WW	Levee Inspection Report							
Name of System: Garv Name of Segment: Garv North								
US Army Corps of Engineers ® NLD System ID: 2605000003 NLD Segment ID: 2604000003								
-	urned over to public sponsor operation							
Levee Sponsor (Name and Organization): <u>Little (</u> Inspection Report Prepared by: <u>Christopher Scha</u>		Date(s) of Inspection: 06/06/2022 - 06	/10/2022					
		Other Segments Within This System	_					
Segment Name	NLD Segment ID#	Segment Type	Segment Inspection Rating					
Gary South	2604000004	USACE Constructed, Public sponsor O&M	Minimally Acceptable					
Contents of Inspection Report: Levee Inspection Summary	Type of Inspectio	n: Routine Inspection Perio	dic Inspection Special Inspection					
General Items Levee Embankment Concrete Floodwalls	Purpose of Specia	I Inspection:						
Levee Embankment Concrete Floodwalls Interior Drainage System Pump Stations FDR System Channels	Ratings: Segment Rating: System Rating:	☐ Acceptable ☐ Minimally Acceptable ☐ Minimally Acceptable	Unacceptable No Verdict Unacceptable No Verdict					
Public Sponsor Pre-Inspection Form General Instructions Maps	LSPM Signature: LSO Signature:	Mohai Gaharar John A Groboski	Date Approved: 8/9/22 Date Approved: 8/9/22					

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

Name	Organization	Discipline	Team
Yuki Galisanao	USACE - Chicago District	LSPM	Levee
Chris Schaal	USACE - Chicago District	Lead/Geotech	Levee
Madhu Karri	USACE - Chicago District	Geotech	Levee
Clayton Insley	USACE - Chicago District	Intern	Levee
Richard Realeza	USACE - Chicago District	Geotech	Levee
Adam Karr	USACE - Chicago District	Geospatial	Sluice Gates
Audry Stooksbury	USACE - Chicago District	Intern	Sluice Gates
Jonathan Lombardi	USACE - Chicago District	Mechanical	Pump Station
Patrick Hanley	USACE - Chicago District	Mechanical	Pump Station
Andrew Lin	USACE - Chicago District	Structural	Pump Station
Jeremiah Haley	USACE - Chicago District	Electrical	Pump Station
Dan Repay	LCRBDC		Levee/Gates/PS
Derek Nimetz	Contractor		Sluice Gates
Simeon Colquit	Contractor		Sluice Gates

Oliver King GLEM Pump Station

Segment Rating Rationale: [Describe the basis of the Segment rating considering (1) the general condition of the segment, (2) the rationale for Item ratings, categorized by Feature that contributed to the Segment rating, and (3) the number or severity of notable observations/deficiencies. The summary may also include information related to the condition of the levee, not otherwise captured in the Levee Inspection Checklist, if applicable.]
Minor issues with tall vegetation and small trees, debris, rutting, animal control, erosion, minor concrete cracking and spalling, deteriorating joints, minor sluice gate and flap gate issues, and minor pump station issues. Unacceptable rating found for lack of Burr St. pump station operation and maintenance manuals not being onsite. Training and presence of operations staff make this rating unlikely to affect performance of the levee during a flooding event. There were large trees near the levees and floodwalls that do not pose an immediate threat but should be removed.
System Rating Rationale: [Synthesize information from the Segment rating rationales for each Segment within the System. For single-segment systems, see segment rating rationale above.]

General Items for All Flood Damage Reduction Segments / Systems: Gary North For use during all inspections of all Flood Damage Reduction Segments / Systems

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations	
1.	Operations and Maintenance	A	A	Levee Owner's Manual, O&M Manuals, and/or manufacturer's operating instructions are present.	Justification: Sponsor has complete set of O&M Manuals.	
	Manuals		M	Sponsor manuals are lost or missing or out of date; however, sponsor will obtain manuals prior to next scheduled inspection.		
			U	Sponsor has not obtained lost or missing manuals identified during previous inspection.		
2.	Emergency Supplies and Equipment (A or M only)	M	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.	Justification: The Local Sponsor has taken over maintaining flood fighting supplies from Gary. They share storage with Munster at their facility on Calumet and have a number of pallets of empty sandbags available. The Munster Public Works	
			M	The sponsor does not maintain an adequate supply of flood fighting materials as part of their preparedness activities.	sandbags available. The Munster Public Works facility is about 7 miles from the sandbag closure at Calhoun St and would take about 20 minutes to travel along Ridge Rd to avoid any road closures that may be impacted by flooding. However, since this is on the opposite side of the river, there may be impacts to the route.	
3.	Flood Preparedness and Training (A or M only)	M	A	Sponsor has a written system-specific flood response plan and a solid understanding of how to operate, maintain, and staff the FDR system during a flood. Sponsor maintains a list of emergency contact information for appropriate personnel and other emergency response agencies.	Justification: Flood fighting is usually performed by the community. Gary has limited resources and a lot of staff turn over. They rely heavily on others to provide supplies and assistance. The last	
			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.	sandbag closure exercise performed with Gary was in 2014 and is overdue to be performed. Updated Flood Handbooks were provided in 2019.	

Rated Item Rating Rating Guidelines Location/Remarks/Recommendations
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Rated Item	Rating	Rating Guidelines	Location/Remarks/Recommendations
1. Unwanted Vegetation Growth	U	A The levee has little or no unwanted vegetation (trees, bush, or undesirable weeds), except for vegetation that is properly contained and/or situated on overbuilt sections, such that the mandatory 3-foot root-free zone is preserved around the levee profile. The levee has been recently mowed. The vegetation-free zone extends 15 feet from both the landside and riverside toes of the levee to the centerline of the tree. If the levee access easement doesn't extend to the described limits, then the vegetation-free zone must be maintained to the easement limits. Reference EM 1110-2-301 or Corps policy for regional vegetation variance.	2022-0028: Large trees near the landside toe. (U) 2022-0049: Tall vegetation close to the riverside toe. (M) 2022-0082: Tall vegetation close to the riverside slope. (M) 2022-0085: Tall vegetation and small trees close to the riverside toe. (M) 2022-0121: Overhanging vegetation near riverside slope. (M)
		Minimal vegetation growth (brush, weeds, or trees 2 inches in diameter or smaller) is present within the zones described above. This vegetation must be removed but does not currently threaten the operation or integrity of the levee.	2022-0140: Small trees on riverside toe. (M) 2022-0148: Tall vegetation and small trees on landside near ramp. (M) 2022-0167: Large trees on riverside toe. (U)
		U Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above and must to be removed to reestablish or ascertain levee integrity.	2022-0176: Tall vegetation on landside toe. (M) 2022-0190: Tall vegetation by culvert headwall. (M) 2022-0215: Small trees along fence. (M) 2022-0220: Tall vegetation near riverside toe. (M) 2022-0220: Tall vegetation near riverside toe. (M) 2022-0241: Bushes on landside slope. (M) 2022-0251: Tall vegetation within 15 feet of landside toe. (M) 2022-0268: Large tree within 15 feet of riverside toe. (U) 2022-0274: Small trees on landside slope. (M) 2022-0281: Tall vegetation and small trees along riverside toe. (M) 2022-0287: Small trees along riverside toe. (M) 2022-0290: Tall vegetation along riverside toe. (M) 2022-0296: Tall vegetation and small trees along riverside toe. (M) 2022-0313: GN-1: Tall vegetation near outlet. (M) 2022-0322: Large Trees on riverside slope (M) 2022-0328: Large trees on both landside and riverside slopes (U) 2022-0331: Large trees on both landside and riverside slopes (U)

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Flood Damage Reduction Segments / Systems Inspection Report Gary North

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
				2022-0334: Large trees along riverside slope (U) 2022-0358: Large trees and tall vegetation along riverside toe. (U) 2022-0388: Small tree growth close to landside toe. (M) 2022-0424: Tall vegetation growth along landside toe. (M) 2022-0430: Large tree growth close to riverside toe. (U) 2022-0472: GN-7: Tall vegetation inside fence (M) 2022-0475: Small trees and tall vegetation close to riverside toe. (M) 2022-0496: Small tree on riverside near toe. (M) 2022-0505: Tall vegetation within 5 from the riverside toe (M) 2022-0517: Tall vegetation within 5 feet of riverside toe (M) 2022-0535: Tall vegetation on the riverside toe. (M) 2022-0565: Large tree growing close to landside toe and utility pole. (U) Recommendation: Remove trees and vegetation from within the 15 foot vegetation free zone.
2. Sod Cover	M	A	There is good coverage of sod over the levee.	2022-0212 : Pipes are exposed. (M)
	1 V1	M	Approximately 25% of the sod cover is missing or damaged over a significant portion or over significant portions of the levee embankment. This may be the result of over-grazing or feeding on the levee, unauthorized vehicular traffic, chemical or insect problems, or burning during inappropriate seasons.	2022-0230 : Sod cover poor on landside slope. (M) 2022-0232 : Poor sod cover above culverts on riverside. (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.	murcated areas.
		N/A	Surface protection is provided by other means.	

Rated Item R	Rating	Rating Guidelines	Location/Remarks/Recommendations
3. Encroachments	M	A No trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the levee.	2022-0037: Fencing failed on the landside embankment (M) 2022-0040: Log on the riverside slope. (M) 2022-0043: Fencing not included in the original
		M Trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps.	levee design. (M) 2022-0076: Fallen branch on the riverside slope (M) 2022-0094: Broken fence crossing the levee crest. (M)
		inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee.	2022-0112: Old power line pole near riverside toe. No issues observed. (A) 2022-0136: Highway traffic control barrel on landslide slope. (M) 2022-0139: Possible borehole along the landside toe. (M) 2022-0143: Log on the riverside levee toe. (M) 2022-0164: Fallen bollard on the levee crest. (M) 2022-0175: Dead tree on the riverside toe (M) 2022-0187: Debris on the levee crest. (A) 2022-0199: Debris on the landside toe (M) 2022-0203: Tree down and concrete block on the landside slope (M) 2022-0209: Downed bollards on the landslide slope (M) 2022-0238: Unauthorized hunter's stand on the landside toe. (M) 2022-0247: Debris on the landside slope (M) 2022-0271: Concrete pieces sitting on the riverside toe. (M) 2022-0272: Graffiti on the Chase Street closure structure. (M) 2022-0305: Tree downed on the riverside slope. (M) 2022-0307: Downed fence near the railroad (M) 2022-0355: Dead tree near the riverside toe. (M) 2022-0355: Dead tree near the riverside toe. (M) 2022-0361: Railroad gravel stockpile on the

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
				landside toe. (M) 2022-0394: Plastic debris on the landside slope. (M) 2022-0397: Old railroad beams near the landside toe. (M) 2022-0469: Broken shopping cart on the riverside toe (M) 2022-0484: Dead trees dropping large branches on the riverside toe. (M) 2022-0490: Fallen tree debris on riverside toe (M) 2022-0529: GN-8: Debris on riverside slope next to the outlet. (M) 2022-0559: Soil deposit from previous stockpile on the landside toe. (M) 2022-0568: Utility poles possibly in the levee, or at least close to the toe. (M) Recommendation: investigate possible borehole along I-94. Remove encroaching debris and items up to levee easements. Remove or seek 408 permits for larger encroaching structures.
4. Closure Structures	A	mat mar	osure structure in good repair. Placing equipment, stoplogs, and other terials are readily available at all times. Components are clearly rked and installation instructions/ procedures readily available. Trial ctions have been accomplished in accordance with the O&M Manual.	2022-0170: Guardrail blocking levee sandbag closure at Colfax. (A) Recommendation: Develop plan for removing guardrails during sandbag closures.
		poo avai be c clea avai	y of the following issues is cause for this rating: Closure structure in or condition. Parts missing or corroded. Placing equipment may not be tilable within the anticipated warning time. The storage vaults cannot opened during the time of inspection. Components of closure are not arly marked and installation instructions/ procedures are not readily tilable. Trial erections have not been accomplished in accordance with O&M Manual.	
			ere are no closure structures along this component of the FDR segment vistem.	

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations	
5.	Slope Stability	A	A	No slides, sloughs, tension cracking, slope depressions, or bulges are present.	2022-0134 : Steep slope on landside. (A) 2022-0337 : 1.5H:1V slope on landside and	
			M	Minor slope stability problems that do not pose an immediate threat to the levee embankment.	riverside. (M) Recommendation: Monitor steep slopes for movement.	
			U	Major slope stability problems (ex. deep seated sliding) identified that must be repaired to reestablish the integrity of the levee embankment.	movement.	
6.	Erosion/ Bank Caving	M	A	No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability.	2022-0052: Ponding close to the toe along riverside toe. (M)	
			M	There are areas where minor erosion is occurring or has occurred on or near the levee embankment, but levee integrity is not threatened.	2022-0055: Ponding exposed along the riverside toe (M) 2022-0233: Depression maybe by animal burrow	
			U	Erosion or caving is occurring or has occurred that threatens the stability and integrity of the levee. The erosion or caving has progressed into the levee section or into the extended footprint of the levee foundation and	causing dip I n drainage ditch slope (M) 2022-0293 : Erosion along riverside toe (M) Recommendation: Repair embankment with	
				has compromised the levee foundation stability.	riprap or suitable clay soil.	
7.	Settlement	M	A	No observed depressions in crown. Records exist and indicate no unexplained historical changes.	2022-0131: Settlement at levee tie in. (M) 2022-0137: Low area on crest that was filled with	
			M	Minor irregularities that do not threaten integrity of levee. Records are incomplete or inclusive.	gravel. (A) Recommendation: Add clay to levee crest to match required design height at floodwall tie-in	
			U	Obvious variations in elevation over significant reaches. No records exist or records indicate that design elevation is compromised.	inden required design neight at Hoodwan tie-in.	

Rated Item	Rating	Rating Guidelines	Location/Remarks/Recommendations
8. Depressions/ Rutting	M	A There are scattered, shallow ruts, pot holes, or other depressions on the levee that are unrelated to levee settlement. The levee crown, embankments, and access road crowns are well established and drain properly without any ponded water.	2022-0013 : Large depression along landside slope. (M) 2022-0016 : Depression about 2 feet deep and 8 foot wide landside slope (M)
		M There are some infrequent minor depressions less than 6 inches deep in the levee crown, embankment, or access roads that will pond water.	2022-0019: 3ft wide 8 in depression on landside toe due to tree collapse (M) 2022-0022: Rutting depression. riverside toe, 1
		There are depressions greater than 6 inches deep that will pond water.	foot deep by 2 ft wide 3ft long (M) 2022-0025: Rutting on riverside toe (M) 2022-0046: Depression at the riverside toe (M) 2022-0061: 12" depression on riverside toe. (M) 2022-0079: 4" deep rutting, riverside toe. (M) 2022-0088: 8 to 12 inch deep rutting riverside toe. (M) 2022-0091: 8 inch depression. landside toe. (M) 2022-0109: Rutting caused by mowing, riverside toe (M) 2022-0115: Rutting caused by mowing, riverside toe (M) 2022-0118: Rutting caused by mowing riverside (M) 2022-0118: Rutting caused by mowing, riverside (M) 2022-0124: Rutting caused by mowing, riverside (M) 2022-0127: Rutting caused by mowing, landside (M) 2022-0133: Rutting caused by mowing, riverside (M) 2022-0145: Deep rutting landside slope (M) 2022-0151: Depression on riverside slope (M) 2022-0154: Rutting riverside slope (M) 2022-0178: Rutting on riverside toe (M) 2022-0181: Rutting and depressions about 4 inch deep, landside slope (M) 2022-0184: Depression and ponding, 3" deep on levee crest (M) 2022-0193: 12 inch depression riverside toe. (M) 2022-0196: 8 to 12 inch depression riverside slope (M)

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Rated Item	Rating	Rating Guidelines	Location/Remarks/Recommendations
			2022-0202 : 1 to 2 ft deep by 2 ft wide depression,
			landside slope (M) 2022-0205 : depression on landside slope. (M)
			2022-0203 : depression on landside slope. (M) 2022-0208 : Depression 1 to 2 ft deep landside
			slope (M)
			2022-0211 : 3 inch deep rutting on crest. (M)
			2022-0214 : 6 inch depression, landside slope (M)
			2022-0217: Rutting 3 inch deep on crest. (M)
			2022-0218 : Rutting landside. (M)
			2022-0221 : Rutting at crest landside (M)
			2022-0224 : Landside rutting (M)
			2022-0226: Rutting on riverside (M)
			2022-0229: Rutting on riverside (M)
			2022-0235: rutting riverside. (M)
			2022-0236 : Depression and rut landside slope (M) 2022-0239 : Depression landside drainage ditch
			(M)
			2022-0242 : Rutting on drainage ditch slope (M)
			2022-0244: Rutting on riverside (M)
			2022-0245 : Depression moving up slope landside
			toe (M)
			2022-0248: Burrow divot moving up to toe
			landside (M)
			2022-0250 : Rutting riverside (M)
			2022-0253: rutting riverside slope (M)
			2022-0256: Rutting landside slope (M)
			2022-0257 : Large depression landside toe (M) 2022-0260 : Large shallow depression with
			burrow evidence landside toe (M)
			2022-0265 : Rut in crown (M)
			2022-0266: Rutting Depression along crest (M)
			2022-0299: Large divot. Riverside slope from toe
			to crest (M)
			2022-0310 : Large depression on crest 5 in deep
			(M)
			2022-0391 : Rutting caused by mowing at landside
			toe. (M) 2022-0427: Rutting where levee intersects with
			Calhoun road. (M)

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Flood Damage Reduction Segments / Systems Inspection Report Gary North

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
9. Cracking	M	A M	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 vertical movement along the crack. No cracks extend continuously through the levee crest. Longitudinal cracks are no longer than the height of the levee. 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.	2022-0463: 7inch depression from top surface with pooling water. Second is 9" Third is 5" (M) 2022-0478: Small 2ft diameter depression, 4 in deep, on riverside toe. (M) 2022-0481: 2 yard long rut that is connected to a depression on the riverside slope. (M) 2022-0487: 4 inch deep rut on riverside toe (M) 2022-0493: Rutting caused by mowing on the riverside slope (M) 2022-0508: Rutting along riverside toe with ponding. (M) 2022-0520: Rut near riverside toe. (M) 2022-0523: Depression on riverside toe. (M) 2022-0562: Mild depression on landside toe. (M) Recommendation: Fill shallow ruts with topsoil and seed. Fill deep ruts with clay and restore sod cover. Monitor low spots on crest for further degredation 2022-0254: Crack in asphalt on crown (M) 2022-0499: Cracking along landside crest in pavement indicating movement of the slope. (M) 2022-0502: Wide crack in the asphalt on the crest with vegetation growing in it. (M) Recommendation: Reseal cracks with asphalt sealer. Monitor cracked areas for crest movement.
10. Animal Control	M	A	Continuous animal burrow control program in place that includes the elimination of active burrowing and the filling in of existing burrows.	2022-0172 : Animal activity near landside crown (M)
		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.	2022-0206: Burrows in area landside (M) 2022-0284: Tree branch and stump creating animal burrow (M) 2022-0346: Riverside typical animal burrow (M)
		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.	Recommendation: Backfill burrows with compacted clay.

Rated Item	Rating	Rating Guidelines	Location/Remarks/Recommendations	
11. Culverts / Discharge Pipes (This item includes both concrete and corrugated metal pipes.)	A	A There are no breaks, holes, cracks in the discharge pipes/ culverts that would result in significant water leakage. The pipe shape is still essentially circular. All joints appear to be closed and the soil tight. Corrugated metal pipes, if present, are in good condition with 100% of the original coating still in place (either asphalt or galvanizing) or have been relined with appropriate material, which is still in good condition. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector.	Justification: Camera inspection performed in July 2019. No issues noted. Next inspection should be performed in 2024.	
			M There are a small number of corrosion pinholes or cracks that could leak water and need to be repaired, but the entire length of pipe is still structurally sound and is not in danger of collapsing. Pipe shape may be ovalized in some locations but does not appear to be approaching a curvature reversal. A limited number of joints may have opened and soil loss may be beginning. Any open joints should be repaired prior to the next inspection. Corrugated metal pipes, if present, may be showing corrosion and pinholes but there are no areas with total section loss. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector.	
				U Culvert has deterioration and/or has significant leakage; it is in danger of collapsing or as already begun to collapse. Corrugated metal pipes have suffered 100% section loss in the invert. HOWEVER: Even if pipes appear to be in good condition, as judged by an external visual inspection, an Unacceptable Rating will be assigned if the condition of pipes has not been verified using television camera video taping or visual inspection methods within the past five years, and reports for all pipes are not available for review by the inspector.
		N/A There are no discharge pipes/ culverts.		

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
12. Riprap Revetments & Bank	M	A	No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present.	2022-0263: Trees and vegetation along levee riverside toe in riprap (M) 2022-0532: Trees and tall vegetation on riverside
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.	toe in riprap. (M) Recommendation: Remove debris and vegetation and re-establish line of riprap protection
		U	Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses.	
		N/A	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.	
13. Revetments other than	M	A	Existing revetment protection is properly maintained, undamaged, and clearly visible.	2022-0031: Capping is falling from sides of access road to Harrison Blvd (M)
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.	2022-0034: Capping is falling riversid side of access road to Harrison Blvd (M) Recommendation: Repair embankments of access road to Harrison Blvd.
		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.	Toda to Harrison Biva.
		N/A	There are no such revetments protecting this feature of the segment / system.	

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations	
14. Underseepage Relief Wells/ Toe Drainage Systems	NA	A	Toe drainage systems and pressure relief wells necessary for maintaining FDR segment / system stability during high water functioned properly during the last flood event and no sediment is observed in horizontal system (if applicable). Nothing is observed which would indicate that the drainage systems won't function properly during the next flood, and maintenance records indicate regular cleaning. Wells have been pumped tested within the past 5 years and documentation is provided.		
		M	Toe drainage systems or pressure relief wells are damaged and may become clogged if they are not repaired. Maintenance records are incomplete or indicate irregular cleaning and pump testing.		
			U	Toe drainage systems or pressure relief wells necessary for maintaining FDR segment / system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing.	
		N/A	There are no relief wells/ toe drainage systems along this component of the FDR segment / system.		
15. Seepage		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 toe but not on the landward slope of levee. No evidence of soil transport.		
		U	Evidence or history of active seepage, extensive saturated areas, or boils.		

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

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
1	. Unwanted Vegetation Growth	U		free of all trees, brush, and undesirable weeds. The vegetation-free zone extends 15 feet from both the land and riverside of the floodwall, at ground-level, to the centerline of the tree. Additionally, an 8- foot root-free zone is maintained around the entire structure, including the floodwall toe, heel, and any toe-drains. If the floodwall access easement doesn't extend to the described limits, then the vegetation-free zone must be maintained to the easement limits. Reference EM 1110- 2-301 and/or Corps policy for regional vegetation variance.	2022-0128: Small tree on riverside. (M) 2022-0149: Small trees on floodwall's river side. (M) 2022-0185: Tree pushing against floodwall on riverside. (U) 2022-0191: Large trees on riverside. (U) 2022-0367: Small tree on landside. (M) 2022-0403: Small trees along landside. (M) 2022-0412: Tall vegetation growth on landside of
		M Minimal vegetation growth (brush, weeds, or trees 2 including smaller) is present within the zones described above. This be removed but does not currently threaten the operation the floodwall.	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.	riverside floodwall. (U) 2022-0457: Small tree on landside base of	
			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.	floodwall. (M) Recommendation: Remove vegetation within 15 ft of the floodwall.

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
2. Encroachments	M	A	No trash, debris, unauthorized structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the floodwall.	2022-0004: Fence on both landside and riverside has fallen over. (M) 2022-0007: Encroaching fence on the landside. (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.	2022-0070: Broken post and exposed hole in the levee crest. (M) 2022-0097: Ponding on landside of floodwall (M) 2022-0161: Wooden debris on landside 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.	2022-0194: Animal burrow on landside of floodwall. (M) 2022-0269: Debris near Chase St. closure structure. (M) 2022-0308: Debris landside near Grant West Pump Station (M) 2022-0364: Railroad gravel stockpile within 15 feet of floodwall, landside. (M) 2022-0370: Railroad beam at foot of landside floodwall. (M) 2022-0373: Metal debris near landside base of floodwall. (M) 2022-0376: Old utility pole debris near landside base of floodwall. (M) 2022-0379: Dead trees remain near base of landside floodwall. (M) 2022-0382: Railroad surplus and debris at landside of floodwall. (M) 2022-0406: Debris at landside near Colfax St. (M) 2022-0406: Plywood debris on landside of floodwall. (M) 2022-0409: Chip board debris on landside of floodwall. (M) 2022-0415: Wood beam within 15 feet of landside floodwall (M) 2022-0442: Graffiti on top of floodwall. (M) 2022-0445: Graffiti on landside wall of concrete portion of floodwall. (M) 2022-0451: Tire debris and landside base of floodwall. (M) 2022-0454: Graffiti on entire face of landside

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

Flood Damage Reduction Segments / Systems Inspection Report Gary North

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
					wall. (M) 2022-0538: Concrete barrier and debris at base of landside floodwall, near Chase St. closure structure (M) 2022-0544: Graffiti on landside face of the floodwall. (M) 2022-0547: Debris at landside base of floodwall near Chase St. closure structure. (M) 2022-0553: Debris on landside base of the floodwall. (M) 2022-0574: Fence close to the landside base of the floodwall. (M) Recommendation: Remove debris from around floodwalls. For fence structures, seek 408 approval or remove. Power wash graffiti.
3.	Structures (Stop Log Closures and	M	A	Closure structure in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components are clearly marked and installation instructions/ procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual.	2022-0146 : Guardrail blocking sandbag closure a Colfax. (M) 2022-0541 : Minor spalling on landside face of Chase St. closure. (A)
	Gates) (A or U only)		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.	Recommendation: Develop plan for removing guardrail during sandbag closure.
			N/A	There are no closure structures along this component of the FDR segment / system.	

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
4.	Concrete Surfaces	M	A	Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage.	2022-0152: Hole in sheet pile. (M) 2022-0155: 4 missing bolts on sheet pile at bend. (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.	2022-0197: Open holes along west side of railroad floodwall. (M) 2022-0200: Pinhole in floodwall east of railroad crossing. (M) 2022-0436: Crack on top of flood wall that is
			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.	seen on both side faces. Penetrates 1 ft from top. (M) 2022-0448: Graffiti on landside face of floodwall. (M) 2022-0556: Spalling on top of floodwall. (M) Recommendation: Replace missing bolts. Weld shut open holes in sheet pile walls. Repair spalled concrete with polyurethane grout.
5.	Tilting, Sliding or	М	A	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	2022-0067 : Slight misalignment of floodwall. Asconstructed. (A)
	Settlement of Concrete Structures		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.	2022-0188: Exposed joint between metal floodwall and concrete structure due to tree by railroad near Burr. (M) 2022-0571: Floodwall is slightly tilted with 1 inch offset. (M)
			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.	Recommendation: Monitor misaligned floodwa for further movement.

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations	
6.	Foundation of Concrete	M	A	No active erosion, scouring, or bank caving that might endanger the structure's stability.	2022-0001: Depression along riverside of floodwall. 9 deep by 9x12. (M)	
	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 stabile until the next inspection.	2022-0460: Pooling of water on landside base of floodwall. (M) Recommendation: Fill depressions with topsoil.	
			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.		
7.	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	M	The joint material has appreciable deterioration to the point where joint filler material and/or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/thaw cycles, and to ensure water tightness of the joint.	
			U	The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood.		
			N/A	There are no monolith joints in the floodwall.		

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
8. Underseepage Relief Wells/ Toe Drainage Systems	NA	A	Toe drainage systems and pressure relief wells necessary for maintaining FDR segment / system stability during high water functioned properly during the last flood event and no sediment is observed in horizontal system (if applicable). Nothing is observed which would indicate that the drainage systems won't function properly during the next flood, and maintenance records indicate regular cleaning. Wells have been pumped tested within the past 5 years and documentation is provided.	
		M	Toe drainage systems or pressure relief wells are damaged and may become clogged if they are not repaired. Maintenance records are incomplete or indicate irregular cleaning and pump testing.	
		U	Toe drainage systems or pressure relief wells necessary for maintaining FDR segment / system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing.	
		N/A	There are no relief wells/ toe drainage systems along this component of the FDR segment / system.	
9. Seepage	M	A	No evidence or history of unrepaired seepage, saturated areas, or boils.	2022-0158: Evidence of seepage at base by Colfax. Silt in some of the flanges at the landside
	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.	base. (M) Recommendation: Monitor for seepage during high water events.
		U	Evidence or history of active seepage, extensive saturated areas, or boils.	179-1

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

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
1.	. Vegetation and Obstructions	M	A	No obstructions, vegetation, debris, or sediment accumulation noted within interior drainage channels or blocking the culverts, inlets, or discharge areas. Concrete joints and weep holes are free of grass and weeds.	2022-0010: Ditch has tall vegetation and trees. (M) 2022-0029: GN-16: Vegetation in outlet. (M) 2022-0050: GN-18: Vegetation by grate. (M)
			M	Obstructions, vegetation, debris, or sediment are minor and have not impaired channel flow capacity or blocked more than 10% of any culvert openings, but should be removed. A limited volume of grass and weeds may be present in concrete channel joints and weep holes.	2022-0080: GN-3: Minor vegetation in outlet. (A) 2022-0103: Trees and tall vegetation in ditch. (M) 2022-0106: Trees and tall vegetation in ditch. (M) 2022-0130: Vegetation in ditch. (M)
		may be present in concrete channel joints and weep holes. U Obstructions, vegetation, debris, or sediment have impaired the channel flow capacity or blocked more than 10% of a culvert opening. Sediment and debris removal required to reestablish flow capacity.	2022-0179: GN-4: Vegetation at inlet. (M) 2022-0227: Vegetation in ditch. (M) 2022-0262: Tall vegetation in ditch. (M) 2022-0275: GN-9a,b: Vegetation on riverside (M) 2022-0283: Ditch is in good condition. (A) 2022-0289: Ditch in good condition. (A) 2022-0295: Ditch in good condition. Looking west from Colfax Ave. (A) 2022-0304: Ditch looking east from 29th and Black Oak Rd. Good condition. (A) 2022-0319: GN-1: Vegetation around outlet. (M) 2022-0349: GN-2: Vegetation in outlet. (M) 2022-0352: GN-2: Vegetation in inlet. (M) 2022-0385: GN-3: Vegetation growth in outlet structure. (M) 2022-0418: GN-4: Vegetation growth at inlet. (M) 2022-0433: GN-5: Vegetation growth at outlet structure. (M)		
					Recommendation: Remove vegetation and debris within the ditches and from blocking structures.

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
2.	Encroachments	M	A	No trash, debris, unauthorized structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the interior drainage system.	2022-0182 : GN-4: Trees around outlet structure. (M) 2022-0286 : Culvert at Colfax in good condition. Trees around headwall. (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.	2022-0292: Vegetation along headwall of ditch culvert under Colfax St. (A) 2022-0301: Vegetation along fence near 29th street and Black Rock Road. (M)
			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.	Recommendation: Remove trees from around the ditches and headwall.
3.	Ponding Areas	A	A	No trash, debris, structures, or other obstructions present within the ponding areas. Sediment deposits do not exceed 10% of capacity.	Justification: No issues observed.
			M	Trash, debris, excavations, structures, or other obstructions present, or inappropriate activities that will not inhibit operations and maintenance. Sediment deposits do not exceed 30% of capacity.	
			U	Trash, debris, excavations, structures, or other obstructions, or other encroachments or activities noted that will inhibit operations, maintenance, or emergency work. Sediment deposits exceeds 30% of capacity.	
			N/A	There are no ponding areas associated with the interior drainage system.	
4.	Fencing and Gates	M	A	Fencing is in good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts.	2022-0038 : GN-16: Vegetation on gate. (M) 2022-0298 : Fence damaged near 29th Street and Black Oak Road at the ditch. (M)
			M	Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.	Recommendation: Repair damaged fencing and remove vegetation.
			U	Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured.	
			N/A	There are no features noted that require safety fencing.	

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations	
5.	Concrete Surfaces (Such as	M	A	Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage.	2022-0032 : GN-16: Concrete cracking around gate structure. (M) 2022-0044 : GN-16: Concrete crack in structure.	
	gatewells, 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.	(M) 2022-0056 : GN-18: Crack in concrete structure. (M) Recommendation: Repair cracked concrete.	
			U	Surface deterioration or deep cracks present that may result in an unreliable structure. Any surface deterioration that exposes the sheet piling or lies adjacent to monolith joints may indicate underlying reinforcement corrosion and is unacceptable.		
			N/A	There are no concrete items in the interior drainage system.		
6.	Tilting, Sliding or	A	A	A	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	Justification: No issues observed.
	Settlement of Concrete and Sheet Pile Structures (Such as gate wells, outfalls, intakes, or culverts)			M	There are areas of tilting, sliding, or settlement (either active or inactive) that need to be repaired. The maximum offset, either laterally or vertically, does not exceed 2 inches unless the movement can be shown to be no longer actively occurring. The integrity of the structure is not in danger.	
			U	There are areas of tilting, sliding, or settlement (either active or inactive) that threaten the structure's integrity and performance. Any movement that has resulted in failure of the waterstop (possibly identified by daylight visible through the joint) is unacceptable. Differential movement of greater than 2 inches between any two adjacent monoliths, either laterally or vertically, is unacceptable unless it can be shown that the movement is no longer active. Also, if the floodwall is of I-wall construction, then any visible or measurable tilting of the wall toward the protected side that has created an open horizontal crack on the riverside base of a monolith is unacceptable.		
			N/A	There are no concrete items in the interior drainage system.		

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations		
7.	Foundation of Concrete	M	A	No active erosion, scouring, or bank caving that might endanger the structure's stability.	2022-0166: GN-15: Scour along wingwall. (M) 2022-0173: GN-4: Erosion around outlet		
	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 stabile until the next inspection.	wingwalls. (M) Recommendation: Backfill eroded areas with riprap or compacted clay.		
			U	Erosion or bank caving observed that may lead to structural instabilities before the next inspection.			
			N/A	There are no concrete items in the interior drainage system.			
8.	Monolith Joints	A	A	The joint material is in good condition. The exterior joint sealant is intact and cracking/ desiccation is minimal. Joint filler material and/or waterstop is not visible at any point.	Justification: No issues observed.		
					M	The joint material has appreciable deterioration to the point where joint filler material and/or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/thaw cycles, and to ensure water tightness of the joint.	
			U	The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood.			
			N/A	There are no monolith joints in the interior drainage system.			

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations		
9.	Culverts / Discharge Pipes	M	ess Co the be Co or	here are no breaks, holes, cracks in the discharge pipes/ culverts that rould result in significant water leakage. The pipe shape is still sentially circular. All joints appear to be closed and the soil tight. orrugated metal pipes, if present, are in good condition with 100% of the original coating still in place (either asphalt or galvanizing) or have been relined with appropriate material, which is still in good condition. Ondition of pipes has been verified using television camera video taping to visual inspection methods within the past five years, and the report for very pipe is available for review by the inspector.	2022-0160: GN-14: Minor debris near inlets. (A) 2022-0163: GN-14: Exposed corrugated metal. (M) 2022-0277: Debris blocking one of the culverts by the railroad. Outside of project. (A) Justification: Camera inspection last performed in July 2019. Recommendation: Remove debris from culvert inlets. Cover corrugated metal pipe area of GN-14		
			wa str ov cu los ne co Co or	there are a small number of corrosion pinholes or cracks that could leak rater and need to be repaired, but the entire length of pipe is still ructurally sound and is not in danger of collapsing. Pipe shape may be valized in some locations but does not appear to be approaching a creature reversal. A limited number of joints may have opened and soil less may be beginning. Any open joints should be repaired prior to the ext inspection. Corrugated metal pipes, if present, may be showing corrosion and pinholes but there are no areas with total section loss, ondition of pipes has been verified using television camera video taping a visual inspection methods within the past five years, and the report for very pipe is available for review by the inspector.	with topsoil. Next inspection should be performed in 2024.		
					co su ap an be	ulvert has deterioration and/or has significant leakage; it is in danger of ollapsing or as already begun to collapse. Corrugated metal pipes have affered 100% section loss in the invert. HOWEVER: Even if pipes opear to be in good condition, as judged by an external visual inspection, an Unacceptable Rating will be assigned if the condition of pipes has not seen verified using television camera video taping or visual inspection nethods within the past five years, and reports for all pipes are not validable for review by the inspector.	
			N/A Th	here are no discharge pipes/ culverts.			

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
10. Sluice / Slide Gates	M	A	Gates open and close freely to a tight seal or minor leakage. Gate operators are in good working condition and are properly maintained. Sill is free of sediment and other obstructions. Gates and lifters have been maintained and are free of corrosion. Documentation provided during the inspection.	sediment. (A) 2022-0020 : GN-19a: Closed completely. (A)
		M	Gates and/or operators have been damaged or have minor corrosion, and open and close with resistance or binding. Leakage quantity is controllable, but maintenance is required. Sill is free of sediment and other obstructions.	2022-0023 : GN-19b: Closed completely. (A) 2022-0035 : GN-16: Gate completely closed. (A) 2022-0041 : GN-17: Gate completely closed. (A) 2022-0053 : GN-18a: Completely shut. (A)
		U	Gates do not open or close and/or operators do not function. Gate, stem, lifter and/or guides may be damaged or have major corrosion.	2022-0059 : GN 18b: Completely closed. (A) 2022-0065 : GN-13: Gate closed completely. (A)
		N/A	There are no sluice/ slide gates.	2022-0071: GN-15: Gate completely closed. (A) 2022-0077: GN-12: Gate completely closed. (A) 2022-0089: GN-3: Gate closed completely, sediment on bottom. (A) 2022-0095: GN-8c: Could not see gate, was able to fully open and shut gate. (A) 2022-0098: GN-8a: Gate closed completely. (A) 2022-0107: GN-9a: Closed completely with sticks underneath. (A) 2022-0110: GN-9b: Closed completely. (A) 2022-0116: GN-10a: Gate closed completely, when closing gate was skipping or jumping. (M) 2022-0119: GN-10b: Closed completely. (A) 2022-0125: GN-11: Gate completely closed. (A)
				Recommendation: Remove any silt and debris from the gatewell. Investigate the skipping and jumping at GN-10.

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
11. Flap Gates/ Flap Valves/	M	A	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required.	2022-0005 : Gate 950: Flap gates seated properly.
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.	2022-0017 : GN-19: Both flap gates are closed properly. (A) 2022-0047 : GN-18: Flap gates are stuck open. (M)
		U	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	2022-0062 : GN-13: Flap gate stuck open. Sandbags in outlet. (M)
		N/A	There are no flap gates.	2022-0068: GN-15: Flap gate stuck open, sandbags in outlet. (M) 2022-0074: GN-12: Gate completely closed. (A) 2022-0083: GN-3: Debris stuck in flap gate. (M) 2022-0092: GN-8: Mud and sticks blocking flap gates from opening. (M) 2022-0101: GN-9: Debris stuck in gate. (M) 2022-0113: GN-10: Flap gates stuck open. (M) 2022-0122: GN-11: Flap gate has branches in it, still looks closed. (M) 2022-0278: GN-9: Flap gate stuck open by debris. (M) 2022-0316: GN-1: Flap gate slightly ajar. (M)
12. Trash Racks		A	Trash racks are fastened in place and properly maintained.	Recommendation: Clear any debris stuck in the flap gates. 2022-0026 : GN-19: Sediment buildup outside
(non- mechanical)	M	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.	trash rack. (M) 2022-0280: Structure at end of drainage ditch in good condition. (A) Recommendation: Clear sediment from GN-19
		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.)	trash rack.
		N/A	There are no trash racks, or they are covered in the pump stations section of the report.	

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations	
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.	2022-0104 : GN 9: Ladder damaged. (M) Recommendation: Repair ladder at GN-9.	
		M	Corrosion seen on metallic parts appears to be maintainable.		
		U	Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.		
		N/A	There are no other significant metallic items.		
14. Riprap Revetments of Inlet/	M	A	No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present.	2022-0002 : Gate 950: Vegetation at inlet. (M) 2022-0008 : Gate 950: Significant vegetation at outlet. (M)	
Discharge Areas			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.	Recommendation: Remove vegetation from riprap at the inlet and outlet of Gate 950.
		U	Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses.		
		N/A	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.		
15. Revetments other than Riprap	NA	A	No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present.		
		M	Minor riprap displacement or stone degradation that could pose an immediate threat to the integrity of the channel bank. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide.		
		U	Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses.		
		N/A	There are no such revetments protecting this feature of the segment / system.		

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

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
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: 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.
	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	U	A	Operation and Maintenance Equipment Manuals and/or posted operating instructions are present and updated as required, and adequately cover all pertinent pump station features. O&M manuals include points of contact for manufacturers and suppliers of major equipment used in the facility.	2022-0021 : PS-BR: Operations manuals not onsite. (M) Recommendation: Provide Operations and Maintenance Manuals for Burr St. North pump
	Manuals		M	Operation and Maintenance Equipment Manuals and/or posted operating instructions are present and adequately cover all pertinent pump station features. However, they are incomplete and the necessary updates have not been made.	station
			U	Operation and Maintenance Equipment Manuals are not available.	
3.	Safety Compliance	A	A	Safety compliance inspection reports by applicable local, state, or federal agencies available for review.	Justification: No Issues Observed
			M	No safety compliance inspection reports are available for review.	
4.	Communications (A or M only)	A	A	A telephone, cellular phone, two-way radio, or similar device is available to pump station operator and maintenance personnel.	Justification: No Issues Observed
			M	A telephone, cellular phone, two-way radio, or similar device is not available to pump station operator and maintenance personnel.	
5.	Plant Building	M	A	The building is in good structural condition with no major foundation settlement problems. The roof is not leaking, intake & exhaust louvers are clear of debris, fans are operational, etc.	2022-0018: PS-BR: Vent piping coming from wet wet is dislodged at bottom and top. (M) 2022-0024: PS-BR: Louver actuator closes
			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.	correctly when operated but has trouble opening. (M) 2022-0030 : PS-BR: Settlement on generator pad. (M) 2022-0033 : PS-BR: Cracking in concrete. (M)
			U	The structural integrity or stability of the building is threatened, or there is damage to the building that threatens safety of the operator or impacts pumping operations.	Recommendation: PS-BR: Repair vent piping and louver actuator. Repair cracking concrete and monitor for settlement around transformer. Clear debris and seal cracks to prevent water penetration.

	Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
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.	2022-0015 : PS-IW: Vegetation growing around fencing enclosing station. (M) Recommendation: Clear vegetation growing
			M	Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.	along fence at Ironwood Station.
			U	Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured.	
			N/A	There are no features noted that require safety fencing.	
7.	Pumps	A	A	All pumps are properly maintained and lubricated. Systems are periodically tested and documented for review. No vibration, cavitation noises or unusual sounds are noted when the pump is operated. Bearing temperature sensor records don't indicate any problems.	2022-0012 : PS-IW: Pumps not run due to low water in sump. Operator stated this low water is about as much water it receives. Pumps run very infrequently. No issues. (A)
			M	Minor deficiencies noted that need to be closely monitored or repaired, such as the presence of slight vibrations, leakage of packing gland, bearing temperature sensors are inoperable or no record is present. However, the pumps are operational and are expected to perform through the next period of usage.	
			U	Major deficiencies identified that may significantly reduce pumping operations. For example, bearing sensor records indicate problems, excessive vibration noted, impellers are badly corroded, or there are eroded or missing blades.	
8.	Motors, Engines, Fans, Gear Reducers, Back Stop	A	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.	Justification: No Issues Observed
	Devices, etc.		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	5	Rating Guidelines	Location/Remarks/Recommendations				
9. Sumps / Wet well	A	A	Clear of debris, sediment, or other obstructions. Procedures are in place to remove debris accumulation during operation.	Justification: No Issues Observed				
		M	Debris, sediment, or other obstructions may be present and must be removed, but the sump/ wet well will function as intended during the next flood. Procedures are in place to remove debris accumulation during operation.					
		U	Large debris or excessive silt present which will hinder or damage pumps during operation, or no procedures established to remove debris accumulation during operation.					
10. Mechanical Operating	NA	A	Drive chain, bearing, gear reducers, and other components are in good operating condition and are being properly maintained.					
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.					
		N/A	There are no mechanical trash rakes.					
11. Non-	2.4	A	Trash racks are fastened in place and properly maintained.	2022-0027 : PS-BR: Trash and vegetation in				
Mechanical Trash Racks	M	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.	station intake. (M) Recommendation: Remove vegetation and debris from inlet trash rake at Burr St. North Pump Station.				
						U	Trash racks are missing or damaged to the extent that they are no longer functional and must be replaced. (For example, more than 10% of the sectional area may be lost.)	
		N/A	There are no trash racks, or they are covered in the pump stations section of the report.					
12. Fuel System for Pump	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.					
		N/A	No fuel system.					

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
13. Power Source	A	A	The normal power source and backup generators, if installed, are operational, properly exercised and well maintained. Surge protection, grounding, lightning protection, transformers, and automatic/manual transfer of main power to backup system is working.	Justification: No Issues Observed
		M	Normal power source and backup units, if applicable, are operational with minor discrepancies or maintenance, inspection and exercising record is present but not up to date. Preventative maintenance or repairs are required.	
		U	Normal power source or generators are not operational and must be repaired; or generator, if required, is not on site.	
14. Electrical Systems	M	A	Operational and maintained free of damage, corrosion, and debris. Preventative maintenance and system testing is being performed periodically.	2022-0006 : PS-IW: Grounding conductor is frayed. (M) 2022-0009 : PS-IW: Loose wires and debris in
		M	Operational with minor discrepancies. Preventative maintenance or repairs are required, but the components are expected to function adequately during the next flood event.	controls enclosure. (M) Recommendation: Replace grounding conductor at Ironwood Pump Station. Place wire in conduit and remove debris from electrical boxes at
		U	Components of the electrical system will not function adequately during the next flood event and must be replaced.	Ironwood Pump Station.
15. Megger Testing on Pump Motors	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
and 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	Location/Remarks/Recommendations
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	Intake and discharge pipelines have no corrosion and paint is intact, except for minor touch up required. Pipe couplings and anchors have no leakage or corrosion.	Justification: No Issues Observed
		M	Intake and discharge pipelines have minor corrosion and repair and painting is required. Pipe coupling with anchors have minor leakage, corrosion and require bolts to be tightened.	
		U	Intake and discharge pipelines have major corrosion and replacement is required. Pipe coupling with anchors have major leakage and is heavily corroded and requires replacement.	
18. Sluice/ Slide Gates	A	A	Gates open and close freely to a tight seal or minor leakage. Gate operators are in good working condition and are properly maintained. Sill is free of sediment and other obstructions. Gates and lifters have been maintained and are free of corrosion. Documentation provided during the inspection.	Justification: No Issues Observed.
		M	Gates and/or operators have been damaged or have minor corrosion, and open and close with resistance or binding. Leakage quantity is controllable, but maintenance is required. Sill is free of sediment and other obstructions.	
		U	Gates do not open or close and/or operators do not function. Gate, stem, lifter and/or guides may be damaged or have major corrosion.	
		N/A	There are no sluice/ slide gates.	

Rated Item	Rating		Rating Guidelines	Location/Remarks/Recommendations
19. Flap Gates/ Flap Valves/	A	A	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required.	Justification: No Issues Observed.
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.	
		U	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	
		N/A	There are no gates on discharge lines from pump station.	
20. Cranes	A	A	Cranes operational and have been inspected and load tested in accordance with applicable standards within the last year. Documentation is on hand.	Justification: No Issues Observed.
		M	Cranes have not been inspected or operationally tested within the past year, or there are visible signs of corrosion, oil leakage, etc, requiring maintenance.	
		U	Cranes are not operational, and this may prevent the pump station from functioning as required. No documentation available on cranes.	
		N/A	There are no cranes.	
21. Other Metallic Items	M	A	All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern.	2022-0003 : PS-IW: Vegetation on walkway. (M) Recommendation: Clear vegetation from the
(Equipment, Ladders,		M	Corrosion seen on metallic parts appears to be maintainable.	walkway.
Platform Anchors, etc)		U	Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.	
		N/A	There are no other significant metallic items.	

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



Inspect ID: 2022-0028 Title: 260400003_CELRC_2022_A_0028_1_20220607T140212.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Unacceptable - Large trees near the landside toe.



Inspect ID: 2022-0049 Title: 260400003_CELRC_2022_A_0049_1_20220607T141333.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation close to the riverside toe.



Inspect ID: 2022-0082 Title:
2604000003_CELRC_2022_A_0082_1_20220607T143513.jpg
Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Tall vegetation close to the riverside slope.



Inspect ID: 2022-0085 Title: 260400003_CELRC_2022_A_0085_1_20220607T143726.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation and small trees close to the riverside toe.



Inspect ID: 2022-0121 Title:
2604000003_CELRC_2022_A_0121_1_20220607T152045.jpg
Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Overhanging vegetation near riverside slope.



Inspect ID: 2022-0140 Title: 260400003_CELRC_2022_A_0140_1_20220609T182737.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on riverside toe.



Inspect ID: 2022-0148 Title:
260400003_CELRC_2022_A_0148_1_20220607T155338.jpg
Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Tall vegetation and small trees on

landside near ramp.



Inspect ID: 2022-0167 **Title:**

2604000003_CELRC_2022_A_0167_1_20220609T184854.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:

Unacceptable - Large trees on riverside toe.



Inspect ID: 2022-0176 **Title:**

2604000003_CELRC_2022_A_0176_1_20220609T190205.jpg

Rated Item: 1. Unwanted Vegetation Growth **Caption:** Minimally Acceptable - Tall vegetation on landside toe.



Inspect ID: 2022-0190 **Title:**

2604000003_CELRC_2022_A_0190_1_20220607T163034.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation by culvert headwall.



Inspect ID: 2022-0215 Title: 260400003_CELRC_2022_A_0215_1_20220609T194642.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees along fence.



Inspect ID: 2022-0220 Title: 260400003_CELRC_2022_A_0220_1_20220607T164437.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation near riverside toe.



Inspect ID: 2022-0241 Title: 2604000003_CELRC_2022_A_0241_1_20220607T171844.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Bushes on landside slope.

Inspect ID: 2022-0251 **Title:** 2604000003 CELRC 2022 A 0251 1 20220610T132451.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation within 15 feet of

landside toe.





Inspect ID: 2022-0268 Title:

2604000003_CELRC_2022_A_0268_1_20220607T173742.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: Unacceptable - Large tree within 15 feet of riverside toe.



Inspect ID: 2022-0274 **Title:**

2604000003 CELRC 2022 A 0274 1 20220607T174824.jpg

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



Inspect ID: 2022-0281 Title:
2604000003_CELRC_2022_A_0281_1_20220610T135207.jpg
Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Tall vegetation and small trees along riverside toe.



Inspect ID: 2022-0287 Title: 260400003_CELRC_2022_A_0287_1_20220610T140205.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees along riverside toe.



Inspect ID: 2022-0290 Title:
260400003_CELRC_2022_A_0290_1_20220610T140243.jpg
Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Tall vegetation along riverside toe.



Inspect ID: 2022-0296 Title: 260400003_CELRC_2022_A_0296_1_20220610T142221.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation and small trees along riverside toe.



Inspect ID: 2022-0313 **Title:**

2604000003_CELRC_2022_A_0313_1_20220609T174046.jpg

Rated Item: 1. Unwanted Vegetation Growth **Caption:** Minimally Acceptable - GN-1: Tall vegetation near outlet.



Inspect ID: 2022-0322 **Title:**

2604000003 CELRC 2022 A 0322 1 20220609T174421.jpg

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



Inspect ID: 2022-0325 **Title:**

2604000003_CELRC_2022_A_0325_1_20220609T174522.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:

Minimally Acceptable - Trees on landside toe



Inspect ID: 2022-0328 **Title:**

2604000003 CELRC 2022 A 0328 1 20220609T174610.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: Unacceptable - Large trees on both landside and riverside

slopes



Inspect ID: 2022-0331 Title:
2604000003_CELRC_2022_A_0331_1_20220609T174717.jpg
Rated Item: 1. Unwanted Vegetation Growth Caption:
Unacceptable - Large trees on both landside and riverside slopes



Inspect ID: 2022-0334 **Title:**

2604000003_CELRC_2022_A_0334_1_20220609T174837.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:

Unacceptable - Large trees along riverside slope



Inspect ID: 2022-0358 Title: 2604000003_CELRC_2022_A_0358_1_20220609T180845.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Unacceptable - Large trees and tall vegetation along riverside toe.



Inspect ID: 2022-0388 Title: 260400003_CELRC_2022_A_0388_1_20220609T182648.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small tree growth close to landside toe.



Inspect ID: 2022-0424 Title: 2604000003_CELRC_2022_A_0424_1_20220609T185540.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation growth along landside toe.



Inspect ID: 2022-0430 Title: 260400003_CELRC_2022_A_0430_1_20220609T190141.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Unacceptable - Large tree growth close to riverside toe.



Inspect ID: 2022-0472 **Title:**

2604000003_CELRC_2022_A_0472_1_20220609T194337.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - GN-7: Tall vegetation inside fence



Inspect ID: 2022-0475 **Title:**

2604000003_CELRC_2022_A_0475_1_20220609T194547.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Small trees and tall vegetation close to

riverside toe.



Inspect ID: 2022-0496 **Title:**

2604000003_CELRC_2022_A_0496_1_20220610T130005.jpg

Rated Item: 1. Unwanted Vegetation Growth **Caption:** Minimally Acceptable - Small tree on riverside near toe.



Inspect ID: 2022-0505 **Title:**

2604000003_CELRC_2022_A_2022-

0505_2_20220610T132411.jpg **Rated Item:** 1. Unwanted Vegetation Growth **Caption:** Minimally Acceptable - Tall

vegetation within 5 from the riverside toe



Inspect ID: 2022-0517 Title:
2604000003_CELRC_2022_A_20220517_2_20220610T133127.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation within 5 feet of riverside toe



Inspect ID: 2022-0535 **Title:**

2604000003_CELRC_2022_A_0535_1_20220610T134011.jpg **Rated Item:** 1. Unwanted Vegetation Growth **Caption:**

Minimally Acceptable - Tall vegetation on the riverside toe.

Photos: Gary North

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



Inspect ID: 2022-0565 **Title:**

2604000003_CELRC_2022_A_0565_1_20220610T142449.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:
Unacceptable - Large tree growing close to landside toe and utility pole.



Inspect ID: 2022-0212 **Title:**

2604000003_CELRC_2022_A_0212_1_20220609T194257.jpg **Rated Item:** 2. Sod Cover **Caption:** Minimally Acceptable -

Pipes are exposed.



Inspect ID: 2022-0230 Title: 2604000003_CELRC_2022_A_0230_1_20220610T130801.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Sod cover poor on landside slope.



Inspect ID: 2022-0232 Title: 2604000003_CELRC_2022_A_0232_1_20220607T171116.jpg Rated Item: 2. Sod Cover Caption: Minimally Acceptable - Poor sod cover above culverts on riverside.



Inspect ID: 2022-0037 **Title:**

2604000003_CELRC_2022_A_0037_1_20220607T140631.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Fencing failed on the landside embankment



Inspect ID: 2022-0040 **Title:**

2604000003 CELRC 2022 A 0040 1 20220607T140724.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Log on riverside slope.



Inspect ID: 2022-0043 **Title:**

2604000003_CELRC_2022_A_0043_1_20220607T140851.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Fencing not included in the original levee design.



Inspect ID: 2022-0076 **Title:**

2604000003 CELRC 2022 A 0076 1 20220607T143025.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Fallen branch on riverside slope



Inspect ID: 2022-0094 **Title:**

2604000003 CELRC 2022 A 0094 1 20220607T144206.jpg

Rated Item: 3. Encroachments **Caption:** Minimally Acceptable - Broken fence crossing the levee crest.



Inspect ID: 2022-0112 Title:

2604000003_CELRC_2022_A_0112_1_20220607T151207.jpg **Rated Item:** 3. Encroachments **Caption:** Acceptable - Old

power line pole near riverside toe. No issues observed.



Inspect ID: 2022-0136 **Title:**

2604000003_CELRC_2022_A_0136_1_20220607T152904.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Highway traffic control barrel on landslide slope.



Inspect ID: 2022-0139 **Title:**

2604000003 CELRC 2022 A 0139 1 20220607T154036.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Possible borehole along landside toe.



Inspect ID: 2022-0143 **Title:**

2604000003_CELRC_2022_A_0143_2_20220609T182900.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Log on the riverside levee toe.



Inspect ID: 2022-0164 **Title:**

2604000003_CELRC_2022_A_0164_1_20220609T184615.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Fallen bollard on levee crest.



Inspect ID: 2022-0175 **Title:**

2604000003_CELRC_2022_A_0175_1_20220607T160753.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Dead tree on the riverside toe



Inspect ID: 2022-0187 **Title:**

2604000003_CELRC_2022_A_0187_1_20220607T162916.jpg **Rated Item:** 3. Encroachments **Caption:** Acceptable - Debris

on the levee crest.



Inspect ID: 2022-0199 **Title:**

2604000003_CELRC_2022_A_0199_1_20220607T163402.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Debris on the landside toe



Inspect ID: 2022-0203 **Title:**

2604000003 CELRC 2022 A 0203 1 20220609T192830.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Tree down and concrete block on the landside

slope



Inspect ID: 2022-0209 **Title:**

2604000003_CELRC_2022_A_0209_1_20220609T194027.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Downed bollards on the landslide slope



Inspect ID: 2022-0223 **Title:**

2604000003 CELRC 2022 A 0223 1 20220607T164756.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Graffiti along the INDOT embankment wall.



Inspect ID: 2022-0238 **Title:**

2604000003_CELRC_2022_A_0238_1_20220607T171746.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Unauthorized hunter's stand on the landside toe.



Inspect ID: 2022-0247 **Title:**

2604000003_CELRC_2022_A_0247_1_20220607T172110.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Debris on the landside slope



Inspect ID: 2022-0271 Title: 2604000003_CELRC_2022_A_0271_1_20220607T173907.jpg
Rated Item: 3. Encroachments Caption: Minimally

Rated Item: 3. Encroachments **Caption:** Minimally Acceptable - Concrete pieces sitting on the riverside toe.



Inspect ID: 2022-0272 **Title:**

2604000003_CELRC_2022_A_0272_1_20220610T134745.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Graffiti on the Chase Street closure structure.



Inspect ID: 2022-0305 **Title:**

2604000003_CELRC_2022_A_0305_1_20220610T143506.jpg

Rated Item: 3. Encroachments **Caption:** Minimally Acceptable - Tree downed on the riverside slope.



Inspect ID: 2022-0307 **Title:**

2604000003 CELRC 2022 A 0307 1 20220609T173713.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Downed fence near the railroad



Inspect ID: 2022-0340 **Title:**

2604000003_CELRC_2022_A_0340_1_20220609T175226.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Industrial tank on the riverside slope



Inspect ID: 2022-0355 **Title:**

2604000003 CELRC 2022 A 0355 1 20220609T180752.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Dead tree near the riverside toe.



Inspect ID: 2022-0361 **Title:**

2604000003_CELRC_2022_A_0361_1_20220609T181126.jpg

Rated Item: 3. Encroachments **Caption:** Minimally Acceptable - Railroad gravel stockpile on the landside toe.



Inspect ID: 2022-0394 **Title:**

2604000003 CELRC 2022 A 0394 1 20220609T183019.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Plastic debris on the landside slope.



Inspect ID: 2022-0397 **Title:**

2604000003_CELRC_2022_A_0397_1_20220609T183125.jpg

Rated Item: 3. Encroachments **Caption:** Minimally Acceptable - Old railroad beams near landside toe.



Inspect ID: 2022-0469 **Title:**

2604000003 CELRC 2022 A 0469 1 20220609T194206.jpg

Rated Item: 3. Encroachments **Caption:** Minimally Acceptable - Broken shopping cart on the riverside toe



Inspect ID: 2022-0484 **Title:**

2604000003_CELRC_2022_A_0484_1_20220609T195702.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Dead trees dropping large branches on the

riverside toe.



Inspect ID: 2022-0490 **Title:**

2604000003 CELRC 2022 A 0490 1 20220609T200316.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Fallen tree debris on riverside toe



Inspect ID: 2022-0529 **Title:**

2604000003_CELRC_2022_A_0529_1_20220610T133551.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - GN-8: Debris on riverside slope next to the outlet.



Inspect ID: 2022-0559 **Title:**

2604000003 CELRC 2022 A 0559 1 20220610T141538.jpg

Rated Item: 3. Encroachments Caption: Minimally Acceptable - Soil deposit from previous stockpile on the

landside toe.



Inspect ID: 2022-0568 **Title:**

2604000003 CELRC 2022 A 0568 1 20220610T142730.jpg

Rated Item: 3. Encroachments Caption: Minimally

Acceptable - Utility poles possibly in the levee, or at least close

to the toe.



Inspect ID: 2022-0170 **Title:**

2604000003 CELRC 2022 A 0170 2 20220728T175011.jpg

Rated Item: 4. Closure Structures (Stop Log, Earthen

Closures, Gates, or Sandbag Closures) (A or U only) Caption: Acceptable - Guardrail blocking levee sandbag closure at

Colfax.



Inspect ID: 2022-0134 Title: 260400003_CELRC_2022_A_0134_1_20220609T182339.jpg Rated Item: 5. Slope Stability Caption: Acceptable - Steep slope on landside.



Inspect ID: 2022-0337 Title: 260400003_CELRC_2022_A_0337_2_20220609T175106.jpg Rated Item: 5. Slope Stability Caption: Minimally Acceptable - 1.5H:1V slope on landside and riverside.



Inspect ID: 2022-0052 **Title:** 2604000003 CELRC 2022 A 0052 1 20220607T141729.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: Minimally Acceptable - Ponding close to the toe along riverside toe.



Inspect ID: 2022-0055 **Title:**

2604000003_CELRC_2022_A_0055_1_20220607T141854.jpg **Rated Item:** 6. Erosion/ Bank Caving **Caption:** Minimally

Acceptable - Ponding exposed along the riverside toe



Inspect ID: 2022-0233 Title:
2604000003_CELRC_2022_A_0233_1_20220610T131306.jpg
Rated Item: 6. Erosion/ Bank Caving Caption: Minimally
Acceptable - Depression maybe by animal burrow causing dip

in drainage ditch slope.



Inspect ID: 2022-0293 **Title:**

2604000003_CELRC_2022_A_0293_1_20220610T141640.jpg

Rated Item: 6. Erosion/ Bank Caving Caption: Minimally

Acceptable - Erosion along riverside toe



Inspect ID: 2022-0131 Title:
2604000003_CELRC_2022_A_0131_1_20220609T182059.jpg
Rated Item: 7. Settlement Caption: Minimally Acceptable Settlement at levee tie in.



Inspect ID: 2022-0137 **Title:**

2604000003_CELRC_2022_A_0137_1_20220609T182511.jpg

Rated Item: 7. Settlement Caption: Acceptable - Low area on

crest that was filled with gravel.



Inspect ID: 2022-0013 Title:
2604000003_CELRC_2022_A_0013_1_20220607T134615.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - Large depression along landside slope.



Inspect ID: 2022-0016 **Title:**

2604000003_CELRC_2022_A_0016_1_20220607T135009.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Depression about 2 feet deep and 8 foot wide



Inspect ID: 2022-0019 Title:
2604000003_CELRC_2022_A_0019_1_20220607T135411.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - 3ft wide 8 in depression on landside toe due to

tree collapse



Inspect ID: 2022-0022 **Title:**

2604000003_CELRC_2022_A_0022_1_20220607T135637.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - Rutting depression. riverside toe, 1 foot deep by 2

ft wide 3ft long



Inspect ID: 2022-0025 **Title:**

2604000003_CELRC_2022_A_0025_1_20220607T140119.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting on riverside toe



Inspect ID: 2022-0046 **Title:**

2604000003_CELRC_2022_A_0046_1_20220607T141158.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Depression at the riverside toe

Photos: Gary North

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Inspect ID: 2022-0061 **Title:**

2604000003_CELRC_2022_A_0061_1_20220607T142139.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - 12" depression on riverside toe.



Inspect ID: 2022-0079 **Title:**

2604000003_CELRC_2022_A_0079_1_20220607T143405.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - 4" deep rutting, riverside toe.



Inspect ID: 2022-0088 **Title:**

2604000003_CELRC_2022_A_0088_1_20220607T143847.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - 8 to 12 inch drop



Inspect ID: 2022-0091 **Title:**

2604000003_CELRC_2022_A_0091_1_20220607T144108.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - 8 inch depression. landside toe.



Inspect ID: 2022-0109 **Title:**

2604000003_CELRC_2022_A_0109_1_20220607T150854.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Rutting caused by mowing, riverside toe



Inspect ID: 2022-0115 **Title:**

2604000003 CELRC 2022 A 0115 1 20220607T151358.jpg

Rated Item: 8. Depressions/Rutting **Caption:** Minimally Acceptable - Rutting caused by mowing, typical for 50 ft



Inspect ID: 2022-0118 **Title:**

2604000003_CELRC_2022_A_0118_1_20220607T151718.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting caused by mowing riverside



Inspect ID: 2022-0124 **Title:**

2604000003_CELRC_2022_A_0124_1_20220607T152152.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting caused by mowing, riverside.



Inspect ID: 2022-0127 Title:

2604000003_CELRC_2022_A_0127_1_20220607T152328.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting caused by mowing, landside



Inspect ID: 2022-0133 **Title:**

2604000003_CELRC_2022_A_0133_1_20220607T152743.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting caused by mowing, riverside



Inspect ID: 2022-0145 **Title:**

2604000003_CELRC_2022_A_0145_1_20220607T155222.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Deep rutting landside slope



Inspect ID: 2022-0151 **Title:**

2604000003_CELRC_2022_A_0151_1_20220607T155437.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Depression on riverside slope



Inspect ID: 2022-0154 **Title:**

2604000003_CELRC_2022_A_0154_1_20220607T155629.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting riverside slope



Inspect ID: 2022-0169 **Title:**

2604000003_CELRC_2022_A_0169_1_20220607T160449.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Ponding near riverside toe



Inspect ID: 2022-0178 **Title:** 2604000003 CELRC 2022 A 0178 1 20220607T161409.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting on riverside toe



Inspect ID: 2022-0181 **Title:**

2604000003_CELRC_2022_A_0181_1_20220607T162407.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Rutting and depressions about 4 inch deep,

landside slope



Inspect ID: 2022-0184 Title:
260400003_CELRC_2022_A_0184_1_20220607T162705.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - Depression and ponding, 3" deep on levee crest



Inspect ID: 2022-0193 Title: 2604000003_CELRC_2022_A_0193_1_20220607T163146.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - 12 inch depression on riverside toe.



Inspect ID: 2022-0196 Title:
260400003_CELRC_2022_A_0196_1_20220607T163307.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - 8 to 12 inch depression riverside slope



Inspect ID: 2022-0202 Title: 2604000003_CELRC_2022_A_0202_1_20220607T163515.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - 1 to 2 ft deep by 2 ft wide depression, landside slope



Inspect ID: 2022-0205 Title:

2604000003_CELRC_2022_A_0205_1_20220607T163706.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - depression on landside slope.



Inspect ID: 2022-0208 Title:

2604000003 CELRC 2022 A 0208 1 20220607T163756.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Depression 1 to 2 ft deep landside slope



Inspect ID: 2022-0211 **Title:**

2604000003_CELRC_2022_A_0211_1_20220607T163851.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - 3 inch deep rutting on crest.



Inspect ID: 2022-0214 **Title:**

2604000003_CELRC_2022_A_0214_1_20220607T164009.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - 6 inch depression, landside slope



Inspect ID: 2022-0217 **Title:**

2604000003_CELRC_2022_A_0217_1_20220607T164253.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting 3 inch deep



Inspect ID: 2022-0218 **Title:**

2604000003_CELRC_2022_A_0218_1_20220609T195043.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting landside.



Inspect ID: 2022-0221 **Title:**

2604000003_CELRC_2022_A_0221_1_20220609T200301.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting at crest landside



Inspect ID: 2022-0224 **Title:**

2604000003_CELRC_2022_A_0224_1_20220609T200345.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Landside rutting



Inspect ID: 2022-0226 **Title:**

2604000003_CELRC_2022_A_0226_1_20220607T165838.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting on riverside



Inspect ID: 2022-0229 **Title:**

2604000003_CELRC_2022_A_0229_1_20220607T170538.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting on riverside



Inspect ID: 2022-0235 Title: 260400003_CELRC_2022_A_0235_1_20220607T171250.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - rutting riverside.



Inspect ID: 2022-0236 **Title:**

2604000003_CELRC_2022_A_0236_1_20220610T131615.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Depression and rut landside slope



Inspect ID: 2022-0239 **Title:**

2604000003_CELRC_2022_A_0239_1_20220610T131739.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Depression landside drainage ditch



Inspect ID: 2022-0242 **Title:**

2604000003_CELRC_2022_A_0242_1_20220610T131953.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting on drainage ditch slope



Inspect ID: 2022-0244 Title:

2604000003_CELRC_2022_A_0244_1_20220607T171958.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting on riverside



Inspect ID: 2022-0245 **Title:**

2604000003_CELRC_2022_A_0245_1_20220610T132057.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Depression moving up slope landside toe



Inspect ID: 2022-0248 Title:

2604000003_CELRC_2022_A_0248_1_20220610T132343.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Burrow divot moving up to toe landside



Inspect ID: 2022-0250 **Title:**

2604000003_CELRC_2022_A_0250_1_20220607T172328.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting riverside



Inspect ID: 2022-0253 **Title:**

2604000003_CELRC_2022_A_0253_1_20220607T172438.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - rutting riverside slope



Inspect ID: 2022-0256 **Title:**

2604000003_CELRC_2022_A_0256_1_20220607T172600.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting landside slope



Inspect ID: 2022-0257 **Title:**

2604000003_CELRC_2022_A_0257_1_20220610T133009.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Large depression landside toe



Inspect ID: 2022-0260 **Title:**

2604000003_CELRC_2022_A_0260_1_20220610T133231.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Large shallow depression with burrow evidence

landside toe



Inspect ID: 2022-0265 **Title:**

2604000003_CELRC_2022_A_0265_1_20220607T173645.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally

Acceptable - Rut in crown



Inspect ID: 2022-0266 **Title:**

2604000003 CELRC 2022 A 0266 1 20220610T134514.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting Depression along crest



Inspect ID: 2022-0299 Title: 2604000003_CELRC_2022_A_0299_1_20220610T142316.jpg

Rated Item: 8 Depressions/Rutting Cention: Minimally

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Large divot. Riverside slope from toe to crest



Inspect ID: 2022-0310 **Title:**

2604000003_CELRC_2022_A_0310_1_20220609T173840.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Large depression on crest 5 in deep



Inspect ID: 2022-0391 Title: 2604000003_CELRC_2022_A_0391_1_20220609T182817.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally

Acceptable - Rutting caused by mowing at landside toe.



Inspect ID: 2022-0427 **Title:**

2604000003_CELRC_2022_A_0427_1_20220609T185945.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Rutting where levee intersects with Calhoun road.



Inspect ID: 2022-0463 Title:
260400003_CELRC_2022_A_0463_1_20220609T192930.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - 7inch depression from top surface with pooling
water. Second is 9" Third is 5"



Inspect ID: 2022-0478 Title: 2604000003_CELRC_2022_A_0478_1_20220609T195053.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally Acceptable - Small 2ft diameter depression, 4 in deep, on riverside toe.



Inspect ID: 2022-0481 Title:
2604000003_CELRC_2022_A_0481_1_20220609T195241.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - 2 yard long rut that is connected to a depression on the riverside slope.



Inspect ID: 2022-0487 Title: 260400003_CELRC_2022_A_0487_1_20220609T200017.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally

Acceptable - 4 inch deep rut on riverside toe



Inspect ID: 2022-0493 **Title:** 2604000003_CELRC_2022_A_0493_1_20220609T200521.jpg Rated Item: 8. Depressions/Rutting Caption: Minimally

Acceptable - Rutting caused by mowing on the riverside slope



Inspect ID: 2022-0508 **Title:**

2604000003 CELRC 2022 A 0508 1 20220610T132213.jpg

Rated Item: 8. Depressions/Rutting Caption: Minimally Acceptable - Rutting along riverside toe with ponding.



Inspect ID: 2022-0520 **Title:** _1_20220610T133014.jpg **Rated Item:** 8. Depressions/ Rutting **Caption:** Minimally Acceptable - Rut near riverside toe.



Inspect ID: 2022-0523 Title: 2604000003_CELRC_2022_A_0523_1_20220610T133351.jpg Rated Item: 8. Depressions/ Rutting Caption: Minimally

Acceptable - Depression on riverside toe.



Inspect ID: 2022-0562 Title:
260400003_CELRC_2022_A_0562_1_20220610T141710.jpg
Rated Item: 8. Depressions/ Rutting Caption: Minimally
Acceptable - Mild depression on landside toe.



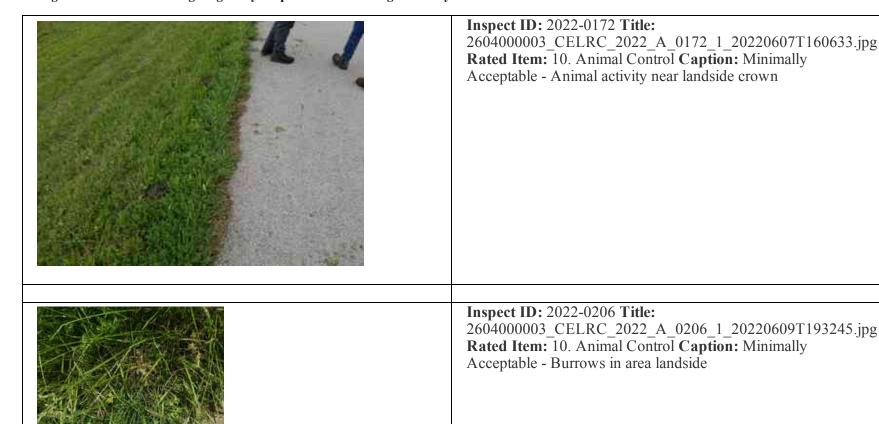
Inspect ID: 2022-0254 Title: 260400003_CELRC_2022_A_0254_1_20220610T132616.jpg Rated Item: 9. Cracking Caption: Minimally Acceptable - Crack in asphalt on crown



Inspect ID: 2022-0499 Title:
2604000003_CELRC_2022_A_0499_1_20220610T130137.jpg
Rated Item: 9. Cracking Caption: Minimally Acceptable Cracking along landside crest in pavement indicating some
movement of the slope.



Inspect ID: 2022-0502 Title: 2604000003_CELRC_2022_A_0502_1_20220610T131442.jpg Rated Item: 9. Cracking Caption: Minimally Acceptable - Wide crack in the asphalt on the crest with vegetation growing in it.





Inspect ID: 2022-0284 **Title:**

2604000003_CELRC_2022_A_0284_1_20220610T140118.jpg

Rated Item: 10. Animal Control Caption: Minimally

Acceptable - Tree branch and stump creating animal burrow



Inspect ID: 2022-0346 **Title:**

2604000003 CELRC 2022 A 0346 1 20220609T175927.jpg

Rated Item: 10. Animal Control Caption: Minimally

Acceptable - Riverside typical animal burrow



Inspect ID: 2022-0263 **Title:** 2604000003_CELRC_2022_A_0263_2_20220610T133738.jpg

Rated Item: 12. Riprap Revetments & Bank Protection Caption: Minimally Acceptable - Trees and vegetation along

levee toe in riprap



Inspect ID: 2022-0532 **Title:** _1_20220610T133708.jpg Rated Item: 12. Riprap Revetments & Bank Protection Caption: Minimally Acceptable - Trees and tall vegetation on

riverside toe in riprap.



Inspect ID: 2022-0031 **Title:**

2604000003_CELRC_2022_A_0031_1_20220607T140318.jpg

Rated Item: 13. Revetments other than Riprap Caption:

Minimally Acceptable - Capping is falling



Inspect ID: 2022-0034 **Title:**

2604000003_CELRC_2022_A_0034_1_20220607T140351.jpg

Rated Item: 13. Revetments other than Riprap Caption: Minimally Acceptable - Capping is falling riversid side of

access road to Harrison Blvd



Inspect ID: 2022-0128 **Title:**

2604000003_CELRC_2022_A_0128_1_20220609T181954.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:

Minimally Acceptable - Small tree on riverside.



Inspect ID: 2022-0149 **Title:**

2604000003 CELRC 2022 A 0149 1 20220609T183346.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Small trees on floodwall's river side.



Inspect ID: 2022-0185 **Title:** 2604000003 CELRC_2022_A_0185_1_20220609T191039.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption: Unacceptable - Tree pushing against floodwall on riverside.



Inspect ID: 2022-0191 **Title:**

2604000003_CELRC_2022_A_0191_1_20220609T191731.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:

Unacceptable - Large trees on riverside.



Inspect ID: 2022-0367 **Title:**

2604000003_CELRC_2022_A_0367_1_20220609T181507.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:

Minimally Acceptable - Small tree on landside.



Inspect ID: 2022-0403 **Title:**

2604000003 CELRC 2022 A 0403 1 20220609T183447.jpg

Rated Item: 1. Unwanted Vegetation Growth Caption:

Minimally Acceptable - Small trees along landside.



Inspect ID: 2022-0412 Title: 2604000003_CELRC_2022_A_0412_1_20220609T184046.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Minimally Acceptable - Tall vegetation growth on landside of floodwall.



Inspect ID: 2022-0439 Title: 260400003_CELRC_2022_A_0439_1_20220609T191055.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Unacceptable - Large trees growing from base of riverside floodwall.



Inspect ID: 2022-0457 Title:
260400003_CELRC_2022_A_0457_1_20220609T192159.jpg
Rated Item: 1. Unwanted Vegetation Growth Caption:
Minimally Acceptable - Small tree on landside base of floodwall.



Inspect ID: 2022-0004 Title: 2604000003_CELRC_2022_A_0004_2_20220607T133520.jpg Rated Item: 2. Encroachments Caption: Minimally Acceptable - Fence on both landside and riverside has fallen over.



Inspect ID: 2022-0007 **Title:**

2604000003_CELRC_2022_A_0007_1_20220607T133656.jpg

Rated Item: 2. Encroachments **Caption:** Minimally Acceptable - Encroaching fence on the landside.



Inspect ID: 2022-0070 **Title:**

2604000003 CELRC 2022 A 0070 1 20220607T142757.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Broken post and exposed hole in the levee crest.



Inspect ID: 2022-0097 **Title:**

2604000003_CELRC_2022_A_0097_1_20220607T144352.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Ponding on landside of floodwall



Inspect ID: 2022-0161 **Title:**

2604000003 CELRC 2022 A 0161 1 20220609T184112.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Wooden debris on landside of floodwall



Inspect ID: 2022-0194 **Title:**

2604000003_CELRC_2022_A_0194_1_20220609T191835.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Animal burrow on landside of floodwall.



Inspect ID: 2022-0269 **Title:**

2604000003 CELRC 2022 A 0269 1 20220610T134629.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Debris near Chase St. closure structure.



Inspect ID: 2022-0308 **Title:**

2604000003_CELRC_2022_A_0308_1_20220610T143905.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Debris landside near Grant West Pump Station



Inspect ID: 2022-0364 **Title:**

2604000003 CELRC 2022 A 0364 1 20220609T181356.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Railroad gravel stockpile within 15 feet of

floodwall, landside.



Inspect ID: 2022-0370 **Title:**

2604000003_CELRC_2022_A_0370_1_20220609T181749.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Railroad beam at foot of landside floodwall.



Inspect ID: 2022-0373 **Title:**

2604000003 CELRC 2022 A 0373 1 20220609T181850.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Metal debris near landside base of floodwall.



Inspect ID: 2022-0376 **Title:** 2604000003_CELRC_2022_A_0376_1_20220609T181954.jpg Rated Item: 2. Encroachments Caption: Minimally Acceptable - Old utility pole debris near landside base of

floodwall.



Inspect ID: 2022-0379 **Title:**

2604000003 CELRC 2022 A 0379 1 20220609T182057.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Dead trees remain near base of landside

floodwall.



Inspect ID: 2022-0382 **Title:**

2604000003_CELRC_2022_A_0382_1_20220609T182204.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Railroad surplus and debris at landside of

floodwall.



Inspect ID: 2022-0400 **Title:**

2604000003 CELRC 2022 A 0400 1 20220609T183344.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Debris at landside base of floodwall near Colfax

St.



Inspect ID: 2022-0406 **Title:**

2604000003_CELRC_2022_A_0406_1_20220609T183808.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Plywood debris on landside of floodwall.



Inspect ID: 2022-0409 **Title:**

2604000003 CELRC 2022 A 0409 1 20220609T183935.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Chip board debris on landside of floodwall.



Inspect ID: 2022-0415 **Title:**

2604000003_CELRC_2022_A_0415_1_20220609T184219.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Wood beam within 15 feet of landside floodwall



Inspect ID: 2022-0442 **Title:**

2604000003 CELRC 2022 A 0442 1 20220609T191441.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Graffiti on top of floodwall.



Inspect ID: 2022-0445 **Title:**

2604000003_CELRC_2022_A_0445_1_20220609T191553.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Graffiti on landside wall of concrete portion of

floodwall.



Inspect ID: 2022-0451 **Title:**

2604000003 CELRC 2022 A 0451 1 20220609T191853.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Tire debris and landside base of floodwall.



Inspect ID: 2022-0454 Title:

2604000003_CELRC_2022_A_0454_1_20220609T192033.jpg

Rated Item: 2. Encroachments **Caption:** Minimally Acceptable - Graffiti on entire face of landside wall.



Inspect ID: 2022-0538 **Title:**

2604000003 CELRC 2022 A 0538 1 20220610T134703.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Concrete barrier and debris at base of landside

floodwall, near Chase St. closure structure

Photos: Gary North

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Inspect ID: 2022-0544 Title:

2604000003_CELRC_2022_A_0544_1_20220610T135003.jpg

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



Inspect ID: 2022-0547 **Title:**

2604000003 CELRC 2022 A 0547 1 20220610T135112.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Debris at landside base of floodwall near Chase

St. closure structure.



Inspect ID: 2022-0553 **Title:**

2604000003_CELRC_2022_A_0553_1_20220610T135349.jpg

Rated Item: 2. Encroachments Caption: Minimally Acceptable - Debris on landside base of the floodwall.



Inspect ID: 2022-0574 **Title:**

2604000003_CELRC_2022_A_0574_1_20220610T143947.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Fence close to the landside base of the floodwall.



Inspect ID: 2022-0146 Title: 260400003_CELRC_2022_A_0146_1_20220609T183054.jpg Rated Item: 3. Closure Structures (Stop Log Closures and Gates) (A or U only) Caption: Acceptable - Guardrail blocking sandbag closure at Colfax.



Inspect ID: 2022-0541 Title:

2604000003_CELRC_2022_A_0541_1_20220610T134845.jpg **Rated Item:** 3. Closure Structures (Stop Log Closures and Gates) (A or U only) **Caption:** Acceptable - Minor spalling on landside face of Chase St. closure.



Inspect ID: 2022-0152 Title: 2604000003_CELRC_2022_A_0152_1_20220609T183638.jpg Rated Item: 4. Concrete Surfaces Caption: Minimally

Acceptable - Hole in sheet pile.



Inspect ID: 2022-0155 **Title:**

2604000003_CELRC_2022_A_0155_1_20220609T183815.jpg

Rated Item: 4. Concrete Surfaces Caption: Minimally Acceptable - 4 missing bolts on sheet pile at bend.



Inspect ID: 2022-0197 Title: 2604000003_CELRC_2022_A_0197_1_20220609T191930.jpg Rated Item: 4. Concrete Surfaces Caption: Minimally

Acceptable - Open holes along west side of railroad floodwall.



Inspect ID: 2022-0200 **Title:**

2604000003 CELRC 2022 A 0200 1 20220609T192048.jpg

Rated Item: 4. Concrete Surfaces Caption: Minimally Acceptable - Pinhole in floodwall east of railroad crossing.



Inspect ID: 2022-0436 Title: 2604000003_CELRC_2022_A_0436_1_20220609T190840.jpg Rated Item: 4. Concrete Surfaces Caption: Minimally Acceptable - Crack on top of flood wall that is seen on both side faces. Penetrates 1 ft from top.



Inspect ID: 2022-0448 **Title:**

2604000003_CELRC_2022_A_0448_1_20220609T191734.jpg

Rated Item: 4. Concrete Surfaces Caption: Minimally Acceptable - Graffiti on landside face of floodwall.

Photos: Gary North

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Inspect ID: 2022-0556 **Title:**

2604000003_CELRC_2022_A_0556_1_20220610T135558.jpg

Rated Item: 4. Concrete Surfaces Caption: Minimally

Acceptable - Spalling on top of floodwall.



Inspect ID: 2022-0067 **Title:**

2604000003_CELRC_2022_A_0067_1_20220607T142548.jpg

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

floodwall. As-constructed.



Inspect ID: 2022-0188 Title:
260400003_CELRC_2022_A_0188_2_20220609T191325.jpg
Rated Item: 5. Tilting, Sliding or Settlement of Concrete
Structures Caption: Minimally Acceptable - Exposed joint
between metal floodwall and concrete structure due to tree by
railroad near Burr.



Inspect ID: 2022-0571 Title: 260400003_CELRC_2022_A_0571_1_20220610T143802.jpg Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Minimally Acceptable - Floodwall is slightly tilted with 1 inch offset.



Inspect ID: 2022-0001 Title: 260400003_CELRC_2022_A_0001_1_20220607T133305.jpg Rated Item: 6. Foundation of Concrete Structures Caption: Minimally Acceptable - Depression along riverside of floodwall. 9 deep by 9x12.



Inspect ID: 2022-0460 Title: 260400003_CELRC_2022_A_0460_1_20220609T192336.jpg Rated Item: 6. Foundation of Concrete Structures Caption: Minimally Acceptable - Pooling of water on landside base of floodwall.



Inspect ID: 2022-0158 Title: 2604000003_CELRC_2022_A_0158_1_20220609T183951.jpg Rated Item: 9. Seepage Caption: Minimally Acceptable - Evidence of seepage at base by Colfax. Silt in some of the flanges at the landside base.



Inspect ID: 2022-0010 Title: 260400003_CELRC_2022_A_0010_1_20220607T133950.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - Ditch has tall vegetation and trees.



Inspect ID: 2022-0029 **Title:**

2604000003_CELRC_2022_A_0029_1_20220607T165748.jpg

Rated Item: 1. Vegetation and Obstructions **Caption:** Minimally Acceptable - GN-16: Vegetation in outlet.



Inspect ID: 2022-0050 **Title:**

2604000003 CELRC 2022 A 0050 1 20220607T171540.jpg

Rated Item: 1. Vegetation and Obstructions **Caption:** Minimally Acceptable - GN-18: Vegetation by grate.



Inspect ID: 2022-0080 Title: 260400003_CELRC_2022_A_0080_1_20220609T142638.jpg Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - GN-3: Vegetation in outlet.

Inspect ID: 2022-0103 **Title:**

2604000003_CELRC_2022_A_0103_1_20220607T150540.jpg

Rated Item: 1. Vegetation and Obstructions Caption:
Minimally Acceptable - Trees and tall vegetation in ditch.



Inspect ID: 2022-0106 Title:

2604000003_CELRC_2022_A_0106_1_20220607T150608.jpg

Rated Item: 1. Vegetation and Obstructions Caption:
Minimally Acceptable - Trees and tall vegetation in ditch.



Inspect ID: 2022-0130 **Title:**

2604000003_CELRC_2022_A_0130_1_20220607T152626.jpg

Rated Item: 1. Vegetation and Obstructions Caption:

Minimally Acceptable - Vegetation in ditch.



Inspect ID: 2022-0179 **Title:**

2604000003_CELRC_2022_A_0179_1_20220609T190559.jpg

Rated Item: 1. Vegetation and Obstructions **Caption:** Minimally Acceptable - GN-4: Vegetation at inlet.



Inspect ID: 2022-0227 **Title:**

2604000003_CELRC_2022_A_0227_1_20220610T125933.jpg

Rated Item: 1. Vegetation and Obstructions Caption:

Minimally Acceptable - Vegetation in ditch.



Inspect ID: 2022-0262 **Title:**

2604000003_CELRC_2022_A_0262_1_20220607T173246.jpg

Rated Item: 1. Vegetation and Obstructions Caption:

Minimally Acceptable - Tall vegetation in ditch.



Inspect ID: 2022-0275 **Title:**

2604000003 CELRC 2022 A 0275 1 20220610T134832.jpg

Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - GN-9a,b: Vegetation on riverside



Inspect ID: 2022-0283 **Title:** _1_20220609T171218.jpg **Rated Item:** 1. Vegetation and Obstructions **Caption:** Acceptable - Ditch is in good condition.



Inspect ID: 2022-0289 **Title:**

2604000003_CELRC_2022_A_0289_1_20220609T171922.jpg

Rated Item: 1. Vegetation and Obstructions Caption:

Acceptable - Ditch in good condition.



Inspect ID: 2022-0295 **Title:**

2604000003_CELRC_2022_A_0295_1_20220609T172248.jpg

Rated Item: 1. Vegetation and Obstructions Caption: Acceptable - Ditch in good condition. Looking west from

Colfax Ave.



Inspect ID: 2022-0304 **Title:**

2604000003 CELRC 2022 A 0304 1 20220609T172939.jpg

Rated Item: 1. Vegetation and Obstructions Caption:

Acceptable - Ditch looking east from 29th and Black Oak Rd.

Good condition.



Inspect ID: 2022-0319 **Title:**

2604000003_CELRC_2022_A_0319_1_20220609T174258.jpg

Rated Item: 1. Vegetation and Obstructions **Caption:** Minimally Acceptable - GN-1: Vegetation around outlet.



Inspect ID: 2022-0349 **Title:**

2604000003 CELRC 2022 A 0349 1 20220609T180109.jpg

Rated Item: 1. Vegetation and Obstructions **Caption:** Minimally Acceptable - GN-2: Vegetation in outlet.



Inspect ID: 2022-0352 **Title:**

2604000003_CELRC_2022_A_0352_1_20220609T180156.jpg

Rated Item: 1. Vegetation and Obstructions **Caption:** Minimally Acceptable - GN-2: Vegetation in inlet.



Inspect ID: 2022-0385 **Title:**

2604000003 CELRC 2022 A 0385 1 20220609T182522.jpg

Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - GN-3: Vegetation growth in outlet structure.



Inspect ID: 2022-0418 **Title:**

2604000003_CELRC_2022_A_0418_1_20220609T185115.jpg

Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - GN-4: Vegetation growth at inlet.



Inspect ID: 2022-0433 **Title:**

2604000003 CELRC 2022 A 0433 1 20220609T190522.jpg

Rated Item: 1. Vegetation and Obstructions Caption: Minimally Acceptable - GN-5: Vegetation growth at outlet structure.



Inspect ID: 2022-0182 **Title:** 2604000003_CELRC_2022_A_0182_1_20220609T190829.jpg **Rated Item:** 2. Encroachments **Caption:** Minimally

Rated Item: 2. Encroachments **Caption:** Minimal Acceptable - GN-4: Trees around outlet structure.



Inspect ID: 2022-0286 Title:

2604000003_CELRC_2022_A_0286_1_20220609T171818.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Culvert at Colfax in good condition. Trees around

headwall.



Inspect ID: 2022-0292 Title: 2604000003_CELRC_2022_A_0292_1_20220609T172135.jpg

Pated Item: 2_Engraphments Caption: A contable

Rated Item: 2. Encroachments Caption: Acceptable - Vegetation along headwall of ditch culvert under Colfax St.



Inspect ID: 2022-0301 **Title:**

2604000003_CELRC_2022_A_0301_1_20220609T172902.jpg

Rated Item: 2. Encroachments Caption: Minimally

Acceptable - Vegetation along fence near 29th street and Black

Rock Road.



Inspect ID: 2022-0038 **Title:**

2604000003_CELRC_2022_A_0038_1_20220607T170116.jpg

Rated Item: 4. Fencing and Gates Caption: Minimally

Acceptable - GN-16: Vegetation on gate.



Inspect ID: 2022-0298 **Title:**

2604000003_CELRC_2022_A_0298_1_20220609T172834.jpg

Rated Item: 4. Fencing and Gates Caption: Minimally Acceptable - Fence damaged near 29th Street and Black Oak

Road at the ditch.



Inspect ID: 2022-0032 **Title:**

2604000003_CELRC_2022_A_0032_1_20220607T165902.jpg **Rated Item:** 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts) **Caption:** Minimally Acceptable - GN 16: Concrete cracking around gate structure.



Inspect ID: 2022-0044 **Title:**

2604000003_CELRC_2022_A_0044_1_20220607T170742.jpg **Rated Item:** 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts) **Caption:** Minimally Acceptable - GN-16: Concrete crack in structure.



Inspect ID: 2022-0056 **Title:** 2604000003_CELRC_2022_A_0056_1_20220607T171824.jpg Rated Item: 5. Concrete Surfaces (Such as gate wells, outfalls,

intakes, or culverts) Caption: Minimally Acceptable - GN-18:

Crack in concrete structure.



Inspect ID: 2022-0166 **Title:**

2604000003 CELRC 2022 A 0166 1 20220607T160102.jpg Rated Item: 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.) Caption: Minimally Acceptable - GN-15: Scour along wingwall.



Inspect ID: 2022-0173 Title:
2604000003_CELRC_2022_A_0173_1_20220609T185233.jpg
Rated Item: 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.) Caption:
Minimally Acceptable - GN-4: Erosion around outlet wingwalls.



Inspect ID: 2022-0160 Title: 2604000003_CELRC_2022_A_0157_1_20220607T155909.jpg Rated Item: 9. Culverts/ Discharge Pipes Caption:

Acceptable - GN-14: Minor debris near inlets.



Inspect ID: 2022-0163 Title: 2604000003_CELRC_2022_A_0163_1_20220607T155959.jpg Rated Item: 9. Culverts/ Discharge Pipes Caption: Minimally

Acceptable - GN-14: Exposed corrugated metal.



Inspect ID: 2022-0277 **Title:**

2604000003_CELRC_2022_A_0277_1_20220607T175424.jpg

Rated Item: 9. Culverts/ Discharge Pipes Caption:
Acceptable - Debris blocking one of the culverts by the

railroad. Outside of project.



Inspect ID: 2022-0011 Title: 2604000003_CELRC_2022_A_0011_1_20220606T161234.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - Gate 950: Gate closed completely.



Inspect ID: 2022-0014 Title: 260400003_CELRC_2022_A_0014_1_20220606T161759.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - Gate 950: Completely opened, no sediment.



Inspect ID: 2022-0020 Title:
260400003_CELRC_2022_A_0020_1_20220607T161045.jpg
Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable GN-19a: Closed completely.



Inspect ID: 2022-0023 Title: 260400003_CELRC_2022_A_0023_1_20220607T161616.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN-19b: Closed completely.



Inspect ID: 2022-0035 Title: 260400003_CELRC_2022_A_0035_1_20220607T170014.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN-16: Gate completely closed.



Inspect ID: 2022-0041 Title: 260400003_CELRC_2022_A_0041_1_20220607T170638.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN 16, gate completely closed



Inspect ID: 2022-0053 Title:
2604000003_CELRC_2022_A_0053_1_20220607T171631.jpg
Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable GN-18a: Completely shut.



Inspect ID: 2022-0059 Title:
260400003_CELRC_2022_A_0059_1_20220607T171922.jpg
Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable GN 18b: Completely closed.



Inspect ID: 2022-0065 Title: 260400003_CELRC_2022_A_0065_1_20220607T172928.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN-13: Gate closed completely.



Inspect ID: 2022-0071 Title: 2604000003_CELRC_2022_A_0071_1_20220607T173513.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN-15: Gate completely closed.



Inspect ID: 2022-0077 Title:
2604000003_CELRC_2022_A_0077_1_20220607T174709.jpg
Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable GN-12: Gate completely closed.



Inspect ID: 2022-0089 Title: 260400003_CELRC_2022_A_0089_1_20220609T144042.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN-3: Gate closed completely, sediment on bottom.



Inspect ID: 2022-0095 Title: 2604000003_CELRC_2022_A_0095_1_20220609T151419.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN-8c: Could not see gate, was able to fully open and shut gate.



Inspect ID: 2022-0098 Title: 260400003_CELRC_2022_A_0098_1_20220609T152609.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable - GN-8a: Gate closed completely.



Inspect ID: 2022-0107 Title: 2604000003_CELRC_2022_A_0107_1_20220609T154201.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable -

GN-9a: Closed completely with sticks underneath.



Inspect ID: 2022-0110 **Title:**

2604000003_CELRC_2022_A_0110_1_20220609T154544.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable -

GN-9b: Closed completely.



Inspect ID: 2022-0116 Title: 2604000003_CELRC_2022_A_0116_1_20220609T160222.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Minimally Acceptable - GN-10a: Gate closed completely, when closing gate was skipping or jumping.



Inspect ID: 2022-0119 **Title:**

2604000003_CELRC_2022_A_0119_1_20220609T161138.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable -

GN 10 gate B closed completely



Inspect ID: 2022-0125 Title: 2604000003_CELRC_2022_A_0125_1_20220609T162810.jpg Rated Item: 10. Sluice/ Slide Gates Caption: Acceptable -

GN-11: Gate completely closed.



Inspect ID: 2022-0005 **Title:**

2604000003_CELRC_2022_A_0005_1_20220606T161006.jpg

Rated Item: 11. Flap Gates/Flap Valves/Pinch Valves Caption: Acceptable - Gate 950: Flap gates seated properly.



Inspect ID: 2022-0017 Title:
2604000003_CELRC_2022_A_0017_1_20220607T160555.jpg
Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves
Caption: Acceptable - GN-19: Both flap gates are closed properly.



Inspect ID: 2022-0047 Title: 260400003_CELRC_2022_A_0047_1_20220607T171356.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - GN-18: Flap gates are stuck open.



Inspect ID: 2022-0062 Title: 2604000003_CELRC_2022_A_0062_1_20220607T172716.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - GN-13: Flap gate stuck open. Sandbags in outlet.



Inspect ID: 2022-0068 **Title:**

2604000003_CELRC_2022_A_0068_1_20220607T173325.jpg
Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves

Caption: Minimally Acceptable - GN-15: Flap gate stuck

open, sandbags in outlet.



Inspect ID: 2022-0074 **Title:**

2604000003_CELRC_2022_A_0074_1_20220607T174521.jpg

Rated Item: 11. Flap Gates/Flap Valves/Pinch Valves Caption: Acceptable - GN-12: Gate completely closed.



Inspect ID: 2022-0083 Title:

2604000003 CELRC 2022 A 0083 1 20220609T142812.jpg

Rated Item: 11. Flap Gates/Flap Valves/Pinch Valves
Caption: Minimally Acceptable - GN-3: Debris stuck in flap

gate.



Inspect ID: 2022-0092 **Title:**

2604000003_CELRC_2022_A_0092_1_20220609T145508.jpg

Rated Item: 11. Flap Gates/Flap Valves/Pinch Valves Caption: Minimally Acceptable - GN-8: Mud and sticks

blocking flap gates from opening.



Inspect ID: 2022-0101 **Title:**

2604000003_CELRC_2022_A_0101_1_20220609T153701.jpg

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

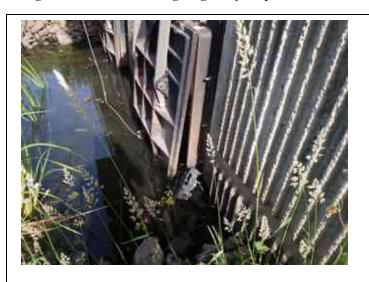
Caption: Minimally Acceptable - GN-9: Debris stuck in gate.



Inspect ID: 2022-0113 Title: 2604000003_CELRC_2022_A_0113_1_20220609T155557.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - GN-10: Flap gates stuck open.



Inspect ID: 2022-0122 Title: 260400003_CELRC_2022_A_0122_1_20220609T162406.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Minimally Acceptable - GN-11: Flap gate has branches in it, still looks closed.



Inspect ID: 2022-0278 **Title:**

2604000003_CELRC_2022_A_0278_1_20220610T135001.jpg

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

Caption: Minimally Acceptable - GN-9: Flap gate stuck open

by debris.



Inspect ID: 2022-0316 **Title:**

2604000003_CELRC_2022_A_0316_1_20220609T174149.jpg

Rated Item: 11. Flap Gates/Flap Valves/Pinch Valves Caption: Minimally Acceptable - GN-1: Flap gate slightly

ajar.



Inspect ID: 2022-0026 Title:
2604000003_CELRC_2022_A_0026_1_20220607T161740.jpg
Rated Item: 12. Trash Racks (non-mechanical) Caption:
Minimally Acceptable - GN-19: Sediment buildup outside trash rack.



Inspect ID: 2022-0280 Title: 260400003_CELRC_2022_A_0280_1_20220609T171129.jpg Rated Item: 12. Trash Racks (non-mechanical) Caption: Acceptable - Structure at end of drainage ditch in good condition.



Inspect ID: 2022-0104 **Title:**

2604000003_CELRC_2022_A_0104_1_20220609T153918.jpg

Rated Item: 13. Other Metallic Items Caption: Minimally

Acceptable - GN 9: Ladder damaged.



Inspect ID: 2022-0002 **Title:**

2604000003_CELRC_2022_A_0002_1_20220606T160902.jpg **Rated Item:** 14. Riprap Revetments of Inlet/ Discharge Areas **Caption:** Minimally Acceptable - Gate 950: Vegetation at inlet.



Inspect ID: 2022-0008 Title: 2604000003_CELRC_2022_A_0008_1_20220606T161056.jpg Rated Item: 14. Riprap Revetments of Inlet/ Discharge Areas Caption: Minimally Acceptable - Gate 950: Significant vegetation at outlet.



Inspect ID: 2022-0021 Title: 260400003_CELRC_2022_A_0021_1_20220607T150759.jpg Rated Item: 2. Pump Station Operations and Maintenance Equipment Manuals Caption: Minimally Acceptable - PS-BR: Operations manuals not onsite.



Inspect ID: 2022-0018 Title:
2604000003_CELRC_2022_A_0018_1_20220607T150528.jpg
Rated Item: 5. Plant Building Caption: Minimally Acceptable
- PS-BR: Vent piping coming from wet wet is dislodged at bottom and top.



Inspect ID: 2022-0024 Title: 2604000003_CELRC_2022_A_0024_1_20220607T151235.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-BR: Louver actuator closes correctly when operated but has trouble opening.



Inspect ID: 2022-0030 Title:
2604000003_CELRC_2022_A_0030_1_20220607T151600.jpg
Rated Item: 5. Plant Building Caption: Minimally Acceptable
- PS-BR: Settlement on generator pad.



Inspect ID: 2022-0033 Title: 260400003_CELRC_2022_A_0033_1_20220607T151726.jpg Rated Item: 5. Plant Building Caption: Minimally Acceptable - PS-BR: Cracking in concrete.



Inspect ID: 2022-0015 Title: 2604000003_CELRC_2022_A_0015_1_20220607T142518.jpg Rated Item: 6. Fencing and Gates Caption: Minimally Acceptable - PS-IW: Vegetation growing around fencing enclosing station.



Inspect ID: 2022-0012 Title: 2604000003_CELRC_2022_A_0012_1_20220607T142146.jpg Rated Item: 7. Pumps Caption: Acceptable - PS-IW: Pumps not run due to low water in sump. Operator stated this low water is about as much water it receives. Pumps run very infrequently. No issues.



Inspect ID: 2022-0027 Title: 2604000003_CELRC_2022_A_0027_1_20220607T151423.jpg Rated Item: 11. Non-Mechanical Trash Racks Caption: Minimally Acceptable - PS-BR: Trash and vegetation in station intake.



Inspect ID: 2022-0006 Title: 260400003_CELRC_2022_A_0006_1_20220607T141848.jpg Rated Item: 14. Electrical Systems Caption: Minimally Acceptable - PS-IW: Grounding conductor is frayed.

Photos: Gary North

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



Inspect ID: 2022-0009 **Title:**

2604000003_CELRC_2022_A_0009_1_20220607T142000.jpg

Rated Item: 14. Electrical Systems Caption: Minimally Acceptable - PS-IW: Loose wires and debris in controls

enclosure.



Inspect ID: 2022-0003 **Title:**

2604000003 CELRC 2022 A 0003 1 20220607T141712.jpg Rated Item: 21. Other Metallic Items (Equipment, Ladders, Platform Anchors, etc) Caption: Minimally Acceptable - PS-

IW: Vegetation on walkway.



Flood Damage Reduction System 2605000003 / Segment 2604000003 Public Sponsor Pre-Inspection Form

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

neip evaluate the organizational capability of the level of	iistiict to	manage the revee deginent / System mantenance program.	
1. Levee segment / system and sponsor: (name of the segment / system)	em and leve	ee sponsor)	
System 2605000003 / Segment 2604000003 CELRC			
2. Reporting period: (month/day/year to month/day/year)			
06/01/2021	to	06/01/2022	
3. Summary of maintenance required by last inspection report:			
Addressing unwanted vegetation, debris removal, rutting repair, animal	control, ero	sion, minor concrete cracking and spalling, deteriorating joints, minor sluice gate	
and flap gate issues, and minor pump station issues.			
4. Summary of maintenance performed this reporting period:			
Beginning in April the grass is cut approximately every 6 weeks. All gates are exercised twice a year which includes greasing gears as well. Regular monitoring of the			
levee for issues. Pump Stations are checked monthly. Reports for stations will be sent via email			
5. Summary of maintenance planned next reporting period:			
Continue our regular maintenance schedule			
6. Summary of changes to segment / system since last inspection:			
None			
7. Problems/ issues requiring the assistance of the US Army Corps of Engineers:			
None			

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

A. Purpose of USACE Inspections

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

B. Types of Inspections:

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

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

C. Inspection Boundaries:

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

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

D. Land Use Definitions:

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

Agricultural	Rural	Urban
1 1	to 20 households per square mile protected.	Greater than 20 households per square mile; major industrial areas with significant infrastructure investment. Some protected urban areas have no permanent population but may be industrial areas with high value infrastructure with no overnight population.

E. Use of the Inspection Report Template:

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

F. Individual Item / Component Ratings:

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

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

G. Overall Segment / System Ratings:

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

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

H. Eligibility for PL84-99 Rehabilitation Assistance:

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

If the Overall System Rating is Acceptable	If the Overall System Rating is Minimally Acceptable	If the Overall System Rating is Unacceptable
The system is active in the RIP and eligible for PL84-99 rehabilitation assistance.	it takes to make needed corrections. Active systems are eligible for rehabilitation assistance. However, if the sponsor does not present USACE with proof that	The system is Inactive in the RIP, and the status will remain Inactive until the sponsor presents USACE with proof that all items rated Unacceptable have been corrected. Inactive systems are ineligible for rehabilitation assistance.

I. Reporting:

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

- a. All sections of the report template used during the inspection, including the cover and pre-inspection materials. (Supplemental data collected, and any sections of the template that weren't used during the inspection do not need to be included with the report.)
- b. Photos of the general system condition and noted deficiencies.
- c. A plan view drawing of the system, with stationing, to reference locations of items rated less than acceptable.
- d. The relative importance of the identified maintenance issues should be specified in the transmittal letter.
- e. If the Overall System Rating is Minimally Acceptable, the report needs to establish a timeframe for correction of serious deficiencies noted (not to exceed two years) and indicate that if these items are not corrected within the required timeframe, the system will be rated as Unacceptable and made Inactive in the Rehabilitation Inspection Program.

J. Notification:

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

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



SHEET INDEX

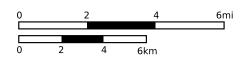
Levee: Gary North

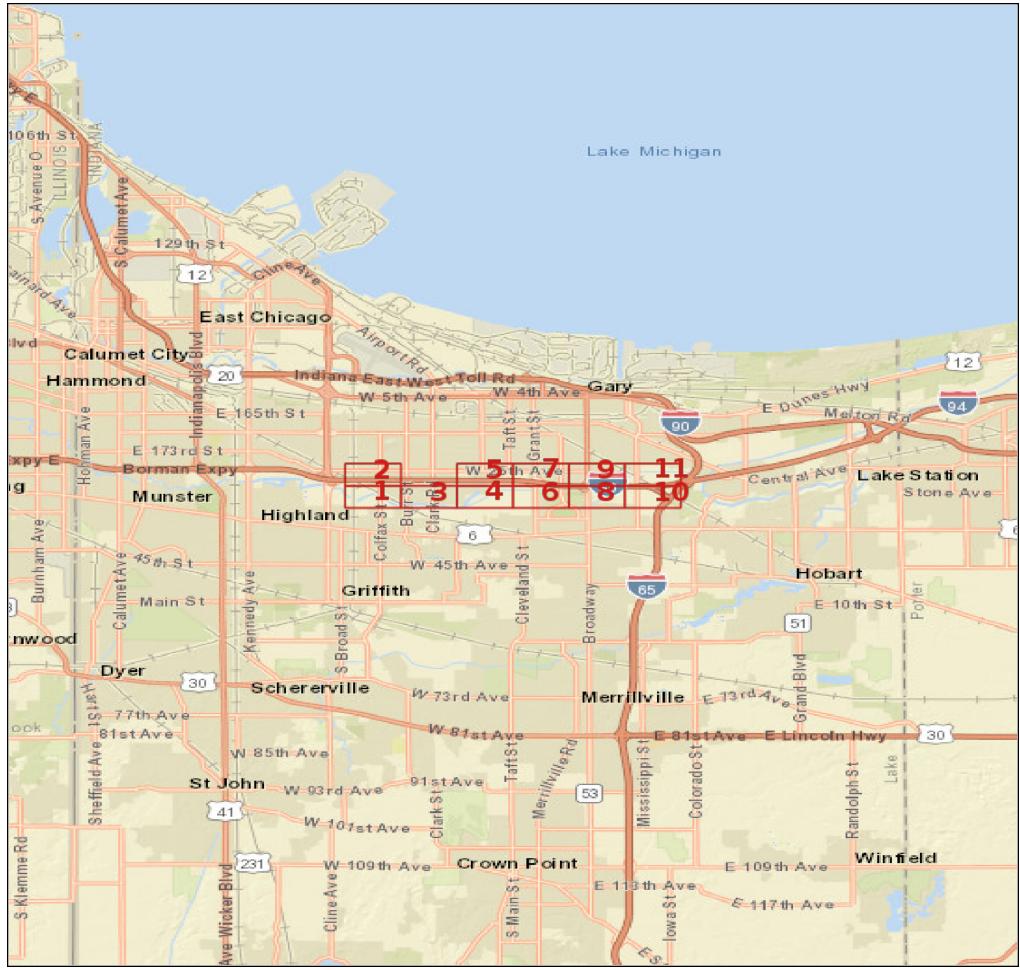
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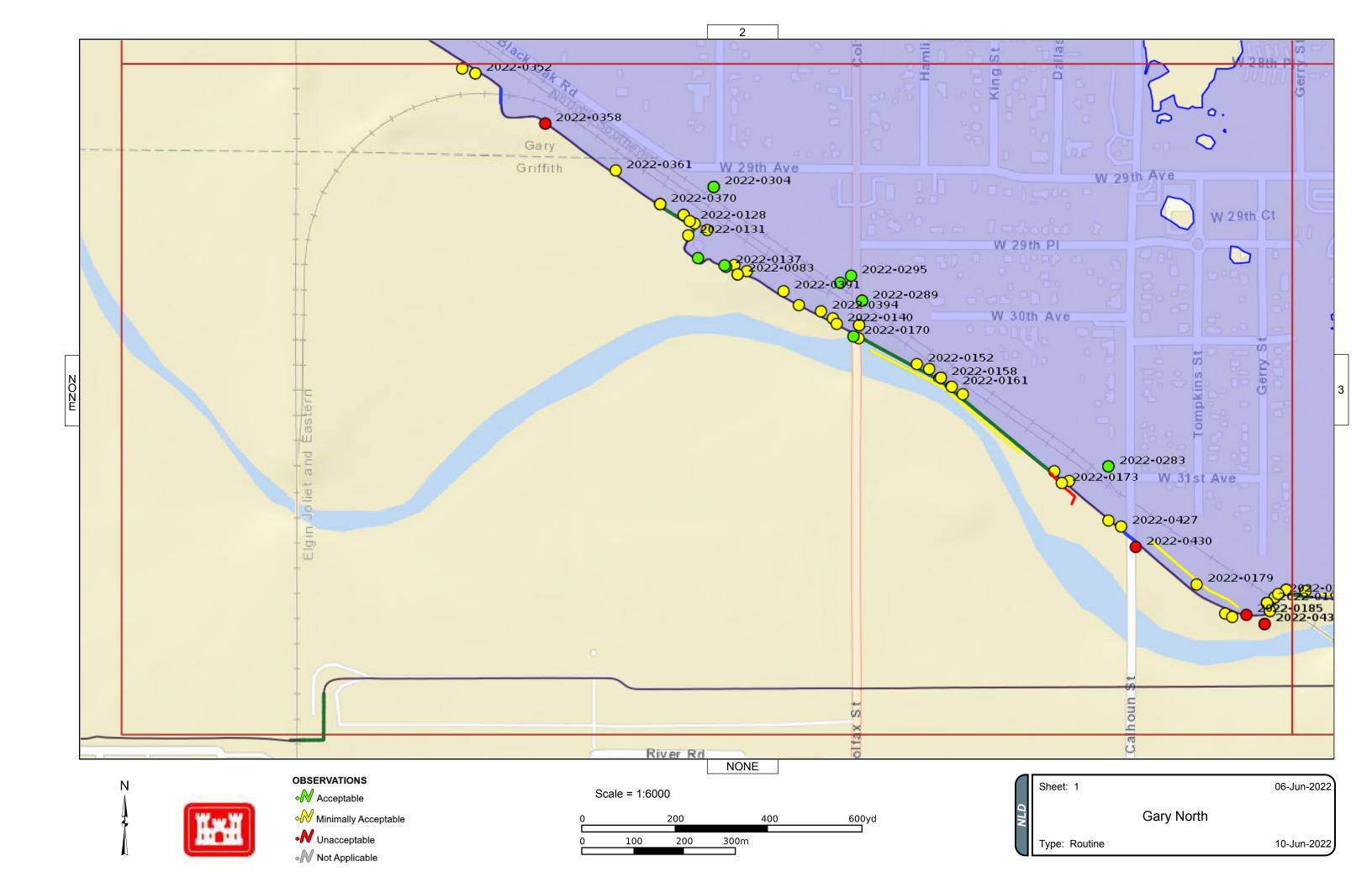


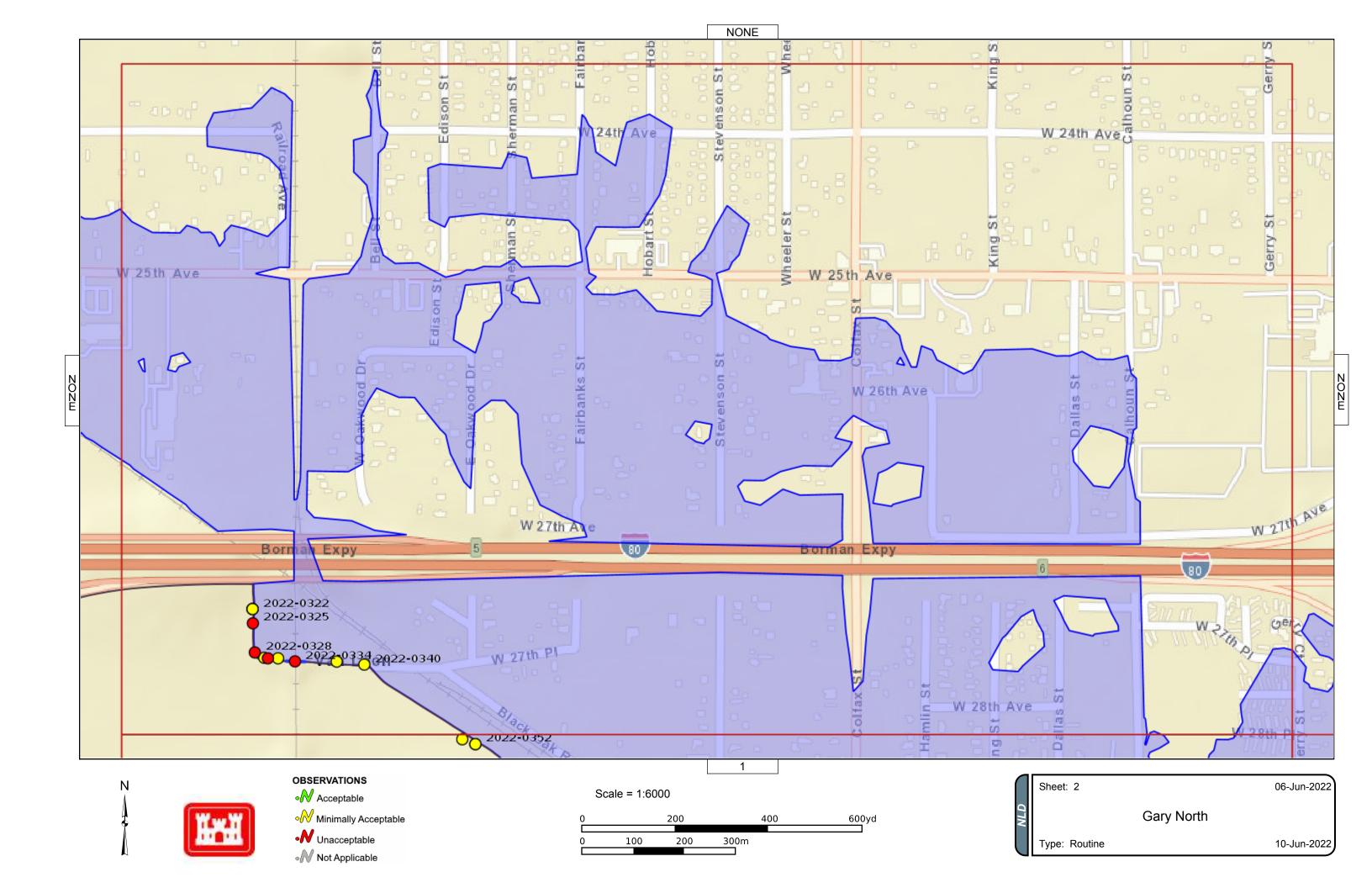
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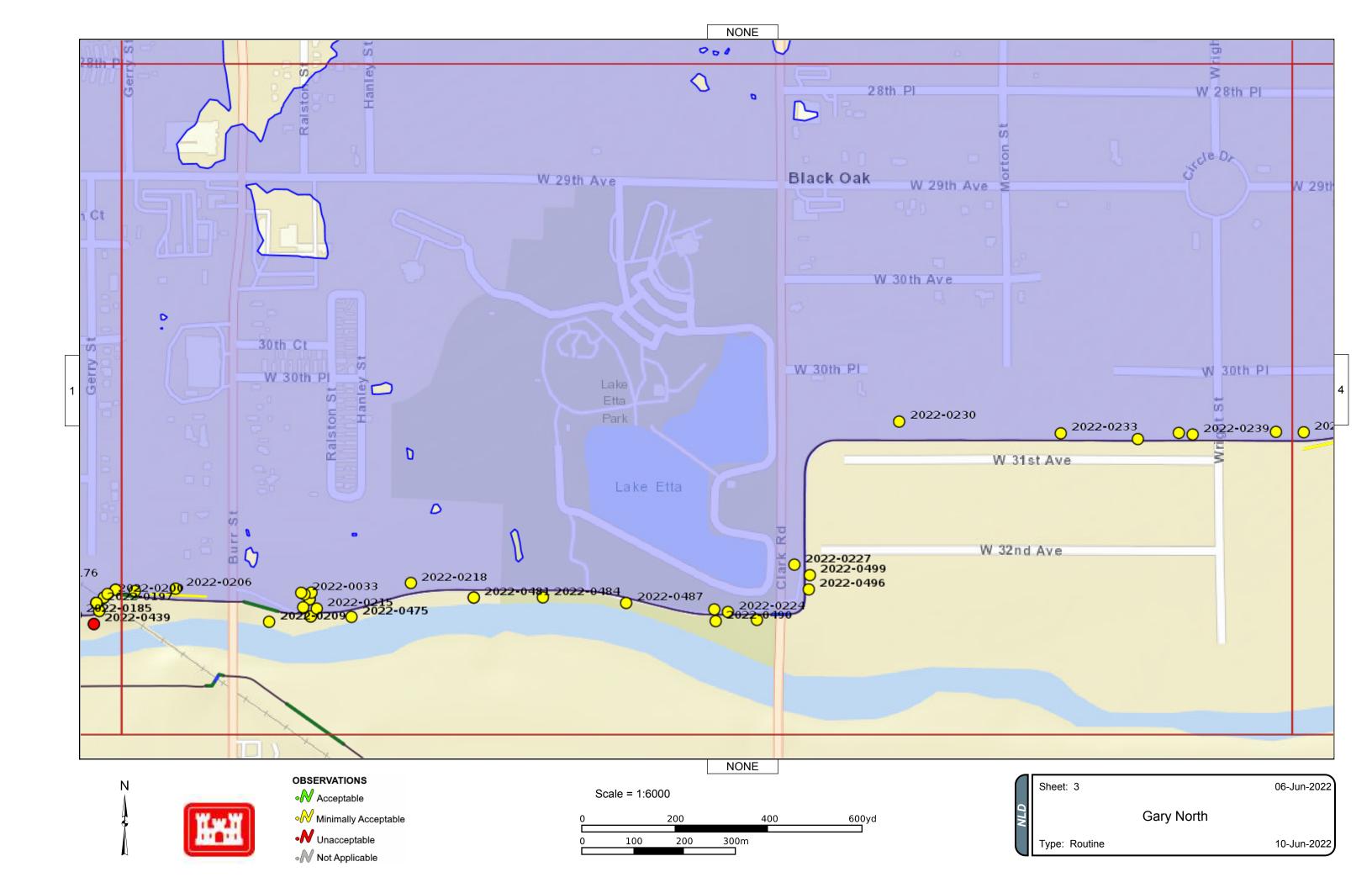
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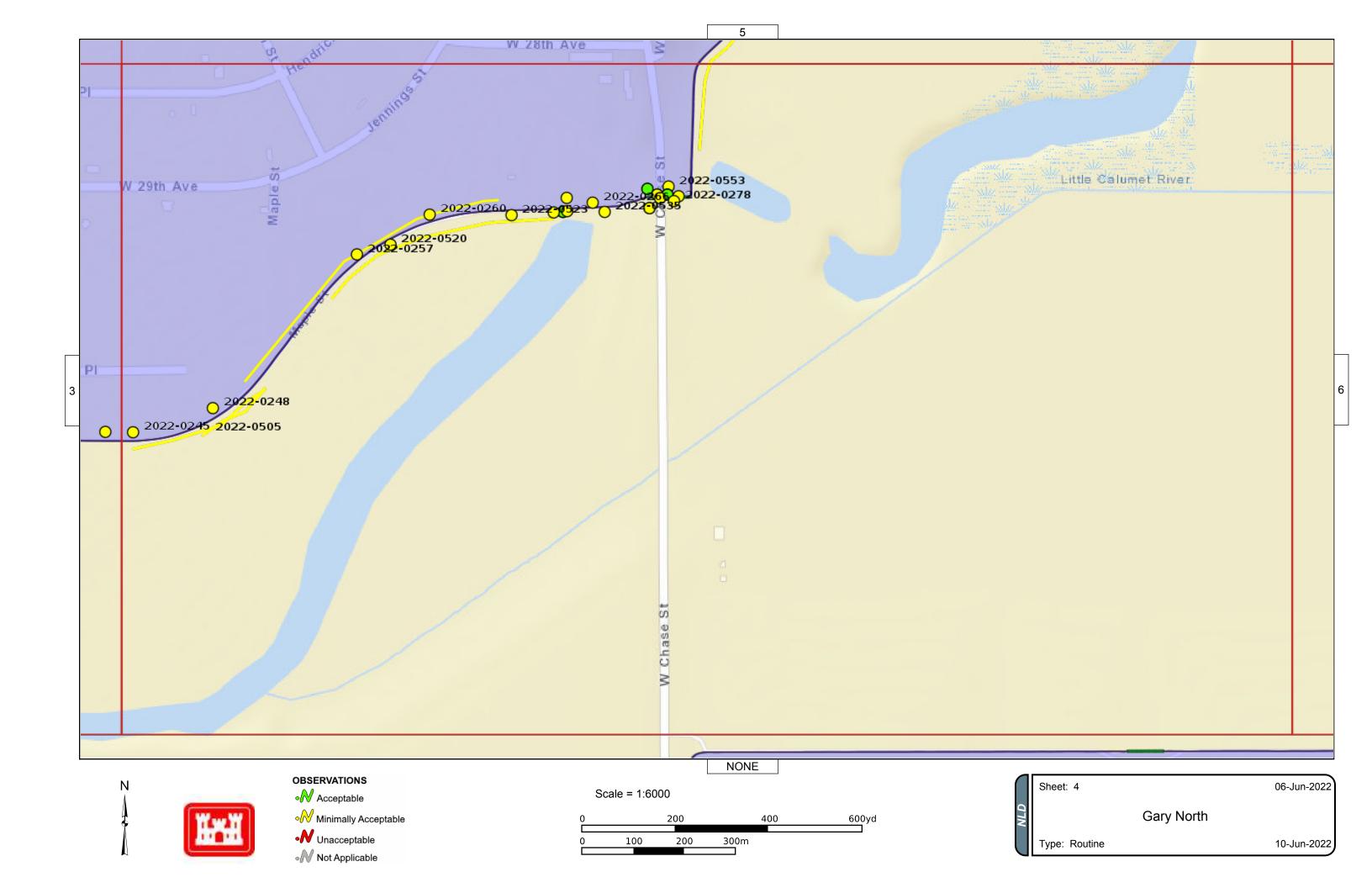


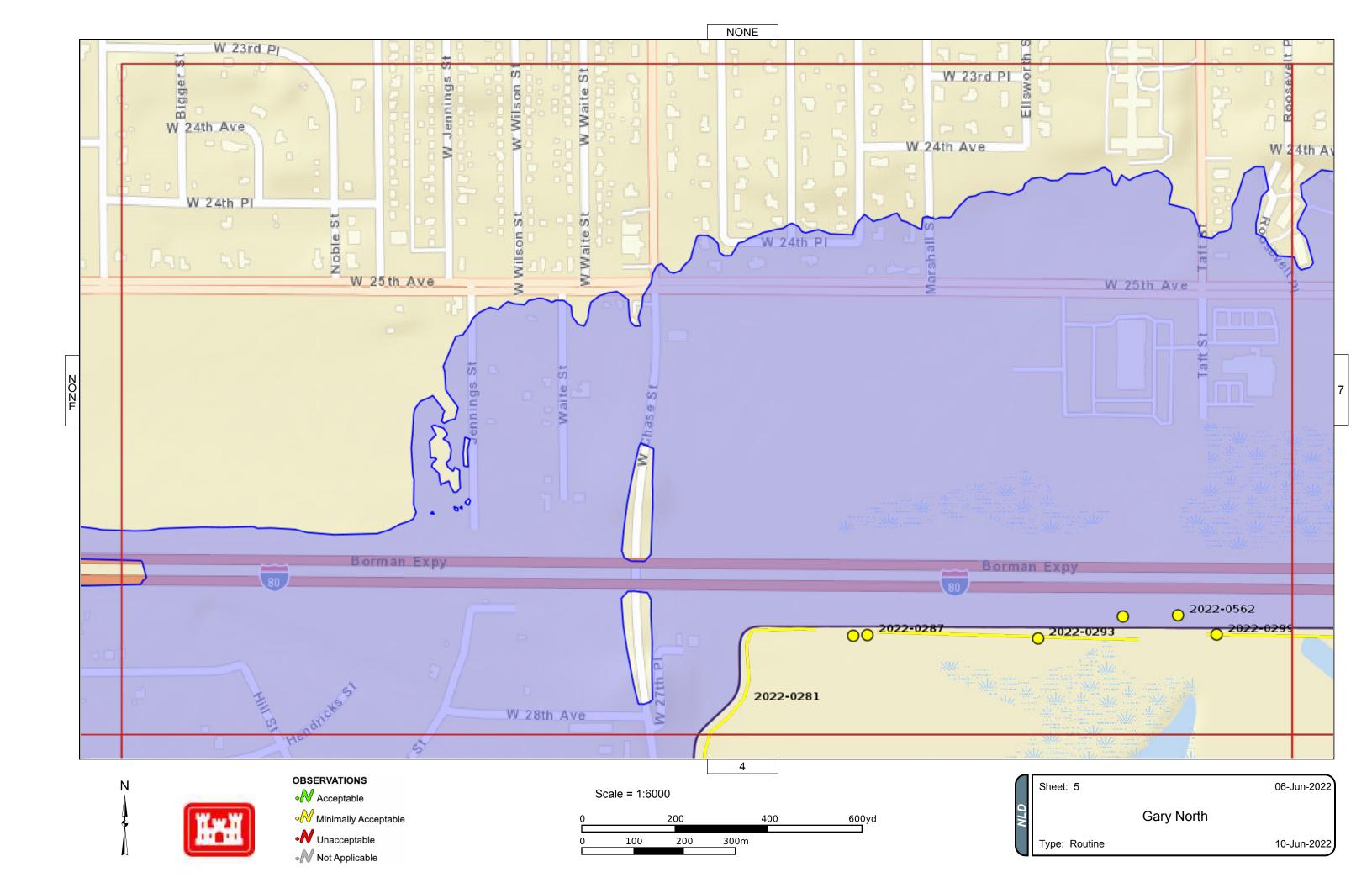


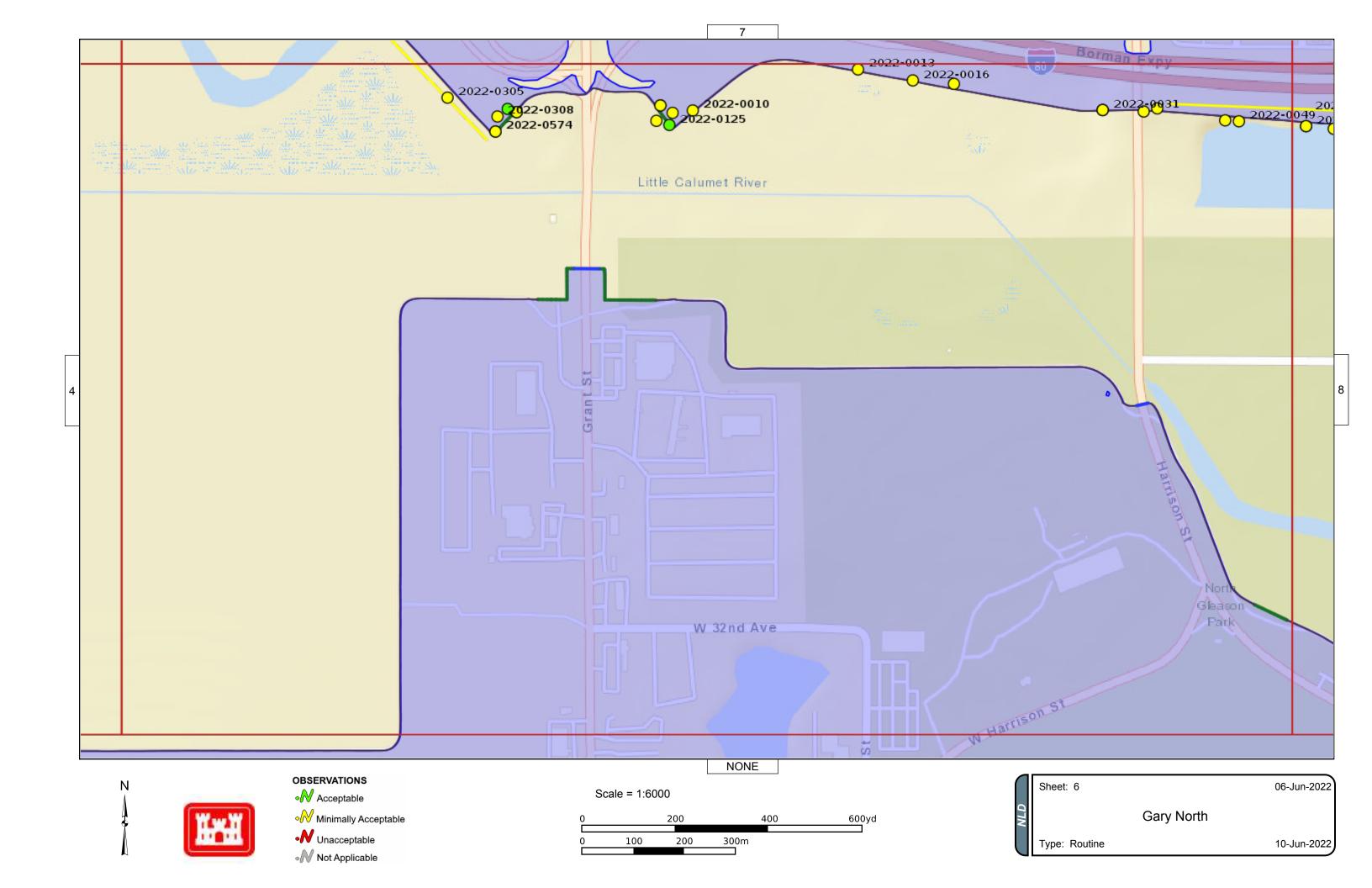


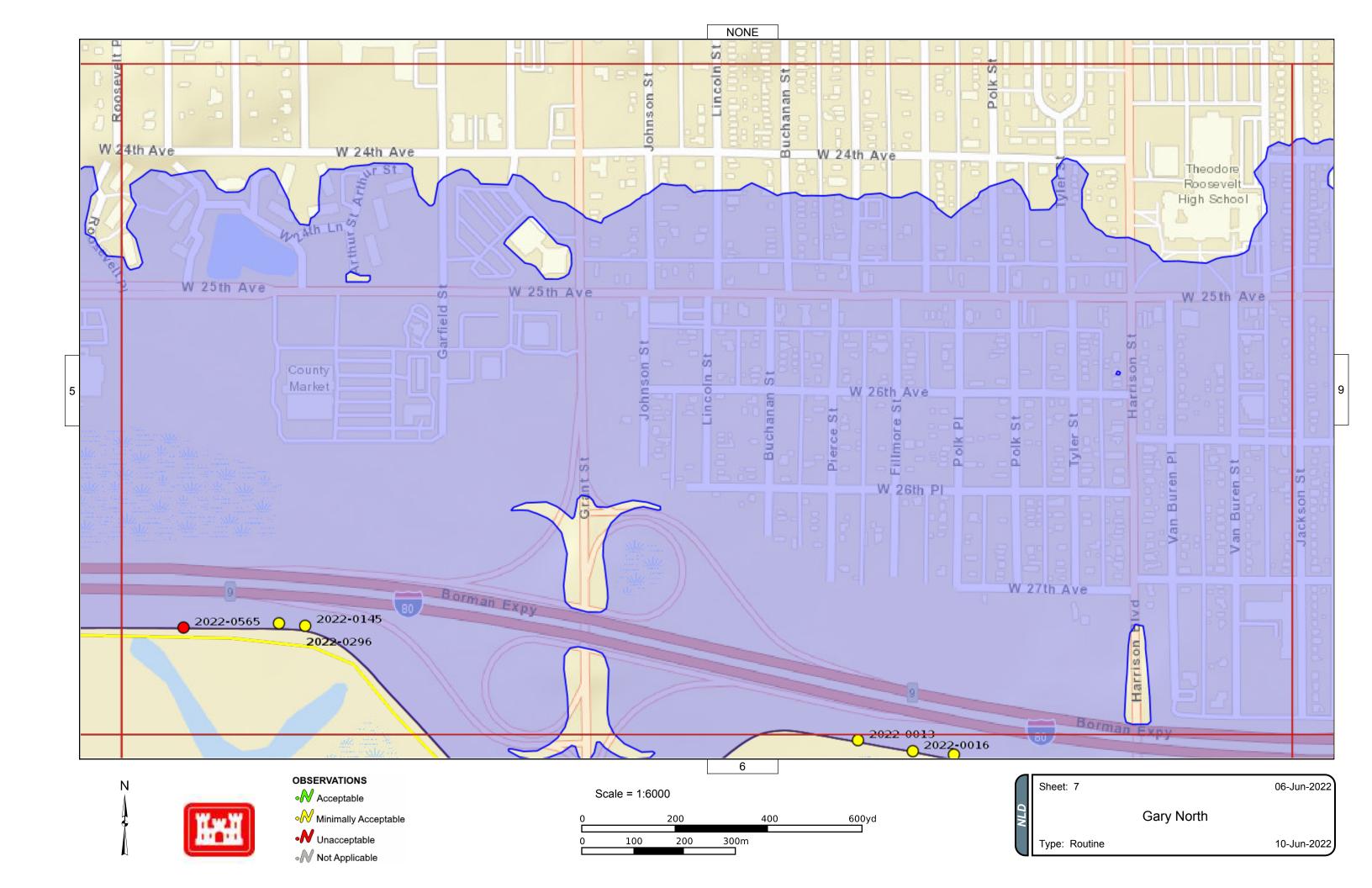


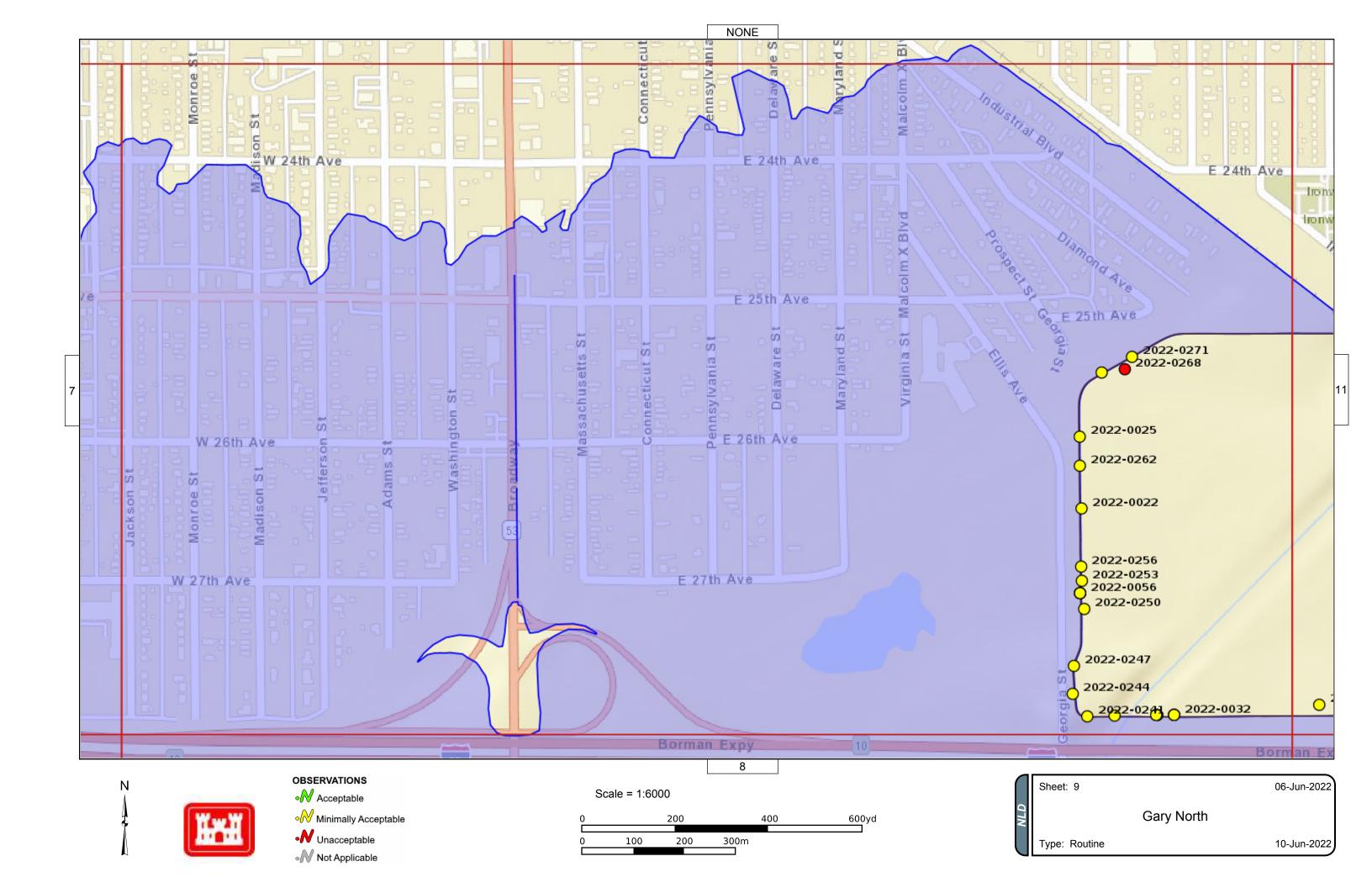












Subset of Inspection Items for Rehabilitation Program Eligibility Determination In order to be eligible, all of the following items must be rated A, M, N/A or Yes. Note: Item numbers listed below refer to their placement in the Inspection Checklist for the Munster Levee.

Rehabilitation Program Eligibility Determination				
Yes	\boxtimes	Public sponsor provided maintenance information per the Public Sponsor Pre-		
No		Inspection Form.		
Yes				
No		Non-federal levee system meets Initial Eligibility criteria.		
N/A	\boxtimes			
If eith	er of tl	he above items is marked "No" the levee system is not eligible.		
Rating	1	Rated Item		
Levee	Emba	ankments		
Α				
M	$\overline{\boxtimes}$	3. Encroachments		
U	Ī			
Α	\boxtimes			
U	Ī	4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag		
N/A	П	Closures)		
Α	$\overline{\boxtimes}$			
M	$\overline{\Box}$	5. Slope Stability		
U				
Α				
M	$\overline{\boxtimes}$	6. Erosion/ Bank Caving		
U				
Α				
M	$\overline{\boxtimes}$	10. Animal Control		
U				
Α	\boxtimes			
M	$\overline{\Box}$	11. Culverts/Discharge Pipes (This item includes both concrete and		
U	\Box	corrugated metal pipes.)		
N/A				
Α				
M		14. Underseepage Relief Wells/Toe Drainage Systems		
U				
N/A	$\overline{\boxtimes}$			
Floodwalls - N/A				
Α				
M	\boxtimes	2. Encroachments		
Ü	Ħ			
Α	$\overline{\boxtimes}$			
U	Ī	3. Closure Structures (Stop Log Closures and Gates)		
N/A	\Box	,		
Α				
M	$\overline{\boxtimes}$	5. Tilting, Sliding, or Settlement of Concrete Structures		
U	Ħ			
A	$\overline{\sqcap}$			
M	$\overline{\boxtimes}$	6. Foundation of Concrete Structures		
Ü				

A	8. Underseepage Relief Wells/Toe Drainage Systems				
	N/A ⊠ Interior Drainage System				
A	9. Culverts/Discharge Pipes				
A	10. Sluice/Slide Gates				
A	11. Flap Gates/Flap Valves/Pinch Valves				
Pump Statio	ons – N/A				
A ⊠ M □ U □	17. Intake and Discharge Pipelines				
A	18. Sluice/Slide Gates				
A	19. Flap Gates/Flap Valves/Pinch Valves				
Rehabilitatio	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 is	Comments: Only minor issues noted for the system.				