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ST. LOUIS DISTRICT, CORPS OF ENGINEERS
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11 April 2017

Reply to:

US Army Corps of Engineers
St. Louis District
Environmental Compliance Section (PD-C)
1222 Spruce Street
St. Louis, MO 63103-2833

RE: Foley Drainage District PL 84-99

Dear Sir or Madam:

We are providing for your review a Draft Environmental Assessment and unsigned Finding of No Significant Impact for the Foley Drainage District, which incurred levee damages during the winter of 2015 flood events. Please note that the Finding of No Significant Impact is unsigned. This document will be signed into effect only after having carefully considered comments received as a result of this public review.

An electronic copy can be obtained from the St. Louis District's website at:

<http://www.mvs.usace.army.mil/Portals/54/docs/pm/Reports/EA/DRAFTFoleyEAandFONSIPL84992015Repairs.pdf>

Levees throughout the St. Louis District were damaged during the summer and winter flooding in 2015. Many drainage and levee districts have requested assistance under Public Law 84-99, which provides repair assistance for flood damaged levees. We are in the process of preparing plans and specifications and completing all necessary documentation including environmental compliance documents.

We invite your comments related to the content of the environmental assessment. Please address your comments or questions to Dr. Teri Allen of the Environmental Compliance Section (CEMVP-PD-C), at telephone number (314) 331-8084, or e-mail at Teri.C.Allen@usace.army.mil, by close of business on 11 May 2017.

Thank you,

A handwritten signature in blue ink, appearing to read "Teri C. Allen".

Teri C. Allen, Ph.D.
Chief, Environmental Compliance Section

**DRAFT ENVIRONMENTAL ASSESSMENT
WITH
FINDING OF NO SIGNIFICANT IMPACT**

**LEVEE REPAIR (PL 84-99):
FOLEY DRAINAGE DISTRICT
LINCOLN COUNTY, MISSOURI
MISSISSIPPI RIVER, RIVER MILE 245 to 243**

April 2017

Prepared by:

Environmental Compliance Branch
U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis Missouri 63103-2833



**US Army Corps
of Engineers**
St. Louis District

TABLE OF CONTENTS

| | |
|--|----|
| 1. INTRODUCTION | 2 |
| 1.1. Project Authorization | 2 |
| 1.2. Project Location and Scope | 2 |
| 1.3. Project Purpose and Need..... | 5 |
| 1.4. Damage Description | 5 |
| 2. PROJECT ALTERNATIVES CONSIDERED | 8 |
| 2.1. Alternative 1 - No Action (Future without Project)..... | 8 |
| 2.2. Alternative 2 – Non-structural Measures..... | 8 |
| 2.3. Alternative 3 – Structural Repair of Levees with Federal Assistance..... | 9 |
| 2.3.1 Levee Setback | 10 |
| 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS | 16 |
| 3.1. Physical Resources | 16 |
| 3.2. Biological Resources..... | 17 |
| 3.2.1. Fish and Wildlife | 17 |
| 3.2.2. Bald Eagle..... | 19 |
| 3.2.3. Biological Assessment..... | 19 |
| 3.2.4. Cultural Resources (Historic and Archaeological) | 23 |
| 3.2.5. Socioeconomic Resources | 24 |
| 3.2.6. Environmental Justice..... | 25 |
| 3.2.7. Tribal Coordination..... | 26 |
| 3.2.8. HTRW | 26 |
| 3.3. Summary Comparison of Project Alternatives..... | 27 |
| 4. CUMULATIVE IMPACTS | 29 |
| 4.1. Relationship of Tentatively Selected Plan to Environmental Requirements | 29 |
| 5. COORDINATION, PUBLIC VIEWS, AND RESPONSES | 31 |
| 6. ENVIRONMENTAL ASSESSMENT PREPARERS..... | 33 |
| 7. REFERENCES | 34 |
| FONSI..... | 35 |

1. INTRODUCTION

This document is a Draft Environmental Assessment (EA) with an attached unsigned Finding of No Significant Impact (FONSI) for levee repairs to the Foley Drainage District (DD). The purpose of this EA is to evaluate potential environmental impacts of proposed levee repairs, determine if the environmental impacts rise to the level of significant, and to serve as a record of interagency coordination for the emergency rehabilitation actions.

1.1. Project Authorization

Emergency actions undertaken by U.S. Army Corps of Engineers (USACE) to repair flood control works damaged or destroyed by flooding are authorized by Public Law 84-99, as amended by Section 206 of the Flood Control Act of 1962 (hereafter referred to as PL 84-99). USACE regulations covering these and other emergency rehabilitation activities are contained in the Rehabilitation Code 910-300 of ER 500-1-1 (33 CFR 203). The Code states that actions taken to *restore facilities to pre-disaster conditions* under PL 84-99 will not be construed to be either major federal actions or as having significant effects. However, the effect of rehabilitation on the environment must be considered. This includes the effects of construction on endangered species (PL 93-205 and Appendix B of ER 1105-2-50) and archeological and historic properties (Chapter 3 of ER 1105-2-50). Since the Foley Drainage District is active in the USACE Rehabilitation and Inspection Program, it is eligible for Flood Control and Coastal Emergency funding authorized by PL 84-99.

1.2. Project Location and Scope

The Foley Drainage District is a non-federally constructed and maintained levee located near the town of Foley in Lincoln County, Missouri. It is adjacent to the left descending bank of the Mississippi River at approximately Mississippi River Mile 245 to 243 (Figure 1). The Foley DD is a segment of the Foley, Cap Au Gris Levee & Winfield Main System, which is comprised of the Foley Levee, the Cap Au Gris Levee, and the Winfield Main Levee (Figure 2). The Foley levee segment provides an 18-year level of flood risk reduction for over 1,200 acres of primarily agricultural land with some urban areas, farm houses, and outbuildings. The town of Foley contains 78 residential properties and several commercial properties, most of which are protected by the Foley DD. The segment consists of 3.4 miles of levee constructed with a representative crown width between 8-10 feet, and a representative side slope of 1 on 3.

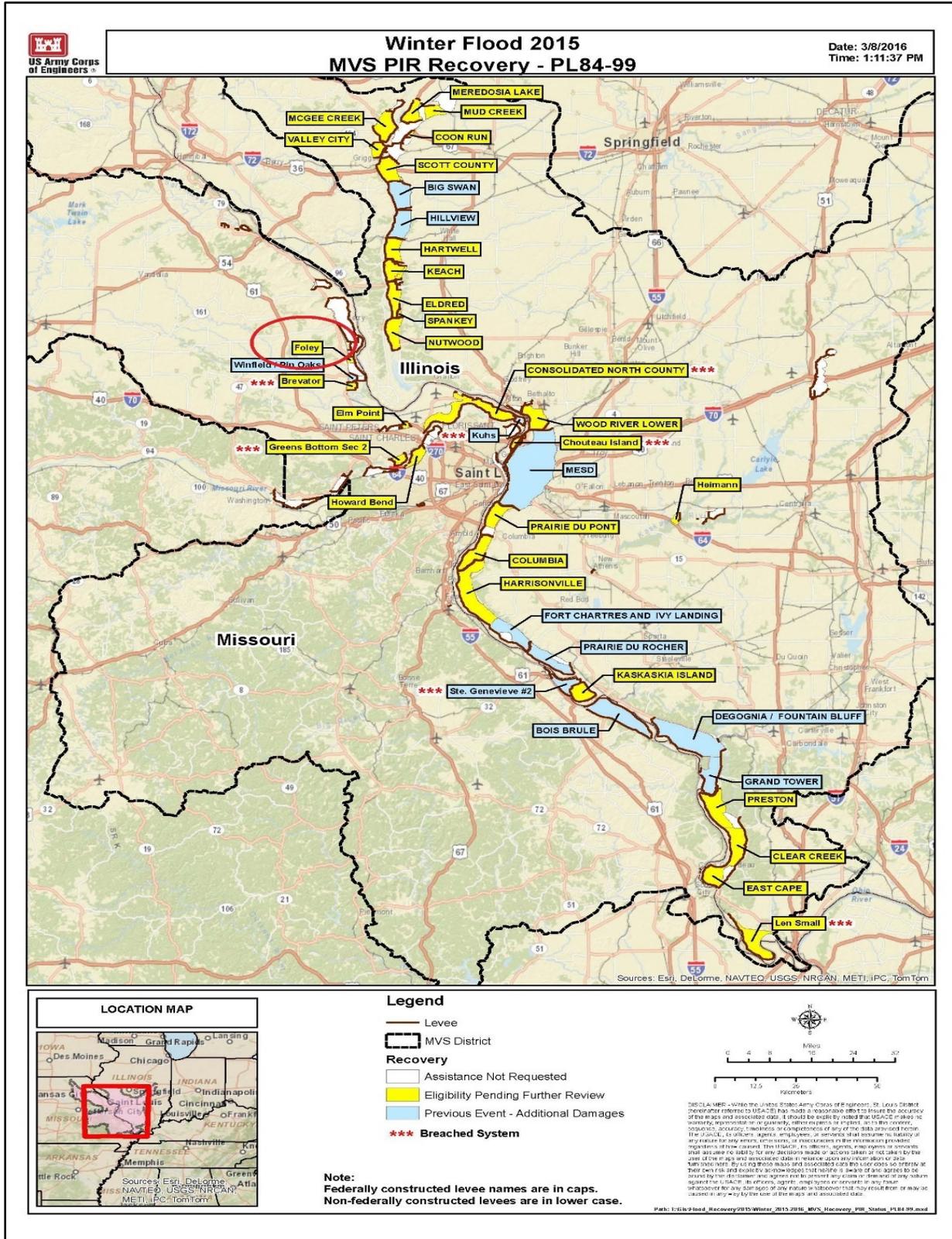


Figure 1. General Location Map of the Foley Drainage District.

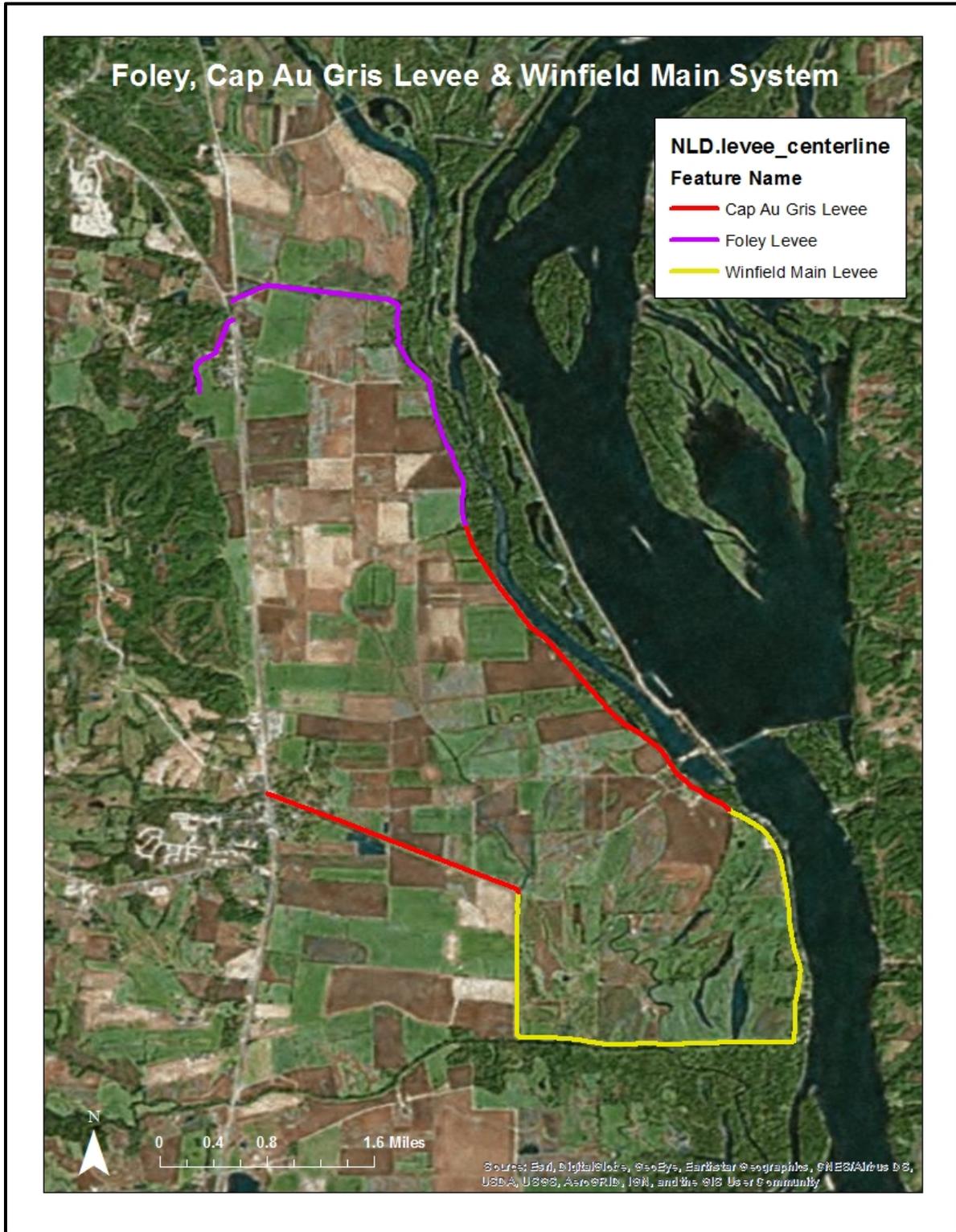


Figure 2. General layout of the Foley levee segment, the Cap Au Gris levee segment, and the Winfield Main levee segment which make up the Foley, Cap Au Gris Levee & Winfield Main System.

1.3. Project Purpose and Need

The Foley DD Levees System sustained damages from high water events that resulted from a powerful winter storm that occurred in the Midwest during 26-29 December 2015, bringing torrential rain and heavy snow across the region. The purpose of this federal action is to restore the level of flood protection to that which existed prior to the 2015 flood events. There is a need for repairs, because flood damages reduced flood protection provided by the levee, making the district vulnerable to the next flood event. Without federal involvement through the PL 84-99 program, it is unlikely that the Foley DD has the financial ability to restore the level of protection according to Corps of Engineers' standards.

1.4. Damage Description

The damage to the Foley levee segment sustained from the high water event is classified as a scour. A scour is a void formed by the removal of material by a powerful current of water. Scours are typically repaired by filling the void with washed-out material and compacted.

As a result of the high water event, Sandy Creek scoured into the riverside levee section starting approximately 500 feet west of Missouri 79 (Figure 3). The area of erosion is 300 feet long and within 7 feet of levee crown (Figure 4). The vertical distance from levee crown to bottom of creek bed is approximately 20 feet (Figure 5).

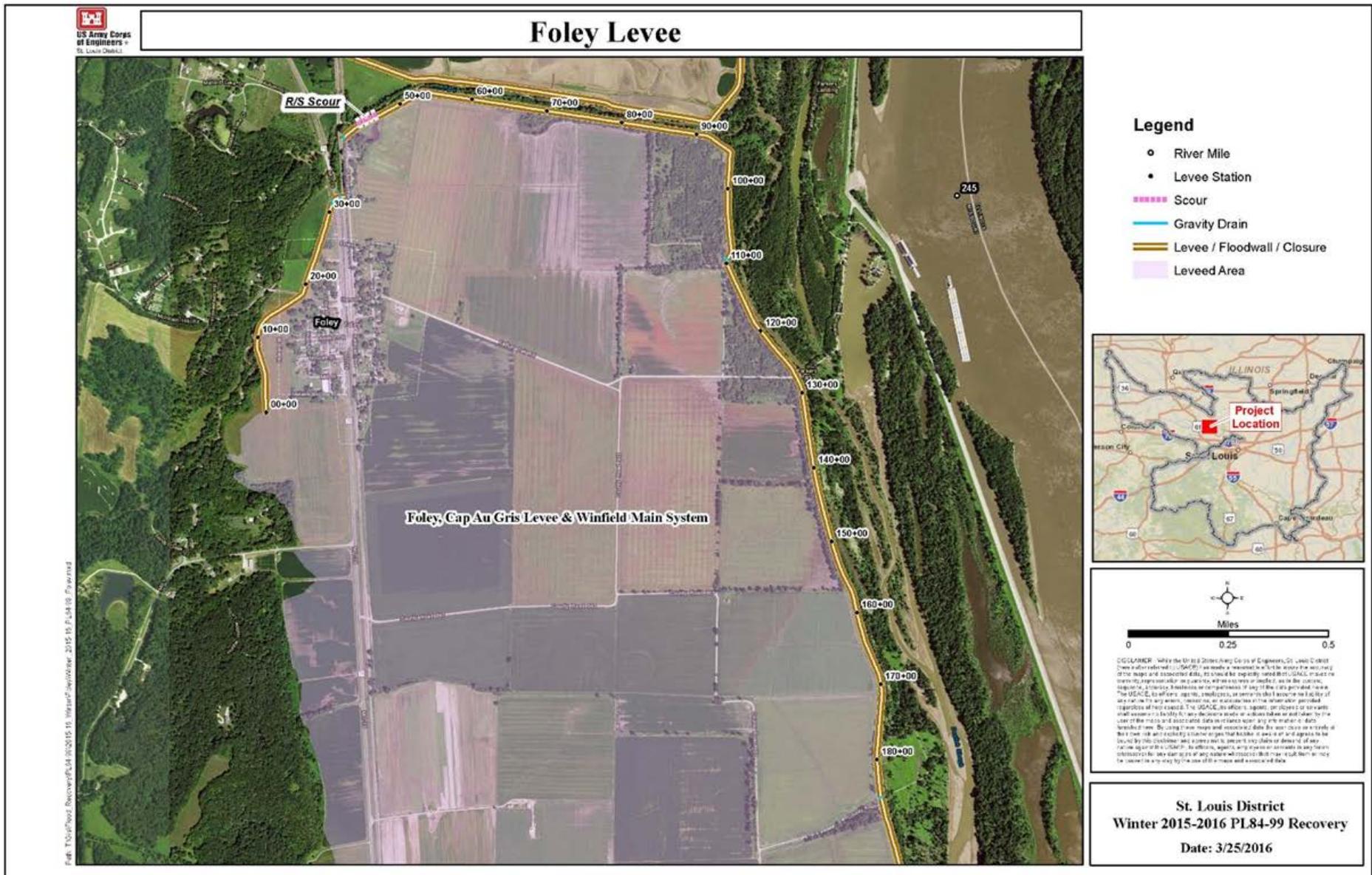


Figure 3. Map of Foley DD levee segment riverside scour damage.



Figure 4. Area of erosion cause by scour approximately 300 feet long and within 7 feet of Foley levee crown.



Figure 5. Vertical distance from Foley levee crown to bottom of Sandy Creek bed is approximately 20 feet.

2. PROJECT ALTERNATIVES CONSIDERED

This section describes and compares the alternatives based on their geotechnical, engineering design, economic, and environmental impact and achievement of project objectives for the damaged Foley DD. NEPA requires that in analyzing alternatives to a proposed action, a federal agency must consider an alternative of “No Action.” Likewise, Section 73 of the WRDA of 1974 (PL 93-251) requires federal agencies to give consideration to nonstructural measures to reduce or prevent flood damage.

2.1. Alternative 1 - No Action (Future without Project)

Under the No Action Alternative, the federal government would not repair the damages to the Foley DD. It is possible that the Foley DD would make repairs without federal assistance. Environmental impacts of repairs made by the Foley DD would be similar to the tentatively selected alternative, except that the repair duration may differ and the environmental protections may be reduced. However, due to the uncertainty of the Foley DD making all necessary repairs, **the environmental impacts of allowing the damage to remain unrepaired are regarded as the No Action Alternative.** This would presumably perpetuate a state of reduced levee structural integrity. The levee would be susceptible to further erosion at the damaged site. The current damages would decrease flood protection, thereby increasing risks to individuals, commercial and residential properties, structures, businesses, and agricultural activities within the leveed area.

2.2. Alternative 2 – Non-structural Measures

Section 73 of the WRDA of 1974 (PL 93-251) requires federal agencies to give consideration to non-structural measures to reduce or prevent flood damage. Nonstructural measures reduce flood damages without significantly altering the nature or extent of flooding. Damage reduction from nonstructural measures is accomplished by changing the land use within the floodplains, or by accommodating existing uses to the flood hazard. Examples include flood proofing, relocation of structures such as levees, flood warning and preparedness systems, and regulation of floodplain uses. A flood warning system would do little to reduce structural and agricultural damages. Flood proofing or relocation is not desirable to the Foley DD, because it would have large costs, and result in loss of numerous acres of agricultural land.

Under PL 84-99, the Corps has the authority to pursue a non-structural alternative only if the project sponsor requests such an alternative.

*“There is hereby authorized an emergency fund to be expended in preparation for emergency response to any natural disaster, in flood fighting and rescue operations, or in the repair or restoration of any flood control work threatened or destroyed by flood, including the strengthening, raising, extending, or other modification thereof as may be necessary in the discretion of the Chief of Engineers for the adequate functioning of the work for flood control, or in implementation of **nonstructural alternatives to the repair or restoration of such flood control work if requested by the non-federal sponsor.**”*

Additionally, ER 500-1-1, dated 30 September 2001, states that:

*“Under P.L. 84-99, the Chief of Engineers is authorized, **when requested by the non-Federal public sponsor**, to implement nonstructural alternatives (NSA’s) to the rehabilitation, repair, or restoration of flood control works damaged by floods or coastal storms. The option of implementing an NSA project (NSAP) in lieu of a structural repair or restoration is available only to non-Federal public sponsors of flood control works (FCW’s) eligible for Rehabilitation Assistance in accordance with this regulation, and only **upon the written request of such non-Federal public sponsors. The principal purposes of an NSAP are for floodplain restoration, provision or restoration of floodways; and/or reduction of future flood damages and associated (FCW) repair costs.** [NOTE: Habitat restoration is recognized as being a significant benefit that can be achieved with an NSAP, and may be a significant component of an NSAP, but **is not considered to be a principal purpose under this authority.**]*

The Foley DD declined to request the pursuit of a non-structural alternative because present owners desire to continue agricultural use; therefore, this alternative was eliminated from further analysis in this EA.

2.3. Alternative 3 – Structural Repair of Levees with Federal Assistance

Under this alternative, at the request of the Foley DD, the federal government would repair the damaged areas to the pre-flood level of protection. Since the Foley DD is active in the USACE Rehabilitation and Inspection Program, it is eligible for Flood Control and Coastal Emergency funding authorized by PL 84-99.

Repairs – Due to the widening creek meander and continued scour, it is not practical to reestablish the levee in its original footprint.

2.3.1. Levee Setback

A levee setback of approximately 15 feet involving clearing scrubby vegetation, levee degrade (1035 CY), placement of bedding material (310 tons), placement of 400 pound rock riprap (980 tons), placement of impervious borrow material (1100 CY), and reestablishment of turf was investigated. The levee setback structural alternative provides the least federal cost solution that stabilizes the repair and the levee segment (Figure 6), and thus is the Tentatively Selected Plan.

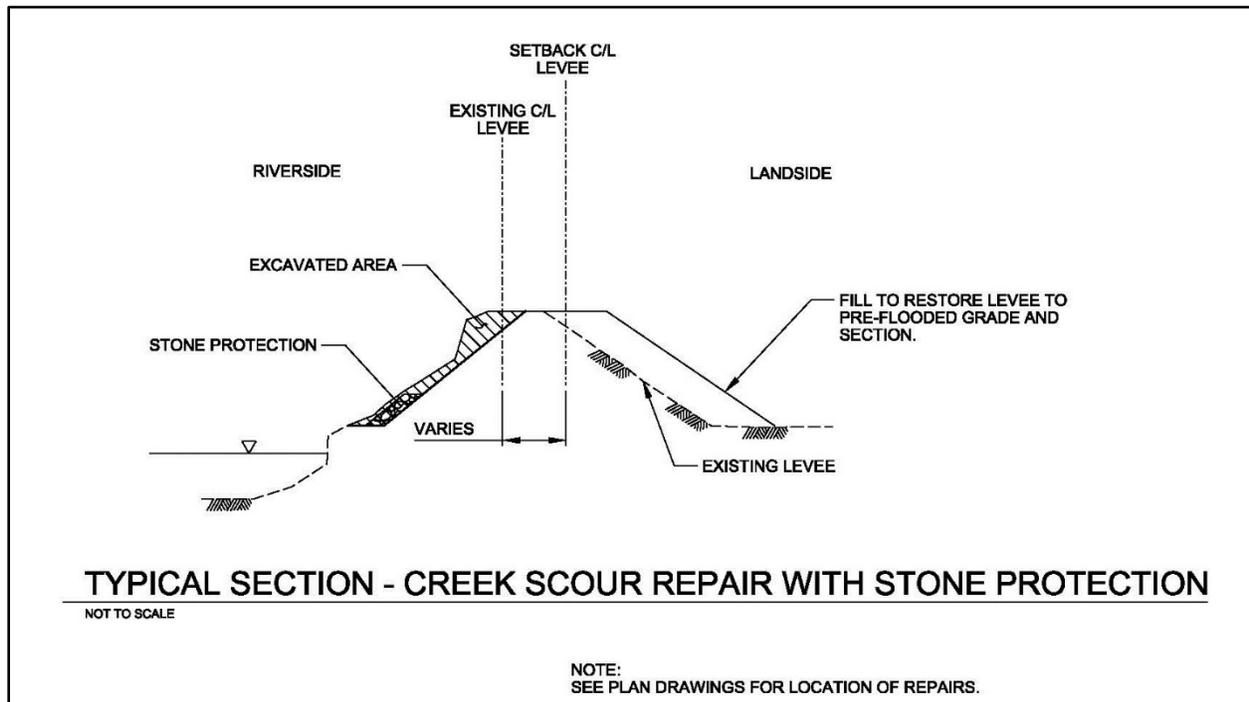


Figure 6. Diagram of typical cross-section of creek scour repair with stone protection.

2.3.3.1. Borrow Material

The Tentatively Selected Plan would require approximately 1,100 CY of impervious embankment (borrow) material. The proposed borrow site is shown in Figure 7. No tree or vegetation clearing are required. A site visit was conducted on 7 November 2016. The proposed borrow area does exhibit wetland characteristics, but has been used for agricultural row crops, therefore a Section 404 permit is not required. The borrow material is suitable, made up of lean clay. This site was used as a source of borrow material in 2013. Within the borrow area there are two small stockpile areas left over from the 2013 repairs. The stockpile areas are approximately 8' high and 15'x15'. The depth of clay material elsewhere on the site was at least 2.5' thick. Total material available is estimated at 4,900 CY.



Figure 7. Photo of the proposed borrow site for the Foley Drainage District PL 84-99 2015 repairs.

2.3.1.1. Construction Limits

The construction limits are shown in Figure 8. As currently planned, shrubby vegetation along the levee scour area would be removed as part of these repairs.

According to preliminary project plans, the levee setback would be constructed so that the new levee centerline would be offset along the scoured area at the minimum distance required to construct the full levee section (estimated a 15' setback). At each end of scoured area, the levee would transition smoothly back to the existing levee section and alignment. The final alignment of the levee setback and stone protection would be staked in the field by the contractor, and must be approved by the USACE contracting officer's representative prior to commencing repair. Riprap and bedding material are to be placed at the higher of the two elevations (levee toe elevation or bank full elevation + 1.5'). Riprap and bedding material would extend approximately 15' upstream and downstream of ends of creek scour to avoid flanking.



Figure 8. Approximate setback alignment for the Foley Drainage District PL 84-99 2015 repair.

2.3.1.2. Access and Staging Areas

Staging areas and access routes to the repair sites would be established to avoid and minimize environmental impacts (Figure 9). Existing access points such as roads, rights of way, and levees located within a reasonable distance to the construction sites would be utilized. Currently, the creation of haul roads, other than existing access points, is not deemed necessary. The repair area is to be accessed from Highway 79 via Railroad Avenue. The borrow area is to be accessed from Highway 79 via E Burr Oak Road and Neuhlist Road.

2.3.1.3. Final Plans and Specifications

Following review of comments and the signing of the FONSI (should that be the decision), plans and specifications would be finalized for construction. Construction would commence as soon as possible thereafter and would be completed within one construction season.

2.3.1.4. Environmental Protection Measures

Environmental protection is the prevention/control of pollution and habitat disruption that may occur during construction. The control of environmental pollution and damage requires consideration of air, water, land, biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive materials; and other pollutants. The designated contractor shall adhere to all environmental protection requirements listed in the Construction Plans and Specifications. Examples include, but are not limited to:

- The Contractor shall submit an Environmental Protection Plan for review and acceptance by the USACE Contracting Officer, which shall include: a list of state and local laws and regulations; a Spill Control Plan; a Recycling and Waste Minimization Plan; a Contaminant Prevention Plan; a Storm Water Pollution Prevention Plan; and an Environmental Monitoring Plan.
- No fill shall be excavated or permanently placed except where required for erosion.
- There shall be no removal of existing vegetation outside of the construction area.
- All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils; and all contractor work areas shall be re-vegetated with fast germinating grass mixtures to reduce any further erosion.

- Thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present.
- Proper disposal of solid waste and debris.
- Proper storage and use of fuels and lubricants.
- Minimize interference with, disturbance to, and damage of, fish and wildlife.
- Protection of water resources to avoid pollution of surface and ground waters.
- Construct or install temporary and permanent erosion and sedimentation control features such as berms, dikes, drains, grassing and mulching, silt screens, or hay bales.
- Maintain all excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, disposal sites, and all other work areas free from airborne dust which would cause a hazard or nuisance.
- Hydrocarbons and carbon monoxide emissions from equipment shall be controlled to Federal and State allowable limits at all times.

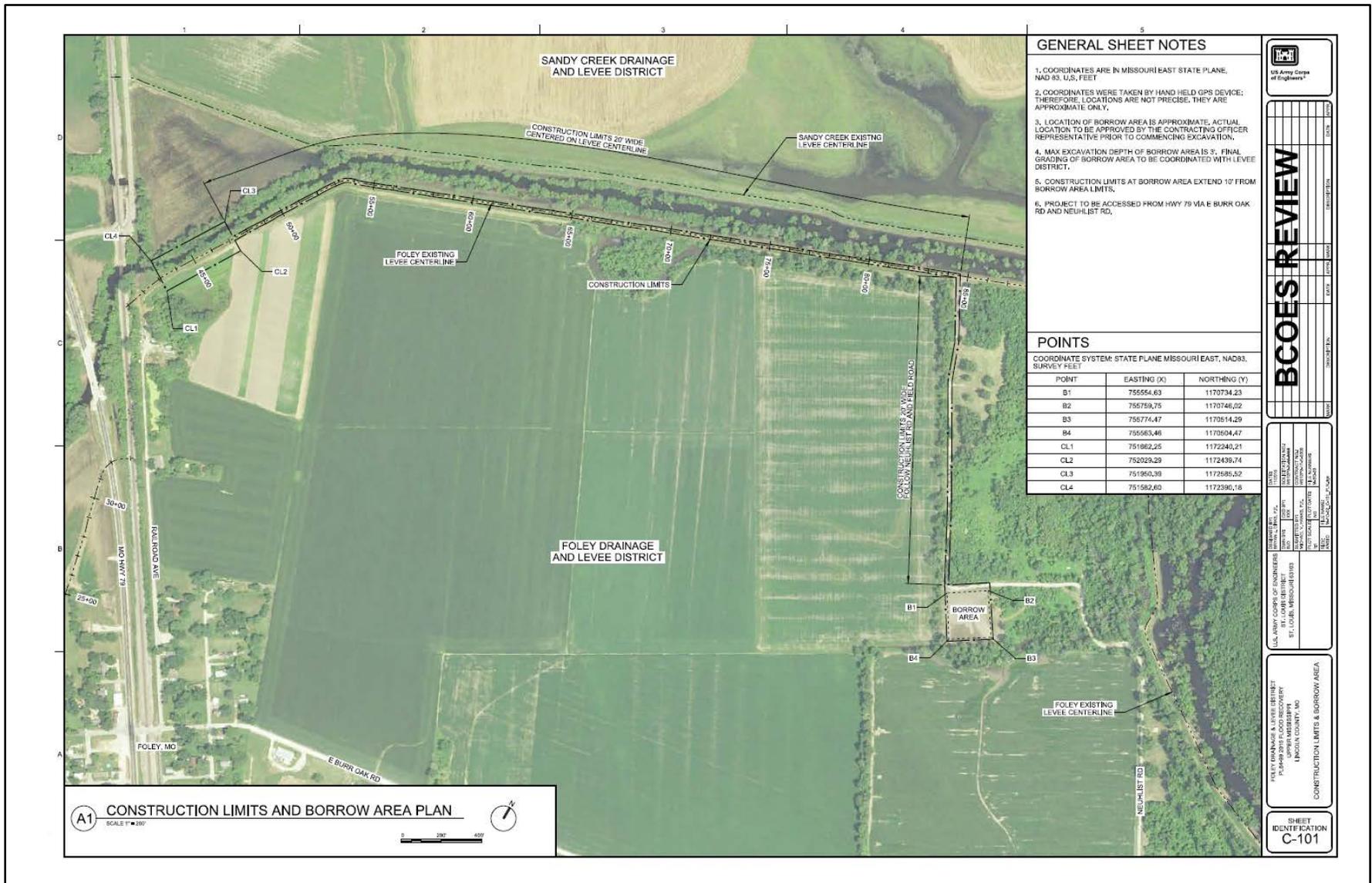


Figure 9. Approximate construction, staging, borrow area, and access routes to the Foley Drainage District PL 84-99 2015 repair.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

This chapter summarizes the biological, physical, and social environments of the affected project area relative to the alternatives under consideration. Relevant resources are addressed in terms of their present condition, their projected condition under the No Action alternative, and the expected effects of the Tentatively Selected Plan.

3.1. Physical Resources

The Foley DD is located in Lincoln County, Missouri adjacent to the left descending bank of the Mississippi River. The leveed area provides flood risk reduction for the town of Foley, residential and commercial properties, and abundant agricultural land. Because of the fertility of the soil and moisture, the land is prized for its agricultural productivity. Levees have been constructed to the federal standard to reduce the likelihood of inundation within the leveed area to an 18-year return period; and to provide a reasonable amount of certainty of producing crops in most years. Much of the area within the levee is considered valuable farmland Lincoln County, Missouri, is currently in attainment for all U.S. Environmental Protection Agency air quality criteria (USEPA 2017). Ambient noise in the study area is generated by wildlife, human activities, agricultural activities, and vehicular traffic.

Alternative 1 – No Action (Future without Project) – Because of the increased risk of levee failure and landside flooding under the current conditions, future high water events could have adverse impacts including increased scour and sedimentation as well as temporary or permanent changes in land use. Continued bankline scour along Sandy Creek is threatening the levee and potentially an adjacent railroad tressel. Debris, deposition of unsuitable materials, and contaminated liquids or solids could enter farm fields creating less than desirable agricultural conditions and hinder future farming productivity. However, without the levee, the adjacent creek waters could gain lateral connectivity with the floodplain, possibly benefitting fish and wildlife. Air quality and noise levels are not anticipated to be altered by this alternative.

Alternative 3 – Repair of Levees with Federal Assistance – Construction activities would occur within an agricultural area adjacent to Sandy Creek, and along the bankline of Sandy Creek. The levee setback could cause a short-term increase in turbidity in the waterway at the immediate construction site if flooding or heavy rains occurred during construction. However, the Contractor shall comply with all applicable federal, state, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction. All disturbed areas would be reseeded following construction to reduce the

potential for erosion. The levee setback would provide an increased creekside floodplain width over a short distance.

The proposed project would be expected to temporarily increase noise levels near the repair and associated worksites. The U.S. Environmental Protection Agency has set a limit of 85 decibels on the A scale (the most widely used sound level filter) for eight hours of continuous exposure to protect against permanent hearing loss (Figure 10). Based upon similar construction activities conducted in the past, noise above this level would not be expected to occur for periods longer than eight hours. Noise levels would return to normal after construction completion.

Construction activities would cause a slight increase in suspended particulates (i.e., dust). Emissions from construction equipment would increase the carbon monoxide and carbon dioxide levels in the vicinity of the construction site. The expected increases would be very negligible and would cease after construction.

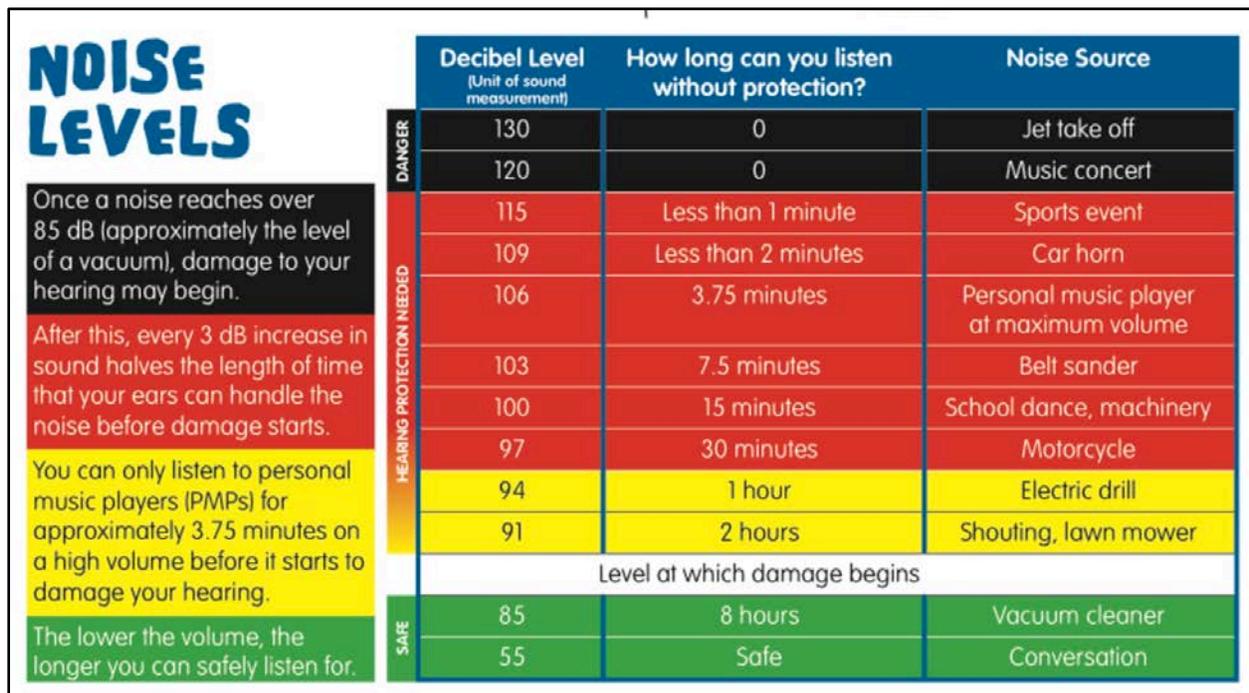


Figure 10. Example of noise levels and time exposure in relation to hearing loss.

3.2. Biological Resources

3.2.1. Fish and Wildlife

Fish and wildlife habitats located in and near the leveed area include permanent water, temporary water, bottomland forest / wooded swamp, old fields, and agricultural cropland. These terrestrial habitats provide food and cover for a variety of wildlife species including Rabbit,

Squirrel, Beaver, Red Fox, and White-Tailed Deer; and the aquatic habitats provide habitat for a variety of reptiles such as the Common Snapping Turtle, amphibians such as the Gray Tree Frog and fish species including Largemouth Bass, Bluegill, Carp, Crappie, Warmouth, and Channel Catfish. Common birds in the area include Great Blue Herons, Bald Eagles, Geese, Gulls, Pelicans and many species of waterfowl, other shorebirds, and songbirds. Typical tree species include Pecan, Eastern Cottonwood, American Elm, Box-Elder, Silver Maple, Pin Oak, Shagbark Hickory, and River Birch. The levees are mowed grass areas that are managed to prevent shrub and tree growth and animal damage.

Alternative 1 – No Action (Future without Project) – If the Foley DD is not repaired to the federal standard, the levee system would have less stability and there is an increased probability of future flooding. During highwater events, the bankline scour would continue to erode into the levee and wash soil into Sandy Creek, resulting in a short-term increase in turbidity in the immediate area, and temporarily displacing fish and other mobile organisms. Additionally, if flooding were to occur, and agricultural use diminishes, then a more diverse and dynamic terrestrial and aquatic habitat may develop over time. The terrestrial habitat could be inundated by high water more frequently, and the vegetative composition may be altered. During high water events, water could pond on the landside of the levee and deposit sediment, decreasing flood water turbidity, filling wetlands, and killing vegetation as flood water ponds on typically dry areas that are currently dominated by agriculture. However over time, wetland vegetation could become established. During high water events, terrestrial fauna would be displaced as their habitat is inundated. Conversely, fishes and other aquatic organisms would gain access to a large area of floodplain habitat, which could benefit the spawning and rearing of many fish species.

Alternative 3 – Repair of Levees with Federal Assistance – It is anticipated that impacts of the levee setback on fish and wildlife resources would be minimal. Repairs would be made by clearing, grubbing and stripping the remaining scrubby vegetation from the bankline scour area. Bedding material and riprap would then be placed at the higher of the two elevations (levee toe elevation or bank full elevation + 1.5'). The riprap and bedding material would extend approximately 15' upstream and downstream of ends of creek scour to avoid flanking. Approximately 1100 CY of Type III impervious embankment (clay) would be placed on the landside of the levee. The levee setback area would be reseeded with turf.

If heavy rain occurs during the levee repair, the bankline scour would continue to erode and wash soil into Sandy Creek, resulting in a short-term increase in turbidity in the immediate area, and temporarily displacing fish and other mobile organisms. Following construction, aquatic species would be expected to return. The Contractor is required to comply with all applicable federal, state, and local laws and regulations. The Contractor is required to provide environmental

protective measures and procedures to prevent and control pollution. This includes the condition that the Contractor shall keep construction activities under surveillance, management and control to minimize interference with, disturbance to, and damage of, fish and wildlife. Therefore, no more than short-term limited impacts to fish and wildlife resources are anticipated.

3.2.2. Bald Eagle

Although the Bald Eagle (*Haliaeetus leucocephalus*) was removed from the federal list of threatened and endangered species in 2007, it continues to be protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA prohibits unregulated take of bald eagles, including disturbance. The U.S. Fish and Wildlife Service developed the National Bald Eagle Management Guidelines (USFWS 2007a, 2007b, 2007c) to provide landowners, land managers, and others with information and recommendations regarding how to minimize potential project impacts to bald eagles, particularly where such impacts may constitute disturbance. On 7 November 2016, USACE biologist Ken Cook conducted a field investigation and survey of Foley DD to determine the presence of bald eagle nests/nesting within the drainage district. No bald eagle nests were observed.

Alternative 1 – No Action (Future without Project) – Without bank stabilization, additional vegetation in the path of the active scour may be washed away. Trees which may potentially be used for bald eagle nests in the future could become dislodged.

Alternative 3 – Repair of Levees with Federal Assistance – Based on the site investigation and survey results showing no nests or eagle activity in the vicinity of the proposed project, no detrimental impacts on bald eagles or nests are anticipated.

3.2.3. Biological Assessment

In compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, a list of species and critical habitat potentially occurring in the vicinity of the proposed project was acquired from the USFWS Information for Planning and Conservation (IPaC) website at (<https://ecos.fws.gov/ipac/>) on 29 March 2017 (Table 1). Habitat requirements and impacts of the federal action are discussed for each listed species.

Table 1. List of federally threatened and endangered species and habitat potentially occurring in the vicinity of the proposed project.

| Common Name (Scientific Name) | Classification | Habitat |
|--|---------------------------|--|
| Gray bat (<i>Myotis grisescens</i>) | Endangered | Caves year-round (winter hibernacula and summer roosting). In the summer gray bats forage along rivers lakes, and creeks, and may roost under bridges. |
| Indiana Bat (<i>Myotis sodalis</i>) | Endangered | Caves, mines (winter hibernacula); trees (summer roosting); and small stream corridors with well-developed riparian woods; upland forests (foraging) |
| Northern Long-eared Bat (<i>Myotis septentrionalis</i>) | Threatened with 4(d) rule | Caves, mines; rivers and reservoirs adjacent to forests |
| Higgins Eye (pearlymussel) (<i>Lampsilis higginsii</i>) | Endangered | Large rivers with deep water and moderate currents, and sand & gravel substrate |

3.2.3.1. Gray Bat

The Gray Bat is a species that has a limited range in limestone karst areas of the southeastern United States, including several Illinois and Missouri counties. Gray Bats typically roost in caves year-round. During winter, Gray Bats hibernate in deep, vertical caves, and during summer, Gray Bats generally roost in various Bat caves, but have been documented roosting under bridges and in other structures. Gray Bats forage on a variety of night-flying aquatic and terrestrial insects along rivers, lakes, and creeks.

Gray Bats are endangered largely because of their habitat of living in large numbers in only a few caves; thus making the species vulnerable to human disturbance and habitat loss or modification. Disturbance of Gray Bats in their caves during their hibernation, can cause them to use their energy reserves and could lead to starvation. Disturbances to their caves during their nursing season (June and July) can frighten females causing them to drop non-volant pups to their death in panic to flee from the intruder. Additionally, many important caves that have been historically used by Gray Bats have been inundated by reservoirs. The commercialization of caves, and alterations of the air flow, temperature, humidity, and amount of light can make the cave unsuitable habitat for Gray Bats and drive bats away.

The fatal bat disease, white-nose syndrome (WNS), has not yet been documented to adversely affect the Gray Bat. However, because of Gray Bats are cave obligates, and considering how WNS has decimated other cave-dwelling bat species, WNS could be another significant threat to the Gray Bat.

Alternative 1 – No Action (Future without Project) – Without bank scour stabilization, additional vegetation in the path of the active scour may be washed away. Riparian habitat would be adversely impacted by scour.

Alternative 3 – Repair of Levees with Federal Assistance – The proposed project would not affect any caves or foraging habitat (i.e., trees). As currently planned, this project involves no tree clearing. Therefore, the St. Louis District has determined that the proposed project “*may affect, but is not likely to adversely affect the Gray Bat*”.

3.2.3.2. Indiana Bat

The endangered Indiana Bat has been noted as occurring in several Illinois and Missouri counties. Indiana Bats are considered to potentially occur in any area with forested habitat. Indiana Bats migrate seasonally between winter hibernacula and summer roosting habitats. Winter hibernacula includes caves and abandoned mines. Females emerge from hibernation in late March or early April to migrate to summer roosts. Females form nursery colonies under the loose bark of trees (dead or alive) and/or in cavities, where each female gives birth to a single young in June or early July. A maternity colony may include from one to 100 individuals. A single colony may utilize a number of roost trees during the summer, typically a primary roost tree and several alternates. Some males remain in the area near the winter hibernacula during the summer months, but others disperse throughout the range of the species and roost individually or in small numbers in the same types of trees as females. The best available data indicate that the species or size of tree does not appear to influence whether Indiana Bats utilize a tree for roosting provided the tree exhibits any of the following characteristics: exfoliating bark, cracks, crevices, cavities. Data also indicate that the use of a particular tree is influenced by conditions, such as solar exposure, temperature and precipitation (USFWS 1999, USFWS 2007d).

During the summer, Indiana Bats frequent the corridors of small streams with well-developed riparian woods, as well as mature bottomland and upland forests. They forage for insects along stream corridors, within the canopy of floodplain and upland forests, over clearings with early successional vegetation (old fields), along the borders of croplands, along wooded fence rows, and over farm ponds and in pastures. It has been shown that the foraging range for the bats

varies by season, age and sex and ranges up to 81 acres (33 ha). Suitable Indiana Bat summer habitat may be located in the forested areas in and adjacent to the Foley Drainage District.

Alternative 1 - No Action (Future without Project) – Without bank scour stabilization, trees which may potentially be used by Indiana Bats could become dislodged. Riparian habitat would be adversely impacted by scour.

Alternative 3 - Repair of Levees with Federal Assistance – The proposed project would not affect any caves or summer roost / foraging habitat (i.e., trees). As currently planned, this project involves no tree clearing. A site visit was conducted on 2 February 2017 to determine if potential Indiana Bat habitat existed in the proposed construction and borrow areas; however none was discovered. Therefore, the St. Louis District has determined that the proposed project “*may affect, but is not likely to adversely affect the Indiana Bat*”.

3.2.3.3. Northern Long-Eared Bat

The Northern Long-Eared Bat is sparsely found across much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. Northern Long-Eared Bats spend winter hibernating in large caves and mines. During summer, this species roosts singly or in colonies underneath bark, in cavities, in crevices of both live and dead trees, and manmade structures such as barns and culverts. Foraging occurs in interior upland forests. Forest fragmentation, logging and forest conversion are major threats to the species. One of the primary threats to the Northern Long-Eared Bat is the fungal disease, white-nose syndrome, which has killed an estimated 5.5 million cave hibernating bats in the Northeast, Southeast, Midwest and Canada. Suitable Northern Long-Eared Bat summer habitat may be located in the forested areas in and adjacent to the Foley Drainage District.

Alternative 1 - No Action (Future without Project) – Without bank scour stabilization, trees which may potentially be used by Northern Long-Eared Bats could become dislodged. Riparian habitat would be adversely impacted by scour.

Alternative 3 - Repair of Levees with Federal Assistance – The proposed project would not affect any caves or summer roost / foraging habitat (i.e., trees). As currently planned, this project involves no tree clearing. A site visit was conducted on 2 February 2017 to determine if potential Northern Long-Eared Bat habitat existed in the proposed construction and borrow areas; however none was discovered. Therefore, the St. Louis District has determined that the proposed project “*may affect, but is not likely to adversely affect the Northern Long-Eared Bat*”.

3.2.3.4. Higgins Eye Mussel

The Higgins Eye is a freshwater mussel of large rivers where it inhabits deep water areas with moderate currents and sand and gravel substrate that provide suitable substrate. These mussels partially bury themselves into the substrate and feed by filtering in microorganisms such as algae and bacteria. Males release sperm and rely on the current so females can siphon the sperm to fertilize their eggs. After fertilization, the stored developing larvae (glochidia) are expelled back into the current and sometimes attach to the gills of host fish, where they develop further, detach, and settle on the river bottom where they can mature. Known host fish include Sauger, Walleye, Yellow perch, Largemouth Bass, Smallmouth Bass, and Drum. Threats to the Higgins Eye include pollution in the form of excess sedimentation, other contaminants, and increased siltation from dredging that can degrade their required water quality and cover their suitable substrate.

Alternative 1 - No Action (Future without Project) – During highwater events, the bankline scour would continue to erode and wash soil into Sandy Creek, resulting in a short-term increase in turbidity in the immediate area.

Alternative 3 -Repair of Levees with Federal Assistance – The proposed project would take place approximately two river miles from potential large river Higgins Eye habitat. Construction activity may result in a short-term increase in turbidity in the immediate project area; however, impacts are not anticipated to be observed in the downstream large river habitat. Therefore, the St. Louis District has determined that the proposed project will have “no effect” on Higgins Eye mussels.

3.2.4. Cultural Resources (Historic and Archaeological)

The proposed repair site locations are composed of areas of erosion in recently deposited material or recently-placed levee berm material. There are no recorded archaeological sites in the proposed repair site locations.

Alternative 1 – No Action (Future without Project) – Without flooding, there would be no change from current conditions. With flooding, there is the potential for damage to potentially culturally significant sites protected by the levee.

Alternative 3 – Repair of Levees with Federal Assistance – The proposed repairs to the levee within the Foley DD will have no effect upon significant historic properties (archaeological remains or standing structures). The repairs consist of minor earth work and filling the scour area

with earthen and rock material. In a letter dated 23 November 2016, the Missouri SHPO concurred with the USACE finding of no historic properties affected by the proposed Foley Drainage District repairs.

In the unlikely event that earthmoving activities associated with the proposed repairs impact potentially significant archeological/historic remains, all construction activities and earthmoving actions in the immediate vicinity of the remains would be held in abeyance until the potential significance of the remains could be determined. The precise nature of such investigations would be developed by the USACE Saint Louis District in concert with the professional staff of the Missouri State Historic Preservation Office (SHPO).

3.2.5. Socioeconomic Resources

The Foley Drainage District is a non-federally constructed and maintained levee located near the town of Foley in Lincoln County, Missouri. It is adjacent to the left descending bank of the Mississippi River at approximately Mississippi River Mile 245 to 243. The Foley levee segment provides an 18-year level of flood risk reduction for over 1,200 acres of primarily agricultural land with some urban areas, farm houses, and outbuildings. The town of Foley contains 78 residential properties and several commercial properties, most of which are protected by the Foley DD. The segment consists of 3.4 miles of levee constructed with a representative crown width between 8-10 feet, and a representative side slope of 1 on 3.

Levees are of regional economic importance to maintain the agricultural productivity occurring in the floodplain. The crop distribution within the area is approximately 82 percent soybeans, 11 percent corn, and 7 percent wheat. The levee system also protects commercial structures, farm structures, residences, farmsteads, homes, roads, ditches, utilities and infrastructure. Levee damage due to the 2015 high water event reduced the degree of protection from an 18-year flood event to a 9-year event due to the damage to the system. The benefit to cost (b/c) ratio is estimated at 17.7 to 1.

According to 2010 census data for Lincoln County, Missouri, there were approximately 18,498 households in the county, with a median income of \$53,718, and an average of 2.8 person per household. The median value of owner-occupied housing units was \$144,500. The population was approximately 95% white, 2% black, 2% two or more races, and 2% Hispanic. According to 2015 data, approximately 15% of the population for whom poverty status is determined in Lincoln County, MO (53,043 people) live below the poverty line. This is approximately the same as the national average of 14.7%. Furthermore, the most common race or ethnicity living below

the poverty line in Lincoln County, MO is white, followed by Hispanic or Latino and two or more races.

Alternative 1 - No Action (Future without Project) – If the Foley levee is not repaired to the federal standard, there would be increased flood risk due to levee instability during future flood events. The previously leveed area would be subject to a higher probability of flooding, making the area less suitable for reliable agricultural productivity, residential and commercial establishments, and may decrease recreational activities, especially under flood conditions. This could result in potential negative economic effects on the Drainage District and the local economy.

Alternative 3 - Repair of Levees with Federal Assistance – Residents, businesses, and local agricultural would benefit from levee repair and subsequent flood risk reduction. The proposed repairs would not require residential displacement. No adverse impacts to life, health, or safety would result from levee repair.

3.2.6. Environmental Justice

Environmental justice refers to fair treatment of all races, cultures and income levels with respect to development, implementation and enforcement of environmental laws, policies and actions. Environmental Justice analysis was developed following the requirements of:

- Executive Order 12898 ("Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations," 1994)
- "Department of Defense's Strategy on Environmental Justice" (March 24, 1995).

Alternative 1 – No Action (Future without Project) – If the levee is not repaired to the federal standard, the level of risk reduction would be reduced from that provided by the pre-2015 flood event levee. This would not disproportionately affect low income or minority populations.

Alternative 3 - Repair of Levees with Federal Assistance – If the Foley DD levee is repaired to the federal standard, the level of risk reduction would be that provided by the pre-2015 flood event levee. This would not disproportionately affect low income or minority populations.

3.2.7. Tribal Coordination

The St. Louis District consults with 27 tribes that have an interest in projects along all rivers within our District boundaries. Many levees adjacent to the Mississippi River within the U.S. Army Corps of Engineers St. Louis District boundaries were damaged by flooding in 2015.

Alternative 1 - No Action (Future without Project) – Without flooding, there would be no change from current conditions. With flooding, there is the potential for damage to any culturally significant sites protected by the levee.

Alternative 3 - Repair of Levees with Federal Assistance – The recovery and repair of levees damaged by the 2015 flood events, authorized under PL 84-99, was coordinated with all tribes in the following manner: An initial letter, dated 10 May 2016, was sent to the tribes. Along with the letter, enclosed maps and tables indicated the Drainage and Levee Districts that incurred damage and had requested assistance. Also enclosed was a summary of the typical repairs that are performed for each type of damage. The letter specifically called out those levees with breaches. The tribes were requested to contact the USACE if there were known tribal areas of concern in any of the project areas and if they desired further consultation on each or any project. No tribes responded regarding the proposed project at the Foley Drainage District. USACE would continue the consultation process until the completion of the projects.

3.2.8. HTRW

The U.S. Army Corps of Engineers (USACE) regulations (ER-1165-2-132, ER 200-2-3) and District policy requires procedures be established to facilitate early identification and appropriate consideration of potential HTRW in reconnaissance, feasibility, preconstruction engineering and design, land acquisition, construction, operations and maintenance, repairs, replacement, and rehabilitation phases of water resources studies or projects by conducting Phase I Environmental Site Assessment (ESA). USACE specifies that these assessments follow the process/standard practices for conducting Phase I ESA's published by the American Society for Testing and Materials (ASTM).

The purpose of a Phase I ESA is to identify, to the extent feasible in the absence of sampling and analysis, the range of contaminants (i.e. REC's) within the scope of the U.S. Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products. Current policy is to avoid known HTRW sites. However, the Environmental Quality Section should be contacted immediately if HTRW material is encountered at any point during construction activities. At this time, there are no recognized

environmental conditions that would indicate a risk of HTRW contamination within the project area.

Alternative 1 – No Action (Future without Project) – Without flooding, there would be no change from current conditions. With flooding, there is the potential for flood water to spread some contaminants.

Alternative 3 – Repair of Levees with Federal Assistance – The likelihood of hazardous substances adversely affecting the project area due to the proposed construction activities is very low. The St. Louis District would conduct a modified Phase I assessment including a site investigation prior to construction to ensure that no HTRW contamination exists within the project area.

3.3. Summary Comparison of Project Alternatives

Impacts of the Tentatively Selected Plan to natural resources, cultural resources, and other aspects and features of the human environment are summarized in Table 2 of this EA.

Table 2. Summary of the “No Action” and Tentatively Selective Plan alternatives to physical, biological, and socioeconomic resources.

| Resources | Alternatives | |
|----------------------|---|--|
| | No Action | Tentatively Selected Plan |
| Physical Resources | Additional bankline scour will occur if the damage is not repaired; and the integrity of the levee would be compromised during high water events. | Erosion and turf repairs would meet the Federal standard. |
| | Increased potential for further erosion of bankline and levee; with eventual sedimentation within the drainage district during flood events. | Temporary minor impacts to water and air quality during construction. |
| | Does not meet project objective of repairs to Federal standard. | Brings the levee protection level back to pre-2015 flood event conditions. |
| Biological Resources | If levee system is compromised in the future, there is potential for beneficial impacts due to potential increase in floodplain wetland habitat. However, there is a potential for water/land | Construction would be confined to the bankline scour area and levee which may result in minor temporary impacts. |

| | | |
|--------------------------------|--|--|
| | pollution if contaminants exist in either area or in the floodwaters. | |
| | It is unlikely that federally listed threatened or endangered species would be adversely impacted. However, there is the potential for eventual loss of large trees (possible bat or bald eagle habitat) and other vegetation along the riparian area due to continued bankline erosion. | The Tentatively Selected Plan would not result in the removal or alteration of habitat that coincides with the habitat required for the Gray Bat, Indiana Bat, Northern Long-Eared Bat, or Higgins Eye mussel. Therefore, federally listed species are not anticipated to be adverse affected. |
| | Meets project objective of minimal environmental impacts. | Meets project objective of minimal environmental impacts. |
| Socioeconomic Resources | The drainage district would be susceptible to future floods and potential negative impacts to the drainage district and regional economy due to levee damages. | Repair of levee would result in the protection of croplands, businesses and structures from floods up to the design (18-year frequency) of the levee system. |
| | Does not meet project objective of protecting the socioeconomic value of the levee district and regional economy. | Meets project objective of protecting the economic value of the levee district and regional economy. |

4. CUMULATIVE IMPACTS

A cumulative impact is defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions of what agency (Federal or non-federal) or person undertakes such actions” (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The majority of the levee systems in the region have been in place for decades. Repairs would involve returning most of the damaged levee sections to the same alignment and level of protection as existed prior to the high water events of 2015. Temporary impacts from noise, air, and increased water sedimentation would occur; however, repair sites are widely scattered throughout the St. Louis District and therefore additive effects of these impacts would be negligible. These repairs are not anticipated to decrease the post-flood productivity of lands riverward or landward of the levee systems. The Foley Drainage District PL 84-99 project, along with several other levees, will require borrow for levee repairs. Borrow sites have been examined and selected in order to avoid sensitive areas and resources. Borrow for the majority of these projects will come from agriculture areas, low quality farmed wetlands, and previously utilized borrow areas. Some PL 84-99 projects, including Foley Drainage District, sustained damage that is impractical to repair on the original levee alignment. For new levee alignments, some acreage would be removed from agricultural use causing a minor loss to overall farm production and increase in floodplain habitat. The widely scattered nature of repair sites and shallow excavation depth of borrow sites would reduce impacts and no long term adverse cumulative impacts are anticipated. Borrow sites have been evaluated during site visits to reduce environmental impacts.

4.1. Relationship of Tentatively Selected Plan to Environmental Requirements

The relationship of the Tentatively Selected Plan (Alternative 3 – Repair of Levees with Federal Assistance) to environmental requirements, environmental acts, and /or executive orders is shown in Table 3.

Table 3. Relationship of the Tentatively Selected Plan to environmental requirements, environmental acts, and /or executive orders.

| Environmental Requirement | Compliance |
|--|-------------------|
| Bald Eagle Protection Act, 42 USC 4151-4157 | FC |
| Clean Air Act, 42 USC 7401-7542 | FC |
| Clean Water Act, 33 USC 1251-1375 | FC |
| Comprehensive Environmental Response, Compensation, and Liability Act, (HTRW) 42 USC 9601-9675 | PC ¹ |
| Endangered Species Act, 16 USC 1531-1543 | PC ¹ |
| Farmland Protection Policy Act, 7 (Prime Farmland) USC 4201-4208 | FC |
| Fish and Wildlife Coordination Act, 16 USC 661-666c | PC ¹ |
| Food Security Act of 1985 (Swampbuster), 7 USC varies | FC |
| Land and Water Conservation Fund Act, (Recreation)16 USC 460d-4601 | FC |
| National Environmental Policy Act, 42 USC 4321-4347 | PC ² |
| National Historic Preservation Act, 16 USC 470 et seq. | FC |
| Noise Control Act of 1972, 42 USC 4901-4918 | FC |
| Resource, Conservation, and Rehabilitation Act, (Solid Waste) 42 USC 6901-6987 | FC |
| Rivers and Harbors Appropriation Act, (Sec. 10) 33 USC 401-413 | FC |
| Water Resources Development Acts of 1986 and 1990 (Sec 906 – Mitigation; Sec 307 - No Net Loss - Wetlands) | FC |
| Floodplain Management (EO 11988 as amended by EO 12148) | FC |
| Federal Compliance with Pollution Control Standards (EO 12088) | FC |
| Protection and Enhancement of Environmental Quality (EIS Preparation) (EO 11991) | FC |
| Protection and Enhancement of the Cultural Environment (Register Nomination) (EO 11593) | FC |
| Protection of Wetlands (EO 11990 as amended by EO 12608) | FC |

FC = Full Compliance, PC¹ = Partial Compliance (on-going, will be accomplished prior to construction), PC² full compliance will be achieved upon signing of the NEPA document.

5. COORDINATION, PUBLIC VIEWS, AND RESPONSES

Notification of this Environmental Assessment and unsigned Finding of No Significant Impact was sent to the officials, agencies, organizations, and individuals listed below for review and comment. Additionally, an electronic copy will be available on the St. Louis District's website at <http://www.mvs.usace.army.mil/Missions/ProgramsProjectManagement/PlansReports.aspx> during the public review period.

Please note that the Finding of No Significant Impact is unsigned. These documents will be signed into effect only after having carefully considered comments received as a result of this public review.

To assure compliance with the National Environmental Policy Act, Endangered Species Act, and other applicable environmental laws and regulations, coordination with these agencies will continue as required throughout the planning and construction phases of the proposed levee repairs.

Notification of Environmental Assessment and unsigned Finding of No Significant Impact was sent to the entities listed in Table 4.

Table 4. A letter regarding the availability of a draft Environmental Assessment and unsigned FONSI for the Foley Drainage District PL 84-99 2015 repair was sent to the following entities.

| | |
|--|--|
| U.S. Environmental Protection Agency, Region 7 Larry Shepard NEPA Team 11201 Renner Blvd. Lenexa, Kansas 66219 | Jeanie Riddle MO State Senator, District 10 201 W Capitol Ave., Rm. 417 Jefferson City, Missouri 65101 |
| Jane Ledwin Fish and Wildlife Biologist U.S. Fish and Wildlife Service 101 Park DeVille Drive Columbia, Missouri 65203 | Randy Pietzman MO State Representative, District 41 201 West Capitol Avenue Room 408-B Jefferson City MO 65101 |
| Federal Emergency Management Agency, Region 7 9221 Ward Parkway Kansas City, MO 64114 | Keith Vertrees, Mayor City of Foley P.O. Box 81 617 Elm Street Foley, MO 63347 |

| | |
|--|---|
| <p>US Senator Roy Blunt (MO) 260 Russell Senate Office Building Washington, DC 20510</p> | <p>Missouri Emergency Management Agency Lincoln County Emergency Coordinator Emma Epplin-Birdsell 250 West College Troy, MO 63379</p> |
| <p>US Senator Claire McCaskill (MO) 730 Hart Senate Office Building Washington, D.C. 20510</p> | <p>Sierra Club Missouri Chapter 2818 Sutton Boulevard Maplewood, MO 63143</p> |
| <p>U.S. Rep. Blaine Luetkemeyer U.S. House District 03 (MO) 2440 Rayburn House Office Building Washington, D.C. 20515</p> | <p>Robert D. Shepherd Izaak Walton League of America 16 Juliet Ave Romeoville, IL 60446</p> |
| <p>Missouri Department of Natural Resources Sara Parker Pauley, Director P.O. Box 176 Jefferson City, MO 65102</p> | <p>Kathy Andria American Bottoms Conservancy P.O. Box 4242 Fairview Heights, IL 62208</p> |
| <p>Matt Vitello, P.E. Policy Coordinator Missouri Department of Conservation PO Box 180 Jefferson City, MO 65102</p> | <p>The Nature Conservancy 2816 Sutton Blvd, Suite 2 St. Louis, MO 63143</p> |

6. ENVIRONMENTAL ASSESSMENT PREPARERS

Rick Archeski, Environmental Engineer

Experience: 11 years USFWS, 10 years US Army, 16 years USACE

Role: Environmental Engineering, HTRW

James E. Barnes, District Archaeologist

Experience: 8 years private sector; 22 years Center of Expertise, Curation and Maintenance of Archaeological Collections

Role: National Historic Preservation Act Analysis and Compliance

Bryan Dirks, P.E.

Experience: 9 years Civil Design Section, USACE

Role: Technical Engineering Lead

Teri C. Allen, Ph.D.; Chief – Environmental Compliance Section; Aquatic Ecologist

Experience: 10 years private sector; 15 years Planning and Environmental Branch, USACE

Role: EA Coordinator, Environmental Impact Analysis, NEPA and Environmental Compliance

Sheila A. McCarthy, RA, PMP; Project Manager

Experience: 7 years USACE-CERL; 8 years NPS; 8 years USACE

Role: Project Manager

Danny McClendon, Chief Regulatory Branch

Experience: 25 years USACE-MVS Regulatory; 5 years USACE-NWK Planning Division

Role: Section 404/401 permit review; NEPA and Environmental Compliance Coordination

Evan Stewart, Economist

Experience: 3 years USACE

Role: Economic Analysis

7. REFERENCES

- USEPA (U.S. Environmental Protection Agency). 2016. Current Nonattainment Counties for All Criteria Pollutants as of 13 February 2017.
<https://www3.epa.gov/airquality/greenbook/ancl.html#MO> (Accessed: 24 March 2017).
- USFWS (U.S. Fish and Wildlife Service). 1999. Agency draft Indiana Bat (*Myotis sodalis*) revised recovery plan. U.S. Fish and Wildlife Service, Fort Snelling, Minnesota. 53 pp.
- USFWS (U.S. Fish and Wildlife Service). 2007a. Species Profile: Bald Eagle (*Haliaeetus leucocephalus*). Available at
<http://ecos.fws.gov/speciesProfile/SpeciesReport.do?sPCODE=B008>
- USFWS (U.S. Fish and Wildlife Service). 2007b. National Bald Eagle Management Guidelines.
<https://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf>
- USFWS (U.S. Fish and Wildlife Service). 2007c. Protection of Eagles; Definition of “Disturb”. Federal Register 72(107): 31132-3113.
- USFWS (U.S. Fish and Wildlife Service). 2007d. Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. April 2007. 258 pp. (This document has been peer-reviewed and is available at
<http://www.fws.gov/midwest/Endangered/mammals/inba/index.html>).

FINDING OF NO SIGNIFICANT IMPACT

PUBLIC LAW 84-99 FOLEY DRAINAGE DISTRICT LINCOLN COUNTY, MISSOURI

1. I have reviewed the documents concerned with the proposed levee repairs to the Foley Drainage District. The purpose of this project is to repair levee sections damaged by an extended high water event during the winter of 2015. Repairs would return the levee district to pre-flood conditions in an expedient manner.

2. I have also evaluated pertinent data concerning practicable alternatives relative to my decision on this action. As part of this evaluation, I have considered the following alternatives:

- a. No Action Alternative: Under the no-action alternative, the federal government would not repair the flood damaged levee. It is assumed that, because of the cost of repairs, the levee district would not repair the levee.
- b. Nonstructural Alternative: Under PL 84-99, the Corps has the authority to pursue a non-structural alternative only if the project sponsor requests such an alternative. The Foley Drainage District declined to request the pursuit of a non-structural alternative; therefore, this alternative was eliminated from further consideration.
- c. Repair of Levees with Federal Assistance (Tentatively Selected Plan): Under this alternative, the federal government would repair the damaged areas to the pre-flood level of protection. Since the Foley Drainage District is active in the USACE Rehabilitation and Inspection Program, it is eligible for Flood Control and Coastal Emergency funding authorized by PL 84-99.

3. The possible consequences of the No Action Alternative and Tentatively Selected Plan have been studied for physical, environmental, cultural, social and economic effect, and engineering feasibility. Major findings of this investigation include the following:

- a. The No Action Alternative was evaluated and subsequently rejected primarily based upon the higher potential for future flooding and damage to area agricultural fields, primary and secondary residences, outbuildings, and infrastructure.
- b. No appreciable effects to general environmental conditions (air quality, noise, water quality) would result from the tentatively selected plan.

- c. The Tentatively Selected Plan is not expected to cause significant adverse impacts to general fish and wildlife resources.
- d. The Tentatively Selected Plan is not expected to cause unacceptable adverse impacts to riparian habitat, bottomland hardwood forest, or other wetlands.
- e. No Federally endangered or threatened species would be adversely impacted by the tentatively selected plan.
- f. No prime farmland would be adversely impacted as a result of the Tentatively Selected Plan.
- g. No significant impacts to historic properties (cultural resources) are anticipated as a result of the Tentatively Selected Plan.
- h. The Tentatively Selected Plan would not disproportionately affect low income or minority populations.
- i. Under the Tentatively Selected Plan, local economies would benefit through an increased labor demand to carry out levee repairs. Agricultural land and structures within the drainage district would be provided with pre-2015 flood risk reduction levels.
- j. The Contractor shall comply with all applicable federal, state, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction. All disturbed areas would be reseeded following construction to reduce the potential for erosion.

4. Based upon the Environmental Assessment of the Tentatively Selected Plan, no significant impacts on the environment are anticipated. The proposed action has been coordinated with appropriate resource agencies, and there are no significant unresolved issues. Therefore, an Environmental Impact Statement will not be prepared prior to proceeding with this action.

Date

Anthony P. Mitchell
Colonel, U.S. Army
District Commander