
Appendix G

Nonstructural Implementation Plan

FY: 2024

Project Title: Beattyville, KY FRM Project

Project No.: 498982

Location: Lee County, Kentucky

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1 PROJECT DESCRIPTION

This Nonstructural Implementation Plan describes the general process for the implementation of the Recommended Plan nonstructural measures, as described in the accompanying main report with integrated EA and the Engineering and Real Estate Appendices. The primary goal of the Recommended Plan is to reduce the flood risk for structures in Beattyville, KY, reduce risk to life safety, and to maintain community cohesion. This study will support the community in developing local floodplain management regulations and is developed with consideration of the National Flood Insurance Program (NFIP) compliance standards.

The Recommended Plan is Alternative 5C Incremental Nonstructural Plan consisting of fee acquisitions (floodway buy-outs), dry and wet floodproofing, and raising in place paired with a flood warning emergency evacuation plan (FWEED). Structures identified as fee acquisitions will be mandatory. Structures identified as dry floodproof, wet floodproof, or raise in place will be voluntary.

- FWEED - individual components to be further developed and provided in detail at the Agency Decision Milestone (ADM)
- Fee acquisition (buy-outs) – properties consisting of structures in the floodway (12 structures, 7 tracts)
- Recreation Plan for beneficial land reuse – includes playground, construction of a walking trail, and tree, shrub, and grass planting.
- Dry floodproofing – commercial structures (10 structures)
- Wet floodproofing – commercial structures (30 structures)
- Raising in place – residential structures (1 structure)

Interested property owners will be informed of the details of implementation of the nonstructural features of the project, including inspections and related USACE engineering and management requirements by written notice. Landowner meetings will also be held so that USACE and the non-Federal sponsor (NFS) can explain to landowners the benefits of the project as well as what their rights and responsibilities are. It is anticipated that implementation of the Recommended Plan will occur over a phased implementation period of approximately 5-10 years. However, the scale of the project is highly dependent upon the participation rate for implementation and the amount of funding allocated in any given year. If an owner of a structure eligible for a voluntary nonstructural measure does not want to participate in the project, USACE and the NFS would defer any further action on that structure until such time as the structure owner elects to participate or until the period of eligibility ends. However, USACE reserves the right to determine whether a structure may be included in the nonstructural implementation after a structure owner has previously declined participation.

2 NONSTRUCTURAL FLOOD RISK MANAGEMENT MEASURES

The nonstructural flood risk management measures considered for residential structures are elevation (with or without basement filling), and fee acquisitions. The nonstructural mitigation

measures considered for non-residential structures are dry floodproofing (with or without basement filling), wet floodproofing, and fee acquisitions. While each eligible structure has been evaluated for the most cost-effective nonstructural measure based on structure type, the NFS and USACE study team reserves the right to make the final determination as to which measure shall be implemented. Community cohesion is one of the primary study objectives; and because an NED waiver is being pursued, in some cases the measure that keeps a business in-place when an acquisition is the less expensive option may still be permitted and pursued.

All structures identified as fee acquisitions will be mandatory acquisitions with the expectation that the NFS would exercise their power of eminent domain if acquisition by negotiation is unsuccessful. All other floodproofing measures (dry/wet floodproofing or elevation) are voluntary, and owners of such eligible structures will submit an application to participate in accordance with this implementation plan.

2.1 RESIDENTIAL STRUCTURES

The appropriate nonstructural measures for residential structures based upon the flood risk are elevation (with or without basement filling) or acquisitions. Owners of eligible residential structures may participate in having their structure elevated to the Base Flood Elevation (BFE) and/or the structure's basement filled.

2.1.1 Elevation consists of raising the existing structure from its original foundation, CMU block or slab-on-grade, to the BFE on extended foundation walls. If the elevated foundation below the first floor is an enclosed masonry perimeter, then appropriately sized flood vents will be installed in the foundation walls, located no more than 1 foot above lowest adjacent grade to allow hydrostatic forces to equalize. Elevation greater than 12 feet above the adjacent ground elevation is not permitted due to potential cost increases because of wind factors, and the associated risk with occupancy evacuation. There are no elevations foreseen at this time to be greater than 12 feet in the study area.

2.1.2 Fee acquisitions of residential structures consist of buying the structure and the associated land and demolishing the structure. After acquisition, the land must be maintained as open space through deed restrictions that prohibit any type of development that can sustain flood damages or restrict flood flows. Land acquired as part of a nonstructural project can be converted to a new use such as ecosystem restoration and/or recreation that is consistent with open space restrictions, such as trails, parks, golf courses, shoreline access, and interpretive markers. Existing infrastructure, including utilities, streets, and sidewalks, can be removed as part of the project when previously developed land is converted to open space.

Fee acquisitions are a dependable way to reduce flood risk to people and property; however, it is the least favorable measure as it relates to community cohesion.

2.2 NON-RESIDENTIAL STRUCTURES

The appropriate nonstructural measures for non-residential structures are dry floodproofing, wet floodproofing, basement fill, and acquisitions. Owners of eligible non-residential structures may participate in having their structure dry floodproofed to the maximum floodproofing height of 3 feet. If there is a basement located in the non-residential structure, it would be required that the basement is filled as well.

2.2.1 Dry floodproofing non-residential structures consists of sealing the entire structure from the ground level up to the maximum 3 feet in height, to reduce the risk of damage from flooding by making walls, doors, windows, and other openings resistant to penetration by flood waters. Dry floodproofing involves applying a water-resistant sealant around the structure to prevent flood water from entering. The sealant layer is then protected with a brick veneer or similar material. Certified closure panels are used at pedestrian and vehicular openings, backflow prevention devices are installed on sanitary sewer lines, and skimmer pumps with discharge tubes are placed at the openings to control potential seepage.

2.2.2 Wet floodproofing of non-residential structures allows floodwater to enter the structure. Vulnerable items such as utilities, appliances and furnaces are waterproofed or relocated to higher locations. By allowing floodwater to enter the structure hydrostatic forces on the inside and outside of the structure can be equalized reducing the risk of structural damage.

2.2.3 Fee acquisitions of nonresidential structures consist of buying the structure and the associated land and demolishing the structure. After acquisition, the land must be maintained as open space through deed restrictions that prohibit any type of development that can sustain flood damages or restrict flood flows. Land acquired as part of a nonstructural project can be converted to a new use such as ecosystem restoration and/or recreation that is consistent with open space restrictions, such as trails, parks, golf courses, shoreline access, and interpretive markers. Existing infrastructure, including utilities, streets, and sidewalks, can be removed as part of the project when previously developed land is converted to open space. Acquisition is a dependable way to reduce flood risk to people and property; however, it is the least favorable measure as it relates to community cohesion.

2.3 STRUCTURES IN THE FLOODWAY

Structures that are completely located in the floodway are not eligible for elevation, dry floodproofing, or basement filling. Residential and Non-Residential structures that have at least 50% of their first-floor square footage out of the floodway will be eligible for elevation and dry flood proofing, respectively, along with basement filling as needed. Structures with more than 50% of their first-floor elevation in the floodway will only be eligible for acquisition. Structures identified for acquisition are mandatory.

2.3.1 Fee acquisitions of nonresidential structures consist of buying the tract of land and demolishing or relocating the structure. After acquisition, the land must be maintained as open space through deed restrictions that prohibit any type of development that can sustain flood damages or restrict flood flows. Land acquired as part of a nonstructural project can be converted to a new use such as ecosystem restoration and/or recreation that is consistent with open space restrictions, such as trails, parks, golf courses, shoreline access, and interpretive markers. Existing infrastructure, including utilities, streets, and sidewalks, can be removed as part of the project when previously developed land is converted to open space.

2.4 DESIGN ELEVATIONS

Table 1 includes a list of structures, the selected measure, the elevation of the first floor, the selected height of the measure and the top elevation of the floodproof.

Table 1. Design Elevations

Structure Number	Existing First Floor Elevation	Current Annual Exceedance Probability (Expected Mean)	Current Flood Return Period (Expected Mean)	Protection Measure	Height of Measure (feet)	Proposed Top of Floodproof Elevation	Proposed Annual Exceedance Probability (Expected Mean)	Proposed Return Period (Expected Mean)	Structural Inspection Performed
2	663.4	0.043	24	WFP	8	671.4	0.012	85	
6	664.63	0.036	28	WFP	8	672.63	0.010	105	x
8	663.52	0.041	24	WFP	8	671.52	0.011	88	
10	666.46	0.028	36	DFP	3	669.46	0.017	60	x
10.1	661.62	0.058	17	DFP	3	664.62	0.036	28	x
12				Acquire					
13				Acquire					
14				Acquire					
17	663.51	0.042	24	DFP	3	666.51	0.027	37	x
18	663.77	0.040	25	DFP	3	666.77	0.026	38	
19	668.92	0.018	56	WFP	8	676.92	0.006	161	x
20.2	664.79	0.035	29	WFP	8	672.79	0.009	106	x
20.3	664.28	0.037	27	WFP	8	672.28	0.010	102	
21	665.3	0.033	31	WFP	8	673.3	0.009	111	x
21.1	664.36	0.037	27	WFP	8	672.36	0.010	102	
21.2	664.47	0.036	27	WFP	8	672.47	0.010	103	
21.3	665.25	0.033	30	WFP	8	673.25	0.009	110	x
21.4	665.18	0.033	30	WFP	8	673.18	0.009	109	x
25	664.69	0.035	28	WFP	8	672.69	0.010	105	x
26	665.23	0.033	30	DFP	3	668.23	0.020	51	x
27	661.04	0.063	16	WFP	8	669.04	0.018	57	x
29	665.3	0.033	31	WFP	8	673.3	0.009	111	
31	667.5	0.023	44	WFP	8	675.5	0.007	137	x
31.1	656.57	0.106	9	WFP	8	664.57	0.036	28	x
33	665.09	0.034	30	Elevate	4.5	669.59	0.016	61	
33.5	661.01	0.063	16	DFP	3	664.01	0.039	26	
35	661.59	0.058	17	DFP	3	664.59	0.036	28	x
36	661.85	0.056	18	WFP	8	669.85	0.016	64	x

Structure Number	Existing First Floor Elevation	Current Annual Exceedance Probability (Expected Mean)	Current Flood Return Period (Expected Mean)	Protection Measure	Height of Measure (feet)	Proposed Top of Floodproof Elevation	Proposed Annual Exceedance Probability (Expected Mean)	Proposed Return Period (Expected Mean)	Structural Inspection Performed
36.1	663.33	0.043	23	WFP	8	671.33	0.012	84	
36.2	661.3	0.061	16	WFP	8	669.3	0.017	59	x
38				Acquire					
39				Acquire					
40				Acquire					
41				Acquire					
42				Acquire					
45	658.6	0.084	12	DFP	3	661.6	0.058	17	
51	663.313	0.043	23	WFP	8	671.313	0.012	84	
52	661.264	0.061	16	WFP	8	669.264	0.017	58	
55	661.399	0.060	17	WFP	8	669.399	0.017	60	x
56	660.984	0.063	16	WFP	8	668.984	0.018	56	
56.1	661.399	0.060	17	WFP	8	669.399	0.017	60	
62	661.56	0.058	17	WFP	8	669.56	0.016	61	x
63.1	662.917	0.047	21	WFP	8	670.917	0.013	77	x
63.2	662.872	0.047	21	WFP	8	670.872	0.013	77	
63.3	662.847	0.047	21	WFP	8	670.847	0.013	76	x
63.5	662.636	0.049	20	WFP	8	670.636	0.014	73	x
63.6	663.03	0.046	22	WFP	8	671.03	0.013	79	
91	664.583	0.036	28	DFP	3	667.583	0.022	45	
92	664.556	0.036	28	DFP	3	667.556	0.023	44	
99				Acquire					
100				Acquire					
105				Acquire					
63.1	663.396	0.043	24	WFP	8	671.396	0.012	85	
63.2	664.63	0.036	28	WFP	8	672.63	0.010	105	x
63.3	663.521	0.041	24	WFP	8	671.521	0.011	88	
63.5	666.455	0.028	36	DFP	3	669.455	0.017	60	x

3 PROJECT DELIVERY STRATEGY

3.1 SEPARABLE ELEMENTS

The FWEPP, recreation features, and mandatory floodway acquisitions will be one separable element. The essential structures will be one separable element, and the historic structures will be one separable element. A discrete segment will be all work needed for each individual structure. Separable elements two and three are voluntary and will be considered complete when all eligible structures are completed, or the owners have opted not to participate in the program. Separable element 1 will be USACE-led. Separable elements 2 and 3 will be NFS-led.

3.2 USACE LED CONTRACTING

Separable element 1 will be led by the USACE in the traditional method. The traditional method of implementation is typically used by the USACE to design and construct Civil Works projects. This method of implementation utilizes a Federal procurement process to obtain design and construction contractors for the various nonstructural measures. The Government will procure contracts that will allow a contractor to perform, design, and build the FWEPP and construct recreation features. The contractor will also be responsible for the required local, state, and Federal permits, and all necessary elements to complete construction to the desired intent. The NFS will remain responsible for all real estate acquisitions and utility / facility relocations to support separable element 1.

3.3 NFS LED CONTRACTING

Separable elements 2 and 3 will be led by the NFS using the authority of Section 204 in WRDA 1986. The authority in Section 204 of WRDA 1986, as amended ("Section 204") allows the NFS to carry out water resource projects and be reimbursed by the USACE for the Federal share of the Project costs, when Federal funds are made available.

Section 204 allows for reimbursement upon completion of a project, separable element, or identified discrete segments of a project defined as a physical portion of a project that the NFS can operate and maintain independently, without creating a hazard, in advance of the final completion of the project or separable element.

Prior to initiating construction of the project, a separable element, or a discrete segment thereof, the NFS will provide the design work plans for such construction, which shall include identification of any discrete segment(s), and proposed real property interests for acquisition, designs and specifications, and arrangements for carrying out that work under a contract, for review and approval by the USACE Louisville District Commander to determine that the design work plans are technically feasible, environmentally acceptable and in compliance with applicable laws and regulations, including Section 204. Any proposed changes to the approved design work must also be reviewed and approved by the Louisville District Commander in advance of construction of the changed plans. Upon approval by the Louisville District Commander, only discrete segments directly affected by the proposed changes shall be subject to being placed on design or construction hold pending the design change approval by the USACE. The USACE shall strive to complete reviews in a timely manner, recognizing that time is of the essence in executing the Project.

The NFS will submit invoices and supporting documentation to the Louisville District Commander, requesting reimbursement for the NFS share of each completed discrete segment, as identified,

and approved in the design work plans. The Louisville District Commander will review the requests to determine whether the costs incurred are reasonable, allowable, and allocable to the Project and that the discrete segment was completed in compliance with all applicable laws and regulations. Upon favorable review, the Louisville District Commander will certify that the discrete segment was constructed in accordance with all applicable permits and approvals and Section 204.

Subject to available funding appropriated for this project, upon certification of reimbursement, payments will be released to the NFS. In the event Federal funding has not been appropriated in sufficient quantity, the certified reimbursements will be reserved for such a time that appropriations are made available.

Upon execution of the mitigation agreement, the property-owner would select the design and construction contractor, the NFS would pay for eligible costs and upon availability of Federal funds the Louisville District Commander would reimburse funds for completed discrete segments once proper documentation is provided. Five percent of each discrete segment will be retained until the separable element is complete.

The Section 204 agreement approval level is the Assistant Secretary of the Army (Civil Works) (ASA(CW)). The ASA(CW) approves all implementation plans along with any conditions the Secretary deems appropriate pursuant to Subsection (b)(1)(B), provides necessary delegations consistent with a plan for the Louisville District Commander to make the necessary approvals, determinations, and certification provided in Subsection 204(d).

After the nonstructural mitigation agreement, permanent easement, and associated curative documents are recorded in the public records of the Clerk of the City/County in which the property is located, the nonstructural mitigation work will commence. Upon completion of the nonstructural measure implementation, an inspection will be performed by USACE to ensure all mitigation activities meet the requirements of the design and specifications, utilities and mechanical equipment were appropriately permitted. Upon final approval by the USACE Louisville District Engineer, or a designee, a notice of construction completion will be issued to the NFS, and the individual nonstructural implementation project will be closed out as complete. It is the property owner's responsibility to submit the Elevation Certificate or Floodproofing Certificate to their representative insurance agent for any adjustments in flood insurance ratings, if applicable.

4 FLOODPROOFING ELIGIBILITY PROCESS

Determining the eligibility of each structure is a process that begins after execution of a Project Partnership Agreement (PPA). The NFS will notify the owners of structures identified in this study of their potential eligibility. Interested property owners can then apply to participate. Title search and proof of ownership will be required at this point. The application will require the landowner to endorse a Right-of-Entry for Survey and Exploration to the NFS and the USACE to facilitate the environmental investigation and structural inspection of the property. Once concluded, the NFS and the property owner will enter into a mitigation agreement. The agreement will describe any necessary environmental hazard mitigation or structural repairs the landowner must complete prior to floodproofing. It will also describe the floodproofing measures that will be constructed. The landowner will also agree to grant the NFS a permanent real estate interest encumbering the floodproofed structure to allow for future inspections and protect the federal investment. The evaluation will also consider potential effects to threatened and endangered species and waters

of the US. The section below describes the process of determining eligibility. See the Real Estate Appendix for more details of the real estate requirements for implementation.

4.1 DETERMINING PROPERTY-OWNER STRUCTURAL REPAIR REQUIREMENT

Structures identified by the USACE Beattyville FRM Feasibility study recommended plan will be eligible to apply for voluntary flood risk management measures. Applicants will be required to permit USACE and the NFS to complete structural inspections that will determine the condition of the structure and need for repair or rehabilitation prior to the implementation of the nonstructural measure, such repairs are the sole responsibility of the property owner. Applications will be accepted in phases. The first phase will only include structures in the floodway identified for mandatory acquisition. The second phase includes structures identified in the feasibility study as essential or an anchor asset or service. The participation of these property owners is voluntary. The third phase includes structures identified in the feasibility study as historic structures. The participation of these property owners is voluntary. Only structures identified as voluntary nonstructural measures will require an owner application. Mandatory acquisitions will not require an application and will follow the typical process for acquiring property in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act).

4.1.1 Eligible Property Structure Inspection

Inspections will occur on each eligible structure for which the owner has provided an acceptable application to participate. The inspection team will be comprised of USACE specialists and the NFS. The inspection may include activities such as structural wall and foundation integrity assessments, mechanical equipment assessment, surveys, limited environmental testing for hazardous and toxic materials or wastes, utility inspections, a site investigation verifying existing elevations, and conducting such other activities deemed necessary by USACE and the NFS to make a final determination on what the property owner's repair and rehabilitation responsibility would be if they proceed. A property owner may elect not to participate at any time prior to execution of a mitigation agreement for the implementation of the nonstructural measure upon the property. Refusal to endorse a Right-of-Entry as part of the application will constitute the property owner's election not to participate.

4.2 DETERMINING PROPERTY-OWNER HTRW ABATEMENT REQUIREMENT

Structures identified by the USACE Beattyville FRM Feasibility study recommended plan will be investigated for the presence of HTRW through the completion of an ASTM Phase I environmental site assessment (ESA) and asbestos investigation report. This report will be completed by USACE upon receipt of an application to participate and Right-of-Entry for Survey and Exploration. If the Phase I ESA indicates the potential presence of HTRW on the property, the property owner will be notified in writing by USACE. Further HTRW investigations and the performance of a Phase II ESA will be completed if the property owner still wishes to participate. This investigation will determine the property owner's HTRW abatement requirements or if there will be no abatement requirement. Upon completion of the Phase II assessment, findings will be provided to the property owner. If contamination is identified, the property owner will be required to remove the contamination from the property prior to moving forward with floodproofing.

4.3 OWNERSHIP DETERMINATION

The NFS shall be responsible for determining ownership of eligible properties based on available public records with respect to endorsement of Rights-of-Entry for Survey and Exploration. Certificates of title will be required prior to execution of mitigation agreements which bind the owner(s) to granting a permanent real estate interest.

The property must not have previously received any disaster assistance for flood damage reduction from any federal sources.

5 ELIGIBLE AND INELIGIBLE PROJECT COSTS

Implementation of nonstructural measures will require local permits prior to onsite construction. Only the costs of fee acquisitions (buy-outs), costs associated with completion of structural elevation, and costs associated with successful completion of wet/dry floodproofing measures will be considered as eligible costs. While this report does not refer to the wet/dry floodproofing or residential elevation as “acquisitions,” the NFS is still responsible for acquiring a real estate interest over the structures’ footprints. The costs associated with obtaining those easements are eligible project costs. No Federal funds will be used to restore, replace, repair, or to bring the structure up to current local and state codes and ordinances. A 50 square foot addition to first floor area of the structure to relocate any utilities out of the basement and/or crawlspace is incorporated as project cost, if the lot size allows.

5.1 ELIGIBLE PROJECT COSTS

Elements of nonstructural measure implementation work determined to be eligible project costs include the following:

- Administrative labor costs of Non-Federal Interest coordination with eligible property owners.
- Structures attached to the main building.
- Raising of mechanical equipment.
- Utility connections that meet existing code.
- Vent construction for flood water entry and exit.
- Special access requirements and improvements.
- Tree removal and site restoration.
- Measures necessary to meet Federal statutes such as the Endangered Species Act and the National Historic Preservation Act.
- Temporary site protection measures during site work.
- Allowable relocation assistance funds for temporarily displaced residential tenants and business owners in accordance with Uniform Act).
- Design costs, including plans and specifications for permits application.
- Costs of obtaining all required permits (i.e., zoning or land use approvals, environmental permits or required certifications, historic preservation approvals, and building permits), except as identified to be an ineligible item of project cost.
- Real estate acquisition and other associated incidental real estate costs, including but not limited to title costs, appraisal costs, survey costs, closing and attorney’s fees, mapping

costs, and actual amounts expended for payment of any qualified relocation assistance benefits.

- In instances where special access improvements (i.e., elevators, lifts, ramps, etc.) may be required, special handicapped access can be considered an eligible improvement cost when documented by the medical certificate of a licensed physician. Multiple special access points may also be eligible for funding where necessary to meet state or local building code compliance.
- Site grading and site restoration including restoring landscaping to its preconstruction condition.

Costs specific to dry floodproofing include but are not limited to:

- Water resistant sealant and masonry veneer.
- Water resistant materials.
- Certified closure panels.
- Concrete masonry unit (CMU) wall if needed, including footing and foundation.
- Sewer backflow valves and skimmer pumps.
- Raising electrical and relocating utilities.

Costs specific to wet floodproofing include but are not limited to:

- Installation of flood vents.
- Replacement of insulation, wall board, and trim with level 4 or 5 flood resilient materials.
- Replacement of level 1-3 flooring, doors, and windows with level 4 or 5 resilient materials.
- Raising air conditioners, furnaces, electrical panels, and water heaters up to the BFE.

Rating levels (1-5) for flood resilient materials are based on the FEMA technical bulletin titled “Flood Damage – Resistant Materials Requirements for Buildings Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program Technical Bulletin 2 Aug 2008”.

5.2 INELIGIBLE PROJECT COSTS

Costs that exceed those activities necessary to safely implement the nonstructural measure for an eligible structure are ineligible costs, and any such costs remain the sole responsibility of the property owner. These costs may include, among others:

- Costs to elevate above the height authorized by the feasibility study.
- The proper remediation, removal, and disposal of environmental contaminants including but not limited to HTRW, asbestos, and asbestos-containing materials in damaged or friable form; and
- Costs associated with bringing a non-conforming structure into compliance with current building codes, housing codes, and/or other applicable codes.

6 STRATEGY FOR PRIORITIZING IMPLEMENTATION

Scheduling nonstructural mitigation activities will be subject to the availability of project funds. The locations for scheduling or prioritizing the implementation of nonstructural work will be determined

during design but will be fully assessed for implementing the nonstructural plan in an efficient and cost-effective manner. As funds are appropriated, scope would progress in the following order:

1. FWEPP
2. Fee acquisitions in the floodway
3. Recreation
4. Dry floodproof, wet floodproof essential and community anchor structures
5. Dry floodproof, wet floodproof, elevate (residential only) historic structures

Once the project is authorized, funds are appropriated, a PPA is executed, and the NFS starts the voluntary floodproofing program, property owners will be given 1 year to enter into an agreement. Not completing an agreement will be considered as declining the floodproofing benefit. Each property should consider approximate 200 square foot outside material laydown area if available. In some cases, one laydown area may be used for multiple structures.

7 NFS REAL ESTATE

See the Real Estate Appendix for a detailed description of the real estate requirements to implement the nonstructural floodproofing measures described in this study. Landowners whose structures are floodproofed by this Project will be required to grant the NFS a permanent real estate interest over the footprint of their structure to protect the Federal investment and permit the NFS to inspect the structure for compliance with the terms of the mitigation agreement. A perpetual restrictive easement for residential elevation will be used for the lone residential structure identified for elevation. A similar instrument will be utilized for the nonresidential floodproofed structures. Currently there is no standard estate for nonresidential floodproofing. If a standard estate for such structures is not available prior to implementation of the Project, the PDT, in coordination with the NFS, will submit a request in accordance with USACE policy for approval of an appropriate estate to support the nonresidential floodproofing implementation. Voluntary nonstructural participants will be required to waive their right to an appraisal and just compensation for the easement being granted. Temporarily displaced residential tenants and businesses will be eligible for temporary relocation assistance payments in accordance with the Uniform Act. For displaced residential tenants, those payments would cover temporary lodging and other associated expenses for the duration of construction. No businesses are expected to require temporary relocation, but some may require the temporary relocation and storage of some building contents during construction. Such moving and storage costs are eligible relocation assistance benefits. Upon Project completion, the NFS will maintain a shareable database with the USACE that tracks the operation and maintenance surveys they will regularly conduct to ensure compliance with the Project requirements. The following steps will be required for project implementation:

a. Landowner and public meetings. This NFS with support from USACE will conduct landowner meetings for each separable element. One for acquisitions in the floodway, one for flood proofing of essential structures, and one for historic structures.

c. Owner application. The recommended plan includes 53 structures. Five (5) of the residential structures are mobile homes which are owned by their occupants; however, they will likely be treated as tenants of the mobile home park for purposes of relocation. It is unknown at this time how many businesses in nonresidential structures are operated by the landowner or lease the premises from the landowner. All applications, ROEs, mitigation agreements, and legal

documents must be signed by the landowner. Participation in separable elements 2 and 3 of this project are strictly voluntary. The NFS will not utilize its authority of eminent domain should owners of properties outside of the floodway choose not to participate. The owner applicant will be required to grant a Right-of-Entry to USACE and the NFS to enter upon the property to conduct investigations during the Preconstruction Engineering and Design Phase to determine final eligibility of the property for inclusion in the project. If the investigations reveal HTRW on the property, the owner will need to remediate such contamination in order for the property to be approved for final eligibility.

d. Perpetual restrictive easement. The NFS will acquire a perpetual restrictive easement over that portion of the property wherein the residence is located. This easement will be recorded in the county public land records and will run with the land. The intent of the acquisition of the easement is to protect the project benefits for as long as the project is authorized or as long as the structure exists. The easement shall prohibit the conversion of any part of the structure, located below the lowest habitable finished floor for human habitation and the alteration of the structure in any way that impedes the movement of flood waters under the structure or negates the intent of the nonstructural measure implementation. The ground floor of an elevated residential structure can only be utilized for parking, storage, and access.

e. Relocation assistance. The recommended plan includes 53 structures. The lone residential elevation is tenant occupied and temporary relocation of the tenant during construction is authorized in accordance with the Uniform Act. The PDT estimates that approximately 25% of eligible nonresidential structures will require some building contents to be moved and stored offsite during construction as part of some of the efforts to wet or dry floodproofing. Such moving and storage costs are eligible temporary relocation assistance benefits in accordance with the Uniform Act. All owners and tenants of structures included in the mandatory acquisitions portion of the project will be afforded relocation assistance benefits in accordance with the Uniform Act.

f. Non-Federal Sponsor Authorization for Entry and Certification of Real Estate Availability. Contrary to policy requirements in ER 405-1-12, Chapter 12, Certification of Real Estate Availability cannot occur prior to contract award for nonstructural design-build and design-bid-build contracts because the design specific to each structure will not be developed until after award of these contracts. In accordance with the approval granted in "Guidance for Nonstructural Project Planning and Implementation", the NFS will proceed with solicitation, evaluation of proposals, and award of contract for the nonstructural measures without Certification of Real Estate Availability. After acquisition and recordation of the Perpetual Restrictive Easement by the NFS, a notice or letter to proceed with elevation, dry flood proof, or wet flood proof of each specific property will be issued to the contractor by the NFS. In no case shall a contractor be permitted to initiate any construction activities on a structure until after the District Real Estate has certified NFS acquisition of the Perpetual Restrictive Easement for that property.

8 OPERATION, MAINTENANCE, REPAIR, REHABILITATION, AND REPLACEMENT (OMRR&R)

Once a Notice of Construction Completion has been issued, NFS obligations for operation and maintenance for the subject structure commences. USACE will have no operation and maintenance responsibilities. Enforcement of restrictive easements is the sole responsibility of the NFS. The NFS will prepare mass mailings to project participants every ten years providing

notice that the structure on the property was floodproofed by the USACE and notice of the easement encumbering the property and the restrictions thereon. On a rotating schedule, every five years, the NFS will conduct physical inspections from the street of 10 percent of the structures that have participated in the project. When available, the NFS will also make efficient use of monitoring that is already being conducted by local cities or counties, Federal Emergency Management Agency, or state agencies. The inspections for elevated structures will determine, among other things, that no part of the structure located below the level of the lowest habitable finished floor has been converted to living area for human habitation or occupancy, or otherwise altered in any manner which would impede the movement of waters beneath the structure. The inspections for dry flood proofing will evaluate the structure's ability to resist floodwaters by examining the structural integrity, foundation seals, drainage systems, and other features that would prevent water from entering the building during a flood, essentially ensuring it would remain "dry" even when surrounded by floodwaters; this typically involves checking for things like proper sealing around doors and windows, waterproof wall treatments, elevated electrical outlets, and functional sump pumps. The inspections for wet flood proofing will evaluate a structure's floodproofing systems ability to prevent water damage. This includes permanent and temporary measures that allow floodwaters to enter the building while still protecting it from damage.

The NFS will utilize GIS or a sharable database to track surveys and violations. The NFS may use existing tracking tools or those from local, state, or Federal agencies if they exist. The NFS will provide updates to the executing USACE district every five years after surveys have been completed.

If a potential violation of the terms of the easement is discovered, the NFS will coordinate with the local government, as appropriate. Notification will also be provided to the Federal Emergency Management Agency regional office. The NFS will issue a notice of violation and will inform the property owner that the issue must be resolved or legal action may be taken to recover the funds expended by the Federal Government. While this is a NFS responsibility, the Government, in its sole discretion, always retains the right to step in to operate and maintain the project, which does not relieve the NFS of its obligations or preclude the Government from pursuing any other remedy at law or equity to ensure faithful performance under a project's agreement.

Residential and non-residential operation and maintenance costs on properties elevated, dry or wet flood proofed are the responsibility of the owner and are expected to be conducted on an annual basis to ensure the project is compliant with all floodplain management regulations. The owner of the structure will be responsible for the minimal costs of maintaining, repairing, rehabilitating, and replacing of all nonstructural mitigation measures that were utilized for the subject property. Operation and maintenance on land acquired and recreation facilities will be the responsibility of the NFS.

An OMRR&R Manual will be developed by the design build contractor and provided to the property owner as well as the NFS after project implementation. For the land acquired and recreation facilities an OMRR&R manual will be developed by USACE and provided to the NFS after project implementation. At the time of the issuance of a Notice of Construction Complete memo, the NFS's obligations for operation and maintenance for the subject structure or lands commences. The NFS will be responsible for maintaining (mowing, trimming, debris removal, etc.) all locations where acquisition or recreation improvements occurred.