



**US Army Corps
of Engineers ®**

Site Visit Summary

Name of System: Gary

Name of Segment: Gary Ironwood

NLD System ID: 2605000003 NLD Segment ID: 2604000039

Segment Type: USACE Federally constructed, turned over to public sponsor for operations and maintenance

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

Field Trip Report Prepared by: Chris Schaal Date of Site Visit: 04/08/2024 - 04/10/2024

Field Trip Report Prepared by: Mike Cook

Field Trip Report Prepared by: Brian Sweeney

Other Segments Within This System

Segment Name	NLD Segment ID#	Segment Type
NPS - Gary North Railroad Tieback	2604000017	Non-Federally Constructed, local O&M
NPS - Martin Luther King Drive	2604000019	Non-Federally Constructed, local O&M
INDOT	2604000015	Non-Federally Constructed, local O&M
Gary Burr St	2604000005	USACE Constructed, Public sponsor O&M
Gary South	2604000004	USACE Constructed, Public sponsor O&M
Gary North	2604000003	USACE Constructed, Public sponsor O&M

Site Visit - Team Members (Levee Sponsor, USACE, and others)

Name	Organization	Discipline	Phone Number
Yuki Galisanao	USACE - Chicago District		
Art Rundzaitis	USACE - Chicago District	Construction	
Chris Schaal	USACE - Chicago District		
Mike Cook	USACE - Chicago District	Geotech	
Youa Yang	USACE - Chicago District	Geotech	

Brian Sweeney	USACE - Chicago District	Geotech	
Dan Repay	LCRBDC		
Colin Smalley	USACE	Regulatory	
Kaitlyn Wesolowski	USACE	H&H	
Alan Jaski	USACE	Electrical	
Andrew Lin	USACE	Structural	
Kiril Zumbulev	USACE	Mechanical	
Eric Copper	TOG		
Adam McLade	TOG		
Jim T Harris	1st response		
Oliver King	GLEM		
Dave Washington	GLEM		
Dakari Tyler	GLEM		
Art Rundzaitis	USACE	Construction	
Jason Gerald	TOG		
Jason Gerald	TOG		
Jason Gerald	TOG		
Symeon Coleman	1st Response		
Terry Saller	1st response		
Dan Repay	LCRBDC		
Levee Safety Program Manager Signature: Yuki Galisanao, PE, PG <i>Yuki Galisanao</i>		Date: 05/08/24	

Summary of Site Visit: *[Summarize pertinent discussions with sponsor regarding levee conditions, O&M activities, etc. and describe notable observations or changed conditions since the last site visit or inspection]*

Significant issues with depressions and rutting on the crest. Minor issues with unwanted vegetation, debris encroachments, animal burrows, rutting, sod cover, depressions on the crest, concrete cracking and spalling, flap gate obstruction, and ground conductors fraying in the pump station.

Observations and Photos



Inspect ID: 2024-0001

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.57296/-87.32281

Caption:

No User Rating (Site Visit) - Vegetation along landside toe



Inspect ID: 2024-0003

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.57303/-87.32228

Caption:

No User Rating (Site Visit) - Trees on the landside berm



Inspect ID: 2024-0007

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.57273/-87.32278

Caption:

No User Rating (Site Visit) - Tree and vegetation on riverside toe



Inspect ID: 2024-0008

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.57285/-87.32343

Caption:

No User Rating (Site Visit) - Vegetation close to landside toe



Inspect ID: 2024-0017

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.56943/-87.32671

Caption:

No User Rating (Site Visit) - Vegetation encroaching on riverside toe



Inspect ID: 2024-0019

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.56806/-87.32659

Caption:

No User Rating (Site Visit) - Tree within the vegetation free zone on the riverside toe



Inspect ID: 2024-0036

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.56793/-87.32666

Caption:

No User Rating (Site Visit) - Vegetation along landside toe against the fence barrier



Inspect ID: 2024-0040

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.56792/-87.32509

Caption:

No User Rating (Site Visit) - Vegetation along landside toe against the fence barrier



Inspect ID: 2024-0044

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.56794/-87.32278

Caption:

No User Rating (Site Visit) - Tree growth along landside toe against the fence barrier



Inspect ID: 2024-0056

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.56838/-87.31699

Caption:

No User Rating (Site Visit) - Tree on landside toe



Inspect ID: 2024-0068

Rated Item: 1. Unwanted Vegetation Growth

Lat/Long: 41.56870/-87.31559

Caption:

No User Rating (Site Visit) - Tree on riverside toe



Inspect ID: 2024-0015

Rated Item: 2. Sod Cover

Lat/Long: 41.56982/-87.32661

Caption:

No User Rating (Site Visit) - Poor sod cover on riverside slope



Inspect ID: 2024-0027

Rated Item: 2. Sod Cover

Lat/Long: 41.56801/-87.32509

Caption:

No User Rating (Site Visit) - Poor sod cover on riverside slope



Inspect ID: 2024-0029

Rated Item: 2. Sod Cover

Lat/Long: 41.56801/-87.32538

Caption:

No User Rating (Site Visit) - Poor sod cover on riverside slope



Inspect ID: 2024-0021

Rated Item: 3. Encroachments

Lat/Long: 41.56922/-87.32669

Caption:

No User Rating (Site Visit) - Downed tree on riverside toe



Inspect ID: 2024-0024

Rated Item: 3. Encroachments

Lat/Long: 41.57138/-87.32677

Caption:

No User Rating (Site Visit) - Tire on landside toe



Inspect ID: 2024-0032

Rated Item: 3. Encroachments

Lat/Long: 41.56803/-87.32680

Caption:

No User Rating (Site Visit) - Debris and tree branches along landside slope



Inspect ID: 2024-0041

Rated Item: 3. Encroachments

Lat/Long: 41.56837/-87.31744

Caption:

No User Rating (Site Visit) - Debris on crown



Inspect ID: 2024-0048

Rated Item: 3. Encroachments

Lat/Long: 41.56826/-87.31831

Caption:

No User Rating (Site Visit) - Debris encroaching on riverside slope



Inspect ID: 2024-0060

Rated Item: 3. Encroachments

Lat/Long: 41.56857/-87.31665

Caption:

No User Rating (Site Visit) - Metal debris encroaching on riverside toe



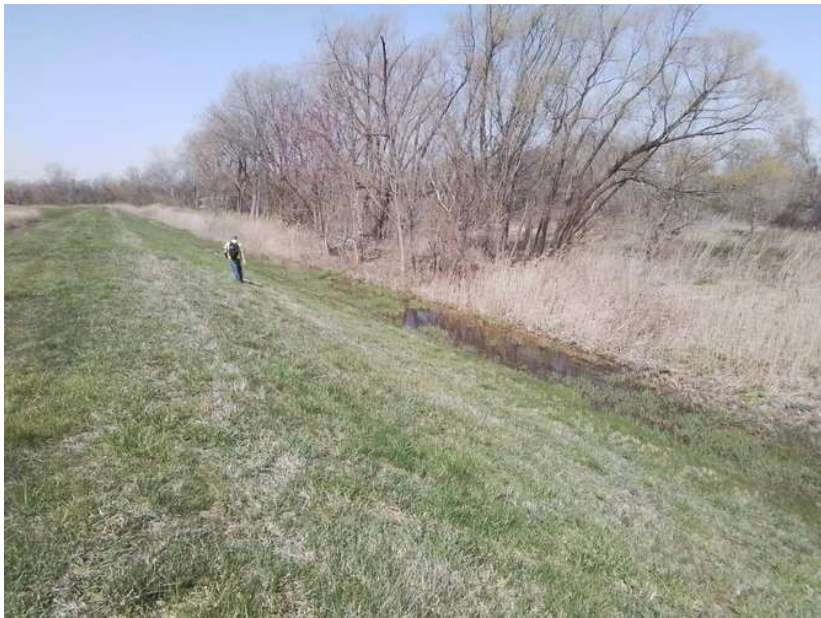
Inspect ID: 2024-0035

Rated Item: 7. Settlement

Lat/Long: 41.56864/-87.31667

Caption:

No User Rating (Site Visit) - Settlement of riverside toe and slope - likely due to collapsed animal burrows



Inspect ID: 2024-0004

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.57284/-87.32250

Caption:

No User Rating (Site Visit) - Ponding along landside toe



Inspect ID: 2024-0009

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.57269/-87.32551

Caption:

No User Rating (Site Visit) - Depression and rutting in crown



Inspect ID: 2024-0011

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.57274/-87.32393

Caption:

No User Rating (Site Visit) - Five-inch deep depression on riverside toe and slope - likely from erosion



Inspect ID: 2024-0012

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.57280/-87.32409

Caption:

No User Rating (Site Visit) - Rutting and ponded water along the levee crown



Inspect ID: 2024-0013

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.57259/-87.32596

Caption:

No User Rating (Site Visit) - Rutting along landside toe



Inspect ID: 2024-0020

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.57182/-87.32676

Caption:

No User Rating (Site Visit) - Ponding and rutting along levee crown



Inspect ID: 2024-0023

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.56799/-87.32641

Caption:

No User Rating (Site Visit) - Rutting from vehicle tires along riverside slope



Inspect ID: 2024-0025

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.56795/-87.32659

Caption:

No User Rating (Site Visit) - Minor depression in crown



Inspect ID: 2024-0028

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.56916/-87.32674

Caption:

No User Rating (Site Visit) - Ponding/depression at culvert inlet along landside toe



Inspect ID: 2024-0037

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.56829/-87.31793

Caption:

No User Rating (Site Visit) - Moderate rutting and depressions with ponding in crown



Inspect ID: 2024-0049

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.56868/-87.31620

Caption:

No User Rating (Site Visit) - Rutting and ponding in crown



Inspect ID: 2024-0064

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.56864/-87.31625

Caption:

No User Rating (Site Visit) - Rutting and ponding along levee crown



Inspect ID: 2024-0072

Rated Item: 8. Depressions/ Rutting

Lat/Long: 41.56850/-87.31518

Caption:

No User Rating (Site Visit) - Rutting and ponding along levee crown



Inspect ID: 2024-0031

Rated Item: 10. Animal Control

Lat/Long: 41.56841/-87.31746

Caption:

No User Rating (Site Visit) - Animal burrows along riverside slope (typical)



Inspect ID: 2024-0052

Rated Item: 10. Animal Control

Lat/Long: 41.56836/-87.31710

Caption:

No User Rating (Site Visit) - Animal burrow activity along landside toe and slope



Inspect ID: 2024-0005

Rated Item: 2. Encroachments

Lat/Long: 41.57284/-87.32514

Caption:

No User Rating (Site Visit) - Tires in landside ditch



Inspect ID: 2024-0016

Rated Item: 2. Encroachments

Lat/Long: 41.57285/-87.32507

Caption:

No User Rating (Site Visit) - Trees and tires in landside ditch



Inspect ID: 2024-0006

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts)

Lat/Long: 41.56797/-87.32545

Caption:

No User Rating (Site Visit) - IW-04: Spalling on corner of inlet structure



Inspect ID: 2024-0081

Rated Item: 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts)

Lat/Long: 41.56804/-87.32497

Caption:

0081 - No User Rating (Site Visit) - IW05: Damage to concrete.



Inspect ID: 2024-0045

Rated Item: 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.)

Lat/Long: 41.56852/-87.31696

Caption:

No User Rating (Site Visit) - IW-06: Erosion around gate wingwall



Inspect ID: 2024-0002

Rated Item: 10. Sluice / Slide Gates

Lat/Long: 41.56798/-87.32546

Caption:

No User Rating (Site Visit) - IW-04: Operated successfully



Inspect ID: 2024-0014

Rated Item: 10. Sluice / Slide Gates

Lat/Long: 41.56954/-87.32664

Caption:

No User Rating (Site Visit) - IW-03: Operated successfully



Inspect ID: 2024-0074

Rated Item: 10. Sluice / Slide Gates

Lat/Long: 41.57300/-87.32152

Caption:

0074 - No User Rating (Site Visit) IW-01: operated successfully.



Inspect ID: 2024-0075

Rated Item: 10. Sluice / Slide Gates

Lat/Long: 41.56794/-87.32493

Caption:

0075 - No User Rating (Site Visit) IW-05: operated successfully.



Inspect ID: 2024-0078

Rated Item: 10. Sluice / Slide Gates

Lat/Long: 41.57300/-87.32152

Caption:

0078 - No User Rating (Site Visit) - IW-01: operated successfully.



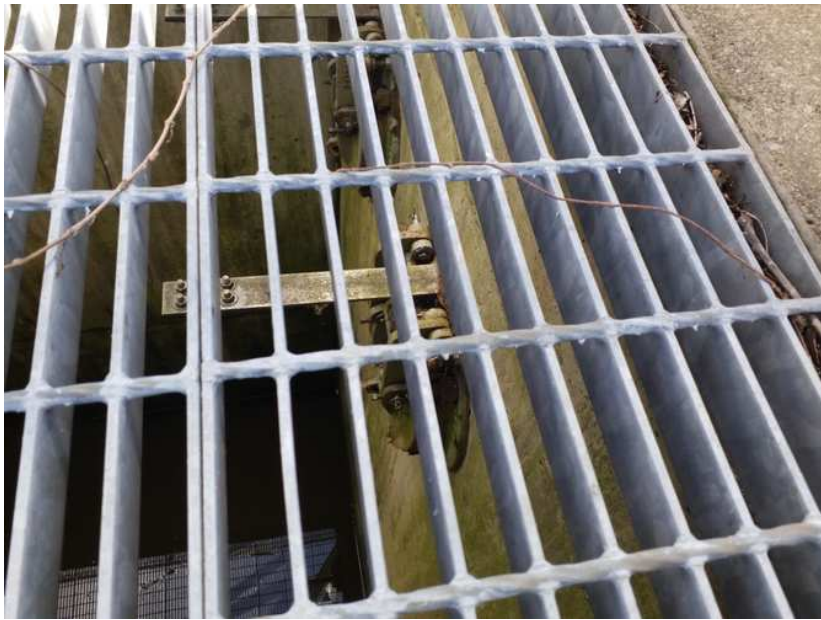
Inspect ID: 2024-0010

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

Lat/Long: 41.56954/-87.32665

Caption:

No User Rating (Site Visit) - IW-03: Flap gate not sealing



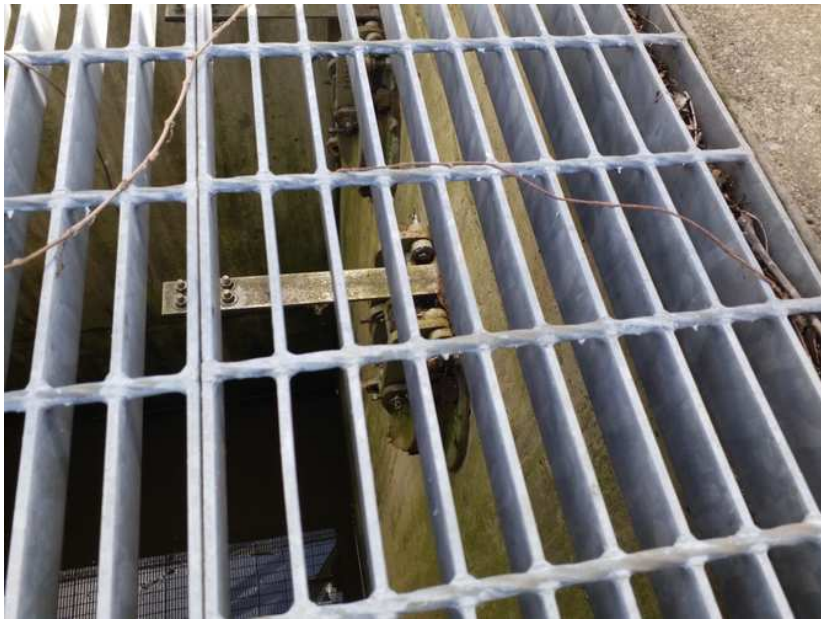
Inspect ID: 2024-0076

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

Lat/Long: 41.57302/-87.32152

Caption:

0076 - No User Rating (Site Visit) IW-02: flap gates sealing well.



Inspect ID: 2024-0080

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

Lat/Long: /-87.32152

Caption:

0080 - No User Rating (Site Visit) - IW-02: flap gates sealing well



Inspect ID: 2024-0030

Rated Item: 2. Pump Station Operations and Maintenance Equipment Manuals

Lat/Long: 41.57300/-87.32153

Caption:

No User Rating (Site Visit) - PS-IW: No operations manuals on site. Kept in central location



Inspect ID: 2024-0034

Rated Item: 6. Fencing and Gates

Lat/Long: 41.57300/-87.32154

Caption:

No User Rating (Site Visit) - PS-IW: Vegetation in fence - less than previous years



Inspect ID: 2024-0018

Rated Item: 14. Electrical Systems

Lat/Long: 41.57299/-87.32155

Caption:

No User Rating (Site Visit) - PS-IW: Cables should not be routed on top of hot transformer



Inspect ID: 2024-0022

Rated Item: 14. Electrical Systems

Lat/Long: 41.57299/-87.32155

Caption:

No User Rating (Site Visit) - PS-IW: Missing bolt on transformer



Inspect ID: 2024-0026

Rated Item: 14. Electrical Systems

Lat/Long: 41.57299/-87.32154

Caption:

No User Rating (Site Visit) - PS-IW: Ground conductor is starting to fray

National Levee Database

NLD

LEVEE INSPECTION MAPBOOK

Levee Segment
Gary Ironwood

NLD Levee Segment ID
2604000039

Location
Gary

Inspection Type
Site Visit

Start Date
08-Apr-2024

End Date
10-Apr-2024

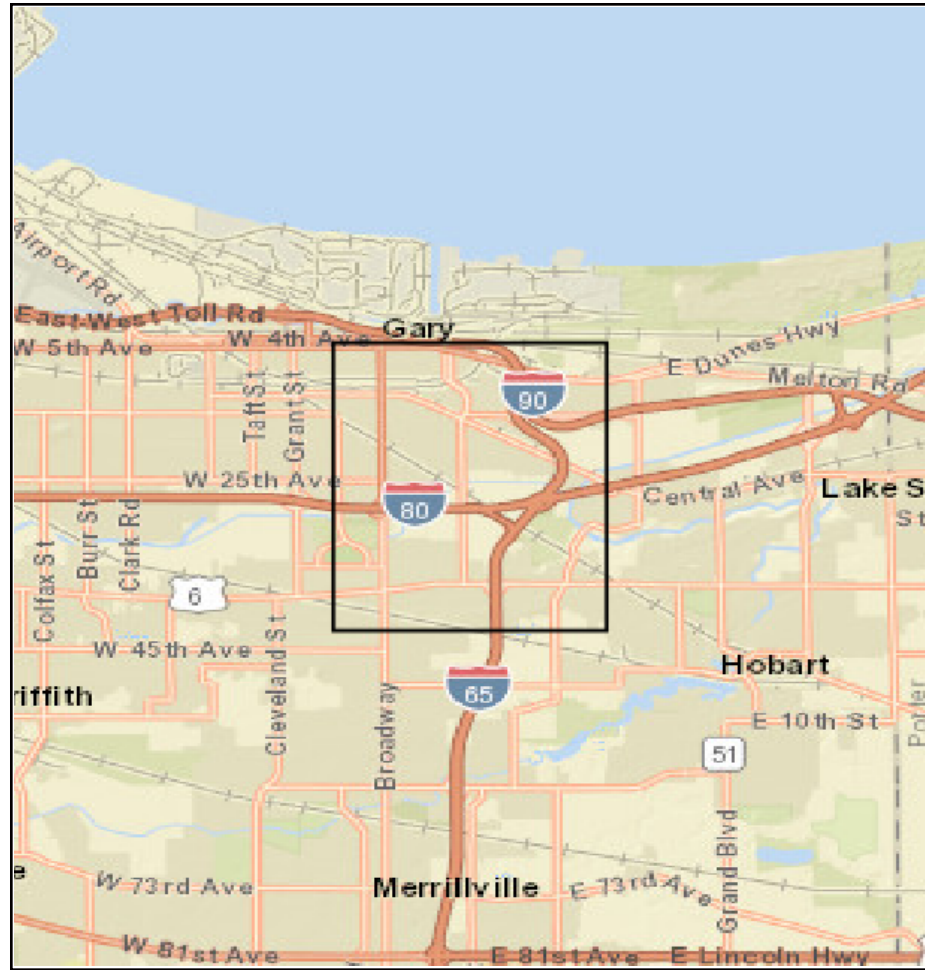
Inspected By
Brian Sweeney, Chris Schaal, Mike



US Army Corps
of Engineers

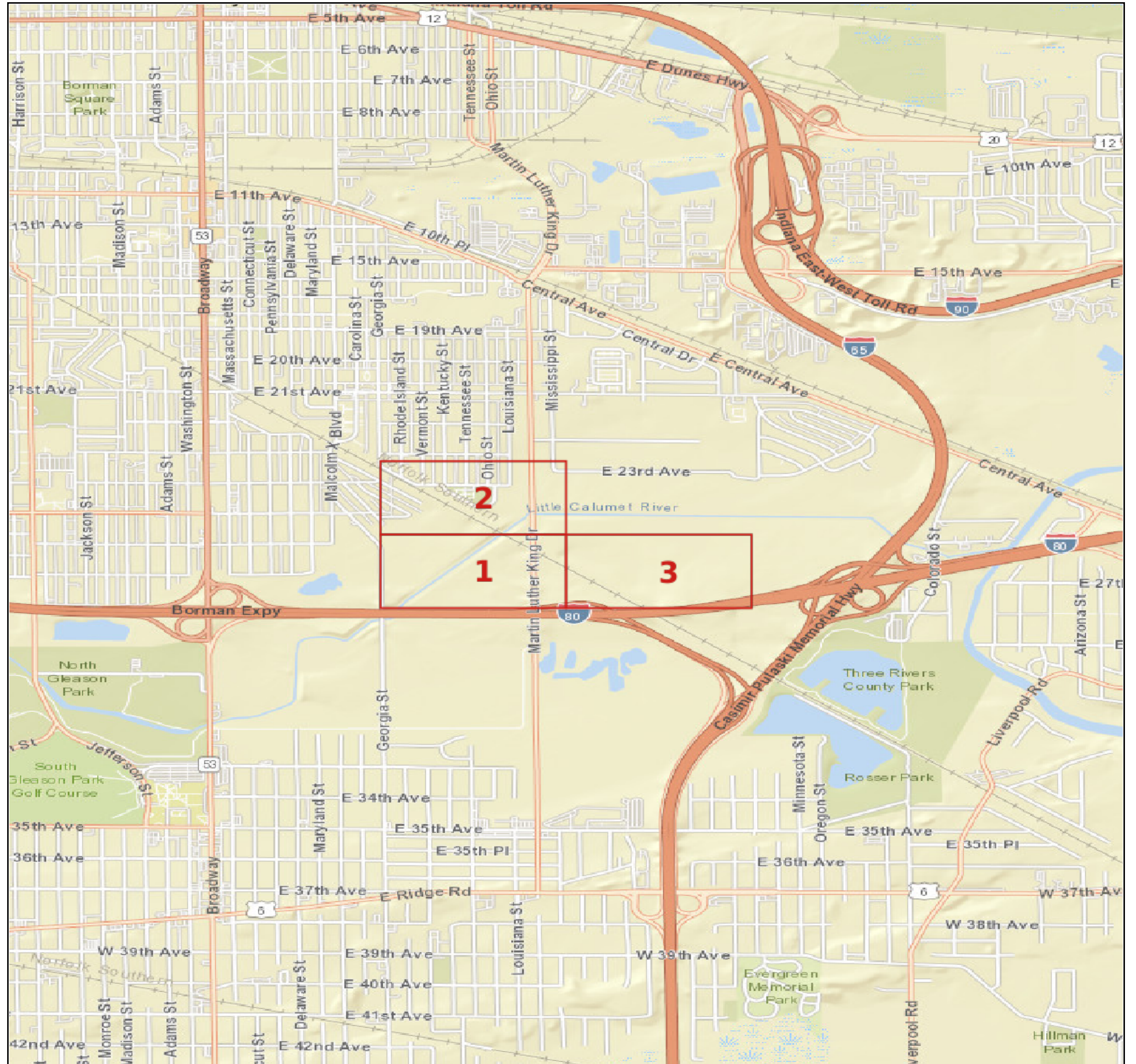
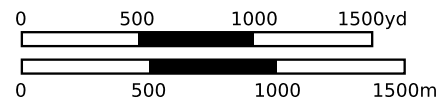
SHEET INDEX

Levee: Gary Ironwood



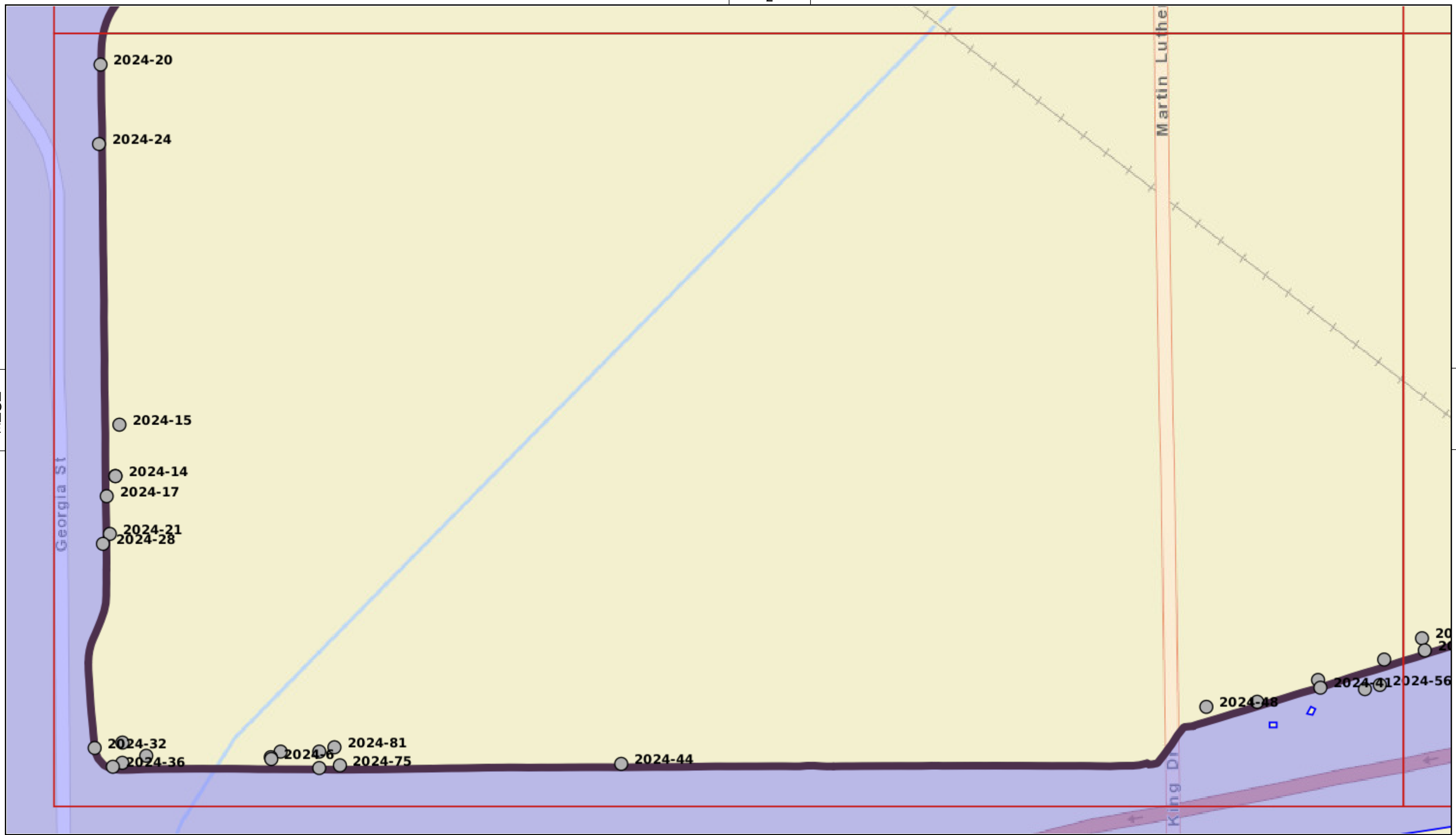
MAP ELEMENTS

3 Standard Sheets



MZOX

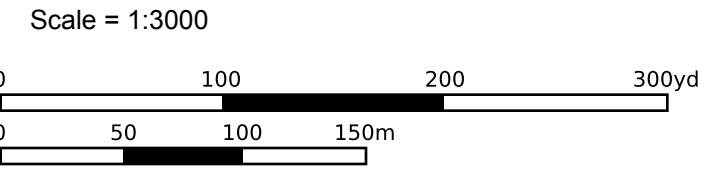
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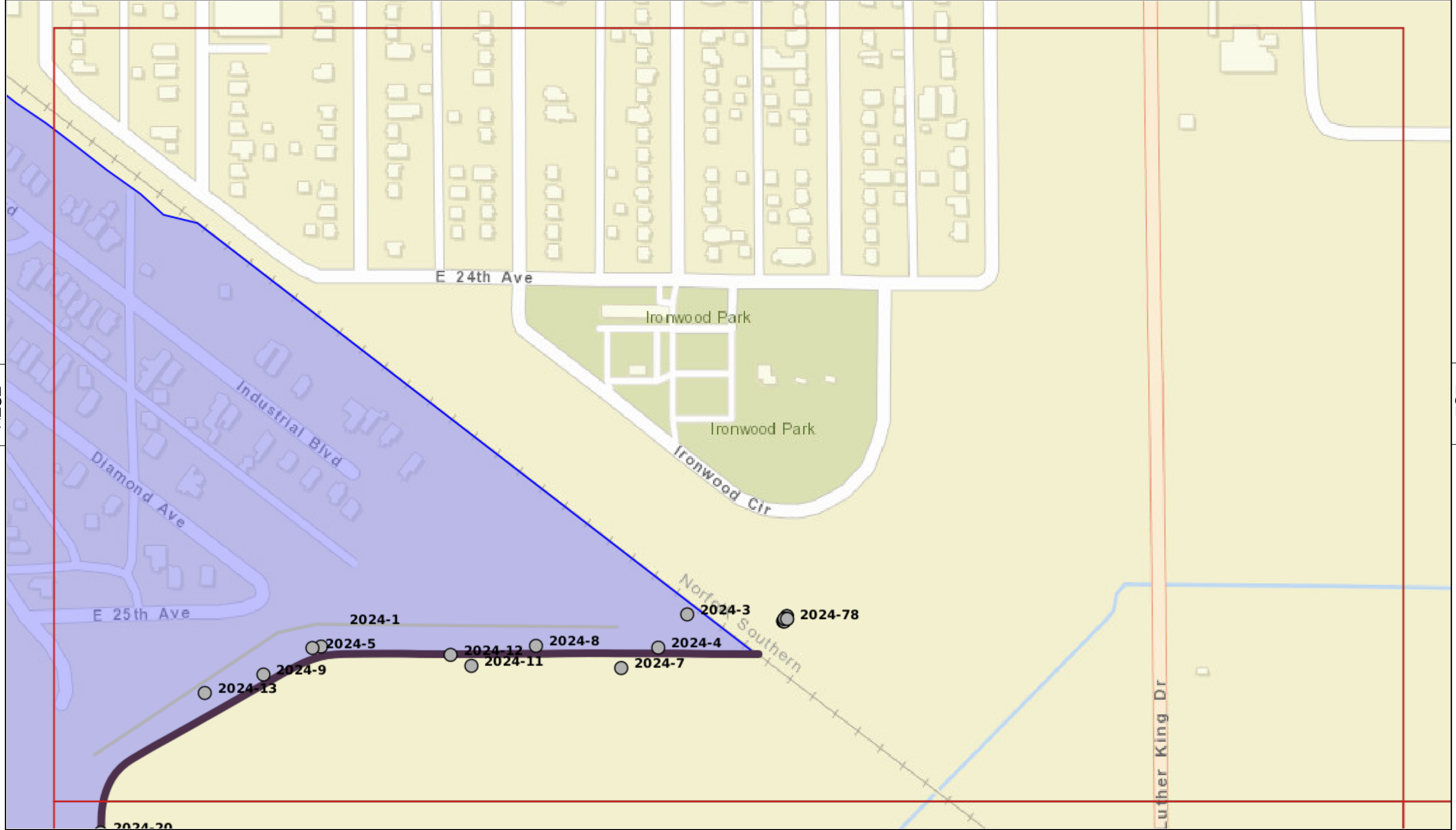


- OBSERVATIONS**
- N Acceptable
 - N Minimally Acceptable
 - N Unacceptable
 - N Not Applicable



NLD	Sheet: 1	08-Apr-2024
	Gary Ironwood	
	Type: Site Visit	10-Apr-2024

NONE

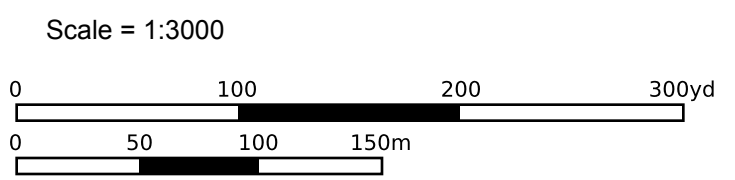


MZOZ

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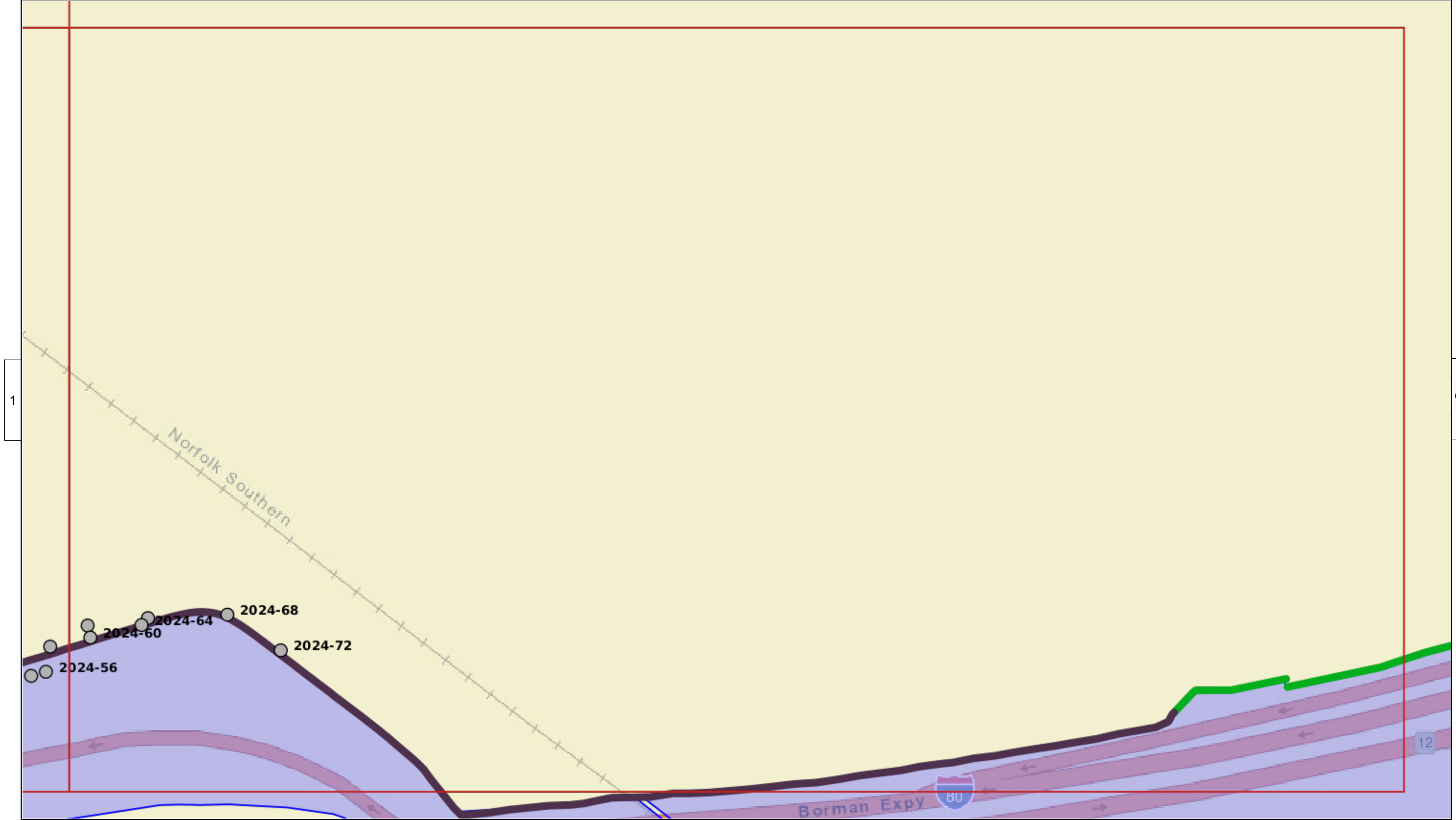


- OBSERVATIONS**
- N Acceptable
 - N Minimally Acceptable
 - N Unacceptable
 - N Not Applicable



NLD	Sheet: 2	08-Apr-2024
	Gary Ironwood	
	Type: Site Visit	10-Apr-2024

NONE



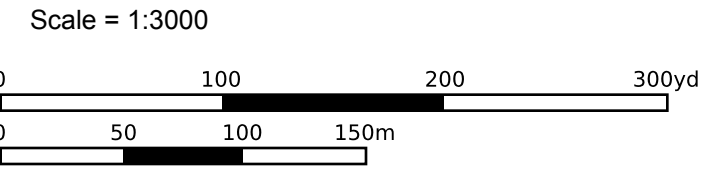
1

1202

NONE



- OBSERVATIONS**
- *N* Acceptable
 - *N* Minimally Acceptable
 - *N* Unacceptable
 - *N* Not Applicable



NLD	Sheet: 3	08-Apr-2024
	Gary Ironwood	
	Type: Site Visit	10-Apr-2024

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 Gary Ironwood Segment – Gary System.

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

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