Flood Damage Reduction Segment / System Inspection Report

US Army Corps of Engineers®

Name of Segment / System: East Jackson Flood Control Project

Public Sponsor(s): Rankin-Hinds Pearl River Flood and Drainage Control District

Public Sponsor Representative: (b) (6)

Sponsor Phone: (b) (6)

Sponsor Email: (b) (6)

Corps of Engineers Inspector: (b) (6)

Inspection Start Date: 9/28/2016

Inspection End Date: 9/28/2016

Inspection Report Prepared By: (b) (6)

Date Report Prepared: 10/14/2016

Internal Technical Review (for Periodic Inspections) By: (b) (6)

Date of ITR: 2/3/2017

Final Approved By: (b) (6)

Date Approved: 2/14/2017

Type of Inspection:

- ☐ **Initial Eligibility Inspection**
- ☒ **Continuing Eligibility Inspection (Routine)**
- ☐ **Continuing Eligibility Inspection (Periodic)**

Overall Segment / System Rating:

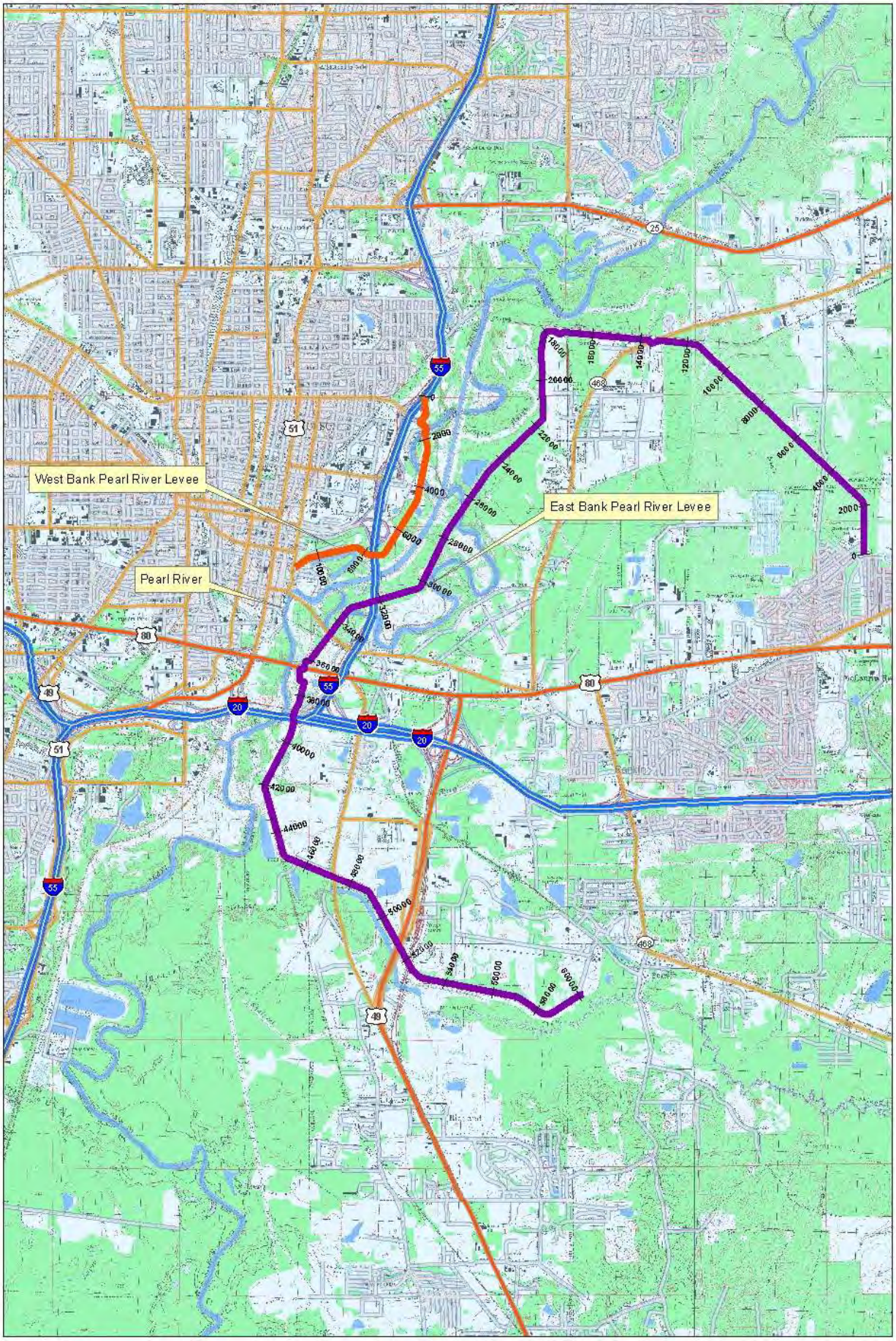
- ☐ **Acceptable**
- ☒ **Minimally Acceptable**
- ☐ **Unacceptable**

Contents of Report:

- ☒ **Instructions**
- ☐ **Initial Eligibility Inspection**
- ☒ **General Items for All Flood Control Works**
- ☒ **Levee Embankment**
- ☐ **Concrete Floodwalls**
- ☐ **Sheet Pile and Concrete I-walls**
- ☐ **Interior Drainage System**
- ☐ **Pump Stations**
- ☐ **FDR System Channels**

Note: In addition to the report contents indicated here, a plan view drawing of the system, with stationing, should be included with this report to reference locations of items rated less than acceptable. Photos of general system condition and any noted deficiencies should also be attached.

Note: This inspection rating represents the Corps evaluation of operations and maintenance of the flood damage reduction system and may be used in conjunction with other information for a levee certification determination for National Flood Insurance Program (NFIP) purposes if applicable. An Acceptable Corps inspection rating, alone, does not equate to a certifiable levee for the NFIP. It is recommended for levee systems currently accredited by the Federal Emergency Management Agency (FEMA) for NFIP purposes receiving a Corps Minimally Acceptable or Unacceptable rating be evaluated by the levee owner to determine the potential impacts to the certification for FEMA.


West Bank Pearl River Levee
East Bank Pearl River Levee
Pearl River
Legend
Pearl River
East Bank Pearl River Levee
West Bank Pearl River Levee

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Flood Damage Reduction Segment / System
Public Sponsor Pre-Inspection Form

The following information is to be provided by the levee district sponsor prior to an inspection. This information will be used to help evaluate the organizational capability of the levee district to manage the levee segment / system maintenance program.

1. Levee segment / system and district: (name of the segment / system and levee district) East Jackson Flood Control Project for CEMVK
2. Reporting period: (month/day/year to month/day/year)
3. Summary of maintenance required by last inspection report:
4. Summary of maintenance performed this reporting period:
5. Summary of maintenance planned next reporting period:
6. Summary of changes to segment / system since last inspection:
7. Problems/ issues requiring the assistance of the US Army Corps of Engineers:

Public Sponsor Pre-Inspection Report

The following information is to be provided by the levee district sponsor prior to an inspection

8. Levee district organization: (elected or appointed levee district officials and key employees)

Name	Position	Mailing Address	Phone Number	Email Address

General Instructions for the Inspection of Flood Damage Reduction Segments / Systems

A. Purpose of USACE Inspections:

The primary purpose of these inspections is to prevent loss of life and catastrophic damages; preserve the value of Federal investments, and to encourage non-Federal sponsors to bear responsibility for their own protection. Inspections should assure that Flood Damage Reduction structures and facilities are continually maintained and operated as necessary to obtain the maximum benefits. Inspections are also conducted to determine eligibility for Rehabilitation Assistance under authority of PL 84-99 for Federal and non-Federal systems. (ER 1130-2-530, ER 500-1-1)

B. Types of Inspections:

The Corps conducts several types of inspections of Flood Damage Reduction systems, as outlined below:

Initial Eligibility Inspections	Continuing Eligibility Inspections	
	Routine Inspections	**Periodic Inspections**
IEIs are conducted to determine whether a non-Federally constructed Flood Damage Reduction system meets the minimum criteria and standards set forth by the Corps for initial inclusion into the Rehabilitation and Inspection Program.	RIs are intended to verify proper maintenance, owner preparedness, and component operation.	PIs are intended to verify proper maintenance and component operation and to evaluate operational adequacy, structural stability, and safety of the system. Periodic Inspections evaluate the system's original design criteria vs. current design criteria to determine potential performance impacts, evaluate the current conditions, and compare the design loads and design analysis used against current design standards. This is to be done to identify components and features for the sponsor that need to be monitored more closely over time or corrected as needed. (Periodic Inspections are used as the basis of risk assessments.)

C. Inspection Boundaries:

Inspections should be conducted so as to rate each Flood Damage Reduction "Segment" of the system. The overall system rating will be the lowest segment rating in the system.

Project	System	Segment
A flood damage reduction project is made up of one or more flood damage reduction systems which were under the same authorization.	A flood damage reduction system is made up of one or more flood damage reduction segments which collectively provide flood damage reduction to a defined area. Failure of one segment within a system constitutes failure of the entire system. Failure of one system does not affect another system.	A flood damage reduction segment is defined as a discrete portion of a flood damage reduction system that is operated and maintained by a single entity. A flood damage reduction segment can be made up of one or more features (levee, floodwall, pump stations, etc).

D. Land Use Definitions:

The following three definitions are intended for use in determining minimum required inspection intervals and initial requirements for inclusion into the Rehabilitation and Inspection Program. Inspections should be considered for all systems that would result in significant environmental or economic impact upon failure regardless of specific land use.

Agricultural	Rural	Urban
Protected population in the range of zero to 5 households per square mile protected.	Protected population in the range of 6 to 20 households per square mile protected.	Greater than 20 households per square mile; major industrial areas with significant infrastructure investment. Some protected urban areas have no permanent population but may be industrial areas with high value infrastructure with no overnight population.

E. Use of the Inspection Report Template:

The report template is intended for use in all Army Corps of Engineers inspections of levee and floodwall systems and flood damage reduction channels. The section of the template labeled "Initial Eligibility" only needs to be completed during Initial Eligibility Inspections of Non-Federally constructed Flood Damage Reduction Systems. The section labeled "General Items" needs to be completed with every inspection, along with all other sections that correspond to features in the system. The section labeled "Public Sponsor Pre-Inspection Report" is intended for completion before the inspection, if possible.

F. Individual Item / Component Ratings:

Assessment of individual components rated during the inspection should be based on the criteria provided in the inspection report template, though inspectors may incorporate additional items into the report based on the characteristics of the system. The assessment of individual components should be based on the following definitions.

Acceptable Item	Minimally Acceptable Item	Unacceptable Item
The inspected item is in satisfactory condition, with no deficiencies, and will function as intended during the next flood event.	The inspected item has one or more minor deficiencies that need to be corrected. The minor deficiency or deficiencies will not seriously impair the functioning of the item as intended during the next flood event.	The inspected item has one or more serious deficiencies that need to be corrected. The serious deficiency or deficiencies will seriously impair the functioning of the item as intended during the next flood event.

G. Overall Segment / System Ratings:

Determination of the overall system rating is based on the definitions below. Note that an Unacceptable System Rating may be either based on an engineering determination that concluded that noted deficiencies would prevent the system from functioning as intended during the next flood event, or based on the sponsor's demonstrated lack of commitment or inability to correct serious deficiencies in a timely manner.

Acceptable System	Minimally Acceptable System	Unacceptable System
All items or components are rated as Acceptable.	One or more items are rated as Minimally Acceptable or one or more items are rated as Unacceptable and an engineering determination concludes that the Unacceptable items would not prevent the segment / system from performing as intended during the next flood event.	One or more items are rated as Unacceptable and would prevent the segment / system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years.

H. Eligibility for PL84-99 Rehabilitation Assistance:

Inspected systems that are not operated and maintained by the Federal government may be Active in the Corps' Rehabilitation and Inspection Program (RIP) and eligible for rehabilitation assistance from the Corps as defined below:

If the Overall System Rating is Acceptable	If the Overall System Rating is Minimally Acceptable	If the Overall System Rating is Unacceptable
The system is active in the RIP and eligible for PL84-99 rehabilitation assistance.	The system is Active in the RIP during the time that it takes to make needed corrections. Active systems are eligible for rehabilitation assistance. However, if the sponsor does not present USACE with proof that serious deficiencies (which had previously resulted in a minimally acceptable system rating) were corrected within the established timeframe, then the system will become Inactive in the RIP.	The system is Inactive in the RIP, and the status will remain Inactive until the sponsor presents USACE with proof that all items rated Unacceptable have been corrected. Inactive systems are ineligible for rehabilitation assistance.

I. Reporting:

After the inspection, the Corps is responsible for assembling an inspection report (or a summary report if it was a Periodic Inspection) including the following information:

a. All sections of the report template used during the inspection, including the cover and pre-inspection materials. (Supplemental data collected, and any sections of the template that weren't used during the inspection do not need to be included with the report.)

b. Photos of the general system condition and noted deficiencies.

c. A plan view drawing of the system, with stationing, to reference locations of items rated less than acceptable.

d. The relative importance of the identified maintenance issues should be specified in the transmittal letter.

e. If the Overall System Rating is Minimally Acceptable, the report needs to establish a timeframe for correction of serious deficiencies noted (not to exceed two years) and indicate that if these items are not corrected within the required timeframe, the system will be rated as Unacceptable and made Inactive in the Rehabilitation Inspection Program.

J. Notification:

Reports are to be disseminated as follows within 30 days of the inspection date.

If the Overall System Rating is Acceptable	If the Overall System Rating is Minimally Acceptable	If the Overall System Rating is Unacceptable
Reports need to be provided to the local sponsor and the county emergency management agency.	Reports need to be provided to the local sponsor, state emergency management agency, county emergency management agency, and to the FEMA region.	Reports need to be provided to the local sponsor, state emergency management agency, county emergency management agency, FEMA region, and to the Congressional delegation within 30 days of the inspection.

General Items for All Flood Damage Reduction Segments / Systems

For use during all inspections of all Flood Damage Reduction Segments / Systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Operations and Maintenance Manuals	A	A	Levee Owner's Manual, O&M Manuals, and/or manufacturer's operating instructions are present.	Operations and maintenance manuals are available
		M	Sponsor manuals are lost or missing or out of date; however, sponsor will obtain manuals prior to next scheduled inspection.	
		U	Sponsor has not obtained lost or missing manuals identified during previous inspection.	
2. Emergency Supplies and Equipment (A or M only)	A	A	The sponsor maintains a stockpile of sandbags, shovels, and other flood fight supplies which will adequately supply all needs for the initial days of a flood fight. Sponsor determines required quantity of supplies after consulting with inspector.	The sponsor has equipment available as needed. They also have a contractor that's available to them during emergency operations. A stock of emergency supplies is kept on hand.
		M	The sponsor does not maintain an adequate supply of flood fighting materials as part of their preparedness activities.	
3. Flood Preparedness and Training (A or M only)	A	A	Sponsor has a written system-specific flood response plan and a solid understanding of how to operate, maintain, and staff the FDR system during a flood. Sponsor maintains a list of emergency contact information for appropriate personnel and other emergency response agencies.	The sponsor includes all personnel, during high water events, in proper flood fight procedure training and on the job training. The sponsor also has an emergency operations plan.
		M	The sponsor maintains a good working knowledge of flood response activities, but documentation of system-specific emergency procedures and emergency contact personnel is insufficient or out of date.	

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction

Levee Embankments

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Unwanted Vegetation Growth[1]	**M**	**A**	The levee has little or no unwanted vegetation (trees, bush, or undesirable weeds), except for vegetation that is properly contained and/or situated on overbuilt sections, such that the mandatory 3-foot root-free zone is preserved around the levee profile. The levee has been recently mowed. The vegetation-free zone extends 15 feet from both the landside and riverside toes of the levee to the centerline of the tree. If the levee access easement doesn't extend to the described limits, then the vegetation-free zone must be maintained to the easement limits. Reference EM 1110-2-301 or Corps policy for regional vegetation variance.	EJFC_2016_a_0001: Station_1 0+00: STA 0+00 Previously noted tree has been removed.: NA (A) EJFC_2016_a_0011: Station_1 320: STA 320 vegetation in levee slope at intersection of I55 needs to be removed or will be rated U next year: NA (M)
		M	Minimal vegetation growth (brush, weeds, or trees 2 inches in diameter or smaller) is present within the zones described above. This vegetation must be removed but does not currently threaten the operation or integrity of the levee.	
		U	Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above and must to be removed to reestablish or ascertain levee integrity.	
2. Sod Cover	**A**	**A**	There is good coverage of sod over the levee.	No issues noted
		M	Approximately 25% of the sod cover is missing or damaged over a significant portion or over significant portions of the levee embankment. This may be the result of over-grazing or feeding on the levee, unauthorized vehicular traffic, chemical or insect problems, or burning during inappropriate seasons.	
		U	Over 50% of the sod cover is missing or damaged over a significant portion or portions of the levee embankment.	
		N/A	Surface protection is provided by other means.	
3. Encroachments	**M**	**A**	No trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the levee.	EJFC_2016_a_0002: Station_1 6: STA 6 Various residential encroachments (fencing, ornamental trees, utility poles, structures): NA (M) EJFC_2016_a_0004: Station_1 36: STA 36 LS utility pole: NA (M) EJFC_2016_a_0006: Station_1 46: STA 46 RS and LS Utility poles on either side of Mangum Dr. scheduled to be removed: NA (M) EJFC_2016_a_0008: Station_1 86+32: STA 86+32 RS Sanitary gravity sewer, closed system approx 18' below ground level. New control structure installed and slip lined conduit section beneath levee with a Vylon liner approx 3 yrs ago. Sponsor checking status of video inspection.: NA (M) EJFC_2016_a_0013: Station_1 NA: Widened section of levee from Old Brandon Rd to I-20 with various encroachments (fence at top of levee, utility poles, etc). Landowner has filled to levee grade approx 2000+ feet
		M	Trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps.	
		U	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee.	

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Levee Embankments

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
				perpendicular to the levee on the land side.: NA (M) EJFC_2016_a_0014: Station_1 408: STA 408 Utility poles LS and RS within 40' of toe.: NA (M) EJFC_2016_a_0018: Station_1 515: STA 515 LS Fence parallel along toe of levee in federal government/military compound.: NA (M)
4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures) (A or U only)	**A**	**A**	Closure structure in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components are clearly marked and installation instructions/ procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual.	EJFC_2016_a_0005: Station_1 45+60: STA 45+60 Mangum Drive closure. Sandbags on standby to operate closure when needed. Last closures 1979 and possibly 1983.: NA (A) EJFC_2016_a_0009: Station_1 138: STA 138 (Field STA 132+11) Closure Structure. Sandbags on standby to operate closure if needed.: NA (A) EJFC_2016_a_0012: Station_1 348+76 and 350+00: STA 348+76 and STA 350+00 Closure structures at Old Brandon Rd and Railroad Crossing respectively. Sand bags on standby to operate closures as needed.: NA (A) EJFC_2016_a_0017: Station_1 472+39: STA 472+39 Old Hwy 49 closure. Sand bags on stand by if closure needs to be operated.: NA (A)
		U	Any of the following issues is cause for this rating: Closure structure in poor condition. Parts missing or corroded. Placing equipment may not be available within the anticipated warning time. The storage vaults cannot be opened during the time of inspection. Components of closure are not clearly marked and installation instructions/ procedures are not readily available. Trial erections have not been accomplished in accordance with the O&M Manual.	
		N/A	There are no closure structures along this component of the FDR segment / system.	
5. Slope Stability	**A**	**A**	No slides, sloughs, tension cracking, slope depressions, or bulges are present.	No issues noted
		M	Minor slope stability problems that do not pose an immediate threat to the levee embankment.	
		U	Major slope stability problems (ex. deep seated sliding) identified that must be repaired to reestablish the integrity of the levee embankment.	
6. Erosion/ Bank Caving	**A**	**A**	No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability.	EJFC_2016_a_0003: Station_1 30: RS Erosion 20' from the toe. The Levee Board is working on the solution for the problem.: NA (A) EJFC_2016_a_0007: Station_1 47: RS Erosion about 30' from the toe.: NA (A)
		M	There are areas where minor erosion is occurring or has occurred on or near the levee embankment, but levee integrity is not threatened.	
		U	Erosion or caving is occurring or has occurred that threatens the stability and integrity of the levee. The erosion or caving has progressed into the levee section or into the extended footprint of the levee foundation and has compromised the levee foundation stability.	
7. Settlement[2]	**A**	**A**	No observed depressions in crown. Records exist and indicate no unexplained historical changes.	No issues noted
		M	Minor irregularities that do not threaten integrity of levee. Records are incomplete or inclusive.	
		U	Obvious variations in elevation over significant reaches. No records exist or records indicate that design elevation is compromised.	

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Levee Embankments

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
8. Depressions/ Rutting	M	A	There are scattered, shallow ruts, pot holes, or other depressions on the levee that are unrelated to levee settlement. The levee crown, embankments, and access road crowns are well established and drain properly without any ponded water.	EJFC_2016_a_0016: Station_1 455: LS Wash at top of ramp. Levee crown grade not affected: NA (M)
		M	There are some infrequent minor depressions less than 6 inches deep in the levee crown, embankment, or access roads that will pond water.	
		U	There are depressions greater than 6 inches deep that will pond water.	
9. Cracking	A	A	Minor longitudinal, transverse, or desiccation cracks with no vertical movement along the crack. No cracks extend continuously through the levee crest.	No issues noted
		M	Longitudinal and/or transverse cracks up to 6 inches in depth with no vertical movement along the crack. No cracks extend continuously through the levee crest. Longitudinal cracks are no longer than the height of the levee.	
		U	Cracks exceed 6 inches in depth. Longitudinal cracks are longer than the height of the levee and/or exhibit vertical movement along the crack. Transverse cracks extend through the entire levee width.	
10. Animal Control	A	A	Continuous animal burrow control program in place that includes the elimination of active burrowing and the filling in of existing burrows.	No issues noted
		M	The existing animal burrow control program needs to be improved. Several burrows are present which may lead to seepage or slope stability problems, and they require immediate attention.	
		U	Animal burrow control program is not effective or is nonexistent. Significant maintenance is required to fill existing burrows, and the levee will not provide reliable flood protection until this maintenance is complete.	
11. Culverts/ Discharge Pipes[3] (This item includes both concrete and corrugated metal pipes.)	U	A	There are no breaks, holes, cracks in the discharge pipes/ culverts that would result in significant water leakage. The pipe shape is still essentially circular. All joints appear to be closed and the soil tight. Corrugated metal pipes, if present, are in good condition with 100% of the original coating still in place (either asphalt or galvanizing) or have been relined with appropriate material, which is still in good condition. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector.	EJFC_2016_a_0010: Station_1 166+65: STA 166+65 36" manual sluice. Cure in place type liner has been installed since USACE video inspection in 2010. Liner installed in 2010 and re-videoed. The LSO has determined that the lack of video within 5 years for this structure would not affect levee integrity. Small spall on walkway bridge near footing. logs in conduit at inlet and outlet.: NA (U) EJFC_2016_a_0015: Station_1 413+50: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str: NA (A)
		M	There are a small number of corrosion pinholes or cracks that could leak water and need to be repaired, but the entire length of pipe is still structurally sound and is not in danger of collapsing. Pipe shape may be ovalized in some locations but does not appear to be approaching a curvature reversal. A limited number of joints may have opened and soil loss may be beginning. Any open joints should be repaired prior to the next inspection. Corrugated metal pipes, if present, may be showing corrosion and pinholes but there are no areas with total section loss. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector.	

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
		U	Culvert has deterioration and/or has significant leakage; it is in danger of collapsing or as already begun to collapse. Corrugated metal pipes have suffered 100% section loss in the invert. HOWEVER: Even if pipes appear to be in good condition, as judged by an external visual inspection, an Unacceptable Rating will be assigned if the condition of pipes has not been verified using television camera video taping or visual inspection methods within the past five years, and reports for all pipes are not available for review by the inspector.	
		N/A	There are no discharge pipes/ culverts.	
12. Riprap Revetments & Bank Protection	A	A	No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present.	No issues noted
		M	Minor riprap displacement or stone degradation that could pose an immediate threat to the integrity of the channel bank. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide.	
		U	Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses.	
		N/A	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.	
13. Revetments other than Riprap	NA	A	Existing revetment protection is properly maintained, undamaged, and clearly visible.	NA
		M	Minor revetment displacement or deterioration that does not pose an immediate threat to the integrity of the levee. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide.	
		U	Significant revetment displacement, deterioration, or exposure of bedding observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Revetment protection is hidden by dense brush and trees.	
		N/A	There are no such revetments protecting this feature of the segment / system.	
14. Underseepage Relief Wells/ Toe Drainage Systems	NA	A	Toe drainage systems and pressure relief wells necessary for maintaining FDR segment / system stability during high water functioned properly during the last flood event and no sediment is observed in horizontal system (if applicable). Nothing is observed which would indicate that the drainage systems won't function properly during the next flood, and maintenance records indicate regular cleaning. Wells have been pumped tested within the past 5 years and documentation is provided.	NA
		M	Toe drainage systems or pressure relief wells are damaged and may become clogged if they are not repaired. Maintenance records are incomplete or indicate irregular cleaning and pump testing.	

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
		U	Toe drainage systems or pressure relief wells necessary for maintaining FDR segment / system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing.	
		N/A	There are no relief wells/ toe drainage systems along this component of the FDR segment / system.	
15. Seepage	M	A	No evidence or history of unrepaired seepage, saturated areas, or boils.	Performance of system with water to the top of the levee is not known, therefore the system is rated "M". No past performance seepage documentation has been found.
		M	Evidence or history of minor unrepaired seepage or small saturated areas at or beyond the landside toe but not on the landward slope of levee. No evidence of soil transport.	
		U	Evidence or history of active seepage, extensive saturated areas, or boils.	

[1] If there is significant growth on the levee that inhibits the inspection of animal burrows or other items, the inspection should be ended until this item is corrected.
[2] Detailed survey elevations are normally required during Periodic Inspections, and whenever there are obvious visual settlements.
[3] The decision on whether or not USACE inspectors should enter a pipe to perform a detailed inspection must be made at the USACE District level. This decision should be made in conjunction with the District Safety Office, as pipes may be considered confined spaces. This decision should consider the age of the pipe, the diameter of the pipe, the apparent condition of the pipe, and the length of the pipe. If a pipe is entered for the purposes of inspection, the inspector should record observations with a video camera in order that the condition of the entire pipe, including all joints, can later be assessed. Additionally, the video record provides a baseline to which future inspections can be compared.

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Inspect ID: EJFC_2016_a_0001 **Title:** USACE_CEMVK_EJFC_2016_a_0001_1.jpg **Rated Item:** 1. Unwanted Vegetation Growth **Caption:** Rating: Acceptable; Remarks: STA 0+00 Previously noted tree has been removed.; Station_1: 0+00

Inspect ID: EJFC_2016_a_0011 **Title:** USACE_CEMVK_EJFC_2016_a_0011_1.jpg **Rated Item:** 1. Unwanted Vegetation Growth **Caption:** Rating: Minimally Acceptable; Remarks: STA 320 vegetation in levee slope at intersection of I55 needs to be removed or will be rated U next year; Station_1: 320

Inspect ID: EJFC_2016_a_0002 **Title:** USACE_CEMVK_EJFC_2016_a_0002_1.jpg **Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: STA 6 Various residential encroachments (fencing, ornamental trees, utility poles, structures); Station_1: 6

Inspect ID: EJFC_2016_a_0004 **Title:** USACE_CEMVK_EJFC_2016_a_0004_1.jpg **Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: STA 36 LS utility pole; Station_1: 36

Inspect ID: EJFC_2016_a_0006 **Title:** USACE_CEMVK_EJFC_2016_a_0006_1.jpg **Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: STA 46 RS and LS Utility poles on either side of Mangum Dr. scheduled to be removed ; Station_1: 46

Inspect ID: EJFC_2016_a_0008 **Title:** USACE_CEMVK_EJFC_2016_a_0008_1.jpg **Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: STA 86+32 RS Sanitary gravity sewer, closed system approx 18' below ground level. New control structure installed and slip lined conduit section beneath levee with a Vylon liner approx 3 yrs ago. Sponsor checking status of video inspection.; Station_1: 86+32

Inspect ID: EJFC_2016_a_0013 **Title:** USACE_CEMVK_EJFC_2016_a_0013_1.jpg **Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: Widened section of levee from Old Brandon Rd to I-20 with various encroachments (fence at top of levee, utility poles, etc). Landowner has filled to levee grade approx 2000+ feet perpendicular to the levee on the land side.; Station_1: NA

Inspect ID: EJFC_2016_a_0014 **Title:** USACE_CEMVK_EJFC_2016_a_0014_1.jpg **Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: STA 408 Utility poles LS and RS within 40' of toe.; Station_1: 408

Inspect ID: EJFC_2016_a_0018 **Title:** USACE_CEMVK_EJFC_2016_a_0018_1.jpg **Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: STA 515 LS Fence parallel along toe of levee in federal government/military compound.; Station_1: 515

Inspect ID: EJFC_2016_a_0005 **Title:** USACE_CEMVK_EJFC_2016_a_0005_1.jpg **Rated Item:** 4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures) (A or U only) **Caption:** Rating: Acceptable; Remarks: STA 45+60 Mangum Drive closure. Sandbags on standby to operate closure when needed. Last closures 1979 and possibly 1983.; Station_1: 45+60

Inspect ID: EJFC_2016_a_0009 **Title:** USACE_CEMVK_EJFC_2016_a_0009_1.jpg **Rated Item:** 4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures) (A or U only) **Caption:** Rating: Acceptable; Remarks: STA 138 (Field STA 132+11) Closure Structure. Sandbags on standby to operate closure if needed. ; Station_1: 138

Inspect ID: EJFC_2016_a_0012 **Title:** USACE_CEMVK_EJFC_2016_a_0012_1.jpg **Rated Item:** 4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures) (A or U only) **Caption:** Rating: Acceptable; Remarks: STA 348+76 and STA 350+00 Closure structures at Old Brandon Rd and Railroad Crossing respectively. Sand bags on standby to operate closures as needed.; Station_1: 348+76 and 350+00

Inspect ID: EJFC_2016_a_0012 **Title:** USACE_CEMVK_EJFC_2016_a_0012_2.jpg **Rated Item:** 4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures) (A or U only) **Caption:** Rating: Acceptable; Remarks: STA 348+76 and STA 350+00 Closure structures at Old Brandon Rd and Railroad Crossing respectively. Sand bags on standby to operate closures as needed.; Station_1: 348+76 and 350+00

Inspect ID: EJFC_2016_a_0017 **Title:** USACE_CEMVK_EJFC_2016_a_0017_1.jpg **Rated Item:** 4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures) (A or U only) **Caption:** Rating: Acceptable; Remarks: STA 472+39 Old Hwy 49 closure. Sand bags on stand by if closure needs to be operated. ; Station_1: 472+39

Inspect ID: EJFC_2016_a_0003 **Title:** USACE_CEMVK_EJFC_2016_a_0003_1.jpg **Rated Item:** 6. Erosion/ Bank Caving **Caption:** Rating: Acceptable; Remarks: RS Erosion 20' from the toe. The Levee Board is working on the solution for the problem.; Station_1: 30

Inspect ID: EJFC_2016_a_0003 **Title:** USACE_CEMVK_EJFC_2016_a_0003_2.jpg **Rated Item:** 6. Erosion/ Bank Caving **Caption:** Rating: Acceptable; Remarks: RS Erosion 20' from the toe. The Levee Board is working on the solution for the problem.; Station_1: 30

Inspect ID: EJFC_2016_a_0007 **Title:** USACE_CEMVK_EJFC_2016_a_0007_1.jpg **Rated Item:** 6. Erosion/ Bank Caving **Caption:** Rating: Acceptable; Remarks: RS Erosion about 30' from the toe.; Station_1: 47

Inspect ID: EJFC_2016_a_0016 **Title:** USACE_CEMVK_EJFC_2016_a_0016_1.jpg **Rated Item:** 8. Depressions/ Rutting **Caption:** Rating: Minimally Acceptable; Remarks: LS Wash at top of ramp. Levee crown grade not affected; Station_1: 455

Inspect ID: EJFC_2016_a_0010 **Title:** USACE_CEMVK_EJFC_2016_a_0010_1.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Unacceptable; Remarks: STA 166+65 36" manual sluice. Cure in place type liner has been installed since USACE video inspection in 2010. Liner installed in 2010 and re-videoed. The LSO has determined that the lack of video within 5 years for this structure would not affect levee integrity.Small spall on walkway bridge near footing. logs in conduit at inlet and outlet.; Station_1: 166+65

Inspect ID: EJFC_2016_a_0010 **Title:** USACE_CEMVK_EJFC_2016_a_0010_2.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Unacceptable; Remarks: STA 166+65 36" manual sluice. Cure in place type liner has been installed since USACE video inspection in 2010. Liner installed in 2010 and re-videoed. The LSO has determined that the lack of video within 5 years for this structure would not affect levee integrity.Small spall on walkway bridge near footing. logs in conduit at inlet and outlet.; Station_1: 166+65

Inspect ID: EJFC_2016_a_0010 **Title:** USACE_CEMVK_EJFC_2016_a_0010_3.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Unacceptable; Remarks: STA 166+65 36" manual sluice. Cure in place type liner has been installed since USACE video inspection in 2010. Liner installed in 2010 and re-videoed. The LSO has determined that the lack of video within 5 years for this structure would not affect levee integrity.Small spall on walkway bridge near footing. logs in conduit at inlet and outlet.; Station_1: 166+65

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_11.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_12.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_1.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_2.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_3.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_4.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_5.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_6.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_7.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_8.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_9.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Inspect ID: EJFC_2016_a_0015 **Title:** USACE_CEMVK_EJFC_2016_a_0015_10.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** Rating: Acceptable; Remarks: STA 413+50 East Bank PS and DS. Structures appear well maintained. Gravity inlet debris buildup. Pump discharge pipes light rust visible inside at the ends. Pump rehab completed 2013 & 2014 on pump 2 &3 respectively. Crane cert 2014. Mod wash gravity str; Station_1: 413+50

Flood Damage Reduction Segment / System
Supplemental Data Sheet

This form is intended for the Corps' internal use and may not need to be updated with every inspection.

Name of Segment / System: East Jackson Flood Control Project
Sponsor:
Location:
River Basin:
Project Description:
Authority that Project was Constructed Under:
Date of Construction:
Approximate Annual Maintenance Costs:

Construction:	☐ Federally Constructed	☒ Non-Federally Constructed
Maintenance:	☐ Federally Maintained	☒ Non-Federally Maintained

National Flood Insurance Program:

a. Is the project currently NFIP? ☐ Yes ☐ No
b. If in the NFIP, Date of Certification (per 44 CFR 65.10):

Datum Information:

a. Datum used for the design and construction of this project is:
b. Current recommended datum for this project is:
c. Has the Project been converted to the current recommended datum? ☐ Yes ☐ No

Levee Embankment Data:

a. Levee Designed Gage Function Reading/Station:
b. Level of Protection Provided:
c. Average Height of Levee:
d. Average Crown Width:
e. Average Side Slope:

Protected Features (For use in preparing estimates and PIRs):

a. Total acres protected:
b. Total agriculture production acres protected:
c. Towns:
d. Businesses:
e. Residences:
f. Roads:
g. Utilities:
h. Barns:
i. Machine Sheds:
j. Outbuildings:
k. Irrigation Systems:
l. Grain Bins:
m. Other Facilities:

East Jackson Levee 2016

In order to be eligible, all of the following items must be rated A, M, N/A or Yes.

Note: Item numbers listed below refer to their placement in the Inspection Checklist (Enclosure 2).

Rehabilitation Program Eligibility Determination	
Yes ☒ No ☐	Public sponsor provided maintenance information per the Public Sponsor Pre-Inspection Form.
Yes ☐ No ☐ N/A ☒	Non-federal levee system meets Initial Eligibility criteria.
If either of the above items is marked "No" the levee system is not eligible.	
Rating	**Rated Item**
Levee Embankments	
A ☐ M ☒ U ☐	3. Encroachments
A ☒ U ☐ N/A ☐	4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures)
A ☒ M ☐ U ☐	5. Slope Stability
A ☒ M ☐ U ☐	6. Erosion/ Bank Caving
A ☒ M ☐ U ☐	10. Animal Control
A ☐ M ☐ U ☒ N/A ☐	11. Culverts/Discharge Pipes (This item includes both concrete and corrugated metal pipes.)
A ☐ M ☐ U ☐ N/A ☒	14. Underseepage Relief Wells/Toe Drainage Systems
Floodwalls	
A ☐ M ☐ U ☐	2. Encroachments
A ☐ U ☐ N/A ☐	3. Closure Structures (Stop Log Closures and Gates)
A ☐ M ☐ U ☐	5. Tilting, Sliding, or Settlement of Concrete Structures

A ☐ M ☐ U ☐	6. Foundation of Concrete Structures
A ☐ M ☐ U ☐ N/A ☐	8. Underseepage Relief Wells/Toe Drainage Systems
Interior Drainage System	
A ☐ M ☐ U ☐ N/A ☐	9. Culverts/Discharge Pipes
A ☐ M ☐ U ☐ N/A ☐	10. Sluice/Slide Gates
A ☐ M ☐ U ☐ N/A ☐	11. Flap Gates/Flap Valves/Pinch Valves
Pump Stations	
A ☐ M ☐ U ☐	17. Intake and Discharge Pipelines
A ☐ M ☐ U ☐ N/A ☐	18. Sluice/Slide Gates
A ☐ M ☐ U ☐ N/A ☐	19. Flap Gates/Flap Valves/Pinch Valves
Rehabilitation Program Status	
Active ☒	System meets all interim eligibility criteria, including having received a rating of A, M, N/A or Yes for all subset items and is therefore eligible for rehabilitation assistance.
Inactive ☐	System does not meet interim eligibility requirements.

Comments: 2016 Routine Inspection Rating: Minimally Acceptable
Culverts are rated U for lack of a video within the last 5 years. The culverts were video inspected in 2010 and were rated M last year. The LSO has discretion for two inspection cycles to determine whether the lack of video would be a levee integrity issue. The LSO has determined that the lack of culvert video would not cause a levee integrity issue and rates the levee system Minimally Acceptable.