



Request for Proposals – Cycle 2

RESTORE ACT CENTER OF EXCELLENCE FOR LOUISIANA

February 15, 2021

Summary

The RESTORE Act Center of Excellence for Louisiana (LA-COE) is requesting proposals for research to support implementation of [Louisiana’s Coastal Master Plan](#). A letter of intent is required in advance of full proposal submission.

FUNDING

In May 2020, the U.S. Department of the Treasury awarded the Coastal Protection and Restoration Authority (CPRA) a grant to continue its research program. Approximately \$2.3 million is available for research in this second funding cycle and it is estimated that up to 10 awards will be given.

ELIGIBILITY

Academic institutions, private firms, non-governmental organizations, non-profit organizations, and government agencies are all eligible for various categories of awards. Staff from CPRA and the Water Institute of the Gulf (“the Institute”) may not participate in Letters of Intent, be part of research teams, or participate in proposal development in any way, including the submission of Letters of Support. There is no limit on the number of organizational partners that can be included in a single proposal. An individual investigator may only lead one proposal submission but may participate in others. For complete information regarding eligibility see Section 4.1, *Eligibility*.

TYPES OF AWARDS

Graduate Studentships: These awards will only be made available to support full-time graduate students conducting relevant research at Louisiana college/universities. The Principal Investigator (PI) on the proposal must be a full-time employee of a Louisiana college/university.

Research Awards: Any organization/institution may be the lead on a proposal and participate in the proposed research. In the case of proposals involving multiple organizations, a single organization must be identified as the lead. The PI on the proposal must be a full-time employee of a Louisiana organization/institution. Other participants may be from any organization or institution within or outside Louisiana.

DEADLINE FOR SUBMISSIONS

The deadline for submission of required letters of intent is **Friday, March 5, 2021 at 5:00 p.m. CST.**

The deadline for submission of full proposals is **Friday, April 16, 2021 at 5:00 p.m. CST.**

QUESTIONS ABOUT THIS REQUEST FOR PROPOSALS

Questions regarding this Request for Proposals (RFP) shall be submitted via email to LA-COE@thewaterinstitute.org. There will be a live and recorded webinar on February 26, 2021 from 11:00 a.m.-12:00 p.m. Written questions can be submitted during the webinar and the final answers will be posted on the [LA-COE website](#) within five business days along with a link to the recorded webinar. Please review the [Frequently Asked Questions](#) (FAQ) posted on the LA-COE website before attending the live webinar. The last day to submit questions is April 2, 2021.

Table of Contents

1.0	Purpose and LA-COE Mission.....	1
1.1.	Purpose	1
1.2.	LA-COE Mission	1
2.0	Award Information.....	1
2.1.	Types of Awards and Funding Levels.....	1
2.2.	Project Award Period	2
2.3.	Identified Research Needs.....	2
3.0	Research Topics	2
3.1.	Topic Area 1: Hydrology and Hydrodynamics of Riverine, Estuarine, and Coastal Systems	2
3.2.	Topic Area 2: Estuarine and Coastal Ecology	3
3.3.	Topic Area 3: Geotechnical, Structural, and Coastal Engineering.....	4
3.4.	Topic Area 4: Deltaic Geology, Geomorphology, Subsidence, and Sediment Dynamics.....	4
3.5.	Topic Area 5: Human Dimensions	5
4.0	Funding Instruments	5
4.1.	Eligibility	6
5.0	Important Dates.....	6
6.0	Letters of Intent Submission Information.....	7
7.0	Full Proposal Submission Information.....	8
8.0	Proposal Review Procedures and Evaluation Criteria	8
8.1.	Letters of Intent.....	8
8.2.	Full Proposals.....	9
9.0	Award Administration.....	10
9.1.	Award Notices	10
9.2.	Terms and Conditions	10
9.3.	Reporting	10
9.4.	Ownership and Publication of Data.....	11
10.0	Other Information	11
10.1.	Research Involving Human Subjects.....	11
10.2.	Care and Use of Live Vertebrate Animals.....	11
10.3.	Data and Sample Management.....	12
	References Cited	13
	Appendix A: Letters of Intent and Full Proposal Submission Information.....	14
	Appendix B: Full Proposal Contents and Format for Graduate Studentship Awards	15
	Appendix C: Full Proposal Contents and Format for Research Awards	17

1.0 Purpose and LA-COE Mission

1.1. PURPOSE

This purpose of this RFP is to identify research projects to fund that will produce results directly relevant to the regular update and implementation of [Louisiana’s Coastal Master Plan](#). The Coastal Master Plan, which was developed by CPRA with input from citizens, legislators, parish representatives, and stakeholder groups using the best available science and engineering, focuses state efforts and guides actions needed to sustain Louisiana’s coastal ecosystems, safeguard coastal populations, and protect vital economic and cultural resources. The [Coastal Master Plan](#) is updated every six years, providing an opportunity for the incorporation of new knowledge and understanding into the plan.

1.2. LA-COE MISSION

The mission of LA-COE is to support research directly relevant to the regular update and implementation of Louisiana’s [Coastal Master Plan](#) by administering a competitive grants program and providing the appropriate coordination and oversight support to ensure that success metrics are tracked and achieved. More information about LA-COE can be found on the [LA-COE website](#).

2.0 Award Information

2.1. TYPES OF AWARDS AND FUNDING LEVELS

Two types of awards will be available through this RFP. All awards will be for no more than a two-year duration.

Graduate Studentships: These awards provide funds for full-time graduate student stipends, tuition, and minimal (less than \$5,000) research expenses to support a graduate student (master’s or Ph.D.) at a Louisiana college/university for up to two years to undertake research in an area identified in Section 3.0, *Research Topics*. Internships with private organizations may be included as part of the graduate student’s training, although funding for the organization’s expenses cannot be supported. Note that these Graduate Studentships cannot be used to support work proposed under the following “Research Awards” category. A Letter of Intent is required. The Principal Investigator (PI) on the proposal must be a full-time employee of a Louisiana college/university.

Research Awards: These awards support research activities that seek to further knowledge in an area identified in Section 3.0, *Research Topics* that will produce findings directly applicable to the regular update and implementation of the Louisiana Coastal Master Plan. Appropriate activities include, but are not limited to, field and laboratory studies, computer modeling, archival research, surveys, data analysis, and synthesis. In the case of proposals involving multiple organizations, a single organization must be identified as the lead.

Interorganizational proposals, including partnerships with academia, federal, state, private, or non-profit organizations, are strongly encouraged. Collaboration among organizations and disciplines to address cross-disciplinary research needs is also encouraged. In addition, those proposals that include meaningful roles for undergraduate and graduate students and postdoctoral fellows, including training in skills relevant to the implementation of Louisiana’s [Coastal Master Plan](#), will be viewed favorably.

The PI on each proposal must be a full-time employee of a Louisiana organization/institution. Other participants may be from any organization or institution within or outside Louisiana. If the PI moves to another institution outside the state of Louisiana, a co-PI will need to be identified as the new PI. A Letter of Intent is required in advance of full proposal submission.

It is anticipated that approximately \$2.3 million will be available for this second funding cycle. Levels of support available for distribution for each category of award through this RFP are expected to be as follows:

- Up to \$500,000 for Graduate Studentships (~ five awards of < \$100,000)
- Up to \$1,800,000 for Research Awards (~ three awards of < \$300,000 and two < \$500,000)

These levels will be adjusted if the meritorious proposals submitted in each category do not total the designated amount. Cost sharing or matching is not required for LA-COE awards.

2.2. PROJECT AWARD PERIOD

All awards will be for no more than a two-year duration. The start date for successful projects is expected to be August 2021.

2.3. IDENTIFIED RESEARCH NEEDS

The Research Needs document broadly outlines the research, modeling, and monitoring needs for informing Louisiana’s Coastal Master Plan (RESTORE Act Center of Excellence for Louisiana, 2019). In the Research Needs document, needs are organized into five topic areas with a description of each topic’s rationale and potential outcomes to directly support the Coastal Master Plan. For this second funding cycle, priority research needs were selected from the Research Needs document. These research needs are listed in Section 3.0, and are each refined with specific *research activities* (noted in *italics* below). At least one out of 17 listed *research activities* must be addressed in the Letter of Intent to be considered for invitation of a full proposal.

3.0 Research Topics

3.1. TOPIC AREA 1: HYDROLOGY AND HYDRODYNAMICS OF RIVERINE, ESTUARINE, AND COASTAL SYSTEMS

Research Needs

Collect high fidelity wave attenuation data under a wide range of conditions (e.g., fair weather, winter storms, severe storms).

Research activities must include:

1. *Collecting vessel-induced wave data and other wave forcing data in Louisiana navigation channels for use in the design of shoreline protection projects.*

Analysis, testing, and installation guidance for bank stabilization (e.g., articulating concrete blocks) of high-velocity conveyance channels for river diversion projects in coastal Louisiana soils.

Research activities must include:

2. *Developing design criteria for the use of articulating concrete mats and geosynthetic separator fabric as protective features for earthen containment dikes exposed to localized wave forces.*

3.2. TOPIC AREA 2: ESTUARINE AND COASTAL ECOLOGY

Research Needs

Nutrients, Vegetation and Soil

Improve quantification of nutrient sources, sinks, and transformations, including salinity gradients and watershed processes, at multiple spatial scales. For example, improve understanding of transformation and assimilation pathways for nutrients within watersheds and receiving basins, including water quality, soil, primary and secondary producers, and the potential for ecosystem changes such as estuarine hypoxia.

Research activities must include:

3. *Quantification of nutrient loads (nitrogen and phosphorus constituents) at the basin or watershed spatial scale in coastal Louisiana.*

Increase understanding and quantification of processes affecting marsh surface elevation, in the context of relative sea level rise, as influenced by emergent vegetation, specifically rates of organic matter incorporation and carbon accumulation. Additionally, improve knowledge of feedback processes between inorganic sediment accretion and growth of emergent marsh vegetation.

Research activities must include:

4. *Assessing stressors that cause wetland elevation loss including those that influence the reduction in total wetland vegetation cover or other metrics of marsh deterioration.*
5. *Determining establishment criteria for wetland vegetation in newly developed land of deltaic regions (e.g., West Bay, Wax Lake Delta, Bay Uhlán), with emphasis on creating or refining inundation characteristics, specific to water depth and duration of inundation.*
6. *Estimate responses of belowground biomass and soil organic matter accumulation rates in wetlands to potential future conditions (e.g., increased carbon dioxide concentrations, temperatures, nutrient loading, salinity, and water levels).*

Terrestrial and Aquatic Fauna

Determine the effects of natural ecosystem changes and protection and restoration projects on the abundance, distribution, movement patterns, growth, food web stability, and trophic dynamics of ecologically and economically important freshwater, estuarine, and coastal biota (including all life history stages of phytoplankton, infauna, shellfish, fish, birds, submerged aquatic vegetation, and key wildlife species).

Research activities must include:

7. *Assess ecosystem functions of ridge restoration projects and evaluate similarities and differences among ridge restoration projects, spoil banks, and natural ridges.*
8. *Evaluate habitat succession of ridge restoration projects – the length of time for vegetation communities to become established and if they improve and increase capacity of ecosystem functions.*

3.3. TOPIC AREA 3: GEOTECHNICAL, STRUCTURAL, AND COASTAL ENGINEERING

Research Needs

Develop standardized geotechnical laboratory testing procedures for hydraulically dredged slurry for marsh fill material.

Research activities must include:

9. *Establishing a method for predicting dredge slurry concentrations based on borrow conditions and dredge type.*
10. *Establishing and recommending engineering practices for filling deep-water areas for marsh creation.*

Develop and use remote sensing techniques and technology for project and ecosystem monitoring that can directly benefit CPRA by reducing costs, improving data quality and filling data gaps.

Research activities must include:

11. *Evaluating the use of remote sensing techniques (apart from Light Detection and Ranging – LiDAR methods) to monitor fresh forested wetlands for water circulation, forest health, soil surface elevation change, and changes in invasive species distributions, especially in areas that are inaccessible.*

3.4. TOPIC AREA 4: DELTAIC GEOLOGY, GEOMORPHOLOGY, SUBSIDENCE, AND SEDIMENT DYNAMICS

Research Needs

Identify and quantify the role of individual mechanisms of subsidence, including both natural (e.g., sediment compaction) and human-induced (e.g., fluid withdrawal). Define the role, if any, of fault-salt tectonics in causing subsidence on project lifespan timescales. Once subsidence mechanisms are characterized and understood, develop and apply novel predictive subsidence modeling approaches.

Research activities must include:

12. *Evaluating the utility of short (annual) and long-term (decadal) shallow subsidence rates (derived from Coastwide Reference and Monitoring System vertical accretion and surface elevation change data) by using geospatial statistics to develop long-term (~50 year) projections of subsidence at various spatial scales (e.g., basin, sub-basin, etc.).*
13. *Developing an approach to quantify subsidence rates (shallow and deep) to determine surface elevation change rates of coastal water body bottoms (e.g., Barataria Bay, Vermillion Bay, etc.). May include development of a framework relating substrate or subsurface geology characteristics to subsidence rates and elevation change.*

Improve predictive capabilities of destructive coastal processes on deltaic-chenier coastal land areas (e.g., sand shoreline dynamics, wetland edge erosion, estuarine and shelf floor deflation), and how these processes operate under normal and storm conditions.

Research activities must include:

14. *Developing process-based approaches to modeling aspects of barrier island systems (barrier islands, headlands, and adjacent shorefaces) including changes to accretion/island recovery, decadal scale evolution, shoreface evolution, and inlet/barrier island/headland interaction.*
15. *Developing quantifiable metrics for stable and unstable barrier island systems (includes sediment source to downstream islands, connectivity, likelihood of natural recovery from a storm event) and triggers/thresholds for barrier island collapse to support restoration prioritization efforts.*
16. *Designing methods, measuring, and predicting long-term marsh edge erosion rates, potentially relating wave power, storm events, wetland vegetation density, and incorporating bio-erosion mechanisms.*

3.5. TOPIC AREA 5: HUMAN DIMENSIONS

Research Needs

Population Change and Social Sciences

Identify the key drivers of coastal population shifts and methods to project those shifts over time. Identify coastal communities that may be expected to receive an influx of population over time, as well as those expected to decrease in population over time.

Research activities must include:

17. *Exploring event-driven population migration (e.g., in response to hurricanes, storm surge-based flooding, and high tide flood events), including analyses of legal, cultural, and demographic factors that influence when people leave and where they go, to support development of a projection methodology specific to coastal Louisiana.*

4.0 Funding Instruments

LA-COE will enter into a subaward agreement with the lead PI's organization. The lead PI's organization shall execute the grant agreement and shall execute lower-tier subaward agreements with co-PIs. All lower-tier subawards shall incorporate all applicable terms and conditions.

Award documents will supersede any other documents, discussions, notices, this RFP, or other publications and will constitute the entirety of the agreement. LA-COE shall not be under any obligation to provide funding to any specific proposal submitted and shall not be held liable for any expense incurred in preparation or submittal of any proposal, any subsequent discussion or negotiations, or any costs incurred prior to the full execution of the subaward. A sample, draft subaward is available on LA-COE website: la-coe.org/grants.

LA-COE reserves the right to fund only selected parts of any given research proposal and may require modifications to the proposed work plan, personnel, and budget of any proposal. The RFP and information in

the completed proposal and subsequent modifications to the proposal as requested by LA-COE, shall form the basis of any award that may ensue.

4.1. ELIGIBILITY

Academic institutions, private firms, non-governmental organizations, non-profit organizations, and government agencies are all eligible for various categories of awards. Federal agencies are eligible to apply and participate on other proposals; however, **each federal agency must determine in advance of submitting a proposal whether their agency rules allow them to participate in this program and receive funding.**

Interagency transfers from U.S. Department of Treasury are not supported; awards are to be made by LA-COE. Per the RESTORE Act Financial Assistance Standard Terms and Conditions and Program-Specific Terms and Conditions, Section S. Procurement, Item 3, any award made by LA-COE to a federal agency or employee must have prior written approval of U.S. Department of Treasury’s Office of General Counsel before any award is executed.

Per U.S. Department of Treasury regulations, LA-COE may not make a subaward to any entity unless that entity has provided its Data Universal Numbering System (DUNS) number to LA-COE. A DUNS number is the nine-digit number established and assigned by Dun and Bradstreet, Inc. to uniquely identify business entities. Most large organizations, libraries, colleges, and research universities already have a DUNS number. Contact your grant administrator, financial department, chief financial officer, or authorizing official to identify your organization's DUNS number. Allow up to two business days to obtain a DUNS number.

Staff from CPRA and the Institute may not participate in Letters of Intent, be part of research teams, or participate in proposal development in any way, including the submission on Letters of Support.

5.0 Important Dates

Proposers should plan their research activities to commence in August 2021. All research activities must be completed within two years from the start of the award. No-cost extensions (NCEs) are not anticipated and will only be granted in unusual and exceptional circumstances.

Deadline	Date
Save the date released on LA-COE website	December 2020
RFP released on LA-COE website	February 15, 2021
Live and recorded webinar to submit questions on this RFP	February 26, 2021
Letters of Intent due for Graduate Studentships and Research Awards	March 5, 2021
Feedback provided on Letters of Intent	March 19, 2021
Full Proposals due for Graduate Studentships and Research Awards	April 16, 2021
Expected announcement of Graduate Studentships and Research Awards	July 2021
Expected execution of Awards	August 2021
Expected start of research activities/studentships	August 2021

6.0 Letters of Intent Submission Information

Letters of Intent are required for Graduate Studentship and Research Awards. The purpose of the Letter of Intent process is to provide LA-COE's feedback to researchers on the relevance and scientific merit of their proposed project to the goals of the RFP in advance of preparing a full proposal. Full proposals will be encouraged only for Letters of Intent deemed relevant and applicable to the competition. The Letter of Intent should provide a concise description of the proposed work and its relevance to the *research activities* identified in Section 3.0 of this RFP. The Letter of Intent should include a cover page and a narrative two to three pages in length. The narrative should be single spaced in 12-point font in Arial or Times New Roman with one-inch margins and must include, in order, all of the components listed below. A separate excel file including a list of collaborators, advisors, and advisees is required.

If the components listed below are not included, the Letter of Intent may not be considered.

1. **Cover page** including (fill out fields in the SurveyMonkey Apply portal):
 - a. Award Type
 - b. Tentative project title
 - c. Lead PI Name(s), Title, phone number(s), email address(s), and organization(s) address
 - d. List any Co-PI's, Name(s), Title, phone number(s), email address(s), and organization(s) address
 - e. Duration of project
 - f. Approximate cost of the project (annual budget amount per year)
 - g. Identification of the *research activities* (at least one out of 17) being addressed (select all that apply)
 - h. Up to six keywords describing the research and research discipline(s)
2. **Narrative** including the following components, but with no information identifying the PI, submitting institution/organization or team members: (2-3 pages, upload as a PDF following the formatting instructions provided above)
 - a. Statement of the issue the proposal plans to address and its relevance to the *research activities* identified in Section 3.0 of this RFP
 - b. Brief summary of the methods and approach to be used
 - c. Brief summary of how the findings and outputs of the project can support the implementation of the Louisiana Coastal Master Plan
3. **List of Past and Current Collaborators, Advisors, and Advisees** (use the standard NSF template and upload Excel file): Provide one single list that includes all collaborators, advisors, and advisees for each investigator (PI and co-PI [student, if identified]), complete with corresponding institutions/organizations. Submit only one combined and alphabetized list per application in an Excel spreadsheet using last name, first name, and organization for the column headings. The list should be alphabetized by last name.

Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes.

Collaborators also include those persons with whom the investigators may have ongoing collaboration negotiations.

Advisees are persons with whom the individual investigator has had an association as thesis or dissertation advisor or postdoctoral sponsor. Advisors include an individual's own graduate and postgraduate advisors. Unfunded participants in the proposed study should also be listed (but not their collaborators). This information is critical for identifying potential conflicts of interests and avoiding bias in the selection of reviewers.

Letters of Intent including the cover page form, the narrative as a PDF, and the Excel file of collaborators as attachments should be submitted in the [SurveyMonkey Apply Portal](#). Templates are available in the portal and on the [LA-COE Website](#).

An email providing feedback on the Letter of Intent, including whether the research proposed addresses the *research activities* and has potential to provide meaningful support to the regular update and implementation of the Louisiana [Coastal Master Plan](#), will be sent to the lead PI within approximately two weeks of the Letter of Intent deadline. The feedback will include a determination as to whether the PI should submit a full proposal. Late Letters of Intent to LA-COE will not be considered, and a full proposal cannot be submitted without a Letter of Intent.

7.0 Full Proposal Submission Information

Instructions for the submission of full proposals for Graduate Studentships and Research Awards are provided in [Appendix B](#) and [C](#).

8.0 Proposal Review Procedures and Evaluation Criteria

All proposals will be evaluated using two fundamental criteria:

- Relevance to the *research activities* identified in Section 3.0 of this RFP
- Applicability of the research findings to the regular update and implementation of the [Coastal Master Plan](#)

Proposers should ensure their narrative for Graduate Studentships and Research Awards addresses these criteria directly. Proposals which do not directly address these criteria will be returned without review.

8.1. LETTERS OF INTENT

Letters of Intent for Graduate Studentships and Research Awards will be reviewed by LA-COE staff, subject matter experts, as well as high-level review by CPRA to identify adherence to the following:

- Eligibility for the category of award
- Provision of required information
- Potential relevance to the *research activities* identified in this RFP
- Potential scientific merit

Letters of Intent found to be deficient in one or more of these areas (e.g., relevance and scientific merit) will be advised to not submit full proposals. Where minor deficiencies are noted, proposers will be supplied with brief comments by email to help them address the issues in the full proposal submission.

8.2. FULL PROPOSALS

8.2.1. Graduate Studentship Award and Research Award Proposals

Full proposals will be evaluated based on the likelihood of success in meeting the *research activities* identified in this RFP, the quality of the scientific merit, and the potential role of the research findings in supporting implementation of the Coastal Master Plan. Proposals which do not directly address these criteria will be returned without review.

Review procedures for full proposals include independent evaluation of each proposal by multiple subject matter experts, consideration by the [External Review Board](#), and assessment by the LA-COE and CPRA regarding relevance of the findings to implementation of the [Coastal Master Plan](#). Evaluation criteria and their relative weighting are identified in Table 1. Consideration about past performance (RFP1 funded projects) may be used to assess if proposals should be funded for this cycle. Past performance will be judged based on the timely delivery of final reports, publications, graduate student training, and available data shared in a regional or national digital repository or data center that promotes discovery and long-term preservation. Funding decisions will be made by the LA-COE Director in concurrence with CPRA.

Table 1. Evaluation criteria for full proposals

Criteria	Total Possible Score
Relevance including whether the proposed research addresses the <i>research activities</i> detailed in this RFP as priorities for this funding cycle; and whether the proposed research supports implementation of the Coastal Master Plan including the direct applicability of knowledge generated and utility of research outputs.	35
Scientific merit including meaningfulness of the contribution to existing knowledge, theoretical framework and context, and demonstrated understanding of the system to be studied.	15
Appropriateness of the methods/approach including rigor of field/laboratory methods and experimental design, availability of data, suitability of analytical/statistical tools, and potential for successful completion within the proposed timeframe/budget.	15
Competency of the team including expertise and training of the researchers, familiarity with this type of research, experience of the PI in leading research of the type proposed.	15
Capacity building including the training of undergraduate and graduate students, postdoctoral fellows, junior staff, mentoring opportunities for early career researchers, and high diversity of the team, including involvement of under-represented groups/minority serving institutions and/or private organization on the research team.	10
Appropriateness of the budget including efficient use of resources and leverage of existing equipment, field sites, research facilities, etc.	10
Total	100

9.0 Award Administration

9.1. AWARD NOTICES

Award announcement is expected to occur in July 2021 for Graduate Studentships and Research Awards. Notification of funding will be made to the submitting organization(s) by LA-COE by the date stated in Section 5.0. Organizations whose proposals are not selected will be advised as promptly as possible. Proposers are reminded of their responsibilities regarding lower-tier subrecipients. Should funding be awarded, the lead organization is responsible for communicating the appropriate terms and conditions to, as well as carrying out all of the responsibilities of a pass-through entity including but not limited to management and oversight of, any subrecipients on the project.

9.2. TERMS AND CONDITIONS

Standard terms and conditions are available at la-coe.org/grants.

9.3. REPORTING

All award recipients will be required to:

1. Submit semi-annual technical performance progress reports (PPRs)
2. Submit financial statements and invoices not more often than monthly, in a specified format as defined in the subaward. A paragraph of technical progress will need to be included.
3. Participate in annual LA-COE All-Hands meetings (one day per year in the spring/summer in Baton Rouge, Louisiana; costs to be included in proposal budget)
4. Participate in semi-annual webinars with LA-COE and CPRA to highlight and share recent accomplishments and to receive training on data management and co-production of actionable science.
5. Submit final report within 30 days of the close of the award. A final report template will be provided and the PI will need to describe all research activities and findings. Copies need to be provided of all publications and presentations made during the award period. This includes electronic copies of thesis/dissertations of funded graduate students (to be provided as soon as they are finalized even if an embargo exists), metadata (ISO format) of existing or future archived data sets as well as metadata (ISO format) and digital object identifiers (DOIs) of any archived data sets. Note that it is encouraged all data be archived during the award period, but it is required that all data, collected data products, and metadata must be made publicly available within one year of submission of the final report. Lastly, notification and access information for publications and thesis/dissertations produced after the closeout of the award is also needed.

The financial support from LA-COE shall be acknowledged in all research products and outputs. The following language must be used in those products and outputs:

This study was supported by the U.S. Department of the Treasury through the Louisiana Coastal Protection and Restoration Authority's Center of Excellence Research Grants Program under the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revised Economies of the Gulf Coast States Act of 2012 (RESTORE Act) (Award No. 1 RCEGR260007-01-00). The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the Department of the Treasury.

A LA-COE Technical Point of Contact (TPOC) will be identified for each award to track progress on research activities, assist with troubleshooting, and review technical reporting. LA-COE TPOCs and grants staff will

coordinate with awardees to fulfill reporting requirements and will maintain records for all grants, publications, presentations, reports, and activities of each grant. These will inform semi-annual reports to the U.S. Department of Treasury Office of Gulf Restoration and an annual report for the Gulf Coast Ecosystem Restoration Council, as required for continuation of program funding.

9.4. OWNERSHIP AND PUBLICATION OF DATA

The State of Louisiana encourages the use of data collected under LA-COE awards for the purpose of dissemination of information through abstracts, scientific and technical papers, presentations of technical/scientific papers in symposiums, seminars and/or workshops, publication in journals, newspaper articles, and television news, etc. However, to ensure proper Quality Assurance and Quality Control (QA/QC) of the information released, the dissemination of data/project information collected via state contracts is subject to the following protocols:

- No data or results of activities funded through this Agreement shall be publicly released, published, or presented by any means mentioned above, prior to submission of the final report to LA-COE, who will then submit the report to CPRA. In the event that awardees wish to publish data, results, or activities developed or obtained through research from Agreement-funded tasks prior to submission of the final report, the entity so desiring will furnish the State with a digital copy of any materials intended for publication at least sixty (60) days prior to the initial submission of those materials to the publishing group. The LA-COE will forward requests to CPRA who shall then have thirty (30) days from receipt of such materials to review and provide the entity with written comments with respect to the material and these comments will be forwarded to the awardee. LA-COE and its lower-tier subrecipients agree to give due consideration to any written comments made by the State and discuss any such written comments with state personnel prior to publication. If the entity receives no written response from the State within the thirty (30) day period, it may proceed with the publication.
- All data, collected data products, and metadata must be made publicly available within one year after submission of the final report.

10.0 Other Information

10.1. RESEARCH INVOLVING HUMAN SUBJECTS

Research involving human subjects is allowable when the project has been certified by a responsible body to be in compliance with the federal government's "Common Rule" for the protection of human subjects and approved by U.S. Department of Treasury. Awardee institutions and organizations have the responsibility for setting up an Institutional Review Board (IRB) to review research protocols and designs and ensure the protection of the rights of human subjects. While a proposal can be reviewed without IRB approval, projects involving human subjects cannot be recommended for funding until this certification or its equivalent has been provided to LA-COE and U.S. Department of Treasury has approved it by a special award condition or otherwise in writing. Researchers should file their proposal with their local IRB at the same time they submit it to LA-COE to minimize any delay that the approval procedure required by U.S. Department of Treasury may incur.

10.2. CARE AND USE OF LIVE VERTEBRATE ANIMALS

Recipients must comply with all applicable statutes pertaining to the care, handling, and treatment of vertebrate animals held or sacrificed for research, teaching, or other activities supported by federal financial assistance. An institutional animal care and use committee (IACUC) approval might be needed at the researcher's institution.

10.3. DATA AND SAMPLE MANAGEMENT

Protocols for sampling, sample processing, record-keeping, and data management are required to be consistent with the specifications defined in the [CPRA Internal Agency Policies](#), the [LA-COE's Standard Operating Procedures](#), and the [Standard Terms and Conditions](#). All projects must ensure that data and materials are collected, archived, digitized, and made available using methods that allow current and future investigators to address new questions as they arise.

Therefore, the use of open standards for data sharing (i.e., data formats that do not require proprietary software in order to be read) is required. All data, collected data products and metadata (ISO format) must be made publicly available within one year after the final report is submitted to the CPRA Contract Monitor, unless written permission for earlier publication has been granted by CPRA (RESTORE Act Center of Excellence for Louisiana, 2020).

All information products resulting from funded projects must be associated with detailed, machine-readable metadata (International Organization for Standardization [ISO] format) and shared in a regional or national digital repository or data center (i.e., National Centers for Environmental Information, Interuniversity Consortium for Political and Social Research, DataOne Dash, etc.) that promotes discovery and long-term preservation. LA-COE encourages the use of free data repositories, although there might be situations, when this is not possible. Failure or delay making data accessible may be considered by LA-COE when making future funding decisions. Metadata and details of the repositories used must be provided to LA-COE to enable tracking of all LA-COE data and information products. LA-COE will provide a catalogue of all LA-COE data to the public upon request to facilitate data dissemination (RESTORE Act Center of Excellence for Louisiana, 2020).

References Cited

- RESTORE Act Center of Excellence for Louisiana. (2019). *Research Needs*. The Water Institute of the Gulf. Baton Rouge, LA. <https://thewaterinstitute.org/assets/docs/LA-COE-Research-needs.pdf>
- RESTORE Act Center of Excellence for Louisiana. (2020). *Standard Operating Procedures. V3*. The Water Institute of the Gulf. Baton Rouge, LA. https://thewaterinstitute.org/assets/docs/LA-COE_SOPv3_200610_final.pdf

Appendix A: Letters of Intent and Full Proposal Submission Information

Letters of Intent and full proposals must be submitted using the required forms (posted on the [LA-COE website](#)) and also available for download in the on-line proposal [submission portal](#). The submission portal will be available for uploading materials **no later than February 19, 2021**. Applicants are strongly encouraged to work closely with their organization's contracting officers early in the proposal development process.

First-time Users will need to register and enter basic information. Users will not be allowed to submit their Letter or Intent until they have confirmed their email address. Applicants are encouraged to register and log in with sufficient time to complete and review the online application prior to the submission deadline. Submission of LOIs will not be accepted after **Friday, March 5, 2021 at 5.00 p.m. CST** and a full proposal cannot be submitted without a LOI.

User Support for the [submission portal](#) will be available throughout the open application period. Any technical inquiries about the online application itself can be made by emailing LA-COE@thewaterinstitute.org. Applicants may expect a response to their inquiry within one business day (excluding holidays and weekends). Any program or grant-related questions must have been previously asked during prior to Letter of Intent submission. If help is still needed, the applicant should review the [Frequently Asked Questions](#) (FAQs) posted on the LA-COE website. Technical Support via SurveyMonkey Apply is available via email **Monday- Friday 7:30 a.m.-4:30 p.m. CST**.

Appendix B: Full Proposal Contents and Format for Graduate Studentship Awards

Proposals are submitted by the major professor as lead PI. A major professor can submit a proposal as lead PI either before or after a student has enrolled in the graduate program; a student does not have to be identified before submission of the proposal by a major professor. If the student is not already enrolled in a graduate program, award of the Graduate Studentship will be contingent upon the student's acceptance to the graduate program listed in the narrative. The Graduate Studentship proposal should include the cover page, a narrative four to five pages in length, and a biosketch for the PI (and student, if identified). The narrative and biosketch must be single spaced in 12-point font in Arial or Times New Roman with 1-inch margins.

The components listed below are required:

1. **Cover Page** including (fill out fields in the SurveyMonkey Apply portal):
 - a. Award Type
 - b. Project title
 - c. Lead PI name, title, phone number(s), email address(s), organization (s) address
 - d. Indicate the student's current enrollment status (enrolled or not yet enrolled), and the degree program in which the student is enrolled, or expected to enroll
 - e. Duration of project
 - f. Funding amount requested by year
 - g. Identification of the topic area(s) and *research activities* identified in this RFP
 - h. Up to six keywords describing the research and research discipline(s)

2. **Project Description** (4-5 pages, upload PDF) including:
 - a. Project title
 - b. Degree program in which the student is enrolled, or expected to enroll
 - c. Description of the research that would be conducted as part of the student's degree program and how it relates to the *research activities* identified in this RFP. If the student has not yet enrolled, this does not have to be exact as it is expected the student will play a role in developing specific research objectives as part of the learning experience. If funding is requested to support only part of the student's degree studies (i.e., Ph.D. student), specifically describe the role of this award in furthering the student's studies
 - d. Summary of how the findings and outputs of the student's research and the training provided relate to the regular update and implementation of the Louisiana Coastal Master Plan
 - e. Outline the curriculum, or anticipated curriculum, for the student including the classes that the student has taken, is taking, or might take
 - f. Provide a description of current or anticipated funding sources that will be applied to support the *research activities* proposed for the student. For Ph.D. students not expected to complete their degrees within the time frame of the award, describe funding available for the remaining years of the student's program
 - g. **Data Management:** One paragraph listing the tasks to be completed to establish and implement a data management plan

- h. **References Cited:** Follow the journal [Science Citation Style](#) for format of citations. This section must include bibliographic citations only and must not be used to provide parenthetical information outside of the project description
3. **Biosketch** (< 2 pages each, the standard NSF template and upload PDF) for the major professor and student, if identified.
4. **List of Past and Current Collaborators, Advisors, and Advisees** (use the standard NSF template and upload Excel file): Provide **one** list that includes all collaborators, advisors, and advisees for each investigator (PI and co-PI [student, if identified]), complete with corresponding institutions/organizations. Submit only one combined and alphabetized list per application in an Excel spreadsheet using last name, first name, and organization for the column headings. The list should be alphabetized by last name. Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes. Collaborators also include those persons with whom the investigators may have ongoing collaboration negotiations. list that includes all collaborators, advisors, and advisees for each investigator (PI and co-PI [student, if identified]), complete with corresponding institutions/organizations. Submit only one combined and alphabetized list per application in an Excel spreadsheet using last name, first name, and organization for the column headings. The list should be alphabetized by last name. Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes. Collaborators also include those persons with whom the investigators may have ongoing collaboration negotiations.

Advisees are persons with whom the individual investigator has had an association as thesis or dissertation advisor or postdoctoral sponsor. Advisors include an individual's own graduate and postgraduate advisors. Unfunded participants in the proposed study should also be listed (but not their collaborators). This information is critical for identifying potential conflicts of interests and avoiding bias in the selection of reviewers.

Graduate studentship full proposals should be uploaded using the online proposal submission portal procedure described in Appendix A. The proposal must be submitted as four separate sections: the Cover Page online form; a PDF file including section 2; a PDF file including section 3; and a single Microsoft Excel file (in NSF standard template) for section 4.

Proposals containing items other than those described in these instructions, missing required sections, or exceeding the page limitations will be returned without review. The format of Graduate Studentship proposals responding to this RFP does not allow for "letters of support/endorsement."

Appendix C: Full Proposal Contents and Format for Research Awards

The full proposal must include the components described in Sections 1-12 below and using forms provided. Required forms and page limits are indicated below. Proposals containing items other than those described in the proposal instructions, missing required sections, exceeding the page limitations, or that do not address the *research activities* identified in this RFP may be returned without review. A properly submitted Letter of Intent is required prior to submission of full proposals.

Proposers must format their proposal in the following order and, as required, clearly label each section and subsection:

1. **Cover Page** (fill out fields in the SurveyMonkey Apply portal):
 - a. Award Type
 - b. Project title
 - c. Lead PI name, Title, phone number(s), email address(s), organization (s) address
 - d. List any Co-PI's, Name(s), Title, phone number(s), email address(s), and organization(s) address
 - e. Duration of project
 - f. Funding amount requested by year
 - g. Research Award? Y/N
 - h. IRB check
 - i. Federal agency affirmation that they are eligible to receive funds
 - j. Identification of the topic area(s) and *research activities* being addressed
 - k. Up to six keywords describing the research and research discipline(s)
 - l. Signed by Lead PI and Lead Authorized Organizational Representative

2. **Project Summary** (≤ 2 pages, upload PDF): The project summary must be written in third person, be informative to people working in the same or related fields, and be understandable to a scientifically or technically literate lay reader (i.e., avoid jargon). Provide a concise description of the project, including how the project relates to the identified *research activities* and supports implementation of the [Coastal Master Plan](#). Specify project goals and objectives, the nature of the proposed research, and the potential scientific and societal impact if funded.

3. **Project Description** (≤ 15 pages, upload PDF): Narrative including tables and illustrations that describes goals, approach, outcomes, milestones, and qualifications of the proposing team. Sections must include:
 - a. Relevance of the proposed research to the specific topic area(s) and *research activities* identified in Section 3.0 of this RFP.
 - b. Goal and objectives
 - c. Approach, including, when applicable, field/laboratory methods and experimental design, availability of data, suitability of analytical/statistical tools, protection of human subjects, and use of vertebrate animals
 - d. Outputs, including opportunities for training students, postdoctoral fellows, and/or junior researchers
 - e. Relevance to the regular update and implementation of the [Coastal Master Plan](#)
 - f. Timeline and milestones
 - g. Qualifications that demonstrate capabilities of project team for accomplishing proposed work including:

- i. Summarize key research accomplishments for the lead PI and co-PIs that ensures the feasibility of the project and demonstrates the team’s track record of similar research
 - ii. Describe how student, postdoctoral and junior researcher career mentoring will be ensured
 - h. Data Management: This section should address:
 - i. Data types, sample types, physical collections, coordinates, software, hardware, and any other materials or data to be used or produced over the course of the grant
 - ii. QA/QC procedures to ensure data integrity and account for variability and responsible parties
 - iii. Details on short-term data management procedures, including plans and timelines for data back up to secure the data
 - iv. Details on long-term data management procedures, including developing ISO metadata files, publishing and archiving machine-readable data with metadata files, samples, and other research products in corresponding regional or national data archives.
4. **Available Facilities, Equipment, and Other Resources** (\leq 1 page, upload PDF or Word): Provide a detailed description of resources that will be available or required to meet the research objectives (dedicated space, access to facilities and instrumentation, staff positions). The description should be narrative in nature and must not include any quantifiable financial information. Inclusion of personnel, facilities, equipment, vessels, experimental and standards materials, and other resources in the proposal is considered verification that all are available; evidence to the contrary may lead to return without review.
5. **Budget Request:**
- a. Annual budgets: (use required form) (\leq 2 pages each) must be created for the lead organization for each year covering all costs (including subawards), one for the total of all years, and one (total of all years). For proposals that contain a subaward(s), each subaward must include a separate budget & budget justification of no more than 2 pages for each subaward with a co-PI identified for all said subawards.
 - b. Budget justification: (\leq 2 pages, upload PDF): Describe the annual award budget for each year of proposed research. The proposed budget should be consistent with the needs and complexity of the proposed research. LA-COE funds shall not be used for the acquisition or construction of equipment or physical infrastructure (including, but not limited to computers, field and laboratory equipment, ships, vehicles, or laboratories). Allocated research funds must be clearly discernible and match with the budget as presented in the Annual Budget Form, including line items for:
 - i. Senior Personnel: Name PI and co-PI of the lead organization and list salary by year, level of effort (person months), and a brief description of their role in the project.
 - ii. Other Personnel: Name all other personnel of the lead organization and list salary by year, level of effort (person months), and a brief description of their role in the project.
 - iii. Fringe Benefits: Total of fringe benefits by year.
 - iv. Travel: Include costs for participation in annual LA-COE All-Hands meetings (at least one PI for a one-day meeting per year in spring/summer in Baton Rouge, Louisiana) in addition to any other travel costs. Travel should include the purpose of the trip, the destination, the number of travelers, and the expenses per trip. RESTORE Act Terms and Conditions restrict use of funds from this award for travel outside of the United

States unless U.S. Department of Treasury provides prior written approval. Thus, if foreign travel is requested, a detailed justification must be included.

- v. **Other Expenses:** Materials, supplies, publication costs, computer services, facility, or equipment rental costs should be listed and justified.
 - vi. **Consultant Services:** Must include the organization name, technical point of contact, total budget for each year and a brief description of the role on the project.
 - vii. **Subaward/Contractual Costs:** Must include the organization's technical point of contact name, the total budget for each year, and a brief description of the role on the project. All subawards must include a budget detail for the total budget (use required form) and a budget justification (< 2 pages) detailing costs per this section.
 - viii. **Indirect Costs:** Indirect costs shall be no more than 26% of modified total direct costs. Administrative support should be provided from the indirect costs, unless specific exceptions are requested and justified and accepted through the subaward.
6. **References Cited:** Follow the journal [*Science Citation Style*](#) for format of citations. This section must include bibliographic citations only and must not be used to provide parenthetical information outside of the 15-page proposal narrative.
 7. **Biosketches:** Biographical sketches (< 2 pages each, use the standard NSF template and upload PDF) for lead PI and co-PIs.
 8. **Current and Pending Support** (use required form, NSF standard template): Provide current and pending support information for the lead PI and co-PIs only. Includes titles, status of support, source, primary place of performance, duration of the award, total award amount, and person months per year committed to the project.
 9. **List of Past and Current Collaborators, Advisors, and Advisees** (use the standard NSF template and upload Excel file): Provide one list that includes all collaborators, advisors, and advisees for each investigator (PI and co-PI [student, if identified]), complete with corresponding institutions/organizations. Submit only one combined and alphabetized list per application in an Excel spreadsheet using last name, first name, and organization for the column headings. The list should be alphabetized by last name. Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes. Collaborators also include those persons with whom the investigators may have ongoing collaboration negotiations.

Advisees are persons with whom the individual investigator has had an association as thesis or dissertation advisor or postdoctoral sponsor. Advisors include an individual's own graduate and postgraduate advisors. Unfunded participants in the proposed study should also be listed (but not their collaborators). This information is critical for identifying potential conflicts of interests and avoiding bias in the selection of reviewers.
 10. **Optional Statement on Proprietary Information and Rules:** If proprietary or privileged information in connection with your response to the RFP is provided, then clearly indicate the segments that cannot be made public and why. To the extent that any organization submitting a proposal in response to this RFP is restricted by law from agreeing to any applicable LA-COE rule

or policy provision, the proposal shall indicate which provisions the PI's home organization objects to, as well as the specific legal basis for any such objection. Please upload this information in the Support Documentation section.

11. **List of Permits Required:** Describe the procedures to be used to obtain the permits in a timely manner. If no permits are required to conduct the proposed research, this should be stated.
12. **Letters of Commitment:** Letters of commitment, with official authorized signatures, must be provided for each named collaborating organization expected to receive funds and/or contribute key personnel or make substantial contributions to the research.

Proposals containing items other than those described in these instructions, missing required sections, or exceeding the page limitations will be returned without review. The format of proposals responding to this RFP does not allow for "letters of support/endorsement."

FORMAT

File Format

Prior to submission, each applicant is encouraged to do their own administrative review to ensure that each proposal complies with the formatting guidelines noted below. Ensuring that all materials included in the application have been properly prepared is the applicant's responsibility. Following the full proposal deadline, the LA-COE will conduct an administrative review and if a proposal is deemed to violate the administrative guidelines, it will be returned without review. The proposal must include the required sections (1-12 above).

Proposals not collated with the required sections or in the proper order may be returned without review.

Applicants are encouraged to seek, if needed, technical support in creation of the required electronic file and to review the electronic file prior to submission. Discretion should be exercised in the resolution of figures. While color figures may be included, reviewers may print applications in black and white for review. Applicants may wish to annotate the figure legend directing the reader to the electronic file if color is an important aspect of the figure. Applicants must utilize the required forms available on the LA-COE [website](#). Forms will be posted no later than one week following the release of the RFP. The proposal must be submitted/uploaded as described above in Appendix A.

Fonts and Page Layout

Adherence to type size, margins, and line spacing requirements is necessary to ensure that no applicant receives an unfair advantage. **Proposals not in compliance with the following guidelines may be returned without review:**

- Allowable typefaces include Arial or Times New Roman at a font size of 12 points or larger. A font size of 10 points may be used ONLY for mathematical formulas or equations, figure, table, or diagram captions and when using a symbol font to insert Greek letters or special characters.
- No more than six lines of text within a vertical space of one inch (for single spaced lines of 12-point font). While line spacing (single-spaced, double-spaced, etc.) within this requirement is at the discretion of the applicant, established page limits must be followed.
- Margins, in all directions, must be at least one inch.
- All sections must use a standard, single-column format for the text.
- The use of landscape (i.e., sideways) page orientation is not allowed.