Name of System: Highland	Levee	Inspection Report	
US Army Corps of Engineers ® Name of Segment: Highland 2605000005		NLD Segment ID: 2604000007	
Segment Type: Locally Constructed, Locally Operated and Mainta Levee Sponsor (Name and Organization): Little Calumet River Bas Inspection Report Prepared by: Yuki Galisanao Inspection Report Prepared by: Chris Schaal	in Development Commission	Date(s) of Inspection: 06/08/2023 - 06/08/20	023
Segment Name N	Other LD Segment ID#	Segments Within This System Segment Type	Segment Inspection Rating
Contents of Levee Inspection Report: Levee Inspection Summary General Items	Type of Inspection:	Formal Inspection Special	Inspection (mark this if purpose is Initial Eligibility Inspection)
General Items Levee Embankment Floodwalls Interior Drainage System Pump Stations FRM Channels	Approval Signature:	John A Groboski	Date Approved:
Public Sponsor Pre-Inspection Form National Flood Insurance Program - 44 CFR 65.10 Subset Criteria Evaluation Levee Inspection Reference Guide Photos			

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

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Levee Segment Inspection Summary:

[Provide an Executive Summary of the segment inspection considering (1) the general condition of the segment, (2) the rationale for key Item ratings, categorized by Feature, and (3) the quantity or severity of notable observations/deficiencies and (4) notable changes in condition since the last inspection.]

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, asphalt cracking, 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, squeaking and rust on sluice gates, trash racks, missing safety labels, minor to moderate structural and fencing issues at the pump stations, inoperable fans, missing seals on closure gates, and flap gate obstructions. Bank caving/erosion and animal burrowing on the riverside toe in the area of the Rookery are causing moderate changes to the toe cross section and should be repaired.

Levee System Inspection Summary:

[Synthesize information from the Levee Segment Inspection Summaries for each segment within the levee system. For single-segment levee systems, see Levee Segment Inspection Summary above.]

Same as segment summary.

General Items

	Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
1.	Operations and Maintenance Manuals	A	 A Levee Owner's Manual, O&M Manuals, and/or manufacturer's operating instructions are present. 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. 	Justification: O&M Manuals are located at the Public Works facility.
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. M The sponsor does not maintain an adequate supply of flood fighting materials as part of their preparedness activities.	2023-0321: 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.
3.	Flood Preparedness and Training (A or M only)	A	A Sponsor has a written system-specific flood response plan that will be used to trigger emergency operation activities and a solid understanding of how to operate, maintain, and staff the levee system during a flood, including demonstration that sufficient flood warning time exists for the completed operation of all closure structures. Sponsor maintains a list of emergency contact information for appropriate personnel and other emergency response agencies. 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.	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
				May 2019. Flood fighting was performed in May 2019. Participated in the road closure exercise at River Rd in 2021. A tabletop exercise was conducted in September 2022.

Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
1. Unwanted Vegetation Growth	M	M	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 EP 1110-2-18 and other relevant Corps policy. 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. Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above and must be removed to reestablish or ascertain levee integrity.	2023-0023: Vegetation within 15 ft of riverside toe - extends to HI-02 (M) 2023-0056: Vegetation on landside slope (M) 2023-0067: Large trees (greater than 2 inches in diameter) within 15 ft of landside toe. East of Indianapolis Blvd, in planting zone. (A) 2023-0071: Large trees (greater than 2 inches in diameter) within 15 ft of landside toe. East of Indianapolis Blvd, in planting zone. (A) 2023-0083: Vegetation within 15 ft of riverside toe (M) 2023-0179: Vegetation along riverside toe - typical until HI-9 (M) 2023-0207: Vegetation along riverside toe - typical until HI-9 (M) 2023-0307: Vegetation along riverside toe - typical near HI-9. (M) 2023-0307: Vegetation along riverside toe (M) Recommendation: Cut back trees and vegetation within the 15-foot vegetation free zone. Large trees need to be removed completely and rootball
2. Sod Cover		A	There is good coverage of sod over the levee.	backfilled with compacted clay. 2023-0020: Poor sod cover on levee crown (M)
	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.	2023-0064: Poor sod cover on landside slope (M) 2023-0143: Poor sod cover on landside slope (M) 2023-0259: Poor sod cover on riverside slope (M) Recommendation: Restore topsoil and reseed indicated areas
		U	Over 50% of the sod cover is missing or damaged over a significant portion or portions of the levee embankment.	
		NA	Surface protection is provided by other means.	

Rat	ted Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
3. Encro	pachments	M	M U	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. 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. Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee.	2023-0027: Tree debris along riverside toe (M) 2023-0031: Boring stake in soil riverside slope. Confirm that no unapproved borings are occuring in the levee. Label says "patriot b-9 20 foot". (M) 2023-0051: Wooden beam near pedestrian bridge on the riverside toe (M) 2023-0084: Encroachment in levee embankment (M) 2023-0087: Downed logs on riverside levee toe (M) 2023-0091: Downed tree on riverside toe (M) 2023-0155: Trash on riverside levee slope (M) 2023-0172: Wooden bollard missing on levee crown (M) 2023-0231: Half buried logs on riverside toe (M) 2023-0263: Downed trees on riverside toe (M) 2023-0271: Buried concrete blocks on riverside toe (M) 2023-0320: Tree debris within 15 ft of landside toe (M) Recommendation: Remove encroaching debris from around levee. If encroaching items belong to local homeowner, discuss with homeowner and either remove items or apply for Section 408 permit.
4. Closu Struct		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.	
			NA	There are no closure structures along this component of the levee segment / system.	

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
 6. 	Slope Stability Erosion/Bank Caving	M	A M U	No slides, sloughs, tension cracking, slope depressions, or bulges are present. Minor slope stability problems that do not pose an immediate threat to the levee embankment. Major slope stability problems (ex. deep seated sliding) identified that must be repaired to reestablish the integrity of the levee embankment. No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability.	2023-0059: Slope near HI-3 is slowly slipping downhill. Note tilting stone bollards. (M) 2023-0227: Typical slope condition. No issues. (A) Recommendation: Monitor slope near HI-3 for further slope changes. 2023-0035: Riverside bank erosion up to toe. (M) 2023-0039: Bank erosion near curve on riverside
			M U	There are areas where minor erosion is occurring or has occurred on or near the levee embankment, but levee integrity is not threatened. 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.	toe. (M) 2023-0142: Near HI-11: Minor erosion (M) 2023-0151: Heavy vegetation and possible erosion of riverside toe (M) 2023-0187: Typical erosion and bank caving along levee riverside toe (M) 2023-0239: Erosion of riverside toe at water level in rookery (M) 2023-0243: Bank caving in rookery into levee toe. Combination of bank caving and animal activity leading to sizeable collapses into levee cross section (M) 2023-0251: Large caving due to animal burrows and poor vegetation. (M) 2023-0275: Bank scour on riverside toe typical throughout (M) Recommendation: Repair embankments with riprap or suitable clay topsoil. Restore the toe where animal burrows and caving have altered the levee cross section.
7.	Settlement	M	A M U	No observed depressions in crown. Records exist and indicate no unexplained historical changes. Minor irregularities that do not threaten integrity of levee. Records are incomplete or inclusive. Obvious variations in elevation over significant reaches. No records exist or records indicate that design elevation is compromised.	2023-0159: Minor low spot in crest (M) Recommendation: Survey low spots in NAVD88 to confirm elevation. Monitor low spots on crest for further changes.

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification	
8.	Depressions / Rutting	M	M U	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. There are some infrequent minor depressions less than 6 inches deep in the levee crown, embankment, or access roads that will pond water. There are depressions greater than 6 inches deep that will pond water.	2023-0032: Rutting on riverside slope (M) 2023-0040: Rutting on riverside slope (M) 2023-0047: Depression near riverside toe (M) 2023-0136: Rutting on riverside slope (M) 2023-0168: Rutting on landside toe (M) 2023-0183: Rutting on riverside slope (M) 2023-0211: 3 inch ruts along outside corner on riverside slope (M) 2023-0219: 4 inch deep ruts on riverside toe (M) 2023-0247: Poor sod cover and rutting on outside riverside slope (M) 2023-0267: Rutting on riverside toe (M) 2023-0279: Ruts on riverside slope (M) 2023-0311: Very large rut in riverside toe (M) Recommendation: Fill shallow ruts with topsoil and seed. Fill deep ruts with clay and restore sod cover.	
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. Longitudinal and/or transverse cracks up to 6 inches in depth with no	2023-0096: Crack in asphalt on crest (M) 2023-0100: Crack in asphalt with vegetation growing within (M) 2023-0147: Edge of pavement cracking typical	
				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.	along length from Kennedy to first turn (M) Recommendation: Remove vegetation and 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.		

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
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. 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.	2023-0028: 4 foot deep animal burrow on waterside slope (M) 2023-0036: Burrow on landside slope (M) 2023-0043: 28 in deep animal burrow on riverside toe (M) 2023-0044: Burrow on riverside slope (M) 2023-0132: Animal burrow on riverside slope (M) 2023-0140: Animal burrow near crest. Typical on south side of Rookery (M) 2023-0223: 16 inch deep animal burrow on riverside toe (M) 2023-0235: Animal burrow near levee crest (M) 2023-0255: 2 foot wide collapsing burrow on riverside toe. (M) 2023-0283: Large animal burrows on riverside toe (M) Recommendation: Backfill large animal burrows with compacted clay.

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
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. All joints appear to be closed and the soil tight. The interior condition of pipes has been verified using television camera videotaping or visual inspection methods within the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures. The exterior pipe conditions observed are in good condition. M There are some defects noted that should be monitored. The interior condition of pipes has been verified using television camera videotaping or visual inspection methods at the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures. The exterior pipe condition assessment. U One or more significant defects exist. The exterior pipe conditions observed indicate there may be a change in pipe condition since the last condition assessment. The interior condition of pipes has not been verified using television camera videotaping or visual inspection methods at the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures. NA There are no discharge pipes / culverts.	2023-0322: HI-1: sizeable settle silt deposits (25% full estimated), 4 to 8 oclock, about 5-10 feet long in concrete pipe section. Mild corrosion in corrugated metal pipe section, as well as small creasing failure about 6 feet from start of inspection (9 to 12 oclock. Small joint separation at 11.33 feet from access point, some soil infiltration. Elliptical deformation in corrugated metal pipe, 23.36 feet to 29.78 feet. Creasing at the end. (M) 2023-0323: HI-2: no issues observed (M) 2023-0324: HI-3: infiltration 10-11 oclock, dripper, just downstream of closed sluice gate. Minor leaks in seal around sluice gate. Minor cracks on joint near ditchline grates (M) 2023-0325: HI-7A: spalling of concrete in outfall structure. Missing vertical bar on grate. HI-7B: small joint offset at 22 feet from access point. No soil showing yet. (M) 2023-0326: HI-10A: no issues observed. HI-10B: no issues observed. HI-10C: large vegetation debris 18-20 feet into pipe. HI-10D: no issues observed. (M) 2023-0327: HI-11: large amount of vegetation in stagnant water, downstream of sluice gate. May need to be cleaned out. (M) 2023-0328: HI-9: silt in the first 5 feet of pipe (rover travelled slowly) (M) 2023-0329: HI-5: no issues observed. HI-6: minor cracks at 12 oclock position throughout pipeline. Minor rust on sluice gate cover. (M) Recommendation: Monitor HI-1 for seepage paths during high water events.

Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
12. Riprap Revetments & Bank	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
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.	
		NA	There is no riprap protecting this feature of the system, or riprap is discussed in another section.	
13. Revetments other than	NA	A	Existing revetment protection is properly maintained, undamaged, and clearly visible.	
Riprap		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.	
		NA	There are no such revetments protecting this feature of the system.	

Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification	
14. Underseepage Relief Wells/ Toe Drainage Systems	NA	A	Toe drainage systems and pressure relief wells necessary for maintaining levee 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 physically damaged or are experiencing some clogging or performance losses as evidenced by performance data, pumping tests, or observation. The performance losses are not expected to significantly affect levee performance during full loading. Wells have been pump tested, drainage systems have been inspected within the past 5 years, and documentation is provided. Maintenance records indicate some well rehabilitation is needed.	
		U	Toe drainage systems or pressure relief wells necessary for maintaining levee segment / system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing.		
		NA	There are no relief wells/ toe drainage systems along this component of the levee segment / system.		
15. Seepage	M	A	No evidence or history of unrepaired seepage, saturated areas, or boils.	2023-0330 : Area of previous minor seepage on	
	M	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.	landside toe. No Seepage observed. (M) Recommendation: Monitor area for further seepage during high water events.	
		U	Evidence or history of active seepage, extensive saturated areas, or boils.		

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification	
1. Unwanted Vegetation Growth	М	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 EP 1110- 2-18 and other relevant Corps policy. 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.	2023-0080: Vegetation on riverside of floodwall (M) 2023-0104: Vegetation on landside and root balls at the landside base (M) 2023-0160: Vegetation on landside (M) 2023-0199: Vegetation on riverside (M) 2023-0295: Vegetation on landside (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.	Recommendation: Remove vegetation around floodwalls.	
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.	2023-0072 : Grafitti on riverside floodwall (M) 2023-0107 : Large metal railroad coupling mechanism abandoned near railroad closure on riverside (M)	
			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.	2023-0108: Graffiti on landside floodwall (M) 2023-0112: Graffiti on landside floodwall (M) 2023-0128: Garages, pole, fencing and barns (M) 2023-0163: Debris on riverside along entire section of floodwall (M)
		U Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the floodwall.	2023-0203: Debris on riverside (M) Recommendation: Remove encroaching debris from around the floodwall. Power wash graffiti. If encroaching items belong to local homeowner, discuss with homeowner and either remove items or apply for Section 408 permit.	

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification						
	3. Closure Structures (Stop Log Closures and Gates) (A or U only)	A	U	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. 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.	2023-0099: Rubber gasket at railroad closure missing (A) 2023-0135: Closure structure in good condition in Kennedy (A) 2023-0319: Floodwall tieback, no issues noted (A) Recommendation: Replace rubber gasket on railroad closure.						
			NA	There are no closure structures along this component of the levee segment / system.							
4	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.	2023-0015: Typical hairline surface cracking (M) 2023-0111: Concrete spalling on tie in to levee embankment (M)						
									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.	2023-0120 : Spalling on landside face. (M) 2023-0123 : Typical surface hairline cracks in cap (M) 2023-0127 : Typical concrete cracking near joint (M)
				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.	2023-0131: Hole blasted into top of floodwall 1 inch deep, west of Kennedy ave (M) 2023-0175: Missing bolt in sheetpile wall (M) 2023-0315: Spalling on median floodwall. Typical (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.						

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
5.	Tilting, Sliding or Settlement of Concrete	M	A M	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	2023-0115: Blocks for the retaining wall near pedestrian bridge are displaced (M) 2023-0191: Misaligned floodwall tilting out
	Structures		IVI	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.	towards river (M) 2023-0287: Misalignment of floodwall (M) Recommendation: Monitor tilted floodwalls for changes.
			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.	Changes.
6.	Concrete	М	A	No active erosion, scouring, or bank caving that might endanger the structure's stability.	2023-0088 : Depression on landside base (M) 2023-0095 : Animal burrows under closure structure
	Structures		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.	(M) 2023-0103: Burrow and vegetation on riverside (M) 2023-0167: Animal burrows near floodwall (M) 2023-0195: Scour around corner makes it hard to mow (M) Recommendation: Add fill to depressions and burrows next to landside wall.
			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.	

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
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. The joint material has appreciable deterioration to the point where joint	2023-0011: Broken caulking of monolith joints (M) 2023-0116: Joint sealant deteriorated (M) 2023-0119: Typical cracking of sealant (M) 2023-0124 (M)
			M	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.	2023-0139: Typical monolith joint cracking of sealant riverside (M) 2023-0152: Missing caulk and filler material in joints (M)
			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.	2023-0156: Missing filler and caulk (M) 2023-0291: No sealant on joint (M) 2023-0299: Waterstop deteriorating landside (M) Recommendation: Replace sealant, waterstops, and
			NA	There are no monolith joints in the floodwall.	joint materials where indicated with polyurethane grout.
8.	Underseepage Relief Wells/Toe Drain Systems	NA	A	Toe drainage systems and pressure relief wells necessary for maintaining levee 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 levee segment / system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing.	
			NA	There are no relief wells/ toe drainage systems along this component of the levee segment / system.	
9.	Seepage	A	A	No evidence or history of unrepaired seepage, saturated areas, or boils.	Justification: No Issues Observed
		A	M	Evidence or history of minor unrepaired seepage or small saturated areas at or beyond the landside floodwall foundation.	
			U	Evidence or history of active seepage, extensive saturated areas, or boils.	

Key: A = Acceptable. M = Minimally Acceptable. U = Unacceptable. N/A = Not Applicable.

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
1.	Vegetation and Obstructions	M	M	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. 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. 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 re-establish flow capacity.	2023-0007: HI-1: Vegetation wedged in tideflex (M) 2023-0019: HI-02: Vegetation around outlet (M) 2023-0022: HI-03: Vegetation around headwall (M) 2023-0024: Vegetation in landside ditch (M) 2023-0034: HI-5: Vegetation around inlet. (M) 2023-0048: HI-4: Vegetation growth along outlet (M) 2023-0074: HI-09: Vegetation close to inlet (M) 2023-0075: HI-06: Heavy vegetation around outlet (M) 2023-0114: HI-10A,B,C,D: Vegetation and sediment build up around inlet structure (M) 2023-0126: HI-11: Large amount of debris, sediment, and vegetation blocking inlet (M) 2023-0148: Vegetation along ditch (M) 2023-0164: Vegetation in landside ditch (M) 2023-0303: Vegetation in landside ditch (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.	2023-0026 : HI-5: Debris at outlet. (M) 2023-0038 : HI-7A: Graffiti on gatewell (M) 2023-0042 : HI-7B: Graffiti on concrete surfaces (M)
			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.	2023-0062 : HI-7B: Encroachments in gate structure (M) 2023-0106 : HI-10B: Sandbag debris (M) Recommendation: Remove trees and debris from
			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.	structures.

	Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
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.	
			NA 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.	2023-0010 : HI-03: Fencing unsecured to wall (M) Recommendation: Secure fence to wall.
			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.	
			NA There are no features noted that require safety fencing.	
5.	Concrete Surfaces (Such as gatewells,	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.	2023-0006 : HI-03: Wall damage from mower (M) 2023-0046 : HI-7B: Erosion on surface (M) 2023-0070 : HI-09: Spalling of headwall (M)
	outfalls, intakes, or culverts)		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.	2023-0078 : HI-09: Spalling of concrete near fencing (M) 2023-0122 : HI-10ABCD: Minor spalling on gatewell concrete (M) 2023-0124 : HI-11: Spalling in gatewall (M)
			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.	2023-0134 : HI-11: Spalling in gatewell. (M) 2023-0146 : HI-11: Spalling on wingwalls of outlet structure (M) Recommendation: Patch concrete with grout.
			NA There are no concrete items in the interior drainage system.	

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
6.	Tilting, Sliding or Settlement	A	A	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	Justification: No issues observed.
	of Concrete and Sheet Pile Structures (Such as gate wells, outfalls,		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.	
	intakes, or culverts)		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.	
7			NA A	There are no concrete items in the interior drainage system.	Justification: No Issues Observed
/.	Foundation of Concrete	A	A	No active erosion, scouring, or bank caving that might endanger the structure's stability.	Justification. No issues Observed
	Structures (Such as culverts, inlet and discharge structures, or gatewells.)		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.	
			NA	There are no concrete items in the interior drainage system.	

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification	
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.		
			NA	There are no monolith joints in the interior drainage system.		
9.	Culverts/Discharge Pipes	M	ipes M	A	There are no breaks, holes, cracks in the discharge pipes/ culverts that would result in significant water leakage. All joints appear to be closed and the soil tight. The interior condition of pipes has been verified using television camera videotaping or visual inspection methods within the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures. The exterior pipe conditions observed are in good condition.	Justification: See comments under levees
			M	There are some defects noted that should be monitored. The interior condition of pipes has been verified using television camera videotaping or visual inspection methods at the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures. The exterior pipe conditions observed do not indicate a change in condition since the last condition assessment.		
			U	One or more significant defects exist. The exterior pipe conditions observed indicate there may be a change in pipe condition since the last condition assessment. The interior condition of pipes has not been verified using television camera videotaping or visual inspection methods at the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures.		
			NA	There are no discharge pipes/ culverts.		

Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
10. Sluice / Slide Gates	M	M U NA	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. 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. 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. There are no sluice/ slide gates.	2023-0014: HI-03: Gate closed, no issues (A) 2023-0030: HI-5: Minor squeaking during closing. (M) 2023-0054: HI-7A: Gate closed, no issues observed (M) 2023-0058: HI-7A: Minor rust present on gate (M) 2023-0082: HI-09: Gate closed, no issues. Some minor silting on gate (A) 2023-0086: HI-10D: Minor sediment in gatewell (M) 2023-0090: HI-10C: Gate closed, no issues observed (A) 2023-0094: HI-10B: Eroded seal (M) 2023-0098: HI-10D:Gate closed, loud squeaking of rust present during operation (M) 2023-0110: HI-10B: Gate closed (A) 2023-0118: HI-10A:Gate closed, no issue observed (A) 2023-0138: HI-11: Gate closed, no issue observed (A) Recommendation: Lubricate gate closure systems. Repaint rusted closure gates.
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.	2023-0002 : HI-03: Gate closed upon arrival, no issues (A) 2023-0004 : HI-01: Vegetation in outlet (M)
Pinch valves		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.	2023-0004 : III-01: Vegetation in outlet (M) 2023-0012 : HI-02: Soil in front of flap gate. Flap gate in good condition (M)
		U	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	2023-0055 : HI-3 west: Flapgate completely silted in (M)
		NA	There are no flap gates.	2023-0066: HI-09: Flap gate closed, no issues (A) 2023-0079: HI-06: Flap gate slightly ajar (M) 2023-0102: HI-10ABCD: Sediment build up around outlet structure (M) 2023-0130: HI-11: Flapgate not closed (M) Recommendation: Remove silt and infill around flap gates.

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
12. Trash Racks (non- mechanical)	M		2023-0050 : HI-7B: Vertical grates missing (M) Recommendation: Replace vertical grate
13. Other Metallic Items	M	A All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern. M Corrosion seen on metallic parts appears to be maintainable.	2023-0018: HI-03: Glass sight missing (M) 2023-0052: Lid south of HI-4 is loose and detached from catch basin. (M) Recommendation: Replace sight glass on HI-3, notify local government of loose lid near HI-4.
14. Riprap Revetments of Inlet/ Discharge Areas	М	A No riprap displacement or stone degradation that could pose an immediate	2023-0008 : Erosion on right bank of HI-1 (M) Recommendation: restore and reseed area.

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification			
15. Revetments other than	M	A Existing revetment protection is properly maintained, undamaged, and clearly visible.	2023-0063 : HI-04: hole in gabion basket. (M) Recommendation: Repair gabion basket.			
Riprap		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.
		NA There are no such revetments protecting this feature of the system.				

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
1.	Pump Stations Operating, Maintenance, Training, &	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: Records present
	Inspection Records		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, 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.	2023-0017 : PS-81 : PS-81: Operations manuals present on site. (A) 2023-0065 : PS-N5 : PS-N5: Operations manuals present on site. (A)
			M	Operation, maintenance and inspection records are present but not adequately used and updated.	2023-0109 : PS-ND : PS-ND: Operation manuals present on site. (A)
			U	No operation, maintenance and inspection records are present, or refresher training for personnel has not been conducted.	
3.	Safety Compliance	M	A	Safety compliance inspection reports by applicable local, state, or federal agencies available for review.	2023-0009: PS-81: PS-81: Arc flash labels need to be added to MCC (M)
			M	No safety compliance inspection reports are available for review.	2023-0081 : PS-N5 : PS-N5: Arc flash labels are not present (M) 2023-0105 : PS-ND : PS-ND: Arc flash labels not added. Recommend performing arc flash study to add proper labels. (M) Recommendation: Perform an arc flash study and
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.	apply labels where necessary. 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.	

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
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. 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. 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.	2023-0001: PS-81: PS-81: Bird nests in ventilation louvers. Currently have insulation on inside for bird noises. Monitor for further activity and remove if necessary. (M) 2023-0005: PS-81: PS-81: Concrete of walkway cracking in 3 separate locations. Recommend repair. (M) 2023-0021: PS-81: PS-81: Gates of walkway have cracking, rusting, and paint chipping. Recommend repairing. (M) 2023-0029: PS-81: PS-81: Cracking on exterior of building. Recommend for repair. (M) 2023-0033: PS-81: PS-81: Birds nests also located on exterior within exhaust fans and gutters. Monitor for building and remove if necessary. Recommend removal. (M) 2023-0049: PS-N5: PS-N5: Erosion undercutting sidewalk. Recommend repair before sidewalk is damaged. (M) 2023-0069: PS-N5: PS-N5: Gates wobbly. Recommend repair for safety. (M) 2023-0073: PS-N5: PS-N5: Ceiling no longer has leakage. Rusting and cracking still present. Recommend monitoring for repair as needed. (M) 2023-0097: PS-ND: PS-ND: Weather seal and expansion joint missing on south side. 4 inch crack on top. Joint deteriorating on north side. Install survey points to monitor abutment movement. (M) 2023-0117: PS-ND: PS-ND: South wing wall cracking. Repair is needed. (M) 2023-0121: PS-ND: PS-ND: North wing wall cracking. Repair is needed. (M)

	Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
6.	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. Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.	2023-0041 : PS-N5 : PS-N5: Bending and rusting of gates. Vegetation growing on fencing as well (M) 2023-0045 : PS-N5 : PS-N5: For sanitary purposes. (A) Recommendation: Restore bent gates
			U	Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured.	
			NA	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.	2023-0057: PS-N5: PS-N5: DWP-1 was fixed from last inspection. (A) 2023-0061: PS-N5: PS-N5: Missing bolts on top of pump SWP-4. Evidence of leakage coming from the
			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.	holes. Recommend replacing missing bolts. (M) 2023-0085: PS-N5: PS-N5: Pumps SWP-6 and SWP-7 machinery base is corroded. Recommend cleaning and repainting. (M) 2023-0089: PS-N5: PS-N5: Seal water system pumps replaced and now operable. (A)
			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.	2023-0101: PS-ND: PS-ND: Pump SWP-1 out of service and taken out of wetwell. Highland staff aware of issue and may plan on replacement of all pumps. (M)
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.	2023-0077: PS-N5: PS-N5: Exhaust fan EF-3 is inoperable (M) Recommendation: Look into cause of inoperable fan and replace when possible.
			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.	

Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
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	A	A	Drive chain, bearing, gear reducers, and other components are in good operating condition and are being properly maintained.	Justification: No Issues Observed
Trash Rakes		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.	
		NA	There are no mechanical trash rakes.	
11. Non-		A	Trash racks are fastened in place and properly maintained.	Justification: No Issues Observed
Mechanical Trash Racks	A	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.)	
		NA	There are no trash racks, or they are covered in the pump stations section of the report.	
12. Fuel System for Pump	A	A	Fuel system is operational, day tank present and operational, fuel fresh and rotated regularly.	Justification: No Issues Observed
Engines		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.	
		NA	No fuel system.	

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
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. 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	2023-0025 : PS-81 : PS-81: Generator is in good condition and has 633.2 runtime hours. New generator is scheduled to be installed (A) 2023-0093 : PS-N5 : PS-N5: Generators are in good condition. Generator 1 has 402 hours runtime. Generator 2 has 371.2 hours runtime. Generator 3 has 380.7 hours runtime. Generator 4 has 376.1 hours runtime (A) 2023-0125 : PS-ND : PS-ND: Generator is in good
		repaired; or generator, if required, is not on site.	condition and has 551.8 hours runtime (A) Recommendation: Perform regular maintenance on all generators and clean out old birds nest in PS-81.
14. Electrical Systems	М	A Operational and maintained free of damage, corrosion, and debris. Preventative maintenance and system testing is being performed periodically.	2023-0013: PS-81: PS-81: Power quality meter is out of service (M) 2023-0113: PS-ND: PS-ND: Transfer switch is not
		M Operational with minor discrepancies. Preventative maintenance or repairs are required, but the components are expected to function adequately during the next flood event.	operational. Project personnel indicated they have ordered a new one. (M) Recommendation: PS-81: Replace power quality meter
		U Components of the electrical system will not function adequately during the next flood event and must be replaced.	ineter
15. Megger Testing on Pump Motors and	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
Critical Power Cables		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.	

Rated Item	Rating	Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
16. Enclosures, Panels, Conduit and	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
Ducts		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 There are no breaks, holes, cracks in the discharge pipes/ culverts that would result in significant water leakage. All joints appear to be closed and the soil tight. The interior condition of pipes has been verified using television camera videotaping or visual inspection methods within the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures. The exterior pipe conditions observed are in good condition.	Justification: No Issues Observed
		M There are some defects noted that should be monitored. The interior condition of pipes has been verified using television camera videotaping or visual inspection methods at the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures. The exterior pipe conditions observed do not indicate a change in condition since the last condition assessment.	
		One or more significant defects exist. The exterior pipe conditions observed indicate there may be a change in pipe condition since the last condition assessment. The interior condition of pipes has not been verified using television camera videotaping or visual inspection methods at the frequency determined in accordance with Levee Inspections and Site Visits: Standard Operating Procedures.	
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.	
		NA There are no sluice/ slide gates.	

Rated Item	Rating		Rating Guidelines	Observation Locations with Descriptions and Resulting Item Rating Justification
19. Flap Gates/Flap Values/Pinch Values	M	A M	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required. Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance.	2023-0037 : PS-81 : PS-81: Flap gates stuck slightly open. Recommend to repair flap gates so they can fully close. (M)
		U	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	
		NA	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.	
		NA	There are no cranes.	
21. Other Metallic Items	с А	A	All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern.	Justification: No issue observed
(Equipment, Ladders,		M	Corrosion seen on metallic parts appears to be maintainable.	
Platform Anchors, etc)		U	Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.	
		NA	There are no other significant metallic items.	



Inspect ID: 2023-0321

Title:

2604000007_2023_A_2023-0321_1_20230718T194922.jpg Rated Item: 2. Emergency Supplies and Equipment (A or M only) Caption: 0321 - Acceptable - Highland Public Works has 14 to 16 pallets of sandbags, approximately ten 1000pcs

sandbags, and 1 sand bagger machine.



Inspect ID: 2023-0321

Title:

2604000007 2023 A 2023-0321 1 20230718T194940.jpg Rated Item: 2. Emergency Supplies and Equipment (A or M only) Caption: 0321 - Acceptable - Highland Public Works has 14 to 16 pallets of sandbags, approximately ten 1000pcs

sandbags, and 1 sand bagger machine.



Inspect ID: 2023-0321

Title:

2604000007_2023_A_2023-0321_1_20230718T194952.jpg **Rated Item:** 2. Emergency Supplies and Equipment (A or M only) **Caption:** 0321 - Acceptable - Highland Public Works has 14 to 16 pallets of sandbags, approximately ten 1000pcs sandbags, and 1 sand bagger machine.



Inspect ID: 2023-0023

Title:

2604000007_CELRC_2023_A_2023-

0023_1_1686232842315.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0023 - Minimally Acceptable - Vegetation within 15 ft of riverside toe

- extends to HI-02



Inspect ID: 2023-0056

Title:

2604000007_CELRC_2023_A_2023-

0056 1 1686236474026.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0056 - Minimally Acceptable - Vegetation on landside slope



Inspect ID: 2023-0067

Title:

2604000007_CELRC_2023_A_2023-

0067 1 1686235879786.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0067 -Minimally Acceptable - Large trees (greater than 2 inches in diameter) within 15 ft of landside toe. East of Indianapolis

Blvd



Inspect ID: 2023-0071

Title:

2604000007_CELRC_2023_A_2023-

0071_1_1686236058233.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0071 - Acceptable - Large trees (greater than 2 inches in diameter) within 15 ft of landside toe. East of Indianapolis Blvd, in

planting zone.



Inspect ID: 2023-0083

Title:

2604000007_CELRC_2023_A_2023-

0083_1_1686236257486.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0083 - Minimally Acceptable - Vegetation within 15 ft of riverside toe



Inspect ID: 2023-0179

Title:

2604000007_CELRC_2023_A_2023-

0179 1 1686240465063.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0179 - Minimally Acceptable - Vegetation along riverside toe



Inspect ID: 2023-0207

Title:

2604000007_CELRC_2023_A_2023-

0207 1 1686241705571.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0207 - Minimally Acceptable - Vegetation along riverside toe - typical

until HI-9



Inspect ID: 2023-0215

Title:

2604000007_CELRC_2023_A_2023-

0215_1_1686241934791.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0215 - Minimally Acceptable - Vegetation along riverside toe - typical

near HI-9.



Inspect ID: 2023-0307

Title:

2604000007_CELRC_2023_A_2023-

0307 1 1686245531962.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0307 - Minimally Acceptable - Vegetation along riverside toe



Inspect ID: 2023-0020

Title:

2604000007_CELRC_2023_A_2023-

0020_1_1686233643102.jpg

Rated Item: 2. Sod Cover Caption: 0020 - Minimally
Acceptable - Poor sod cover on levee crown



Inspect ID: 2023-0064

Title:

2604000007_CELRC_2023_A_2023-

0064_1_1686236799815.jpg

Rated Item: 2. Sod Cover Caption: 0064 - Minimally Acceptable - Poor sod cover on landside slope



Inspect ID: 2023-0143

Title:

2604000007_CELRC_2023_A_2023-

0143_1_1686238797603.jpg

Rated Item: 2. Sod Cover Caption: 0143 - Minimally
Acceptable - Poor sod cover on landside slope



Inspect ID: 2023-0259

Title:

2604000007_CELRC_2023_A_2023-0259_1_1686243706751.jpg

Rated Item: 2. Sod Cover Caption: 0259 - Minimally

Acceptable - Poor sod cover on riverside slope



Inspect ID: 2023-0027

Title:

2604000007_CELRC_2023_A_2023-

0027_1_1686233451438.jpg

Rated Item: 3. Encroachments Caption: 0027 - Minimally

Acceptable - Tree debris along riverside toe



Inspect ID: 2023-0031

Title:

2604000007_CELRC_2023_A_2023-

0031_1_1686233821684.jpg

Rated Item: 3. Encroachments Caption: 0031 - Minimally Acceptable - Boring stake in soil riverside slope. Confirm that no unapproved borings are occuring in the levee. Label says

"patriot b-9 20 foot".



Inspect ID: 2023-0051

Title:

2604000007_CELRC_2023_A_2023-

0051_1_1686234689988.jpg

Rated Item: 3. Encroachments Caption: 0051 - Minimally Acceptable - Wooden beam near pedestrian bridge on the

riverside toe



Inspect ID: 2023-0084

Title:

2604000007_CELRC_2023_A_2023-

0084_1_1686237789356.jpg

Rated Item: 3. Encroachments Caption: 0084 - Minimally

Acceptable - Encroachment in levee embankment



Inspect ID: 2023-0087

Title:

2604000007_CELRC_2023_A_2023-

0087_1_1686236545915.jpg

Rated Item: 3. Encroachments Caption: 0087 - Minimally Acceptable - Downed logs on riverside levee toe



Inspect ID: 2023-0091

Title:

2604000007_CELRC_2023_A_2023-0091_1_1686236693288.jpg

Rated Item: 3. Encroachments Caption: 0091 - Minimally

Acceptable - Downed tree on riverside toe



Inspect ID: 2023-0155

Title:

2604000007_CELRC_2023_A_2023-

0155_1_1686239095318.jpg

Rated Item: 3. Encroachments Caption: 0155 - Minimally
Acceptable - Trash on riverside levee slope



Inspect ID: 2023-0172

Title:

2604000007_CELRC_2023_A_2023-

0172_1_1686245857697.jpg

Rated Item: 3. Encroachments Caption: 0172 - Minimally Acceptable - Wooden bollard missing on levee crown



Inspect ID: 2023-0231

Title:

2604000007_CELRC_2023_A_2023-

0231_1_1686242786880.jpg

Rated Item: 3. Encroachments Caption: 0231 - Minimally Acceptable - Half buried logs on riverside toe



Inspect ID: 2023-0263

Title:

2604000007_CELRC_2023_A_2023-

0263_1_1686243779143.jpg

Rated Item: 3. Encroachments Caption: 0263 - Minimally

Acceptable - Downed trees on riverside toe



Inspect ID: 2023-0271

Title:

2604000007_CELRC_2023_A_2023-

0271_1_1686244083004.jpg

Rated Item: 3. Encroachments Caption: 0271 - Minimally
Acceptable - Buried concrete blocks on riverside toe



Inspect ID: 2023-0320

Title:

2604000007_2023_A_2023-0320_1_20230714T190820.jpg Rated Item: 3. Encroachments Caption: 0320 - Minimally

Acceptable - Tree debris within 15 ft of landside toe



Inspect ID: 2023-0059

Title:

2604000007_CELRC_2023_A_2023-

0059_1_1686235232027.jpg

Rated Item: 5. Slope Stability Caption: 0059 - Minimally
Acceptable - Slope near HI-3 is slowly slipping downhill. Note

tilting stone bollards.



Inspect ID: 2023-0227

Title:

2604000007_CELRC_2023_A_2023-

0227 1 1686242288994.jpg

Rated Item: 5. Slope Stability Caption: 0227 - Acceptable -

Typical slope condition. No issues.



Inspect ID: 2023-0035

Title:

2604000007_CELRC_2023_A_2023-

0035_1_1686233881425.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: 0035 Minimally Acceptable - Riverside bank erosion up to toe.



Inspect ID: 2023-0035

Title:

2604000007_CELRC_2023_A_2023-

0035_2_168\overline{6}233967\overline{0}13.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: 0035 - Minimally Acceptable - Riverside bank erosion up to toe.



Inspect ID: 2023-0039

Title:

2604000007_CELRC_2023_A_2023-0039_1_1686234210193.jpg Rated Item: 6. Erosion/ Bank Caving Caption: 0039 -Minimally Acceptable - Bank erosion near curve on riverside

toe.



Inspect ID: 2023-0142

Title:

2604000007_CELRC_2023_A_2023-

0142_1_1686241099267.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: 0142 - Minimally Acceptable - Near HI-11: Minor erosion



Inspect ID: 2023-0151

Title:

2604000007_CELRC_2023_A_2023-

0151_1_1686238960017.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: 0151
Minimally Acceptable - Heavy vegetation and possible erosion

of riverside toe



Inspect ID: 2023-0187

Title:

2604000007_CELRC_2023_A_2023-

0187_1_1686240858238.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: 0187 Minimally Acceptable - Typical erosion and bank caving along

levee riverside toe



Inspect ID: 2023-0239

Title:

2604000007_CELRC_2023_A_2023-

0239_1_1686243229744.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: 0239 Minimally Acceptable - Erosion of riverside toe at water level

in rookery



Inspect ID: 2023-0243

Title:

2604000007_CELRC_2023_A_2023-

0243 1 1686243343574.jpg

Rated Item: 6. Erosion/Bank Caving Caption: 0243 -

Minimally Acceptable - Bank caving in rookery into levee toe. Combination of bank caving and animal activity leading to

sizeable collapses into levee cross section



Inspect ID: 2023-0251

Title:

2604000007_CELRC_2023_A_2023-

0251_1_1686243504943.jpg **Rated Item:** 6. Erosion/ Bank Caving **Caption:** 0251 -Minimally Acceptable - Large caving due to animal burrows

and poor vegetation.



Inspect ID: 2023-0275

Title:

2604000007_CELRC_2023_A_2023-

0275_1_1686244262161.jpg

Rated Item: 6. Erosion/Bank Caving Caption: 0275 -Minimally Acceptable - Bank scour on riverside toe typical

throughout



Inspect ID: 2023-0159

Title:

2604000007_CELRC_2023_A_2023-

0159_1_1686239323598.jpg

Rated Item: 7. Settlement Caption: 0159 - Minimally
Acceptable - Minor low spot in crest



Inspect ID: 2023-0032

Title:

2604000007_CELRC_2023_A_2023-0032_1_1686234190105.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0032 - Minimally Acceptable - Rutting on riverside slope



Inspect ID: 2023-0040

Title:

2604000007_CELRC_2023_A_2023-

0040_1_1686234570002.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0040 Minimally Acceptable - Rutting on riverside slope



Inspect ID: 2023-0047

Title:

2604000007_CELRC_2023_A_2023-0047_1_1686234336080.jpg Rated Item: 8. Depressions/ Rutting Caption: 0047 -Minimally Acceptable - Depression near riverside toe



Inspect ID: 2023-0136

Title:

2604000007_CELRC_2023_A_2023-

0136_1_1686244284028.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0136 Minimally Acceptable - Rutting on riverside slope



Inspect ID: 2023-0168

Title:

2604000007_CELRC_2023_A_2023-

0168 1 1686245666628.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0168 - Minimally Acceptable - Rutting on landside toe



Inspect ID: 2023-0183

Title:

2604000007_CELRC_2023_A_2023-

0183_1_1686240765660.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0183 Minimally Acceptable - Rutting on riverside slope



Inspect ID: 2023-0211

Title:

2604000007_CELRC_2023_A_2023-

0211 1 1686241875913.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0211 -Minimally Acceptable - 3 inch ruts along outside corner on

riverside slope



Inspect ID: 2023-0219

Title:

2604000007_CELRC_2023_A_2023-

0219_1_1686242085649.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0219 Minimally Acceptable - 4 inch deep ruts on riverside toe



Inspect ID: 2023-0247

Title:

2604000007_CELRC_2023_A_2023-

0247_1_1686243377102.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0247 -

Minimally Acceptable - Poor sod cover and rutting on outside

riverside slope



Inspect ID: 2023-0267

Title:

2604000007_CELRC_2023_A_2023-0267_1_1686244012699.jpg Rated Item: 8. Depressions/ Rutting Caption: 0267 -Minimally Acceptable - Rutting on riverside toe



Inspect ID: 2023-0279

Title:

2604000007_CELRC_2023_A_2023-

0279 1 1686244407805.jpg

Rated Item: 8. Depressions/ Rutting Caption: 0279 - Minimally Acceptable - Ruts on riverside slope



Inspect ID: 2023-0311

Title:

2604000007_CELRC_2023_A_2023-0311_1_1686245667976.jpg Rated Item: 8. Depressions/ Rutting Caption: 0311 -Minimally Acceptable - Very large rut in riverside toe



Inspect ID: 2023-0096

Title:

2604000007_CELRC_2023_A_2023-0096_1_1686238938092.jpg **Rated Item:** 9. Cracking **Caption:** 0096 - Minimally Acceptable - Crack in asphalt on crest



Inspect ID: 2023-0100

Title:

2604000007_CELRC_2023_A_2023-

0100_1_1686239006115.jpg

Rated Item: 9. Cracking Caption: 0100 - Minimally
Acceptable - Crack in asphalt with vegetation growing within



Inspect ID: 2023-0147

Title:

2604000007_CELRC_2023_A_2023-

0147 1 1686238890493.jpg

Rated Item: 9. Cracking Caption: 0147 - Minimally

Acceptable - Edge of pavement cracking typical along length

from Kennedy to first turn



Inspect ID: 2023-0028

Title:

2604000007_CELRC_2023_A_2023-

0028_1_1686234096208.jpg

Rated Item: 10. Animal Control Caption: 0028 - Minimally
Acceptable - 4 foot deep animal burrow on waterside slope



Inspect ID: 2023-0036

Title:

2604000007_CELRC_2023_A_2023-

0036_1_168\overline{6}234320\overline{2}19.jpg

Rated Item: 10. Animal Control Caption: 0036 - Minimally

Acceptable - Burrow on landside slope



Inspect ID: 2023-0043

Title:

2604000007_CELRC_2023_A_2023-

0043_1_1686234284928.jpg

Rated Item: 10. Animal Control Caption: 0043 - Minimally
Acceptable - 28 in deep animal burrow on riverside toe



Inspect ID: 2023-0044

Title:

2604000007_CELRC_2023_A_2023-

0044 1 1686234614140.jpg

Rated Item: 10. Animal Control Caption: 0044 - Minimally

Acceptable - Burrow on riverside slope



Inspect ID: 2023-0132

Title:

2604000007_CELRC_2023_A_2023-

0132_1_1686244230579.jpg

Rated Item: 10. Animal Control Caption: 0132 - Minimally
Acceptable - Animal burrow on riverside slope



Inspect ID: 2023-0140

Title:

2604000007_CELRC_2023_A_2023-

0140 1 1686244390971.jpg

Rated Item: 10. Animal Control Caption: 0140 - Minimally Acceptable - Animal burrow near crest. Typical on south side

of Rookery



Inspect ID: 2023-0223

Title:

2604000007_CELRC_2023_A_2023-

0223_1_1686242122948.jpg

Rated Item: 10. Animal Control Caption: 0223 - Minimally
Acceptable - 16 inch deep animal burrow on riverside toe



Inspect ID: 2023-0235

Title:

2604000007_CELRC_2023_A_2023-

0235_1_1686243038050.jpg

Rated Item: 10. Animal Control Caption: 0235 - Minimally

Acceptable - Animal burrow near levee crest



Inspect ID: 2023-0255

Title:

2604000007_CELRC_2023_A_2023-

0255_1_1686243620390.jpg

Rated Item: 10. Animal Control Caption: 0255 - Minimally Acceptable - 2 foot wide collapsing burrow on riverside toe.



Inspect ID: 2023-0283

Title:

2604000007_CELRC_2023_A_2023-

0283_1_1686244462319.jpg

Rated Item: 10. Animal Control Caption: 0283 - Minimally

Acceptable - Large animal burrows on riverside toe



Inspect ID: 2023-0322

Title:

2604000007_2023_A_2023-0322_1_20230724T221322.jpg

Rated Item: 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) Caption: 0322 - Minimally Acceptable - small creasing failure about 6 feet from start of inspection (9 to 12 oclock. Small joint separation at 11.33 feet from access point



Inspect ID: 2023-0322

Title:

2604000007_2023_A_2023-0322_2_20230724T221326.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0322 - Minimally Acceptable - Small joint separation at 11.33 feet from access point, some soil infiltration.



Inspect ID: 2023-0322

Title:

2604000007_2023_A_2023-0322_3_20230724T221333.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0322 - Minimally Acceptable - Elliptical deformation in corrugated metal pipe, 23.36 feet to 29.78 feet. Creasing at the end.



Inspect ID: 2023-0322

Title:

2604000007_2023_A_2023-0322_4_20230724T221341.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0322 - Minimally Acceptable- Elliptical deformation in corrugated metal pipe, 23.36 feet to 29.78 feet. Creasing at the end.



Inspect ID: 2023-0324

Title:

2604000007_2023_A_2023-0324_1_20230724T221820.jpg

Rated Item: 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) Caption: 0324 - Minimally Acceptable - HI-3: infiltration 10-11 oclock, dripper, just downstream of closed sluice gate. Minor leaks in seal around sluice gate. Minor cracks on joint near ditchline grates



Inspect ID: 2023-0325

Title:

2604000007_2023_A_2023-0325_1_20230724T222011.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0325 - Minimally Acceptable - HI-7A: spalling of concrete in outfall structure.



Inspect ID: 2023-0325

Title:

2604000007_2023_A_2023-0325_2_20230724T222019.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0325 - Minimally Acceptable -HI-7A: Missing vertical bar on grate.



Inspect ID: 2023-0325

Title:

260400007_2023_A_2023-0325_3_20230724T222026.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0325 - Minimally Acceptable - HI-7B: small joint offset at 22 feet from access point. No soil showing yet.



Inspect ID: 2023-0326

Title:

260400007_2023_A_2023-0326_1_20230724T222326.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0326 - Minimally Acceptable - HI-10C: large vegetation debris 18-20 feet into pipe.



Inspect ID: 2023-0327

Title:

2604000007_2023_A_2023-0327_1_20230724T222517.jpg **Rated Item:** 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) **Caption:** 0327 - Minimally Acceptable - HI-11: large amount of vegetation in stagnant water, downstream of sluice gate. May need to be cleaned out.



Inspect ID: 2023-0330

Title:

2604000007_2023_A_2023-0330_1_20230814T213421.jpg

Rated Item: 15. Seepage Caption: 0330 - Minimally Acceptable - Area of previous minor seepage on landside toe.

No Seepage observed.



Inspect ID: 2023-0003

Title:

2604000007_CELRC_2023_A_2023-

0003 1 1686232017620.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0003 - Minimally Acceptable - Vegetation on floodwall, landside and

riverside



Inspect ID: 2023-0068

Title:

2604000007_CELRC_2023_A_2023-

0068_1_1686236853809.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0068 - Minimally Acceptable - Vegetation growing next to floodwall

landside



Inspect ID: 2023-0076

Title:

2604000007_CELRC_2023_A_2023-

0076 1 1686237097065.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0076 - Minimally Acceptable - Vegetation landside of floodwall



Inspect ID: 2023-0080

Title:

2604000007_CELRC_2023_A_2023-

0080_1_1686237375585.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0080 - Minimally Acceptable - Vegetation on riverside of floodwall



Inspect ID: 2023-0104

Title:

2604000007_CELRC_2023_A_2023-

0104_1_1686239354952.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0104 - Minimally Acceptable - Vegetation on landside and root balls

at the landside base



Inspect ID: 2023-0160

Title:

2604000007_CELRC_2023_A_2023-

0160_1_1686245361493.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0160 - Minimally Acceptable - Vegetation on landside



Inspect ID: 2023-0199

Title:

2604000007_CELRC_2023_A_2023-

0199 1 1686241280041.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Vegetation on riverside



Inspect ID: 2023-0295

Title:

2604000007_CELRC_2023_A_2023-

0295_1_1686245232228.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: 0295 - Minimally Acceptable - Vegetation on landside



Inspect ID: 2023-0072

Title:

2604000007_CELRC_2023_A_2023-

0072 1 1686236939638.jpg

Rated Item: 2. Encroachments Caption: 0072 - Minimally

Acceptable - Grafitti on riverside floodwall



Inspect ID: 2023-0107

Title:

2604000007_CELRC_2023_A_2023-

0107_1_1686237295131.jpg

Rated Item: 2. Encroachments Caption: 0107 - Minimally Acceptable - Large metal railroad coupling mechanism

abandoned near railroad closure on riverside



Inspect ID: 2023-0108

Title:

2604000007_CELRC_2023_A_2023-

0108_1_1686239471446.jpg

Rated Item: 2. Encroachments Caption: 0108 - Minimally

Acceptable - Graffiti on landside floodwall



Inspect ID: 2023-0112

Title:

2604000007_CELRC_2023_A_2023-

0112_1_1686239553267.jpg

Rated Item: 2. Encroachments Caption: 0112 - Minimally
Acceptable - Graffiti on landside floodwall



Inspect ID: 2023-0128

Title:

2604000007_CELRC_2023_A_2023-0128_1_1686241871946.jpg

Rated Item: 2. Encroachments Caption: 0128 - Minimally Acceptable - Garages, pole, fencing and barns



Inspect ID: 2023-0128

Title:

2604000007_CELRC_2023_A_2023-

0128_2_1686241939586.jpg

Rated Item: 2. Encroachments Caption: 0128 - Minimally
Acceptable - Garages, pole, fencing and barns



Inspect ID: 2023-0163

Title:

2604000007_CELRC_2023_A_2023-

0163_1_1686239373034.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Debris on riverside face along entire floodwall



Inspect ID: 2023-0163

Title:

2604000007_CELRC_2023_A_2023-0163_2_1686239497100.jpg

Rated Item: 2. Encroachments Caption: Minimally
Acceptable - Debris on riverside face along entire floodwall



Inspect ID: 2023-0203

Title:

2604000007_CELRC_2023_A_2023-0203_1_1686241528598.jpg **Rated Item:** 2. Encroachments **Caption:** Minimally

Acceptable - Debris on riverside



Inspect ID: 2023-0099

Title:

2604000007_CELRC_2023_A_2023-

0099_1_1686237101557.jpg

Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Rubber gasket at

railroad closure missing



Inspect ID: 2023-0135

Title:

2604000007_CELRC_2023_A_2023-

0135_1_1686238560757.jpg

Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Closure structure

in good condition in Kennedy



Inspect ID: 2023-0135

Title:

2604000007_CELRC_2023_A_2023-

0135_2_1686238715394.jpg

Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Closure structure

in good condition in Kennedy



Inspect ID: 2023-0319

Title:

2604000007_CELRC_2023_A_2023-

0319_1_1686245901916.jpg

Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) **Caption:** 0319 - Acceptable - Floodwall

tieback, no issues noted



Inspect ID: 2023-0015

Title:

2604000007_CELRC_2023_A_2023-

0015_1_1686232371671.jpg

Rated Item: 4. Concrete Surfaces Caption: Minimally
Acceptable - Typical hairline surface cracking



Inspect ID: 2023-0111

Title:

2604000007_CELRC_2023_A_2023-

0111_1_1686237372787.jpg

Rated Item: 4. Concrete Surfaces Caption: 0111 - Minimally Acceptable - Concrete spalling on tie in to levee embankment



Inspect ID: 2023-0111

Title:

2604000007_CELRC_2023_A_2023-

0111_2_1686237393517.jpg

Rated Item: 4. Concrete Surfaces Caption: 0111 - Minimally Acceptable - Concrete spalling on tie in to levee embankment



Inspect ID: 2023-0120

Title:

2604000007_CELRC_2023_A_2023-

0120 1 1686241276668.jpg

Rated Item: 4. Concrete Surfaces Caption: 0120 - Minimally

Acceptable - Spalling on landside face.



Inspect ID: 2023-0123

Title:

2604000007_CELRC_2023_A_2023-

0123_1_1686237617951.jpg

Rated Item: 4. Concrete Surfaces Caption: Minimally
Acceptable - Typical surface hairline cracks in cap



Inspect ID: 2023-0127

Title:

2604000007_CELRC_2023_A_2023-

0127 1 1686238007651.jpg

Rated Item: 4. Concrete Surfaces Caption: 0127 - Minimally

Acceptable - Typical concrete cracking near joint



Inspect ID: 2023-0131

Title:

2604000007_CELRC_2023_A_2023-

0131_1_1686238306585.jpg

Rated Item: 4. Concrete Surfaces Caption: 0131 - Minimally Acceptable - Hole blasted into top of floodwall 1 inch deep,

west of Kennedy ave



Inspect ID: 2023-0175

Title:

2604000007_CELRC_2023_A_2023-

0175_1_1686240185436.jpg

Rated Item: 4. Concrete Surfaces Caption: 0175 - Minimally

Acceptable - Missing bolt in sheetpile wall



Inspect ID: 2023-0315

Title:

2604000007_CELRC_2023_A_2023-

0315_1_1686245857923.jpg

Rated Item: 4. Concrete Surfaces Caption: 0315 - Minimally Acceptable - Spalling on median floodwall. Typical



Inspect ID: 2023-0115

Title:

2604000007_CELRC_2023_A_2023-

0115 1 1686237512909.jpg

Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: 0115 - Minimally Acceptable - Blocks for

the retaining wall near pedestrian bridge are displaced



Inspect ID: 2023-0191

Title:

2604000007_CELRC_2023_A_2023-

0191_1_1686241039228.jpg

Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Minimally Acceptable - Misaligned

floodwall tilting out towards river



Inspect ID: 2023-0287

Title:

2604000007_CELRC_2023_A_2023-

0287_1_1686245154706.jpg

Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Minimally Acceptable - Misalignment of

floodwall



Inspect ID: 2023-0088

Title:

2604000007_CELRC_2023_A_2023-0088_1_1686238422879.jpg **Rated Item:** 6. Foundation of Concrete Structures **Caption:** 0088 - Minimally Acceptable - Depression on landside base



Inspect ID: 2023-0095

Title:

2604000007_CELRC_2023_A_2023-0095_1_1686236916282.jpg

Rated Item: 6. Foundation of Concrete Structures Caption:

Minimally Acceptable - Animal burrows under closure

structure



Inspect ID: 2023-0103

Title:

2604000007_CELRC_2023_A_2023-

0103_1_1686237230243.jpg **Rated Item:** 6. Foundation of Concrete Structures **Caption:** 0103 - Minimally Acceptable - Burrow and vegetation on

riverside



Inspect ID: 2023-0167

Title:

2604000007_CELRC_2023_A_2023-

0167 1 1686239569204.jpg

Rated Item: 6. Foundation of Concrete Structures Caption: 0167 - Minimally Acceptable - Animal burrows near floodwall



Inspect ID: 2023-0195

Title:

2604000007_CELRC_2023_A_2023-0195_1_1686241257208.jpg Rated Item: 6. Foundation of Concrete Structures Caption: 0195 - Minimally Acceptable - Scour around corner makes it

hard to mow



Inspect ID: 2023-0011

Title:

2604000007_CELRC_2023_A_2023-

0011_1_1686232331096.jpg

Rated Item: 7. Monolith Joints Caption: Minimally Acceptable - Broken caulking of monolith joints



Inspect ID: 2023-0116

Title:

2604000007_CELRC_2023_A_2023-

0116_1_1686241210650.jpg

Rated Item: 7. Monolith Joints Caption: 0116 - Minimally
Acceptable - Joint sealant deteriorated



Inspect ID: 2023-0119

Title:

2604000007_CELRC_2023_A_2023-

0119_1_1686237588515.jpg

Rated Item: 7. Monolith Joints Caption: 0119 - Minimally
Acceptable - Typical cracking of sealant



Inspect ID: 2023-0124

Title:

2604000007_CELRC_2023_A_2023-

0124_1_1686241342266.jpg

Rated Item: 7. Monolith Joints Caption: Minimally

Acceptable

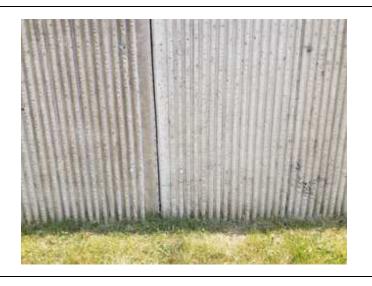


Inspect ID: 2023-0139

Title:

2604000007_CELRC_2023_A_2023-0139_1_1686238754709.jpg Rated Item: 7. Monolith Joints Caption: Minimally Acceptable - Typical monolith joint cracking of sealant

riverside



Inspect ID: 2023-0152

Title:

2604000007_CELRC_2023_A_2023-

0152_1_1686245254596.jpg

Rated Item: 7. Monolith Joints Caption: Minimally
Acceptable - Missing caulk and filler material in joints



Inspect ID: 2023-0156

Title:

2604000007_CELRC_2023_A_2023-0156_1_1686245313779.jpg **Rated Item:** 7. Monolith Joints **Caption:** Minimally

Acceptable - Missing filler and caulk



Inspect ID: 2023-0291

Title:

2604000007_CELRC_2023_A_2023-

0291_1_1686245209826.jpg

Rated Item: 7. Monolith Joints Caption: 0291 - Minimally
Acceptable - No sealant on joint



Inspect ID: 2023-0299

Title:

2604000007_CELRC_2023_A_2023-0299_1_1686245254009.jpg Rated Item: 7. Monolith Joints Caption: 0299 - Minimally Acceptable - Waterstop deteriorating landside



Inspect ID: 2023-0007

Title:

2604000007_CELRC_2023_A_2023-

0007_1_1686232211230.jpg

Rated Item: 1. Vegetation and Obstructions Caption: 0007 Minimally Acceptable - HI-1: Vegetation wedged in tideflex



Inspect ID: 2023-0019

Title:

2604000007_CELRC_2023_A_2023-

0019 1 1686232639614.jpg

Rated Item: 1. Vegetation and Obstructions Caption: 0019 - Minimally Acceptable - HI-02: Vegetation around outlet



Inspect ID: 2023-0022

Title:

2604000007_CELRC_2023_A_2023-

0022_1_1686232972314.jpeg

Rated Item: 1. Vegetation and Obstructions Caption: 0022 Minimally Acceptable - HI-03: Vegetation around headwall



Inspect ID: 2023-0024

Title:

2604000007_CELRC_2023_A_2023-

0024_1_1686233824531.jpg

Rated Item: 1. Vegetation and Obstructions Caption: 0024 - Minimally Acceptable - Vegetation in landside ditch



Inspect ID: 2023-0034

Title:

2604000007_CELRC_2023_A_2023-

0034_1_1686234204346.jpg

Rated Item: 1. Vegetation and Obstructions Caption: 0034 - Minimally Acceptable - HI-5: Vegetation around inlet



Inspect ID: 2023-0048

Title:

2604000007_CELRC_2023_A_2023-

0048 1 1686235258176.jpg

Rated Item: 1. Vegetation and Obstructions Caption: 0048 - Minimally Acceptable - HI-4: Vegetation growth along outlet



Inspect ID: 2023-0074

Title:

2604000007_CELRC_2023_A_2023-

0074_1_1686237823331.jpeg

Rated Item: 1. Vegetation and Obstructions Caption:
Minimally Acceptable - HI-09: Vegetation close to inlet



Inspect ID: 2023-0075

Title:

2604000007_CELRC_2023_A_2023-

0075 1 1686236105848.jpg

Rated Item: 1. Vegetation and Obstructions **Caption:** 0075 - Minimally Acceptable - HI-06: Heavy vegetation around outlet



Inspect ID: 2023-0114

Title:

2604000007_CELRC_2023_A_2023-

0114_1_1686239957606.jpg

Rated Item: 1. Vegetation and Obstructions Caption: 0114 - Minimally Acceptable - HI-10A,B,C,D: Vegetation and

sediment build up around inlet structure



Inspect ID: 2023-0126

Title:

2604000007_CELRC_2023_A_2023-

0126_1_1686240670856.jpg

Rated Item: 1. Vegetation and Obstructions Caption: 0126 -

Minimally Acceptable - HI-11: Large amount of debris,

sediment, and vegetation blocking inlet



Inspect ID: 2023-0164

Title:

2604000007_CELRC_2023_A_2023-

0164_1_1686245477995.jpg

Rated Item: 1. Vegetation and Obstructions Caption:
Minimally Acceptable - Vegetation in landside ditch



Inspect ID: 2023-0303

Title:

2604000007_CELRC_2023_A_2023-

0303_1_1686245451193.jpg

Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - Vegetation in landside ditch



Inspect ID: 2023-0026

Title:

2604000007_CELRC_2023_A_2023-0026_1_1686234001170.jpg **Rated Item:** 2. Encroachments **Caption:** Minimally

Acceptable - HI-5: Debris at outlet.



Inspect ID: 2023-0038

Title:

2604000007_CELRC_2023_A_2023-0038_1_1686236279655.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - HI-7A: Graffiti on gatewell



Inspect ID: 2023-0042

Title:

2604000007_CELRC_2023_A_2023-0042_1_1686236441787.jpg Rated Item: 2. Encroachments Caption: Minimally Acceptable - HI-7B: Graffiti on concrete surfaces



Inspect ID: 2023-0062

Title:

2604000007_CELRC_2023_A_2023-0062_1_1686237096091.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - HI-7B: Encroachments in gate structure



Inspect ID: 2023-0106

Title:

2604000007_CELRC_2023_A_2023-

0106_1_1686239753570.jpg

Rated Item: 2. Encroachments Caption: Minimally
Acceptable - HI-10B: Sandbag debris



Inspect ID: 2023-0010

Title:

2604000007_CELRC_2023_A_2023-

0010_1_1686232707266.jpeg

Rated Item: 4. Fencing and Gates Caption: Minimally
Acceptable - HI-03: Fencing unsecured to wall



Inspect ID: 2023-0006

Title:

2604000007_CELRC_2023_A_2023-

0006_1_168\overline{6}232572\overline{0}21.jpeg

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) Caption: 0006 - Minimally Acceptable -

HI-03: Wall damage from mower



Inspect ID: 2023-0046

Title:

2604000007_CELRC_2023_A_2023-

0046_1_1686236510659.jpg

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) Caption: 0046 - Minimally Acceptable -

HI-7B: Spalling of surface



Inspect ID: 2023-0070

Title:

2604000007_CELRC_2023_A_2023-

0070_1_1686237736709.jpeg

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) Caption: 0070 - Minimally Acceptable -

HI-09: Spalling of headwall



Inspect ID: 2023-0078

Title:

2604000007_CELRC_2023_A_2023-

0078_1_1686238043253.jpeg

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) Caption: 0078 - Minimally Acceptable -

HI-09: Spalling of concrete near fencing



Inspect ID: 2023-0122

Title:

2604000007_CELRC_2023_A_2023-

0122_1_1686240296178.jpg

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) Caption: Minimally Acceptable - HI-

10ABCD: Minor spalling on gatewell concrete



Inspect ID: 2023-0134

Title:

2604000007 CELRC 2023 A 2023-

0134_1_1686240850064.jpg

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) Caption: 0134 - Minimally Acceptable -

HI-11: Spalling in gatewell.



Inspect ID: 2023-0146

Title:

2604000007_CELRC_2023_A_2023-

0146_1_1686241221195.jpg

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) **Caption:** 0146 - Minimally Acceptable -

HI-11: Spalling on wingwalls of outlet structure



Inspect ID: 2023-0014

Title:

2604000007_CELRC_2023_A_2023-

0014_1_1686232803958.jpeg

Rated Item: 10. Sluice / Slide Gates Caption: Acceptable -

HI-03: Gate closed, no issues



Inspect ID: 2023-0030

Title:

2604000007_CELRC_2023_A_2023-

0030_1_1686234053919.jpg

Rated Item: 10. Sluice / Slide Gates Caption: Minimally
Acceptable - HI-5: Minor squeaking during closing.



Inspect ID: 2023-0054

Title:

2604000007_CELRC_2023_A_2023-

0054_2_1686236817679.jpg

Rated Item: 10. Sluice / Slide Gates Caption: 0054 -Minimally Acceptable - HI-7A: Gate closed, no issues

observed



Inspect ID: 2023-0058

Title:

2604000007_CELRC_2023_A_2023-

0058_1_1686236943027.jpg

Rated Item: 10. Sluice / Slide Gates Caption: Minimally
Acceptable - HI-7A: Minor rust present on gate



Inspect ID: 2023-0082

Title:

2604000007_CELRC_2023_A_2023-0082_1_1686238151603.jpeg Rated Item: 10. Sluice / Slide Gates Caption: Acceptable -HI-09: Gate closed, no issues. Some minor silting on gate



Inspect ID: 2023-0086

Title:

2604000007_CELRC_2023_A_2023-

0086_1_1686238837774.jpg

Rated Item: 10. Sluice / Slide Gates Caption: Minimally
Acceptable - HI-10D: Minor sediment in gatewell



Inspect ID: 2023-0090

Title:

2604000007_CELRC_2023_A_2023-

0090_1_1686238980042.jpg

Rated Item: 10. Sluice / Slide Gates Caption: 0090 -Acceptable - HI-10C: Gate closed, no issues observed



Inspect ID: 2023-0094

Title:

2604000007_CELRC_2023_A_2023-

0094_1_1686239544931.jpg

Rated Item: 10. Sluice / Slide Gates Caption: Minimally

Acceptable - HI-10B: Eroded seal



Inspect ID: 2023-0098

Title:

2604000007_CELRC_2023_A_2023-

0098_1_1686239234907.jpg

Rated Item: 10. Sluice / Slide Gates Caption: Minimally Acceptable - HI-10D:Gate closed, loud squeaking of rust

present during operation



Inspect ID: 2023-0110

Title:

2604000007_CELRC_2023_A_2023-

0110_1_1686239805671.jpg

Rated Item: 10. Sluice / Slide Gates Caption: Acceptable -

HI-10B: Gate closed



Inspect ID: 2023-0118

Title:

2604000007_CELRC_2023_A_2023-0118_1_1686240073974.jpg **Rated Item:** 10. Sluice / Slide Gates **Caption:** 0118 -Acceptable - HI-10A:Gate closed, no issue observed



Inspect ID: 2023-0138

Title:

2604000007_CELRC_2023_A_2023-

0138_1_1686240867835.jpg

Rated Item: 10. Sluice / Slide Gates Caption: 0138 - Acceptable - HI-11: Gate closed, no issue observed



Inspect ID: 2023-0002

Title:

2604000007_CELRC_2023_A_2023-

0002 1 1686232463490.jpeg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Acceptable - HI-03: Gate closed upon arrival, no

issues



Inspect ID: 2023-0004

Title:

2604000007_CELRC_2023_A_2023-

0004_1_1686232177910.jpg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves

Caption: 0004 - Minimally Acceptable - HI-01: Vegetation in

outlet



Inspect ID: 2023-0012

Title:

2604000007_CELRC_2023_A_2023-

0012 1 1686232632452.jpg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves
Caption: 0012 - Minimally Acceptable - HI-02: Soil in front of

flap gate. Flap gate in good condition



Inspect ID: 2023-0055

Title:

2604000007_CELRC_2023_A_2023-

0055_1_1686234877076.jpg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves

Caption: 0055 - Minimally Acceptable - HI-3 west: Flapgate

completely silted in



Inspect ID: 2023-0066

Title:

2604000007_CELRC_2023_A_2023-

0066 1 1686237683981.jpeg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Acceptable - HI-09: Flap gate closed, no issues



Inspect ID: 2023-0079

Title:

2604000007_CELRC_2023_A_2023-

0079_1_1686236175079.jpg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves

Caption: 0079 - Minimally Acceptable - HI-06: Flap gate

slightly ajar



Inspect ID: 2023-0102

Title:

2604000007_CELRC_2023_A_2023-

0102 1 1686239568822.jpg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - HI-10ABCD: Sediment

build up around outlet structure



Inspect ID: 2023-0130

Title:

2604000007_CELRC_2023_A_2023-

0130_1_1686240778796.jpg

Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves

Caption: Minimally Acceptable - HI-11: Flapgate not closed



Inspect ID: 2023-0050

Title:

2604000007_CELRC_2023_A_2023-

0050 1 1686236709774.jpg

Rated Item: 12. Trash Racks (non-mechanical) Caption: Minimally Acceptable - HI-7B: Vertical grates missing



Inspect ID: 2023-0018

Title:

2604000007_CELRC_2023_A_2023-

0018_1_1686232887820.jpeg

Rated Item: 13. Other Metallic Items Caption: Minimally

Acceptable - HI-03: Glass sight missing



Inspect ID: 2023-0052

Title:

2604000007_CELRC_2023_A_2023-

0052_1_1686235682336.jpeg

Rated Item: 13. Other Metallic Items Caption: 0052 Minimally Acceptable - Lid south of HI-4 is loose and

detached from catch basin.



Inspect ID: 2023-0008

Title:

2604000007_CELRC_2023_A_2023-

0008_1_1686232222267.jpg

Rated Item: 14. Riprap Revetments of Inlet/ Discharge Areas

Caption: 0008 - Minimally Acceptable - Erosion on right bank

of HI-1



Inspect ID: 2023-0063

Title:

2604000007_CELRC_2023_A_2023-

0063 1 1686235325726.jpg

Rated Item: 15. Revetments other than Riprap Caption: 0063

- Minimally Acceptable - HI-04: hole in gabion basket.



Inspect ID: 2023-0017

Title:

2604000007_CELRC_2023_A_2023-

0017_1_1686233027800.jpeg

Rated Item: 2. Pump Station Operations and Maintenance
Equipment Manuals Caption: Acceptable - PS-81: Operations

manuals present on site.



Inspect ID: 2023-0065

Title:

2604000007_CELRC_2023_A_2023-

0065 1 1686235512698.jpeg

Rated Item: 2. Pump Station Operations and Maintenance Equipment Manuals **Caption:** Acceptable - PS-N5: Operations

manuals present on site.



Inspect ID: 2023-0109

Title:

2604000007_CELRC_2023_A_2023-

0109_1_1686237296638.jpeg

Rated Item: 2. Pump Station Operations and Maintenance
Equipment Manuals Caption: Acceptable - PS-ND: Operation

manuals present on site.



Inspect ID: 2023-0009

Title:

2604000007_CELRC_2023_A_2023-

0009 1 1686232866419.jpeg

Rated Item: 3. Safety Compliance Caption: 0009 - Minimally Acceptable - PS-81: Arc flash labels need to be added to MCC

- PS-81



Inspect ID: 2023-0081

Title:

2604000007_CELRC_2023_A_2023-

0081_1_1686235805530.jpeg

Rated Item: 3. Safety Compliance Caption: 0081 - Minimally
Acceptable - PS-N5: Arc flash labels are not present - PS-N5



Inspect ID: 2023-0105

Title:

2604000007 CELRC 2023 A 2023-

0105 1 1686237235198.jpeg

Rated Item: 3. Safety Compliance Caption: Minimally Acceptable - PS-ND: Arc flash labels not added. Recommend

performing arc flash study to add proper labels.



Inspect ID: 2023-0001

Title:

2604000007_CELRC_2023_A_2023-

0001_1_1686232584973.jpeg

Rated Item: 5. Plant Building Caption: 0001 - Minimally Acceptable - PS-81: Bird nests in ventilation louvers. Currently have insulation on inside for bird noises. Monitor for further

activity and remove if necessary. - PS-81



Inspect ID: 2023-0001

Title:

2604000007 CELRC 2023 A 2023-

0001_2_168\overline{6}233181\overline{4}58.jpeg

Rated Item: 5. Plant Building Caption: 0001 - Minimally Acceptable - PS-81: Bird nests in ventilation louvers. Currently have insulation on inside for bird noises. Monitor for further

activity and remove if necessary. - PS-81



Inspect ID: 2023-0005

Title:

2604000007_CELRC_2023_A_2023-

0005_1_168\overline{6}232683\overline{4}14.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - Concrete of walkway cracking in 3 separate locations.

Recommend repair.



Inspect ID: 2023-0021

Title:

2604000007_CELRC_2023_A_2023-

0021 1 1686233164725.jpeg

Rated Item: 5. Plant Building Caption: 0021 - Minimally Acceptable - PS-81: Gates of walkway have cracking, rusting,

and paint chipping. Recommend repairing. - PS-81



Inspect ID: 2023-0021

Title:

2604000007_CELRC_2023_A_2023-

0021_2_1686233166669.jpeg

Rated Item: 5. Plant Building Caption: 0021 - Minimally
Acceptable - PS-81: Gates of walkway have cracking, rusting,

and paint chipping. Recommend repairing. - PS-81



Inspect ID: 2023-0029

Title:

2604000007_CELRC_2023_A_2023-

0029 1 1686233633967.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-81: Cracking on exterior of building. Recommend for

repair.



Inspect ID: 2023-0033

Title:

2604000007_CELRC_2023_A_2023-

0033_1_168\overline{6}234206\overline{5}17.jpeg

Rated Item: 5. Plant Building Caption: 0033 - Minimally Acceptable - PS-81: Birds nests also located on exterior within exhaust fans and gutters. Monitor for building and remove if

necessary. Recommend removal. - PS-81



Inspect ID: 2023-0033

Title:

2604000007_CELRC_2023_A_2023-

0033_2_1686234209155.jpeg

Rated Item: 5. Plant Building Caption: 0033 - Minimally Acceptable - PS-81: Birds nests also located on exterior within exhaust fans and gutters. Monitor for building and remove if

necessary. Recommend removal. - PS-81



Inspect ID: 2023-0033

Title:

2604000007_CELRC_2023_A_2023-

0033_3_168\overline{6}234211\overline{5}6.jpeg

Rated Item: 5. Plant Building Caption: 0033 - Minimally Acceptable - PS-81: Birds nests also located on exterior within exhaust fans and gutters. Monitor for building and remove if

necessary. Recommend removal. - PS-81



Inspect ID: 2023-0049

Title:

2604000007_CELRC_2023_A_2023-

0049_1_1686234830718.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-N5: Erosion undercutting sidewalk. Recommend repair

before sidewalk is damaged.



Inspect ID: 2023-0069

Title:

2604000007_CELRC_2023_A_2023-

0069_1_1686235580338.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-N5: Gates wobbly. Recommend repair for safety.



Inspect ID: 2023-0073

Title:

2604000007_CELRC_2023_A_2023-

0073 1 1686235852875.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-N5: Ceiling no longer has leakage. Rusting and cracking still present. Recommend monitoring for repair as needed.



Inspect ID: 2023-0097

Title:

2604000007_CELRC_2023_A_2023-

0097_1_168\overline{6}2369112\overline{4}9.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: Weather seal and expansion joint missing on south side. 4 inch crack on top. Joint deteriorating on north side. Install survey points to monitor abutment movement.



Inspect ID: 2023-0097

Title:

2604000007_CELRC_2023_A_2023-

0097_2_1686236968741.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: Weather seal and expansion joint missing on south side. 4 inch crack on top. Joint deteriorating on north side. Install survey points to monitor abutment movement.



Inspect ID: 2023-0117

Title:

2604000007_CELRC_2023_A_2023-

0117_1_1686237749255.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable
- PS-ND: South wing wall cracking. Repair is needed.



Inspect ID: 2023-0121

Title:

2604000007_CELRC_2023_A_2023-

0121 1 1686237793293.jpeg

Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-ND: North wing wall cracking. Repair is needed.



Inspect ID: 2023-0041

Title:

2604000007_CELRC_2023_A_2023-

0041_1_1686234575355.jpeg

Rated Item: 6. Fencing and Gates **Caption:** 0041 - Minimally Acceptable - PS-N5: Bending and rusting of gates. Vegetation

growing on fencing as well - PS-N5



Inspect ID: 2023-0041

Title:

2604000007_CELRC_2023_A_2023-

0041_2_1686234577518.jpeg

Rated Item: 6. Fencing and Gates **Caption:** 0041 - Minimally Acceptable - PS-N5: Bending and rusting of gates. Vegetation

growing on fencing as well - PS-N5



Inspect ID: 2023-0041

Title:

2604000007_CELRC_2023_A_2023-

0041_3_1686234988193.jpeg

Rated Item: 6. Fencing and Gates **Caption:** 0041 - Minimally Acceptable - PS-N5: Bending and rusting of gates. Vegetation

growing on fencing as well - PS-N5



Inspect ID: 2023-0041

Title:

2604000007_CELRC_2023_A_2023-

0041_4_168\overline{6}234991\overline{5}15.jpeg

Rated Item: 6. Fencing and Gates Caption: 0041 - Minimally Acceptable - PS-N5: Bending and rusting of gates. Vegetation

growing on fencing as well - PS-N5



Inspect ID: 2023-0045

Title:

2604000007_CELRC_2023_A_2023-

0045_1_1686234746756.jpeg

Rated Item: 6. Fencing and Gates Caption: Acceptable - PS-

N5: For sanitary purposes.



Inspect ID: 2023-0057

Title:

2604000007_CELRC_2023_A_2023-

0057_1_1686235288180.jpeg

Rated Item: 7. Pumps Caption: Acceptable - PS-N5: DWP-1 was fixed from last inspection.



Inspect ID: 2023-0061

Title:

2604000007_CELRC_2023_A_2023-

0061_1_1686235463715.jpeg

Rated Item: 7. Pumps Caption: Minimally Acceptable - PS-N5: Missing bolts on top of pump SWP-4. Evidence of leakage coming from the holes. Recommend replacing missing bolts.



Inspect ID: 2023-0085

Title:

2604000007_CELRC_2023_A_2023-

0085_1_1686235977793.jpeg

Rated Item: 7. Pumps **Caption:** Minimally Acceptable - PS-N5: Pumps SWP-6 and SWP-7 machinery base is corroded.

Recommend cleaning and repainting.



Inspect ID: 2023-0089

Title:

2604000007_CELRC_2023_A_2023-

0089_1_168\overline{6}236138\overline{6}82.jpeg

Rated Item: 7. Pumps Caption: Acceptable - PS-N5: Seal

water system pumps replaced and now operable.



Inspect ID: 2023-0101

Title:

2604000007_CELRC_2023_A_2023-

0101_1_1686237143763.jpeg

Rated Item: 7. Pumps Caption: Minimally Acceptable - PS-ND: Pump SWP-1 out of service and taken out of wetwell. Highland staff aware of issue and may plan on replacement of all pumps.

an pumps



Inspect ID: 2023-0077

Title:

2604000007_CELRC_2023_A_2023-

0077_1_168\overline{6}235690\overline{5}81.jpeg

Rated Item: 8. Motors, Engines, Fans, Gear Reducers, Back Stop Devices, etc. Caption: 0077 - Minimally Acceptable -

PS-N5: Exhaust fan EF-3 is inoperable - PS-N5



Inspect ID: 2023-0025

Title:

2604000007_CELRC_2023_A_2023-

0025_1_168\overline{6}233403\overline{6}31.jpeg

Rated Item: 13. Power Source Caption: 0025 - Acceptable - PS-81: Generator is in good condition and has 633.2 runtime hours. New generator is scheduled to be installed - PS-81



Inspect ID: 2023-0093

Title:

2604000007_CELRC_2023_A_2023-

0093_1_168\overline{6}236325\overline{6}6.jpeg

Rated Item: 13. Power Source Caption: 0093 - Acceptable - PS-N5: Generators are in good condition. Generator 1 has 402 hours runtime. Generator 2 has 371.2 hours runtime. Generator 3 has 380.7 hours runtime. Generator 4 has 376.1 hours

runtime - PS-N5



Inspect ID: 2023-0125

Title:

2604000007 CELRC 2023 A 2023-

0125_1_1686238056885.jpeg

Rated Item: 13. Power Source Caption: 0125 - Acceptable - PS-ND: Generator is in good condition and has 551.8 hours

runtime - PS-ND



Inspect ID: 2023-0013

Title:

2604000007_CELRC_2023_A_2023-

0013_1_168\overline{6}232964\overline{4}5.jpeg

Rated Item: 14. Electrical Systems Caption: 0013 - Minimally Acceptable - PS-81: Power quality meter is out of

service - PS-81



Inspect ID: 2023-0113

Title:

2604000007_CELRC_2023_A_2023-0113_1_1686237471849.jpeg

Rated Item: 14. Electrical Systems Caption: Minimally

Acceptable - PS-ND: Transfer switch is not operational. Project

personnel indicated they have ordered a new one.



Inspect ID: 2023-0037

Title:

2604000007_CELRC_2023_A_2023-0037_1_1686234237545.jpeg Rated Item: 19. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - PS-81: Flap gates stuck slightly open. Recommend to repair flap gates so they can fully

close.



Levee System 2605000005 / Segment 2604000007 Levee Sponsor Pre-Inspection Form

Purpose: To collect the best and most recent information to ensure all maintenance activities, including any improvements or repair work, and any other changes in condition are appropriately noted and documented during this inspection. This information is important to help pre-plan locations for inspectors during the field inspection.

Directions: To be filled out directly by the levee sponsor/maintaining agency or by USACE through interviewing the levee sponsor/maintaining agency during coordination efforts in preparation for the inspection. If the requested information is contained in supplemental documentation that was provided to USACE separately then only referencing to that supplemental documentation or providing information different than what is in the supplemental documentation is required on this form.

Levee Sponsor/Maintaining Agency: Little Calumet River Basin Development Commission

Date of last USACE Inspection: 03/30/2022

Date Levee Sponsor was notified of upcoming Inspection: 03/15/2023

1. Summary of maintenance/repairs/modifications performed since the last USACE inspection (if not captured in maintenance logs/documentation that has been provided separately):

Remove unwanted vegetation along levee. Fill in all holes from animals along levee.

2. Summary of planned actions/improvements/recommendations, but not yet accomplished:

Bank tested North 5th St. & North drive generators. Changed oil on all pump motors at 81st. street and North 5th Street stations. Greased all drive shafts and pumps. Megger tested all motors at 81st street, and orth 5th and North Drive. Sprayed weed control along rip rap. Monitored all sluic gates for silt. Replaced Storm #2 pump contactor at 81st St. Storm station. Took lightning strike to North Drive pump stations lost generator and transfer switch. Generator repaired and still waiting on parts to repair transfer switch. Buying a new transfer switch for North Drive generator. We are not able to run station manually. Cummins-Onan serviced generator. Nova-Tek did checks on generators at North 5th and 81st St. Stations. Pump #1 and seal water pump #2 out for repair. Pump #1 repaired and installed. Pump #2 seal water pump repaired and installed.

3. Results from inspections conducted by the levee sponsor/maintaining agency (if inspection documentation has not been provided separately):

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. Megger test all motors at North 5th St., 81st St, and North Dr. pump stations. Sprayed weed control on rock areas of ump stations. Paint where needed. Work on some concrete repairs. Repair some fencing. Cut away unwanted trees along water side of levee. Replace some hand rails on stair wells.

4. Description of any performance information observed, including successful performance, since the last USACE inspection. Include intervention measures taken, such as floodfighting or operational actions (e.g. operating pumps or closures) during high water events:

None

5. Identify any specific locations or components that you would like to be closely inspected or have planned testing scheduled (e.g. for pump stations/closures/relief wells) to correspond with the USACE inspection:

Advised of a problem along Harts ditch in Wicker Park by Army Corp to monitor of some pin boils.

6. Provide any other information you want to note to have occurred since the last USACE inspection, such as any training/testing/emergency exercises or communication activities:

none

NFIP Finding			National Flood Insurance Program (NFIP) - 44 CFR 65.10 Sub-set Criteria Evaluation	CFR Section
Positive	Negative	No Closures		
V			Operation plan for closures includes documentation of the flood warning system that will be used to trigger	65.10(c)(1)i
X			emergency operation activities and demonstration that sufficient flood warning time exists for the completed	
			operation of all closure structures, including necessary sealing, before floodwaters reach the base of the closure.	
			(reference General Items, Rated Item 3. Flood Preparedness and Training)	
\ <u>/</u>			Operation plan for closures includes specific actions and assignments of responsibility by individual name or title.	65.10(c)(1)ii
X			(reference General Items, Rated Item 1, Operations and Maintenance Manuals and Rated Item 3. Flood	
			Preparedness and Training)	
Χ			The maintenance plan specifies the maintenance activities to be performed to ensure that the stability, height, and	65.10(d)
			overall integrity of the levee and its associated structures and systems are maintained. (reference General Items,	
			Rated Item 1, Operations and Maintenance Manuals and Levee Sponsor Pre-Inspection Form or other available	
			levee sponsor maintenance records or plans.)	
\ \			The maintenance plan specifies the frequency of the maintenance activities. (reference General Items, Rated Item 1,	65.10(d)
X			Operations and Maintenance Manuals and Levee Sponsor Pre-Inspection Form or other available levee sponsor	
			maintenance records or plans.)	
			The maintenance plan specifies the person by name or title responsible for the maintenance activities. (reference	65.10(d)
X			General Items, Rated Item 1, Operations and Maintenance Manuals and Levee Sponsor Pre-Inspection Form or	
			other available levee sponsor maintenance records or plans.)	

Levee Inspection Reference Guide

The purpose of the Levee Inspection Reference Guide is to provide supporting direction for conducting formal and special levee inspections, determining item ratings and finalizing the results of the inspection. This Checklist is to be used with the Standard Operation Procedures (SOP) for Levee Inspections and Site Visits.

A. Definitions:

Approved Alteration - Any action that builds upon, alters, improves, moves, or occupies a levee system. For federally authorized levee systems, a USACE Section 408 permission has been issued. For non-federally constructed and locally maintained levee systems, the levee sponsor is aware of and has approved the alteration. Often, observations of approved alterations are handled under the Encroachment item in the Levee Inspection Checklist. These observations should be noted as such and details included in the observation descriptions.

Encroachment - A non-project item such as trash, debris, structures, obstructions or unauthorized/inappropriate activities within the easement/right-of-way of the levee. For federally authorized levee systems, no USACE Section 408 permission has been issued. For non-federally constructed and locally maintained levee systems, the levee sponsor is unaware of and/or has not approved the non-project item or activity.

Feature - A component of a levee segment/system (e.g. Embankment, Floodwall, Channel, etc.). Levee segments/systems may have multiple Features that function together to exclude water from a defined leveed area. Main Features have their own section in the Levee Inspection Checklist.

Formal Inspection - A pre-scheduled comprehensive levee inspection by a team of subject matter experts led by a professional engineer or professional geologist to (1) document levee condition, (2) assess progress of ongoing risk management activities, (3) inform risk assessments and new risk management recommendations, and (4) include specific evaluations or testing, such as exercising closures or performing relief well pump tests.

Item - A characteristic of a levee Feature (e.g. Encroachments, Sod Cover, Seepage, etc.) that is used to assess the condition of the levee, inform risk assessments, and/or evaluate adequacy of operations and maintenance.

Levee Segment - A levee segment is a discrete portion of a levee system that is operated and maintained by a single entity. A levee segment may be composed of one or more levee features.

Levee System or Levee - A man-made structure that does not cross a watercourse, usually an earthen embankment or floodwall, designed and constructed with the principle function of excluding flood waters for a limited range of flood events from a portion of the floodplain (referred to as "leveed area").

National Flood Insurance Program (NFIP) - A voluntary program administered by the Federal Emergency Management Agency (FEMA) to mitigate flood losses through community-enforced building and zoning ordinances and to provide property owners with access to federally-backed flood insurance.

Negative Finding - A conclusion that there is sufficient information to determine that a specific criteria of 44 CFR 65.10 for the NFIP has not been met as a result of a levee inspection.

Non-Project Segment - a form of manmade high ground which a levee system/segment ties into, whose existence and performance is necessary for excluding flood waters from the leveed area, but is not under any USACE authority.

Observation - A specific location (point or line) where an Item is evaluated and rated based on the rating guidelines (e.g. an area of levee that has less than 50% sod coverage). **Observation Location Description** - Information that further describes the observation location such as land or waterside of the levee or proximity along the slope or crown that provides the reader with sufficient information to find the observation during future maintenance activities or inspections. Observation location descriptions may include the following: landside toe, landside toe and slope, landside levee slope only, landside slope and crown, slopes and crown, crown, slopes, toes, waterside toe, waterside toe and slope, waterside levee slope only, waterside slope and crown, other.

Observation Number - A numeric value that is used to identify a specific observation location during an inspection.

Positive Finding - A conclusion that there is sufficient information to determine that a specific criteria of 44 CFR 65.10 for the NFIP has been met as a result of a levee inspection. **Rating Guidelines -** Established parameters to assist an inspector in assessing the visual condition of a specific location (point or line) or multiple locations that serve as the rationale for a final Item rating.

Special Inspection - A formally documented visual inspection that is requested by the levee sponsor or required due to changed conditions or to document performance.

B. Use of the Levee Inspection Checklist:

General Notes:

- Each individual levee segment will have its own inspection results.
- Include only the feature sections of the Checklist that apply to the segment being inspected.

- The Levee Inspection Summary and the section labeled "General Items" is required for every formal and special inspection.
- Specific data fields have been included in the National Levee Database (NLD) to document frequency of inspection, testing or operation and condition for the following Features or Items: pipes, gates, relief wells, toe drains and closures. Applicable tables should be attached to the Levee Inspection Report (see Appendix G of the SOP for Levee Inspections and Site Visits. Specific corrective recommendations should not be included with the inspection results. Inspection results should be used to develop risk-informed recommendations as part of the Levee Risk Management Summary (See EC 1165-2-218).
- If there is a non-project segment as part of a levee system with a federally authorized segment that rights-of-entry could not be obtained, then visual observations should be documented in a Site Visit Summary.

Specific Levee Inspection Features Sections and Items:

- The items labeled "Culverts and Discharge Pipes" includes all gravity flow and pressurized pipes that pass over or through the levee and its foundation, as well as pipes away from the levee. Judgment and consistency should be exercised when determining if pipes should be rated under the Levee Embankment Feature or the Interior Drainage Feature "Culverts and Discharge Pipes" rated items. Pipe closures and drainage features should be rated in their respective items under the Interior Drainage System Feature. This includes all associated gates and drainage ditches, ponding areas and structures that are functioning as interior drainage components along the levee. The pump station feature has a separate item for intake and discharge pipes associated with those Features.
- The items labeled "Closure Structures" includes all closure structures, sandbag and earthen closures, stop logs and gates. Conduit and culvert closures are documented and rated in the appropriate items within the Interior Drainage System Feature.
- The starting and stopping location for embankments, floodwalls and closures shall be determined in a case-by-case basis.
- The section labeled "Flood Risk Management Channels" includes channels that have been constructed in association with the levee system. This section may also be used to inspect channels independent of levees. For "shoaling", the rating guidelines describing vegetation in a shoal are intended to document the permanence of the shoal and its likely impact on channel integrity or flow capacity.
- The Feature section labeled "Pump Stations" includes the structure of the pump station and all associated intake/discharge pipe, mechanical/electrical systems and equipment.
- For "Interior Drainage System", "Flood Risk Management Channels", and "Pump Stations", conditions of Items that impact levee embankments or floodwalls (e.g. ditches, ponding areas, bank stability or erosion) should also be rated under the appropriate Levee Embankments or Floodwalls section to reflect the impact on levee integrity.

C. Observation Ratings:

General Notes:

- For each Observation noted during the inspection, the inspector will apply a rating to the Observation based on the rating guidelines associated with the corresponding Item. Overall Item ratings are assigned based on summarizing all Observations for that Item.
- When an observation is associated with more than one feature (e.g. observed erosion identified in or near a levee embankment and a flood risk management channel), observations shall be recorded, described, and rated within each appropriate feature and item.
- Inspectors should document any observation/activity that can be visually seen from the levee that may adversely affect the integrity of the levee, even if the concern is beyond the limits of the easement/right- of-way, with documentation that the Observation is outside the easement/right-of-way. It is understood that resolution of these instances may be beyond the control of the levee sponsor.
- Observations associated with approved Section 408 permissions or levee sponsor permits for modifications should be rated under the corresponding Item and feature or under "Encroachments" and documented as such.
- Seepage Observation ratings should consider information collected during recent flood events.
- Most levee systems have components that may require testing or inspection to occur at a frequency that is outside of or more frequent than during pre-scheduled formal inspections to assess their internal condition or operability. These components usually are culverts and discharge pipes; relief wells and toe drains; closures, gates, and valves; and operational systems in pump stations. Requirements for testing/inspection of these components are typically prescribed in the levee's operations and maintenance manual. A field observation must be recorded of visible conditions of each component during an inspection. This will be used to supplement internal conditional assessments using PACP defect codes for culverts and discharge pipes and toe drains; internal conditional assessments from pump testing for relief wells; and operational adequacy from testing/installation records for closures, gates and valves, and operational systems in pump stations in the Item Rating determination.
- If Districts schedule a walk-through pipe inspection (in accordance with EM 1110-2-2902 and EM 385-1-1) in conjunction with a levee inspection, inspectors must document both the interior conditions by assigning a PACP defect code and the pipe's exterior conditions with an inspection Observation Rating.

General Guidelines for Assigning Observation Ratings:

Acceptable	Minimally Acceptable	Unacceptable
An "Acceptable" observation rating generally means that it has been operated and maintained in a way that meets the intent of the "Acceptable" rating guidelines herein, and is not expected to have a negative impact on performance.	A "Minimally Acceptable" observation rating generally means that it has deficiencies that should be corrected, but are not currently expected to have a negative impact. If not corrected, these deficiencies could lead to a negative impact on performance.	An "Unacceptable" observation rating generally means that it has serious deficiencies that require correction because these deficiencies are expected to have a negative impact on performance.

Documentation of the levee inspection observations should include, at a minimum:

- Observation number associated with the point or line
- Observation rating of "Acceptable", "Minimally Acceptable" or "Unacceptable" based on rating guidelines for the Item
- Observation location description
- Levee station, river mile and/or GPS latitude/longitude associated with the point or line
- Description of the observation which is a detailed narrative that explains why an observation was documented and the rationale for the observation rating
- Photo associated with the observation point or line.
- Photo number related to a photograph of the observation point or line.

D. Item Ratings:

- Item ratings will be determined by considering all associated Observation ratings comprehensively. Rationale for overall Item ratings must be documented in the Levee Inspection Checklist.
- If the Item does not exist within the levee segment, the Item should be rated "N/A".

General Guidelines for Assigning Item Ratings:

Acceptable Item	Minimally Acceptable Item	Unacceptable Item
Observations are rated "Acceptable", or one or	One or more Observations are rated	One or more Observations are rated
more observations are rated "Minimally	"Minimally Acceptable" or one or more	"Unacceptable" and the number or severity of
Acceptable" but the number or severity of	Observations were rated "Unacceptable" but	Observations collectively has are expected to
"Minimally Acceptable" Observations	the number or severity of Observations	have a negative impact on performance.
collectively is not expected to have a negative	collectively are not currently expected to have	
impact on performance. No Observations were	a negative impact, but if not corrected	
rated as "Unacceptable."	deficiencies could lead to a negative impact on	
	performance.	



SHEET INDEX

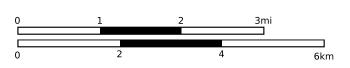
Levee: Highland

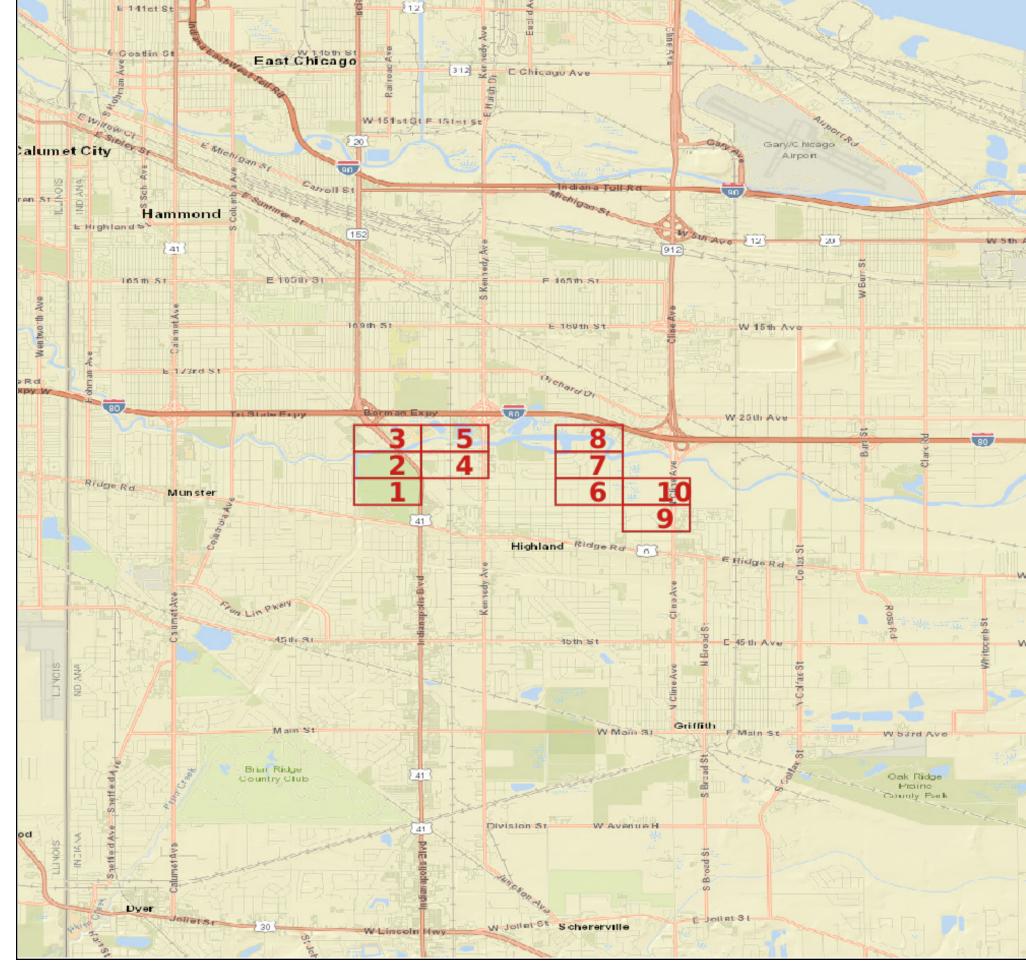
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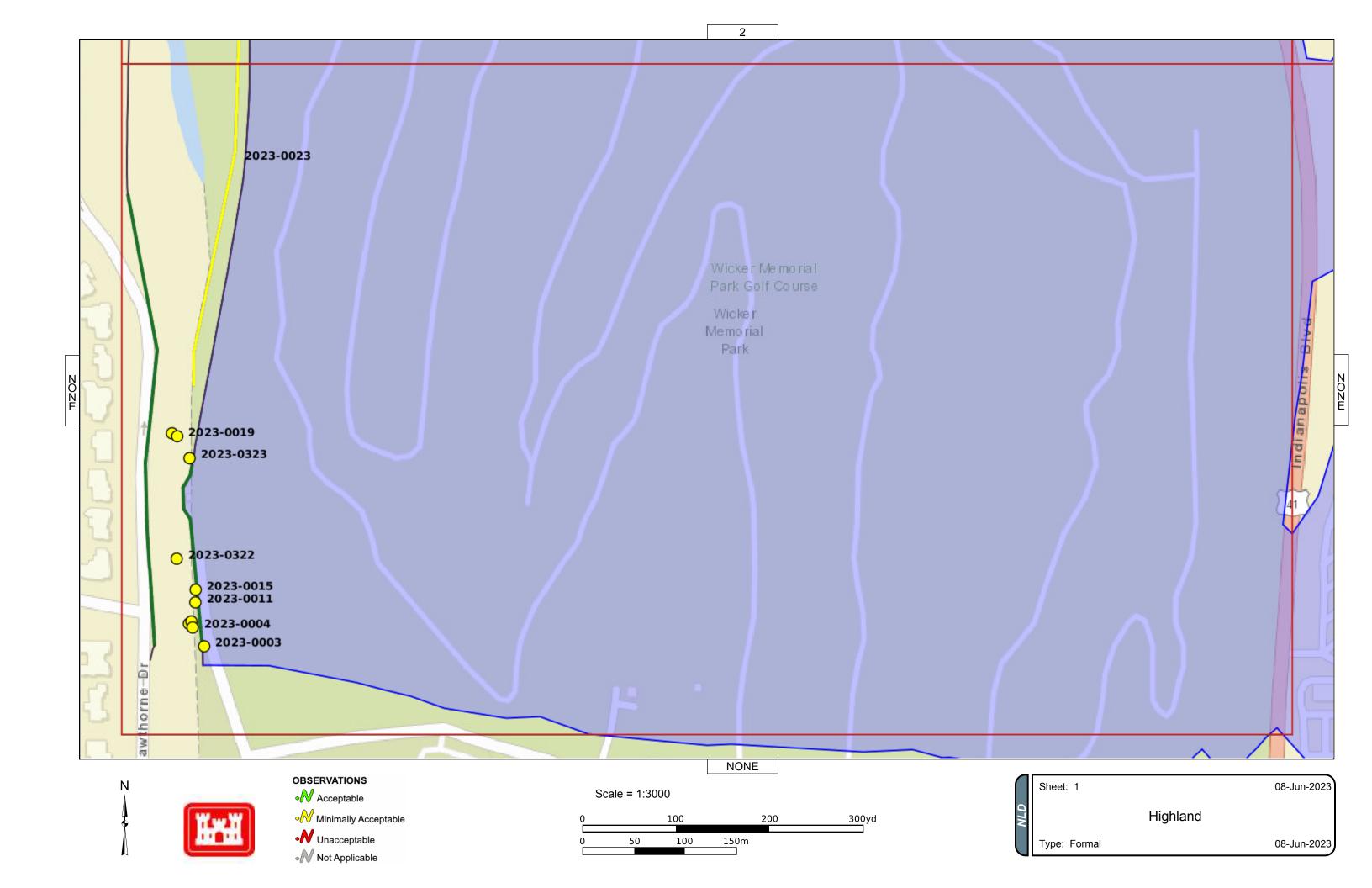


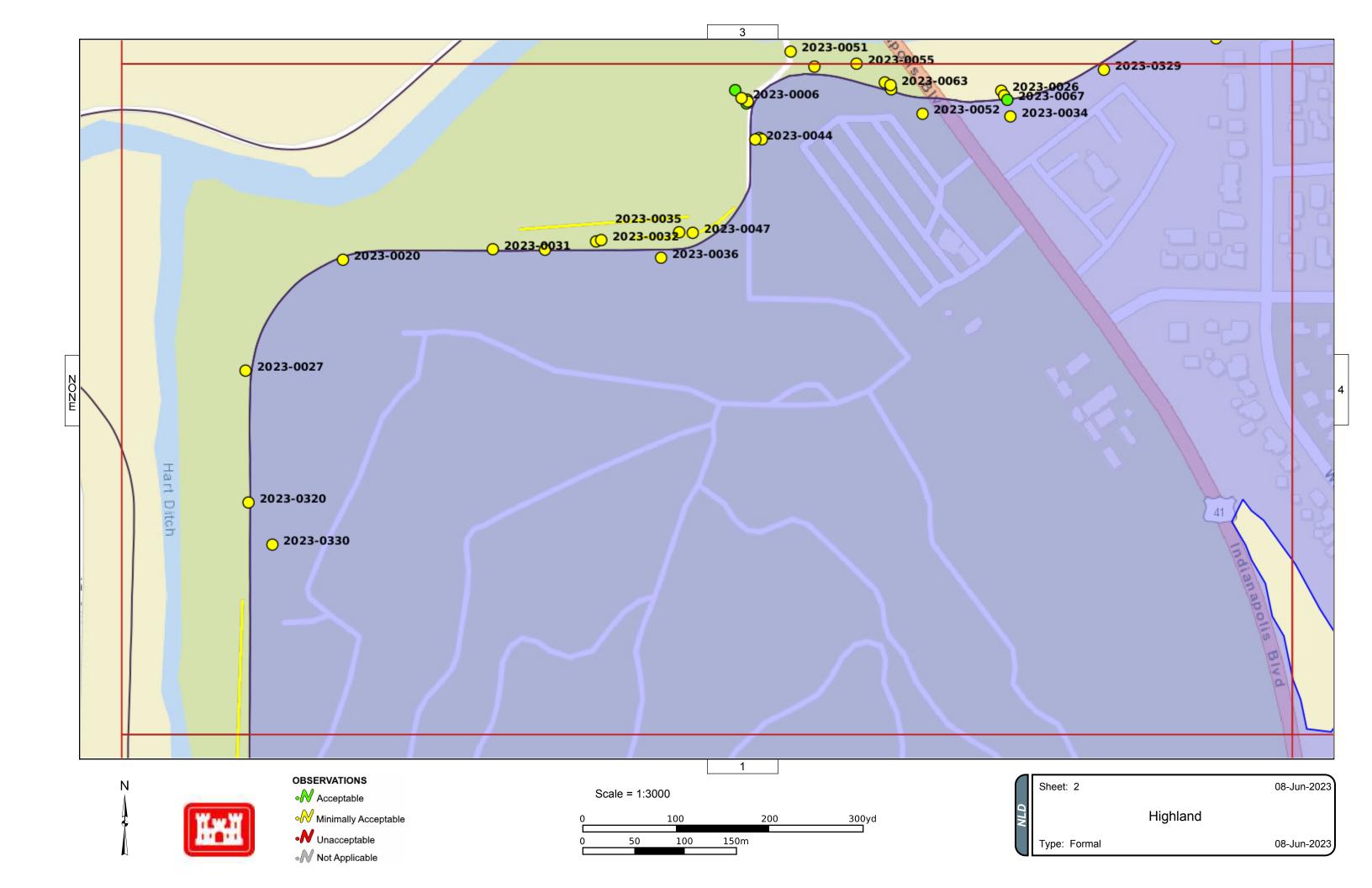
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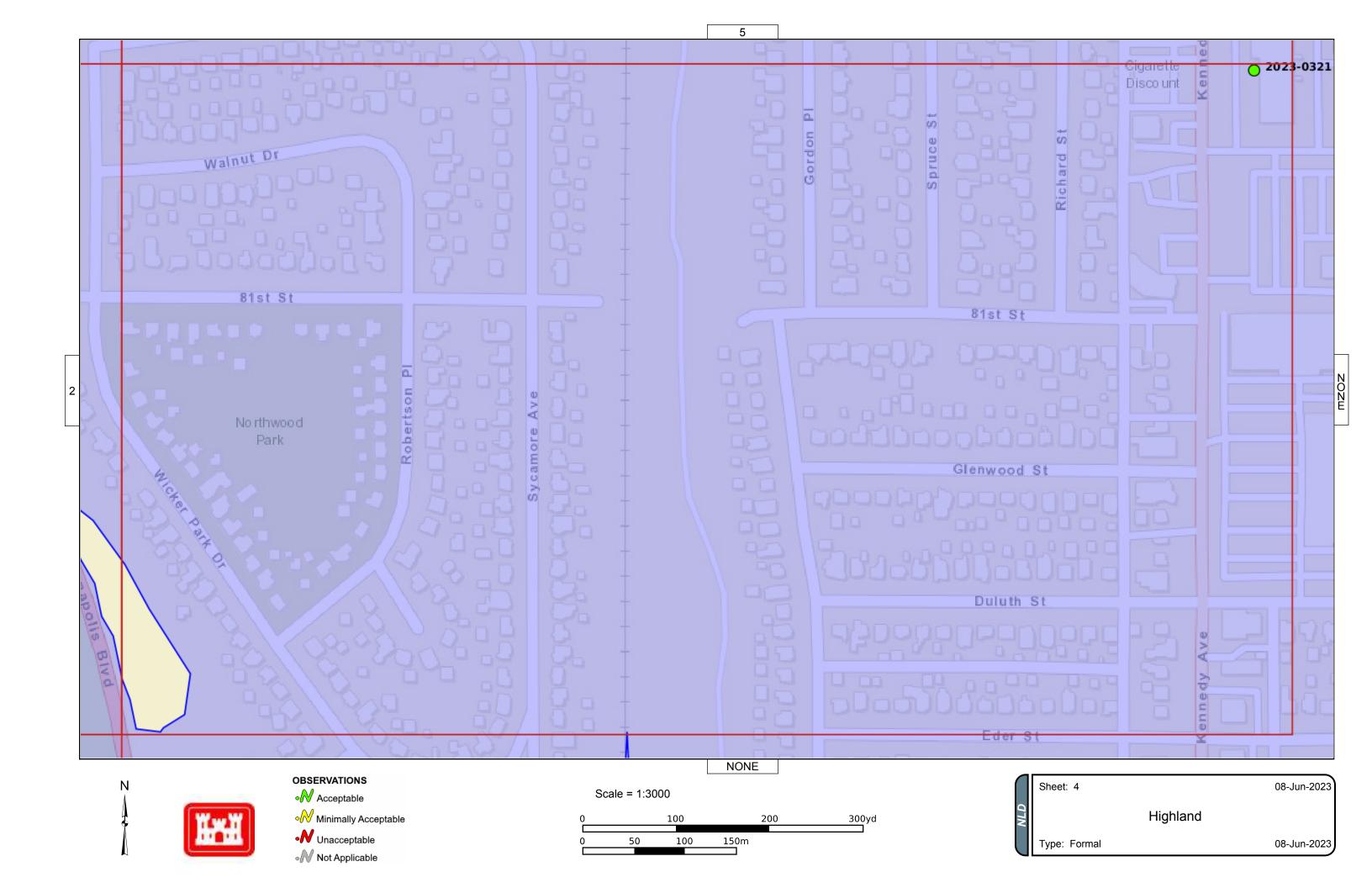
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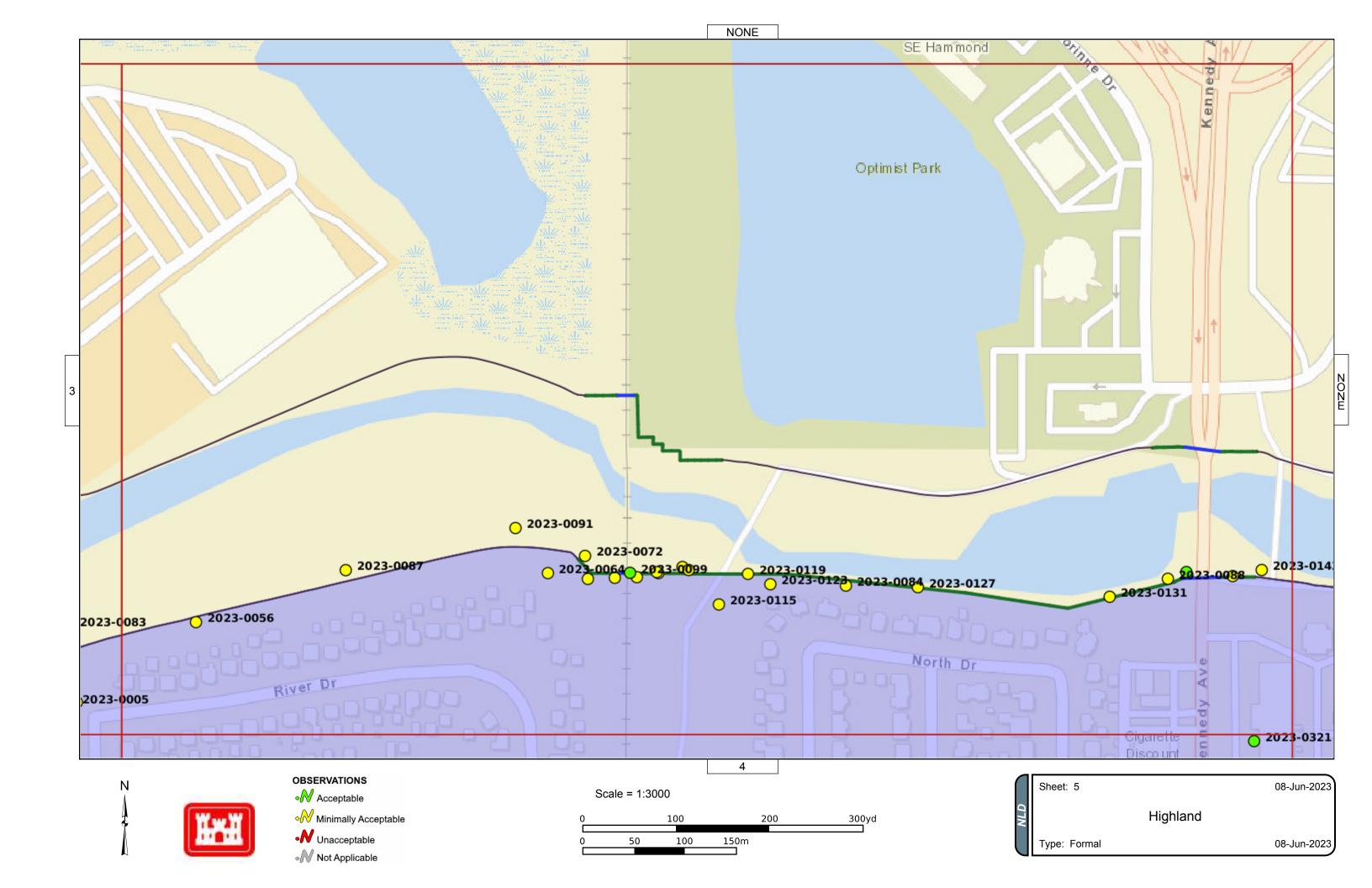


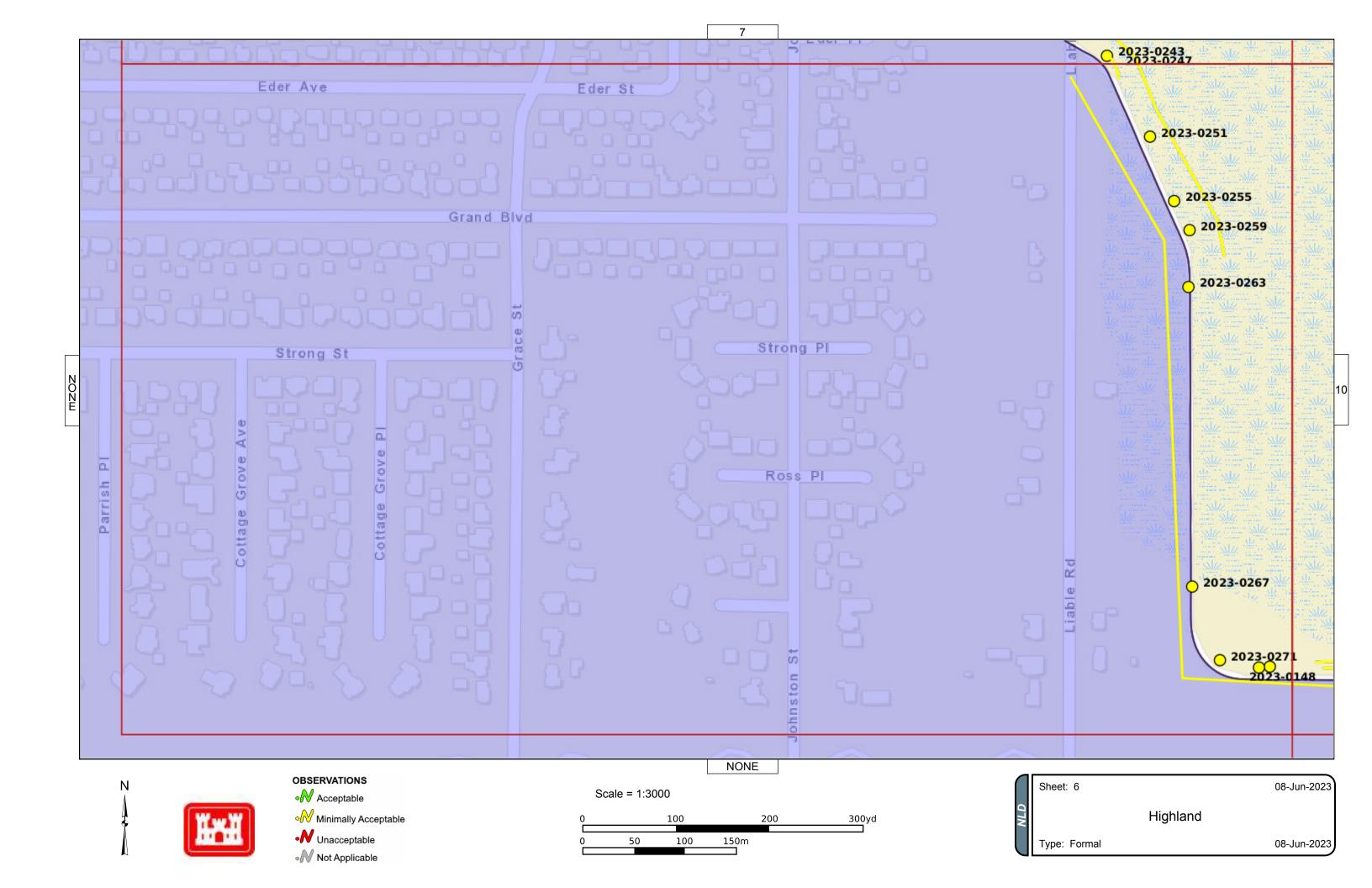


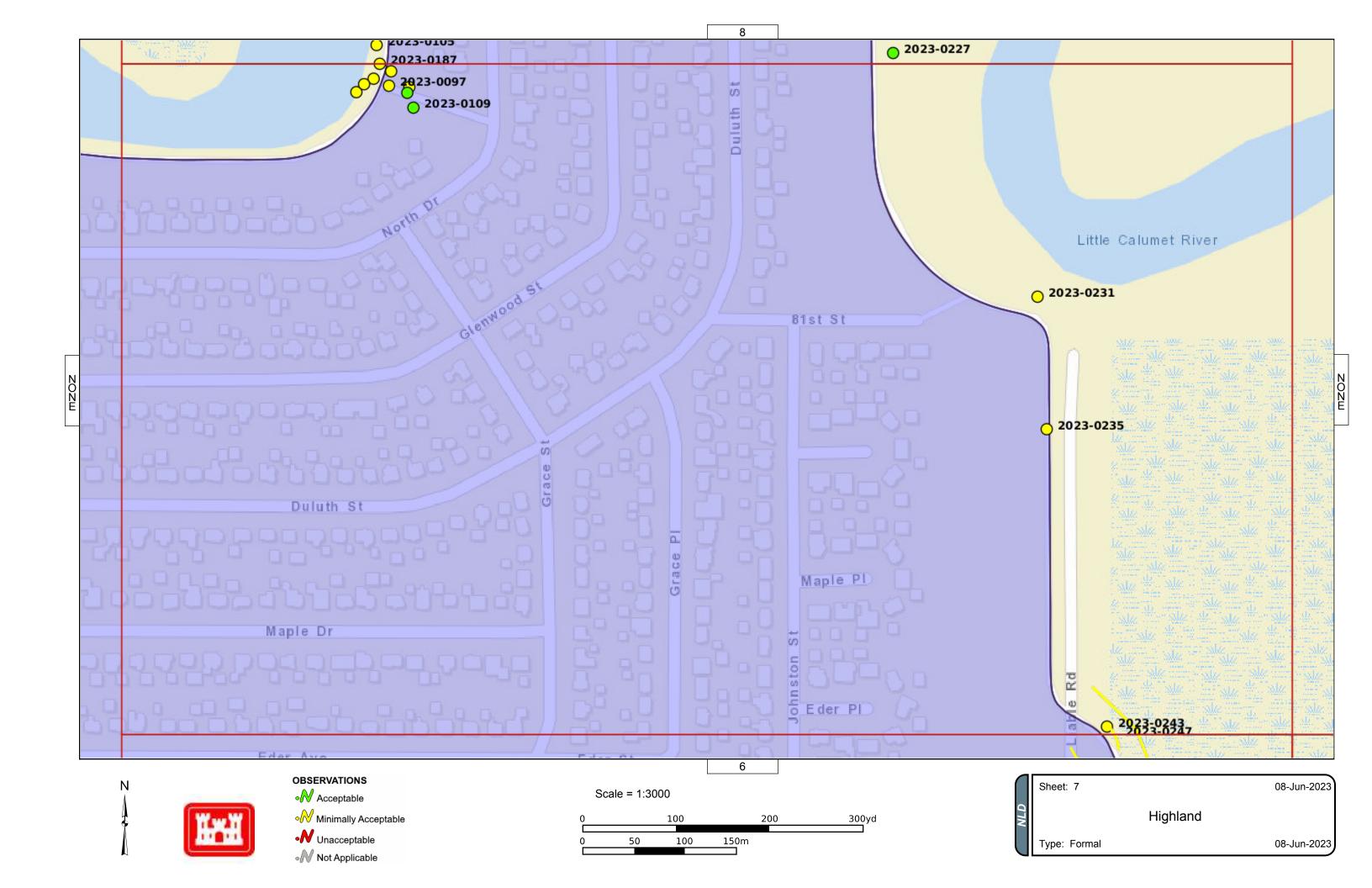


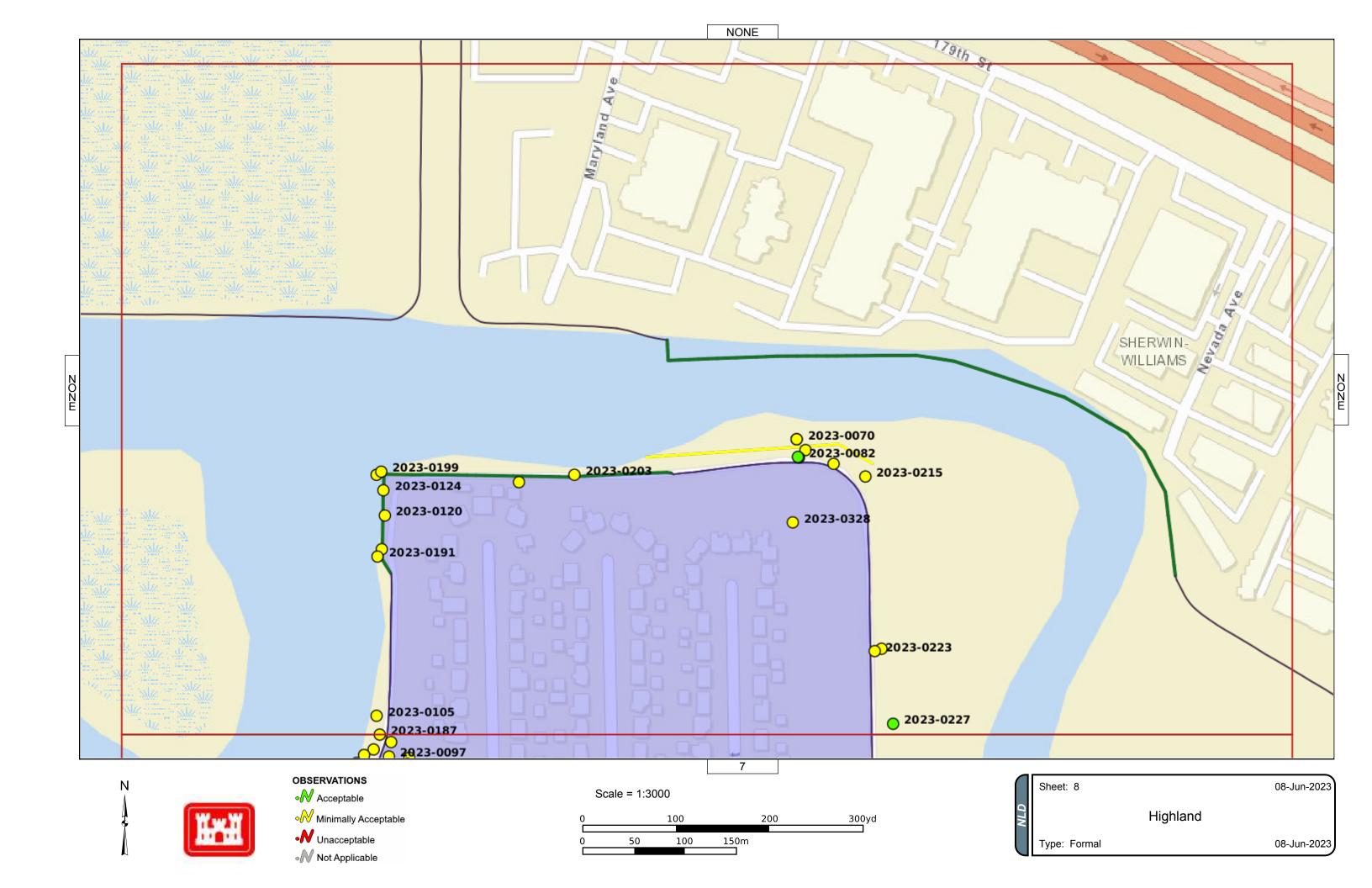


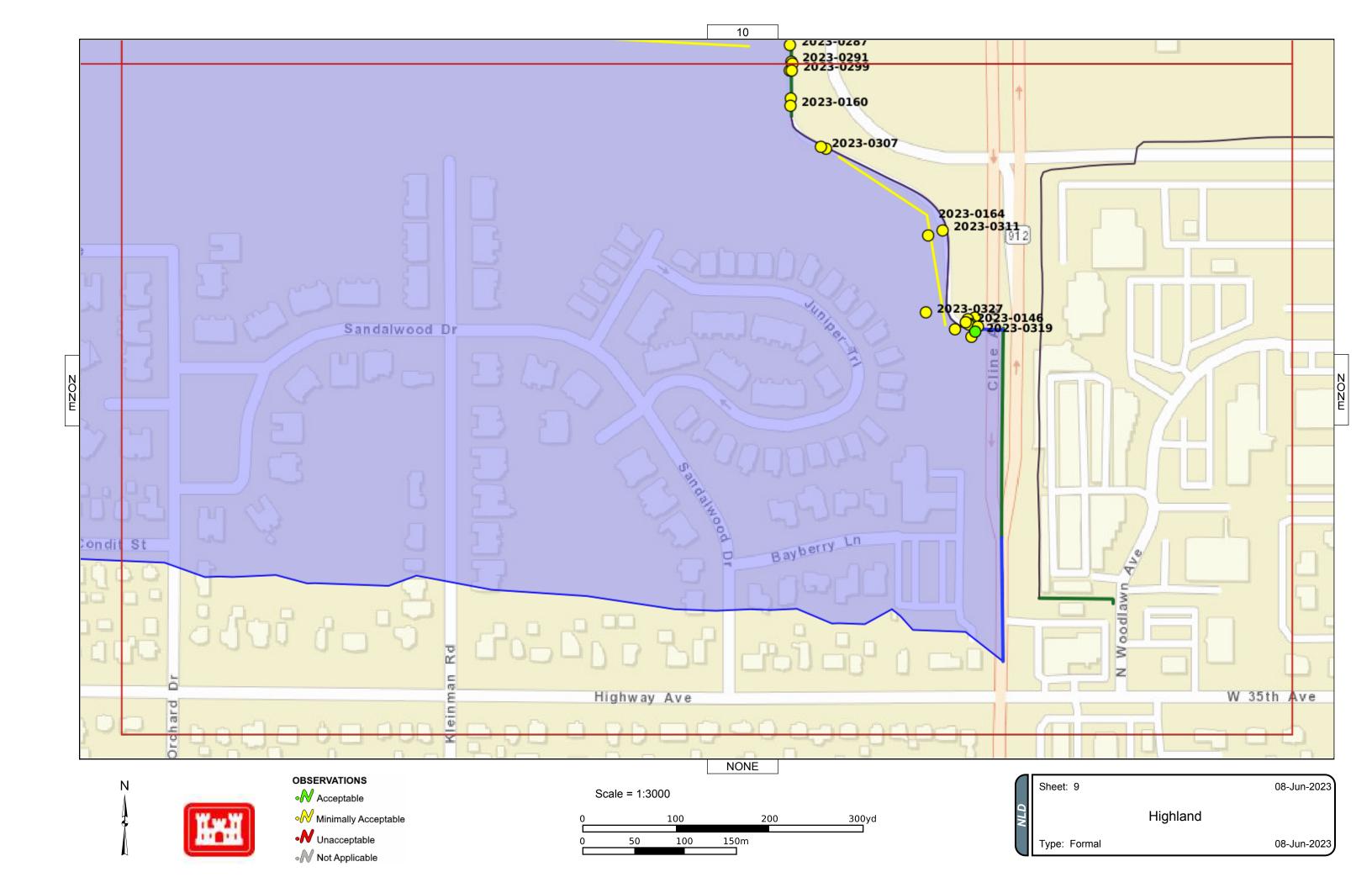












NONE 912 MZOZ 2023-0283 2023-0094 2023-0136 2023-0148 2023-0114 2023-0287 9 **OBSERVATIONS** Ν Sheet: 10 08-Jun-2023 • Acceptable Scale = 1:3000 Minimally Acceptable Highland 300yd 100 200 • Unacceptable 150m 100 Type: Formal 08-Jun-2023 Not Applicable

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 Highland Levee.

Rehal	Rehabilitation Program Eligibility Determination			
Yes		Public sponsor provided maintenance information per the Public Sponsor Pre-		
No	<u> </u>	Inspection Form.		
Yes		Nian falancia and an anataman and the falancia and an anataman and an anataman and an anataman and an anataman		
No N/A		Non-federal levee system meets Initial Eligibility criteria.		
		he above items is marked "No" the levee system is not eligible.		
	Rating Rated Item Levee Embankments			
		ankments -		
A		2. En ana a chua anta		
M		3. Encroachments		
U	\boxtimes			
A U		4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag		
N/A	H	Closures)		
A				
M	\square	5. Slope Stability		
U				
Α				
M	\boxtimes	6. Erosion/ Bank Caving		
U				
Α				
M		10. Animal Control		
U				
A		11. Culverts/Discharge Pipes (This item includes both concrete and		
M U		corrugated metal pipes.)		
N/A	\vdash	corrugated metal pipes.)		
A				
M	H	14. Underseepage Relief Wells/Toe Drainage Systems		
Ü	\Box	The construction of the co		
N/A	\boxtimes			
Floodwalls				
Α				
M	\boxtimes	2. Encroachments		
U				
Α	\boxtimes			
U		3. Closure Structures (Stop Log Closures and Gates)		
N/A				
Α				
M		5. Tilting, Sliding, or Settlement of Concrete Structures		
U	<u> </u>			
A		6 Foundation of Congreto Structures		
M		6. Foundation of Concrete Structures		
U	\Box			

A	8. Underseepage Relief Wells/Toe Drainage Systems			
N/A 🖂				
Interior Drainage System				
A	9. Culverts/Discharge Pipes			
A	10. Sluice/Slide Gates			
A □ M ⊠ U □ N/A □	11. Flap Gates/Flap Valves/Pinch Valves			
Pump Stations				
A ⊠ M □ U □	17. Intake and Discharge Pipelines			
A	18. Sluice/Slide Gates			
A □ M ⊠ U □ N/A □	19. Flap Gates/Flap Valves/Pinch Valves			
Rehabilitation Program Status				
Active 🖂	System meets all interim eligibility criteria, including having received a rating of A, M, N/A or Yes for all subset items and is therefore eligible for rehabilitation assistance.			
Inactive	System does not meet interim eligibility requirements.			
Comments: Only minor issues noted for the system.				