THE COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA): A CASE STUDY IN ADAPTIVE MANAGEMENT

©2020 Environmental Law Institute®

The Environmental Law Institute (ELI) makes law work for people, places, and the planet. Since 1969, ELI has played a pivotal role in shaping the fields of environmental law, policy, and management, domestically and abroad. Today, in our sixth decade, we are an internationally recognized, nonpartisan research and education center working to strengthen environmental protection by improving law and governance worldwide. ELI staff contributing to this paper include former Public Interest Law Fellow Stephanie Oehler and Senior Attorney Jay Austin. The authors thank ELI's partners and other colleagues, who have provided invaluable ideas for and input into this paper. Funding for research and drafting was provided by the Walton Family Foundation.

The Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA): A Case Study in Adaptive Management. ©2020 Environmental Law Institute®, Washington, D.C. All rights reserved.

Introduction: Adaptive Management in Coastal Louisiana

Adaptive management is the process by which programs and projects are amended over time in response to assessment of monitoring data and other feedback related to their implementation or performance; it ensures they remain science-backed and effective. The concept is increasingly being adopted by the decision-making bodies that are facilitating restoration efforts in response to the *Deepwater Horizon* oil spill, as well as in other coastal conservation and restoration contexts.²

Louisiana's Coastal Protection and Restoration Authority ("CPRA") is no exception, and has received millions of dollars in oil spill-related funding to dedicate to adaptive management in the coastal restoration context.³ Further, the Authority is committed to incorporating adaptive management into its programs and projects, and surveyed academic literature and other sources to identify the core features of an effective adaptive management process.⁴ In its 2017 Coastal Master Plan, CPRA outlined guidance on how to adopt adaptive management ideals at both the programmatic and project-specific levels. A 2020 report compiled for CPRA by the Water Institute of the Gulf built off and expanded upon these processes.⁵

At the program level, adaptive management in Louisiana should involve "engaging stakeholders, defining the management problem, developing an existing understanding through system models, identifying uncertainties and alternate hypotheses based on experience, formulating a plan to allow continued action while learning, monitoring the effect of implementing new projects, and assessing and updating the system." At the project level, adaptive management requires observing operations, collecting and assessing data, identifying potential improvements, and revising the operational plan. Lessons learned from adaptively

¹ NATIONAL FISH AND WILDLIFE FOUNDATION, GULF ENVIRONMENTAL BENEFIT FUND, <u>ADAPTIVE MANAGEMENT: LOUISIANA RIVER DIVERSIONS & BARRIER ISLANDS</u> (2014); see also NATURAL RESOURCE DAMAGE ASSESSMENT TRUSTEES, <u>2017 MONITORING AND ADAPTIVE MANAGEMENT PROCEDURES AND GUIDELINES MANUAL VERSION 1.0</u>, APPENDIX TO THE TRUSTEE COUNCIL STANDARD OPERATING PROCEDURES FOR IMPLEMENTATION OF THE NATURAL RESOURCE RESTORATION FOR THE DWH OIL SPILL (Aug. 2019), at 5; see also GULF COAST ECOSYSTEM RESTORATION COUNCIL, <u>COMPREHENSIVE PLAN UPDATE 2016</u>, at 27-28.

² Examples include NFWF, NRDA, and the RESTORE Council, as well as Louisiana's Coastal Protection and Restoration Authority.

³ For a breakdown of the different grants CPRA has received specifically for use in adaptive management, see Appendix: CPRA's Adaptive Management Funding Sources.

⁴ A.C. Hijuelos and D.J. Reed, <u>LA COASTAL MASTER PLAN, APPENDIX F: ADAPTIVE MANAGEMENT</u> (2017), at 1.

⁵ The Water Institute of the Gulf, <u>LOUISIANA ADAPTIVE MANAGEMENT STATUS AND IMPROVEMENT REPORT: VISION AND RECOMMENDATIONS</u> (Mar. 2020) (the report was also prepared for, and was funded by, the Louisiana Trustee Implementation Group (LA TIG)).

⁶ COASTAL PROTECTION AND RESTORATION AUTHORITY, <u>LOUISIANA'S COMPREHENSIVE MASTER PLAN FOR A SUSTAINABLE COAST</u> (2017), at 149 [hereinafter LA COASTAL MASTER PLAN]; see also The Water Institute of the Gulf, supra note 5, at 47-70.

⁷ LA COASTAL MASTER PLAN, *supra* note 6, at 152.

managing individual projects can also improve program-level management if factored into the program review process.8

This case study discusses how various components of adaptive management are incorporated into the Federal Coastal Wetlands Planning, Protection and Restoration Act ("CWPPRA"). It seeks to provide an analysis of CWPPRA's current adaptive management mechanisms, extrapolate lessons learned, and identify areas for potential improvement by assessing CWPPRA's processes in terms of different components of adaptive management.

The Coastal Wetlands Planning, Protection and Restoration Act

CWPPRA, also known as the Breaux Act, became law in 1990.9 Its primary purpose was to create an interagency planning and decision-making body, the CWPPRA Task Force, charged with selecting, overseeing, and funding coastal restoration projects in Louisiana. The Act also required the state to develop a Coastal Wetlands Conservation Restoration Plan (Restoration Plan) upon which to base restoration efforts, and required the Task Force to compile reports at least every three years to update Congress on the program's progress. Due to consistent Congressional re-authorizations, CWPPRA has continued to support coastal restoration in Louisiana for 30 years.

Projects selected for funding and management under the Act have incorporated a variety of coastal restoration techniques, including: sediment diversions; freshwater reintroduction; sediment dredging and marsh creation; barrier island restoration; and more.¹³ In total, 222 projects have been approved for funding under CWPPRA, about half of which have been constructed.¹⁴ These projects have resulted in the protection or creation of almost 100,000 acres of wetlands statewide, and the improvement of roughly 355,000 more.¹⁵

⁸ Id. at 151.

⁹ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, <u>ABOUT CWPPRA: THE CWPPRA LEGISLATION</u>; COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, <u>CARING FOR COASTAL WETLANDS</u>.

¹⁰ LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION TASK FORCE, <u>THE 2006 EVALUATION REPORT TO THE U.S. CONGRESS ON THE EFFECTIVENESS OF COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT PROJECTS</u> (2006), at vii [hereinafter 2006 REPORT TO CONGRESS] (70 percent of CWPPRA funding goes to the Task Force, the remaining 30 percent of funds go to non-Louisiana-based projects; for more information, see Appendix: Funding Non-Louisiana Coastal Restoration Projects under CWPPRA).

¹¹ Coastal Wetlands Planning, Protection and Restoration Act § 303, 16 U.S.C. § 3952(b) (1990).

¹² U.S. ARMY CORPS OF ENGINEERS – NEW ORLEANS DISTRICT, <u>LEGISLATIVE HISTORY: COASTAL</u>, <u>WETLANDS PLANNING</u>, <u>PROTECTION AND RESTORATION ACT (CWPPRA)</u>: <u>AUTHORIZATION HISTORY</u>, at 13-14 (for more information, see Appendix: Funding CWPPRA).

¹³ 2006 REPORT TO CONGRESS, *supra* note 10, at 12; *see also* COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, CWPPRA PROJECTS.

¹⁴ U.S. Army Corps of Engineers – New Orleans District, <u>Coastal Wetlands Planning</u>, <u>Protection</u>, and <u>Restoration Act</u>.

¹⁵ LA COASTAL MASTER PLAN, *supra* note 6, at 131.

CWPPRA's Programmatic Governance Structure

To facilitate the annual selection of projects to be managed and funded under CWPPRA, the Act created the Louisiana Coastal Wetlands Conservation and Restoration Task Force, also referred to as the CWPPRA Task Force. The Task Force is led by the District Commander of the New Orleans District ("NOD") of the U.S. Army Corps of Engineers ("Corps"), and is composed of representatives of each of the following government agencies and offices:

- the Administrator of the U.S. Environmental Protection Agency ("EPA");
- the Secretary of the Department of the Interior represented by the U.S. Fish and Wildlife Service ("U.S. FWS");
- the Secretary of the Department of Agriculture represented by the Natural Resources Conservation Service ("NRCS");
- the Secretary of the Department of Commerce represented by the National Marine Fisheries Service ("NMFS"); and
- the Governor of Louisiana.¹⁷

The Task Force is advised on a wide range of matters, including monitoring and environmental issues, by its Technical Committee. ¹⁸ The Technical Committee oversees two subcommittees: the Public Outreach Subcommittee and the Planning and Evaluation Subcommittee. ¹⁹

The Planning and Evaluation Subcommittee provides expertise and offers suggestions related to various aspects of coastal restoration projects, and does so with the assistance of five individual workgroups that it oversees, each of which has a unique focus. Individual workgroups meet to consider environmental, engineering, economics, and monitoring issues, and the Environmental and Monitoring Workgroups conduct their evaluations with the assistance of an Academic Advisory Workgroup. *Id.* Through the Academic Advisory Workgroup, the academic community is involved in CWPPRA decision-making processes and the Technical Committee considers the advice of subject-matter experts from throughout the state as it makes project and program-related recommendations for the Task Force. *Id.*

¹⁶ Coastal Wetlands Planning, Protection and Restoration Act § 302(9), 16 U.S.C. § 3951 (1990).

¹⁷ U.S. Army Corps of Engineers – New Orleans District, Coastal Wetlands Planning, Protection, and Restoration Act, *supra* note 14 (listing the current members of the CWPPRA Task Force and their corresponding agencies); *see also* Coastal Wetlands Planning, Protection and Restoration Act, Organizational Chart.

18 Coastal Wetlands Planning, Protection, and Restoration Act, Organizational Chart, *supra* note 17.

19 U.S. Army Corps of Engineers – New Orleans District, Coastal Wetlands Planning, Protection, and Restoration Act Desk Reference (2016), at 27. The Public Outreach Subcommittee conducts public education efforts, produces publications, facilitates public meetings, and maintains the CWPPRA website and databases, which allow the public to view comprehensive monitoring data and stay up to date on CWPPRA processes, projects, and progress. *Id.* at 35; *see also* Coastal Wetlands Planning, Protection and Restoration Act, Get Involved (the Technical Committee usually meets in April, September, and December and the Task Force usually meets in January, May, and October). While the Public Outreach Subcommittee provides the Technical Committee with support gathering public input and feedback and sharing information about the program and specific projects, the Planning and Evaluation Subcommittee assists the Technical Committee with elements of project design and program implementation. Coastal Wetlands Planning, Protection, and Restoration Act, Organizational Chart, *supra* note 17.

The Technical Committee and the Task Force each typically meet three times a year; but each group may meet more or less frequently in any particular year.²⁰ Meetings are open to the public and there is often an opportunity for public comment at the conclusion of each agenda item.²¹ Individuals may subscribe to receive meeting agendas and other "CWPPRA Newsflashes" by email, or can view these documents online.²² Meeting minutes, attendance records, presentation slides, project schedules, and other meeting-related materials are posted on the Corps website following meetings.²³ Information about future Task Force and Technical Committee meetings is shared at the conclusion of each meeting, and information about these and other CWPPRA-related planning meetings is also posted online on the Louisiana Unified Coastal Community ("LUCC") Calendar.²⁴

CWPPRA meetings have not historically been held virtually, nor included virtual components.²⁵ However, in light of public health concerns, the Spring 2020 Technical Committee (April) and Task Force (May) meetings were each conducted virtually.²⁶ For the Technical Committee, members of the public were required to submit any comments in advance of the meeting and were not able to watch or participate in it.²⁷ For the Task Force meeting, members of the public were able to join online and public comment was accepted both via email prior to the meeting, as well as during the meeting through a virtual chat feature.²⁸ CWPPRA management is continuing to evaluate how best to conduct virtual meetings in the future.²⁹

CWPPRA's Project Selection and Funding Process³⁰

The CWPPRA Program generally repeats an annual process for selecting and funding coastal restoration projects.³¹ The official process begins with the Task Force, supported by the Technical Committee and its subcommittees and workgroups, compiling a Priority Project List ("PPL"). CWPPRA required that the Task Force develop a process to identify and prioritize

²⁰ US ARMY CORPS OF ENGINEERS – NEW ORLEANS DISTRICT, MEETING DOCUMENTS.

²¹ See, e.g., <u>CWPPRA Task Force Meeting Minutes</u>, <u>May 24, 2018</u>, at 1; see also <u>CWPPRA Technical Committee Meeting Minutes</u>, <u>Dec. 6, 2018</u>.

²² See, e.g., CWPPRA Task Force Meeting Agenda, May 9, 2019.

²³ US ARMY CORPS OF ENGINEERS – NEW ORLEANS DISTRICT, MEETING DOCUMENTS, *supra* note 20 (the website currently contains information dating from meetings held as early as 1991 for the Task Force, and 2002 for the Technical Committee).

²⁴ See CWPPRA Task Force Meeting Minutes, May 24, 2018, supra note 21, at 10; see also Coastal Wetlands Planning, Protection and Restoration Act, <u>Louisiana Unified Coastal Community (LUCC) Calendar</u>.

²⁵ Interview with a state government official working on CWPPRA (June 9, 2020).

²⁶ Id.

²⁷ *Id.*; CWPPRA, <u>Technical Committee Meeting Draft Agenda</u>, April 6, 2020 (stating that "due to web conferencing capacity, we are unable to host a virtual meeting open to the public").

²⁸ Interview with a state government official working on CWPPRA (June 9, 2020); CWPPRA, <u>Task Force Meeting</u> <u>Instructions to Participate Virtually</u>, May 6, 2020.

²⁹ Interview with a state government official working on CWPPRA (June 9, 2020).

³⁰ For additional detail on this process, see the Appendix: Priority Project List ("PPL") Selection Process and 2020 Cash-Flow Funding Schedule.

 $^{^{31}}$ 2006 Report to Congress, *supra* note 10, at 15.

potential coastal restoration projects that would not only conserve wetlands and support fish and wildlife, but also be cost-effective and allow for innovation.³²

Today, the formal CWPPRA process begins with a series of Regional Planning Team ("RPT") meetings held in each of four coastal regions.³³ Anyone can propose project ideas for consideration at the meetings, and after their conclusion, the respective CWPPRA agency, state, and local government representatives for each region vote to select projects to recommend to the Technical Committee.³⁴ The Technical Committee receives roughly 22 project recommendations, and selects 10 to review further.³⁵ Based on the findings of its subcommittees and workgroups, the Technical Committee identifies four or five projects to refer to the Task Force, which makes the final approval and funding decisions.³⁶

Projects selected through this annual process receive funding to undertake Phase I activities, which include project design and pre-construction planning.³⁷ Once Phase I is completed, project sponsors must receive Phase II approval and funding before they can begin constructing their projects.³⁸ The multi-phase funding process is referred to as "Cash Flow funding."³⁹ Because certain projects may receive funding for Phase I and not Phase II, due to variability in the budget or demands from other projects, they may ultimately be funded and managed under other coastal restoration programs.⁴⁰ While there is not currently any overlap in the formal project selection processes for the different coastal restoration project funding streams, those involved in these processes are familiar with the various options and have formed an unofficial network to share resources.⁴¹

For the last several years, non-profit organizations have been hosting pre-RPT meetings in some of the regions to bring together landowners, parish and agency officials, and other

³² Coastal Wetlands Planning, Protection and Restoration Act § 303, 16 U.S.C. § 3952(a)(1) (1990).

³³ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, <u>PRIORITY PROJECT LIST (PPL) SELECTION PROCESS</u>, at 1 [hereinafter PPL SELECTION PROCESS].

³⁴ *Id.*; see also Coastal Wetlands Planning, Protection and Restoration Act, <u>Understanding CWPPRA</u>, at 5; see also U.S. Army Corps of Engineers – New Orleans District, <u>FACT SHEET: The Coastal Wetlands Planning</u>, <u>Protection & Restoration Act (CWPPRA) Program</u>.

³⁵ PPL SELECTION PROCESS, *supra* note 33, at 3; COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, <u>THE 2015 EVALUATION REPORT TO THE U.S. CONGRESS ON THE EFFECTIVENESS OF COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT PROJECTS</u>, at 5 [hereinafter 2015 REPORT TO CONGRESS].

³⁶ 2006 REPORT TO CONGRESS, *supra* note 10, at 15; COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, <u>STANDARD OPERATING PROCEDURES</u> (<u>Revision 27, 2020</u>), at 10 [hereinafter 2020 STANDARD OPERATING PROCEDURES].

 $^{^{37}}$ 2020 Standard Operating Procedures, supra note 36, at 4; PPL Selection Process, supra note 33, at 3; Coastal Wetlands Planning, Protection and Restoration Act, Understanding CWPPRA, supra note 34, at 5.

³⁸ PPL SELECTION PROCESS, *supra* note 33, at 3; *see* 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 30-31 (outlining the materials that must be submitted when requesting Phase II approval).

³⁹ 2015 REPORT TO CONGRESS, *supra* note 35, at 27.

⁴⁰ Id.

⁴¹ Interview with federal agency official with several decades of experience working on various aspects of CWPPRA (Feb. 28, 2020).

interested stakeholders to discuss project ideas and, where possible, identify project partners.⁴² These meetings are announced via the CWPPRA Newsflash, and each draw roughly 50 people.⁴³ The hope is that by creating a forum for individuals to present their project ideas before the beginning of the formal PPL process and work with others to develop them further, stakeholders will have stronger projects to put forward at the RPT meetings. In practice, projects are primarily presented by agencies at these meetings, and restoration advocates try to facilitate connections between agencies proposing similar projects to encourage them to submit joint project proposals instead of competing ones, so that conservation funds are used as effectively as possible.⁴⁴

CWPPRA's Monitoring Program

Monitoring is a crucial part of CWPPRA, both at the project-specific level, to ensure projects are accomplishing their respective goals, and at the programmatic and coastwide levels, to ensure that the program is in fact restoring the Louisiana coast. The program's initial monitoring procedures accounted for different project types, goals, and wetland values, and provided for project-specific, basin-specific, and ecosystem-wide monitoring across seven variables to complement current state monitoring programs.⁴⁵ Detailed program-wide monitoring procedures and requirements were documented in a Quality Management Plan ("QMP").⁴⁶

The sponsors of each CWPPRA project were required to submit annual progress reports to other subcommittees, the Technical Committee, and Task Force discussing monitoring results for that year, and every third year, to produce a comprehensive report evaluating monitoring results in the context of specific project goals.⁴⁷ Early in the program's history, the Task Force acknowledged that "restoration science is a new field and that many avenues exist for improving monitoring technologies and the associated quality system. Therefore, like the Restoration Plan, the QMP is a 'living' document that can respond to evolving scientific knowledge, restoration technologies and goals for CWPPRA."⁴⁸

In 2003, more than a decade after CWPPRA was passed, the CWPPRA Task Force approved funding for development of the Coastwide Reference Monitoring System ("CRMS"), a compilation of monitoring data measuring various environmental aspects at nearly 400

⁴² Interview with an expert from a national nonprofit working on coastal restoration in the Gulf Coast (Feb. 24, 2020). ⁴³ *Id*.

⁴⁴ Id.

⁴⁵ LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION TASK FORCE, <u>THE 1997 EVALUATION REPORT TO THE U.S. CONGRESS ON THE EFFECTIVENESS OF LOUISIANA COASTAL WETLAND RESTORATION PROJECTS</u> [hereinafter 1997 REPORT TO CONGRESS].

⁴⁶ LOUISIANA DEPARTMENT OF NATURAL RESOURCES, COASTAL RESTORATION DIVISION, <u>QUALITY MANAGEMENT PLAN FOR</u>
<u>COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT MONITORING PROGRAM</u> (Sept. 1995).

⁴⁷ 1997 REPORT TO CONGRESS, *supra* note 45, at 17.

⁴⁸ Id.

stations located throughout Louisiana.⁴⁹ CRMS has served as the primary basis of CWPPRA monitoring since 2007, and provides relevant data for evaluating both project-specific and program-wide impacts and results.⁵⁰ Monitoring data from CRMS are used to (among other things) compile status reports on ongoing projects and basin-wide trends, and may lead to changes to project designs and restoration goals.⁵¹

CWPPRA's Governance of Individual Projects

Each project selected for CWPPRA's PPL is jointly managed and funded by a federal and a state sponsor, with oversight from the Corps-NOD.⁵² The federal sponsor is typically the Task Force member-agency that was assigned to the project during the initial PPL review process, and the local sponsor is usually CPRA, but could also be another representative of the State.⁵³ Priority projects are funded in part by the federal government through the Act, and in part by the local sponsor or other non-federal sources.⁵⁴

Project sponsors begin by completing the engineering and design phase of the project (Phase I), following a detailed, project-specific plan of work, which they design.⁵⁵ Early in Phase I, the sponsors compile a Preliminary Design Report that outlines any revisions they made to the original project design, anticipates costs and impacts, and demonstrates that the sponsoring agencies adequately considered alternative project approaches during the planning stage and were reasonable in settling on the current iteration.

The project then undergoes a "30 percent" design review process where other agencies present feedback on project design and project sponsors respond to and incorporate feedback, and inform the Technical Committee of whether they believe the project should continue through Phase I. The Technical Committee may, upon reviewing the feedback, make its own recommendation regarding whether project sponsors should continue with Phase I. ⁵⁶ If the 30 percent design review process results in Phase I of the project costing more than was originally allocated, or changing any of several aspects of the scope of the project by more than 25 percent

⁴⁹ Coastal Wetlands Planning, Protection and Restoration Act, <u>The 2012 Evaluation Report to the U.S.</u>

<u>Congress on the Effectiveness of Coastal Wetlands Planning, Protection and Restoration Act Projects</u>, at 12 [hereinafter 2012 Report to Congress]; see <u>Coastwide Reference Monitoring System</u>.

⁵⁰ 2015 REPORT TO CONGRESS, supra note 35, at x; 2012 REPORT TO CONGRESS, supra note 49, at 12.

⁵¹ 2006 REPORT TO CONGRESS, *supra* note 10, at 38; Interview with a state government official working on CWPPRA (June 9, 2020).

⁵² Coastal Wetlands Planning, Protection and Restoration Act Program, About CWPPRA: The CWPPRA Legislation, *supra* note 9, at 6.

⁵³ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 2, 5.

⁵⁴ *Id.* (federal funding typically covers 85-90 percent of the project, while local government or other non-federal funding covers the remaining 10-15 percent; for additional information, see Appendix: Federal-Local Cost-Sharing for CWPPRA Projects).

⁵⁵ *Id.* at 15.

⁵⁶ *Id.* at 15-16.

from the original predictions, the project sponsors may need to receive approval from the Technical Committee and Task Force before continuing.⁵⁷

The design review process exists to gather feedback from the engineering community, and primarily serves as a working meeting. 58 Project-specific monitoring plans are also developed, when necessary, during Phase I. 59 Some projects require specific monitoring in addition to what is provided by CRMS. 60

Near the end of Phase I, a "95 percent" review is conducted following largely the same process as the 30 percent review, but based on a Final Design Report.⁶¹ At the conclusion of this review, the project sponsors decide whether to recommend that the project continue to the construction phase, and the Task Force may approve and fund the project for Phase II.⁶² Planning and construction are typically completed in five to seven years, after which project sponsors continue to oversee and monitor their projects for 20 more years.⁶³

When 15 years have passed since the conclusion of construction, project sponsors will advise the Technical Committee as to which end-of-life procedure they believe should be adopted for their particular project.⁶⁴ The sponsors may recommend that the project end, that it be transferred to another program or agency for future management, or that it continue to be managed under CWPPRA.⁶⁵ Depending on which option is ultimately approved by the Task Force, the project may require further funding, or it may cease to be managed under CWPPRA altogether.

CWPPRA projects may be inactivated or deauthorized, and stop being managed or receiving funding under the program either before or after construction begins.⁶⁶ If a project has undergone the 95 percent design review process but not received construction funding, the Task Force may decide to inactivate it.⁶⁷ Upon a project being made inactive, any remaining

⁵⁷ *Id.* at 16.

⁵⁸ Interview with federal agency official with several decades of experience working on various aspects of CWPPRA (Feb. 28, 2020).

⁵⁹ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 4, 16.

⁶⁰ *Id.* at 23; *see*, *e.g.*, Coastal Protection and Restoration Authority of Louisiana, 2012 Operations, Maintenance, And Monitoring Plan for Bioengineered Oyster Reef Demonstration Project (LA-08) (an oyster reef demonstration project selected for PPL 17 required monitoring of specific measures not provided through CRMS in order to determine whether the project was accomplishing its goals); *see*, *e.g.*, Coastal Protection and Restoration Authority of Louisiana, Monitoring Plan for Lake Hermitage Marsh Creation (BA-42) (the project's monitoring plan uses a combination of CRMS data and project-specific measurements to evaluate its progress).

⁶¹ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 18-19.

⁶² Id. at 19-20.

⁶³ *Id.* at 23-24; COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, UNDERSTANDING CWPPRA, *supra* note 34, at 6.

⁶⁴ 2020 STANDARD OPERATING PROCEDURES, supra note 36, at 25.

⁶⁵ Id. at 25, Appendix D.

⁶⁶ *Id.* at 26-27.

⁶⁷ *Id.* at 27.

Phase I funding allocated to it is returned for use in other projects. An inactive project may become active once again in the future if project sponsors request and receive additional project funding.⁶⁸

Once Phase II construction has begun on a CWPPRA project, the project sponsors and/or the chair of the Planning and Evaluation Subcommittee may recommend to the Technical Committee that the project be deauthorized.⁶⁹ The Technical Committee will then make a recommendation to the Task Force regarding deauthorization. If the Technical Committee does not agree that deauthorization is appropriate in a particular case, the project sponsors may make their own recommendation requesting deauthorization directly to the Task Force. After such a request is made, regardless of who makes it, all spending and construction must stop until the matter is resolved. If the Task Force preliminarily approves deauthorization, the Technical Committee must inform relevant state and local officials and landowners so they have an opportunity to raise any concerns at the subsequent Task Force meeting before a final decision is made.⁷⁰ Upon deauthorization, all project spending should cease as soon as possible and project sponsors should document project details in accordance with project close-out procedures.⁷¹

Adaptive Management under CWPPRA - Successes and Areas for Improvement

CWPPRA is generally regarded as a program that has successfully incorporated adaptive management at both the programmatic and project-specific levels.⁷² The following are various aspects of CWPPRA's planning and management process that exemplify different components of adaptive management, as well as observations of areas where additional aspects could be incorporated. CWPPRA may serve as useful guidance for the development of effective adaptive management programs in future coastal restoration programs and projects.

- <u>I. Program-Level Adaptive Management⁷³</u>
- A. Involving interested parties
- Creating a multi-agency decision-making body allows for collaboration on issues that are relevant to numerous specialty areas. A variety of federal and state agencies and

⁶⁸ Id.

⁶⁹ Id. at 26.

⁷⁰ *Id*.

⁷¹ *Id.* at 25, 27.

⁷² One past study that addressed adaptive management in CWPPRA both at the programmatic and project-specific levels was published in 2000. *See* Gregory D. Steyer & Daniel W. Llewellyn, *Coastal Wetlands Planning, Protection, and Restoration Act: A programmatic application of adaptive management,* 15 ECOLOGICAL ENGINEERING 385 (2000) (academic article that "describes the CWPPRA program in Louisiana, and how adaptive management concepts are embedded to aid in achieving the mandates associated with organization structure, planning, implementation, and monitoring," and identifies some lessons learned that are noted in this case study).

⁷³ This section is organized under headings reflecting the various elements of adaptive management identified by CPRA in its 2017 Coastal Master Plan.

offices are represented on the CWPPRA Task Force, each of which specializes in different aspects of coastal restoration.⁷⁴ In bringing together different perspectives to discuss various restoration-related issues throughout the CWPPRA planning process, relevant expertise is raised and considered before decisions are made.⁷⁵ The Task Force "acts as an umbrella for all activities, serves as a clearinghouse for all feedback, and most importantly, combines individual agency agendas into one goal."⁷⁶

• Bringing together interested parties before and during Regional Planning Team meetings to develop project proposals for the annual Priority Project List incorporates different points of view early in the process. The current PPL planning process begins with four RPT meetings, one in each CWPPRA region, during which individuals present project ideas to be considered for the next PPL.⁷⁷ In bringing together federal and state agency officials, local government representatives, and members of the public to propose and discuss project ideas prior to the selection of project nominations, these meetings ensure that anyone who is interested can be involved in the PPL selection process.⁷⁸

While not part of the formal PPL process, the pre-RPT meetings held in several of the regions to create a forum for stakeholders to discuss project ideas and form partnerships in advance of the official regional meetings are also beneficial, because they allow for development of stronger project proposals and may promote more effective spending of limited restoration funds.⁷⁹ Stakeholders that attend these meetings are also less likely to be surprised by the projects that are introduced at the RPT meetings.⁸⁰

sponsor agencies, so they can avoid putting forth duplicative proposals at Regional Planning Team meetings and develop complementary projects that maximize coastal restoration benefits. Coastal restoration stakeholders have observed that agencies often propose similar or overlapping projects at pre-RPT meetings, which seems to indicate that they do not communicate in advance to ensure their projects are unique or to identify opportunities for collaboration. Some suggest that the agencies have incentives

⁷⁴ U.S. Army Corps of Engineers – New Orleans District, Coastal Wetlands Planning, Protection, and Restoration Act, *supra* note 14.

⁷⁵ Steyer & Llewellyn, *supra* note 72, at 385 (discussing "how the formation of the CWPPRA Task Force and associated committees and groups resulted in an integrated coast-wide process for planning, selection, construction, operation, maintenance, monitoring, and scientific evaluation of 84 restoration projects implemented or scheduled for implementation throughout coastal Louisiana.").

⁷⁶ Id. at 387.

⁷⁷ PPL SELECTION PROCESS, *supra* note 33, at 1; *see also* <u>CWPPRA Newsflash: CWPPRA Regional Planning Team</u> Meetings.

⁷⁸ See Steyer & Llewellyn, *supra* note 72, at 390 (referring to prior PPL processes and highlighting the importance of thorough and thoughtful planning).

⁷⁹ Interview with an expert from a national nonprofit working on coastal restoration in the Gulf Coast (Feb. 24, 2020). ⁸⁰ *Id*.

to sponsor projects on their own so the restoration dollars run solely through their individual agencies. However, better communication and collaboration among agency sponsors could lead to better restoration outcomes by increasing the diversity of projects considered, as well as the number of projects that bring about more environmental benefits when constructed together or in close proximity to one another. Collaboration could also allow for better utilization of the range of expertise that staff at different agencies possess in restoration project design. Another CWPPRA expert noted, however, that some competition among agencies may be beneficial, because it keeps parties engaged and facilitates discussion.

• Maintaining an updated website and an active Public Outreach Subcommittee facilitates communication and engagement with interested members of the public, but information could be presented in a more accessible and user-friendly manner. Information about planning processes, meetings, events, and more is made available on the CWPPRA website. Further, the CWPPRA Public Outreach Subcommittee works to share information with the public. He Subcommittee is composed of individuals from multiple federal and state agencies, as well as the Coalition to Restore Coastal Louisiana and Louisiana State University, each of whom bring unique points of view and may suggest varying approaches to outreach. This committee has been more active in the past few years, however still only meets quarterly and does not actively take advantage of the expertise on the committee. With a variety of program-related information being shared with the public, and active outreach efforts being conducted to reach additional stakeholders, the process is transparent and seeks to facilitate engagement with a variety of stakeholders.

While a large volume of CWPPRA-related information is available to the public online, tracking individual projects and locating specific information can be challenging.⁸⁷ Program information is located on two separate websites—one managed by the <u>Army Corps of Engineers</u>, and the other by <u>CWPPRA</u>—making it difficult to locate certain resources that are posted to one site but not the other (for example, RPT meeting information is available on the Corps' site but not on CWPPRA's). Organizing and presenting information in a more streamlined, user-friendly manner would allow interested stakeholders to have easier access. One potential way to present project information in a more effective and interesting manner may be to incorporate interactive

⁸¹ Interview with an expert from a national nonprofit working on coastal restoration in the Gulf Coast (Feb. 24, 2020).

⁸² Interview with a state government official working on CWPPRA (June 9, 2020).

⁸³ Interview with expert who has served on and worked with several CWPPRA workgroups (May 29, 2020).

⁸⁴ COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT, ORGANIZATIONAL CHART, supra note 17.

⁸⁵ Id.

⁸⁶ See Steyer & Llewellyn, supra note 72, at 387, 392-93 (stating "[a]gency consensus without citizen participation and buy-in guarantees failure.").

⁸⁷ Interview with an expert from a national nonprofit working on coastal restoration in the Gulf Coast (Feb. 24, 2020).

maps, for example. The CWPPRA Outreach team is hoping to unveil a revamped website in 2020.88

- Providing a forum for public comment at quarterly Task Force and Technical Committee meetings allows for regular feedback from stakeholders. The Task Force and Technical Committees meet throughout the year to evaluate PPL project nominees and make other funding and management decisions for ongoing CWPPRA projects. Phese meetings are open to the public and provide opportunities for public comment, and meeting minutes and materials are shared online following the meetings. Thus, stakeholders can participate in meetings, provide feedback to decision makers before decisions are made, and stay up-to-date on program developments.
- Regional Planning Team, Technical Committee, and Task Force meetings should be livestreamed indefinitely so interested parties that are not able to attend in-person can continue to watch and participate remotely. CWPPRA's in-person meetings have historically allowed stakeholders to observe and participate in the project selection and funding processes. In response to the COVID-19 pandemic, CWPPRA moved its in-person meetings online. In addition to refining its virtual meeting procedures to maximize access and opportunities for public comment during the current public health crisis, CWPPRA should consider permanently adding a virtual option to all its public meetings. This could further expand public participation and allow interested parties to take part who would not otherwise be able to attend.
- Providing opportunities for public comment during the planning process, after the Regional Planning Team meetings but before the Technical Committee and Task Force meetings where final selection and funding recommendations are developed and decisions are made, may allow for more meaningful public participation. While the current CWPPRA process allows members of the public to comment at Technical Committee and Task Force meetings before the Task Force ultimately decides whether specific projects will be selected and funded, these decisions may be all but finalized prior to those meetings.⁹¹ Offering additional opportunities to gather feedback from stakeholders while CWPPRA workgroups and subcommittees are considering impacts

⁸⁸ Delta Dispatches, Restore the Mississippi River Delta, Come out to Cook-Off for the Coast on February 8th! (Jan. 31, 2020) (one guest on this podcast episode was Jennifer Guidry, CWWPRA Outreach Manager, who discussed several CWPPRA outreach initiatives planned for 2020).

 $^{^{89}}$ Coastal Wetlands Planning, Protection, and Restoration Act, Organizational Chart, supra note 17.

⁹⁰ US Army Corps of Engineers – New Orleans District, Meeting Documents, *supra* note 20; *see also* CWPPRA Task Force Meeting Minutes, May 24, 2018, *supra* note 21.

⁹¹ CPRA, the Louisiana agency representing the state on the CWPPRA Task Force, thoroughly vets projects prior to the Technical Committee and Task Force meetings to determine which projects the agency supports. The current CPRA representative on the Technical Committee indicated that while all of the agencies do substantial work reviewing projects prior to these meetings, they do take public comment into consideration, and public comment does sometimes influence the outcomes of votes (Interview with a state government official working on CWPPRA (June 9, 2020)).

- and evaluating costs, in advance of the Technical Committee and Task Force meetings, will increase the likelihood that such feedback is meaningful and will influence project and program outcomes.
- Involving members of the public in the 30 and 95 percent review processes during Phase I could allow for incorporation of more diverse feedback on specific aspects of engineering and design. The current process allows for public participation leading up to the selection of projects that will receive funds to undergo Phase I engineering and design, and once again when Phase II funding is allocated. However, there is little opportunity for public participation during Phase I planning, when the Technical Committee's workgroups are further developing specific project details. Allowing stakeholders, including nongovernmental organizations, landowners and coastal restoration experts that are not members of the various CWPPRA workgroups, to contribute and raise concerns about different aspects of project designs could result in the use of restoration techniques or approaches not ordinarily considered by the workgroups.
- Sharing the list of Phase II projects being considered for funding in a particular year could help facilitate more meaningful participation at Technical Committee and Task **Force meetings on this topic.** While the Phase I project selection and funding process is fairly transparent and offers several opportunities for public participation in proposing and selecting projects that will go through CWPPRA's engineering and design phase, the Phase II process is mostly facilitated internally. Project sponsors submit applications for Phase II funding to the Technical Committee in advance of the December and January meetings, but members of the public do not find out what projects are being considered until the draft agenda for the Technical Committee meeting is released, usually a few days before the meeting. ⁹² Their opportunity to comment on the proposals at the Technical Committee meeting comes several days later, leaving them little time to prepare comments, much less familiarize themselves with the projects. The Technical Committee could allow for more meaningful, well-developed public feedback on Phase II candidates by publicly releasing the lists of projects for which it has received applications more than a few days in advance of the relevant Technical Committee meetings.
- B. Defining the scope of the program
- The main goal of CWPPRA, reiterated in various program documents, is to facilitate coastal restoration in Louisiana. The CWPPRA legislation itself, as well as the numerous plans and reports created for and about the program, make clear that

14

⁹² See, e.g., <u>CWPPRA Technical Committee Meeting Draft Agenda</u>, Dec. 5, 2019 (The draft agenda, which listed the projects being considered for Phase II funding, was posted on December 2, three days prior to the December 5 meeting).

CWPPRA was created to contribute to coastal restoration efforts in Louisiana.⁹³ One report defined the Task Force's role in CWPPRA to include "implementing a science-and engineering-based program that extensively engages stakeholders and the public and serves as the Nation's model for effective and efficient coastal restoration."⁹⁴ This goal provides guidance for agencies selecting and carrying out projects,⁹⁵ and allows stakeholders to hold program officers and project sponsors accountable as they work to achieve that goal.

CWPPRA's focus has adapted to changing conditions and new challenges arising along the Gulf Coast. While maintaining the overarching goal of coastal restoration, the program has gone through several changes in response to current events in order to continue to address pressing issues and complement other restoration efforts. 96 For example, following Hurricanes Katrina and Rita, CWPPRA leadership prioritized restoring wetlands, particularly those near population centers like New Orleans.⁹⁷ Similarly, when additional coastal restoration programs were developed and funded in response to the *Deepwater Horizon* oil spill that were better suited to oversee larger-scale, more expensive restoration projects, CWPPRA began focusing more on shoreline protection, marsh creation, small-scale diversions, and other similar projects. Further, some projects developed under CWPPRA are transferred to other coastal restoration programs for funding and construction. By adjusting to changing circumstances to address new needs and needs not addressed by other programs, and serving as an "incubator" that allows for planning of coastal restoration projects that are later funded under other programs, 98 CWPPRA has continued to be a valuable restoration program in the Gulf and remains the backbone of Louisiana's coastal program.99

C. Incorporating procedures for predicting project impacts

• Extensive review of nominated PPL projects by Technical Committee subcommittees and workgroups prior to their final selection allows for thorough evaluation of anticipated impacts. The PPL process requires that each project under consideration be thoroughly developed by its agency sponsors, and that projected costs and environmental benefits be evaluated. This development occurs, in part, based on site

⁹³ See, e.g., 2006 REPORT TO CONGRESS, supra note 10, at 1 (see "CWPPRA Mission Statement").

⁹⁴ Id.

⁹⁵ Steyer & Llewellyn, *supra* note 72, at 390 (explaining that "[c]lear goals and objectives provide the appropriate boundaries necessary to make decisions and to expand the number of alternatives available to achieve the objectives.").

⁹⁶ Interview with federal agency official with several decades of experience working on various aspects of CWPPRA (Feb. 28, 2020).

⁹⁷ Id.

⁹⁸ Delta Dispatches, supra note 88.

⁹⁹ Interview with federal agency official with several decades of experience working on various aspects of CWPPRA (Feb. 28, 2020); Interview with a state government official working on CWPPRA (June 9, 2020).

¹⁰⁰ PPL SELECTION PROCESS, *supra* note 33, at 3.

visits organized by the sponsor agencies so that workgroup and committee members can observe the characteristics of the proposed project locations and accurately predict wetland benefits. ¹⁰¹ The Technical Committee makes its recommendations and the Task Force selects PPL projects based on a variety of factors, one of which is the environmental benefits expected to result from the project, as quantified by the Environmental Workgroup and the Academic Advisory Group through their project-specific Wetland Value Assessments ("WVAs"). ¹⁰² This thorough review process ensures that decisions are made based on the best information available at the time. ¹⁰³

• Updating methodologies to reflect any scientific and/or modeling developments would help ensure that impacts are calculated as accurately as is currently possible. In conducting WVAs, the Environmental Workgroup was once guided by its Wetland Value Assessment Methodology Procedural Manual. 104 It has since updated the WVA methodologies for each habitat type to include the necessary procedures so the Procedural Manual could be retired, and the methodologies can be used as stand-alone documents. 105 The marsh WVA methodology, which is the methodology most commonly used by the workgroup, was updated in late 2019, but the barrier headland, barrier island, bottomland hardwoods, coastal chenier, and swamp methodologies were last updated in early 2012. 106 The workgroup should consider updating these models to reflect the best models and information available today.

D. Identifying and accounting for uncertainties

• Phasing project funding allows for reassessment of project details before project construction begins, and accounts for uncertainties related to program funding. After projects are selected for the PPL, they receive Phase I funding in order to conduct additional design-related activities. 107 Prior to receiving Phase II funding, which is reserved for construction and post-construction activities, project sponsors must request consideration by and approval from the Technical Committee and Task Force once again, this time based on a more complete and certain project design. 108 At this point,

¹⁰¹ *Id*.

¹⁰² *Id.*; see also Coastal Wetlands Planning, Protection and Restoration Act, <u>Wetland Value Assessment</u> <u>Methodology: Procedural Manual</u> (2006), at 1 (for additional information on how WVAs fit into the PPL selection process, see Appendix: Priority Project List ("PPL") Selection Process).

¹⁰³ At one point, the PPL selection process spanned two years. Incorporating flexibility into planning processes to make sure there is enough time and resources to complete these tasks before moving to implementation is one example of adaptive management. *See* Steyer & Llewellyn, *supra* note 72, at 390.

¹⁰⁴ Coastal Wetlands Planning, Protection and Restoration Act, Wetland Value Assessment Methodology: Procedural Manual, *supra* note 94.

¹⁰⁵ Interview with federal agency official with several decades of experience working on various aspects of CWPPRA (Feb. 28, 2020).

¹⁰⁶ *Id*. Current versions of the models are available here.

 $^{^{107}}$ 2020 Standard Operating Procedures, supra note 36, at 4.

¹⁰⁸ *Id.* at 19.

based on the current status of CWPPRA program funding and the project's funding demands, the Task Force may decline to fund project construction if insufficient funds are available for all projects that have completed Phase I, and the project may be declared inactive and can potentially be transferred to another program for funding.¹⁰⁹

In this way, the Task Force accounts for uncertainties in funding demands and availability, caused by uncertainties in project design and the number of projects it simultaneously manages and funds, by granting funding as it is needed. Meanwhile, other programs may make up for CWPPRA's funding uncertainties, in certain cases, by providing funding for CWPPRA projects that have completed Phase I but not received Phase II funding, but which are fully designed and ready to begin construction.

One potential challenge of this funding process, however, is that it requires all funding requests to be received by a particular date so different projects can be considered simultaneously. While this allows the decisionmakers to consider all their present options at once when determining which projects should receive limited funds, it may also cause delays to projects for which sponsors are prepared to request Phase II funding months in advance of the annual funding meeting. One state official noted that this is generally not a major issue for CWPPRA projects, but may be a concern if construction windows under certain permits close before funding is available, for example. 112

• Limiting the number of times or the length of time that project sponsors can apply for Phase II funding before a project is updated and/or feedback is received may result in fewer projects being repeatedly denied funds for construction. Under existing procedures, project sponsors submit applications for Phase II funding to the Technical Committee for consideration at the December Technical Committee and January Task Force meetings. Given funding limitations, not all projects that apply for Phase II funding will receive it each year. If a project does not receive Phase II funding, and is not funded under another program, the project sponsors may reapply for Phase II funding in future years without limitation. In some cases, project sponsors have continued to apply for Phase II funding as long as nearly a decade after projects are selected for Phase I. Projects need to incorporate the latest information on changing

¹⁰⁹ Id. at 27.

¹¹⁰ Id. at 20.

¹¹¹ 2015 REPORT TO CONGRESS, *supra* note 35, at ix ("The CWPPRA project development and selection process generates more construction-ready projects than the program can afford to build. These 'shovel ready' projects are available to other programs for expedited implementation. Some CWPPRA projects (e.g., Chenier Ronquille Barrier Island Restoration, Scofield Island Restoration, and Lake Hermitage Marsh Creation) have already been targeted for implementation or expansion with DWH [Deepwater Horizon]-related funds.")

¹¹² Interview with a state government official working on CWPPRA (June 9, 2020).

¹¹³ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 20-21.

¹¹⁴ *Id*.

conditions and outcomes. While some projects do receive Phase II funding,¹¹⁵ it may be beneficial to impose mandatory reassessment of projects that have been denied funding multiple times to ensure they are based on up-to-date environmental conditions, current restoration needs, and accurate funding estimates.

The Phase II funding process could be altered to limit the number of years in which project sponsors can apply for Phase II funding for a particular project, or the number of years that can pass between when Phase I is completed and when Phase II funding is sought, before they must reassess the project design and ensure it is still relevant and based on current information before reapplying. Further, a requirement that the Technical Committee and/or Task Force provide feedback explaining the reasoning for repeated denials of funding for a project could help direct the reassessment and adjustments to project design, and ensure the project aligns well with current CWPPRA and state coastal restoration goals. Projects may then have to go through further engineering and design procedures before seeking Phase II funding again.

E. Developing a plan

• Coordinating CWPPRA processes with Louisiana's current coastal restoration and preservation plans aligns CWPPRA with state goals and ensures that coastal restoration resources are used efficiently. CWPPRA required the development of state restoration and conservation plans. The Both were developed; the restoration plan was approved by Congress in 1993, and the conservation plan by the relevant federal agencies in 1997. However, over time, as Louisiana developed additional coastal restoration programs and numerous other planning documents, the Task Force aligned its goals and operations with other relevant programs. For example, the CWPPRA Task Force replaced its existing restoration plan with Louisiana's Coast 2050 Plan,

¹¹⁵ See, e.g., the <u>LaBranche East Marsh Creation</u> and <u>Cameron-Creole Freshwater Introduction CU 2</u> projects.

¹¹⁶ Coastal Wetlands Planning, Protection and Restoration Act § 303, 16 U.S.C. § 3952(b) (1990) (stating "[t]he purpose of the restoration plan is to develop a comprehensive approach to restore and prevent the loss of, coastal wetlands in Louisiana."); Coastal Wetlands Planning, Protection and Restoration Act § 304, 16 U.S.C. § 3953 (1990) (stating "[i]f a conservation plan is developed pursuant to this section, it shall have a goal of achieving no net loss of wetlands in the coastal areas of Louisiana as a result of development activities initiated subsequent to approval of the plan, exclusive of any wetlands gains achieved through implementation of section 3952 of this title."); Steyer & Llewellyn, *supra* note 72, at 389-90.

¹¹⁷ LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION TASK FORCE, THE 2000 EVALUATION REPORT TO THE U.S. CONGRESS (2000), at 22 (discussing the approval of the 1997 Conservation Plan); COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, CARING FOR COASTAL WETLANDS, *supra* note 9 (discussing the preparation of the 1993 Restoration Plan); *see also* Louisiana Coastal Wetlands Conservation and Restoration Task Force, Louisiana Coastal Wetlands Restoration Plan: Main Report and Environmental Impact Statement (Nov. 1993). 118 See Steyer & Llewellyn, *supra* note 72, at 390.

developed in 1998, thereby coordinating CWPPRA's coastal restoration work with state programs.¹¹⁹

Similarly, when CPRA developed the 2012 Coastal Master Plan, the Task Force amended its PPL selection process to require that all proposed projects comply with the Master Plan. ¹²⁰ The same requirement now applies to the 2017 Coastal Master Plan. ¹²¹ In aligning CWPPRA's goals to those of state restoration programs, the Task Force ensures that CWPPRA funds are spent on projects that enhance, and do not duplicate or interfere with, other state efforts. As such, the state has an important role in determining what types of CWPPRA projects will be prioritized, since projects must be consistent with the state's Master Plan.

- Annual PPLs provide up-to-date plans for new CWPPRA projects. The PPL provides a
 program-level plan, outlining the projects that will receive Phase I funding under
 CWPPRA in a particular year.¹²² If these projects complete Phase I prior to the next
 January Task Force meeting, they may be placed on the list for consideration for Phase II
 funding.¹²³ A comprehensive database of CWPPRA projects at different phases and
 statuses is available on the CWPPRA website.¹²⁴
- CWPPRA Task Force, Technical Committee, subcommittee, and workgroup members should, in their respective analyses, identify any cost savings that could be achieved by building related or adjacent restoration projects simultaneously. Given that CWPPRA projects are all located along the Louisiana coast, they are sometimes sited in close proximity to other projects being developed and funded under the program (or in some cases, near completed CWPPRA projects). As part of the environmental and economic analyses prepared for each candidate project, agency staff should consider any additional environmental and economic benefits or impacts that may come from planning and constructing projects that are located close to one another at the same time, whether funded by CWPPRA or another source. Cost savings on construction equipment and labor may make specific projects more cost-effective than originally estimated and could leave additional funds available for other CWPPRA projects.

F. Monitoring results

 Creating and maintaining CRMS allows for consistent monitoring of numerous variables across the coast, but this monitoring data could be better utilized to optimize restoration efforts. The CWPPRA Task Force was proactive in their decision to

¹¹⁹ Green, M., COASTAL RESTORATION ANNUAL PROJECT REVIEWS (Dec. 2006), at 3.

¹²⁰ 2015 Report to Congress, *supra* note 35, at 13.

¹²¹ PPL SELECTION PROCESS, *supra* note 33, at 1.

¹²² Id at 3

¹²³ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 20.

¹²⁴ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, CWPPRA PROJECTS, *supra* note 13.

fund a coastwide monitoring system in 2003, and CWPPRA agencies began relying on CRMS data to evaluate impacts and compile progress reports in 2007.¹²⁵ CRMS data provides a clearer picture of whether a project is having positive results because it allows for comparison of numerous factors across many locations along the coast, as opposed to the previous CWPPRA monitoring method, which required selecting a single control site that had not yet been restored to compare environmental outcomes.¹²⁶ Because the CRMS system provides measurements of multiple variables across numerous sites going back over 20 years, individuals can draw conclusions about project-specific impacts from projects managed under CWPPRA and other coastal restoration programs, and monitor coastal trends and restoration progress more generally.¹²⁷ This knowledge can then shape the selection of future CWPPRA projects to ensure they address observed wetland characteristics and challenges.¹²⁸

In practice, however, it is not clear that CRMS data is being synthesized regularly and used to manage individual CWPPRA projects adaptively based on monitoring results. In late 2019, CPRA compiled a report summarizing monitoring data for the Calcasieu-Sabine Basin and describing the basin's ecological status.¹²⁹ The report also discussed several types of restoration projects that might be best for the area given the challenges highlighted by the data.¹³⁰ This style of report should be prepared with regularity for each basin to guide restoration work and ensure it is proceeding as effectively as possible. CPRA has plans to continue doing this type of analysis for more basins.¹³¹ The findings will influence the ongoing management of existing projects and drive the types of restoration projects the agency supports for future development.¹³²

G. Assessing data and amending processes

• Preparation of a progress report to Congress on the program's effectiveness facilitates the regular assessment of both program-wide and project-specific impacts. CWPPRA requires that the Task Force prepare a progress report every three years on the effectiveness of the program up to that point, and submit it to Congress. ¹³³ In its most

¹²⁵ 2012 REPORT TO CONGRESS, *supra* note 49, at 12; 2015 REPORT TO CONGRESS, supra note 35, at x; *see* COASTWIDE REFERENCE MONITORING SYSTEM, *supra* note 49; *see* Steyer & Llewellyn, *supra* note 72, at 392 (discussing pre-CRMS CWPPRA monitoring, the development of CRMS, and the importance of comprehensive data gathering and sharing for adaptive management).

¹²⁶ Interview with expert who has served on and worked with several CWPPRA workgroups (May 29, 2020) (noting that it was not always easy to find comparable sites, and as time went on, to find sites that were not also being restored).

¹²⁷ Steyer & Llewellyn, *supra* note 72, at 392.

¹²⁸ Id.

¹²⁹ CPRA, 2019 Basin Summary Report for the Calcasieu-Sabine Basin (Dec. 20, 2019).

¹³⁰ *Id*. at 52.

¹³¹ Interview with a state government official working on CWPPRA (June 9, 2020).

¹³² Id.

¹³³ Coastal Wetlands Planning, Protection and Restoration Act § 303, 16 U.S.C. § 3952(b)(7) (1990).

recent Report to Congress, the Task Force evaluated overall programmatic impacts, and observed impacts resulting from certain basin-specific and coastwide projects. ¹³⁴ While the reports are prepared with Congress in mind, their preparation ensures that project impacts are routinely monitored and assessed by the Task Force, and the reports are made available more broadly to the public through the CWPPRA website. ¹³⁵

- Revising the Standard Operating Procedures to reflect current processes and make improvements to program operations allows for procedural transparency. The CWPPRA Standard Operating Procedures provide detailed guidance to CWPPRA agencies and other parties on program and project-specific definitions, processes, and more. Any revisions must be approved by the Technical Committee during one of its meetings, and if the changes are significant, the Task Force must approve them as well. The most recent Procedures were developed in 2020 and constituted their 27th revision. The previous revision was released in 2019. The number of revisions made to the procedures in the 30 years since the Act was enacted suggests that the procedures are amended at a rate of almost once a year.
- Allowing for changes in operating procedures and meeting schedules as deemed
 necessary allows for the program's governance structure to remain effective, but it
 might be even more productive if the public could provide input on these procedural
 changes as well. The Task Force reflects upon the effectiveness of its PPL selection
 process each year, and decides whether or not it should be amended.¹⁴⁰ This process
 could be further improved by facilitating public feedback on the effectiveness of the
 process, and considering suggestions from outside the Technical Committee and Task
 Force for potential reforms.
- Requiring more frequent turnover in the members serving on different subcommittees and workgroups could allow for incorporation of additional, diverse expertise and points of view.¹⁴¹ While there are benefits to having longstanding members in CWPPRA workgroups because they have developed a comprehensive understanding of the program and historical knowledge of CWPPRA projects and restoration efforts more generally, there may also be benefits to introducing new

¹³⁴ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA), <u>THE 2018 EVALUATION REPORT TO THE U.S. CONGRESS ON THE EFFECTIVENESS OF COASTAL WETLANDS, PLANNING, PROTECTION AND RESTORATION ACT PROJECTS</u> (2018) [hereinafter 2018 REPORT TO CONGRESS].

¹³⁵ See Coastal Wetlands Planning, Protection and Restoration Act, <u>CWPPRA Reports</u>; see also Steyer & Llewellyn, supra note 72, at 392-93.

¹³⁶ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 2.

¹³⁷ Id. at 28.

¹³⁸ *Id.* at 2.

¹³⁹ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA), <u>STANDARD OPERATING PROCEDURES</u> (Revision 24, 2014).

¹⁴⁰ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 12.

¹⁴¹ Interview with expert who has served on and worked with several CWPPRA workgroups (May 29, 2020).

members who bring a diversity of experiences and expertise to their work. Further, allowing for the involvement of more coastal restoration-focused academics, scientists, economists, engineers, and others may increase awareness of CWPPRA within the broader public as former workgroup members move on to other jobs and projects, sharing knowledge and experiences developed from working with the program in other contexts. The Task Force and working groups should also focus on engaging representatives of the underprivileged and minority populations along the coast.

II. Project-Specific Adaptive Management

A. Implementing the project

• Project sponsors develop detailed construction and monitoring plans during Phase I that provide clear direction for implementation during Phase II. The thorough design and evaluation process that occurs prior to a project's selection for the PPL, combined with the extensive project review procedures that must be followed during Phase I design and engineering, result in creation of a detailed and well-reviewed plan by the time a project enters Phase II and begins construction. Stakeholders have the opportunity to shape project design by participating in the PPL selection process, the Technical Committee and Task Force meetings in which the project is considered for PPL selection and Phase I funding, and again at the meetings considering whether the project should receive Phase II funding. Further, certain agency stakeholders may have an opportunity to participate in the 30 or 95 percent project review procedures undertaken after a project receives Phase I funding and sponsors are developing design and engineering plans. Once Phase II construction begins, interested parties may reference design documents available online to learn more about project parameters and evaluate whether the project is progressing as planned.

B. Monitoring operations

• Developing project-specific monitoring plans and requiring submission of regular monitoring reports allows for routine assessment of coastal restoration progress, but more could be done to facilitate adaptive management in ongoing and future projects based on these reports. In addition to the coastwide monitoring that is made possible by CRMS, projects are also monitored individually in order to compare actual results with anticipated impacts.¹⁴⁴ This information can form the basis for project-specific adaptive management review, and lead to operational changes being made to try to improve project performance. This is particularly true in the case of projects that require active management or regular "operational manipulation of structures to achieve their goals,"

¹⁴² PPL SELECTION PROCESS, supra note 33.

¹⁴³ 2020 STANDARD OPERATING PROCEDURES, supra note 36, at 15-16, 18-19.

¹⁴⁴ Id. at 13.

like sediment diversions. ¹⁴⁵ Further, close monitoring of demonstration projects can reveal whether certain approaches are having positive impacts and should be utilized in longer-term projects. ¹⁴⁶

In practice, however, the level of technical analysis included in monitoring reports varies, and there does not seem to be a requirement or procedure to facilitate the incorporation of lessons learned from ongoing projects into the planning and management of future projects. It may be helpful to adopt a process that requires project sponsors to identify areas for improvement and explain them in a section of their reports, based on monitoring results, and list actions they will take to make their operations more effective as a result. The Technical Committee and its workgroups could consult with project sponsors to identify approaches to try to improve outcomes as needed, collect and document lessons learned to apply to future projects, and monitor reporting to ensure this requirement is satisfied for all active CWPPRA projects. While this may create a modest administrative burden, depending on the nature of the monitoring results, it may be worthwhile in order to ensure projects are operating as efficiently and effectively as possible, and that lessons learned are documented, referenced, and incorporated into future planning efforts.

- Requiring monitoring of projects for 20 years after construction allows for observation of long-term impacts. Project sponsors are responsible for managing their projects for 20 years after construction is completed. When project sponsors recommend what they believe to be the best end-of-life option for their project to the Technical Committee, which makes a recommendation to the Task Force before it votes, it provides an opportunity for project sponsors and the CWPPRA management more broadly to evaluate the past and ongoing impacts of the project, and evaluate whether it is cost-effective to continue operating. This process may also provide useful information for planning similar projects in the future.
- C. Recommending changes and revising operational plans
- Increasing the frequency of project-specific adaptive management reviews for CWPPRA projects could allow for better incorporation of lessons learned in ongoing and future planning efforts. In 2002, the CWPPRA Task Force, Technical Committee, and Planning and Evaluation Subcommittee conducted an adaptive management review of a variety of CWPPRA projects, as well as some non-CWPPRA coastal restoration projects. The stated goals of the review were to: "(1) improve the linkages among

¹⁴⁵ Steyer & Llewellyn, *supra* note 72, at 390-92 (also describing a demonstration project that was canceled after monitoring data indicated it was not having anticipated vegetation growth impacts).

¹⁴⁶ Id. at 390 ("Small-scale demonstration projects are also implemented to test innovative techniques.").

¹⁴⁷ 2020 STANDARD OPERATING PROCEDURES, supra note 36, at 24-25; see Steyer & Llewellyn, supra note 72, at 391.

¹⁴⁸ 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 24-25.

¹⁴⁹ Richard Raynie & Jenneke Visser, <u>CWPPRA ADAPTIVE MANAGEMENT REVIEW: FINAL REPORT</u> (2002).

planning, engineering and results monitoring, (2) document changes made to the project in the different phases of project development and implementation, (3) recommend any changes that could improve the project and (4) learn from implemented projects so that future projects can be improved."¹⁵⁰

Based on the findings of five working groups that evaluated different aspects of five distinct categories of restoration projects, the authors identified recommendations to improve the design and management of these types of projects in the future. Further, the report offered recommendations for changing programmatic procedures and requirements based on its findings. Undertaking a similar review of adaptive management practices in current projects, and incorporating adaptive management into other CWPPRA processes to avoid the need for such large, comprehensive studies, could inform future project design and implementation and increase the effectiveness of CWPPRA's coastal restoration efforts.

¹⁵⁰ *Id.* at 2.

¹⁵¹ *Id.* at 5.

¹⁵² Id. at 33-36.

APPENDIX — ADDITIONAL DETAILS ON CPRA AND CWPPRA PROCESSES

CPRA's Adaptive Management Funding Sources

CPRA received over \$13 million from the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund to implement adaptive management in the context of river diversions and barrier island restoration projects. On top of that, CPRA received roughly \$60.9 million under the Spill Impact Component of the RESTORE Act to fund adaptive management efforts.

Funding Non-Louisiana Coastal Restoration Projects under CWPPRA

In addition to supporting coastal restoration in Louisiana, the Act designates 30 percent of its annual funding to coastal restoration projects in other states.¹⁵⁵ CWPPRA grants the U.S. FWS the authority to allocate CWPPRA funding, in quantities not to exceed nonfederal contributions, to support projects selected under the National Coastal Wetlands Conservation Grant Program¹⁵⁶ and the North American Wetlands Conservation Act that support the goals of CWPPRA.¹⁵⁷

Funding CWPPRA

CWPPRA requires annual funding, and is typically allocated between \$30 million and \$80 million from the Sport Fish Restoration and Boating Safety Trust Fund. 158 The Corps-NOD predicted that Louisiana would receive \$72.8 million in federal CWPPRA funding for fiscal year 2021. 159 The most recent amendment to the Dingell-Johnson Sport Fish Restoration Act provides funding for CWPPRA through fiscal year 2021, 160 and a bill introduced in October 2019 proposes further extending CWPPRA's funding through fiscal year 2024. 161 Up to five million

¹⁵³ National Fish and Wildlife Foundation, Gulf Environmental Benefit Fund, Adaptive Management: Louisiana River Diversions & Barrier Islands, *supra* note 1.

¹⁵⁴ LA COASTAL MASTER PLAN, *supra* note 6, at 130.

¹⁵⁵ Coastal Wetlands Planning, Protection and Restoration Act § 306, 16 U.S.C. § 3955(b)-(c) (1990); U.S. Army Corps of Engineers – New Orleans District, <u>Abbreviated Summary of CWPPRA</u>, at 1; Coastal Wetlands Planning, Protection and Restoration Act, Caring for Coastal Wetlands, *supra* note 9.

¹⁵⁶ Coastal Wetlands Planning, Protection and Restoration Act § 305, 16 U.S.C. § 3954 (1990).

¹⁵⁷ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, CARING FOR COASTAL WETLANDS, *supra* note 9; Coastal Wetlands Planning, Protection and Restoration Act § 306, 16 U.S.C. § 3955 (1990).

¹⁵⁸ The Sport Fish Restoration Act requires the collection of taxes and duties on various fishing and boating-related supplies and fuel, collected in the Sport Fish Restoration and Boating Trust Fund, which is then used to fund different programs which require specific quantities of annual funding. A percentage of the funds that remain (18.5 percent) are then allocated to CWPPRA. U.S. FISH & WILDLIFE SERVICE, SPORT FISH RESTORATION ACT FUNDING CHART (2009); see also U.S. ARMY CORPS OF ENGINEERS – NEW ORLEANS DISTRICT, FACT SHEET: THE COASTAL WETLANDS PLANNING, PROTECTION & RESTORATION ACT (CWPPRA) PROGRAM, supra note 34.

¹⁵⁹ U.S. Army Corps of Engineers – New Orleans District, Coastal Wetlands Planning, Protection, and Restoration Act, *supra* note 14.

¹⁶⁰ 16 U.S.C. § 777c(a)(1) (2015).

¹⁶¹ Sport Fish Restoration and Recreational Boating Safety Act of 2019, H.R. 4828, 116th Cong. (2019).

dollars from the annual budget is dedicated to planning expenses, and the remainder is used for project development and implementation. 162

2020 Cash-Flow Funding Schedule

For the 2020 project selection and funding cycle, Phase II project approvals and funding requests are scheduled to be considered by the Technical Committee in December 2020, and by the Task Force in January 2021, at the same time as the PPL project selection and Phase I funding decisions. The Task Force generally makes major funding decisions at its October and January meetings, but it assesses the effectiveness of these procedures each year and may change its procedures or timeline as needed. It holds additional meetings throughout the year, at least quarterly, and potentially more frequently if needed, to discuss requests for additional funding for projects already underway, as well as other miscellaneous issues.

Priority Project List Selection Process

CWPPRA projects are first chosen through the PPL selection process. The process begins at the local level, with local government and CWPPRA agency representatives forming regional planning teams and holding public meetings to develop potential CWPPRA projects in their basins. ¹⁶⁶ Projects can be proposed by members of the public and local, state, and federal government agencies. ¹⁶⁷ In practice, most projects are proposed by agencies, but they may be based on ideas that were introduced by stakeholders and will be ushered through the planning process by agency officials. ¹⁶⁸ Further, while agencies tend to sponsor projects independently, they communicate with representatives from other agencies to make sure they are not developing the same projects. ¹⁶⁹ While some say that agencies communicate prior to project selection to reduce the redundancy of the projects they propose, ¹⁷⁰ others would like to see more collaboration between agencies in developing joint projects in order to reduce costs and

¹⁶² Larger coastal restoration projects are typically funded under the Louisiana Coastal Area (LCA) program, which receives more funding and allows for large-scale projects. U.S. ARMY CORPS OF ENGINEERS – NEW ORLEANS DISTRICT, COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT, *supra* note 14; *see also* 2020 STANDARD OPERATING PROCEDURES, *supra* note 36 (stating that a maximum of five million dollars is allocated for planning each year and any remaining funds may be re-allocated during the following year).

¹⁶³ PPL SELECTION PROCESS, *supra* note 33, at 11-12.

¹⁶⁴ 2020 Standard Operating Procedures, *supra* note 36, at 4.

¹⁶⁵ U.S. Army Corps of Engineers – New Orleans District, Coastal Wetlands Planning, Protection, and Restoration Act Desk Reference, *supra* note 19, at 37; 2020 Standard Operating Procedures, *supra* note 36, at 36 (for example, project sponsors request additional funds for certain operations in advance of the October Task Force meeting).

¹⁶⁶ PPL SELECTION PROCESS, *supra* note 33, at 1 (each region is composed of one or more of Louisiana's coastal basins); *see also* U.S. ARMY CORPS OF ENGINEERS – NEW ORLEANS DISTRICT, FACT SHEET: THE COASTAL WETLANDS PLANNING, PROTECTION & RESTORATION ACT (CWPPRA) PROGRAM, *supra* note 34.

¹⁶⁷ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, UNDERSTANDING CWPPRA, *supra* note 34, at 5. ¹⁶⁸ Interview with federal agency official with several decades of experience working on various aspects of CWPPRA (Feb. 28, 2020).

¹⁶⁹ *Id*.

¹⁷⁰ Id.

improve their likelihood of receiving funding.¹⁷¹ Proposed projects are also reviewed by CPRA to ensure that they are consistent with the Coastal Master Plan, and do not overlap with other projects under consideration.¹⁷²

Following the meetings, RPT members have time to consult and reflect, and the eligibility of any coastwide or demonstration projects is verified under the terms of CWPPRA.¹⁷³ Then a single representative from each agency and parish, as well as one from the state, will vote on which region-specific projects should receive nominations and move forward for the Task Force's consideration for the PPL.¹⁷⁴ Demonstration projects are proposed at the same RPT meetings, but are voted on separately at a single meeting where all demonstration projects proposed from across the coast are considered.¹⁷⁵ Depending on the parish, the voting representative may poll stakeholders to decide how to vote, or may instead rely on the coastal zone management committee's recommendations.¹⁷⁶

Once the RPTs select project nominations, typically 22 in total, the Technical Committee chooses 10 projects (in addition to as many as three demonstration projects) to be further reviewed and designed by the Environmental, Economics, and Engineering Workgroups, as well as the Academic Advisory Group and the Planning and Evaluation Subcommittee. ¹⁷⁷ Each group evaluates different aspects of the projects, makes adjustments or adds specific details to the project designs, and reports its findings back to the Technical Committee. ¹⁷⁸ During this process, the responsible CWPPRA agency develops, and the Environmental Workgroup and the Academic Advisory Group review, Wetland Value Assessments ("WVAs") in which agencies anticipate the potential wetland benefits of particular projects across a variety of habitat types, including marshes, barrier islands, and swamps. ¹⁷⁹

Roughly 10 months after the RPTs vote to nominate projects, the Technical Committee meets to consider the information produced by its subcommittees and workgroups and select as many as four "candidate projects" (and one demonstration project, if it so chooses) to refer to the Task Force. ¹⁸⁰ A month after the Technical Committee makes its recommendations, the Task

¹⁷¹ Interview with an expert from a national nonprofit working on coastal restoration in the Gulf Coast (Feb. 24, 2020).

¹⁷² Interview with federal agency official with several decades of experience working on various aspects of CWPPRA (Feb. 28, 2020).

¹⁷³ PPL SELECTION PROCESS, *supra* note 33, at 2.

¹⁷⁴ *Id*.

¹⁷⁵ 2020 Standard Operating Procedures, *supra* note 36, at 37.

¹⁷⁶ Interview with an expert from a national nonprofit working on coastal restoration in the Gulf Coast (Feb. 24, 2020).

¹⁷⁷ PPL SELECTION PROCESS, *supra* note 33, at 3; COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT, 2015 REPORT TO CONGRESS, *supra* note 35, at 5.

¹⁷⁸ PPL SELECTION PROCESS, *supra* note 33, at 3.

¹⁷⁹ Coastal Wetlands Planning, Protection and Restoration Act, Wetland Value Assessment Methodology: Procedural Manual, *supra* note 94.

¹⁸⁰ PPL SELECTION PROCESS, *supra* note 33, at 3.

Force meets to select the projects for the upcoming year's PPL.¹⁸¹ In making the final selection of projects, the Task Force considers a number of factors, including: consistency with the Coastal Master Plan;¹⁸² anticipated costs and benefits; long-term impacts; any associated risks or unknowns; whether the project will encourage partnerships; and input from the public.¹⁸³ Once the PPL is finalized, CWPPRA requires that it be submitted to Congress, where it then serves as a component of the President's annual budget.¹⁸⁴ Meanwhile, projects not selected for the PPL may be adopted by other restoration programs.¹⁸⁵

Federal-Local Cost-Sharing for CWPPRA Projects

The original legislation conditioned the precise federal-local cost-sharing distribution for CWPPRA projects on whether Louisiana had developed a conservation plan (the federal government would contribute a greater portion post-plan development); however, since the state's Plan has since been approved by Congress, CWPPRA projects typically receive 85 percent of their funding from the federal government, and the remaining 15 percent from local government or other non-federal sources. The individual distributions are documented in project-specific "Cost-Sharing Agreements," but, with approval from the Task Force, funds can usually be shifted between projects, and expenses can sometimes exceed anticipated costs by up to 25 percent without formal Task Force approval (depending on the nature of the funding of the project). The project of the project of the project of the project of the funding of the project).

¹⁸¹ *Id.* at 3-4; 2006 REPORT TO CONGRESS, *supra* note 10, at 15; *see also*, 2020 STANDARD OPERATING PROCEDURES, *supra* note 36, at 10 (each member of the Task Force votes on which projects will be selected for the PPL except the representative of the Governor of Louisiana, who is prevented from doing so under section 303(a)(2) of CWPPRA). ¹⁸² 2018 REPORT TO CONGRESS, *supra* note 134, at 3.

¹⁸³ COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT PROGRAM, CARING FOR COASTAL WETLANDS, *supra* note 9.

¹⁸⁴ U.S. Army Corps of Engineers – New Orleans District, Coastal Wetlands Planning, Protection, and Restoration Act Desk Reference, *supra* note 19, at 5 (citing CWPPRA § 303(a)(3)).

¹⁸⁵ 2015 REPORT TO CONGRESS, *supra* note 35, at 5.

¹⁸⁶ 2020 Standard Operating Procedures, *supra* note 36, at 6; *see also* U.S. Army Corps of Engineers – New Orleans District, Coastal Wetlands Planning, Protection, and Restoration Act Desk Reference, *supra* note 19, at 8. ¹⁸⁷ 2020 Standard Operating Procedures, *supra* note 36, at 2, 8-9, 13-14.