



**US Army Corps
of Engineers®**

Levee Inspection Report

Name of System: Highland

Name of Segment: Highland

NLD System ID: 2605000005

NLD Segment ID: 2604000007

Segment Type: Non-Federally Constructed, local O&M

Levee Sponsor (Name and Organization): Little Calumet River Basin Development Commission

Inspection Report Prepared by: Christopher Schaal

Date(s) of Inspection: 04/14/2022 - 04/14/2022

Other Segments Within This System

Segment Name	NLD Segment ID#	Segment Type	Segment Inspection Rating

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Inspection Checklist

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☒ General Instructions

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Type of Inspection:

☒ Routine Inspection

☐ Periodic Inspection

☐ Special Inspection

Purpose of Special Inspection: _____

Ratings:

Segment Rating:

☐ Acceptable

☐ Minimally Acceptable

☐ Unacceptable

☐ No Verdict

System Rating:

☐ Acceptable

☐ Minimally Acceptable

☐ Unacceptable

☐ No Verdict

LSPM Signature: _____

LSO Signature: _____

Date Approved: 5/12/22

Date Approved: 5/13/22

Levee Inspection Team Members (Levee Sponsor, USACE, and Others)

Name	Organization	Discipline	Team
Yuki Galisanao	USACE - Chicago District	Levee Safety Program Lead	Levee
Chris Schaal	USACE - Chicago District	Geotechnical	Gates
Madhu Karri	USACE - Chicago District	Geotechnical	Levees
Jessica Sutton	USACE - Chicago District	Geospatial	Gates
Jonathan Lombardi	USACE - Chicago District	Mechanical	Gates/Pump Station
Andrew Lin	USACE - Chicago District	Structural	Levee
Arthur Rundzaitis	USACE - Chicago District	Construction	Gates
Dan Repay	LCRBDC	Sponsor	Levee
Alan Jaski	USACE - Chicago District	Electrical	Pump Station
Bob Ruzydzi	Highland	Community	Gates
Grant Arnold	Highland	Community	Gates
Brett Teske	Highland	Community	Pump Station
Mike Pipka	Highland	Community	Pump Station
Aaron Krestel	Highland	Community	Pump Station

Segment Rating Rationale:

[Describe the basis of the Segment rating considering (1) the general condition of the segment, (2) the rationale for Item ratings, categorized by Feature that contributed to the Segment rating, and (3) the number or severity of notable observations/deficiencies. The summary may also include information related to the condition of the levee, not otherwise captured in the Levee Inspection Checklist, if applicable.]

No change in rating from Minimally Acceptable since the previous inspection. Minor issues with trees and tall vegetation, sod cover, debris, slope stability, bank erosion, rutting, animal burrows, condition of pipes, seepage, closures, spalling and cracking, possible movement of the wall, deteriorating sealant, vegetation and silt at the outlets, fencing, concrete surfaces, pipes, debris in sluice gates and flap gates, missing safety labels, minor to moderate structural issues at the pump stations, inoperable fans, missing seals on closure gates, and flap gate obstructions.

System Rating Rationale:

[Synthesize information from the Segment rating rationales for each Segment within the System. For single-segment systems, see segment rating rationale above.]

Same as segment rating.

General Items for All Flood Damage Reduction Segments / Systems: Highland
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.	Justification: O&M Manuals are located at the Public Works facility
		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.	2022-0062 : Highland Public Works has 14 to 16 pallets of sandbags, approximately ten 1000pcs sandbags, and 1 sand bagger machine. (A) Justification: Highland has a ready inventory of flood fighting supplies and equipment at the Public Works Facility on 8001 Kennedy Ave.
		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.	Justification: System specific flood response plan is in place. Flood Response staff attend monthly meetings to review levee concerns. Actively monitors for events and were prepared to mobilize for the April 2017 rain forecast. Evacuation locations include Lincoln Center (2450 Lincoln St), Main gym, and high school. Highland uses the RAVE emergency notification system to send messages to residents via phone, email, and web. A road closure exercise at Kennedy Ave was performed in Oct 2016. A tabletop exercise was held in Jan 2019. Updated Flood Handbooks were provided in 2019. Flood fighting was performed in May 2019. Flood fighting was performed in May 2019. Participated in the road closure exercise at River Rd in 2021.
		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.	

Levee Embankments: Highland

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Unwanted Vegetation Growth	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.	2022-0028 : Small tree on landside toe. (M) 2022-0031 : Small tree on landside toe. (M) 2022-0034 : Small trees on landside. (M) 2022-0040 : Small brush on landside toe along fence. (M) 2022-0043 : Trees and brush within 12 ft of riverside toe. (M) 2022-0046 : 2 trees about 10 ft from landside toe. (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.	2022-0049 : Tree about 10 ft from landside toe. (M) 2022-0055 : Tree within 5 from landside toe. (M) 2022-0082 : 2 trees within 10 ft on landside toe. (M)
		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.	2022-0085 : Vegetation growing in crack in asphalt . (M) 2022-0088 : Small trees on landside toe. (M) 2022-0103 : Trees on the landside toe. (M) 2022-0193 : Tree on landside. (M) 2022-0196 : Small trees and brush on riverside toe. (M) 2022-0220 : Small trees on riverside slope. (M) 2022-0235 : Small trees along riverside toe. (M) 2022-0253 : Tree near riverside toe. (M) 2022-0298 : Tree on riverside slope. (M) 2022-0325 : Trees near riverside toe. (M) 2022-0364 : Tree on riverside toe. (M) Recommendation: Remove trees and vegetation within the 15 foot vegetation free zone.

Levee Embankments: Highland

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
2. Sod Cover	M	A	There is good coverage of sod over the levee.	2022-0061 : Poor sod cover from ruts on riverside crest and slope. (M)
		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.	2022-0097 : Poor sod cover on the crest. (M) 2022-0283 : Minimal surface cover along lower half of riverside slope. (M) 2022-0301 : Little sod cover on lower half of riverside slope. (M)
		U	Over 50% of the sod cover is missing or damaged over a significant portion or portions of the levee embankment.	2022-0307 : Frequent rutting caused loss of soil cover. (M)
		N/A	Surface protection is provided by other means.	2022-0340 : Sod cover needed on riverside slope. (M) 2022-0370 : Rutting caused loss of soil cover. (M) Recommendation: Restore topsoil and reseed affected areas.
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.	2022-0058 : Debris on landside toe. (M) 2022-0064 : Logs on riverside slope. (M) 2022-0109 : Tree branch on river side slope. (M) 2022-0112 : Branch of tree at toe of slope. (M) 2022-0127 : Lots of tree debris near riverside toe. (M)
		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.	2022-0130 : Dumping of debris and yard waste on waterside slope. (M)
		U	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee.	2022-0133 : Tree logs at riverside toe. (M) 2022-0136 : Logs and downed branches on landside slope. (M) 2022-0199 : Line of garbage on riverside toe. (M) 2022-0229 : Debris along riverside toe. (M) 2022-0304 : Debris of cut down branches and trees. (M) 2022-0328 : Debris and fallen tree logs along length of embankment on riverside. (M) 2022-0367 : Bollard collapsed. (M) Recommendation: Remove encroaching debris and items up to levee easements. Discuss more permanent structures with homeowners, and either remove or seek Section 408 permits for encroaching structures.

Levee Embankments: Highland

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
4. Closure Structures	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.	Justification: No Issues observed.
		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.	Justification: No Issues Observed
		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.	

Levee Embankments: Highland

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
6. Erosion/ Bank Caving	M	A	No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability.	2022-0073 : Erosion on riverside toe. (M) 2022-0076 : Erosion on riverside toe. (M) 2022-0079 : Erosion on riverside toe. (M) 2022-0226 : Erosion near North Drive Pump Station sluice gate. (M) 2022-0268 : Large area of bank caving of embankment near riverside toe. (M) 2022-0271 : Medium sloughing near riverside toe. (M) 2022-0286 : Sinkhole on riverside toe. (M) 2022-0289 : Medium area of bank caving near riverside toe. (M) 2022-0292 : Large area of bank caving near riverside toe. (M) 2022-0295 : Large area of bank caving near riverside toe. (M) 2022-0313 : Small erosion point on riverside slope. (M) 2022-0322 : Riverside slope caving due to animal burrow. (M) 2022-0331 : Bank caving in on riverside toe. (M) Recommendation: Repair embankment with riprap or suitable clay soil.
		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	M	A	No observed depressions in crown. Records exist and indicate no unexplained historical changes.	2022-0025 : Levee lower than floodwall from 408 permit. Level of protection is preserved. (A) 2022-0202 : 5 inches of settlement at levee tie in. (M) 2022-0256 : Dip in crest between construction contracts. (A) Recommendation: Survey low spots in NAVD88 to confirm elevation. Add clay to levee crest to match the required design height.
		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.	

Levee Embankments: Highland

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.	2022-0048 : Large rut near 81st St. Pump Station outlet. (M) 2022-0052 : Rutting on riverside slope. (M) 2022-0100 : Low spot on crest. (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.	2022-0106 : Ruts on riverside side slope. (M) 2022-0115 : Gully forming from animal activity on river side slope. (M)
		U	There are depressions greater than 6 inches deep that will pond water.	2022-0247 : Massive rutting on riverside slope. (M) 2022-0250 : Large ruts on riverside slope. (M) 2022-0259 : Large ruts on riverside slope. (M) 2022-0262 : Ruts on riverside toe near roadway. (M) 2022-0274 : Rutting could lead to sloughing as soil loosens. (M) 2022-0310 : Deep ruts on riverside slope. (M) 2022-0316 : Ongoing rutting on riverside slope. (M) 2022-0319 : Rutting on riverside slope. (M) 2022-0334 : Animal track 3 inches deep. (M) 2022-0337 : Rutting on riverside slope. (M) 2022-0358 : Rutting near riverside toe. (M) Recommendation: Fill shallow ruts with topsoil and seed. Fill deep ruts with clay and restore sod cover. Monitor low spots on crest for further degradation.
9. Cracking	M	A	Minor longitudinal, transverse, or desiccation cracks with no vertical movement along the crack. No cracks extend continuously through the levee crest.	2022-0091 : Cracking on crest. (M)
		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.	Recommendation: Reseal crack with asphalt sealer.
		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.	

Levee Embankments: Highland
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
10. Animal Control	M	A	Continuous animal burrow control program in place that includes the elimination of active burrowing and the filling in of existing burrows.	2022-0265 : Animal hole 6 inches deep. (M) 2022-0277 : Animal burrow has led to sloughing of the riverside toe. (M) 2022-0280 : Small animal hole 4 inches deep in crown. (M) 2022-0361 : 6 inch rodent hole in riverside toe. (M) Recommendation: Backfill burrow with compacted clay.
		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 (This item includes both concrete and corrugated metal pipes.)	M	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.	Justification: Camera inspection performed in May and June 2016 for the following culverts: 18-inch CMP (HI-1) - Deformed pipe, hole (M) 24-inch RCP (HI-2) - Circumferential crack with roots (M) 48-inch RCP (HI-3) 24-inch RCP (HI-4) - Circumferential cracks (M) 36-inch RCP (HI-5) 48-inch RCP (HI-6) 60-inch RCP (HI-7A) - Offset joint (M) 96-inch RCP (HI- 7B) 36-inch RCP (HI-9) 36-inch RCP (HI-10A) 36-inch RCP (HI-10B) 36-inch RCP (HI-10C) 36-inch RCP (HI-10D) 48-inch RCP (HI-11) Address deficiencies. Refer to the camera inspection report for more details. Recommendation: Submit new camera inspection report.
		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.	
		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.	

Levee Embankments: Highland

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
12. Riprap Revetments & Bank Protection	M	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.	2022-0223 : Debris in riprap. (M) Recommendation: Remove debris and re-establish line of riprap protection.
		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.	
		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.	

Levee Embankments: Highland

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
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.	
		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.	
		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.	2022-0037 : Area of previous minor seepage on landside toe. No seepage observed. (M) Recommendation: Continue to monitor area for seepage.
		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.	

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

Floodwalls: Highland
For use during Initial and Continuing Eligibility Inspections of all floodwalls

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Unwanted Vegetation Growth	M	A	A grass-only or paved zone is maintained on both sides of the floodwall, free of all trees, brush, and undesirable weeds. The vegetation-free zone extends 15 feet from both the land and riverside of the floodwall, at ground-level, to the centerline of the tree. Additionally, an 8- foot root-free zone is maintained around the entire structure, including the floodwall toe, heel, and any toe-drains. If the floodwall 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 and/or Corps policy for regional vegetation variance.	2022-0004 : Small trees on riverside of floodwall. (M) 2022-0013 : Small vines on riverside of floodwall. (M) 2022-0145 : Small trees on landside of floodwall. (M) 2022-0154 : Small trees on landside of floodwall. (M) 2022-0157 : Small trees on riverside of floodwall. (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 floodwall.	2022-0163 : Brush on riverside of floodwall. (M) 2022-0172 : Small tree on landside of floodwall. (M)
		U	Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above. This vegetation threatens the operation or integrity of the floodwall and must be removed.	2022-0178 : Small tree on landside of floodwall. (M) 2022-0181 : Small tree on landside of floodwall. (M) 2022-0205 : Small trees on riverside of floodwall. (M) 2022-0208 : Small trees on riverside of floodwall. (M) 2022-0244 : Tree along entire segment of riverside floodwall. (M) 2022-0346 : Tree on riverside of floodwall. (M) 2022-0352 : Vegetation on landside of floodwall. (M) 2022-0355 : Brush at landside toe of floodwall area. (M) Recommendation: Remove vegetation around floodwalls.

Floodwalls: Highland
For use during Initial and Continuing Eligibility Inspections of all floodwalls

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
2. Encroachments	M	A	No trash, debris, unauthorized 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 floodwall.	2022-0139 : Graffiti on riverside of floodwall. (M) 2022-0190 : Stop sign on landside (M) 2022-0241 : Fence and debris on berm. (M) Recommendation: Remove encroaching debris from around floodwall. Power wash graffiti. If encroaching items belong to local homeowner, discuss with homeowner and either remove items or apply for Section 408 permit.
		M	Trash, debris, unauthorized 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 floodwall.	
3. Closure Structures (Stop Log Closures and Gates) (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.	2022-0142 : Graffiti on slide gate. (A) 2022-0148 : Crack in concrete sill. (A) 2022-0151 : Missing rubber seal on far end. (A) 2022-0187 : Grass growing over sill. (A) Recommendation: Power wash graffiti from slide gate. Remove unwanted vegetation growth. Replace missing rubber seals on railroad slide gate.
		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.	
4. Concrete Surfaces	M	A	Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage.	2022-0169 : Recent patch might have a void above height of protection. (A) 2022-0175 : Void from crack down on landside . (M) 2022-0211 : Hole in sheetpile. (M) 2022-0217 : Missing bolt on sheetpile under cap. (M) Recommendation: Fill voids and cracks. Cut out damaged areas and patch with appropriate cement patch. cover hole in sheetpile. Replace missing bolt under sheetpile cap.
		M	Spalling, scaling, and open cracking present, but the immediate integrity or performance of the structure is not threatened. Reinforcing steel may be exposed. Repairs/ sealing is necessary to prevent additional damage during periods of thawing and freezing.	
		U	Surface deterioration or deep cracks present that may result in an unreliable structure. Any surface deterioration that exposes the sheet piling or lies adjacent to monolith joints may indicate underlying reinforcement corrosion and is unacceptable.	

Floodwalls: Highland
For use during Initial and Continuing Eligibility Inspections of all floodwalls

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
5. Tilting, Sliding or Settlement of Concrete Structures	A	A	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	Justification: No issues observed.
		M	There are areas of tilting, sliding, or settlement (either active or inactive) that need to be repaired. The maximum offset, either laterally or vertically, does not exceed 2 inches unless the movement can be shown to be no longer actively occurring. The integrity of the structure is not in danger.	
		U	There are areas of tilting, sliding, or settlement (either active or inactive) that threaten the structure's integrity and performance. Any movement that has resulted in failure of the waterstop (possibly identified by daylight visible through the joint) is unacceptable. Differential movement of greater than 2 inches between any two adjacent monoliths, either laterally or vertically, is unacceptable unless it can be shown that the movement is no longer active. Also, if the floodwall is of I-wall construction, then any visible or measurable tilting of the wall toward the protected side that has created an open horizontal crack on the riverside base of a monolith is unacceptable.	
6. Foundation of Concrete Structures	M	A	No active erosion, scouring, or bank caving that might endanger the structure's stability.	2022-0184 : 6 inch depression next to landside wall. (M) Recommendation: Add fill to depressions next to landside wall.
		M	There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. For the purposes of inspection, the erosion or scour is not closer to the riverside face of the wall than twice the floodwall's underground base width if the wall is of L-wall or T-wall construction; or if the wall is of sheetpile or I-wall construction, the erosion is not closer than twice the wall's visible height. Additionally, rate of erosion is such that the wall is expected to remain stable until the next inspection.	
		U	Erosion or bank caving observed that is closer to the wall than the limits described above, or is outside these limits but may lead to structural instabilities before the next inspection. Additionally, if the floodwall is of I-wall or sheetpile construction, the foundation is unacceptable if any turf, soil or pavement material got washed away from the landside of the I-wall as the result of a previous overtopping event.	

Floodwalls: Highland
For use during Initial and Continuing Eligibility Inspections of all floodwalls

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
7. Monolith Joints	M	A	The joint material is in good condition. The exterior joint sealant is intact and cracking/ desiccation is minimal. Joint filler material and/or waterstop is not visible at any point.	2022-0160 : Spalling with grout on riverside. (M) 2022-0166 : Cracking in sealant, no waterstop visible. (M) 2022-0238 : Cap is offset 1 inch and waterstop is degraded. 4 inch down until waterstop encountered. (M) 2022-0343 : Material inside is deteriorating sealant is needed. waterstop is exposed. (M) 2022-0349 : Expansion joint material is failing. (M) Recommendation: Replace sealant, waterstops, and joint materials where indicated with polyurethane grout.
		M	The joint material has appreciable deterioration to the point where joint filler material and/or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/ thaw cycles, and to ensure water tightness of the joint.	
		U	The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood.	
		N/A	There are no monolith joints in the floodwall.	
8. 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.	
		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.	
		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.	
9. Seepage	A	A	No evidence or history of unrepaired seepage, saturated areas, or boils.	Justification: No Issues Observed.
		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.	

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

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Vegetation and Obstructions	M	A	No obstructions, vegetation, debris, or sediment accumulation noted within interior drainage channels or blocking the culverts, inlets, or discharge areas. Concrete joints and weep holes are free of grass and weeds.	2022-0010 : HI-1: Sediment and veg in outlet blocking gate. (M) 2022-0011 : HI-4: No issues observed. (A) 2022-0019 : HI-1: Silting in outlet. (M)
		M	Obstructions, vegetation, debris, or sediment are minor and have not impaired channel flow capacity or blocked more than 10% of any culvert openings, but should be removed. A limited volume of grass and weeds may be present in concrete channel joints and weep holes.	2022-0020 : HI-5: Inlet has overgrown vegetation. (M) 2022-0032 : HI-9: Inlet. Vegetation is overgrown. (M)
		U	Obstructions, vegetation, debris, or sediment have impaired the channel flow capacity or blocked more than 10% of a culvert opening. Sediment and debris removal required to reestablish flow capacity.	2022-0038 : HI-10: Outlet overgrown. (M) 2022-0047 : HI-10: Inlet. Lots of vegetation and overgrowth. (M) 2022-0053 : HI-11: Inlet in okay condition. Some vegetation is encroaching. (A) 2022-0056 : HI-11: Outlet has vegetation growing. (M) 2022-0070 : Tall vegetation in ditch. (M) 2022-0121 : HI-6: Vegetation in outlet area. (M) Recommendation: Remove vegetation from headwalls, ditches and outlet structures.
2. Encroachments	M	A	No trash, debris, unauthorized 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 interior drainage system.	2022-0022 : HI-1: Tree next to outlet. (M) 2022-0118 : HI-6: Tree logs and debris around the outlet structure. (M) Recommendation: Remove trees and debris from structures.
		M	Trash, debris, unauthorized 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 this component of the interior drainage system.	

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
3. Ponding Areas	NA	A	No trash, debris, structures, or other obstructions present within the ponding areas. Sediment deposits do not exceed 10% of capacity.	
		M	Trash, debris, excavations, structures, or other obstructions present, or inappropriate activities that will not inhibit operations and maintenance. Sediment deposits do not exceed 30% of capacity.	
		U	Trash, debris, excavations, structures, or other obstructions, or other encroachments or activities noted that will inhibit operations, maintenance, or emergency work. Sediment deposits exceeds 30% of capacity.	
		N/A	There are no ponding areas associated with the interior drainage system.	
4. Fencing and Gates	M	A	Fencing is in good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts.	2022-0008 : HI-4: Fence and gate missing mid are and bottom bar on north side of fence. East side of fence not connected. Bolts not secured on bottom north east side of concrete. (M) 2022-0023 : HI-7: Graffiti on concrete nearest path. Fence and gate look in good condition. (A) 2022-0029 : HI-9: Gate and fence hard to open. (M) 2022-0044 : HI-10: Fence and gate look okay. Minimal vegetation growth. (A) 2022-0050 : HI-11: Fence and gate in good condition (A) Recommendation: Replace bars on HI4 fence. Repair HI9 gate entrance.
		M	Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.	
		U	Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured.	
		N/A	There are no features noted that require safety fencing.	
5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts)	M	A	Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage.	2022-0214 : HI-7: Piece of concrete missing from grate area. (M) Recommendation: Patch concrete with grout.
		M	Spalling, scaling, and open cracking present, but the immediate integrity or performance of the structure is not threatened. Reinforcing steel may be exposed. Repairs/ sealing is necessary to prevent additional damage during periods of thawing and freezing.	
		U	Surface deterioration or deep cracks present that may result in an unreliable structure. Any surface deterioration that exposes the sheet piling or lies adjacent to monolith joints may indicate underlying reinforcement corrosion and is unacceptable.	
		N/A	There are no concrete items in the interior drainage system.	

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
6. Tilting, Sliding or Settlement of Concrete and Sheet Pile Structures (Such as gate wells, outfalls, intakes, or culverts)	A	A	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	Justification: No Issues Observed
		M	There are areas of tilting, sliding, or settlement (either active or inactive) that need to be repaired. The maximum offset, either laterally or vertically, does not exceed 2 inches unless the movement can be shown to be no longer actively occurring. The integrity of the structure is not in danger.	
		U	There are areas of tilting, sliding, or settlement (either active or inactive) that threaten the structure's integrity and performance. Any movement that has resulted in failure of the waterstop (possibly identified by daylight visible through the joint) is unacceptable. Differential movement of greater than 2 inches between any two adjacent monoliths, either laterally or vertically, is unacceptable unless it can be shown that the movement is no longer active. Also, if the floodwall is of I-wall construction, then any visible or measurable tilting of the wall toward the protected side that has created an open horizontal crack on the riverside base of a monolith is unacceptable.	
		N/A	There are no concrete items in the interior drainage system.	
7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.)	M	A	No active erosion, scouring, or bank caving that might endanger the structure's stability.	2022-0094 : HI-4: Hole behind west gabion wall. (M) 2022-0124 : Hi-6: Settlement around the headwall. (M) 2022-0232 : HI-8: Erosion around wingwalls. (M) Recommendation: Manage erosion around wingwalls with riprap or compacted clay.
		M	There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. The rate of erosion is such that the structure is expected to remain stable until the next inspection.	
		U	Erosion or bank caving observed that may lead to structural instabilities before the next inspection.	
		N/A	There are no concrete items in the interior drainage system.	

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
8. Monolith Joints	A	A	The joint material is in good condition. The exterior joint sealant is intact and cracking/ desiccation is minimal. Joint filler material and/or waterstop is not visible at any point.	Justification: No Issues Observed.
		M	The joint material has appreciable deterioration to the point where joint filler material and/or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/ thaw cycles, and to ensure water tightness of the joint.	
		U	The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood.	
		N/A	There are no monolith joints in the interior drainage system.	

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
9. Culverts / Discharge Pipes	M	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.	Justification: Camera inspection performed in May and June 2016 for the following culverts: 18-inch CMP (HI-1) - Deformed pipe, hole (M) 24-inch RCP (HI-2) - Circumferential crack with roots (M) 48-inch RCP (HI-3) 24-inch RCP (HI-4) -Circumferential cracks (M) 36-inch RCP (HI-5) 48-inch RCP(HI-6) 60-inch RCP (HI-7A) - Offset joint (M) 96-inch RCP (HI-7B) 36-inch RCP (HI-9) 36-inch RCP (HI-10A) 36-inch RCP (HI-10B) 36-inch RCP (HI-10C) 36-inch RCP (HI-10D) 48-inch RCP (HI-11) Address deficiencies. Refer to the camera inspection report for more details. Recommendation: Submit new camera inspection report.
		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.	
		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.	

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
10. Sluice / Slide Gates	M	A	Gates open and close freely to a tight seal or minor leakage. Gate operators are in good working condition and are properly maintained. Sill is free of sediment and other obstructions. Gates and lifters have been maintained and are free of corrosion. Documentation provided during the inspection.	2022-0014 : HI-4: Sight glass missing. Gate is in good condition. Gate was open when we arrived, it closed fully while we were onsite. Left Gate open. (A)
		M	Gates and/or operators have been damaged or have minor corrosion, and open and close with resistance or binding. Leakage quantity is controllable, but maintenance is required. Sill is free of sediment and other obstructions.	2022-0017 : HI-5: Gate closure was not able to be tested during routine inspection. On April 21, 2022, local sponsor repaired riser and was able to close gate. (A)
		U	Gates do not open or close and/or operators do not function. Gate, stem, lifter and/or guides may be damaged or have major corrosion.	2022-0026 : HI-7: Sluice gate was lowered and raised. No issues observed. (A)
		N/A	There are no sluice/ slide gates.	2022-0035 : HI-9: Rubber cap at top of sight glass is missing. Gate looks good. (A) 2022-0041 : HI-10: Outlet gate C stuck open. Wildlife appears to be burrowing in gates. Sluice gates all look clean and in proper condition. (M) 2022-0059 : HI-11: Sluice Gate. Rod inside sight glass is not visible or readable. Gate is full of silt. Remove silt from gate and repair sight glass. (M) Recommendation: Replace HI-09 rubber cap at top of sight glass. Repair HI-10 so that it can close properly. Remove vegetation and animals from HI-10 so that flap gates seal closed. Replace sight glass in HI-11 so that rod is visible, and remove silt from flap gate.
11. Flap Gates/ Flap Valves/ Pinch Valves	M	A	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required.	2022-0007 : HI-1: Debris on the check valve. (M)
		M	Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance.	2022-0016 : HI-2: Flap gate buried and water is draining so gate must be open. (M)
		U	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	Recommendation: Remove silt, vegetation and debris from flap gates.
		N/A	There are no flap gates.	

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
12. Trash Racks (non-mechanical)	A	A	Trash racks are fastened in place and properly maintained.	Justification: No Issues Observed
		M	Trash racks are in place but are unfastened or have bent bars that allow debris to enter into the pipe or pump station, bars are corroded to the point that up to 10% of the sectional area may be lost. Repair or replacement is required.	
		U	Trash racks are missing or damaged to the extent that they are no longer functional and must be replaced. (For example, more than 10% of the sectional area may be lost.)	
		N/A	There are no trash racks, or they are covered in the pump stations section of the report.	
13. Other Metallic Items	A	A	All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern.	Justification: No Issues Observed
		M	Corrosion seen on metallic parts appears to be maintainable.	
		U	Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.	
		N/A	There are no other significant metallic items.	
14. Riprap Revetments of Inlet/ Discharge Areas	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.	Justification: No Issues Observed.
		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.	

Interior Drainage System: Highland

For use during Initial and Continuing Eligibility Inspections of interior drainage systems

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
15. Revetments other than Riprap	NA	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.	
		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 are no such revetments protecting this feature of the segment / system.	

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Controlled Unclassified Information (CUI): This document contains levee information that shall not be released in an uncontrolled manner

**Flood Damage Reduction Segments / Systems
Inspection Report
Highland**

**Interior Drainage System
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Pump Stations: Highland

For use during Initial and Continuing Eligibility Inspections of pump stations

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Pump Stations Operating, Maintenance, Training, & Inspection Records	A	A	Operation, maintenance and inspection records are present at the pump station and are being used and updated, and personnel have been trained in pump station operations. Names and last training date shown in the record book.	Justification: No Issues Observed.
		M	Operation, maintenance and inspection records are present but not adequately used and updated.	
		U	No operation, maintenance and inspection records are present, or refresher training for personnel has not been conducted.	
2. Pump Station Operations and Maintenance Equipment Manuals	A	A	Operation and Maintenance Equipment Manuals and/or posted operating instructions are present and updated as required, and adequately cover all pertinent pump station features. O&M manuals include points of contact for manufacturers and suppliers of major equipment used in the facility.	2022-0018 : PS-81: Operations manuals present on-site. (A) 2022-0060 : PS-N5: Operations manuals present on-site. (A) 2022-0093 : PS-ND: Operations manuals present on-site. (A)
		M	Operation and Maintenance Equipment Manuals and/or posted operating instructions are present and adequately cover all pertinent pump station features. However, they are incomplete and the necessary updates have not been made.	
		U	Operation and Maintenance Equipment Manuals are not available.	
3. Safety Compliance	A	A	Safety compliance inspection reports by applicable local, state, or federal agencies available for review.	2022-0021 : PS-81: Confined space labels added. (A) 2022-0066 : PS-N5: Confined space labels added throughout building. (A)
		M	No safety compliance inspection reports are available for review.	
4. Communications (A or M only)	A	A	A telephone, cellular phone, two-way radio, or similar device is available to pump station operator and maintenance personnel.	Justification: No Issues Observed.
		M	A telephone, cellular phone, two-way radio, or similar device is not available to pump station operator and maintenance personnel.	

Pump Stations: Highland

For use during Initial and Continuing Eligibility Inspections of pump stations

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
5. Plant Building	M	A	The building is in good structural condition with no major foundation settlement problems. The roof is not leaking, intake & exhaust louvers are clear of debris, fans are operational, etc.	2022-0012 : PS-81: New concrete replaced poor condition area prior to 2021. (A) 2022-0027 : PS-81: Minor cracking of walkway. (M)
		M	There are minor structural defects, minimal foundation settlement, leaks, or other conditions noted that need repair. Defects do not threaten the structural integrity or stability of the building, and will not impact pumping operations.	2022-0030 : PS-81: Minor cracking on sidewalk. (M) 2022-0033 : PS-81: Cracking near stairwell (M) 2022-0036 : PS-81: Cracking near guardrail. (M)
		U	The structural integrity or stability of the building is threatened, or there is damage to the building that threatens safety of the operator or impacts pumping operations.	2022-0045 : PS-81: Bird nest in ventilation louvers. (M) 2022-0054 : PS-N5: Erosion undercutting sidewalk. Recommend repair before sidewalk is damaged (M) 2022-0072 : PS-N5: Rust and water leakage on ceiling. (M) 2022-0075 : PS-N5: Active water leak in roof. (M) 2022-0090 : PS-ND: Weather seal and expansion joint missing on south side. 4 inch crack on top. Install survey points to monitor abutment movement. (M) 2022-0096 : PS-ND: Minor cracking on south wingwall. (M) 2022-0099 : PS-ND: Large thin crack through North wing wall. (M) Recommendation: Monitor concrete cracks and repair if deterioration occurs. Remove animal vests from ventilation areas. For areas where soil is undercutting sidewalk, fill with gravel to prevent further damage. Repair roofs with active water leaks. Monitor abutment rotation in PS-ND and consider adding survey monuments to better track movement.

Pump Stations: Highland

For use during Initial and Continuing Eligibility Inspections of pump stations

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
6. Fencing and Gates	A	A	Fencing is in good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts.	2022-0006 : PS-81: Outer fence in good condition, minor bending in spots. (A)
		M	Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.	
		U	Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured.	
		N/A	There are no features noted that require safety fencing.	
7. Pumps	M	A	All pumps are properly maintained and lubricated. Systems are periodically tested and documented for review. No vibration, cavitation noises or unusual sounds are noted when the pump is operated. Bearing temperature sensor records don't indicate any problems.	2022-0024 : PS-81: Hydraulic fluid leak from pump DWP-2 has been resolved. (A) 2022-0057 : PS-N5: Rust and peeling on machinery base of pumps SWP-6 and SWP-7. Recommend scaling and painting. (M) 2022-0063 : PS-N5: Missing bolts on top of pump SWP-4, with some evidence of leakage on at those points . Picture of SWP-5 for comparison (M) 2022-0069 : PS-N5: Pump DWP-1 out of service, staff reported evidence of cavitation on impeller. Pump is out for repairs and will be rebuilt. (M) 2022-0087 : PS-N5: Seal water system pump currently out of service and out for repairs. (M) Recommendation: Scale and repaint SWP 6-7 in PS-N5. Replace Missing bolts on top of pump SWP-4 in PS-N5.
		M	Minor deficiencies noted that need to be closely monitored or repaired, such as the presence of slight vibrations, leakage of packing gland, bearing temperature sensors are inoperable or no record is present. However, the pumps are operational and are expected to perform through the next period of usage.	
		U	Major deficiencies identified that may significantly reduce pumping operations. For example, bearing sensor records indicate problems, excessive vibration noted, impellers are badly corroded, or there are eroded or missing blades.	
8. Motors, Engines, Fans, Gear Reducers, Back Stop Devices, etc.	M	A	All items are operational. Preventative maintenance and lubrication is being performed and the system is periodically subjected to performance testing. Instrumentation, alarms, bearing sensors and auto shutdowns are operational.	2022-0015 : PS-81: Birds nesting in exhaust fan cowlings. Inspect and remove if necessary. (M) 2022-0078 : PS-N5: EF3 exhaust fan is inoperable, local sponsor is aware and planning for replacement. (M) Recommendation: Remove animal nests from exhaust cowlings. Replace exhaust fan EF3 in PS-N5
		M	Systems have minor deficiencies, but are operational and will function adequately through the next flood. Bearing sensors are not operational.	
		U	One or more of the primary motors or systems is not operational, or noted deficiencies have not been corrected.	

Pump Stations: Highland
For use during Initial and Continuing Eligibility Inspections of pump stations

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
9. Sumps / Wet well	A	A	Clear of debris, sediment, or other obstructions. Procedures are in place to remove debris accumulation during operation.	Justification: No Issues Observed
		M	Debris, sediment, or other obstructions may be present and must be removed, but the sump/ wet well will function as intended during the next flood. Procedures are in place to remove debris accumulation during operation.	
		U	Large debris or excessive silt present which will hinder or damage pumps during operation, or no procedures established to remove debris accumulation during operation.	
10. Mechanical Operating Trash Rakes	A	A	Drive chain, bearing, gear reducers, and other components are in good operating condition and are being properly maintained.	Justification: No Issues Observed
		M	The trash rake is in need of maintenance, but is still operational.	
		U	Trash rake not operational or deficiencies will inhibit operations during the next flood event.	
		N/A	There are no mechanical trash rakes.	
11. Non-Mechanical Trash Racks	A	A	Trash racks are fastened in place and properly maintained.	Justification: No Issues Observed
		M	Trash racks are in place but are unfastened or have bent bars that allow debris to enter into the pipe or pump station, bars are corroded to the point that up to 10% of the sectional area may be lost. Repair or replacement is required.	
		U	Trash racks are missing or damaged to the extent that they are no longer functional and must be replaced. (For example, more than 10% of the sectional area may be lost.)	
		N/A	There are no trash racks, or they are covered in the pump stations section of the report.	
12. Fuel System for Pump Engines	A	A	Fuel system is operational, day tank present and operational, fuel fresh and rotated regularly.	Justification: No Issues Observed
		M	Fuel system is operational and of adequate capacity, but day tank is missing or fuel is not fresh and rotated regularly.	
		U	Fuel system not functional.	
		N/A	No fuel system.	

Pump Stations: Highland
For use during Initial and Continuing Eligibility Inspections of pump stations

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
13. Power Source	A	A	The normal power source and backup generators, if installed, are operational, properly exercised and well maintained. Surge protection, grounding, lightning protection, transformers, and automatic/manual transfer of main power to backup system is working.	Justification: No Issues Observed
		M	Normal power source and backup units, if applicable, are operational with minor discrepancies or maintenance, inspection and exercising record is present but not up to date. Preventative maintenance or repairs are required.	
		U	Normal power source or generators are not operational and must be repaired; or generator, if required, is not on site.	
14. Electrical Systems	M	A	Operational and maintained free of damage, corrosion, and debris. Preventative maintenance and system testing is being performed periodically.	2022-0039 : PS-81: Contactor fixed for pump. (A) 2022-0042 : PS-81: Arc flash warnings needed. (M) 2022-0081 : PS-N5: Arc flash labels missing on switchboard. (M) 2022-0084 : PS-N5: Arc flash labels missing on all 3 MCCs. (M) 2022-0102 : PS-ND: New electrical safety disconnect switch installed in early 2022. (A) 2022-0105 : PS-ND: Electrical arc flash labels need updating. Install new arc flash labels. (M) Recommendation: Install new arcflash labels where needed.
		M	Operational with minor discrepancies. Preventative maintenance or repairs are required, but the components are expected to function adequately during the next flood event.	
		U	Components of the electrical system will not function adequately during the next flood event and must be replaced.	
15. Megger Testing on Pump Motors and Critical Power Cables	A	A	Results of megger tests on pump motors or critical power cables show that the insulation meets manufacturer's or industry standards. Tested within the last year.	Justification: No Issues Observed.
		M	Megger testing not conducted within the past year. If megger tests on pump motors indicate that insulation resistance is below the manufacturer's or industry standard, but the resistance can be corrected with proper application of heat, this is minimally acceptable. (The application of heat does not relate to critical power cables.)	
		U	Megger tests not conducted within past two years, or tests indicate that insulation resistance is low enough that the equipment will not be able to meet design standards of operation; or evidence of arcing or shorting is detected visually.	

Pump Stations: Highland
For use during Initial and Continuing Eligibility Inspections of pump stations

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
16. Enclosures, Panels, Conduit and Ducts	A	A	All enclosures, panels, conduits, and ducts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern.	Justification: No Issues Observed.
		M	Minor surface corrosion which appears to be maintainable. Cleaning and painting required.	
		U	Severely corroded and must be replaced to prevent failure, equipment damage, or safety issues.	
17. Intake and Discharge Pipelines	A	A	Intake and discharge pipelines have no corrosion and paint is intact, except for minor touch up required. Pipe couplings and anchors have no leakage or corrosion.	Justification: No Issues Observed
		M	Intake and discharge pipelines have minor corrosion and repair and painting is required. Pipe coupling with anchors have minor leakage, corrosion and require bolts to be tightened.	
		U	Intake and discharge pipelines have major corrosion and replacement is required. Pipe coupling with anchors have major leakage and is heavily corroded and requires replacement.	
18. Sluice/ Slide Gates	A	A	Gates open and close freely to a tight seal or minor leakage. Gate operators are in good working condition and are properly maintained. Sill is free of sediment and other obstructions. Gates and lifters have been maintained and are free of corrosion. Documentation provided during the inspection.	Justification: No Issues Observed
		M	Gates and/or operators have been damaged or have minor corrosion, and open and close with resistance or binding. Leakage quantity is controllable, but maintenance is required. Sill is free of sediment and other obstructions.	
		U	Gates do not open or close and/or operators do not function. Gate, stem, lifter and/or guides may be damaged or have major corrosion.	
		N/A	There are no sluice/ slide gates.	


Pump Stations: Highland
For use during Initial and Continuing Eligibility Inspections of pump stations

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
19. Flap Gates/ Flap Valves/ Pinch Valves	M	A	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required.	2022-0051 : PS-81: Flap gate slightly ajar, and unlikely to seal in a flood. (M) Recommendation: Inspect cause of flap gate misalignment. Repair as necessary.
		M	Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance.	
		U	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	
		N/A	There are no gates on discharge lines from pump station.	
20. Cranes	NA	A	Cranes operational and have been inspected and load tested in accordance with applicable standards within the last year. Documentation is on hand.	
		M	Cranes have not been inspected or operationally tested within the past year, or there are visible signs of corrosion, oil leakage, etc, requiring maintenance.	
		U	Cranes are not operational, and this may prevent the pump station from functioning as required. No documentation available on cranes.	
		N/A	There are no cranes.	
21. Other Metallic Items (Equipment, Ladders, Platform Anchors, etc)	A	A	All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern.	Justification: No Issues Observed
		M	Corrosion seen on metallic parts appears to be maintainable.	
		U	Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.	
		N/A	There are no other significant metallic items.	

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

Photos: Highland

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

	<p>Inspect ID: 2022-0062 Title: 2604000007_CELRC_2022_A_0062_1_20220414T162451.jpg Rated Item: 2. Emergency Supplies and Equipment (A or M only) Caption: Minimally Acceptable - Highland Public Works has 14 to 16 palates of sandbags, approximately ten 1000pcs sandbags, and 1 sand bagger machine.</p>
	<p>Inspect ID: 2022-0062 Title: 2604000007_CELRC_2022_A_0062_2_20220414T162509.jpg Rated Item: 2. Emergency Supplies and Equipment (A or M only) Caption: Minimally Acceptable - Highland Public Works has 14 to 16 palates of sandbags, approximately ten 1000pcs sandbags, and 1 sand bagger machine.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0062 Title: 2604000007_CELRC_2022_A_0062_3_20220414T162721.jpg Rated Item: 2. Emergency Supplies and Equipment (A or M only) Caption: Minimally Acceptable - Highland Public Works has 14 to 16 palates of sandbags, approximately ten 1000pcs sandbags, and 1 sand bagger machine.</p>
	<p>Inspect ID: 2022-0028 Title: 2604000007_CELRC_2022_A_0028_1_20220414T133308.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small tree on landside toe.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0031 Title: 2604000007_CELRC_2022_A_0031_1_20220414T133359.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small tree on landside toe.</p>
	<p>Inspect ID: 2022-0034 Title: 2604000007_CELRC_2022_A_0034_1_20220414T133506.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on landside.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0040 Title: 2604000007_CELRC_2022_A_0040_1_20220414T133752.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small brush on landside toe along fence.</p>
	<p>Inspect ID: 2022-0043 Title: 2604000007_CELRC_2022_A_0043_1_20220414T134115.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Trees and brush within 12 ft of riverside toe.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0046 Title: 2604000007_CELRC_2022_A_0046_1_20220414T134231.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - 2 trees about 10 ft from landside toe.</p>
	<p>Inspect ID: 2022-0049 Title: 2604000007_CELRC_2022_A_0049_1_20220414T134344.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree about 10 ft from landside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0055 Title: 2604000007_CELRC_2022_A_0055_1_20220414T134631.jpg</p> <p>Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree within 5 from landside toe.</p>
	<p>Inspect ID: 2022-0082 Title: 2604000007_CELRC_2022_A_0082_1_20220414T140143.jpg</p> <p>Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - 2 trees within 10 ft on landside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0085 Title: 2604000007_CELRC_2022_A_0085_1_20220414T140435.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Vegetation growing in crack in asphalt</p>
	<p>Inspect ID: 2022-0088 Title: 2604000007_CELRC_2022_A_0088_1_20220414T140857.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on landside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0103 Title: 2604000007_CELRC_2022_A_0103_1_20220414T142112.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Trees on the landside toe.</p>
	<p>Inspect ID: 2022-0193 Title: 2604000007_CELRC_2022_A_0193_1_20220414T153957.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree on landside.</p>


Photos: Highland

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	<p>Inspect ID: 2022-0196 Title: 2604000007_CELRC_2022_A_0196_1_20220414T154055.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees and brush on riverside toe.</p>
	<p>Inspect ID: 2022-0220 Title: 2604000007_CELRC_2022_A_0220_1_20220414T160454.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on riverside slope.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0235 Title: 2604000007_CELRC_2022_A_0235_1_20220414T162008.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees along riverside toe.</p>
	<p>Inspect ID: 2022-0253 Title: 2604000007_CELRC_2022_A_0253_1_20220414T164941.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree near riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0298 Title: 2604000007_CELRC_2022_A_0298_1_20220414T171325.jpg</p> <p>Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree on riverside slope.</p>
	<p>Inspect ID: 2022-0325 Title: 2604000007_CELRC_2022_A_0325_1_20220414T173745.jpg</p> <p>Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Trees near riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0364 Title: 2604000007_CELRC_2022_A_0364_1_20220414T180237.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree on riverside toe.</p>
	<p>Inspect ID: 2022-0061 Title: 2604000007_CELRC_2022_A_0061_1_20220414T134951.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Poor sod cover from ruts on riverside crest and slope.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0097 Title: 2604000007_CELRC_2022_A_0097_1_20220414T141355.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Poor sod cover on the crest.</p>
	<p>Inspect ID: 2022-0283 Title: 2604000007_CELRC_2022_A_0283_1_20220414T170817.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Minimal surface cover along lower half of riverside slope.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0301 Title: 2604000007_CELRC_2022_A_0301_1_20220414T171421.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Little sod cover on lower half of riverside slope.</p>
	<p>Inspect ID: 2022-0307 Title: 2604000007_CELRC_2022_A_2022-0307_2_20220414T172205.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Frequent rutting caused loss of soil cover.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0340 Title: 2604000007_CELRC_2022_A_0340_1_20220414T174623.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Sod cover needed on riverside slope.</p>
	<p>Inspect ID: 2022-0370 Title: 2604000007_CELRC_2022_A_0370_1_20220414T180430.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Rutting caused loss of soil cover.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0058 Title: 2604000007_CELRC_2022_A_0058_1_20220414T134810.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Debris on landside toe.</p>
	<p>Inspect ID: 2022-0064 Title: 2604000007_CELRC_2022_A_0064_1_20220414T135036.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Logs on riverside slope.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0109 Title: 2604000007_CELRC_2022_A_0109_1_20220414T142727.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Tree branch on river side slope.</p>
	<p>Inspect ID: 2022-0112 Title: 2604000007_CELRC_2022_A_0112_1_20220414T142924.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Branch of tree at toe of slope.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0127 Title: 2604000007_CELRC_2022_A_0127_1_20220414T144335.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Lots of tree debris near riverside toe.</p>
	<p>Inspect ID: 2022-0130 Title: 2604000007_CELRC_2022_A_0130_1_20220414T144540.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Dumping of debris and yard waste on waterside slope.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0133 Title: 2604000007_CELRC_2022_A_0133_1_20220414T145407.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Tree logs at riverside toe.</p>
	<p>Inspect ID: 2022-0136 Title: 2604000007_CELRC_2022_A_0136_1_20220414T145538.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Logs and downed branches on landside slope.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0199 Title: 2604000007_CELRC_2022_A_0199_1_20220414T154224.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Line of garbage on riverside toe.</p>
	<p>Inspect ID: 2022-0229 Title: 2604000007_CELRC_2022_A_0229_1_20220414T161243.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Debris along riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0304 Title: 2604000007_CELRC_2022_A_0304_1_20220414T171552.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Debris of cut down branches and trees.</p>
	<p>Inspect ID: 2022-0328 Title: 2604000007_CELRC_2022_A_0328_1_20220414T173925.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Debris and fallen tree logs along length of embankment on riverside.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0367 Title: 2604000007_CELRC_2022_A_0367_1_20220414T180341.jpg Rated Item: 3. Encroachments Caption: Minimally Acceptable - Bollard collapsed.</p>
	<p>Inspect ID: 2022-0073 Title: 2604000007_CELRC_2022_A_0073_2_20220414T135742.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Erosion on riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0076 Title: 2604000007_CELRC_2022_A_0076_1_20220414T135918.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Erosion on riverside toe.</p>
	<p>Inspect ID: 2022-0079 Title: 2604000007_CELRC_2022_A_0079_1_20220414T140019.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Erosion on riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0226 Title: 2604000007_CELRC_2022_A_0226_1_20220414T161143.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Erosion near North Drive Pump Station sluice gate.</p>
	<p>Inspect ID: 2022-0268 Title: 2604000007_CELRC_2022_A_0268_1_20220414T170013.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Large sloughing of embankment near riverside toe.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0271 Title: 2604000007_CELRC_2022_A_0271_1_20220414T170112.jpg</p> <p>Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Medium sloughing near riverside toe.</p>
	<p>Inspect ID: 2022-0286 Title: 2604000007_CELRC_2022_A_0286_1_20220414T170943.jpg</p> <p>Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Sinkhole on riverside toe.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0289 Title: 2604000007_CELRC_2022_A_0289_1_20220414T171037.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Medium area of bank caving near riverside toe.</p>
	<p>Inspect ID: 2022-0292 Title: 2604000007_CELRC_2022_A_0292_1_20220414T171150.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Large area of bank caving near riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0295 Title: 2604000007_CELRC_2022_A_0295_1_20220414T171222.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Large area of bank caving near riverside toe.</p>
	<p>Inspect ID: 2022-0313 Title: 2604000007_CELRC_2022_A_0313_1_20220414T172921.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Small erosion point on riverside slope.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0322 Title: 2604000007_CELRC_2022_A_0322_1_20220414T173523.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Riverside slope caving due to animal burrow.</p>
	<p>Inspect ID: 2022-0331 Title: 2604000007_CELRC_2022_A_0331_1_20220414T174026.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Bank caving in on riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0025 Title: 2604000007_CELRC_2022_A_0025_1_20220414T133056.jpg Rated Item: 7. Settlement Caption: Acceptable - Levee lower than floodwall from 408 permit</p>
	<p>Inspect ID: 2022-0202 Title: 2604000007_CELRC_2022_A_0202_1_20220414T154653.jpg Rated Item: 7. Settlement Caption: Minimally Acceptable - 5 inches of settlement at levee tie in.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0256 Title: 2604000007_CELRC_2022_A_0256_1_20220414T165106.jpg Rated Item: 7. Settlement Caption: Acceptable - Dip in crest between construction contracts.</p>
	<p>Inspect ID: 2022-0048 Title: 2604000007_CELRC_2022_A_0048_1_20220414T134408.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Large rut near 81st St. Pump Station outlet.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0052 Title: 2604000007_CELRC_2022_A_0052_1_20220414T134450.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Rutting on riverside slope.</p>
	<p>Inspect ID: 2022-0100 Title: 2604000007_CELRC_2022_A_0100_1_20220414T141911.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Low spot on crest.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0106 Title: 2604000007_CELRC_2022_A_0106_1_20220414T142332.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Ruts on riverside side slope.</p>
	<p>Inspect ID: 2022-0115 Title: 2604000007_CELRC_2022_A_0115_1_20220414T143153.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Gully forming from animal activity on river side slope.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0247 Title: 2604000007_CELRC_2022_A_0247_1_20220414T163618.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Massive rutting on riverside slope.</p>
	<p>Inspect ID: 2022-0250 Title: 2604000007_CELRC_2022_A_0250_1_20220414T163906.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Large ruts on riverside slope.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0259 Title: 2604000007_CELRC_2022_A_0259_1_20220414T165455.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Large ruts on riverside slope.</p>
	<p>Inspect ID: 2022-0262 Title: 2604000007_CELRC_2022_A_0262_1_20220414T165527.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Ruts on riverside toe near roadway.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0274 Title: 2604000007_CELRC_2022_A_0274_1_20220414T170248.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Rutting could lead to sloughing as soil loosens.</p>
	<p>Inspect ID: 2022-0310 Title: 2604000007_CELRC_2022_A_0310_1_20220414T172519.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Deep ruts on riverside slope.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0316 Title: 2604000007_CELRC_2022_A_0316_1_20220414T173136.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Ongoing rutting on riverside slope.</p>
	<p>Inspect ID: 2022-0316 Title: 2604000007_CELRC_2022_A_0316_2_20220414T173158.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Ongoing rutting on riverside slope.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0319 Title: 2604000007_CELRC_2022_A_0319_1_20220414T173328.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Rutting on riverside slope.</p>
	<p>Inspect ID: 2022-0334 Title: 2604000007_CELRC_2022_A_0334_1_20220414T174306.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Animal track 3 inches deep.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0337 Title: 2604000007_CELRC_2022_A_0337_1_20220414T174453.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Rutting on riverside slope.</p>
	<p>Inspect ID: 2022-0358 Title: 2604000007_CELRC_2022_A_0358_1_20220414T175830.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Rutting near riverside toe.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0091 Title: 2604000007_CELRC_2022_A_0091_1_20220414T140940.jpg</p> <p>Rated Item: 9. Cracking Caption: Minimally Acceptable - Cracking on crest.</p>
	<p>Inspect ID: 2022-0265 Title: 2604000007_CELRC_2022_A_0265_1_20220414T165906.jpg</p> <p>Rated Item: 10. Animal Control Caption: Minimally Acceptable - Animal hole 6 inches deep.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0277 Title: 2604000007_CELRC_2022_A_0277_1_20220414T170416.jpg Rated Item: 10. Animal Control Caption: Minimally Acceptable - Animal burrow has led to sloughing of the riverside toe.</p>
	<p>Inspect ID: 2022-0280 Title: 2604000007_CELRC_2022_A_0280_1_20220414T170542.jpg Rated Item: 10. Animal Control Caption: Minimally Acceptable - Small animal hole 4 inches deep in crown.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0361 Title: 2604000007_CELRC_2022_A_0361_1_20220414T180107.jpg Rated Item: 10. Animal Control Caption: Minimally Acceptable - 6 inch rodent hole in riverside toe.</p>
	<p>Inspect ID: 2022-0223 Title: 2604000007_CELRC_2022_A_0223_1_20220414T160632.jpg Rated Item: 12. Riprap Revetments & Bank Protection Caption: Minimally Acceptable - Debris in riprap.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0037 Title: 2604000007_CELRC_2022_A_0037_1_20220414T133558.jpg Rated Item: 15. Seepage Caption: Minimally Acceptable - Area of previous minor seepage on landside toe. No seepage observed.</p>
	<p>Inspect ID: 2022-0004 Title: 2604000007_CELRC_2022_A_0004_2_20220414T131939.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on riverside of floodwall.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0013 Title: 2604000007_CELRC_2022_A_0013_1_20220414T132302.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small vines on riverside of floodwall.</p>
	<p>Inspect ID: 2022-0145 Title: 2604000007_CELRC_2022_A_0145_1_20220414T150118.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on landside of floodwall.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0154 Title: 2604000007_CELRC_2022_A_0154_1_20220414T150359.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on landside of floodwall.</p>
	<p>Inspect ID: 2022-0157 Title: 2604000007_CELRC_2022_A_0157_1_20220414T150509.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on riverside of floodwall.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0163 Title: 2604000007_CELRC_2022_A_0163_1_20220414T151142.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Brush on riverside of floodwall.</p>
	<p>Inspect ID: 2022-0172 Title: 2604000007_CELRC_2022_A_0172_1_20220414T152524.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small tree on landside of floodwall.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0178 Title: 2604000007_CELRC_2022_A_0178_1_20220414T152804.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small tree on landside of floodwall.</p>
	<p>Inspect ID: 2022-0181 Title: 2604000007_CELRC_2022_A_0181_1_20220414T152844.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small tree on landside of floodwall.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0205 Title: 2604000007_CELRC_2022_A_0205_1_20220414T154745.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on riverside of floodwall.</p>
	<p>Inspect ID: 2022-0208 Title: 2604000007_CELRC_2022_A_0208_1_20220414T154836.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on riverside of floodwall.</p>


Photos: Highland

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	<p>Inspect ID: 2022-0244 Title: 2604000007_CELRC_2022_A_0244_1_20220414T163355.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree along entire segment of riverside floodwall.</p>
	<p>Inspect ID: 2022-0346 Title: 2604000007_CELRC_2022_A_0346_1_20220414T175053.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tree on riverside of floodwall.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0352 Title: 2604000007_CELRC_2022_A_0352_1_20220414T175308.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Vegetation on landside of floodwall.</p>
	<p>Inspect ID: 2022-0355 Title: 2604000007_CELRC_2022_A_0355_1_20220414T175720.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Brush at landside toe of floodwall area.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0139 Title: 2604000007_CELRC_2022_A_0139_1_20220414T145917.jpg Rated Item: 2. Encroachments Caption: Minimally Acceptable - Graffiti on riverside of floodwall.</p>
	<p>Inspect ID: 2022-0190 Title: 2604000007_CELRC_2022_A_0190_1_20220414T153657.jpg Rated Item: 2. Encroachments Caption: Minimally Acceptable - Stop sign on landside</p>

Photos: Highland

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	<p>Inspect ID: 2022-0241 Title: 2604000007_CELRC_2022_A_0241_1_20220414T162954.jpg</p> <p>Rated Item: 2. Encroachments Caption: Minimally Acceptable - Fence and debris on berm.</p>
	<p>Inspect ID: 2022-0142 Title: 2604000007_CELRC_2022_A_0142_1_20220414T150031.jpg</p> <p>Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Graffiti on slide gate.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0148 Title: 2604000007_CELRC_2022_A_0148_1_20220414T150225.jpg Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Crack in concrete sill.</p>
	<p>Inspect ID: 2022-0151 Title: 2604000007_CELRC_2022_A_0151_1_20220414T150311.jpg Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Missing rubber seal on far end.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0187 Title: 2604000007_CELRC_2022_A_0187_1_20220414T153510.jpg Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Grass growing over sill.</p>
	<p>Inspect ID: 2022-0169 Title: 2604000007_CELRC_2022_A_0169_1_20220414T151840.jpg Rated Item: 4. Concrete Surfaces Caption: Acceptable - Recent patch might have a void above height of protection.</p>

Photos: Highland

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 A person wearing a yellow safety vest and dark pants is pointing their right hand towards a concrete structure. The structure appears to be a wall or a large pipe, with a rough, textured surface. The background shows some grass and a fence.	<p>Inspect ID: 2022-0175 Title: 2604000007_CELRC_2022_A_0175_1_20220414T152559.jpg Rated Item: 4. Concrete Surfaces Caption: Minimally Acceptable - Void from crack down on landside . Cut out and repatch.</p>
 A close-up photograph of a concrete wall. The wall is made of large, reddish-brown concrete blocks. There is a visible hole or indentation in the wall, which is the subject of the inspection.	<p>Inspect ID: 2022-0211 Title: 2604000007_CELRC_2022_A_0211_1_20220414T155109.jpg Rated Item: 4. Concrete Surfaces Caption: Minimally Acceptable - Hole in sheetpile</p>

Photos: Highland

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Inspect ID: 2022-0217 **Title:**
2604000007_CELRC_2022_A_0217_1_20220414T160232.jpg
Rated Item: 4. Concrete Surfaces **Caption:** Minimally
Acceptable - Missing bolt on sheetpile under cap.



Inspect ID: 2022-0184 **Title:**
2604000007_CELRC_2022_A_0184_1_20220414T153135.jpg
Rated Item: 6. Foundation of Concrete Structures **Caption:**
Minimally Acceptable - 6 inch depression next to landside
wall.

Photos: Highland

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	<p>Inspect ID: 2022-0160 Title: 2604000007_CELRC_2022_A_0160_1_20220414T150816.jpg Rated Item: 7. Monolith Joints Caption: Minimally Acceptable - Spalling with grout on riverside.</p>
	<p>Inspect ID: 2022-0166 Title: 2604000007_CELRC_2022_A_0166_1_20220414T151555.jpg Rated Item: 7. Monolith Joints Caption: Minimally Acceptable - Cracking in sealant, no waterstop visible.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0238 Title: 2604000007_CELRC_2022_A_0238_1_20220414T162232.jpg Rated Item: 7. Monolith Joints Caption: Minimally Acceptable - Cap is offset 1 inch and waterstop is degraded. 4 inch down until waterstop encountered.</p>
	<p>Inspect ID: 2022-0343 Title: 2604000007_CELRC_2022_A_0343_1_20220414T174844.jpg Rated Item: 7. Monolith Joints Caption: Minimally Acceptable - Material inside is deteriorating sealant is needed. waterstop is exposed.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0349 Title: 2604000007_CELRC_2022_A_0349_1_20220414T175204.jpg Rated Item: 7. Monolith Joints Caption: Minimally Acceptable - Expansion joint material is failing.</p>
	<p>Inspect ID: 2022-0010 Title: 2604000007_CELRC_2022_A_0010_1_20220414T132203.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-1: Sediment and veg in outlet blocking gate.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0011 Title: 2604000007_CELRC_2022_A_0011_1_20220414T132021.jpg Rated Item: 1. Vegetation and Obstructions Caption: Acceptable - HI-4: No issues observed.</p>
	<p>Inspect ID: 2022-0019 Title: 2604000007_CELRC_2022_A_0019_1_20220414T132903.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-1: Silting in outlet.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0020 Title: 2604000007_CELRC_2022_A_0020_1_20220414T134947.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-5: Inlet has overgrown vegetation.</p>
	<p>Inspect ID: 2022-0032 Title: 2604000007_CELRC_2022_A_0032_1_20220414T151350.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-9: Inlet. Vegetation is overgrown.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0038 Title: 2604000007_CELRC_2022_A_0038_1_20220414T152312.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-10: Outlet overgrown.</p>
	<p>Inspect ID: 2022-0047 Title: 2604000007_CELRC_2022_A_0047_1_20220414T153055.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-10: Inlet. Lots of vegetation and overgrowth.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0053 Title: 2604000007_CELRC_2022_A_0053_1_20220414T160220.jpg Rated Item: 1. Vegetation and Obstructions Caption: Acceptable - HI-11: Inlet in okay condition. Some vegetation is encroaching.</p>
	<p>Inspect ID: 2022-0056 Title: 2604000007_CELRC_2022_A_0056_1_20220414T160414.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-11: Outlet has vegetation growing.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0070 Title: 2604000007_CELRC_2022_A_0070_1_20220414T135616.jpg</p> <p>Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - Tall vegetation in ditch.</p>
	<p>Inspect ID: 2022-0121 Title: 2604000007_CELRC_2022_A_0121_1_20220414T143718.jpg</p> <p>Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - HI-6: Vegetation in outlet area.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0022 Title: 2604000007_CELRC_2022_A_0022_1_20220414T132946.jpg</p> <p>Rated Item: 2. Encroachments Caption: Minimally Acceptable - HI-1: Tree next to outlet.</p>
	<p>Inspect ID: 2022-0118 Title: 2604000007_CELRC_2022_A_0118_1_20220414T143512.jpg</p> <p>Rated Item: 2. Encroachments Caption: Minimally Acceptable - HI-6: Tree logs and debris around the outlet structure.</p>

Photos: Highland

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Inspect ID: 2022-0008 **Title:**

2604000007_CELRC_2022_A_2022-0008_3_20220414T133514.jpg

Rated Item: 4. Fencing and Gates **Caption:** Minimally Acceptable - HI-4: Fence and gate missing mid are and bottom bar on north side of fence. East side of fence not connected. Bolts not secured on bottom north east side of concrete.



Inspect ID: 2022-0008 **Title:**

2604000007_CELRC_2022_A_2022-0008_5_20220414T133554.jpg

Rated Item: 4. Fencing and Gates **Caption:** Minimally Acceptable - HI-4: Fence and gate missing mid are and bottom bar on north side of fence. East side of fence not connected. Bolts not secured on bottom north east side of concrete.

Photos: Highland

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	<p>Inspect ID: 2022-0023 Title: 2604000007_CELRC_2022_A_0023_2_20220414T145519.jpg Rated Item: 4. Fencing and Gates Caption: Acceptable - HI-7: Graffiti on concrete nearest path. Fence and gate look in good condition.</p>
	<p>Inspect ID: 2022-0029 Title: 2604000007_CELRC_2022_A_0029_2_20220414T151130.jpg Rated Item: 4. Fencing and Gates Caption: Minimally Acceptable - HI-9: Gate and fence hard to open.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0044 Title: 2604000007_CELRC_2022_A_0044_1_20220414T152851.jpg Rated Item: 4. Fencing and Gates Caption: Acceptable - HI-10: Fence and gate look okay. Minimal vegetation growth.</p>
	<p>Inspect ID: 2022-0050 Title: 2604000007_CELRC_2022_A_0050_1_20220414T160100.jpg Rated Item: 4. Fencing and Gates Caption: Acceptable - HI-11: Fence and gate in good condition</p>

Photos: Highland

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	<p>Inspect ID: 2022-0214 Title: 2604000007_CELRC_2022_A_0214_1_20220414T155201.jpg Rated Item: 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts) Caption: Minimally Acceptable - HI-7: Piece of concrete missing from grate area.</p>
	<p>Inspect ID: 2022-0094 Title: 2604000007_CELRC_2022_A_0094_1_20220414T141236.jpg Rated Item: 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.) Caption: Minimally Acceptable - HI-4: Hole behind west gabion wall.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0124 Title: 2604000007_CELRC_2022_A_0124_1_20220414T144014.jpg Rated Item: 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.) Caption: Minimally Acceptable - HI-6: Settlement around the headwall.</p>
	<p>Inspect ID: 2022-0232 Title: 2604000007_CELRC_2022_A_0232_1_20220414T161618.jpg Rated Item: 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.) Caption: Minimally Acceptable - HI-8: Erosion around wingwalls.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0232 Title: 2604000007_CELRC_2022_A_0232_2_20220414T161651.jpg Rated Item: 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.) Caption: Minimally Acceptable - HI-8: Erosion around wingwalls.</p>
	<p>Inspect ID: 2022-0014 Title: 2604000007_CELRC_2022_A_0014_1_20220414T132111.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - HI-4: Sight glass missing. Gate is in good condition. Gate was open when we arrived, it closed fully while we were onsite. Left Gate open.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0017 Title: 2604000007_CELRC_2022_A_0017_6_20220510T164731.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - HI-5: Gate closure was not able to be tested during routine inspection. On April 21, 2022, local sponsor repaired riser and was able to close gate.</p>
	<p>Inspect ID: 2022-0035 Title: 2604000007_CELRC_2022_A_0035_1_20220414T151537.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - HI-9: Rubber cap at top of sight glass is missing. Gate looks good.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0041 Title: 2604000007_CELRC_2022_A_0041_3_20220414T152559.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Minimally Acceptable - HI-10: outlet gate C stuck open. Wildlife appears to be burrowing in gates. Sluice gates all look clean and in proper condition.</p>
	<p>Inspect ID: 2022-0007 Title: 2604000007_CELRC_2022_A_0007_1_20220414T132002.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - HI-1: Debris on the check valve.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0016 Title: 2604000007_CELRC_2022_A_0016_1_20220414T132733.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - HI-2: flap gate buried and water is draining so gate must be open.</p>
	<p>Inspect ID: 2022-0018 Title: 2604000007_CELRC_2022_A_0018_1_20220414T132911.jpg Rated Item: 2. Pump Station Operations and Maintenance Equipment Manuals Caption: Acceptable - PS-81: Operations manuals present on-site.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0060 Title: 2604000007_CELRC_2022_A_0060_1_20220414T140333.jpg Rated Item: 2. Pump Station Operations and Maintenance Equipment Manuals Caption: Acceptable - PS-N5: Operations manuals present on-site.</p>
	<p>Inspect ID: 2022-0093 Title: 2604000007_CELRC_2022_A_0093_1_20220414T144318.jpg Rated Item: 2. Pump Station Operations and Maintenance Equipment Manuals Caption: Acceptable - PS-ND: Operations manuals present on-site.</p>

Photos: Highland

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Inspect ID: 2022-0021 **Title:**
2604000007_CELRC_2022_A_0021_1_20220414T133046.jpg
Rated Item: 3. Safety Compliance **Caption:** Acceptable - PS-81: Confined space labels added.



Inspect ID: 2022-0066 **Title:**
2604000007_CELRC_2022_A_0066_1_20220414T140637.jpg
Rated Item: 3. Safety Compliance **Caption:** Acceptable - PS-N5: Confined space labels added throughout building.



Photos: Highland

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	<p>Inspect ID: 2022-0012 Title: 2604000007_CELRC_2022_A_0012_1_20220414T132517.jpg Rated Item: 5. Plant Building Caption: Acceptable - PS-81: New concrete replaced poor condition area prior to 2021</p>
	<p>Inspect ID: 2022-0027 Title: 2604000007_CELRC_2022_A_0027_1_20220414T133611.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-81: Minor cracking of walkway.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0030 Title: 2604000007_CELRC_2022_A_0030_1_20220414T133732.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-81: Minor cracking on sidewalk.</p>
	<p>Inspect ID: 2022-0033 Title: 2604000007_CELRC_2022_A_0033_1_20220414T133814.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-81: Cracking near stairwell</p>

Photos: Highland

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 A photograph showing a concrete surface with a prominent crack running diagonally. A yellow guardrail is visible in the upper right, and a black pipe or hose lies on the ground near the crack.	<p>Inspect ID: 2022-0036 Title: 2604000007_CELRC_2022_A_0036_1_20220414T133851.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-81: Cracking near guardrail.</p>
 A photograph of a rectangular ventilation louver on a light-colored wall. A dark, cup-shaped bird's nest is visible inside the louver.	<p>Inspect ID: 2022-0045 Title: 2604000007_CELRC_2022_A_0045_1_20220414T134220.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-81: Bird nest in ventilation louvers. Monitor for building and remove if necessary.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0054 Title: 2604000007_CELRC_2022_A_0054_1_20220414T135654.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-N5: Erosion undercutting sidewalk. Recommend repair before sidewalk is damaged</p>
	<p>Inspect ID: 2022-0072 Title: 2604000007_CELRC_2022_A_0072_1_20220414T141114.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-N5: Rust and water leakage on ceiling.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0075 Title: 2604000007_CELRC_2022_A_0075_1_20220414T141159.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-N5: Active water leak in roof.</p>
	<p>Inspect ID: 2022-0090 Title: 2604000007_CELRC_2022_A_0090_1_20220414T143719.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: Weather seal and expansion joint missing on south side. 4 inch crack on top. Install survey points to monitor abutment movement.</p>


Photos: Highland

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	<p>Inspect ID: 2022-0090 Title: 2604000007_CELRC_2022_A_0090_2_20220414T143944.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: Weather seal and expansion joint missing on south side. 4 inch crack on top. Install survey points to monitor abutment movement.</p>
	<p>Inspect ID: 2022-0096 Title: 2604000007_CELRC_2022_A_0096_1_20220414T144521.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: Minor cracking on south wingwall.</p>

Photos: Highland

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

	<p>Inspect ID: 2022-0099 Title: 2604000007_CELRC_2022_A_0099_1_20220414T144650.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: Large thin crack through North wing wall.</p>
	<p>Inspect ID: 2022-0099 Title: 2604000007_CELRC_2022_A_0099_2_20220414T144711.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: Large thin crack through North wing wall.</p>

Photos: Highland

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	<p>Inspect ID: 2022-0006 Title: 2604000007_CELRC_2022_A_0006_1_20220414T132215.jpg Rated Item: 6. Fencing and Gates Caption: Acceptable - PS-81: Outer fence in good condition, minor bending in spots.</p>
	<p>Inspect ID: 2022-0024 Title: 2604000007_CELRC_2022_A_0024_1_20220414T133156.jpg Rated Item: 7. Pumps Caption: Acceptable - PS-81: Hydraulic fluid leak from pump DWP-2 has been resolved.</p>



Photos: Highland

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	<p>Inspect ID: 2022-0057 Title: 2604000007_CELRC_2022_A_0057_1_20220414T140130.jpg Rated Item: 7. Pumps Caption: Minimally Acceptable - Ps-N5: Rust and peeling on machinery base of pumps SWP-6 and SWP-7. Recommend scaling and painting.</p>
	<p>Inspect ID: 2022-0057 Title: 2604000007_CELRC_2022_A_0057_2_20220414T140144.jpg Rated Item: 7. Pumps Caption: Minimally Acceptable - PS-N5: rust and peeling on swp 6 and 7. Reccomend scaling and painting</p>

Photos: Highland

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	<p>Inspect ID: 2022-0063 Title: 2604000007_CELRC_2022_A_0063_1_20220414T140457.jpg Rated Item: 7. Pumps Caption: Minimally Acceptable - PS-N5: Missing bolts on top of pump SWP-4, with some evidence of leakage on at those points . Picture of SWP-5 for comparison</p>
	<p>Inspect ID: 2022-0063 Title: 2604000007_CELRC_2022_A_0063_2_20220414T140522.jpg Rated Item: 7. Pumps Caption: Minimally Acceptable - PS-N5: Missing bolts on top of pump SWP-4, with some evidence of leakage on at those points . Picture of SWP-5 for comparison</p>

Photos: Highland

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



Inspect ID: 2022-0069 **Title:**

2604000007_CELRC_2022_A_2022-0069_1_20220414T140919.jpg

Rated Item: 7. Pumps

Caption: Minimally Acceptable - PS-N5: Pump DWP-1 out of service, staff reported evidence of cavitation on impeller. Pump is out for repairs and will be rebuilt.



Inspect ID: 2022-0087 **Title:**

2604000007_CELRC_2022_A_0087_1_20220414T142100.jpg

Rated Item: 7. Pumps **Caption:** Minimally Acceptable - PS-

N5: Seal water system pump currently out of service and out for repairs.

Photos: Highland

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





Inspect ID: 2022-0015 **Title:** 2604000007_CELRC_2022_A_0015_2_20220414T132730.jpg
Rated Item: 8. Motors, Engines, Fans, Gear Reducers, Back Stop Devices, etc. **Caption:** Minimally Acceptable - PS-81: Birds nesting in exhaust fan cowling. Inspect and remove if necessary.



Inspect ID: 2022-0078 **Title:** 2604000007_CELRC_2022_A_0078_1_20220414T141413.jpg
Rated Item: 8. Motors, Engines, Fans, Gear Reducers, Back Stop Devices, etc. **Caption:** Minimally Acceptable - PS-N5: EF3 exhaust fan is inoperable, local sponsor is aware and planning for replacement.

Photos: Highland

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

	<p>Inspect ID: 2022-0039 Title: 2604000007_CELRC_2022_A_0039_1_20220414T134000.jpg Rated Item: 14. Electrical Systems Caption: Acceptable - PS-81: Contactor fixed for pump.</p>
	<p>Inspect ID: 2022-0042 Title: 2604000007_CELRC_2022_A_0042_1_20220414T134054.jpg Rated Item: 14. Electrical Systems Caption: Minimally Acceptable - PS-81: Arc flash warnings needed.</p>

Photos: Highland

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



Inspect ID: 2022-0081 **Title:**
2604000007_CELRC_2022_A_0081_1_20220414T141535.jpg
Rated Item: 14. Electrical Systems **Caption:** Minimally
Acceptable - PS-N5: Arc flash labels missing on switchboard.



Inspect ID: 2022-0084 **Title:**
2604000007_CELRC_2022_A_0084_1_20220414T141706.jpg
Rated Item: 14. Electrical Systems **Caption:** Minimally
Acceptable - PS-N5: Arc flash labels missing on all 3 MCCs.

Photos: Highland

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



Inspect ID: 2022-0102 **Title:**
2604000007_CELRC_2022_A_0102_1_20220414T144947.jpg
Rated Item: 14. Electrical Systems **Caption:** Acceptable - PS-ND: New electrical safety disconnect switch installed in early 2022.



Inspect ID: 2022-0105 **Title:**
2604000007_CELRC_2022_A_0105_1_20220414T145301.jpg
Rated Item: 14. Electrical Systems **Caption:** Minimally Acceptable - PS-ND: Electrical arc flash labels need updating. Install new arc flash labels.

Photos: Highland

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



Inspect ID: 2022-0051 **Title:**
2604000007_CELRC_2022_A_0051_1_20220414T134616.jpg
Rated Item: 19. Flap Gates/ Flap Valves/ Pinch Valves
Caption: Minimally Acceptable - PS-81: Flap gate slightly ajar, and unlikely to seal in a flood.



**US Army Corps
of Engineers ®**

Flood Damage Reduction System 2605000005 / Segment 2604000007 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 sponsor: (name of the segment / system and levee sponsor)

System 2605000005 / Segment 2604000007 CELRC

2. Reporting period: (month/day/year to month/day/year)

06/01/2021

to

03/01/2022

3. Summary of maintenance required by last inspection report:

Remove unwanted vegetation along levee. Fill in all holes from animals along levee. Hang 8 confined space placards at North 5th and 81st st. pump stations.

4. Summary of maintenance performed this reporting period:

Bank tested all generators. Changed oil and filters on generators at North 5th, North Drive and 81st st. storm stations. Changed oil on all pump motors at 81st. storm

5. Summary of maintenance planned next reporting period:

Bank test all generators. Change oil and filters on all generators. Grease all sluice gates and flap gates in river, and monitor for silt. Grease all pumps and drive shafts.

6. Summary of changes to segment / system since last inspection:

None reported.

7. Problems/ issues requiring the assistance of the US Army Corps of Engineers:

Advised of a problem along Harts ditch in Wicker park by army corp. to monitor of some pin boils. Also to monitor joints in concrete walls for separation.

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
IEs 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:

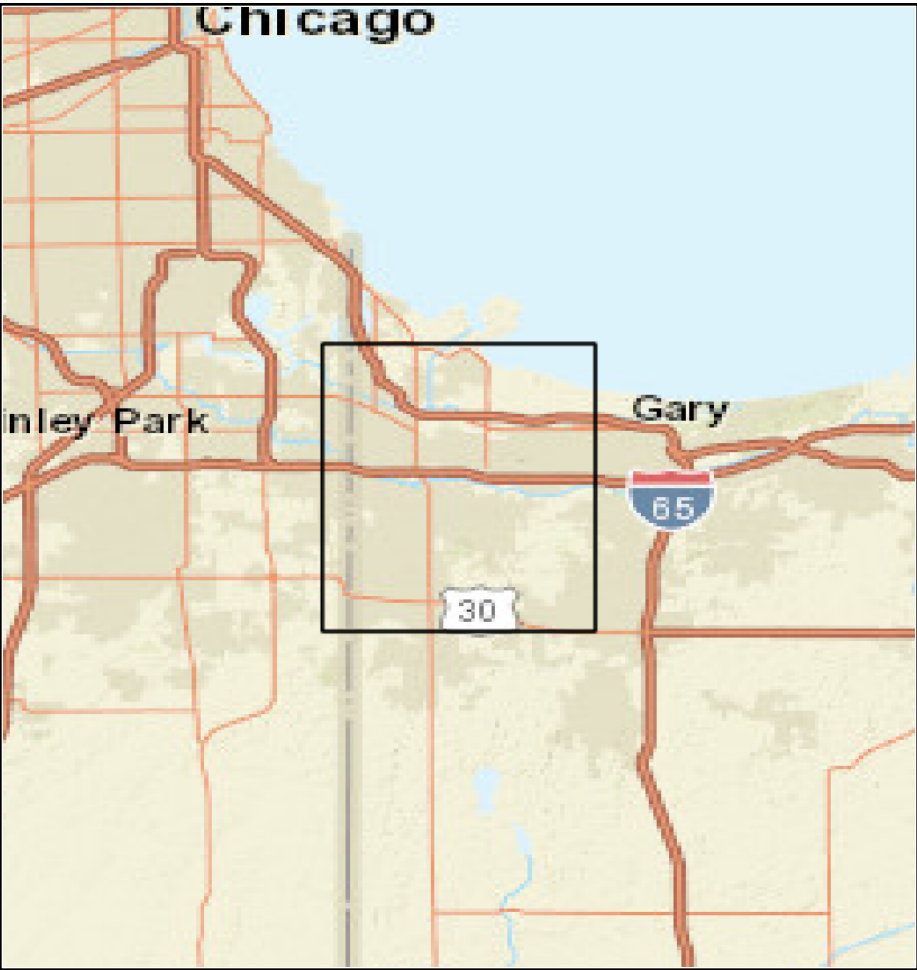
Reports are to be disseminated as follows within 30 days of the inspection date.

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.

SHEET INDEX

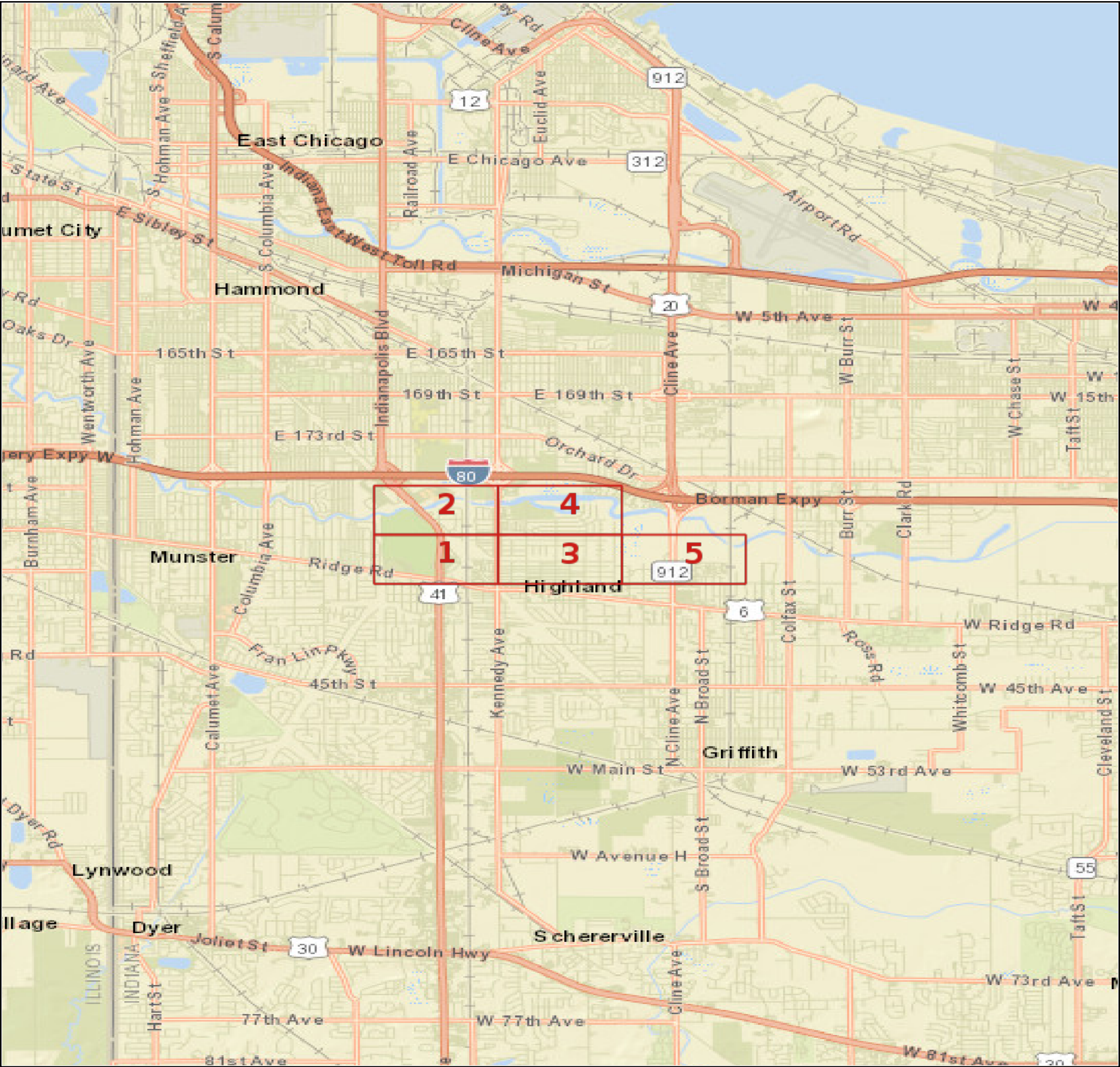
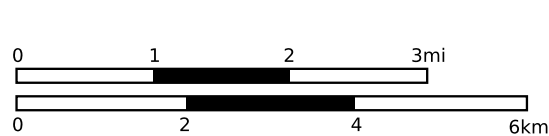
Levee: Highland

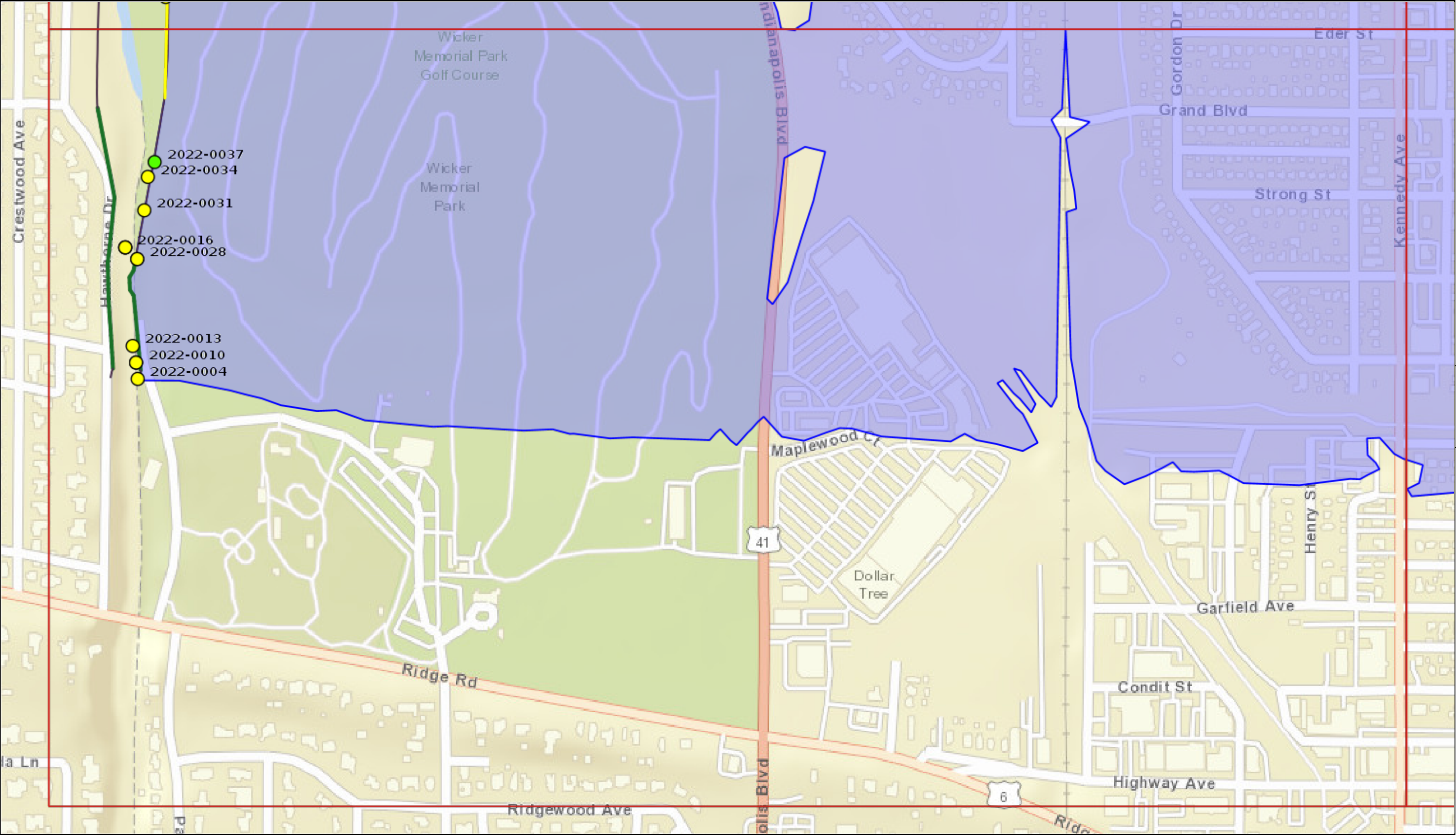
WARNING: This document is FOR OFFICIAL USE ONLY (FOUO)
It contains information that may be exempt from public release under the Freedom of Information Act (5 USC 552). It is to be controlled, stored, handled, transmitted, distributed, and disposed of in accordance with USACE policy relating to FOUO information and it is not to be released to the public or other personnel who do not have a valid \"need to know\" without prior written approval of an authorized USACE official.



MAP ELEMENTS

5 Standard Sheets





mzoz

3

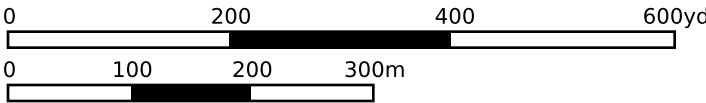
NONE



OBSERVATIONS

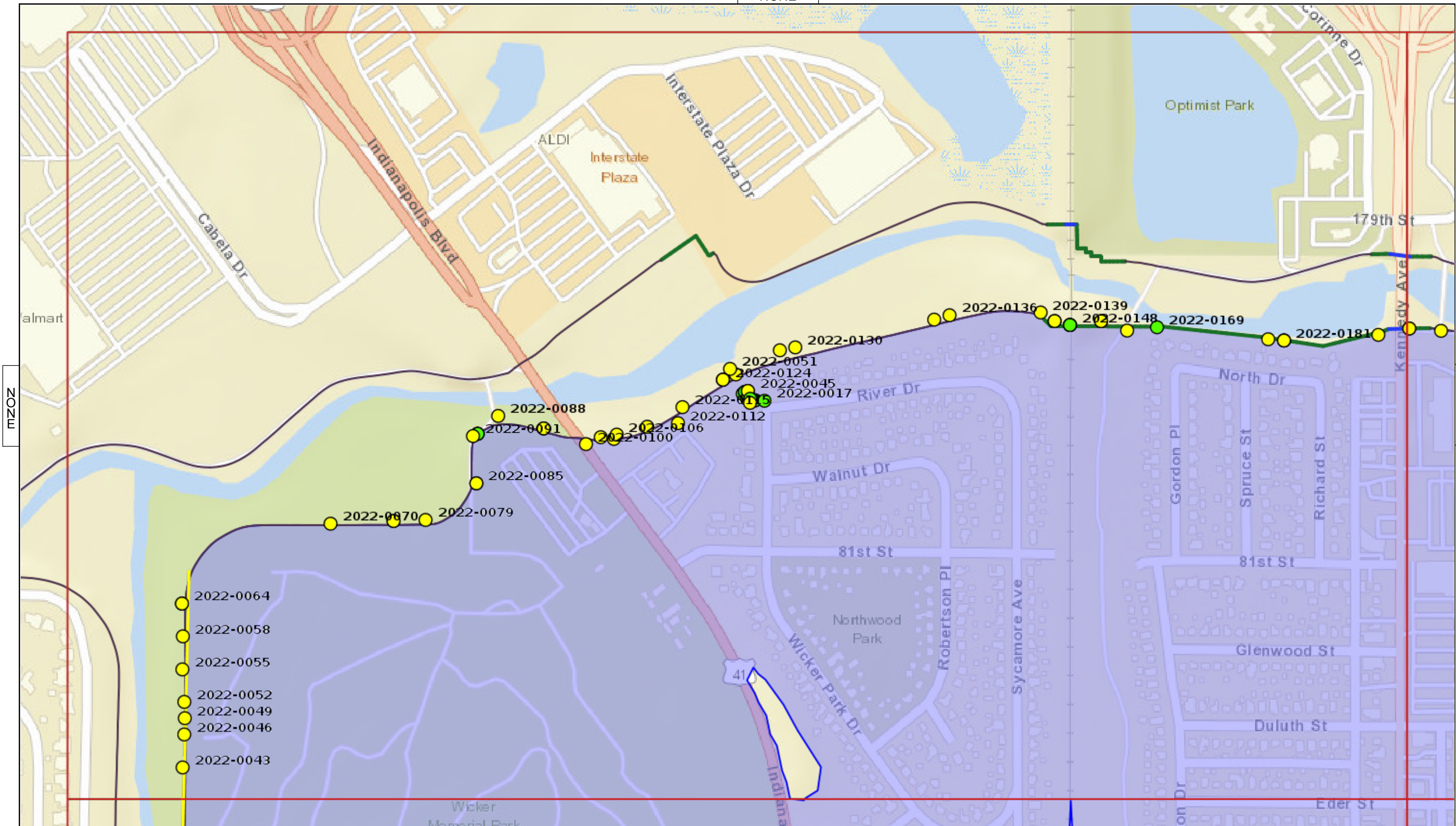
- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

Scale = 1:6000



NLD	Sheet: 1	30-Mar-2022
	Highland	
	Type: Routine	30-Mar-2022

NONE



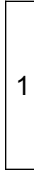
OBSERVATIONS

-  Acceptable
-  Minimally Acceptable
-  Unacceptable
-  Not Applicable

Scale = 1:6000

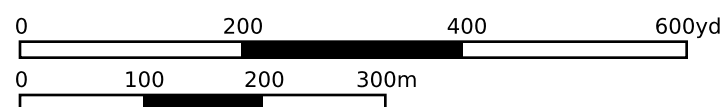


NLD	Sheet: 2	30-Mar-2022
	Highland	
	Type: Routine	30-Mar-2022



NONE

Scale = 1:6000



OBSERVATIONS

-  Acceptable
-  Minimally Acceptable
-  Unacceptable
-  Not Applicable

Sheet: 3

30-Mar-2022

Highland

Type: Routine

30-Mar-2022

NONE



2

2

3



OBSERVATIONS

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

Scale = 1:6000



NLD

Sheet: 4
Type: Routine

Highland

30-Mar-2022
30-Mar-2022

Subset of Inspection Items for Rehabilitation Program Eligibility Determination

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 for the Munster Levee.

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

A	<input type="checkbox"/>	8. Underseepage Relief Wells/Toe Drainage Systems
M	<input type="checkbox"/>	
U	<input type="checkbox"/>	
N/A	<input checked="" type="checkbox"/>	
Interior Drainage System		
A	<input type="checkbox"/>	9. Culverts/Discharge Pipes
M	<input checked="" type="checkbox"/>	
U	<input type="checkbox"/>	
N/A	<input type="checkbox"/>	
A	<input checked="" type="checkbox"/>	10. Sluice/Slide Gates
M	<input type="checkbox"/>	
U	<input type="checkbox"/>	
N/A	<input type="checkbox"/>	
A	<input type="checkbox"/>	11. Flap Gates/Flap Valves/Pinch Valves
M	<input checked="" type="checkbox"/>	
U	<input type="checkbox"/>	
N/A	<input type="checkbox"/>	
Pump Stations – N/A		
A	<input checked="" type="checkbox"/>	17. Intake and Discharge Pipelines
M	<input type="checkbox"/>	
U	<input type="checkbox"/>	
A	<input checked="" type="checkbox"/>	18. Sluice/Slide Gates
M	<input type="checkbox"/>	
U	<input type="checkbox"/>	
N/A	<input type="checkbox"/>	
A	<input type="checkbox"/>	19. Flap Gates/Flap Valves/Pinch Valves
M	<input checked="" type="checkbox"/>	
U	<input type="checkbox"/>	
N/A	<input type="checkbox"/>	
Rehabilitation Program Status		
Active	<input checked="" type="checkbox"/>	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	<input type="checkbox"/>	System does not meet interim eligibility requirements.
Comments: Only minor issues noted for the system.		