee System Assessment and Feasibility Study	CA	City of San Diego, CA	Feasibility Study	The City of San Diego is proposing a feasibility study that will assess the authorized project, completed in 1958, considering flood risk management, ecosystem restoration, and recreation. The Los Angeles district of USACE completed a levee system inspection in 2015 and documented modifications made in a Project Information Report. The City requests the system be evaluated to determine how to ensure appropriate level of flood protection, restore ecosystem, and maintain the levee system. The City wants to resolve issues for the project to remain in the Rehabilitation Program. The current proposal indicates request is for feasibility study but is nearly identical to prior year's proposal that was determined to constitute a project modification request.	Benefits are not quantified.	\$3,000,000	This proposal is included in the Main Report of the 2017 Report to Congress (Criteria 4).
South San Francisco Flood Control Feasibility Study	CA	City of South San Francisco, CA	Feasibility Study	The City of South San Francisco faces an increasing threat from sea level rise which could severely flood up to 1,203 acres by the year 2100. The City would like to conduct a Feasibility Study to look at infrastructure, land use planning and adaptation and mitigation strategies to define what opportunities exist to provide protection against tidal flooding. The Colma Creek watershed, which flows through the southern part of South San Francisco into the Bay, contains residential neighborhoods that have been severely flooded, habitat for threatened and endangered species and substantial public infrastructure. South San Francisco has been declared a natural disaster area due to flooding by FEMA four times in the past 22 years, and three times in 2017 alone. Possible solutions to mitigate the flooding problems include adaptation and protection measures that reduce exposure such as traditional levees, seawalls, floodwalls, horizontal levees, and wetlands restoration. Other possible recommendations to improve adaptive capacity or reduce the consequences of sea level rise could include asset elevation, flood proofing, relocation, land use planning policies, enhanced crisis management efforts, and flood insurance.	Benefits are expected to arise from flood damages that could be avoided. This includes reduced or avoided damages to transportation networks, hospitals, power stations, businesses and residential areas.	\$2,600,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Tijuana River Assessment and Feasibility Study	CA	City of San Diego, CA	Feasibility Study	The purpose of the study will be to identify a comprehensive, integrated plan to address the needed improvements for flood risk management, ecosystem restoration, water supply, floodplain management, water quality and passive recreation. During heavy rains, raw sewage flows from Mexico into the river on the U.S. boarder affecting not only the valuable habitat, but health and safety. Beaches, fundamental to the City's economy, are closed each time this occurs. Numerous state and Federally listed threatened and endangered species are residents in the river which is on the Pacific flyway. Water supply and water quality are important in southern California due to long periods of drought and intense storms.	Economic benefits are generally referenced in terms of reduction in costs of flood fighting, beach closures, habitat destruction, health and safety concerns due to raw sewage spills and tourism. Economic justification has not been conducted at this time.	\$3,000,000	Does not require congressional authorization. Authority for proposed work within the U.S. exists. (Criteria 2 and 3). Congress does not have authority to approve study in Mexico.
Comprehensive Flood Mitigation Study for the Delaware River Basin	DE, NJ, NY, PA	Delaware River Basin Commission, State of New Jersey DEP, State of PA DEPA	Feasibility Study	The proposal requests a comprehensive flood mitigation study of the Delaware River Basin. The Flood Mitigation Plan would address main stem flooding with consideration of the multiple water resource objectives of various stakeholders within the basin. The intent is for the plan to be multi-faceted and include both structural and non-structural measures in conjunction with reservoir management. The flood mitigation operations at major reservoirs in the basin will be simulated to determine possible opportunities for coordinated operations during flooding events without adversely impacting the Delaware River Basin Commission's drought management plan or the upper basin habitat protection program.	After almost 50 years of minor flooding along the main stem of the Delaware River, three record-breaking flooding events occurred in 2004, 2005, and 2006. Historic river communities in PA and NJ were severely impacted with 3,311 Repetitive Loss Properties and 486 Severe Repetitive Loss Properties. The property insurance claims through 2007 were \$318 Million and \$113 Million dollars, respectively. Those amounts only include FEMA claims and do not reflect the full extent of the flood damages incurred all over the basin. Recognizing that the Delaware River forms an interstate boundary and that reducing flood loss is a responsibility shared by federal, interstate, state, and local governments, USACE, along with the Delaware River Basin Commission and the States, would be the most appropriate entities to investigate.	\$750,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).

2018 Appendix Table

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Lake Apopka Phosphorus Removal	FL	St. Johns River Water Management District	Feasibility Study	The purpose of this aquatic ecosystem restoration proposal is to improve existing environmental conditions of Lake Apopka and adjacent ecosystems at the headwaters in the Ocklawaha River Chain of Lakes region of central Florida. Nutrient-rich sediments, derived from decades of agricultural use, are proposed to be removed from Lake Apopka and used to enhance and restore ecological functions and values of historic wetland fringe communities that are presently fallow agricultural lands. Enhanced habitat in and around Lake Apopka will benefit federally listed species and reduce wildlife exposure to harmful substances in addition to providing incidental recreation opportunities.	The St. Johns River Water Management District has acquired approximately 20,000 acres of former agricultural and hydrologically impacted lands for restoration efforts within the 50,000 acre Lake Apopka Basin with assistance from the U.S. Natural Resources Conservation Service and others. Implementation of strategies outlined in the proposal are anticipated to enhance and restore thousands of acres of degraded wildlife habitat to a higher ecological function and reduce exposure to organochlorine pesticides. Lake Apopka was once a world renowned bass fishery, but has since been named Florida's most polluted large lake. Benefits to this ecosystem will have significant impacts to the regional and local economy, migratory birds, and federally threatened and endangered species.	\$30,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Lake Okeechobee Everglades Ecosystem Protection	FL	Okeechobee Utility Authority	Modification to an Authorized USACE Project	This proposal seeks to modify an existing authorization for the removal of approximately 1,600 septic tanks and associated drain fields and several small wastewater package treatment plants, which impact both environmental and aquatic ecosystems. The flow from these facilities either directly or indirectly flows into tributaries to Taylor Creek, which is in close proximity to where Taylor Creek flows into Lake Okeechobee. Lake Okeechobee is the headwaters for the Everglades. Additionally, flows from the lake are periodically diverted towards marine estuaries located on both the Atlantic and Gulf of Mexico coastal regions.	No monetary benefits have been calculated at this time. Environmental benefits would be accrued to the ecosystem through project implementation.	\$20,450,000	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
Kansas River Weir	KS	City of Topeka, KS	Modification to an Authorized USACE Project	The City of Topeka proposes the construction of a weir or low head dam at the City's waterfront on the Kansas River, riverward of the federal levee system to provide for ponding / backwater for recreation and aesthetic purposes as part of an overall riverfront access and improvement effort. The proposal states that the primary purpose is aquatic ecosystem restoration. The Topeka Riverfront Kansas River Concepts PAS study finalized in the November 2007 report referenced in the proposal was for the purpose of establishing a recreational pool.	There are no monetary or habitat benefits articulated in the proposal.	\$14,100,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Proposal to rename the Wichita-Valley Center Flood Control Project and related flood control projects in honor of M.S. "Mitch" Mitchell	KS	Sedgwick County, KS	Modification to an Authorized USACE Project	Sedgwick County, Kansas, is proposing to recognize the achievements and efforts of M.S. Mitch Mitchell by renaming the Wichita-Valley Center Flood Control Project, the Park City Flood Control Project, and the West Branch Chisholm Creek Improvement Project, as "The M.S. Mitch Mitchell Floodway." The projects were originally authorized by the Flood Control Act of June 22, 1936 (H. Doc. 308, 74th Cong.) and Flood Control Act of December 22, 1944 (H. Doc. No. 447, 78th Cong.).	The proposal is limited to a name change to existing projects and will have no impact on the project benefits. The projects have provided approximately \$846.7 million in flood damages prevented since completion of the projects. The projects protect numerous residential structures and commercial/industrial structures.	\$1,760	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
25 to 40 miles of Standardized Monorail USACE SM17	LA	US Department of Transportation	Modification to an Authorized USACE Project	The proposal requests the construction of 25 to 40 miles of standardized monorail for emergency flooding transit.	The benefits referenced include general health and safety benefits stemming from flood protection, as well as cost savings when compared to the alternative of subway construction.	\$3,600,000,000	Proposal does not relate to a primary USACE authority/mission area (Criteria 1).

2018 Appendix Table

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Barataria Basin Ridge and Marsh Restoration Program	LA	Jefferson Parish, Lafourche Parish, Plaquemines Parish	Feasibility Study	The proposal requests a cost increase from \$10,100,000 to \$253,000,000 to the existing Barataria Land Bridge project authorized by PL 109-234, Title II, Chapter 3 to restore and sustain the Barataria Land Bridge and adjacent marsh. Project implementation will restore shorelines, marshes, and ridges to build a sustainable and resilient basin to combat the many natural and manmade alterations that have caused extensive erosion to the existing landscape. The proposal maps cover a vastly broader study area than that which would be responsive to the Barataria Land Bridge restoration purpose.	Aquatic ecosystem restoration in the area will reduce storm surge and directly protect human lives, homes, businesses, navigation and important regional industries. Without a marsh restoration buffer, damages in the New Orleans region could be as high as \$1.7 billion in 50 years including 40% of statewide business replacement costs from land loss and 76% of statewide residence replacement costs from land loss in the New Orleans region.	\$253,000,000	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
Driving the Economy with the USACE Baton Rouge Canal and RV/ MH, and Park Trailer Villages	LA	None	Modification to an Authorized USACE Project	The proposal requests the construction of a flood safety canal, RV Park, and Mobile Home Rental Lot Site along the city of Baton Rouge.	The benefits referenced include a reduction flood damages, increased recreation opportunities, improved transportation networks, improved local economic performance, and general health and safety benefits stemming from flood protection.	\$500,000,000	Proposal does not relate to a primary USACE authority/mission area (Criteria 1).
The Lake Pontchartrain and Vicinity; Louisiana Project	LA	Southeast Louisiana Flood Protection Authority-East	Modification to an Authorized USACE Project	The proposal requests a modification to the existing authorized Lake Pontchartrain and Vicinity Louisiana Project. It requests to cost share the study and construction of future levee lifts within East Jefferson and Orleans Parishes 65%/35% between the Federal Government and the Southeast Louisiana Flood Protection Authority-East (SLFPA-E). The modification would change the cost share of the authorized study from 50/50 to 65/35. The proposed study would involve the preliminary geotechnical design and design feasibility of raising the existing levees and obtaining borrow from local sources. Construction would involve raising the existing earthen levees to ensure 100 year risk reduction elevations, for participation in National Flood Insurance Program, are maintained by 2028 and will require phased construction amounting to SLFPA-E's estimated \$86.5 M in 2017 dollars.	The benefits noted include a decrease in the flood damage from expected future storm surge within the alignment. The proposal notes that the estimated depreciated total value of protected structures and content valuables using 2011 FEMA HAZUS-MH loss tool is \$98 billion. The national economy would be greatly impacted by a catastrophic flood damage event in that the closure of the Port of New Orleans - the sixth largest port in the US will result in direct impacts of \$9 million dollars/day, direct economic impacts of the rerouting of 6 Class 1 rail services, and economic impacts to oil production/refining service industries of federally owned waters in the Gulf of Mexico.	\$89,500,000	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
Section 111 Shore Damage Mitigation Project (Camp Ellis Jetty Spur) - Saco, ME	ME	City of Saco, ME	Modification to an Authorized USACE Project	The existing Saco River Federal navigation project, specifically the 6,600 foot long north jetty, has impacted the Camp Ellis Beach area of Saco causing significant erosion which to date has resulted in the loss of over 40 homes. Language was included in Section 3085 of WRDA 2007 authorizing a project under the Section 111 continuing authority up to a cost of \$26.9 million. The current draft report has a total cost of \$80.3 million which includes the escalated cost of renourishment over the 50 years period following initial construction. This proposal would increase the authorized amount to \$80.3 million.	The New England District of USACE is preparing a feasibility report looking at solution to address the erosion problems at Camp Ellis Beach. The recommended plan consists of a 750' long spur jetty and a 3,250' long beach. The project also includes 4 renourishment events over the 50 year economic life of the project. An additional 61 properties are at risk over the next 50 years assuming the historic rate of sea level change. For intermediate and high sea level rise scenarios, property losses prevented would amount to 86 and 101 parcels respectively. The current market value of the homes ranges from \$17.5 million to \$30.1 million depending on the SLC assumptions. The project would also significantly reduce emergency response costs and the loss of public roads and infrastructure.	\$75,000,000	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
Clarence Cannon Dam and Mark Twain Lake Project Salt River, Missouri	MO	Missouri Department of Natural Resources	Modification to an Authorized USACE Project	The State of Missouri and the Clearance Cannon Wholesale Water Commission have interconnected contracts with the St. Louis District of USACE for 20,000 acre-feet of water supply storage in the Clarence Cannon Dam and Mark Twain Lake Project Salt River, Missouri. Due to declining population within the water commission's service area and capacity limitations at the existing water treatment plant, the State anticipates the water commission will not need the entire capacity of the future use water storage. Therefore, the State requests release of 5,600 acre-feet of the future use water supply storage back to the Federal Government under water supply contract DACW-88-C-0036.	The State calculated direct savings of an estimated \$4.6 million in principal and \$3.8 million in interest and O&M payments through contract maturity (2038). Releasing the excess storage will also save the water commission an estimated \$28,700 annually for the life of the contract, which will ultimately save rural water supply rate payers.	\$9,000,000	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).

2018 Appendix Table

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Lower Platte Watershed, Nebraska (NWO) Aquatic Ecosystem Restoration	NE	Lower Platte South Natural Resources District	Feasibility Study	This proposal requests a comprehensive watershed study to address degraded ecosystem habitat, due to population pressure, along 110 miles of the Lower Platte River in eastern Nebraska. The Lower Platte provides drinking water for 50 percent of the state's population, contains a portion of the internationally significant Central Flyway, critical habitat for three federally listed and several state listed species, and regionally important habitat that connects with the Missouri River. Habitat would be restored through construction efforts and an integrated water resource plan drafted to assist regional/state/local governments with guiding future watershed development. WRDA 2007 (Section 5104) authorized federal appropriation of \$12 million for study and construction.	The Lower Platte River watershed contains 24 communities and 8 counties and provides water supply to over 50 percent of Nebraska's population. Protecting watershed resources through ecosystem restoration and flood risk management projects will restore habits benefiting threatened/endangered/native species, reduce flood threats to life and property, and protect public water supply and transportation infrastructure. An integrated water resources plan for habitat restoration and flood risk management along the Lower Platte River in eastern Nebraska would establish a framework under which the State and local entities could implement projects contributing to the goals of the plan, as well as identifying a NER plan for USACE implementation.	\$16,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Papillion Creek Basin Flood Risk Management Feasibility Study	NE	Papio-Missouri River Natural Resources District	Feasibility Study	This proposal requests a comprehensive study to develop a plan to reduce flood risk, restore ecosystem function, and reduce stream degradation throughout the Papillion Creek basin in eastern Nebraska. Approximately \$1.6 billion of development exists in the 100-year floodplain including numerous critical facilities and Offutt Air Force Base and US STRATCOM headquarters. Average annual flood damages are estimated at \$24.2 million, and the population at risk is estimated at 25,000. Flash flooding from intense rainfall has resulted in 10 deaths since 1964 including 1 each in 1999, 2004, and 2014. Since 2001, local support has increased via the Papillion Creek Watershed Partnership in which a watershed management plan was developed and \$100 million spent on plan implementation.	Total without project expected annual flood damages are estimated to be \$24.2 million. A 2017 study by the sponsor qualitatively estimated the total average annual benefits from several proposed dams included in the Papillion Creek Watershed Plan at \$11.1 million for flood risk reduction and recreation. A comprehensive plan for structural and nonstructural flood risk management may reasonably be expected to reduce the expected annual damages by 30-60% depending on the specifics of the plan which translates to benefits of \$7.3-14.5 million. Expected flood risk benefits include reduced risks to life, infrastructure, and property. Multipurpose habitat restoration benefits to native species would need to be quantified in non-monetary terms, but multiple restoration opportunities exist.	\$233,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Miami Well Field Flood Mitigation Study	OH	City of Dayton, OH	Feasibility Study	The City of Dayton, Ohio is proposing that USACE perform a study to investigate and construct a flood mitigation project consisting of installation of "duckbill" style rubber check valves on storm sewers to prevent flooding of the Great Miami Buried Valley Aquifer well field, as well as reduce possible contaminants that could be introduced to the well field during periods of high flow.	The Consequences and Assets Report included with the proposal contained a matrix estimating combined impacts and damages from utility businesses, the environment, and the public ranging from \$7M to over \$27M depending on the severity of the event.	\$160,000	Proposal does not relate to a primary USACE authority/mission area (Criteria 1). Additionally, the proposed work does not require congressional authorization since authority exists (Criteria 2 and 3).
North Bend Landing Riverfront Navigation & Safety Study	OH	Village of North Bend, OH	Feasibility Study	In 2016 the communities of North Bend, Cleves, and Miami Township completed a North Bend Riverfront Master Plan to establish a vision and strategy for recreational and commercial development along the Ohio River in Hamilton County, Indiana. The Village is requesting authority for USACE to perform a feasibility study, as well as construction authorization for a project that would support development of public dock facilities, a kayak/canoe livery, water trail network and other recreational features. The study would look at impacts of the project to commercial navigation, then environment, flood risk management efforts, and cultural/historic resources. The study would also look at economic impacts as well as alternative plans and measures for the effort.	In 2016 and 2017, studies commissioned by local interests highlighted the significant economic benefits for this project. A copy of the 2016 North Bend Riverfront Master Plan was attached to the proposal, which indicated that parks based tourism activity could account for as much of a 15% economic boost, as well as a 20% increase in property values. Outdoor recreation in Ohio has supported \$1.3B in tax revenue, 196K jobs, and \$17.4B spending on an average annual basis.	\$3,612,000	Proposal does not relate to a primary USACE authority/mission area (Criteria 1).
State Highway Improvement Impact Feasibility Study, Fern Ridge Reservoir, Lane County Oregon	OR	Lane County, OR	Feasibility Study	Lane County, Oregon is seeking assistance from USACE for potential partnering opportunities that would coincide with infrastructure improvement projects they are planning. Portions of these infrastructure improvement projects are located within the Fern Ridge Operating project. Lane County is seeking a new start feasibility study to identify potential opportunities for ecosystem restoration, flood risk management, and recreation. The proposed project has linkages to the Port of Coos Bay which is an important navigation project in the Nation's portfolio, and the Corps has made significant investments for maintaining and improving deep draft navigation in support of the movement of commodities to and from the Pacific coast.	Expected benefits could be a reduction in flood risks, especially to major transportation corridors (state highway and railroad), including those that support the movement of commodities to and from the Port of Coos Bay. In addition, there is potential for non-monetary benefits to be derived from ecosystem restoration. Recreation benefits are also a potential that could be evaluated and identified. The proposed study would have direct ties to the Federally owned and operated Fern Ridge Lake and is being viewed by State, County, the Port, and City leaders as opportunity to integrate their infrastructure planning process into a comprehensive evaluation of national water resources development opportunities.	\$6,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).

2018 Appendix Table

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Lower Brule Shoreline Stabilization Project	SD	Lower Brule Sioux Tribe	Modification to an Authorized USACE Project	Lower Brule Sioux Tribe has requested federal funding for construction of breakwater islands and other protective structures to permanently stop shoreline erosion along a 9-mile stretch of Lake Sharpe in South Dakota. Shoreline erosion is occurring associated with the USACE's Big Bend Project, and is adversely affecting Lower Brule Sioux Tribe lands and infrastructure adjacent to the town of Lower Brule. Shoreline erosion rates are estimated between 8 and 30 feet per year, as measured by the Tribe and the U.S. Geological Survey, and are imminently threatening critical Tribal infrastructure in the town including water intakes, wastewater treatment, transportation/road systems, and agricultural/recreation lands that provide an economic base for the Tribe.	The proposal total estimated cost of \$44 million was derived from a 2014 USACE Forward Engineer Support Team (FEST) report investigating conceptual plans to provide shoreline erosion protection and restore ecosystem habitats. Benefits would consist of both monetary economic and non-monetary environmental benefits from a dual purpose project. Expected benefits include protection of water and wastewater infrastructure, roads, and cultural resources; as well as restoring wetland and riparian habitats in areas devoid of those habitats as a result of decades of erosion benefiting native fish, wildlife, and birds. In addition to habitat benefits, many of the native vegetation and wildlife species are culturally significant to the Tribe and would contribute to their social-cultural priorities.	\$44,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).
Freeport Harbor Channel Improvement Project, Brazoria County, Texas (1)	TX	Port Freeport	Modification to an Authorized USACE Project	Shortly after authorization, it was determined that the design vessel would have difficulty safely navigating around the Dow Thumb. The Galveston District and Port of Freeport are in the process of conducting a study to address this issue. The study is on schedule to be completed in July 2018. The port has executed a work-in-kind agreement to begin channel improvements early and derive the benefits as soon as possible. The port has prepared engineering drawings at their own expense and filed for permits and is requesting that costs associated with engineering, sediment sampling, and field services be included as work-in-kind credit.	Port Freeport was ranked 27th nationally in top deep-draft ports, Waterborne Commerce Statistics data, 2010. It services one of the largest petrochemical complexes on the Gulf coast. Crude oil represents 74 percent of the benefits for the locally preferred plan; containers account for 16 percent of the benefits. The average annual benefits for this plan amount to \$47,646,000, all for navigation. The benefit-cost ratio is 1.3 to 1 at 7 percent based upon the latest economic analysis approved January 2013. The non-Federal sponsor, Port Freeport, is currently proceeding with improvements to the entrance channel under the authority of section 204 of the Water Resources Development Act of 1986, as amended to meet current requirements for petroleum and Liquefied Natural Gas (LNG) transits.	\$0	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
Freeport Harbor Channel Improvement Project, Brazoria County, Texas (2)	TX	Port Freeport	Modification to an Authorized USACE Project	The Galveston District and Port of Freeport are in the process of conducting a study, scheduled for completion in July of 2018. Port Freeport is working with the Galveston District to initiate Preconstruction Engineering and Design (PED) and execute a Project Partnership Agreement for the much needed improvements as laid out in the WRRDA 2014 Authorization. Considerable effort and time has been spent to get the design correct. Since the project was authorized in 2014, it has been actively worked on by the Corps and the Port; it has not been sitting idle. This Section 7001 request is that the WRRDA 2014 PED appropriation be considered to be construction dollars so that the project will not be subject to the seven year de-authorization timeframe as described in Section 6003 of WRRDA 2014.	Currently the NED benefits associated with the Freeport Harbor Channel Improvement Project are estimated to be \$67.8 Million annually. Benefits primarily accrue from an increase in transportation cost savings. Without the channel improvements, the non-federal interest anticipates that much of the products from Brazoria County, Texas will be shipped from other facilities at a greater transportation cost, and will increase traffic on already burdened railways and roadways.	\$0	Proposals for legislative changes are outside of changes to study or project-specific authorities are not consistent with WRRDA 2014 Section 7001(c)(1)(A).
Tacoma Harbor Navigation Improvement Project	WA	Port of Tacoma	Feasibility Study	The study area is located at the Port of Tacoma, WA, on Commencement Bay in south Puget Sound, approximately 30 miles south of Seattle, WA, and includes Blair and Sitcum Waterways. This is a deep draft navigation study to look at improving the harbor to accommodate post-Panamax ships to call. Currently the Port of Tacoma can accommodate generation 2 and 3 size vessels. The primary issue this study will investigate is navigation improvements to the Blair and Sitcum Waterways to achieve transportation cost savings (increased economic efficiencies) for larger vessels calling at the Port. The Port is a rapidly expanding major port, ranking as the 28th largest U.S. port in terms of total tonnage, and the 3rd largest container gateway when combined with the Port of Seattle.	The Port of Tacoma is a rapidly expanding major port, ranking as the 28th largest U.S. port in terms of total tonnage, and the 3rd largest container gateway when combined with the Port of Seattle. Terminal expansions and landside infrastructure are being improved for Generation IV vessels. The Port of Tacoma estimates there are currently "3,000 direct jobs and \$2.6 billion annually of economic benefits that containerized shipping brings to our region."	\$3,000,000	Does not require congressional authorization. Authority exists (Criteria 2 and 3).