

**Prioritization and Acceleration of  
Natural and Nature-Based Solutions:  
Pathways to Phased Implementation of  
Complex Water Resource Projects**



**Photo Credit: Everglades National Park Office**

**© Environmental Law Institute, January 2024**

## I. Introduction and Purpose

Water resource investments undertaken by the federal government and non-federal partners are time-consuming, complex, and expensive endeavors. The larger and more comprehensive the water resources problem to be tackled, the longer it is likely to take the U.S. Army Corps of Engineers (USACE or Corps) to study, authorize, and implement a solution. As the long backlog of authorized but not constructed projects continues to grow, project sponsors and advocates are increasingly interested in opportunities to pursue a phased approach to projects. They wonder, are there opportunities to utilize a phased approach to implementing large-scale studies, where uncontested, construction-ready elements such as nature-based features can be implemented first while more complex and controversial elements and alternatives continue to be evaluated?

There are several potential avenues to promote a phased approach for water resource development projects planned and implemented by the Corps pursuant to the agency's wide-ranging statutory authorities and responsibilities. Various pathways for advancing a phased approach are found throughout different stages of a project's life cycle: the initial feasibility study; modification or restructuring of an existing feasibility study; construction authorization; and obtaining and allocating appropriated funds for a construction start.

In the context of phased planning and authorization, there also may be opportunities for non-federal partners and other stakeholders outside USACE to help influence the type or order of specific projects (or separable elements) that proceed through the process to reach implementation. In theory, any project prioritization framework used to direct or inform the project team's decisions about specific project elements should conform with, or at the least not run afoul of, the overarching goals and limits established by statutory language; the Principles, Requirements, and Guidelines; and applicable planning guidance issued by Corps Headquarters, Divisions, and/or individual Districts. As Congress and USACE policymakers increasingly encourage or require evaluation of natural and nature-based solutions, there are ample opportunities to ensure that these elements are not only included but prioritized within large-scale studies.

This report is intended to demonstrate to experienced project sponsors, agencies, and stakeholders that several viable pathways exist for advancing a phased, adaptive approach to large-scale project development and implementation. While assuming the reader's basic knowledge of the USACE water resources development process<sup>1</sup>, this report highlights examples of past practice that help illustrate how a large-scale study comes to involve or embody a phased approach to project implementation.

---

<sup>1</sup> For an overview of the process for authorizing, developing, and delivering USACE Civil Works water resource projects, see generally Nicole Carter & Anna Normand, CRS, [ARMY CORPS OF ENGINEERS: WATER RESOURCE AUTHORIZATION AND PROJECT DELIVERY PROCESSES](#) (April 2019).

The example studies highlighted in this report include:

- The Mississippi Coastal Improvements Program;
- The Lower Mississippi River Basin Demonstration Program;
- The Upper Mississippi Navigation and Ecosystem Sustainability Program;
- The Central & Southern Florida Project for Flood Control;
- The New Jersey Back Bays Coastal Storm Risk Management Study; and
- The Central Everglades Planning Project (Everglades Agricultural Area).

While the Corps is not legally required to follow precedent, these examples demonstrate that project development teams (PDTs) and partners pursuing a phased approach have obtained approval and/or buy-in from a range of stakeholders, Corps District officials, higher-level Corps officials, and Congress.

## II. Using Feasibility Studies to Phase Planning and Implementation

A relatively straightforward approach to pursuing phased implementation of a large-scale, complex water resources study is to acknowledge the plan's incremental, adaptive strategy from its earliest stages: the initial feasibility study.

### II.A Congressional Authorization of a Phased Approach

Typically, USACE projects originate with a request from a community for the agency's assistance in addressing a water resources problem. Next, District staff work with community representatives to define a proposed scope for the study, and even to draft suggested authorization language. Ultimately, however, the purpose, scope, funding levels, and other parameters or requirements for a new feasibility study are decided by Congress in the study authorization, which is often but not always included in a biannual Water Resource Development Act (WRDA) bill. Based on input from stakeholders and the Presidential administration, Congress may determine that some type of phasing or scheduling requirement should be included in the authorization language itself.

For example, the law authorizing the [Mississippi Coastal Improvement Program](#) states, in relevant part:

[USACE] shall conduct an analysis and design for comprehensive improvements or modifications to existing improvements in the coastal area of Mississippi in the interest of hurricane and storm damage reduction, prevention of saltwater intrusion, preservation of fish and wildlife, prevention of erosion, and other related water resource purposes at full Federal expense... Provided further, that interim recommendations for near term

improvements shall be provided within 6 months of enactment of this act with final recommendations within 24 months of this enactment.<sup>2</sup>

Under a clear mandate to deliver recommendations for near-term measures in an expedited manner, a Chief's Report for the Mississippi Coastal Improvements Program Comprehensive Plan (MSCIP Comprehensive Plan) was transmitted to Congress around four years later, in January 2010. The plan identified an initial suite of 12 measures (structural and nonstructural) to restore over 3,000 acres of wetlands and coastal forest and 30 miles of beaches and dunes, as well as the floodproofing or acquisition and restoration of up to 2,000 properties located in the 100-year floodplain.

In addition to the 12 near-term measures (Phase I), the MSCIP Comprehensive Plan identified six "additional high priority ecosystem restoration sites" for additional, detailed, site-specific study (Phase II). Finally, the plan listed several "additional studies to address the longer term needs over the next 30-40 years" (Phase III), including a \$50-million Long-term Ecosystem Restoration and Hurricane Storm Damage Reduction study and an \$84-million Structural Hurricane Storm Damage Reduction study.<sup>3</sup> In addition to the longer temporal scope, the Phase II and III studies would evaluate restoration alternatives over a much larger geographic scale: "over 30,000 acres of coastal forest, wetlands, beaches and dunes; sustainable restoration of the barrier islands; structural measures; and floodproofing or acquisition of over 58,000 tracts within the 100-year floodplain."<sup>4</sup>

In WRDA 2014, among other final feasibility studies authorized in Section 7002, Congress authorized USACE to carry out \$1 billion (65 percent federal) in MSCIP activities "substantially in accordance with the plan," an amount equivalent to the total cost of the 12 near-term features.<sup>5</sup> This authorization added to funding authorized *and funded* by Congress in 2009, when lawmakers used a supplemental appropriations bill to authorize and fund \$439 million for "barrier island restoration and ecosystem restoration to restore historic levels of storm damage reduction to the Mississippi Gulf Coast" through the Flood Control and Coastal Emergencies (FCEE) account.<sup>6</sup>

When considering the usefulness of the MSCIP example in informing future phased implementation situations, it is worth noting the circumstances in which Congress opted to codify the phased approach from the outset and led USACE to affirm it in the feasibility report. The MSCIP Comprehensive Plan originated from a significant hurricane (Katrina, 2005) that prompted a multi-state restoration and storm risk reduction effort. The Corps describes the MSCIP Comprehensive Plan as "a systemwide approach linking structural and non-structural hurricane

---

<sup>2</sup> P.L. 109-148 (known as Department of Defense Appropriation Act of 2006) (emphasis added).

<sup>3</sup> R.L. Van Antwerp, Chief of Engineers, [MISSISSIPPI COASTAL IMPROVEMENTS PROGRAM, HANCOCK, HARRISON, AND JACKSON COUNTIES, MISSISSIPPI, COMPREHENSIVE PLAN REPORT](#) at 2 (hereinafter "MSCIP Chief's Report") (Sept. 2009); [MISSISSIPPI COASTAL IMPROVEMENTS PROGRAM \(MSCIP\), HANCOCK, HARRISON, AND JACKSON COUNTIES, MISSISSIPPI: COMPREHENSIVE PLAN AND INTEGRATED PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT](#) at page 6-5.

(hereinafter "MSCIP Comprehensive Plan and Integrated EIS") (as updated Oct. 2009).

<sup>4</sup> MSCIP Chief's Report, *supra*, at page 2.

<sup>5</sup> P.L. 113-121 (known as [WRDA 2014](#)). The 12 features' respective costs are listed in the [plan](#) at page S-11.

<sup>6</sup> See [P.L. 111-32](#) (2009).

and storm damage risk reduction elements with ecosystem restoration elements, all with the goal of providing for a coastal community that is more resilient to hurricanes and storms” that was developed using a “multiple-lines-of-defense approach” made up of structural and non-structural features.<sup>7</sup> As climate change and advances in knowledge and data inspire more communities to pursue systemwide approaches that involve both structural and non-structural elements, the MSCIP example may be a useful starting point for considering phasing and prioritization options.

## II.B Promoting Priority Project Types

For large-scale comprehensive planning studies, Congress may use statutory language to encourage or require selection of priority project types. In the most recent WRDA bill, enacted in late 2022, Congress included language promoting projects with co-benefits (e.g., flood risk reduction projects that also improve water quality) and the use of natural and nature-based features<sup>8</sup> in various large-scale, comprehensive study authorizations.<sup>9</sup>

For example, WRDA 2022’s Section 8145 establishes the **Lower Mississippi River Basin** demonstration program, which will provide environmental assistance to non-federal interests in the Lower Mississippi River Basin (LMRB). It directs the Corps to develop a comprehensive LMRB restoration plan to guide implementation of projects that will enhance living resources in the lower basin between the Ohio River and the Gulf of Mexico. The statutory deadline for “developing” the plan is two years after the law’s enactment.<sup>10</sup>

In addition to the planning activities, the LMRB authorization enables the Corps to provide assistance (75 percent federal cost share) to non-federal interests in the form of design and construction assistance for flood, CSR, or aquatic ecosystem restoration projects that are based on the comprehensive plan. The law includes an initial authorization of \$40 million in appropriations to carry out the section; projects with a federal share of \$15 million or less do not require additional construction authorizations, but specific authorization from Congress must be sought for any project over that cost threshold. Eligible project types listed in the authorizing statute include “(I) sediment and erosion control; (II) protection of eroding riverbanks and streambanks and shorelines; (III) ecosystem restoration; (IV) channel modifications; and (V)

---

<sup>7</sup> MSCIP Chief’s Report, *supra*, at page 1.

<sup>8</sup> A House Committee [report](#) accompanying the WRDA 2022 bill noted that in all of the last several WRDA bills, Congress has “directed the Corps to make greater use of natural and nature-based features and other measures to advance resilient solutions through all the Corps’ business lines.” However, the House Report went on to observe that “despite this clear direction from Congress to ensure that future water resources development projects are designed and constructed to address local water resources challenges in a more resilient and sustainable manner, the Committee received testimony from stakeholders that these enacted provisions are not being fully implemented by the Corps.” The report emphasized that “the Committee continues to support the resiliency provisions contained in this legislation and prior enacted WRDAs, and encourages the Corps to develop and implement strategies to infuse resilient solutions and best management practices into all Army Corps activities, studies, projects, and project operations, as well as, where appropriate, to increase the use of natural and nature-based solutions and the restoration and protection of natural systems including floodplain and coastal wetlands, in addressing local water resources challenges.” U.S. Government Publishing Office, [House Report 117-347](#) (June 7, 2022).

<sup>9</sup> See P.L. 117-263, Title LXXXI (known as [WRDA 2022](#)), Sec. 8145.

<sup>10</sup> *Id.*

beneficial uses of dredged material; and (ii) other related projects that may enhance the living resources” of the defined area.<sup>11</sup>

The statute explicitly states that the comprehensive plan must “give priority to projects [for flood, CSRM, or aquatic ecosystem restoration] that will improve water quality, reduce hypoxia in the Lower Mississippi River or the Gulf of Mexico, *or use a combination of structural and nonstructural measures, including alternatives that use natural features or nature-based features* (as such terms are defined in section 1184 of the Water Resources Development Act of 2016 (32 U.S.C. 2289a)).”<sup>12</sup>

Process-wise, per statutory mandate, the plan must be developed in cooperation with state and local governments, “affected stakeholders,” and certain federal agencies (e.g., U.S. Department of Agriculture, U.S. Fish and Wildlife Service), and the plan must, “to the maximum extent practicable, consider and avoid duplication of any ongoing or planned actions of other Federal, State, and local agencies.”<sup>13</sup>

A similar authorization for comprehensive planning and projects in the Chattahoochee River Basin is also found in WRDA 2022 at Section 8144.

### III. Leveraging Study Modifications and Restudies to Integrate Phasing and Project Type Prioritization

As with a brand-new feasibility study, there may be opportunities to advance a phased approach and/or priority project types when an ongoing or previous study is modified or “restudied” (i.e., the Corps “reviews” a past report to determine the advisability of modifications to the existing

#### III.A Modifying the Scope of a Study in Progress

In some cases, ongoing feasibility studies are modified after the original authorization and initiation of the study. For long-term studies and in cases where several (or more) years elapse between initial Congressional authorization and a study start, modifications can be used to incorporate a phased approach where it was not originally conceived, identify new and emerging needs and priorities, and/or make the study more comprehensive in nature based on improved understanding of watershed-scale hydrology and the study’s broader context.

One example of a situation where the original study scope was subsequently modified to yield a phased, comprehensive approach is the [Navigation and Ecosystem Sustainability Program in the Upper Mississippi](#). The original Upper Mississippi River - Illinois Waterway System (UMR-IWW) Navigation study was initiated in 1993 to “study and refine improvements to the waterways and

---

<sup>11</sup> Id.

<sup>12</sup> Id. (emphasis added).

<sup>13</sup> P.L. 117-263, Title LXXXI (known as [WRDA 2022](#)), Sec. 8145.

to assess and the economic and technical aspects of the plans.”<sup>14</sup> However, in 2001, the study was “restructured ... to also seek long-term sustainability of the economic uses and ecological integrity of the system.” The new structure “addressed the ongoing cumulative effects of navigation and ecosystem restoration needs, with a goal of attaining an environmentally sustainable navigation system, in addition to ensuring an efficient transportation system for the future.”<sup>15</sup>

According to the Corps’ Rock Island District, these “study changes were made in consideration of the recommendations of the National Research Council and based on input from a federal agency task force.”<sup>16</sup> A Congressional Research Service (CRS) report explains that the study was restructured “in response to criticism that draft navigation feasibility studies did not look at navigation’s cumulative environmental effects.”<sup>17</sup> The CRS report notes that there had been support from many stakeholders to restructure the study: Congress received testimony from the Upper Mississippi River Basin Association that the five UMR states “enthusiastically supported the Corps’ decision to restructure the study, consistent with [their] long-standing commitment to integrated management of the river,” and a “number of agencies and non-governmental organizations also support[ed] dual-purpose authorization.”<sup>18</sup> Even a barge industry group testified in general support of the ecosystem restoration plan, demonstrating the wide range of support for study modification.<sup>19</sup>

Following several more years of investigation and evaluation, the restructured feasibility study was finalized in 2004. Its recommendations include “a program of incremental implementation and comprehensive adaptive management to achieve the dual purposes of ecosystem restoration and navigation improvements.”<sup>20</sup> According to the final study, by 2004 “[s]ufficient analysis ha[d] been completed to support an initial investment decision that is implemented with an adaptive approach to minimize the risk of the investment.”<sup>21</sup> The December 2004 Chief’s Report recommended Congressional approval be sought for “a framework plan consisting of a blending of Alternatives 4 and 6 to include immediate implementation of some small-scale structural and nonstructural measures, a phased approach for implementation of Alternative 6, and continued study and monitoring of the system.” The Corps’ recommendation was that investments in navigation and ecosystem restoration “be planned as part of a long-term

---

<sup>14</sup> USACE Rock Island District, Navigation and Ecosystem Sustainability Program: Program History, <https://www.mvr.usace.army.mil/Missions/Navigation/NESP/Program-History/> (accessed Jan. 2024).

<sup>15</sup> Id.

<sup>16</sup> USACE Rock Island District, Navigation and Ecosystem Sustainability Program: Program History, <https://www.mvr.usace.army.mil/Missions/Navigation/NESP/Program-History/> (accessed Jan. 2024).

<sup>17</sup> Nicole Carter and Kyna Powers, Congressional Research Service, [UPPER MISSISSIPPI RIVER SYSTEM: PROPOSALS TO RESTORE AN INLAND WATERWAY’S ECOSYSTEM](#) at Summary (updated May 2005).

<sup>18</sup> Id. at page 10.

<sup>19</sup> Id. at page 10. According to CRS, opponents of integrating the ecosystem restoration and navigation goals included National Corn Growers Association and the Midwest Area River Coalition 2000.

<sup>20</sup> USACE Rock Island District, Navigation and Ecosystem Sustainability Program: Program History, <https://www.mvr.usace.army.mil/Missions/Navigation/NESP/Program-History/> (accessed Jan. 2024).

<sup>21</sup> USACE, [FINAL INTEGRATED FEASIBILITY REPORT AND PROGRAMMATIC EIS FOR UMR-IWW SYSTEM NAVIGATION FEASIBILITY STUDY](#) at page 493 (Sept. 2004).

combined river management framework that minimizes risk by establishing a process to incorporate acquired information into ongoing decision-making, known as adaptive management, and they would be authorized in phases.”<sup>22</sup>

The final feasibility study explicitly recommended that construction authorization be sought in stages. First, the Corps proposed authorization of “the first 15-year increment of the plan,” which “was developed with the stakeholders to address critical ecosystem needs and to provide insight into the response of the environment to the various Navigation project modifications and measures.”<sup>23</sup> The first 15 years “will emphasize measures that provide: 1. The best return on investment, 2. Best gains in diversity, 3. Additional knowledge required to guide future investments.”<sup>24</sup> According to the Corps, the intent is to remain flexible and adaptive, noting that “measures making up the 15-year increment of the plan ... are based on the best available information. Specific actions may be modified and refined based on information gained through performance evaluation and the adaptive implementation of the plan.”<sup>25</sup>

Beyond the first 15 years, the “strategy recommends that future UMR-IWW management be conducted in an adaptive management framework that considers all the needs and opportunities for the system....An Adaptive Management Plan that includes a science panel, system level learning and monitoring, and restoration project bio-response monitoring is budgeted for \$653 million over 50 years” (30 percent of which would be budgeted for the 15-year plan).<sup>26</sup> The Corps envisioned that an “updated feasibility report will be prepared using knowledge gained from the initial 15-year investment.”<sup>27</sup>

In WRDA 2007, Congress authorized the strategy, which is now referred to as the Navigation and Ecosystem Sustainability Program (NESP), authorizing the appropriation of over \$2 billion for navigation, over \$1.7 million for ecosystem restoration, and about \$10 million per year for monitoring.<sup>28</sup> On the navigation side, WRDA 2007 authorizes the appropriation of \$1.9 billion for a suite of “small scale and nonstructural measures,” most of which are site-specific (e.g. “provide switchboats at Locks 20 through 25”). On the ecosystem restoration side, the authorization is broader and non-site specific, generally directing USACE to carry out “ecosystem restoration

---

<sup>22</sup> Carter & Powers, CRS, [UPPER MISSISSIPPI RIVER SYSTEM: PROPOSALS TO RESTORE AN INLAND WATERWAY’S ECOSYSTEM](#) at page 10 (updated May 2005) (summarizing the final feasibility report).

<sup>23</sup> USACE, [FINAL INTEGRATED FEASIBILITY REPORT AND PROGRAMMATIC EIS FOR UMR-IWW SYSTEM NAVIGATION FEASIBILITY STUDY](#), *supra*, at page 512.

<sup>24</sup> USACE, [FINAL INTEGRATED FEASIBILITY REPORT AND PROGRAMMATIC EIS FOR UMR-IWW SYSTEM NAVIGATION FEASIBILITY STUDY](#), *supra*, at page 512.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> See P.L. 110-114 (known as “[WRDA 2007](#)”), Sec. 8001 et seq. See also USACE Rock Island District, Navigation and Ecosystem Sustainability Program: Program History, <https://www.mvr.usace.army.mil/Missions/Navigation/NESP/Program-History/> (accessed Jan. 2024). According to the Rock Island District, “The authorization allows the Corps to construct small-scale navigation improvements costing \$256,000,000; seven new 1,200-foot lock chambers costing \$1,948,000,000; and ecosystem and habitat restoration costing \$1,717,000,000.” *Id.*



projects to attain and maintain the sustainability of the ecosystem of the Upper Mississippi River and Illinois River in accordance with the general framework outlined in the Plan” (Sec. 8004(b)).<sup>29</sup>

With respect to eligible project types, the statute provides that ecosystem restoration projects may include: (A) island building; (B) construction of fish passages; (C) floodplain restoration; (D) water level management (including water drawdown); (E) backwater restoration; (F) side channel restoration; (G) wing dam and dike restoration and modification; (H) island and shoreline protection; (I) topographical diversity; (J) dam point control; (K) use of dredged material for environmental purposes; (L) tributary confluence restoration; (M) spillway, dam, and levee modification to benefit the environment; and (N) land and easement acquisition.<sup>30</sup> There are total cost caps for certain project types (and in general, no single project under the plan can cost more than \$25 million).<sup>31</sup>

The authorizing statute explicitly requires USACE to establish a ranking system to rank proposed projects. The ranking system must “give greater weight to projects that restore natural river processes,” including the ecosystem restoration project types enumerated in the law (see previous paragraph).<sup>32</sup> In developing the ranking system, USACE must consult with an advisory panel chaired by the Secretary of the Army and made up of a representative from each of the five Upper Mississippi River states (Illinois, Iowa, Minnesota, Missouri, and Wisconsin); representatives from U.S. Department of Agriculture, Department of Transportation, United States Geological Survey, the U.S. Fish and Wildlife Service, and the Environmental Protection Agency; one representative of “affected landowners”; two representatives from conservation and environmental advocacy groups; and two representatives from agriculture and industry groups.<sup>33</sup>

The NESP’s authorizing statute also includes provisions for:

- **Monitoring**, directing USACE to “carry out a long term resource monitoring, computerized data inventory and analysis, and applied research program for the Upper Mississippi River and Illinois River to determine trends in ecosystem health, to understand systemic changes, and to help identify restoration needs.”<sup>34</sup> (The NESP monitoring program is statutorily required to “consider and adopt” an

---

<sup>29</sup> There also is a vague, general mandate that USACE modify the operation of the UMR-IWW system to “address the cumulative environmental impacts of the operation of the system and improve the ecological integrity of the Upper Mississippi River and Illinois River” (while avoiding adverse impacts on navigation).

<sup>30</sup> P.L. 110-114 (known as “[WRDA 2007](#)”), Sec. 8004(b)(2).

<sup>31</sup> No more than \$35 million per fiscal year can be spent on land acquisition. Not more than \$245 million shall be available for fish passage projects, and not more than \$48 million shall be made available for dam point control projects. Fish passage and dam point control projects are the only project types for which an individual project cost can exceed \$25 million. P.L. 110-114 (known as “[WRDA 2007](#)”), at Sec. 8004(f).

<sup>32</sup> *Id.* at Sec. 8004(h).

<sup>33</sup> *Id.* at Sec. 8004(g).

<sup>34</sup> *Id.* at Sec. 8004(c).

existing monitoring program established as part of the Upper Mississippi River Management Act of 1986.<sup>35</sup>)

- **Coordination**, requiring USACE to consult with the Secretary of the Interior and the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin “in carrying out the environmental sustainability, ecosystem restoration, and monitoring activities” authorized by the law, and authorizing USACE to enter into funding agreements with those entities (as well as the Upper Mississippi River Basin Association) to “provide for the direct participation of and transfer of funds to such entities for the planning, implementation, and evaluation of projects and programs” established under the ecosystem restoration section of the authorizing legislation.<sup>36</sup>
- **A mandatory (albeit general) project design process**, requiring that before initiating any individual ecosystem restoration project USACE must establish ecosystem restoration goals, identify specific performance measures and targets, and that all restoration projects include a monitoring plan.<sup>37</sup>
- **Reporting** to Congress every four years on implementation.<sup>38</sup>

Other interesting features of the NESP authorization include a provision explicitly allowing non-governmental organizations to be non-federal sponsors of projects (with consent of the affected local government) and a provision authorizing USACE to acquire land for ecosystem restoration either in fee title (full ownership) or using floodplain conservation easements.

Since 2007, however, the promise and potential of the NESP have not been fully realized, largely due to a lack of consistent funding. For the Corps to spend money on a study’s implementation, many steps must happen. First, Congress must authorize an appropriation (usually in a WRDA) *and* make an appropriation (usually in an appropriations bill). At times, there are “[r]eports accompanying appropriations acts, such as conference reports or explanatory statements, [that] generally identify specific Corps projects and programs to receive appropriated funds.”<sup>39</sup> However, after the appropriation has been obtained, the Corps tends to have broad discretion over which projects receive “allocations.” According to recent interviews of Corps officials by federal Governmental Accountability Office (GAO) staff, the typical post-appropriation process is as follows:

Corps districts identify and submit priority projects to the division to be considered among other division priorities. Divisions submit their priorities to headquarters for consideration.

---

<sup>35</sup> See 33 U.S.C. 652, Sec. (e)(1)(A)(ii).

<sup>36</sup> P.L. 110-114 (known as “[WRDA 2007](#)”), Sec. 8004(e).

<sup>37</sup> The mandatory preconstruction design process is described in more detail at Sec. 8004(d) of WRDA 2007.

<sup>38</sup> P.L. 110-114 (known as “[WRDA 2007](#)”), Sec. 8004(g).

<sup>39</sup> U.S. Government Accountability Office (GAO), [U.S. ARMY CORPS OF ENGINEERS: INFORMATION ON THE NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM](#) at page 5 (Jan. 2021).

Corps headquarters submits its recommendation to the Assistant Secretary of the Army for Civil Works and the Office of Management and Budget for further coordination and determination of project funding allocations.<sup>40</sup>

It is only after the study is final and implementation funds are specifically appropriated and allocated to that the project enters the preconstruction engineering and design (PED) phase.<sup>41</sup>

In this case, a 2021 GAO report found that between fiscal years 2005 and 2020, the Corps allocated only \$65 million in general investigation funds to support NESP activities.<sup>42</sup> According to the Rock Island District, “It will take at least 15 - 20 years of efficient funding to implement NESP to be able to construct the navigation and ecosystem projects to improve the ecosystem and navigation system.”<sup>43</sup>

### III.B Restudies: Reviewing and Modifying Past Reports for Modern Purposes

In some circumstances, communities and their advocates may want the Corps to reexamine—and make changes to—a final feasibility study and its recommendations. There are two key avenues, both of which run through Congress, for requiring USACE to restudy a water resources problem that has already been the subject of a final report.

Legislative Authorization of a Restudy. One option for initiating a restudy is for one or more Member(s) of Congress to pursue and obtain a new, explicit WRDA authorization for a feasibility study that in effect reviews past studies and projects.

For example, in 2022, Senator Marco Rubio of Florida was successful in his effort to include in WRDA an authorization for a “comprehensive restudy of the **Central and Southern Florida (C&SF)** project for flood control.”<sup>44</sup> Section 8214 of WRDA 2022 authorizes the Corps “to carry out a feasibility study for resiliency and comprehensive improvements or modifications to existing water resources development projects in the central and southern Florida area, for the purposes of flood risk management, water supply, ecosystem restoration (including preventing saltwater intrusion), recreation, and related purposes.”<sup>45</sup> The authorizing law includes some specific requirements for carrying out the study, including: reviewing the agency’s 1948 report to Congress on central and southern Florida; recommending cost-effective structural and nonstructural projects for implementation that provide a systemwide approach for the purposes

---

<sup>40</sup> Id.

<sup>41</sup> Id.

<sup>42</sup> Id. at page 6.

<sup>43</sup> See also USACE Rock Island District, Navigation and Ecosystem Sustainability Program: Program History, <https://www.mvr.usace.army.mil/Missions/Navigation/NESP/Program-History/> (accessed Jan. 2024).

<sup>44</sup> See Office of Senator Marco Rubio, Press Releases: Rubio Wins Fight on Water Project Authorities (Dec. 8, 2022), <https://www.rubio.senate.gov/public/index.cfm/2022/12/rubio-wins-fight-on-water-project-authorities>.

<sup>45</sup> P.L. 117-263, Title LXXXI (known as [WRDA 2022](#)), Sec. 8214.

of the study; and ensuring that the study and any recommended projects do not interfere with efforts to carry out the Comprehensive Everglades Restoration Plan.<sup>46</sup>

Restudy by Committee Resolution. Another route to a restudy does not require actual legislation. A 1905 law (codified at 33 U.S.C. 541) provides that the Chief of Engineers shall, “on request by *resolution of the Committee on Environment and Public Works of the Senate or the Committee on Public Works and Transportation of the House of Representatives*, submitted to the Chief of Engineers, *examine and review the report of any examination or survey made pursuant to any Act or resolution of Congress, and report thereon...*” (emphasis added). As explained by CRS, “A resolution by one of the two authorizing committees is sufficient authorization for a study to reexamine a previous study if funded.”<sup>47</sup>

An interesting case of a restudy requested by committee resolution is the [New Jersey Back Bays Coastal Storm Risk Management Study](#) (NJBB CSRМ). In 2015, the post-Sandy regional study known as the North Atlantic Coast Comprehensive Study identified the New Jersey Back Bays area as one of nine priority areas for additional analysis. For authorization to conduct the additional analysis in the NJBB area, the Philadelphia District relied on resolutions adopted by the two Congressional committees decades earlier, in 1986, which requested that the Corps:

review existing reports of the Chief of Engineers for the entire coast of New Jersey with a view to study, in cooperation with the State of New Jersey, its political subdivisions and agencies and instrumentalities thereof, the changing coastal processes along the coast of New Jersey. Included in this study will be the development of a physical, environmental, and engineering database on coastal area changes and processes, including appropriate monitoring, as the basis for actions and programs to prevent the harmful effects of shoreline erosion and storm damage....<sup>48</sup>

According to the Corps, the NJBB CSRМ feasibility study was initiated in April of 2016—just one year after the completion of the foundational North Atlantic Coast Comprehensive Study—when the Corps and the New Jersey Department of Environmental Protection (the non-federal sponsor) signed a feasibility cost-share agreement.<sup>49</sup>

In the 2021 draft study, the Corps explains that the “[tentatively selected plan] is based upon detailed analyses but represents a step in the phased, iterative planning process.”<sup>50</sup> Accordingly, the draft report notes that “additional more detailed analyses will be performed going forward during the conduct of the study which will likely result in revisions to the [tentatively selected plan]

---

<sup>46</sup> Id.

<sup>47</sup> Nicole Carter & Anna Normand, CRS, [ARMY CORPS OF ENGINEERS: WATER RESOURCE AUTHORIZATION AND PROJECT DELIVERY PROCESSES](#) at footnote 24 (April 2019).

<sup>48</sup> House Committee on Public Works and Transportation, Resolution of Dec. 10, 1987.

<sup>49</sup> USACE Philadelphia District, [NEW JERSEY BACK BAYS COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY COMMUNICATIONS AND OUTREACH PLAN](#) at page 3 (April 2019).

<sup>50</sup> USACE Philadelphia District, [NEW JERSEY BACK BAYS COASTAL STORM RISK MANAGEMENT DRAFT INTEGRATED FEASIBILITY REPORT AND TIER 1 ENVIRONMENTAL IMPACT STATEMENT](#) at page xii (Aug. 2021).

and associated economic and other account calculations.... These continued analyses will help to reduce the uncertainty and risk associated with risk management solutions.”<sup>51</sup>

With respect to implementation timing, the NJBB CSRМ draft report proposes that a “phased, incremental implementation schedule will be developed for the recommended plan.” For purposes of the draft study, “[P]roject implementation in a *phased, scalable format* is assumed to begin in the year 2030 and continue for five years to 2035.”<sup>52</sup> As the Corps explains, “The construction of scaled, incrementally implementable integrated USACE construction opportunities associated with the ultimate recommended plan for construction authorization to reduce risk along the NJBB coast is massive in scale and thus necessitates phasing of the actions with respect to realizing the life cycle of the plan.”<sup>53</sup>

The draft report proposes a strategy for implementing and sequencing the recommended plan that is organized into three tiers and is “based on ranking of certain locations or features, level of design detail and uncertainty regarding conditions for coastal storm risk management (CSRМ) benefits, long term sustainability including low, medium, and high projections for future sea level rise, and construction costs.”<sup>54</sup> The proposed three-tiered implementation strategy would prioritize critical infrastructure assets risk management (Tier 1), move on to nonstructural measures such as structure elevation<sup>55</sup> and floodwall elevation in high-recurrence floodplains (Tier 2), and lastly carry out construction of storm surge barriers (SSB) at individual inlets.<sup>56</sup> This use of a tiered, phased approach should enable non-structural measures to proceed early in the project’s implementation, while guaranteeing more time for the partners to thoroughly develop—and incorporate public input on—the more complex, often-controversial infrastructure elements like storm surge barriers.

Among other benefits, the proposed implementation strategy—i.e., sequenced—“will also facilitate sponsor readiness and will accommodate the possible intermittent Federal and non-

---

<sup>51</sup> Id. at page 300. The draft report notes that such revisions may occur before the ADM Meeting, which was at the time scheduled for January 2022.

<sup>52</sup> USACE Philadelphia District, [NEW JERSEY BACK BAYS COASTAL STORM RISK MANAGEMENT DRAFT INTEGRATED FEASIBILITY REPORT AND TIER 1 ENVIRONMENTAL IMPACT STATEMENT](#) at page 21 (Aug. 2021) (emphasis added). The *NJBB CSRМ Draft Integrated Feasibility Report and Tier 1 EIS* generally uses a period of analysis of 2030 to 2080 in analyzing alternative plans. However, the draft report notes, “Coastal sustainability associated with sea level change (USACE, 2014; USACE, 2013) will be evaluated for the 100-year period from 2030-2130 for all of the alternative plans in the preliminary focused array.” Id.

<sup>53</sup> Id. at page 490.

<sup>54</sup> Id.

<sup>55</sup> The draft report explains that another benefit of this phased, scalable approach is that it “identifies eligibility threshold stages over time to accommodate as sea level change causes more structures in the study area to become vulnerable and fall below the eligibility threshold stage.” USACE Philadelphia District, [NEW JERSEY BACK BAYS COASTAL STORM RISK MANAGEMENT DRAFT INTEGRATED FEASIBILITY REPORT AND TIER 1 ENVIRONMENTAL IMPACT STATEMENT](#) at page 490 (Aug. 2021).

<sup>56</sup> Id. The report explains that “This approach also indexes the SSB closure criteria to certain flood recurrence intervals to identify complementary nonstructural measures particularly in the Central Region” and that the “managed adaptive approach ensures a constant project performance level with clear closure criteria guidelines and minimizes coastal storm impacts for both high-frequency and low frequency events.

Federal budget cycles.”<sup>57</sup> Moreover, the phased approach is expected to “offer cost saving opportunities through combining efforts on varying scales and accelerating benefit flows by prioritizing actions.”<sup>58</sup> Acknowledging the importance of coordination to the success of this approach, the draft study notes that the proposed strategy “will ultimately need to be prepared amongst team partners in order to identify and make available construction funds and to communicate the construction priority to stakeholders.”

Another advantage of a modern restudy like the NNJB CSRМ is the opportunity to integrate natural and nature-based features (NNBFs), which are now widely understood to provide direct flood risk reduction benefits in addition to ecological ones. A federal law enacted as part of WRDA 2016 (Sec. 1184) requires the Corps to consider NNBFs when studying flood risk management measures (with the consent of the non-federal sponsor), and the draft NJBB feasibility report explains that various other policies—e.g., Executive Order 13690, Executive Order 11998, and Hurricane Sandy rebuilding strategies to promote integration of green infrastructure—are also helping to drive the agency’s incorporation of NNBF into the study.<sup>59</sup>

The NJBB study team is also leveraging the work of the USACE Engineering With Nature (EWN) program, specifically the EWN Landscape Architecture initiative.<sup>60</sup> An appendix to the 2021 draft report “identifies NNBFs in each of the four NJBB Regions within the context of the structural and nonstructural management measures” following an evaluation and selection of NNBFs “for their potential to combine CSRМ value with additional ecological and social benefit into the storm surge/crossbay barrier, perimeter measure, and nonstructural management measures.”<sup>61</sup> The draft appendix identifies “the range of types of NNBF that could be viable in the NJBB region and of the scales at which those features might be constructed,”<sup>62</sup> and the draft main report notes that in addition to larger-scale NNBFs, “stand-alone NNBFs are also being considered as well as in combination with structural management measures.”<sup>63</sup> The draft states that “plan formulation analyses suggest that NNBFs would meet the project objectives when placed in combination with ... structural management measures” like unarmored shorelines, floodwalls, and levees.<sup>64</sup>

---

<sup>57</sup> USACE Philadelphia District, [NEW JERSEY BACK BAYS COASTAL STORM RISK MANAGEMENT DRAFT INTEGRATED FEASIBILITY REPORT AND TIER 1 ENVIRONMENTAL IMPACT STATEMENT](#) at page 490 (Aug. 2021).

<sup>58</sup> Id.

<sup>59</sup> USACE Philadelphia District, [NEW JERSEY BACK BAYS COASTAL STORM RISK MANAGEMENT DRAFT INTEGRATED FEASIBILITY REPORT AND TIER 1 ENVIRONMENTAL IMPACT STATEMENT](#) at page 214 (Aug. 2021).

<sup>60</sup> See id. at 214. (“One of the goals of this initiative is to align natural and engineering processes to deliver economic, environmental, and social benefits efficiently and sustainably through collaborative processes. As described by the EWN® initiative, NNBF “are landscape features that are used to provide engineering functions relevant to flood risk management, while producing additional economic, environmental, and/or social benefits. These features may occur naturally in landscapes or be engineered, constructed and/or restored to mimic natural conditions. A strategy that combines NNBF with nonstructural and structural management measures represents an integrated approach to flood risk management that can deliver a broad array of ecosystem goods and services to local communities.”)

<sup>61</sup> Id. The Engineering With Nature + Landscape Architecture: New Jersey Back Bays’ Report is part of the draft study’s Natural and Nature-Based Features Appendix, available via EPA’s EIS database (linked [here](#)).

<sup>62</sup> Natural and Nature-Based Features Appendix (Appendix G) at page 9.

<sup>63</sup> USACE Philadelphia District, [NEW JERSEY BACK BAYS COASTAL STORM RISK MANAGEMENT DRAFT INTEGRATED FEASIBILITY REPORT AND TIER 1 ENVIRONMENTAL IMPACT STATEMENT](#) at page 215 (Aug. 2021).

<sup>64</sup> Id.

In January 2022, the Corps announced that the Philadelphia District would receive supplemental funding from the Bipartisan Infrastructure Law and the 2022 Disaster Relief Supplemental Appropriations Act, including \$2.4 million to complete the feasibility study for the NJBB.<sup>65</sup>

It is worth noting that in the future, new or reopened feasibility studies will be subject to a requirement enacted in WRDA 2022 that at the request of the non-federal interest, for flood risk management and hurricane and storm damage risk reduction studies, USACE must formulate alternatives “to maximize the net benefits from the reduction of comprehensive flood risk within the geographic study from the isolated and compound effects” of all relevant drivers of flood risk (e.g., riverine discharges of any magnitude or frequency, inundation coinciding with a coastal storm, a rainfall or tide of any magnitude or frequency), including sea level rise (Sec. 8106).

### III. Success Story: How a Phased Approach May Play Out over Time

For a project sponsor or advocate considering pursuing a phased approach to implementation of a conceptual WRDA study, it will be important to know that such a phased, incremental, adaptive approach has worked over time as intended—that is, successfully—in other situations. A good example of how the approach has played out over time is found in the history of the Jacksonville District’s current Everglades Agricultural Area (EAA) project, a key element of the larger **Central Everglades Planning Project**. The EAA was authorized by Congress in WRDA 2018 and 2020, received a construction funding allocation from the Corps, and is now under construction.<sup>66</sup>

For purposes of this example, the story of the EAA begins in 1999, when the final feasibility report and programmatic EIS for the Comprehensive Everglades Restoration Plan (CERP) was completed by the Jacksonville District and submitted to Congress. The following year, Congress included a general authorization of the CERP in WRDA 2000 (though the law made some modifications to the plan recommended in the 1999 final report).<sup>67</sup> The CERP “was approved as a framework for modifications and operational changes to the Central and Southern Florida Project that are needed to restore, preserve, and protect the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection.”<sup>68</sup>

An initial set of specific projects was conditionally authorized in WRDA 2000, including a project identified as “Everglades Agricultural Area Storage Reservoirs—Phase I, at a total cost of \$233,408,000....”<sup>69</sup> The condition of authorization is that before any of the projects may be implemented, the Secretary of the Army must review and approve a Project Implementation Report (PIR). Per the law, the PIR must be prepared by USACE in cooperation with the non-

---

<sup>65</sup> USACE Philadelphia District, News Releases, Army Corps of Engineers Philadelphia District to receive supplemental Infrastructure and Disaster Relief funding (updated Aug. 10, 2022), <https://www.nap.usace.army.mil/Media/News-Releases/Article/2906940/army-corps-of-engineers-philadelphia-district-to-receive-supplemental-infrastru/>.

<sup>66</sup> USACE & South Florida Water Management District, CEPP EAA [FACT SHEET \(Jan. 2023\)](#).

<sup>67</sup> P.L. 106-541 (known as [WRDA 2000](#)), Sec. 601.

<sup>68</sup> P.L. 106-541 (known as [WRDA 2000](#)), Sec. 601.

<sup>69</sup> *Id.*

federal sponsor and after a public notice and comment opportunity; next, before any appropriation can be made to construct the project, the PIR must be submitted to the House Committee on Transportation and Infrastructure and the Senate Committee on Environment and Public Works (including all relevant data and information on costs<sup>70</sup>), and both committees must adopt resolutions approving the PIR.

In 2011, USACE, the Department of Interior, the Florida governor, and the non-federal sponsor (the South Florida Water Management District, SFWMD) initiated a PIR for the Central Everglades Planning Project. The CEPP was included in a pilot program to accelerate Corps studies, and it was only three years later that a final integrated PIR and EIS for the CEPP was approved by the Corps and transmitted to Congress.<sup>71</sup>

The purpose of the CEPP study in 2014 was to “improve the quantity, quality, and timing and distribution of water flows to [the central Everglades and certain estuaries and bays] while increasing water supply for municipal and agricultural users.”<sup>72</sup> Corps officials describe the CEPP as “a conceptual plan that include[s] guidelines for future coordination requirements and programmatic consultations ..”<sup>73</sup>

The CEPP elements represent “increments” of specific elements of the CERP, including, among others, an “Everglades Agricultural Storage Reservoir” element. As explained by the Jacksonville District,

The [2014] CEPP is composed of increments of project components that were identified in the CERP, reducing the risks and uncertainties associated with project planning and implementation. The term “increment” is used to underscore that CEPP formulated portions (scales) of individual components of the CERP. It was envisioned that later studies would investigate additional scales of components of the CERP to expand upon this initial “increment” to achieve the level of restoration envisioned for the CERP. This approach is consistent with the recommendations of the National Research Council to utilize Incremental Adaptive Restoration to achieve timely, meaningful benefits of the CERP and to lessen the continuing decline of the Everglades ecosystem.<sup>74</sup>

In addition to furthering a phased approach to CERP implementation, the CEPP itself will be implemented in stages. According to the Corps, due to the CEPP plan’s size and complexity, “project implementation will involve phases of multi-year construction through individual project

---

<sup>70</sup> WRDA 2000 provides that a project may be justified by the environmental benefits derived by the South Florida ecosystem, and if USACE determines the activity is cost-effective then no further economic justification is required. Id.

<sup>71</sup> USACE & South Florida Water Management District, CEPP EAA [FACT SHEET \(Jan. 2023\)](#).

<sup>72</sup> USACE Jacksonville District, Ecosystem Restoration: Central Everglades Planning Project, <https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Central-Everglades-Planning-Project/> (accessed Jan. 2024).

<sup>73</sup> Jo Ellen Darcy, Assistant Secretary of the Army (Civil Works), [RECORD OF DECISION—CENTRAL EVERGLADES PLANNING PROJECT](#) (signed Aug. 31, 2015) (hereinafter “CEPP ROD”).

<sup>74</sup> USACE Jacksonville District, [CENTRAL EVERGLADES PLANNING PROJECT POST-AUTHORIZATION CHANGE REPORT](#) at page 1-12 (Mar. 2018).



partnership agreements (PPAs) or amendments to existing PPAs” between USACE and the nonfederal sponsor.<sup>75</sup> It includes features divided into three phases: south, north, and new water. According to the Jacksonville District, “Phased implementation efforts maximize the opportunity to realize incremental restoration benefits by initially building features that utilize existing water in the system that meets state water quality standards.”<sup>76</sup> The Corps notes that the “CEPP incorporates updated science and technical information gained over the last decade” of CERP work.<sup>77</sup>

In 2016, Congress authorized the CEPP as part of that year’s WRDA bill.<sup>78</sup> However, that was not the only development in 2016 that affected the trajectory of the CEPP: in 2016, and again in 2017, Florida “experienced excessive rainfall well above average resulting in significant releases from Lake Okeechobee to the Northern Estuaries that caused ecological damage and impacts to the economy....”<sup>79</sup> Among other state government responses to the increased flooding, the Southwest Florida Water Management District initiated a study known as the Post Authorization Change Report (PACR) for the CEPP.

The objective of the PACR was “to develop a plan to further reduce the damaging discharges from Lake Okeechobee to the Northern Estuaries and redirect flow south to meet the CERP flow goal to the central Everglades.” The PACR’s scope “focuses on the final increments of four specific components of the CERP,” including the Everglades Agricultural Storage Reservoirs.<sup>80</sup>

Like the original CEPP, the PACR reaffirmed the importance of an incremental approach to implementing CERP projects. According to its authors, the PACR study “incorporates the National Research Council (NRC) recommendation that the implementation of CERP projects should provide some immediate restoration benefits while addressing scientific uncertainties.”<sup>81</sup> The authors acknowledge that the PACR study is “not a ‘comprehensive’ solution leading to the end state resolution of problems existing in the Everglades ecosystem,” but they assert that the PACR plan “will provide meaningful progress toward restoration of the study area, including achieving the redirection of restoration flows to the natural areas as identified in the CERP and greatly reducing the potential for further degradation. The planning and design of project features will incorporate, to the extent practical, flexibility and robustness to ensure compatibility with future Everglades restoration efforts.”<sup>82</sup>

Once it had been reviewed and approved by the Assistant Secretary of the Army for Civil Works, the Corps submitted the PACR to Congress as a final feasibility report. In WRDA 2018, Congress

---

<sup>75</sup> USACE Jacksonville District, Ecosystem Restoration: Central Everglades Planning Project, <https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Central-Everglades-Planning-Project/> (accessed Jan. 2024).

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

<sup>78</sup> See Water Infrastructure Improvements for the Nation Act, Title I (WRDA of 2016), Section 1401.

<sup>79</sup> USACE Jacksonville District, [CENTRAL EVERGLADES PLANNING PROJECT POST-AUTHORIZATION CHANGE REPORT](#) at page 1-9 (Mar. 2018).

<sup>80</sup> *Id.* at page 1-13.

<sup>81</sup> *Id.* at page 3-3.

<sup>82</sup> *Id.*

authorized the EAA project as recommended in the CEPP PACR, subject to the expedited preparation of a PIR and other conditions.<sup>83</sup> The EAA's PIR was transmitted to Congress in October 2020. WRDA 2020, enacted in December of that year, explicitly states that the CEPP authorized by WRDA 2016 "is modified to include" the EAA ecosystem restoration project authorized by WRDA 2018, and the 2020 law authorized USACE to carry out the project.<sup>84</sup> According to the Jacksonville District, the "CEPP EAA develops the next increment of project components that focus restoration on more natural flows into and through the central and southern Everglades."<sup>85</sup> The Corps and SFWMD entered into a CEPP EAA Project Partnership Agreement in April 2021, and construction was initiated by SFWMD on the first component of the project later that year.<sup>86</sup>

#### IV. Conclusion

Increasingly, the present and future impacts of climate change and advances in available data and knowledge are motivating communities with water resource challenges to pursue systemwide approaches that include a range of different structural and non-structural elements. However, comprehensive approaches to large-scale problems generally take many years to develop, and the worsening flood risk and other water quality and management challenges faced by these communities require timely solutions. It is our hope that the examples of past studies and projects identified above can serve as useful starting points for stakeholders considering the value of phasing large-scale projects in a way that enables efficient implementation of straightforward, uncontroversial elements, even while the project's more complex features continue to be evaluated for their environmental, economic, and social impacts. No two water resource studies are exactly the same, and there is no one-size-fits-all approach to pursuing phased implementation of a large-scale conceptual study. Rather than recipes to be duplicated exactly, the examples highlighted in this report are intended to inspire project proponents, agencies, and other stakeholders to consider the utility of the many potential pathways to achieving phased approaches that prioritize speedy implementation of natural and nature-based features.

---

<sup>83</sup> See P.L. 115-270 (known as WRDA 2018), Sec. 1308.

<sup>84</sup> 116<sup>th</sup> Congress, H.R. 133, Division AA (known as [WRDA 2020](#)), Sec. 321.

<sup>85</sup> USACE & South Florida Water Management District, CEPP EAA [FACT SHEET](#) (Jan. 2023).

<sup>86</sup> USACE Jacksonville District, <https://www.saj.usace.army.mil/CEPPEAA/>