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2017 Coastal Master Plan

Attachment E4: Parish Applicant's Handbook

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Coastal Protection and Restoration Authority

This document was prepared in support of the 2017 Coastal Master Plan being prepared by the Coastal Protection and Restoration Authority (CPRA). CPRA was established by the Louisiana Legislature in response to Hurricanes Katrina and Rita through Act 8 of the First Extraordinary Session of 2005. Act 8 of the First Extraordinary Session of 2005 expanded the membership, duties and responsibilities of CPRA and charged the new authority to develop and implement a comprehensive coastal protection plan, consisting of a master plan (revised every five years) and annual plans. CPRA's mandate is to develop, implement and enforce a comprehensive coastal protection and restoration master plan.

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Executive Summary

The Parish Applicant's Handbook is an integral component to the development of CPRA's Flood Risk and Resilience Program. The program aims to reduce coastal flood risk through the development and implementation of nonstructural risk reduction projects and related polices. Nonstructural risk reduction projects are distinct from structural protection projects in that they reduce risk to the existing building inventory through means of floodproofing, elevating, or acquiring structures. This handbook provides additional details about the Flood Risk and Resilience Program, including the

- Structure of the grant program
- State and parish roles and responsibilities
- Phase I, II, and III of the nonstructural application process
- Cost share, incentives, and capacity building
- Program management, policies, procedures, and allowable costs
- Project specific policies, procedures, approved activities, and allowable costs

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List of Abbreviations

ADA	Americans with Disabilities Act
ASCE	American Society of Civil Engineers
BFE	Base Flood Elevation
CFR	Code of Federal Regulations
CPRA	Coastal Protection and Restoration Authority
CRS	Community Rating System
EAD	Expected Annual Damages
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
FMA	Flood Mitigation Assistance
FMV	Fair Market Value
GOHSEP	Governors' Office of Homeland Security and Emergency Preparedness
HMGP	Hazard Mitigation Grant Program
HUD	United States Department of Housing and Urban Development
IRC	International Residential Code
ISO	Insurance Services Office
LMI	Low to Moderate Income

LRAP	Louisiana Resiliency Assistance Program
LSU	Louisiana State University
NFIP	National Flood Insurance Program
PDM	Pre-Disaster Mitigation
RL	Repetitive Loss
SFHA	Special Flood Hazard Area
SHPO	Louisiana State Historic Preservation Office
SRL	Severe Repetitive Loss
THIRA	Threat and Hazard Identification and Risk Assessment
USACE	United States Army Corps of Engineers

Parish Applicant's Handbook

The Coastal Protection and Restoration Authority's (CPRA's) mandate is to develop, implement, and enforce a comprehensive master plan for Louisiana. The master plan's primary objectives are to reduce storm surge based flood risk and to build and maintain land. The development of the Flood Risk and Resilience Program is an important component of reducing the impacts of storm surge based flood risk across coastal Louisiana as it aims to reduce economic damage due to coastal flooding through the development and implementation of nonstructural risk reduction projects and related polices. It focuses on determining current and future flood depths, conducting a coastal flood risk vulnerability analysis, defining nonstructural project areas, prioritizing projects, and facilitating the implementation of projects. The Flood Risk and Resilience Program also encourages flood risk awareness and supports state and local policies that promote greater resilience across the coast. More details about the risk assessment modeling effort, nonstructural risk reduction project development and prioritization process, as well as overall program scope, can be found in Appendix E: Flood Risk and Resilience Program Framework.

CPRA's Flood Risk and Resilience Program is envisioned as a state-led, nonstructural flood mitigation program for coastal Louisiana parishes. CPRA has developed a risk reduction strategy that coordinates state resources and prioritizes areas of high risk, while parishes will play a lead role in selecting specific structures to be mitigated and implementing projects within those areas. The program is intended to take advantage of nonstructural risk reduction project funding outside federal grant programs in order to maximize flexibility and speed the implementation of projects that further comprehensive coastal risk reduction goals.

Given limited resources, CPRA seeks to prioritize the implementation of nonstructural risk reduction projects in a way that best invests available funding. This process enables wise use of resources while trying to meet the needs of the communities most vulnerable to flood damage because they are either located in areas of high risk or they may not have the economic resources to prepare for or recover from a storm surge event. The Flood Risk and Resilience Program is designed to fill existing gaps, offer greater flexibility to parish grant administrators, streamline programmatic requirements, encourage wider participation from vulnerable communities, and focus on areas of critical need and greatest storm surge flood risk. The program is also designed to adaptively respond to local needs by enabling parishes to further develop and refine nonstructural projects. Lastly, the program offers technical and programmatic assistance to improve nonstructural risk reduction project planning and implementation and begin to fill gaps in local capacity.

The Parish Applicant's Handbook provides details and guidance to facilitate submittal of an application for funding of non-residential floodproofing, residential elevation, and/or voluntary residential acquisition projects. This application process was developed specifically to streamline and simplify grants/project management, lower barriers to participation, reduce costs through large-scale project implementation, and incentivize homeowners and business owners to mitigate their flood risk. Where possible, the application process requirements align with federal programs in order to facilitate match, leverage funding, and support audit practices.

This handbook provides an overview of the parish roles and responsibilities, application process, general programmatic requirements, and project-specific requirements. The specific forms associated with the application process are included in the Nonstructural Application Package, which will be provided to applicants upon a nonstructural project's inclusion in CPRA's Annual Plan.

1.0 Partners and Responsibilities

The Flood Risk and Resilience Program is a partnership between the state, parish, and individual homeowners. The success of the program relies heavily on sound working relationships and effective communication among all partners. An overview of the role and responsibility of key partners is provided below:

- **CPRA** – CPRA is responsible for the overall management and oversight of the program, processing applications, and securing and dispersing funds. CPRA will also provide technical assistance to parishes during the project application and implementation process.

- **GOHSEP** – The Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) provides additional oversight, assists with application review, and helps to ensure minimum standards of the National Flood Insurance Program (NFIP) are met.

- **Parish** – Each parish plays a lead role in working with homeowners to identify specific structures for mitigation, prioritizing structures to be mitigated, collecting structure data, preparing application forms and required information, and coordinating project construction and implementation.

- **Other State and Federal Agencies** – Depending on the extent and nature of individual projects, additional state and federal agencies may be involved in project development, review, and implementation.

- **Property Owners** – Property owners who wish to participate in the program will interact and coordinate with parish officials and local staff throughout the application process. Additional cooperation with other implementing agencies will also be needed, such as providing property access to local, state, and federal personnel and their agents, or providing necessary information to complete the application process. The Flood Risk and Resilience Program is a strictly voluntary program; state and local agencies aim to do as much as possible to encourage homeowners' and business owners' interest in participating.

2.0 Parish Application Process

CPRA is using the best-available science and lessons learned from other mitigation programs to create a nonstructural program that effectively reduces flood risk and meets the needs of coastal residents. This program builds off the ongoing mitigation successes to offer substantial benefits such as:

- Reducing cost share requirements as compared to federal programs: 90% CPRA funded with up to 100% state funding when certain requirements are met
- Encouraging the implementation of large-scale and contiguous nonstructural risk reduction projects to take advantage of economy of scale
- Supporting local decision making through parish prioritization of structures to be mitigated

- Meeting the needs of economically vulnerable communities by requiring parishes to prioritize mitigation of structures with greater inclusion of low to moderate income (LMI) households

The 2017 Coastal Master Plan recommends a set of nonstructural risk reduction projects based on future flood risk, vulnerability analysis, and project effectiveness. The recommended nonstructural risk reduction projects were developed from a coast wide analysis that considered aggregated counts of homes, businesses, public facilities, and other assets. As nonstructural risk reduction projects may include a whole community or be comprised of several communities within a parish, it is important to remember that projects contain summarized counts of non-residential floodproofing, residential elevations, and/or residential voluntary acquisition projects. These counts **do not** represent mitigation measures to specific buildings or structures.

Therefore, additional detailed information is needed from parishes to prioritize specific structures to be mitigated and to evaluate the suitability of these structures for proposed nonstructural measures. This additional information will also help refine elements such as project cost estimation, scope, and implementation timeframe. Parishes are responsible for refining CPRA's nonstructural recommendations by formulating a more detailed list of specific, prioritized structures in order to promote efficient project implementation, effectively reduce flood risk, serve LMI communities most in need, and tailor the program to the parish's local needs and goals.

To ease the burden of this data collection, parishes will be asked to participate in a three-phased Flood Risk and Resilience Program application process described below (also see Figure 1). Approval is required for each phase before the parish is asked to invest in the next phase of the application process.

Flood Risk and Resilience Program Application Process (Phases I-III)

- **Phase I** requires limited effort and focuses on determining whether the parish meets various programmatic requirements, determining the match reduction qualifications, as well as identifying necessary steps should the parish not have the resources or capacity to implement a nonstructural project at the scale recommended by the program.

- **Phase II** involves the identification and prioritization of individual structures for funding; evaluation of structures' eligibility; development of preliminary project scope, budget and timeline; an initial assessment of individual structures; and selection of a contractor(s) for project construction. Phase II will also involve collection of notices of voluntary interest and statement of household income for collection of LMI information from participating property owners.

- **Phase III** involves a more detailed structure assessment, evaluation of technical feasibility, determination of project scope of work, as well as a formal request for nonstructural risk reduction project funding. The Phase III application also includes a professional engineering assessment, refined cost estimates, refined project implementation timeline, property owner voluntary participation form, as well as documentation requirements to substantiate LMI status.

CPRA recognizes that managing the application process may pose a challenge to parishes with limited budget and staff capacity. To address any substantial administrative challenges or lack of capacity, parishes are able to request funding from CPRA in order to complete Phase III of the application, if needed. Lastly, it should be further noted that mitigation techniques other than those identified in the 2017 Coastal Master Plan may not be eligible for funding through the

CPRA Flood Risk and Resilience Program. Potential projects should be carefully compared with the details of the 2017 Coastal Master Plan, and questions directed to CPRA, prior to completing the Phase II application.

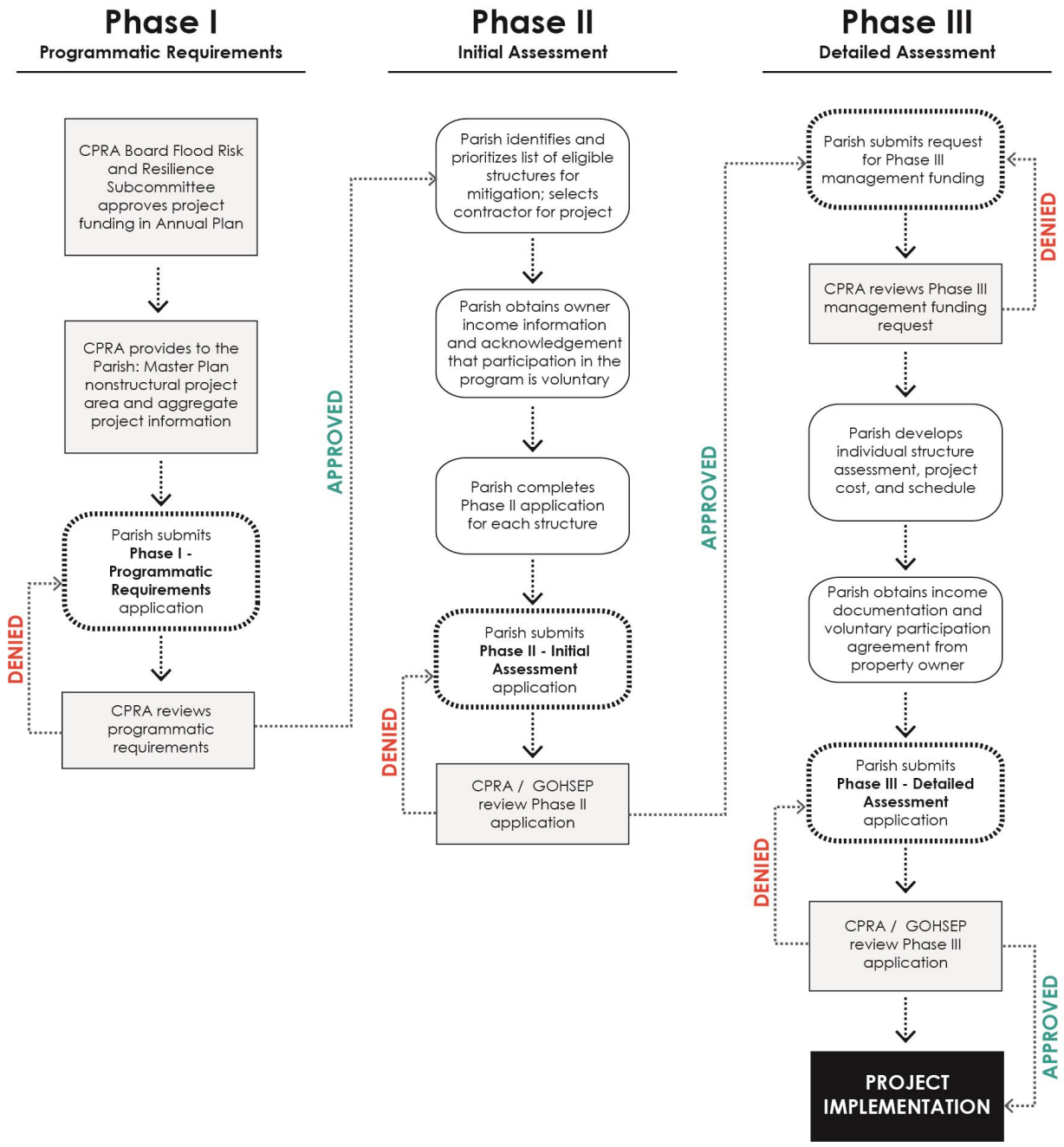

Figure 1: Overview of the Flood Risk and Resilience Application Process.

2.1 Phase I: Programmatic Requirements

To participate in CPRA's Flood Risk and Resilience Program, parishes must meet certain planning requisites, provide details about past mitigation grant projects they have developed and implemented, as well as state their current institutional capacity. The following three items must be documented:

- **Planning Requisites**. As a condition of receipt of CPRA funds, local governments must have in place current Federal Emergency Management Agency (FEMA)-approved local hazard mitigation plans and local master plan/comprehensive plans (where adopted) that are consistent with the state's master plan. Parishes will need to provide copies of their FEMA-approved local hazard mitigation plan and any local master plan/comprehensive land use plan required for the community.

- **Past Track Record**. The parish should submit an overview of mitigation grants awarded over the last ten years and number of mitigations completed by the parish. The overview should include funding sources, types of projects completed, project period of performance, and the ability to manage the project, budget, and schedule. Any unplanned issues or problems that arose during the award, construction, and closeout phases of the project should be identified, and the approach for the problem's resolution should be described in the parish's written explanation. It should be noted that the completion of past mitigation projects is not a prerequisite for parish eligibility, but instead allows CPRA to gain a better understanding of the parish's capacity and grant management abilities.

- **Current Capabilities**. The application should include a description of the parish's current capabilities to implement CPRA recommended nonstructural risk reduction projects (keeping project scale in mind). Where there is a capacity gap, the parish should describe the resource(s) needed to close the gap. Information should include the name and title of the proposed project lead, the number of staff, their skills and background, and years of experience in their current position and/or previous local government experience in obtaining and implementing mitigation grants. If inexperienced with nonstructural measures and/or mitigation grants, the parish should describe its willingness to participate in workshops, mentoring programs, and other forms of training needed to increase capacity. Parishes interested in sharing their knowledge with other parishes should also indicate this willingness in Phase I.

In addition to the above, parishes wishing to lower their cost share requirement should submit additional documentation substantiating whether they qualify for cost share incentives during this phase of the application process. Details about what activities qualify for cost share incentives are found in Section 3.1 Program Policies and Procedures, and cost share requests should be submitted directly to CPRA with any supporting documentation. The applicant must satisfy the requirements of Phase I to move on to Phase II. Clearance to move onto Phase II will be provided at the sole discretion of CPRA. To demonstrate continued compliance with Phase I requirements, documentation will need to be re-certified every three years through the life of the program.

Should the information be incomplete or deficient, CPRA will notify the parish via email with a letter noting the deficiencies and corrective actions to be taken, as well as the timeline within which corrective action is expected. Once the information has been reviewed and any concerns addressed, the parish will be notified that the Phase II application can be prepared and submitted.

2.2 Phase II: Initial Assessment

The second phase of the Flood Risk and Resilience Program application process focuses on developing project proposals that support the nonstructural risk reduction projects recommended by the 2017 Coastal Master Plan. The parish will provide the information needed to refine the nonstructural risk reduction project including total number/type of structures to be included in the project, proposed nonstructural mitigation, overall project costs, and budget, as well as some preliminary structure documentation and initial contact with property owners. Preliminary project information to be developed consists of:

- Number and type of structures to be mitigated
- List of prioritized structures, including structure details and photos
- Maps of project area
- Type(s) of nonstructural mitigation(s) proposed
- Estimated project budget (including material, labor, and fees)
- Any existing funding or match
- Percent of LMI structures within the project area; determination of LMI is based on property owner income
- Statement of intent to request reimbursement for Phase III costs
- Property owner level of interest in participating in the program

To support local decision making, CPRA will provide the parishes with the results of the 2017 Coastal Master Plan nonstructural project evaluation, which contains information on current/future flood risk and identifies the number/type of structures recommended to be mitigated in each project area and the associated project cost estimates. It may be necessary to divide CPRA's nonstructural project areas into smaller subprojects to accommodate limits in available funding and implementation capacity. The parishes will need to determine which specific structures within the project area can be mitigated first with the available funding.

Parishes will need to prioritize properties in the following order of importance - structures benefitting low to moderate income households, properties that are owner occupied/primary residences, properties contiguous to one another (or that complete an area of contiguous mitigation), and properties with the highest flood depths. Parishes may also want to consider prioritizing based on repetitive or historical flood loss (with or without insurance). Should funding only be available for a portion of the project, CPRA will prioritize properties that meet those above criteria for mitigation. The parish may also include additional evaluation criteria that address parish-specific issues, but should also keep in mind that percentage of households with LMI status is a required factor in CPRA's evaluation of the project's structure prioritization process. See Section 2.4 for more details on LMI prioritization.

In Phase II of the application process, a parish will select the contractor(s) who will be responsible for realizing the project; mitigating multiple structures with a central contractor will maximize cost-effectiveness and streamline project implementation. CPRA will explore efforts with GOHSEP to maintain a list of qualified contractors with current and appropriate construction license, insurance, and bonding information as well as project references. The parish will also provide information needed to refine project costs, evaluate the specific properties to be mitigated, and validate the eligibility of each structure. Parishes will collect specific structure addresses, verify that those structures can actually be mitigated, and confirm that property owners are interested in participating. To do this, parishes will need to make initial contact with the property owners and discuss the potential project. Additionally, parishes will conduct a windshield survey of the project area to verify that the structures appear to be structurally sound and have not already

been mitigated. This information will assist parishes in prioritizing structures for mitigation and refining the sequence of mitigation implementation.

Wherever possible, the parish should look to include as many contiguous properties as possible to create a more seamless project. For acquisition projects, this will result in a larger, continuous parcel of land that offers more open space benefits to recreation, conservation, or water management efforts. For elevation and floodproofing projects, this will result in a more uniform streetscape post-project. Once a parish has completed the Phase II initial structure identification, a more detailed Phase III application will need to be completed for each structure.

The following example data will be needed for each structure in the Phase II application:

- Street address, tax ID, and priority number
- Year built
- Total square footage of structure
- Structure type (e.g., residential, commercial, general public building, critical facility, school/faith-based institutions, etc.)
- Construction type (e.g., concrete block, wood frame, metal frame, brick, etc.)
- Foundation type (e.g., slab, crawlspace, piling, pier, etc.)
- Property appraiser record
- Parcel map
- Topographic map
- Elevation Certificate (if available)
- Structure occupancy (owner-occupied or rental unit)
- General condition of structure
- Pictures of structure (show all four sides and general streetscape)
- Household income per structure (for LMI status)
- Proposed mitigation measure
- Any past mitigation
- Submittal of Property Owner Notice of Voluntary Interest for at least one owner of record per structure – structure owners will be requested to state their interest (e.g., medium, high) in the mitigation measure proposed for their structure but will not be required to fully commit to the project until detailed project cost estimates are developed during Phase III of the application process. At all stages of project implementation, participation is voluntary.

Information provided in the Phase II application will help CPRA:

- Confirm that the structures need to be mitigated and that they are suitable for the type of mitigation selected based on the preliminary structure analysis
- Determine if specific features of the structure, like foundation or construction type, may potentially modify the initial cost estimates (either increase or decrease)
- Confirm that the property owner is interested in participating and understands that participation is purely voluntary
- Validate appropriate contractor(s) to perform project(s) work
- Prioritize nonstructural risk reduction projects for funding

After a parish submits the Phase II application, CPRA will review the application data for completeness and accuracy, cost reasonableness, and how the parish complies with the Phase I programmatic requirements for project cost share determination. Structures that meet Phase II requirements will move on to Phase III.

2.3 Phase III: Detailed Assessment

Under Phase III, the parishes will submit refined and more detailed applications to CPRA with a formal request for project funding, as well as a request for reimbursement to complete Phase III, if applicable.[1] Many of the program requirements will be similar to the FEMA mitigation grant programs administered by GOHSEP, except for the benefit cost analysis, which has been completed by CPRA, and CPRA's added requirement that LMI be a structure prioritization factor.

The Phase III application process will generally begin when the parish submits a request for Phase III management funding as this phase includes activities such as elevation feasibility analyses that involve professional technical services. Some parishes may need technical assistance to prepare applications and then implement CPRA funded projects. Technical and programmatic assistance will be provided to enhance the parish's local flood risk reduction capacity. CPRA will examine options for technical assistance, including mentoring by experienced parishes, pre-project workshops, and data sharing/analysis (see Section 3.4 Capacity Building Measures and Leveraging Data Resources for more information). The parish will develop a detailed Phase III application, which then will be reviewed by CPRA who will make the final decision on whether to approve the project.

The Phase III applications will include specific structure and project information such as:

- Refined list of prioritized structures.
- Refined scope of work that describes existing flood risk and details the proposed project with site plan/map, professional engineering assessment, and conceptual project design.
    - Detailed professional engineering assessment of current structure and foundation condition and suitability for elevation or floodproofing. This assessment may include inspection of subflooring in crawl spaces, additions to the original structure, and review for damage.
- Refined project timeline and project milestones (including permitting and required environmental, historic, and/or cultural resource review).
- Estimated total project cost and request for funding from CPRA.
    - Total project budget and detailed cost estimates by a design professional/contractor for floodproofing, elevation, or acquisition for each structure in a project application based on materials, labor, and fees. This may include site-specific information not available in the initial Phase II evaluation such as preliminary construction plans, permitting and environmental, historic, and/or cultural resource review requirements (depending on funding source).
    - Requests for reimbursement of Phase III costs, as applicable.
- Property owner's written voluntary participation form is required to move forward with mitigation, provided that funding is awarded. Additionally, property owners must submit documents pertaining to duplication of benefits and declaration of eligibility/liability release, as well as documentation to confirm the income reported in Phase II (or updated for Phase III). Information regarding any future maintenance requirements (for public property, e.g., commitment to maintain a floodproofing project) or statement of assurances (for voluntary acquisition projects) are needed as well.

Example information to be collected during the Phase III - Detailed Assessment includes:

[1] Any new structures submitted in Phase III must also submit completed Phase II property information documentation.

- Example structure information, as well as any updated information from Phase II:
    - Any updated information from Phase II
    - Soil type
    - Lot size (square footage)
    - Structure size (square footage)
    - Number stories
    - Utilities/utility hookup configuration
    - Fair market value of structure and lot (based on property appraiser record)
    - Environmental considerations
    - Special zoning issues
    - Identification as historic property or eligibility for a historic designation
    - Americans with Disabilities Act (ADA) considerations (e.g., need for elevators or ramps)
    - LMI final determination documentation

- Flood hazard information:
    - NFIP flood zone and effective FEMA BFE
    - Finished flood elevation and/or elevation certificate
    - Local flood ordinance elevation requirements
    - Recommended CPRA elevation height
    - Flood claims and/or repetitive loss (RL) or severe repetitive loss (SRL) categorization

- Mitigation information:
    - Mitigation measure and scope of work
    - Comments about technical feasibility or other notes that might affect project scope or cost (e.g., in the case of elevation projects, unusual shape of the structure)
    - Estimated timeline
    - Is the property contiguous with another property in the application package?
    - Mitigation-specific required paperwork, such as the "Statement of Assurances" required for acquisitions

- Property owner(s):
    - Willingness to participate
    - Completion of Voluntary Participation Agreement form for each owner of record (including Household Income Questionnaire and Historic Flood Loss Information)
    - Documentation of household income
    - Renter/lessee information
    - Completion of Declaration and Release form from owners with signature authority
    - Completion of Duplication of Benefits form and confirmation that there are no duplications of benefits from another mitigation grant (see Section 3.2.4 Duplication with Other Funding Sources)

The Phase III evaluation factors used by CPRA for project approval include:

- Funding source restrictions, prerequisites, and availability
- Compliance with the Flood Risk and Resilience Program requirements

- Time required to implement the project (including design, permitting, and construction time)
- Detailed feasibility assessment for elevating or floodproofing the structure
- Property owner written Voluntary Participation form
- Property owner Duplication of Benefits form
- Factors that may increase costs over the original estimate
- Notes of any potential structural/permitting/title challenges or obstacles
- Historic structure review, environmental/cultural review and considerations
- Additional project-specific paperwork (such as a maintenance agreement for acquisitions or publicly owned property)
- Flood Risk and Resilience Program requirements for the parish prioritization process including:
    - Low to moderate income households
    - Owner occupied/primary residences
    - Contiguous properties/complete an area of contiguous mitigation
    - Highest flood depths
    - Other parish considerations, such as repetitive or historical flood loss (with or without insurance)

2.4 Prioritizing Mitigation of LMI Structures

As part of CPRA's goal to provide a comprehensive approach to flood risk reduction, communities should plan to prioritize the mitigation of structures that specifically benefit low to moderate income (80% of area median income as determined by the United States Department of Housing and Urban Development (HUD)) households. As such, the applicant must determine and communicate to CPRA the number of LMI households that will benefit from the project. Projects with the greatest share of benefits to LMI populations should be identified as higher priority for mitigation. CPRA will take this into consideration when reviewing project applications.

In Phase II, applicants are asked to indicate the number of LMI households that will benefit from the project, as well as provide household affidavits related to income. A Low to Moderate Income Determination form, income questionnaire, and spreadsheets accompanying the application will assist the applicant in completing the LMI determination for the project area. Backup documentation in addition to the income questionnaire is not required in Phase II. In Phase III, CPRA requires documentation from each participating household to verify this information before the project can be implemented.

Income Documentation Requirements
In Phase II, each household seeking to participate must complete the income questionnaire as part of the Property Owner Notice of Voluntary Interest form. If this questionnaire is not completed in Phase II, the project will be evaluated as if no LMI information has been provided, and should be prioritized by the parish accordingly. CPRA will provide an excel spreadsheet (Household Income for Multi-family Structures) along with the Phase II and Phase III application forms in order to support the parish in compiling household income information for multi-family structures.

In Phase III, household income information must be resubmitted along with corresponding documentation in the Voluntary Participation Agreement form. Combined income provided by the individual applicants on the income questionnaire MUST be verified through the provision of one of the below listed resources for each household within each structure to ensure the accuracy of information:

- Provision of the most recent IRS 1040 adjusted gross income definition, as verified by receiving a copy of the household members' most recent tax form(s)

- Provision of the property owner's last three pay statements indicating income received

Applicants will enter the household income information for each structure into the Structure Prioritization spreadsheet for Phase II (and refine during Phase III as needed), and the spreadsheet will automatically indicate whether the structure qualifies for HUD's definition of LMI. The spreadsheet will also automatically calculate the total LMI qualifying structures included and the overall proposed project's percentage of LMI qualifying structures. Parishes will submit this spreadsheet (along with the appropriate documentation in Phase III) to CPRA.

For more on this process, as well as the handling of multi-family structures, see the Low to Moderate Income Determination Instructions included with the Phase II and Phase III application packets.

3.0 Program Policies and Procedures

Once a parish's proposed nonstructural risk reduction project has been selected for implementation through the Flood Risk and Resilience Program, it will need to follow program and project specific policies and procedures. In order to provide for efficient and effective program management and oversight, CPRA has established program policies and procedures to cover a variety of topics. These can be defined by four major areas of interest: 1) cost share and incentives; 2) funding policies and procedures; 3) project management and monitoring; and 4) capacity building measures and leveraging data resources.

As the Flood Risk and Resilience Program matures, existing policies may be refined and new policies and procedures developed. CPRA will make program refinements available using any of a number of outlets including revisions to this Handbook, website announcements, direct mailers, and policy statements.

3.1 Cost Share and Incentives

FEMA and state mitigation grant programs generally require a local match of funds, referred to as the non-federal cost share, to demonstrate commitment to the mitigation project. The standard FEMA mitigation grant cost share is a 75%/25% FEMA/non-federal source split, unless it is a Flood Mitigation Assistance (FMA) project with severe repetitive loss (SRL) which is typically fully funded by FEMA or repetitive loss (RL) which is 90%/10%. Disadvantaged communities may also receive a 90%/10% cost share through the FEMA Pre-Disaster Mitigation (PDM) program. The non-federal "matching" funds are often provided by the local government or the structure owner, but this can present a financial hardship and sometimes prevent a project from going forward. This is especially true after a disaster, when scarce governmental funds are directed toward meeting cost share requirements for response and recovery programs.

The Flood Risk and Resilience Program's cost share will be 90% CPRA funds/10% local match. To advance flood risk reduction in Louisiana beyond the resources under CPRA jurisdiction, the program is structured to provide additional incentives to participating parishes to reduce this cost share responsibility. These incentives promote voluntary programmatic measures that demonstrate deeper commitment by the parish to advance flood risk reduction in their area.

Programmatic measures that reduce coastal flood risk are an important part of the Flood Risk and Resilience Program approach. These measures typically involve action by local elected officials to implement or modify codes, standards, and ordinances. Because the drafting, modification, and implementation of these measures are the domain of local governments, CPRA will reward actions taken by these bodies toward greater risk reduction. Parish applicants will be required to submit information and documentation substantiating how they meet these cost share requirements during Phase I of the application process (through the Match Reduction Performance Measures form). CPRA will offer a 5% reduction in cost share for each activity implemented below, up to 100% CPRA cost share:

- **Join or expand participation in the NFIP's Community Rating System (CRS) to lower flood risk and reduce costs of flood insurance.** CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result of participation, flood insurance premium rates are discounted community wide (for those structures in the mapped special flood hazard area) to reflect the reduced flood risk resulting from the community actions that meet the three goals of CRS: 1) reduce flood damage to insurable property; 2) strengthen and support the insurance aspects of NFIP; and 3) encourage a comprehensive approach to floodplain management (CRS, 2013).

  Match reduction information required:
  - For parishes not yet CRS program participants:
    - Copy of draft CRS application including point total being requested
    - Anticipated date for submittal of CRS application to the Insurance Services Office (ISO) for review
    - Parish CRS Coordinator name and contact information
    - Documentation of entry into the program and classification, once received
  - For parishes seeking to improve their current CRS rating:
    - Date parish joined CRS and current classification
    - Current number of points supporting classification
    - Copy of draft application including points total being requested or shorter narrative describing actions being taken or planned to improve the parish's class ranking
    - Documentation of classification change, once received (if applicable)

  A final determination of cost share reduction eligibility may be held until final approval of the application by the ISO and/or upon approval of future CRS actions by CPRA.

- **Adopt additional elevation height requirements (known as freeboard) above minimum standard in local flood ordinances to the FEMA BFE + 2 ft or CPRA's recommended elevation height (100-year flood depths plus two feet freeboard), whichever is higher, in order to add a wider safety margin for future flood risk.** Many parish ordinances do not currently include freeboard requirements and structures only have to be built to FEMA's 100-year flood BFE. However, many flood maps are outdated, and the BFE may not reflect the actual flood risk or the anticipated increased risk in the future. The adoption of a higher freeboard requirement will help protect future development and redevelopment against dynamic factors like changes in storm frequency and intensity, relative sea level rise, and other factors that contribute to land loss. This action will also decrease flood insurance premiums for those structures elevated above the BFE.

  Match reduction information required:
  - Delineation of the community areas that include the additional freeboard

  - Copy of ordinance adopting higher regulatory standards
  - Resolution from the Parish Police Jury, council, or commission adopting the policy
  - Name and contact information for parish official responsible for ordinance implementation and enforcement

- **Adopt local policies that focus infrastructure investment and development in areas outside of a flood zone, such as a property tax reduction or a higher density allowance. When facilities must be located in a flood zone, implement the following examples or similar measures:**

  - Require floodproofing of power generation facilities, water/sewage infrastructure, power transmission infrastructure, transportation infrastructure or other critical facilities to a higher level of protection, such as the 500-year (0.2 percent annual chance) flood elevation.
  - Siting and design of these facilities must take into consideration impacts from climate change, including increasing winds, storm surge, and sea level rise, to protect public and private investment and the welfare and safety of current and future populations.
  - Any new facilities must be built to the 500-year flood elevation to be consistent with the standard for critical actions in 44 CFR Part 9 (Floodplain Management and Protection of Wetlands) and in anticipation of the requirements of Executive Order 13690 (Federal Flood Risk Management Standard).

  Match reduction information required:
  - Delineation of the community areas that would be affected by the local policy
  - Copy of appropriate adopted policy meeting the requirements above
  - Resolution from the Parish Police Jury, council, or commission adopting the policy
  - Name and contact information for parish official responsible for policy implementation and enforcement

If a parish receives credit for meeting one of more of these incentives, documentation will need to be re-certified every three years to demonstrate continued compliance with these incentive standards through the life of the program. Beyond cost share benefits, other incentives available from CPRA for parishes that implement the above measures could include:

- Parish staff support required to implement the nonstructural risk reduction projects that may be funded in their area.
- Use of CPRA funds to serve as non-federal match for FEMA mitigation grant projects that meet CPRA's master plan objectives.

Overall, these incentives can help increase the number of grant applications, eliminate or reduce the financial burden of cost share responsibilities, and encourage the implementation of projects that meet the master plan goal of reducing communities' flood risk more efficiently. CPRA funds may also serve as a non-federal match for federal mitigation grant projects that meet master plan objectives. By using CPRA grant funds for the non-federal cost share, parishes may be able to implement projects that they could not otherwise undertake due to lack of a local match. Parishes which intend to use CPRA funds as match must indicate this during the application process and provide documentation of award or application submittal to the program for which match costs are requested. The parish must be prepared to meet all cost documentation requirements for the funding program to which CPRA funds provide match; these requirements may exceed or differ from CPRA requirements.

3.2 Funding Policies and Procedures

The Flood Risk and Resilience Program is structured similarly to other federal mitigation grant programs, where the local government is responsible for paying for any work completed and then must request reimbursement for eligible activities from the state or other grantor. This section describes the policies and procedures related to nonstructural project funding and requests for reimbursement.

In general, nonstructural risk reduction projects will be funded through reimbursements on a milestone-based funding cycle. After the inclusion of a nonstructural risk reduction project in CPRA's Annual Plan, CPRA recommends setting up a Cooperative Endeavor Agreement (CEA) with the parish to put into place a contracting mechanism. To expedite project implementation, the CEA will provide a means to distribute funding through CPRA to parishes for approved project and program management costs. Once the nonstructural application and project has been approved, the parish will make requests for reimbursement based on milestones established in the project schedule. Parishes may also elect to submit reimbursement requests for certain program activities, as opposed to specified time periods of activity. Payment requests can only cover costs associated with the approved scope of work for a particular milestone. Each request must be accompanied by sufficient documentation to support the request. Requests for reimbursement must be made at least quarterly, but no more frequently than monthly, throughout the project period of performance as long as costs are expended. All costs must be eligible project costs as defined in Section 4.0 Project Specific Policies and Procedures. Payment requests must be based on progress achieved according to the approved work schedule and cost estimate provided to CPRA during the Phase III – Detailed Assessment. For more information on the process for submitting requests for reimbursement, see the Request for Reimbursement guidance and forms provided along with the Phase III application packet.

3.2.1 Phase III Cost Reimbursement

In addition to funds requested after the project has been approved, parishes can submit requests for reimbursement for work conducted to complete the Phase III application. The process to complete the Phase III application may be resource intensive and, as such, parishes may request funding for reimbursement of eligible technical or administrative expenses. For example, funding is available to develop the scope of work and procure professional assessment reports for all structures within an application.

Applicants should notify CPRA of the intent to request for reimbursement in Phase II, through the Phase III Cost Request form, and submit the formal request for reimbursement in Phase III of the application process. Parishes must maintain detailed records tracking Phase III application development cost expenditures. These costs must be requested specifically, must be directly related to completing the Phase III application for the project for which funding is sought, and may include the following:

- Project-related data collection for application
- Project-related outreach and stakeholder engagement
- Preparation/processing of CPRA application and award
- Project-related professional or technical services (e.g., site visits, environmental study, technical meetings, required professional assessment report)
- Construction costs should ***not*** be included

All eligible Phase III costs are subject to approval and availability of funding. If funding is not available or approved, the Phase III costs will not be reimbursed and will remain the sole responsibility of the applicant. If the Phase III cost request is approved and Phase III costs are eligible, the cost share for the reimbursement of these activities will be determined by CPRA based upon the cost share requirement determined in Phase I – Programmatic Requirements of the application process. Upon award, the appropriate backup documentation and proof of expenditure must be provided through a formal request for reimbursement (see Request for Reimbursement form provided within the application packet). CPRA will not fund Phase III expenses for which appropriate documentation is not received or cannot be demonstrated as necessary to Phase III application submittal.

3.2.2 Cost Overruns

During the execution of work on an approved nonstructural risk reduction project, the parish administering the grant may discover that actual project costs exceed the approved estimates. For cost overruns requiring additional CPRA funds, the parish should evaluate each cost overrun and submit a written request for additional funds. CPRA should be made aware of any anticipated overruns as soon as they are identified, which should be documented through submittal of the relevant Quarterly Report. It is required that the parish submits a request for approval prior to the cost being incurred. The submittal should include justification and other relevant material to substantiate the request. For any cost overrun requests denied by CPRA, the parish will be responsible for the cost overrun amount. CPRA will only reimburse approved cost overruns up to a maximum of 10% of the cost associated with any particular structure.

3.2.3 Funds Spent Outside Scope of Work

CPRA's Flood Risk and Resilience Program funds must not be spent on activities outside the approved scope of work. If work on the project is ongoing, payments for future work phases will be reduced by the amount spent on activities outside the approved scope of work. If the project is complete and all payments to the parish have been made, the parish will be responsible for fully reimbursing CPRA for any funds spent on activities determined to be outside the approved scope of work. Completion of activities outside of the approved scope of work could jeopardize all future funding. Funds spent on activities not authorized by the scope of work must be returned to CPRA prior to project closeout.

3.2.4 Duplication with Other Funding Sources

Parishes are responsible for determining whether a participating property owner has received duplicative funding for the same mitigation measure through another funding source, such as federal flood insurance or FEMA/U.S. Department of Housing and Urban Development (HUD) mitigation grant programs. GOHSEP is available to help the parishes obtain disaster grant and flood insurance claim information. If duplication of funding does occur, the parish is responsible for notifying CPRA in writing. If a homeowner/property owner is awarded federal mitigation funding sources through FEMA Hazard Mitigation Assistance (HMA) programs, mitigation of that structure will need to be funded through the federal program and not with state funds. The Phase III applications require that parishes complete the Duplication of Benefits form to ensure there is not any inadvertent duplication of funds.

3.3 Program and Project Management/Monitoring

As part of the Flood Risk and Resilience Program, funding may be applied to costs for both program and project management as described below.

3.3.1 Program Management Costs

Program management costs are any administrative expenses that are reasonably incurred by a parish in preparing CPRA Flood Risk and Resilience Program applications or in administering and implementing a grant award. The costs cannot exceed 5% of the total approved project costs. These costs are distinct from the project management costs that are necessary to conduct activities directly related to implementation of a project (e.g., for an acquisition project, coordinating property owner acquisition offers and closeouts). Parishes must maintain detailed records tracking program management cost expenditures, and submit these costs as a separate line item in the Phase II and Phase III budget requests.

Program management costs are defined by expenditures that relate to actions tied to nonstructural risk reduction project **awards**, but not to a specific structure (such as management of the overall grant, coordination with the state or contractor, etc.). On the other hand, if an action can be tied to a specific **structure within the grant**, it is generally considered structure-specific project management (such as the management of reimbursements and accounting for a single structure, coordination with the homeowner, etc.). Further, it should be noted that actions that support resiliency more broadly in the community, but cannot be tied to a specific award, would be **ineligible** (for example, community-wide planning efforts) for program management funding.

Eligible program management costs include:

- As part of the Phase III application: Preparation of CPRA applications and cost documentation
- As part of the Phase III application: Data collection in support of applications
- Grant management costs: Financial tracking, reporting, quarterly reporting, closeout, etc.
- Staff salary costs directly related to performing the activities listed above (see 3.3.6 Timekeeping and Cost Documentation below)

3.3.2 Overview of Project Management

To effectively manage flood risk mitigation projects, parishes should assign a project lead, or case manager, to each floodproofing, elevation, and acquisition project. The project lead will be responsible for project implementation and oversight at the local level and for providing CPRA with project status updates. At a minimum, the parish lead will organize one pre-application meeting with contractors and builders to discuss project scope, options, and potential issues. An additional public or community meeting will be held with homeowners to discuss the same topics and to gauge potential participation as property owner participation is the cornerstone of this program. As the program proceeds, CPRA will attempt to capture lessons learned, especially regarding increasing homeowner participation, and share those lessons with participating parishes.

Eligible project management costs pertain to the mitigation of specific structures, and could include:

- As part of the Phase III application: Community engagement with eligible structure owners for participation in the Flood Risk and Resilience Program
- As part of the Phase III application: Technical assessments (e.g., site visits, technical meetings)
- Post award: Construction management
- Post award: Management of reimbursements and accounting for a single structure
- Post award: Ongoing coordination with the homeowner

The parishes that receive CPRA grants will be responsible for project management, accountability of funds, meeting all CPRA Flood Risk and Resilience Program and administrative requirements, and proper implementation of the approved project. CPRA, in partnership with GOHSEP, is endeavoring to develop an automated system for tracking grant progress, budget, and schedule for parishes to use. It will be the responsibility of the parish to enter required information in a timely manner as the project proceeds. Inadequate and incomplete input of project tracking data may result in delay of future partial payments. Should this automated system be developed, training will be provided to the parish project lead on proper use of the grant tracking system.

Although local governments will have the primary responsibility for project oversight and monitoring, CPRA will consider reasonable assistance requests on a case by case basis and will provide programmatic assistance to the parishes on an as-needed basis, CPRA resources permitting. This assistance could include:

- Assistance for collecting required project data and scope changes
- Programmatic guidance for application preparation and problem resolution
- Guidance for project closeout responsibilities and procedures

As the grantor of the Flood Risk and Resilience Program, CPRA will assume program management responsibilities of financial monitoring to avoid cost overruns or projects that are not built to the approved conditions, as well as project auditing to verify compliance with program requirements and adherence to the approved project design.

3.3.3 Project Costs

Project costs are direct costs incurred that can be identified separately and assigned to a specific structure within a nonstructural risk reduction project once CPRA funding has been provided. The costs must be related to materials, labor, construction, and engineering/design of the project to be implemented or being implemented. These costs will vary by project type and activity, but such costs will be incurred in direct relation to the project and are deemed necessary, reasonable, allocable, and allowable for the performance of the award. Examples include the following allowable general project implementation costs:

- Personnel compensation
- Permitting
- Design and engineering
- Construction costs

Only those costs associated with minimum project compliance are eligible for consideration for payment by CPRA. Additional costs associated with improving project aesthetics, additional

work requested by the homeowner, expansion of the project scope, and other non-mitigation related items not authorized by CPRA will not be reimbursed. Costs associated with correcting violations, other than code improvements directly triggered by a mitigation action, are ineligible project costs.

3.3.4 Project Tracking

The project information for each application will be entered into the selected automated financial grants database to track grant progress by budget and schedule. The parishes that receive CPRA grants will be responsible for project management, accountability of funds, meeting all CPRA program and administrative requirements, and proper implementation of the approved project. CPRA and its state partner GOHSEP have initiated a discussion to develop a partnership with shared responsibilities for monitoring and tracking the grant application, award, and project implementation activities.

Recording the grant information in a database will allow CPRA and GOHSEP to track state-funded projects for potential future FEMA Global Match credit. Non-FEMA-funded mitigation projects can be used to offset the non-federal match requirements for FEMA mitigation programs. For past disasters, including Hurricane Katrina, FEMA has allowed the dollar value of non-federally funded mitigation projects funded and implemented in roughly the same timeframe as a declared disaster to serve as the non-federal match for Hazard Mitigation Grant Program (HMGP) projects. This allows the HMGP projects, up to the value of the Global Match, to be 100% federally funded.

Additionally, the parishes must submit a Quarterly Report to CPRA indicating the status and completion date for each project funded. Any problems or circumstances affecting completion dates, scope of work, or project costs expected to result in noncompliance with the approved grant conditions must be described in this report. The parish should also submit a corrective action plan for how it will remedy the problem.

All expenditures should be tracked by the parish and reported through CPRA's grant tracking database. Associated required information and documentation is identified in the Request for Reimbursement form accompanying the Nonstructural Application Package. Example required documentation is listed below in Section 3.3.5 Project Closeout and Compliance.

3.3.5 Project Closeout and Compliance

For program compliance, closeout, and auditing purposes, the parishes will track the funds received and spent, contractor bids and performance, project installation, and new floodproofing, elevations, and acquired property. Elevation certificates should be created and submitted to CPRA and GOHSEP for all mitigated structures.

Sufficient records must be retained to demonstrate compliance with the terms of the Flood Risk and Resilience Program project contract, budget, scope of work, and all other applicable laws and regulations, including the compliance of all subcontractors or consultants to be paid from funds provided under the agreement. Under state law, all records must be maintained for a minimum of three years following project closeout. **Note that in the case Flood Risk and Resilience Program funds are used as state or local match to a federally funded project, the parish must ensure compliance with all applicable federal record keeping and reporting requirements**.

The below is provided as guidance; this list is not intended to be exhaustive, and specific records may depend upon the nature of the project ultimately funded by the Flood Risk and Resilience Program. It is important that full and complete record keeping is consistently applied to project implementation regardless of funding source. Documentation may include, but is not limited to: applications, contracts and procurement documentation, agreements, status reports and narratives, financial documentation and reports, and supporting documentation. The parish should retain the following records for audit purposes, at minimum.

- Original application and any contract modifications
- Award package (letter/award document)
- Performance reports (Quarterly Reports and any other documents used to monitor and report project or program performance)
- Description of completed project or engineer's/local building official's certificate of completion (Final Inspection Report)
- Final as-built drawings and Elevation Certificate as applicable
- Copies of single audit and/or other required audits
- All related supporting documentation of expenditure activity and subcontractor award files with supporting expenditure documentation, such as:
    - Financial and accounting reports
    - Copies of payment documentation, such as invoices and cancelled checks, receipts, vouchers, or other verification of expenses and associated accounting summary sheets
    - Budget breakdown of expended funds, including local match. For any project for which CPRA grants are used as match to federal program funds, retain documentation that demonstrates proper allocation of match funding. This documentation must clearly show no duplication or double counting of matching funds and establish clear eligibility of work under matching fund source regulations and guidance. A simple spreadsheet would suffice as a tracking mechanism (see Project Budget Template in the Nonstructural Project Application Package).
- Relevant correspondence from project approval to completion
- Copies of land or right of way agreements, if applicable
- Copies of contracts awarded for project work, as well as documentation of the procurement process (to include procurement notice, responses, selection process, and contractor selection resolution)
- Environmental and SHPO coordination documents and approvals, as necessary
- Any additional items identified as necessary for audit purposes

3.3.6 Timekeeping and Cost Documentation

Timekeeping should be logged and retained to reflect the actual efforts (in hours) attributed to each activity associated with project completion. Time should be clearly charged to each project in a manner that ensures clear record of actual time allocation to avoid comingling of funds. Timesheets shall be certified (electronically verified or signed) by the employee and their supervisor. Note that timekeeping and cost documentation should be developed and retained in accordance with the record keeping and source documentation requirements in the 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards for which Flood Risk and Resilience Program funds are used as match for federal program funds.

3.3.7 Contractor List

The parish must comply with the applicable public bid law for procuring services and/or public works (construction). All requirements (i.e., licensing requirements, bonding requirements, insurance requirements, etc.) should be in accordance with applicable public bid law, and must be clearly stated in the solicitations for work and services and should also be included in the contract. The parish should also consult with its own legal counsel to ensure compliance with applicable public bid law.

CPRA will explore efforts with GOHSEP to maintain a list of qualified contractors with current and appropriate construction licenses, insurance, and bonding information as well as project references. This list will contain, where available, a list of the contractors' completed projects, including nonstructural risk reduction projects. The contractor list will not represent CPRA preferred or recommended contractors, but is intended to facilitate the parishes' due diligence in evaluating potential contractors.

3.3.8 Bid Procedures

Parishes that are awarded a CPRA grant must competitively bid the project to obtain the most favorable project cost possible. To achieve economies of scale, the parish should group structures together when bidding out the work to contractors. Projects should be packaged to achieve an economy of scale that would allow contractors to spread common costs, such as mobilization, over as many structures as possible thereby lowering the unit cost. This arrangement should result in a cost savings for the parish and the program.

The parish must procure any necessary goods and services in accordance with the public bid law that is applicable to the parish. The parish should refer to Chapter 10 of Title 38, and consult with its own legal counsel to ensure compliance with applicable public bid law and procedures. Additionally, there may be other procurement requirements as part of the grant and/or funding sources (such as federal procurement requirements outlined within 2 CFR Part 200) with which the parish would need to comply. Lastly, the nonstructural application process should follow the state public bid law process and include the proper limitations of liability forms/clauses.

Where contractor technical qualifications and reference input are otherwise equal, preference in accordance with Louisiana law should be given to experienced and technically qualified local, Louisiana resident contractor teams and businesses certified under Louisiana's Small Entrepreneurship (Hudson Initiative) Program or the U.S. Veterans Initiative.

3.3.9 Communication with the Property Owner

Parish officials will be responsible for communicating project information with the homeowners participating in the project. Parishes should consider instituting local procedures such as hosting pre-application meetings with contractors, developers, and homeowners to educate them on elevation options/requirements and to discuss concerns. Local officials report that projects are more likely to succeed when this type of activity takes place. Whenever possible, CPRA and GOHSEP will provide support materials to assist in this effort. Any elevation renderings or pictures of similar houses that have been elevated that give an idea of what the house might look like post-project are encouraged to be shared with the property owners. Throughout the process, the parish should consider ways to increase participation among property owners in implementing nonstructural risk reduction projects.

3.3.10 Confirmation of Lawful Status of Participating Property Owners

All participating property owners must document that they are willing and reasonably knowledgeable about the voluntary nature of the program and that they are United States citizens, nationals, or qualified and lawful temporary residents. The parish must collect this information (through the Notice of Voluntary Interest in Phase II, and Voluntary Participation Agreement and Declaration of Eligibility and Release of Liability forms in Phase III).

3.3.11 Historic Preservation Requirements

For any structures in an acquisition, elevation, or floodproofing project that are listed or have potential to be listed on the National Register of Historic Places, the Louisiana State Historic Preservation Office (SHPO) or a Louisiana Division of Historic Preservation may have additional requirements for historical reference purposes. Any such reasonable requirements must be met and are considered allowable project costs. Any modifications to project design due to historical preservation considerations will be made on a case by case basis.

3.3.12 Life Safety and Need to Evacuate

Parishes should notify participants that even after the completion of a CPRA funded elevation or floodproofing project, when a severe flood occurs, all occupants may be required to vacate the property. Even if the property is expected to be wholly or partially protected during a flood event, residents may still encounter hazards, such as damaged electrical power systems, which could make the structure unsafe. In addition, if the flood event exceeds the design level of the mitigation project, floodwater may enter the structure making it temporarily uninhabitable. In mandatory evacuation zones, the occupants should wait until local authorities announce it is safe to return. Floodproofing actions will require submittal of an emergency operations plan in order to ensure proper deployment of floodproofing measures.

3.4 Capacity Building Measures and Leveraging Data Resources

CPRA recognizes that capacity building is often one of the most challenging aspects for local governments as they take steps towards implementing nonstructural risk reduction projects, managing mitigation grant programs, or undertaking other actions to reduce local communities' flood risk. To assist with capacity building, CPRA may provide nonstructural grant application training workshops and encourages experienced parishes to mentor other local governments needing additional advice or technical expertise. While the potential training workshops will convey critical information to attendees, the most effective capacity building is through sustained mentoring, where an experienced official can guide applicants through the project application development and project implementation process. The Louisiana Resiliency Assistance Program (LRAP) at http://resiliency.lsu.edu is a compilation of local success stories and best practices which could serve as a resource to assist parishes with resilience efforts. CPRA will notify parishes either directly or through a variety of media outlets regarding upcoming training sessions. Parishes considering participation in the Flood Risk and Resilience Program and desiring training should contact CPRA directly to inquire about upcoming training needs and opportunities.

In addition to supporting capacity for grants management directly, CPRA produces a substantial amount of data and technical flood risk information that may be valuable to parishes

for other flood risk reduction or resilience planning activities. This data is available through the Master Plan Data Viewer – http://cims.coastal.louisiana.gov/masterplan. Data and information from the 2017 Coastal Master Plan's modeling effort could be useful to parishes that are updating their local comprehensive plans, hazard mitigation plans, CRS Flood Mitigation Plans, and Threat and Hazard Identification and Risk Assessments (THIRA). In addition, CPRA's flood risk information could be included as part of a hazard mitigation element for a comprehensive plan to better align state and local planning processes. For instance, CPRA's flood risk data was utilized by the Office of Community Development when developing the Louisiana's Strategic Adaptations for Future Environments (LA SAFE) plan.

CPRA will continue to make the 2017 Coastal Master Plan modeling data and other relevant information available to parishes to assist with these types of efforts; encourage expanded use and application of master plan flood depth and damage data by local officials, planners, and residents for planning and decision making; provide education and technical support for data access and interpretation; and improve and better coordinate data sharing across agencies, which is likely to contribute to major cost savings for individuals, communities, states, and federal agencies.

4.0 Project Specific Policies and Procedures

This section includes project specific policies and procedures to guide effective implementation of CPRA funded projects. The policies and procedures take into account the specific elements of and requirements for the different nonstructural risk reduction project types, including non-residential floodproofing, residential elevation, and residential voluntary acquisition, and are designed to:

- Confirm nonstructural risk reduction projects meet master plan goals and objectives
- Facilitate effective implementation of nonstructural risk reduction projects
- Ensure proper stewardship of public funds
- Follow accepted industry standards

4.1 Non-Residential Floodproofing Projects

Floodproofing projects are recommended for non-residential structures with flood depths between one and three feet for a 100-year storm surge flood event as determined by the 2017 Coastal Master Plan and CLARA modeling effort. This subsection describes project policies and procedures required to guide the development and implementation of floodproofing projects for non-residential buildings.

Dry floodproofing involves making a building watertight up to an established elevation for flood protection. Dry floodproofing is a viable mitigation option for non-residential buildings and large-scale multi-family structures such as apartments that are too large to be elevated. However, it is not typically feasible in areas of high-velocity flow or wave action. Single-family, small multi-family (e.g., duplexes), and manufactured homes are generally not suitable for dry floodproofing measures given the level of emergency preparedness actions required to successfully install features at openings in the case of an impending storm, as well as hydrostatic pressure that acts on the exterior of the building when water is prevented from entering. Floodwater can exert significant lateral loads on the building and can lead to permanent structural damage or cause a building to float off of its foundation. If floodwaters can enter the building, hydrostatic pressure can be equalized with standing water acting on the interior and

exterior sides of walls and foundation elements. FEMA describes hydrostatic pressure as one of the principal causes of flood damage.

Dry floodproofing is more cost-effective at lower flood depths because additional structural fortifications become more necessary as flood depths and, thus, hydrostatic pressure increase. Additionally, the cost of dry floodproofing materials increases at a higher level of flood protection. Dry floodproofing is generally not recommended for wood-frame buildings. Examples of dry floodproofing project types include installation of watertight coverings for doors and windows; reinforcement/coating of walls to withstand flood pressures and keep water out; use of membranes or sealants to reduce water seepage through walls or other structural elements; installation of pumps to control interior water levels; and construction of floodwalls and gates to keep water from reaching protected structures.

In general, floodproofing of a residential building does not affect the flood insurance rating as it is not considered an acceptable mitigation measure under NFIP. Residential property owners will not receive flood insurance premium credit for floodproofing and this would mean potentially much higher premium increases due to the requirements from the Biggert-Waters Flood Insurance Reform Act of 2012 and the subsequent Homeowner Flood Insurance Affordability Act of 2014 unless another mitigation measure was sought. The exception to FEMA's rule is for historic residential buildings if an elevation could modify its historic character. Residential floodproofing is also not an allowable mitigation measure according to the American Society of Civil Engineers (ASCE) *Flood Resistant Design and Construction Standard 24-14*, as well as most flood damage prevention ordinances and building codes. Therefore, at this time, CPRA is not considering residential floodproofing as an eligible project type in the Flood Risk and Resilience Program. Floodproofing is allowed only for non-residential structures that may experience 1-3 ft of flood depths, or higher if it can be shown that the action will be technically feasible.

4.1.1 Project Costs

Example allowable floodproofing costs include:

- Engineering design with consideration of geotechnical factors like erosion and scour, design certification, and initial structure evaluation by a licensed design professional. The design must include structural components that are modified, as necessary, to be capable of resisting hydrostatic and hydrodynamic loads (force of moving water and debris), the effects of buoyancy, wave loads, and impact loads from flood-borne debris
- Surveying (including verifying adequacy of lowest floor elevation) and soil sampling
- Title search, legal and/or permitting fees, and final inspection
- Labor and materials to install floodproofing project
- Sewage backflow prevention device and internal drainage system for seepage
- Flood shields for all doors and windows at or below flood protection level on exterior walls
- Floodproofing (through elevation or made watertight) of building utilities and sanitary facilities
- Use of flood-resistant materials on interior of building up to the level where water is expected to accumulate due to seepage
- Fortifying foundation and walls and use of flood-resistant materials to make them substantially impermeable
- Project administration and construction management
- Preparation of an emergency operations plan (EOP)

4.1.2 Constructability, Operation, and Maintenance Issues

Floodproofing of structures requires ongoing maintenance and, often, manual operation of floodproofing mechanisms. Proper documentation and attention to floodproofing operation and maintenance issues is vital to success during flood events. The following items must be addressed during planning, design, and/or construction of a floodproofing project.

4.1.2.1 Local and State Building Codes

Some, but not all, jurisdictions require dry floodproofing to be designed and constructed in compliance with *ASCE 24 Flood-Resistant Design and Construction Standard*, which is a standard incorporated by reference in the International Building Code. FEMA mitigation grant programs generally have these same requirements. CPRA floodproofing projects must meet all applicable state and local building code requirements, including ASCE standards current to the year of the project, which may exceed building codes.

4.1.2.2 Functional and Operational Factors

When considering a floodproofing approach, the following functional and operational factors should be considered in the project design, its maintenance agreement, and the required EOP (refer to Section 4.1.2.5):

- Occupant safety: the floodproofed building should never be occupied during a flood
- Identify the amount of time required to set up the components of the floodproofing system (e.g., install flood shields) and how much advance notice is needed to set up the system
- Implementation plan and regular exercising
- Access requirement
- Level and duration of operations or business interruption that can be tolerated
- Ability to accommodate flood damage repair
- Ability to maintain utility hookups and still protect the building
- Ability to maintain dry floodproofing measures once implemented

4.1.2.3 Areas with High-Velocity Flow or Wave Action

Dry floodproofing projects are generally not able to minimize the potential damage from high-velocity flood flow and wave action, and therefore should not be proposed for structures in a FEMA V Zone or Coastal A Zones (between V Zone and to the Limit of Moderate Wave Action). NFIP does not allow floodproofing in V Zones and in jurisdictions that adopted local codes that reference ASCE-24 for Coastal A Zones. ASCE-24 also does not accept dry floodproofing in coastal flood zones. In summary, for the Flood Risk and Resilience Program, dry floodproofing is only allowable in A Zones that are outside of the Limit of Moderate Wave Action.

4.1.2.4 Signed Maintenance Agreement

To ensure that an implemented floodproofing project remains viable over time, periodic inspections and replacement of parts are required. The inspections should include backflow prevention tests and sealant checks. In addition, parts subject to wear (such as seals and gaskets) must be inspected and replaced as necessary. Property owners are responsible for these inspections and replacements and must sign a maintenance agreement as confirmation

of their commitment to maintain the project. Elements of a successful maintenance program include:

- Developing an inventory and location list of all flood shields and closures
- Selecting adequate space to store floodproofing materials (e.g., flood shields) that are not permanently installed in-place where they will be adequately protected and readily accessible
- Monitoring walls, floors, and floodproof coatings for cracks and potential leaks
- Inspecting materials subject to wear or deterioration and replacing as necessary
- Periodic testing of backflow and sump pump devices

The contractor for a floodproofing project is required to prepare and submit a schedule of maintenance activities to the structure owner prior to project closeout. The schedule of maintenance activities should meet or exceed the manufacturer's recommendations for materials and equipment installed as part of the project.

4.1.2.5 Emergency Operations Plan (EOP)

Dry floodproofing projects usually require human intervention to fully install prior to the arrival of floodwaters. Therefore, if human intervention is needed to set up the project, it is necessary to have an EOP to spell out key responsibilities and an operational timeline. This plan should detail how potential flood situations will be monitored, identify individuals responsible for installing the floodproofing components, and determine how the responsible operators will receive sufficient warning to install components like shields and flood gates to fully operational status. If special technical qualifications are required for setup and installation, the plan should identify the individual(s) with these qualifications for this task and their availability to perform the task in a timely fashion. The contractor for a floodproofing project is required to prepare and submit an EOP as described above to the structure owner prior to project closeout. The EOP should meet or exceed the manufacturer's recommendations for equipment installed as part of the project.

4.1.2.6 Historic Structure Exception for Residential Structures

NFIP gives special consideration to designated historic buildings and structures (see 44 Code of Federal Regulations [CFR] Part 59.1 for NFIP definition of a historic structure) to assist in mitigating flood risk while maintaining the historic designation. Therefore, dry floodproofing is an acceptable method for mitigating the flood risk of historic residential structures. Refer to FEMA's Floodplain Management Bulletin P-467-2, *Historic Structures* for further information about floodproofing historic structures.

4.1.2.7 Project Management

Floodproofing project management involves coordinating all needed project actions including homeowner coordination, obtaining design services, title searches, obtaining and overseeing floodproofing services, and obtaining documentation of maintenance and emergency operations requirements. The project management allowable cost is a flat fee per structure.

4.1.2.8 Inspections

During construction, the wall system should be inspected to verify that it is adequately constructed to be substantially impermeable to floodwaters. To make sure that the entire floodproofing system is designed to function properly, a final inspection conducted by a

licensed design professional is needed to evaluate the floodproofing of the utility openings, doors, windows, and other wall openings. The inspection should also evaluate the shield system, seals, and gaskets. Flood shields and closures should be checked to ensure they fit property. The licensed design professional should complete a FEMA dry floodproofing certificate (FEMA Form 086-0-34) once the inspection is complete.

4.2 Residential Elevation Projects

Elevation projects are recommended for CPRA funding for residential structures with flood depths between three and 14 ft (including two feet of freeboard) for a 100-year storm surge flood event as determined by the 2017 Coastal Master Plan and CLARA modeling effort. This section describes elevation project policies and procedures to guide the development and implementation of these projects.

A parish has several elevation methods to choose from, but the basis for selecting the method is dependent on factors such as:

- Foundation type (the most common foundation types are slab-on-grade; crawl space on foundation walls; open foundation; and piles, posts, or piers)
- Condition of the house
- Applicable state and local building codes
- Soil type and bearing capacity
- Weight of the house and lateral forces on the house from water and other natural hazards such as wind
- Height of proposed elevation above the grade level
- Number of additions to the original structure
- Americans with Disabilities Act (ADA) requirements

Elevation methods include:

- Elevating the existing structure onto piles, posts, or piers
- Elevating by vertically extending the foundation walls of the home
- An alternative for slab-on-grade structures is to detach the slab, lift the structure without the slab, and then build a new foundation and floor system

See FEMA Publications P-312, *Homeowner's Guide to Retrofitting* (2014), Chapter 5, and FEMA P-347, *Above the Flood: Elevating your Floodprone House* (2000) for more information on elevation methods.

4.2.1 Project Costs

Elevation projects involve many factors including physical modifications to a home and temporary displacement of the occupants. It is important to establish detailed, clear expectations of which costs will be covered before the project is started. Allowable costs are explained in the next subsection. The cost of upgrading the size of the structure or the grade of material beyond what is needed to safely elevate a home is not an allowable cost. Any non-flood-related rehabilitation and repairs performed on the structure are not allowable. If additional repairs or rehabilitation work are needed, the property owner, with assistance from the parish, should seek other funding sources, such as HUD Community Development Block Grant (CDBG), which typically fund these types of activities.

While CPRA does not set an absolute upper bound limit on the cost of an elevation project, CPRA will review properties where the cost exceeds 150% of the property's value to determine if a cost limit must be set.

4.2.1.1 Allowable Costs

Allowable costs associated with property documentation, elevation project design, and construction are eligible for CPRA reimbursement.

- **Property Documentation**: Engineering services associated with property documentation are allowable costs. Typical activities may include site surveys, conducting engineering feasibility study, soil sampling, and verifying lowest floor elevation. Title search, legal, and/or permitting fees are also included. After a project is finished, completion of an elevation certificate and final inspection fees are also allowable costs.
- **Project Design**: Determining elevation method, architectural/engineering plans and specifications, and cost estimate preparation.
- **Construction Related Costs**: The following elevation project construction related costs are allowable costs:
    - Project administration and construction management
    - Construction of a foundation so that the lowest floor is at the elevation height required by CPRA or local flood ordinance, whichever is higher
    - Physical lifting of the structure and subsequent lowering and attachment of the structure onto a new foundation
    - Construction of a floor system that meets minimum building code requirements when the existing floor system cannot be elevated or is not appropriate for the new foundation
    - Disconnection of all utilities
    - Elevation of utility hookups, reconnection of utilities and extension of lines and pipes as necessary, and elevation of all utilities and service equipment
    - Demolition and disposal of old foundation, if not suitable for extension
    - Abatement of asbestos and lead-based paint (if necessary)
    - Debris disposal, site clean-up, and erosion control
    - Costs for repair of lawns, landscaping (except ornamental trees, shrubs, and bushes), sidewalks, and driveways if damaged by elevation activities
    - Construction of a utility room above the BFE only if there is no existing space inside the house for this purpose or there is no alternative cost-effective way to elevate the utilities
    - Certain code-required upgrades on a case by case basis, and only as required due to the mitigation action
    - Elevation of existing decks, porches, or stairs
    - Construction of typical builder's grade new stairs, landings, and railings to access the elevated living space per minimum code or local ordinance
    - Construction of ADA compliant access facilities when an occupant of the structure has a permanent physical handicap and a physician's written certification. Only one ADA-compliant access is allowable for funding unless specified otherwise in applicable state or local codes (for more information on ADA, see http://www.ada.gov/). If ramps are not technically feasible, a mechanical chair lift may be installed.
    - Documented reasonable living expenses incurred in the general area while the owner is displaced by the elevation construction (except food and personal transportation)

- Reasonable expenses associated with temporary storage of fragile items during the period of the actual elevation construction (requires receipts and prior approval from CPRA)

4.2.1.2 Unallowable Costs

Unallowable costs include the following, which will not be reimbursed by CPRA:

- Elevating structures that have recorded NFIP violations (e.g., illegal enclosures) at the time of the application
- Any parts of the structure in need of major repair that are detectable before elevation commences (CDBG funds could be sought)
- Costs related to building additions or auxiliary structures
- Construction of new decks or porches.
- Any improvements for purely aesthetic reasons unless required by the environmental and historic preservation compliance review
- Sidewalks and other site improvements
- Additional landscaping for ornamentation
- Costs to replace or repair utility service components that are undersized, inadequately designed, or unsafe unless required by code as a result of the mitigation (except utility rooms as noted above in allowable costs)
- New siding, other than that associated with new foundation work
- Exterior finish on the exposed foundation of the elevated building, unless required by SHPO or local code
- Non-flood upgrades required for code compliance (wind and basic building requirements)
- Utility service or materials for the underfloor space (which must be used only for parking, limited storage, or building access to be code compliant)

4.2.1.3 Compensation for Deducted Square Footage

In the course of an elevation, decisions may have to be made to eliminate a part of the house because it is not feasible to elevate. For example, a previous addition to a house may not be structurally connected to the main foundation and cannot be elevated with the rest of the house. In these cases, CPRA will not fund the compensation of the square footage not being elevated. The property owner has the option to self-fund the elevation of any additional square footage up to an equivalent of the deducted square footage. CPRA will not be responsible for elevating detached garages or any other outbuildings on the property. CPRA will also not be responsible for replacing any decks that cannot be elevated with the structure.

4.2.1.4 Upgrades

Parishes will only receive a funding amount that is necessary to elevate the structure safely. A decision to upgrade the structure in size or the quality of material during the elevation construction process will not be considered part of the CPRA project. The property owner is fully responsible for any upgrades including cost and construction liability. CPRA must approve the cost estimate for the portion of the fully eligible project and will only provide that funding for eligible activities.

4.2.1.5 Constructability Issues

There are a number of issues that impact the feasibility of elevating a structure. These issues should be addressed early in the process to ensure a successful project. The following items should be considered in the Phase II application process.

- **Structural Feasibility**: A critical initial component of an elevation project is a structural feasibility inspection to determine, to the degree possible without involving destructive techniques, if there would be any issues with elevating the property. The inspector should evaluate key structural components such as the foundation, foundation to wall connections, and the flooring/subflooring system.
- **Foundation Type/Type of Elevation (e.g., foundation walls)**: Elevated foundations should be designed to support the structure based on its current foundation type as well as the flood hazard as defined by FEMA's Special Flood Hazard Area (SFHA). Elevated foundations in V Zone and Coastal A Zones up to the Limit of Moderate Wave Action (FEMA, 2014) should be designed in accordance with FEMA requirements for elevations in V Zones. Elevation on fill is not an allowable technique because it displaces flood water and could cause increased flooding on neighboring properties.
- **Wind Protection**: In a few cases, elevating a home may cause it to be at greater risk to high winds. The 2012 International Residential Code (IRC) Wind Speed Map adopted by the State of Louisiana and effective January 1, 2013 (LSU, 2015) is a good resource to better understand wind risk. Because CPRA funding is dedicated to reducing the risk of coastal flooding, the costs of any wind protection measures are the responsibility of the property owner. Parishes may wish to assist the property owners by applying for a FEMA mitigation grant to fund the wind protection measures for structures elevated with CPRA funds or offer a tax credit to the property owners who retrofit their structures for wind protection after elevation.
- **Code-Required Changes**: Modifications to a structure, including elevation, may trigger required code changes like upgrades to electrical wiring. Unless the mandated code change is triggered by the actions related to the mitigation project, the property owner is responsible for paying for the improvements required by the code change (see Section 4.2.1.2 Unallowable Costs).
- **Historic Preservation Requirements**: Louisiana has many cultural and historic resources that are important to its long, rich heritage. Structures that are listed or have potential to be listed on the National Register of Historic Places and are proposed for elevation with CPRA funds may require additional treatment or a modified design to preserve its historic integrity. Guidelines on preserving the historical integrity are provided by SHPO or Louisiana Division of Historic Preservation. Any additional treatments required for historic structures to maintain their historic status may be reimbursable under this program but require prior written approval by CPRA.
- **Accessibility/ADA Requirements**: As described in Section 4.2.1.1 Allowable Costs, construction of ADA-compliant access facilities is allowable when an occupant of the structure has a permanent physical handicap and a physician's written certification verifying the handicap. For any circumstances conflicting with this policy that would cause undue hardship to the occupant or property owner, the property owner may submit a written description of the situation and why a variance is needed to CPRA for consideration. Each parish is responsible for verifying that any variance request is compliant with local codes and ordinances.

4.2.2 Project Management

Elevation project management involves coordinating all needed project actions including homeowner coordination; obtaining design and survey services, title searches, and environmental assessments; and obtaining and overseeing elevation services. The project management allowable cost is a flat fee per structure.

4.2.2.1 Inspections/Elevation Certificate

Once the structure elevation commences, periodic inspections will be necessary to monitor progress and compliance with building codes and the flood ordinance. A final inspection is required once construction is complete to verify compliance with codes and required elevation height. A Certificate of Occupancy will not be issued until the final inspection has occurred and any outstanding items resulting from the inspection are addressed. The parish, with assistance from the municipality if the project is located in one, should complete a FEMA Elevation Certificate (FEMA Form 086-0-33) during the final inspection process. FEMA Form AW-501 should also be completed for any property that was listed by FEMA as a repetitive loss property, and submitted to the state floodplain management office.

4.2.2.2 Schedule for Construction

The acceptable construction timeframe for an individual structural elevation is generally 60 to 90 days once construction begins.

4.3 Residential Voluntary Acquisition Projects

Voluntary acquisition projects are recommended for CPRA funding for residential structures with flood depths greater than 14 feet (including two feet of freeboard) for a 100-year storm surge flood event as determined by the 2017 Coastal Master Plan and CLARA modeling effort. Wherever possible, the parish should work with property owners to relocate within their community or parish while outside of the 100-year floodplain. In certain circumstances, CPRA will also work with parishes and homeowners who desire to apply for voluntary acquisition in areas of flood depths lower than 12 feet.

Since acquisition projects involve real estate transactions, many of the acquisition policies and procedures are designed to follow generally accepted real estate practices. They address a range of issues from project development to implementation to long-term oversight of acquired property.

A parish may use a variety of mechanisms to acquire high flood risk property, including fee-simple purchase, conservation easements (for vacant lots), transfer of development rights, and purchase of development rights to shift properties out of high risk areas. Conservation easements should be considered for ecologically sensitive and high risk land, and should be identified using scientific criteria (such as species habitat, storm surge heights, subsidence zones, and wind zones).

4.3.1 Acquisition Fees, Costs, and Allowable Expenses

Certain fees, costs, and expenses associated with acquiring property are reimbursable project expenses. The following sections describe those fees, costs, and expenses that are eligible for reimbursement. Other costs not covered in this document may be eligible, but should be verified with CPRA prior to incurring the expense. Parishes should be careful to properly document all project costs and should inquire with CPRA regarding what expenses are and are not allowable under the Flood Risk and Resilience Program if there is any doubt.

A significant part of an acquisition project cost is the fair market value (FMV) of the structure and land. Other customary costs include standard real estate transaction activities such as conducting an appraisal and survey, legal costs for closings, deed recordation, and title search. Additional project costs that are allowable for reimbursement in the program include structure demolition, site restoration, and tenant relocation costs, if applicable. The preliminary planning-level cost estimates for acquisitions that are detailed in Appendix A: Project Definition will be replaced with more accurate costs obtained during the Phase II application process.

Allowable acquisition costs in Phase III include reasonable expenses for the following activities:

- **Real Estate Transaction Fees including Legal Fees/Closing Costs**: Other typical costs associated with real estate transactions, including reasonable attorney fees, broker/lender fees, and underwriting costs, are allowable costs and activities for acquisition projects.
- **Deed Recordation/Deed Restriction Costs**: The parish must include with each property deed a sample of the deed restriction (not including property-specific details) that it will use to record the limited future use of the property.
- **Demolition Costs**: The cost required to demolish a structure after it is acquired is allowable but must reflect reasonable demolition costs. This should also include demolition and disposal of the old foundation, if it exists, as well as any systems that serviced the property such as septic tanks or utility lines. Concrete sidewalks and driveways must also be removed, and these reasonable costs are permitted.
- **Site Restoration Costs**: Minimal site restoration costs are permitted and may include filling in excavated areas, grading to make the parcel relatively level, and grass seeding to restore vegetative cover for public safety/to reduce erosion.
- **Additional Rehousing Assistance**: Due to the number of low to moderate income families, elderly living on fixed incomes, the impact of flood risk on property value, and the cost of available similar housing in their community, some participants may find that the FMV of their property is insufficient to purchase a comparable home outside of the floodplain. The purpose of the additional rehousing assistance is to encourage greater participation in mitigation projects by providing qualified property owners who live in low-value homes with additional payments so they can find comparable housing. To qualify for this additional assistance, the parish must work with the property owner to identify the following, as well as specify the difference amount between the FMV and selected replacement property.
    - Average price of safe and sanitary housing of comparable size and material quality in non-floodplain locations.
    - Include a listing of potential replacement properties and their costs.
- **Project Management**: Acquisitions project management is labor-intensive and involves coordinating all needed project actions including homeowner coordination; obtaining appraisals, surveys, title searches, and environmental assessments; drafting offer letters and contracts; organizing and conducting closings; obtaining and overseeing demolition

services; and obtaining and overseeing any needed abatement activities. The project management allowable cost is a flat fee per structure.

Any tenants occupying a property that will be acquired through the Flood Risk and Resilience Program will have to relocate. Due to the amount of time built into the process from when an owner signs an agreement to participate in the voluntary acquisition to when CPRA and the parish make a determination for a structure to be acquired, tenants will be given ample notice of the pending transaction and will therefore be responsible for all relocation activities and costs. *Note that this is a departure from federal grant requirements. Federal requirements and procedures must be followed in the case that CPRA funds are used as match to federally funded projects.*

4.3.2 Project Requirements and Property Documentation

As with any program utilizing public funds, documentation of all aspects of the project are important. Because of the nature of this program, it is critical that all real estate transactions and documents be properly prepared and maintained. The sections below describe a number of real estate related documents required for project approval and implementation.

4.3.2.1 Appraisal

An appraisal is needed to determine the current FMV of a property. Parish officials should seek neutral third party appraisers who are familiar with the area in which the proposed acquisition will occur and should follow standard real estate practices. Once the appraisal is prepared, an offer reflecting the FMV will be made to the property owner. If the property owner disputes the FMV determined by the parish appraisal, the property owner may pay for a second appraisal using personal funds.

4.3.2.2 Survey and Title Search/Title Insurance

An acquisition project's real estate transaction also includes a survey to establish property boundaries and a title search/title insurance to confirm ownership of the parcel. Many applicants to the Road Home program were denied benefits or withdrew from the program due to a lack of clear title. CPRA requires participating properties to have a clear title and will work to assist parishes with obtaining the resources needed to establish ownership to maximize the number of participating properties. Resources available to assist homeowners with title issues include:

- Louisiana Appleseed Network (https://louisianaappleseed.org/)
- Pro Bono Project (http://probono-no.org/)
- Southeast Louisiana Legal Services (http://slls.org/)
- New Orleans Title Clearing Initiative (https://www.probono.net/la/saveneworleanshomes/)

4.3.2.3 Environmental Site Assessment and Asbestos/Lead-Based Paint Inspection, Abatement or Removal

The property owner must disclose past uses of the parcel to be eligible to participate in the Flood Risk and Resilience Program. An environmental site assessment, including an asbestos and lead-based paint inspection, is an allowable cost for parishes to obtain resources needed to evaluate the property. Property owners must provide as much information as available on the history of

the parcel, including any record of past hazardous uses activity. If hazardous materials other than asbestos or lead-based paint are present, it is the current property owner's responsibility to clean the site of these materials before CPRA will enter into a purchase agreement. The only exception to this clean property policy is if the houses proposed to be purchased are affected by environmental contamination beyond the property owner's control (e.g., houses that are situated on a former landfill or that are contaminated by an underground toxic plume from an adjacent site at no fault by the property owners). Such determinations will be made at the sole discretion of CPRA.

If the structure contains asbestos and/or lead-based paint, the parish and contractor must follow Louisiana Department of Environmental Quality regulations for removal and disposal. These environmental abatement costs are allowable project costs.

4.3.2.4 Voluntary Transaction Agreement

The Flood Risk and Resilience Program is voluntary and does not allow the use of eminent domain to obtain property. The parish must notify potential participants that the program is voluntary and collect signed Notice of Voluntary Participation forms from each participating property owner.

4.3.2.5 Historic Preservation Requirements

For any structures in an acquisition project that are listed or have potential to be listed on the National Register of Historic Places, the Louisiana State Historic Preservation Office (SHPO) or the Louisiana Division of Historic Preservation may have additional requirements for historical reference purposes. Any such reasonable requirements, including photographic recordation of the property before it is demolished, are allowable costs on a case by case basis.

4.3.2.6 Post-Acquisition Property Use

Once land is acquired, the parish will then take ownership of the property and responsibility for its maintenance. After the structure has been demolished, the acquired property will be set aside as open space or another floodplain compatible use. Due to the extreme flood depths of properties that qualify for acquisition with CPRA funding, no future development or redevelopment involving residential or non-residential structures or paved surfaces will be allowed on these properties. Contiguous parcels are excellent candidates for local community parks, recreational areas, or water retention areas.

The parish must prepare a deed restriction for each acquired property that limits its use as described in the bulleted list below. A copy of the deed restriction for each acquired property must be submitted to CPRA prior to final payment being transmitted from CPRA to the parish (a model deed restriction is provided in Phase III application materials). The parish is responsible for maintenance unless it arranges an acceptable alternative arrangement with a responsible landowner or land trust. Examples of alternative arrangements include transferring the deed to a local land bank, nature organization, or adjacent landowner, who must comply with the restrictions outlined in these policies and procedures. Written permission of an alternative property ownership/maintenance arrangement must be received from CPRA at least 90 days before any scheduled closings.

While the deed restriction limits future use of the land, there are acceptable uses for the property that are compatible with the goals of flood risk reduction, recreation, and maintaining the

natural character and function of the floodplain or wetlands. No land uses that can potentially increase flooding on adjacent properties are allowed (e.g., no fill can be placed on the acquired property). The following are acceptable uses of acquired property:

- Wetlands vegetation planting
- Flood storage area/water retention area
- Nature reserve
- Community park or cultural site
- Outdoor recreational activities (pervious surfaces only)
- Cultivation or grazing

The only structures allowable on the acquired and cleared property are open-sided structures such as gazebos or picnic shelters and small bathrooms appropriate for a recreational facility. Access and parking on the acquired land should be unimproved with pervious surfaces.

4.3.2.7 Reserving Mineral Rights

When the state acquires property, the landowner has the right to reserve the mineral rights under La. Mineral Code Article 149. Such mineral right reservation must be expressly contained in the acquisition deed.

4.3.2.8 Vacant Lots

Vacant lots may be present in areas targeted for an acquisition project. To prevent future development on any vacant lots, a permanent, restricted use easement must be purchased. The cost of purchasing the easement includes the lot value and acquisition transaction costs. Long-term maintenance costs for the acquired property will be the responsibility of the parish.

4.3.3 Alternative Flood Risk and Resilience Projects

There are circumstances where floodproofing, elevation, and acquisition are not suitable options for structures at risk to coastal flooding. In these cases, other property protection measures like a neighborhood ring levee or a property perimeter floodwall surrounding a facility, such as a school or a business district critical to community function, can be explored. These may occur on an individual property basis for facilities or for a small neighborhood. The Flood Risk and Resilience Program does not allow a flood enclosure system large enough to protect an entire town or substantial population; these larger types of protection systems should be directed to CPRA for consideration as a structural protection project.

All proposed alternative projects will be considered on a case by case basis and must be submitted to CPRA for written approval prior to full development of an application.

Alternative flood risk and resilience projects may include the following:

- **Perimeter Floodwalls**: FEMA describes a floodwall as "a freestanding, permanent, engineered structure designed to prevent encroachment of floodwaters." Floodwalls are typically constructed of reinforced concrete or masonry. Once constructed, they provide a barrier surrounding the structure. The walls can be constructed to withstand greater forces and higher flood levels than floodproofing, which relies somewhat on the integrity of the structure to withstand these forces.

- **Ring Levees**: Ring levees are different from floodwalls in that they are composed of compacted soil instead of manmade materials. While many people associate levees with the large structures along major rivers like the Mississippi River, smaller levees can be used to provide perimeter protection around a structure or group of structures. These ring levees still need to meet certifications to be accredited.

- **Berms**: Berms, like levees, are earthen structures and another type of flood barrier that can be used to encircle a structure(s) to reduce flood risk. Berms require a lot of space and quality earthen fill to construct properly.

It is the intent of the Flood Risk and Resilience Program for these features to be implemented at the neighborhood level and not at the town or individual structure level (with the exception of large commercial facilities).

The following are the primary design considerations for floodwalls, ring levees, and berms:

- Existing building foundation conditions
- Soil type
- Potential for seepage under the floodwall and need for an interior drain system
- Utility penetrations through or under the floodwall must be sealed to prevent floodwater penetration (seal both utility openings and cuts into floodwall)
- Number and size of floodwall openings
- Wave or expected debris impact conditions
- Compliance with appropriate floodwall design standards per local codes and accepted industry standards (e.g., FEMA, ASCE)
- Compliance with appropriate levee design standards for ring levees per local codes and accepted industry standards (e.g., FEMA, ASCE, USACE)
- Compliance with adopted building codes, which may include references to ASCE 7 (e.g., floodwalls must be designed to resist ASCE 7 load combinations)

Flood duration is a critical consideration in designing floodwall seepage management measures. The longer the duration of flooding, the more likely seepage will occur and warrant more robust measures.

A helpful design reference is Figure 4-9 in FEMA's Publication #P-936, *Floodproofing Non-Residential Buildings*, which provides an eight-step floodwall design process that includes key design and feasibility considerations. Similarly, Figure 4-11 in #P-936 provides a six-step basic levee design process.

It is important that approved alternative projects do not have a negative impact on surrounding properties and structures. As part of the alternative project approval process, it will be necessary for the parish to submit sufficient documentation to demonstrate "no adverse impact" on surrounding properties. Documentation requirements will be established on a case by case basis and should be coordinated with CPRA early in the process.

5.0 Moving the Program Forward: Parish Pilot Project and Next Steps

Should funds become available in future Annual Plans for the Flood Risk and Resilience Program, CPRA will work with the CPRA Board's Flood Risk and Resilience Subcommittee to review and approve project applications based on the criteria outlined in this document.

5.1 Parish Pilot Program

In preparation for future funding streams, the program will continue to move forward and refine the nonstructural application process and funding distribution mechanism to efficiently and effectively implement nonstructural risk reduction projects with monies that may become available in coming years. A well-developed process will greatly improve the agency's ability to shorten the grants management process, reduce bureaucratic inefficiencies, and quickly build projects that reduce risk for coastal Louisiana residents.

As noted above, CPRA has developed a nonstructural application package that could be employed to administer nonstructural risk reduction project funding from CPRA to local parishes. The application package provides more detailed guidance and associated forms for the Phase I-III applications. CPRA partnered with Jefferson Parish through the Parish Pilot Program to review Flood Risk and Resilience Program related documents and the application package. The pilot program was undertaken to ensure that the nonstructural application process took into consideration more detailed parish feedback. The parish's floodplain manager and staff provided recommendations that were incorporated to clarify the application materials and adjust the application process to better serve local parish needs. Conducting a "test drive" of the application process through the Parish Pilot Project allows CPRA to better coordinate and collaborate with local parishes and work together to develop a coast wide mitigation program. CPRA will continue to refine the nonstructural application process with feedback from other state agencies and parishes.

Additional next steps for the near future include:

- Explore funding sources to fund the development and implementation of nonstructural projects in the plan's first implementation period (years 1-10)
- Conduct additional parish pilot projects and further review the CPRA application to add more detailed information about process and timeline as available
- Develop project tracking system with GOHSEP
- Create a contractors list with GOHSEP/others

6.0 References

American Society of Civil Engineers. (2014). "Flood-Resistant Design and Construction Standard (ASCE 24-14)." September 2015. http://www.asce.org/templates/publications-book-detail.aspx?id=6963.

American Society of Civil Engineers. (2007). "Minimum Design Loads for Buildings and Other Structures, 3rd Edition (ASCE 7-10)." May 2016. http://www.asce.org/templates/publications-book-detail.aspx?id=6725.

Coastal Protection and Restoration Authority (CPRA). (2016). Master Plan Data Viewer. May 2016. http://cims.coastal.louisiana.gov/masterplan.

Federal Emergency Management Agency (FEMA). (2016). "Form 086-0-33, National Flood Insurance Program Elevation Certificate and Instructions." May 2016. https://www.fema.gov/media-library/assets/documents/160.

Federal Emergency Management Agency (FEMA). (2014). "Form AW-501, NFIP Repetitive Loss Update Worksheet." May 2016. https://www.fema.gov/media-library/assets/documents/13146.

Federal Emergency Management Agency (FEMA). (2000). Publication P-347, "Above the Flood: Elevating your Floodprone House." May 2016. http://www.fema.gov/media-library/assets/documents/725.

Federal Emergency Management Agency (FEMA). (2011). "HMGP Application Review Checklist, Global Match." May 2016. http://www.fema.gov/media-library-data/20130726-1759-25045-2373/hmgp_checklist.txt.

Federal Emergency Management Agency (FEMA). (2012). Biggert-Waters Flood Insurance Reform Act of 2012. May 2016. https://www.fema.gov/media-library/collections/341.

Federal Emergency Management Agency (FEMA). (2013). Publication P-936, "Floodproofing Non-Residential Buildings." May 2016. http://www.fema.gov/media-library/assets/documents/34270.

Federal Emergency Management Agency (FEMA). (2014). Homeowner Flood Insurance Affordability Act of 2014. May 2016. https://www.fema.gov/media-library/assets/documents/93074.

Federal Emergency Management Agency (FEMA). (2014). "Importance of the Limit of Moderate Wave Action (LiMWA)." FEMA Fact Sheet. November 2014. http://www.fema.gov/media-library-data/1403553277396-e137edb5f4736e5ab59f144d8a3159ad/FPM_1_Pager_LiMWA_Final_061914.pdf.

Federal Emergency Management Agency (FEMA). (2014). Publication P-312, "Homeowner's Guide to Retrofitting 3rd Edition." May 2016. http://www.fema.gov/media-library/assets/documents/480.

Louisiana Appleseed Network. (2016). May 2016. http://appleseednetwork.org/louisiana-appleseed/louisiana/.

Louisiana Economic Development (LED). (2016). Louisiana's Small Entrepreneurship Program (Hudson Initiative). May 2016. http://www.opportunitylouisiana.com/small-business/special-programs-for-small-business/hudson-initiative.

Louisiana State Historic Preservation Office. (2015). Our Places, Our Heritage: A Plan for Historic Preservation and Archaeological Conservation in Louisiana, 2011-2015. May 2016. http://www.crt.state.la.us/cultural-development/historic-preservation/louisiana-state-plan-shpo/index.

Louisiana Division of Historic Preservation. (2016). May 2016. http://www.crt.state.la.us/cultural-development/historic-preservation/.

Louisiana Resiliency Assistance Program (LRAP). (2013). LSU Coastal Sustainability Studio and Office of Community Development- Disaster Recover Unit. April 2015. http://resiliency.lsu.edu/.

Louisiana State University (LSU). (2013). LSU Agricultural Center. Wind Speed and Elevation Map. May 2016. http://maps.lsuagcenter.com/windspeed/.

National Register of Historic Places. (2016). May 2016. https://www.nps.gov/nr/.

New Orleans Title Clearing Initiative. (2016). May 2016. https://www.probono.net/la/saveneworleanshomes/.

Pro Bono Project. (2013). May 2016. http://probono-no.org/.

Southeast Louisiana Legal Services. (2016). May 2016. http://slls.org/.

U.S. Department of Housing and Urban Development. (2016). Community Development Block Grant (CDBG) Program. May 2016. http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs.

U.S. Department of Justice. (2016).Civil Rights Division. Americans with Disabilities Act. May 2016.http://www.ada.gov/.

U.S. Government Publishing Office. (2016). Electronic Code of Federal Regulations. 2 CFR §200. "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards." May 2016. http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl.

U.S. Government Publishing Office. Code of Federal Regulations. 44 CFR §259.1. "Emergency Management and Assistance: Definitions." In FEMA. (2008). Floodplain Management Bulletin P-467-2 "Historic Structures." May 2016. https://www.fema.gov/media-library/assets/documents/13411.

U.S. Veterans Initiative. (2015). May 2016. http://www.usvetsinc.org/