



REPLY TO  
ATTENTION OF

## DEPARTMENT OF THE ARMY

BUFFALO DISTRICT, CORPS OF ENGINEERS  
1776 NIAGARA STREET  
BUFFALO, NEW YORK 14207-3199

September 30, 2014

Operations and Technical Support Section

SUBJECT: FY13 Joint Routine Inspection of Completed Works, Flood Damage Reduction Project, Genesee River and Dyke Creek, Wellsville, New York (09/24/13)

Alan A. Fuchs, P.E.  
NYSDEC - Division of Water  
Bureau of Flood Protection & Dam Safety  
625 Broadway  
Albany, NY 12233-3504

Dear Mr. Fuchs:

Transmitted herewith is the FY13 Inspection of Completed Works (ICW) inspection report for the Flood Damage Reduction Project at Genesee River and Dyke Creek, Wellsville, New York. Thank you for your agency's participation in this inspection. The overall rating for this project, as determined by the current inspection, is **"UNACCEPTABLE" (U)**. The three levee systems which comprise this project, Genesee River – Left Bank Levee and Channel; Genesee River – Right Bank Levee; and Dyke Creek – Left Bank Levee have also been rated **"UNACCEPTABLE" (U)**. Please refer to the enclosed inspection report, which includes a Flood Damage Reduction Systems Inspection Report (Attachments "C" and "D"), for a description of project deficiencies requiring corrective action. Summaries of project deficiencies and recommendations are shown in Attachments "A" and "B". This project is **"ACTIVE"** in USACE's Rehabilitation Program (RP) due to New York State Department of Environmental Conservation (NYSDEC) having an approved Letter of Intent (LOI) under USACE's System – Wide Improvement Framework (SWIF) Program.

See "Instructions - Inspection of Flood Damage Reduction Systems" of the Flood Damage Reduction Systems Inspection Report (Attachments "C" and "D") for a description of Individual Item Ratings, Overall Segments Ratings, and the Eligibility for PL 84-99 Rehabilitation Assistance.

The Flood Damage Reduction Systems Inspection Report (Attachments "C" and "D") includes a two page section labeled "Public Sponsor Pre-Inspection Report". The local sponsor should complete this section just prior to the next scheduled inspection and provide to the (USACE) inspector upon arrival. The "Reporting Period" is the timeframe between inspections (i.e. inspection date of this report and date of next scheduled inspection).

Please keep this office informed if there are changes to the project that would affect the design level of protection afforded by the project or if there are any other changes which may alter or impact project features. Such changes require prior written approval from NYSDEC.

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Questions pertaining to this matter should be directed to the undersigned, who can be contacted in writing at the above address, by telephone at 716-879-4277, or by e-mail at [robert.w.remmers@usace.army.mil](mailto:robert.w.remmers@usace.army.mil).

Sincerely,



Robert W. Remmers, P.E., PMP  
Levee Safety Program Manager  
Chief, Operations and Technical Support Section

Enclosure:  
Inspection Report

Enclosures

CF: (w/encls)

Theodore Myers, NYSDEC, Region 9

Stephen Len, NYSDEC, Division of Water, Flood Control Project Unit (e-copy)

John Tucker, Allegany County Office of Emergency Management (e-copy)

William Clark, SEMO Region 5 (e-copy)

Mr. Brian Shumon, Federal Emergency Management Agency; Region II (e-copy)

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1. **OBJECTIVE:** The objective of this inspection is to assure project sponsor compliance with existing agreements, evaluate effectiveness of the sponsor to operate and maintain facilities constructed by the United States in accordance with the Operations and Maintenance (O&M) manual, and to determine if the sponsor has adequately met standards required to maintain eligibility for PL 84-99 Federal rehabilitation assistance should the project be damaged by flooding or a storm event.
2. **PROJECT CLASSIFICATION:** Flood Damage Reduction – Flood Protection
3. **REPORTING PERIOD:** 07/23/10 to 09/24/13
4. **INSPECTION TEAM:** The inspection team met at the project site on 09/24/13. The following representatives from the New York State Department of Environmental Conservation (NYSDEC), Village of Wellsville, and U.S. Army Corps of Engineers (USACE – Buffalo District), participated in the inspection.

Daniel Bennett	USACE - Buffalo District	(716) 879-4249
Joseph Kasperski	USACE - Buffalo District	(716) 879-4313
David Mitchell	USACE - Buffalo District	(716) 879-4115
Theodore Myers	NYSDEC Region 9	(716) 851-7070
Dan Judd	NYSDEC Region 9	(716) 851-7070
Mark Crowley	NYSDEC	Unknown
Michael Blake	NYSDEC	Unknown
Bill Whitfield	Village of Wellsville, DPW	(585) 593-1850

5. **OVERALL PROJECT RATING:**

In accordance with Headquarters, USACE guidance, this project is rated “**UNACCEPTABLE**” (U). The three levee systems which comprise this project, Genesee River – Left Bank Levee and Channel; Genesee River – Right Bank Levee; and Dyke Creek – Left Bank Levee have also been rated “**UNACCEPTABLE**” (U). The presence of one or more deficient conditions that lessen the degree of project reliability was the determining factor for the project rating. Specific deficiencies are discussed in Section 7 of this report. All deficiencies must be addressed in a timely manner.

Prior to this evaluation, the project was last inspected on 07/23/10. The condition of the project at that time of the inspection was rated as “Unacceptable” (U).

This project is “**ACTIVE**” in USACE’s Rehabilitation Program (RP) due to NYSDEC having an approved Letter of Intent (LOI) under USACE’s System - Wide Improvement (SWIF) Program. NYSDEC is currently addressing project deficiencies through the SWIF Program and its New York State Works Plan.

6. **PROJECT LOCATION, DESCRIPTION, AND LOCAL SPONSOR:**

- a. **Project Location:** The project is located along the Genesee River and Dyke Creek in the Village and Town of Wellsville, New York. The project extends along the Genesee

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River from about 2,700 feet downstream of the Bolivar Road bridge to 4,900 feet upstream of the confluence with Dyke Creek. The project limits along Dyke Creek extend from the confluence with the Genesee River to about 4,025 feet upstream.

- b. **Project Description:** The project consists of channel improvements, levees, drop structures, weirs, concrete lined channels, and interior drainages structures. The Genesee River was deepened to provide a uniform grade with bottom widths of 100 to 135 feet downstream of Dyke Creek and 100 to 160 feet wide upstream of Dyke Creek. A major realignment was made upstream of Bolivar Road to eliminate two sharp curves along with other realignments to ease lesser curves. A concrete drop structure was constructed between Bolivar and Pearl Streets. Steel sheet pile weirs were constructed at the upper end of the project. Low levees were constructed along the Genesee River on the right bank, and along the left bank between Chamberlain Street and Stevens Street, between State Street and West Dyke Street, and at the upstream limit of the project. The Dyke Creek channel was deepened with a bottom width of 50 to 70 feet, with a drop structure at Miller Street. A levee was constructed along the left bank of Dyke Creek, upstream of Miller Street. Existing drainage facilities throughout the project were altered to provide better entrances into the improved channel and to prevent backflow at high river stages. The project was designed to alleviate flooding within the Village and Town of Wellsville.

The original project was completed in 1958 and additional bank protection added later in 1958 and 1959. In 1972, the runoff from Tropical Storm Agnes caused extensive damage to the project and restoration work was completed in September 1972. Rectification work was undertaken in 1973 and again in 1976. NYSDOT added additional bank protection in 1974 in conjunction with the relocation of 1,900 feet of the river. An emergency rehabilitation project was completed in 1997 to repair damages from a damaging flood in 1996. Repairs were made along the left bank of the Genesee River, between State Street and barrier levee upstream of West Dyke Street, and along the left bank of Dyke Creek, between Broad Street and the upstream limit of the project.

- c. **Local Sponsor:** In accordance with the project O&M Manual, NYSDEC, Region 9 is the local sponsor of the project and has assumed responsibility for the operation and maintenance of the project.

**7. INSPECTION FINDINGS:** Deficiencies found during this inspection are noted in Attachment A – Left Bank and Channel Deficiencies and Attachment B – Right Bank Deficiencies. Refer to the following attachments for additional inspection information:

- Attachment A – Genesee River - Left Bank Levee and Channel Deficiencies and Recommendations
- Attachment B – Genesee River - Right Bank Levee and Dyke Creek – Left Bank Levee Deficiencies and Recommendations
- Attachment C – Genesee River - Left Bank Levee and Channel Inspection Report
- Attachment D – Genesee River - Right Bank Levee and Dyke Creek – Left Bank Levee Inspection Report
- Attachment E – Deficiency Location Maps



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The three levee systems which comprise this project are, Genesee River – Left Bank Levee and Channel; Genesee River – Right Bank Levee; and Dyke Creek – Left Bank Levee have been rated “UNACCEPTABLE” (U).

**8. SUMMARY OF MAINTENANCE REQUIRED BY LAST INSPECTION REPORT:**

See FY10 Inspection Report (inspection date 07/22/14 & 07/23/14).

**9. SUMMARY OF MAINTENANCE PERFORMED AFTER LAST INSPECTION:**

(1) No list of maintenance activities was provided at the inspection.

**10. SUMMARY OF CHANGES TO PROJECT SINCE LAST INSPECTION:**

None.

**11. PROBLEMS/ISSUES REQUIRING ASSISTANCE OF USACE:**

(1) PROJECT MODIFICATIONS: Existing unauthorized modifications to the project, as noted in this report have not been documented. An after-the-fact USACE review will be required of each change for approval or required correction/removal. To facilitate this review, the local sponsor is required to submit a modification request including design criteria, as-built drawings, or other pertinent documents and information. A “Sponsor Request – Existing Unauthorized Modification” form is included in this report as Attachment H. A rating of “M” will be assigned to these existing unauthorized modifications under “encroachments” in the Inspection Reports until approval by the USACE has been granted. Should any of the cited modifications have been previously approved by the USACE, the local sponsor shall submit approval documentation as proof. Future project modifications shall be approved in advance of the work.

(2) VIDEOTAPING OF PIPE INSPECTIONS: Videotaping of all gravity and discharge pipes extending through the levee needs to be done. Manual inspections may be done for where the pipes are large enough to physically enter safely (48" or greater). Videotaping or closed circuit TV must be utilized to document deficiencies and conditions for all pipe inspections (including manual inspections). In some instances, i.e. for submerged or partially submerged non-metallic pipes, sonar inspection may be used, but videotaping is the preferred method.

Video inspections will be rated in accordance with the description in the checklist and based on standard industry practices. National Association of Sewer Service Companies' (NASSCO) Pipeline Assessment Certification Program (PACP) guidance for videotaping pipe inspections may be used at the sponsor's discretion. Note that taking videotape is only part of the requirement. Sponsors, or their representatives, must also interpret and evaluate pipe conditions based on what the videotape shows - not just take and submit a videotape without any review/evaluations. Inspections and written evaluation reports should be done by a qualified professional. Inspection of pressure pipes that extend through the levee (such as from pump stations) must also be done. Pipes must be essentially free from water when

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they are videotaped so that all potential deficiencies can be identified. Dewatering methods may be needed to accomplish this. If dewatering cannot be accomplished, sonar inspection (for non-metallic pipes) or other industry-wide standard methods may be used.

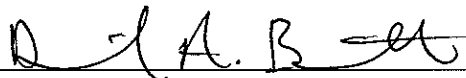
**12. ADDITIONAL OBSERVATIONS:**

- (1) Sponsor did have a copy of the project O&M Manual.
- (2) Sponsor did not provide a copy of the required Emergency Preparedness Plan.
- (3) The Genesee River and Dyke Creek channels are generally clear of debris and obstructions, however, most of the riprap areas within the project are covered with heavy vegetation making it difficult to impossible to assess the condition of the riprap.
- (4) Significant areas of shoaling were present during the inspection.

**13. RECOMMENDATIONS AND MAINTENANCE REQUIRED AS A RESULT OF THIS INSPECTION:**

Required maintenance for deficiencies found during this inspection are noted in the "Recommendations" columns of Attachment A – Left Bank and Channel Deficiencies and Attachment B – Right Bank Deficiencies.

**14. INSPECTION REPORT PREPARED BY:**



Daniel A. Bennett, P.E.  
Civil Engineer  
Operations and Technical Support Section

**15. INSPECTION REPORT REVIEWED BY:**



Robert W. Remmers, P.E., PMP  
Levee Safety Program Manager  
Chief, Operations and Technical Support Section

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**16. LIST OF ATTACHMENTS:**

- Attachment A – Genesee River - Left Bank Levee and Channel Deficiencies and Recommendations
- Attachment B – Genesee River - Right Bank Levee and Dyke Creek – Left Bank Levee Deficiencies and Recommendations
- Attachment C – Genesee River - Left Bank Levee and Channel Inspection Report
- Attachment D – Genesee River - Right Bank Levee and Dyke Creek – Left Bank Levee Inspection Report
- Attachment E – Deficiency Location Maps
- Attachment F – Project Map
- Attachment G – Sponsor Request – Existing Unauthorized Modification
- Attachment H – Emergency Preparedness Plan

**Attachment A – Genesee River - Left Bank Levee and  
Channel Deficiencies and Recommendations**

Attachment "A" - Genesee River - Left Bank Levee and Channel - Summary of Deficiencies and Recommendations

Deficiency ID #	Category	Remarks	Recommendation	Photo #	Rating	Station 1	Station 2	Correction Due Date (See Note)
USACE_CELRB_N21L_2013_a_0059	Levee Embankments	16 ' x 3 ' depression	Repair depression	USACE_CELRB_N21L_2013_a_0059_1.jpg	M	61+00	NA	
USACE_CELRB_N21L_2013_a_0060	Levee Embankments	Multiple trees on landside slope and within 15' of the toe	Remove trees	USACE_CELRB_N21L_2013_a_0060_1.jpg USACE_CELRB_N21L_2013_a_0060_2.jpg USACE_CELRB_N21L_2013_a_0060_3.jpg	M	61+00	58+00	
USACE_CELRB_N21L_2013_a_0063	Levee Embankments	Misc. encroachments (dog kennel and shed)	Remove encroachments or submit a modification request	USACE_CELRB_N21L_2013_a_0063_1.jpg	M	59+00	NA	
USACE_CELRB_N21L_2013_a_0066	Levee Embankments	Miscellaneous encroachments tree house and deck. Shed o.k.	Remove encroachments or submit a modification request	USACE_CELRB_N21L_2013_a_0066_1.jpg	M	57+00	53+00	
USACE_CELRB_N21L_2013_a_0091	Levee Embankments	Fence on levee	Remove fence or submit a modification request	USACE_CELRB_N21L_2013_a_0091_1.jpg USACE_CELRB_N21L_2013_a_0091_2.jpg	M	47+00	50+00	
USACE_CELRB_N21L_2013_a_0103	Levee Embankments	Trees on landside and crown	Remove trees	USACE_CELRB_N21L_2013_a_0103_1.jpg USACE_CELRB_N21L_2013_a_0103_2.jpg USACE_CELRB_N21L_2013_a_0103_3.jpg USACE_CELRB_N21L_2013_a_0103_4.jpg	M	54+00	46+00	
USACE_CELRB_N21L_2013_a_0122	Levee Embankments	Erosion in riprap along concrete	Repair erosion	USACE_CELRB_N21L_2013_a_0122_1.jpg	M	43+00	NA	
USACE_CELRB_N21L_2013_a_0124	Levee Embankments	Fence	Remove fence or submit modification request	USACE_CELRB_N21L_2013_a_0124_1.jpg	M	34+00	43+00	
USACE_CELRB_N21L_2013_a_0130	Levee Embankments	Tree	Remove tree	No photo	M	39+00	NA	
USACE_CELRB_N21L_2013_a_0134	Levee Embankments	Fence	Remove fence or submit modification request	USACE_CELRB_N21L_2013_a_0134_1.jpg	M	38+00	NA	
USACE_CELRB_N21L_2013_a_0151	Levee Embankments	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0151_1.jpg	M	33+00	NA	
USACE_CELRB_N21L_2013_a_0156	Levee Embankments	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0156_1.jpg USACE_CELRB_N21L_2013_a_0156_2.jpg	U	33+00	24+00	
USACE_CELRB_N21L_2013_a_0157	Levee Embankments	Buried or missing riprap	Uncover or replace riprap	USACE_CELRB_N21L_2013_a_0157_1.jpg	M	30+00	28+00	
USACE_CELRB_N21L_2013_a_0162	Levee Embankments	Multiple animal burrows 5+/- on riverside slope.	Fill burrows	USACE_CELRB_N21L_2013_a_0162_1.jpg	M	28+00	NA	
USACE_CELRB_N21L_2013_a_0163	Levee Embankments	Trees	Remove trees	USACE_CELRB_N21L_2013_a_0163_1.jpg	M	28+00	NA	
USACE_CELRB_N21L_2013_a_0166	Levee Embankments	Stairs in bank	Remove stairs or submit modification request	USACE_CELRB_N21L_2013_a_0166_1.jpg	M	27+00	NA	
USACE_CELRB_N21L_2013_a_0167	Levee Embankments	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0167_1.jpg	U	26+00	NA	
USACE_CELRB_N21L_2013_a_0171	Levee Embankments	Riprap displacement	Replace riprap	No photo	M	24+00	NA	
USACE_CELRB_N21L_2013_a_0173	Levee Embankments	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0173_1.jpg	U	21+00	24+00	

Attachment "A" - Genesee River - Left Bank Levee and Channel - Summary of Deficiencies and Recommendations

USACE_CELRB_N21L_2013_a_0179	Flood Damage Reduction Channels	Shoaling along toe	Remove shoal	USACE_CELRB_N21L_2013_a_0179_1.jpg USACE_CELRB_N21L_2013_a_0179_2.jpg	M	17+00	21+00	
USACE_CELRB_N21L_2013_a_0181	Levee Embankments	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0181_1.jpg	U	17+00	NA	
USACE_CELRB_N21L_2013_a_0221	Levee Embankments	Trees on bank on LB	Remove trees	USACE_CELRB_N21L_2013_a_0221_1.jpg	U	0+00	NA	
USACE_CELRB_N21L_2013_a_0222	Levee Embankments	Unwanted vegetation in riprap on LB	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0222_1.jpg	U	0+00	0+00	
USACE_CELRB_N21L_2013_a_0230	Levee Embankments	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0230_1.jpg	U	0+00	NA	
USACE_CELRB_N21L_2013_a_0034	Interior Drainage System	Fence on head wall is dislodged at both ends from headwall	Repair fence	USACE_CELRB_N21L_2013_a_0034_1.jpg	M	88+00	NA	
USACE_CELRB_N21L_2013_a_0069	Interior Drainage System	24" RCP, Pipe not videotape inspected	Videotape inspect pipe	USACE_CELRB_N21L_2013_a_0069_1.jpg	U	53+00	NA	
USACE_CELRB_N21L_2013_a_0093	Interior Drainage System	2-36" RCP, Pipes not videotape inspected	Videotape inspect pipes	No photo	U	49+00	NA	
USACE_CELRB_N21L_2013_a_0234	Interior Drainage System	36" CMP, Pipe not videotape inspected	Videotape inspect pipe	No photo	U	36+00	NA	
USACE_CELRB_N21L_2013_a_0235	Interior Drainage System	48" CMP, Pipe not videotape inspected	Videotape inspect pipe	No photo	U	40+00	NA	
USACE_CELRB_N21L_2013_a_0099	Interior Drainage System	12" CMP rusted	Repair or replace 12" CMP	USACE_CELRB_N21L_2013_a_0099_1.jpg	U	48+00	NA	
USACE_CELRB_N21L_2013_a_0107	Interior Drainage System	Headwall broken rebar exposed	Repair headwall	USACE_CELRB_N21L_2013_a_0107_1.jpg	M	47+00	NA	
USACE_CELRB_N21L_2013_a_0113	Interior Drainage System	12" CMP rusted and corroded	Repair or replace 12" CMP	USACE_CELRB_N21L_2013_a_0113_1.jpg	U	44+00	NA	
USACE_CELRB_N21L_2013_a_0143	Interior Drainage System	Sanitary sewer structure - severely damaged	Repair structure	USACE_CELRB_N21L_2013_a_0143_1.jpg	U	36+00	NA	
USACE_CELRB_N21L_2013_a_0001	Flood Damage Reduction Channels	Shoaling LB and RB.	Remove shoaling.	USACE_CELRB_N21L_2013_a_0001_1.jpg	M	103+00	92+00	
USACE_CELRB_N21L_2013_a_0012	Flood Damage Reduction Channels	Shoaling along RB	Remove shoaling	USACE_CELRB_N21L_2013_a_0012_1.jpg	M	111+00	106+00	
USACE_CELRB_N21L_2013_a_0013	Flood Damage Reduction Channels	Erosion along RB	Repair erosion	USACE_CELRB_N21L_2013_a_0013_1.jpg	M	102+00	NA	
USACE_CELRB_N21L_2013_a_0021	Flood Damage Reduction Channels	Shoaling in drainage inlet channel (photos taken from the middle of inlet channel)	Remove shoaling	USACE_CELRB_N21L_2013_a_0021_1.jpg USACE_CELRB_N21L_2013_a_0021_2.jpg	M	97+00	NA	
USACE_CELRB_N21L_2013_a_0025	Flood Damage Reduction Channels	Shoaling from drainage outlet channel into channel	Remove shoaling	USACE_CELRB_N21L_2013_a_0025_1.jpg	M	93+00	NA	
USACE_CELRB_N21L_2013_a_0026	Flood Damage Reduction Channels	Riprap covered or missing	Uncover or replace riprap	USACE_CELRB_N21L_2013_a_0026_1.jpg	U	91+00	NA	
USACE_CELRB_N21L_2013_a_0027	Flood Damage Reduction Channels	Erosion under bridge	Repair erosion	USACE_CELRB_N21L_2013_a_0027_1.jpg	M	91+00	NA	
USACE_CELRB_N21L_2013_a_0030	Flood Damage Reduction Channels	Unwanted vegetation in riprap RB	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0030_1.jpg	M	91+00	NA	
USACE_CELRB_N21L_2013_a_0031	Flood Damage Reduction Channels	Unwanted vegetation on RB	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0031_1.jpg	M	91+00	NA	
USACE_CELRB_N21L_2013_a_0032	Flood Damage Reduction Channels	Shoaling under bridge	Remove shoaling	USACE_CELRB_N21L_2013_a_0032_1.jpg	M	91+00	NA	

Attachment "A" - Genesee River - Left Bank Levee and Channel - Summary of Deficiencies and Recommendations

USACE_CELRB_N21L_2013_a_0038	Flood Damage Reduction Channels	Shoaling in channel	Remove shoaling	USACE_CELRB_N21L_2013_a_0038_1.jpg	M	87+00	NA	
USACE_CELRB_N21L_2013_a_0041	Flood Damage Reduction Channels	Riprap displacement	Repair riprap	No photo	M	83+00	NA	
USACE_CELRB_N21L_2013_a_0044	Flood Damage Reduction Channels	Shoal along RB	Remove shoal	USACE_CELRB_N21L_2013_a_0044_1.jpg	M	83+00	78+00	
USACE_CELRB_N21L_2013_a_0046	Flood Damage Reduction Channels	30" CMP 20% silted. Sediment in riprap	Remove sediment	USACE_CELRB_N21L_2013_a_0046_1.jpg	M	75+00	NA	
USACE_CELRB_N21L_2013_a_0047	Flood Damage Reduction Channels	Unwanted vegetation on LB	Remove unwanted vegetaion	USACE_CELRB_N21L_2013_a_0047_1.jpg	M	72+00	74+00	
USACE_CELRB_N21L_2013_a_0049	Flood Damage Reduction Channels	Unwanted vegetation in LB riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0049_1.jpg USACE_CELRB_N21L_2013_a_0049_2.jpg USACE_CELRB_N21L_2013_a_0049_3.jpg USACE_CELRB_N21L_2013_a_0049_4.jpg	M	66+00	72+00	
USACE_CELRB_N21L_2013_a_0050	Flood Damage Reduction Channels	Miscellaneous encroachments, gardens and bushes	Remove encroachments or submit a modification request	USACE_CELRB_N21L_2013_a_0050_1.jpg USACE_CELRB_N21L_2013_a_0050_2.jpg	M	72+00	69+00	
USACE_CELRB_N21L_2013_a_0051	Flood Damage Reduction Channels	Unwanted vegetation in drainage channel to river	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0051_1.jpg USACE_CELRB_N21L_2013_a_0051_2.jpg	M	69+00	NA	
USACE_CELRB_N21L_2013_a_0056	Flood Damage Reduction Channels	Unwanted vegetation in LB Riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0056_1.jpg USACE_CELRB_N21L_2013_a_0056_2.jpg	U	65+00	52+00	
USACE_CELRB_N21L_2013_a_0073	Flood Damage Reduction Channels	Debris in channel	Remove debris	USACE_CELRB_N21L_2013_a_0073_1.jpg	M	54+00	NA	
USACE_CELRB_N21L_2013_a_0074	Flood Damage Reduction Channels	Erosion on bank	Repair erosion	No photo	M	55+00	NA	
USACE_CELRB_N21L_2013_a_0077	Flood Damage Reduction Channels	Unwanted vegetation in riprap on RB	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0077_1.jpg	M	59+00	53+00	
USACE_CELRB_N21L_2013_a_0081	Flood Damage Reduction Channels	Seepage	NA	USACE_CELRB_N21L_2013_a_0081_1.jpg	M	52+00	NA	
USACE_CELRB_N21L_2013_a_0083	Flood Damage Reduction Channels	15' x 3' concrete spalling	Repair spalling	USACE_CELRB_N21L_2013_a_0083_1.jpg	M	52+00	NA	
USACE_CELRB_N21L_2013_a_0086	Flood Damage Reduction Channels	Minor unwanted vegetation at concrete joints	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0086_1.jpg	M	52+00	43+00	
USACE_CELRB_N21L_2013_a_0088	Flood Damage Reduction Channels	Typical cracking in concrete	Monitor cracking	USACE_CELRB_N21L_2013_a_0088_1.jpg	M	51+00	NA	
USACE_CELRB_N21L_2013_a_0089	Flood Damage Reduction Channels	Typical unwanted vegetation in weep hole	Remove unwanted vegetation	No photo	M	51+00	NA	
USACE_CELRB_N21L_2013_a_0090	Flood Damage Reduction Channels	3' X 8" erosion in concrete rebar exposed	Repair concrete	No photo	M	50+00	NA	
USACE_CELRB_N21L_2013_a_0100	Flood Damage Reduction Channels	1' x 10' x 18" erosion in concrete	Repair concrete	USACE_CELRB_N21L_2013_a_0100_1.jpg	M	48+00	NA	
USACE_CELRB_N21L_2013_a_0105	Flood Damage Reduction Channels	Trees on LB channel crest	Remove trees	USACE_CELRB_N21L_2013_a_0105_1.jpg	M	46+00	44+00	



Attachment "A" - Genesee River - Left Bank Levee and Channel - Summary of Deficiencies and Recommendations

USACE_CELRB_N21L_2013_a_0111	Flood Damage Reduction Channels	Cracking in concrete	Repair cracking	USACE_CELRB_N21L_2013_a_0111_1.jpg	M	45+00	NA	
USACE_CELRB_N21L_2013_a_0112	Flood Damage Reduction Channels	Fence on LB channel crest	Remove fence or submit modification request	USACE_CELRB_N21L_2013_a_0112_1.jpg	M	46+00	44+00	
USACE_CELRB_N21L_2013_a_0114	Flood Damage Reduction Channels	15 x 3' erosion	Repair erosion	USACE_CELRB_N21L_2013_a_0114_1.jpg	M	44+00	NA	
USACE_CELRB_N21L_2013_a_0119	Flood Damage Reduction Channels	Erosion in riprap along concrete	Repair erosion	USACE_CELRB_N21L_2013_a_0119_1.jpg	M	43+00	NA	
USACE_CELRB_N21L_2013_a_0121	Flood Damage Reduction Channels	Erosion in riprap along concrete	Repair erosion		M	42+00	NA	
USACE_CELRB_N21L_2013_a_0123	Flood Damage Reduction Channels	Vegetated shoal along LB toe	Remove vegetated shoal	USACE_CELRB_N21L_2013_a_0123_1.jpg USACE_CELRB_N21L_2013_a_0123_2.jpg	M	34+00	43+00	
USACE_CELRB_N21L_2013_a_0127	Flood Damage Reduction Channels	Spalling on bank	Repair spalling	USACE_CELRB_N21L_2013_a_0127_1.jpg	M	41+00	NA	
USACE_CELRB_N21L_2013_a_0135	Flood Damage Reduction Channels	Shoaling along LB	Remove shoaling	No photo	M	34+00	38+00	
USACE_CELRB_N21L_2013_a_0137	Flood Damage Reduction Channels	Erosion, lack of riprap	Replace riprap	USACE_CELRB_N21L_2013_a_0137_1.jpg	M	39+00	NA	
USACE_CELRB_N21L_2013_a_0142	Flood Damage Reduction Channels	Erosion lack of riprap	Replace riprap	USACE_CELRB_N21L_2013_a_0142_1.jpg	M	37+00	NA	
USACE_CELRB_N21L_2013_a_0186	Flood Damage Reduction Channels	Displaced riprap	Replace rirrap	USACE_CELRB_N21L_2013_a_0186_1.jpg	M	13+00	NA	
USACE_CELRB_N21L_2013_a_0188	Flood Damage Reduction Channels	Unwanted vegetation in riprap on RB	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0188_1.jpg	M	12+00	16+00	
USACE_CELRB_N21L_2013_a_0198	Flood Damage Reduction Channels	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0198_1.jpg	U	4+00	0+00	
USACE_CELRB_N21L_2013_a_0203	Flood Damage Reduction Channels	Unwanted vegetation on left bank from weir to weir	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0203_1.jpg USACE_CELRB_N21L_2013_a_0203_2.jpg	M	0+00	NA	
USACE_CELRB_N21L_2013_a_0204	Flood Damage Reduction Channels	Unwanted vegetation in riprap on RB	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0204_1.jpg	U	0+00	0+00	
USACE_CELRB_N21L_2013_a_0206	Flood Damage Reduction Channels	Shoaling in channel along RB	Remove shoal	USACE_CELRB_N21L_2013_a_0206_1.jpg	M	0+00	NA	
USACE_CELRB_N21L_2013_a_0209	Flood Damage Reduction Channels	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0209_1.jpg USACE_CELRB_N21L_2013_a_0209_2.jpg	U	0+00	0+00	
USACE_CELRB_N21L_2013_a_0211	Flood Damage Reduction Channels	Shoaling in channel	Remove shoal	USACE_CELRB_N21L_2013_a_0211_1.jpg USACE_CELRB_N21L_2013_a_0211_2.jpg	U	0+00	NA	
USACE_CELRB_N21L_2013_a_0213	Flood Damage Reduction Channels	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0213_1.jpg	U	0+00	0+00	
USACE_CELRB_N21L_2013_a_0216	Flood Damage Reduction Channels	Displacement of riprap along concrete	Replace riprap	USACE_CELRB_N21L_2013_a_0216_1.jpg	M	0+00	NA	
USACE_CELRB_N21L_2013_a_0217	Flood Damage Reduction Channels	Shoaling	Remove shoaling	USACE_CELRB_N21L_2013_a_0217_1.jpg	U	0+00	0+00	
USACE_CELRB_N21L_2013_a_0218	Flood Damage Reduction Channels	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21L_2013_a_0218_1.jpg	U	0+00	0+00	



Attachment "A" - Genesee River - Left Bank Levee and Channel - Summary of Deficiencies and Recommendations

USACE_CELRB_N21L_2013_a_0233	Flood Damage Reduction Channels	Multiple large tree debris in channel at wier	Remove tree debris	USACE_CELRB_N21L_2013_a _0233_1.jpg	M	0+00	NA	
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Note: Although this project is ACTIVE in USACE's Rehabilitation Program (RP) under the SWIF Program, the overall project rating is "UNACCEPTABLE" (U) and, therefore, deficiency correction due dates have not been included. These dates will be re-evaluated upon completion of the SWIF process for this project.

Attachment B – Genesee River - Right Bank Levee and  
Dyke Creek – Left Bank Levee Deficiencies and  
Recommendations

Attachment "B" - Genesee River - Right Bank Levee and Dyke Creek - Left Bank Levee Inspection Report Summary of Deficiencies and Recommendations

Deficiency ID #	Category	Remarks	Recommendation	Photo #	Rating	Station 1	Station 2	Correction Due Date (See Note)
USACE_CELRB_N21R_2013_a_0007	Levee Embankments	Unwanted vegetation on the riverside	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0007_1.jpg	M	0+00	0+00	
USACE_CELRB_N21R_2013_a_0027	Levee Embankments	Unwanted vegetation trees on levee bank	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0027_1.jpg USACE_CELRB_N21R_2013_a_0027_2.jpg	U	35+00	35+00	
USACE_CELRB_N21R_2013_a_0028	Levee Embankments	Tree	Remove tree	No Photo	U	35+00	NA	
USACE_CELRB_N21R_2013_a_0030	Levee Embankments	Log debris in channel	Remove debris	USACE_CELRB_N21R_2013_a_0030_1.jpg	M	35+00	NA	
USACE_CELRB_N21R_2013_a_0083	Levee Embankments	Fence with vegetation	Remove vegetation	USACE_CELRB_N21R_2013_a_0083_1.jpg	M	74+00	NA	
USACE_CELRB_N21R_2013_a_0003	Levee Embankments	6' x 4' depression.	Repair depression	USACE_CELRB_N21R_2013_a_0003_1.jpg	M	0+00	NA	
USACE_CELRB_N21R_2013_a_0031	Flood Damage Reduction Channels	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0031_1.jpg	U	32+00	35+00	
USACE_CELRB_N21R_2013_a_0039	Flood Damage Reduction Channels	Unwanted vegetation on left bank	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0039_1.jpg USACE_CELRB_N21R_2013_a_0039_2.jpg	U	28+00	35+00	
USACE_CELRB_N21R_2013_a_0040	Flood Damage Reduction Channels	Unwanted vegetation on right bank	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0040_1.jpg	U	35+00	28+00	
USACE_CELRB_N21R_2013_a_0043	Flood Damage Reduction Channels	Unwanted vegetation on both barks	Remvoe unwanted vegetation	USACE_CELRB_N21R_2013_a_0043_1.jpg	U	24+00	22+00	
USACE_CELRB_N21R_2013_a_0044	Flood Damage Reduction Channels	Unwanted vegetation on right bank	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0044_1.jpg	U	27+00	24+00	
USACE_CELRB_N21R_2013_a_0058	Flood Damage Reduction Channels	Unwanted vegetation in riprap on LB	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0058_1.jpg	U	17+00	NA	
USACE_CELRB_N21R_2013_a_0060	Flood Damage Reduction Channels	Heavy unwanted vegetation both banks	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0060_1.jpg	U	22+00	18+00	
USACE_CELRB_N21R_2013_a_0066	Flood Damage Reduction Channels	Debris on upstream face of bridge abutment.	Remove debris	USACE_CELRB_N21R_2013_a_0066_1.jpg	M	18+00	NA	
USACE_CELRB_N21R_2013_a_0071	Flood Damage Reduction Channels	Debris on upstream face of bridge abutment.	Remove debris	USACE_CELRB_N21R_2013_a_0071_1.jpg	M	11+00	NA	
USACE_CELRB_N21R_2013_a_0092	Flood Damage Reduction Channels	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0092_1.jpg	U	71+00	68+00	
USACE_CELRB_N21R_2013_a_0097	Flood Damage Reduction Channels	Unwanted vegetation in riprap	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0097_1.jpg	M	66+00	NA	
USACE_CELRB_N21R_2013_a_0100	Flood Damage Reduction Channels	Unwanted vegetation in riprap on RB	Remvoe unwanted vegetation	USACE_CELRB_N21R_2013_a_0100_1.jpg	U	65+00	NA	
USACE_CELRB_N21R_2013_a_0029	Flood Damage Reduction Channels	Shoaling along right bank	Remove shoaling	USACE_CELRB_N21R_2013_a_0029_1.jpg	M	35+00	35+00	
USACE_CELRB_N21R_2013_a_0036	Flood Damage Reduction Channels	Shoal in channel	Remove shoal	USACE_CELRB_N21R_2013_a_0036_1.jpg	M	34+00	NA	
USACE_CELRB_N21R_2013_a_0038	Flood Damage Reduction Channels	Shoaling along left bank	Remove shoal	USACE_CELRB_N21R_2013_a_0038_1.jpg	M	29+00	32+00	
USACE_CELRB_N21R_2013_a_0045	Flood Damage Reduction Channels	Shoaling in channel	Remove shoaling	USACE_CELRB_N21R_2013_a_0045_1.jpg	U	29+00	25+00	
USACE_CELRB_N21R_2013_a_0065	Flood Damage Reduction Channels	Shoal in channel	Remvoe shoal	USACE_CELRB_N21R_2013_a_0065_1.jpg	M	12+00	NA	

Attachment "B" - Genesee River - Right Bank Levee and Dyke Creek - Left Bank Levee Inspection Report Summary of Deficiencies and Recommendations

USACE_CELRB_N21R_2013_a_0072	Flood Damage Reduction Channels	Shoaling in drainage channel to Dyke creek	Remove shoaling	USACE_CELRB_N21R_2013_a_0072_1.jpg	U	11+00	NA	
USACE_CELRB_N21R_2013_a_0080	Flood Damage Reduction Channels	Shoaling on both banks	Remove shoaling	USACE_CELRB_N21R_2013_a_0080_1.jpg USACE_CELRB_N21R_2013_a_0080_2.jpg	M	11+00	2+00	
USACE_CELRB_N21R_2013_a_0041	Flood Damage Reduction Channels	Outfall covered with vegetation	Remove vegetation	USACE_CELRB_N21R_2013_a_0041_1.jpg	U	24+00	NA	
USACE_CELRB_N21R_2013_a_0049	Flood Damage Reduction Channels	24"CMP flap gate damaged	Repair flapgate	No Photo	M	22+00	NA	
USACE_CELRB_N21R_2013_a_0076	Flood Damage Reduction Channels	18" CMP flap gate pipe separated	Repair flap gate	No Photo	M	8+00	NA	
USACE_CELRB_N21R_2013_a_0050	Flood Damage Reduction Channels	Missing or covered riprap	Uncover or replace riprap	No Photo	M	22+00	NA	
USACE_CELRB_N21R_2013_a_0051	Flood Damage Reduction Channels	Missing or covered riprap	Uncover or replace riprap	No Photo	M	22+00	NA	
USACE_CELRB_N21R_2013_a_0057	Flood Damage Reduction Channels	Unwanted vegetation in concrete	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0057_1.jpg	U	12+00	18+00	
USACE_CELRB_N21R_2013_a_0077	Flood Damage Reduction Channels	Unwanted vegetation between concrete joints both banks	Remove unwanted vegetation	USACE_CELRB_N21R_2013_a_0077_1.jpg	M	6+00	NA	

Note: Although this project is ACTIVE in USACE's Rehabilitation Program (RP) under the SWIF Program, the overall project rating is "UNACCEPTABLE" (U) and, therefore, deficiency correction due dates have not been included. These dates will be re-evaluated upon completion of the SWIF process for this project.

**Attachment C – Genesee River - Left Bank Levee and  
Channel Inspection Report**



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# Flood Damage Reduction Segment / System Inspection Report

Name of Segment / System: Genesee River - Left Bank Levee and Channel, Wellsville

Public Sponsor(s): NYSDEC - Region 9

Public Sponsor Representative: Theodore A. Myers, P.E.

Sponsor Phone: (716) 851-7070

Sponsor Email: tamyers@gw.dec.ststae.ny.us

Corps of Engineers Inspector: D. Bennett, D. Mitchell, J. Kasperski

Inspection Start Date: 9/24/2013

Inspection End Date: 9/24/2013

Inspection Report Prepared By: Daniel A. Bennett, P.E.

Date Report Prepared: \_\_\_\_\_

Internal Technical Review (for Periodic Inspections) By: \_\_\_\_\_

Date of ITR: \_\_\_\_\_

Final Approved By: \_\_\_\_\_

Date Approved: \_\_\_\_\_

Type of Inspection:

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

Overall Segment / System Rating:

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

Contents of Report:

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

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

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



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

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

<b>1. Levee segment / system and district: (name of the segment / system and levee district)</b> Genesee River - Left Bank Levee and Channel, Wellsville for CELRB
<b>2. Reporting period: (month/day/year to month/day/year)</b>
<b>3. Summary of maintenance required by last inspection report:</b>
<b>4. Summary of maintenance performed this reporting period:</b>
<b>5. Summary of maintenance planned next reporting period:</b>
<b>6. Summary of changes to segment / system since last inspection:</b>
<b>7. Problems/ issues requiring the assistance of the US Army Corps of Engineers:</b>



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**Flood Damage Reduction Segment / System  
Inspection Report  
Genesee River - Left Bank and Channel,**

**Pre-Inspection Form  
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# Public Sponsor Pre-Inspection Report

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

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

[illegible]US Army Corps  
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# Flood Damage Reduction Segment / System Inspection Report Genesee River - Left Bank and Channel,

**Pre-Inspection Form**  
**Page 2 of 2**



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

## A. Purpose of USACE Inspections:

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

## B. Types of Inspections:

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

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

## C. Inspection Boundaries:

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

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

## D. Land Use Definitions:

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

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



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## Flood Damage Reduction Segment / System Inspection Report Genesee River - Left Bank and Channel, Wellsville

General Instructions  
Page 1 of 3

**E. Use of the Inspection Report Template:**

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

**F. Individual Item / Component Ratings:**

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

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

**G. Overall Segment / System Ratings:**

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

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

**H. Eligibility for PL84-99 Rehabilitation Assistance:**

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

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

**I. Reporting:**

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

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

**J. Notification:**

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

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



## General Items for All Flood Damage Reduction Segments / Systems

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Operations and Maintenance Manuals	<b>A</b>	<b>A</b>	Levee Owner's Manual, O&M Manuals, and/or manufacturer's operating instructions are present.	O&M Manual presented prior to the inspection
		<b>M</b>	Sponsor manuals are lost or missing or out of date; however, sponsor will obtain manuals prior to next scheduled inspection.	
		<b>U</b>	Sponsor has not obtained lost or missing manuals identified during previous inspection.	
2. Emergency Supplies and Equipment (A or M only)	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	The sponsor does not maintain an adequate supply of flood fighting materials as part of their preparedness activities.	
3. Flood Preparedness and Training (A or M only)	<b>M</b>	<b>A</b>	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.	Sponsor does not have a written Emergency Action Plan
		<b>M</b>	The sponsor maintains a good working knowledge of flood response activities, but documentation of system-specific emergency procedures and emergency contact personnel is insufficient or out of date.	

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



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Flood Damage Reduction Segment / System  
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Genesee River - Left Bank and Channel,

General Items for All Flood Damage Reduction  
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# Levee Embankments

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Unwanted Vegetation Growth <sup>1</sup>	<b>U</b>	<b>A</b>	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.	N21L_2013_a_0060: Station_1 61+00: Station_2 58+00: Multiple trees on landside slope and within 15' of the toe: Remove trees (M) N21L_2013_a_0103: Station_1 54+00: Station_2 46+00: Trees on landside and crown: Remove trees (M) N21L_2013_a_0130: Station_1 39+00: Tree: Remove tree (M)
		<b>M</b>	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.	N21L_2013_a_0151: Station_1 33+00: Unwanted vegetation in riprap: Remove unwanted vegetation (M) N21L_2013_a_0156: Station_1 33+00: Station_2 24+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U)
		<b>U</b>	Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above and must be removed to reestablish or ascertain levee integrity.	N21L_2013_a_0163: Station_1 28+00: Trees: Remove trees (M) N21L_2013_a_0167: Station_1 26+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21L_2013_a_0173: Station_1 21+00: Station_2 24+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21L_2013_a_0181: Station_1 17+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21L_2013_a_0221: Station_1 0+00: Trees on bank on LB: Remove trees (U) N21L_2013_a_0222: Station_1 0+00: Station_2 0+00: Unwanted vegetation in riprap on LB: Remove unwanted vegetation (U) N21L_2013_a_0230: Station_1 0+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U)
2. Sod Cover	<b>A</b>	<b>A</b>	There is good coverage of sod over the levee.	N21L_2013_a_0053: Station_1 67+00: Levee in good condition: NA (A) N21L_2013_a_0072: Station_1 53+00: Landside of levee, sod cover in good condition: NA (A)
		<b>M</b>	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.	
		<b>U</b>	Over 50% of the sod cover is missing or damaged over a significant portion or portions of the levee embankment.	
		<b>N/A</b>	Surface protection is provided by other means.	
3. Encroachments	<b>M</b>	<b>A</b>	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.	N21L_2013_a_0063: Station_1 59+00: Misc. encroachments (dog kennel and shed): Remove encroachments or submit a modification request (M)

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		<b>M</b>	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.	N21L_2013_a_0064: Station_1 58+00: Landside of the levee: NA (A) N21L_2013_a_0066: Station_1 57+00: Station_2 53+00: Miscellaneous encroachments tree house and deck. Shed o.k.: Remove encroachments or submit a modification request (M)
		<b>U</b>	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee.	N21L_2013_a_0078: Station_1 52+00: Utility pole - O.K.: NA (A) N21L_2013_a_0079: Station_1 52+00: Utility pole and guy wire - O.K.: NA (A) N21L_2013_a_0091: Station_1 47+00: Station_2 50+00: Fence on levee: Remove fence or submit a modification request (M) N21L_2013_a_0116: Station_1 44+00: Bridge: NA (A) N21L_2013_a_0124: Station_1 34+00: Station_2 43+00: Fence: NA (A) N21L_2013_a_0128: Station_1 40+00: Utility pole: NA (A) N21L_2013_a_0134: Station_1 38+00: Fence: NA (M) N21L_2013_a_0166: Station_1 27+00: Stairs in bank: Remove stairs or submit modification request (M) N21L_2013_a_0168: Station_1 27+00: Weir approved by USACE: NA (A) N21L_2013_a_0182: Station_1 16+00: Pedestrian bridge: NA (A)
4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag Closures) (A or U only)	<b>NA</b>	<b>A</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no closure structures along this component of the FDR segment / system.	
5. Slope Stability	<b>A</b>	<b>A</b>	No slides, sloughs, tension cracking, slope depressions, or bulges are present.	
		<b>M</b>	Minor slope stability problems that do not pose an immediate threat to the levee embankment.	
		<b>U</b>	Major slope stability problems (ex. deep seated sliding) identified that must be repaired to reestablish the integrity of the levee embankment.	

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
6. Erosion/ Bank Caving	<b>M</b>	<b>A</b>	No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability.	N21L_2013_a_0122: Station_1 43+00: Erosion in riprap along concrete: Repair erosion (M)
		<b>M</b>	There are areas where minor erosion is occurring or has occurred on or near the levee embankment, but levee integrity is not threatened.	
		<b>U</b>	Erosion or caving is occurring or has occurred that threatens the stability and integrity of the levee. The erosion or caving has progressed into the levee section or into the extended footprint of the levee foundation and has compromised the levee foundation stability.	
7. Settlement <sup>2</sup>	<b>A</b>	<b>A</b>	No observed depressions in crown. Records exist and indicate no unexplained historical changes.	
		<b>M</b>	Minor irregularities that do not threaten integrity of levee. Records are incomplete or inclusive.	
		<b>U</b>	Obvious variations in elevation over significant reaches. No records exist or records indicate that design elevation is compromised.	
8. Depressions/ Rutting	<b>M</b>	<b>A</b>	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.	N21L_2013_a_0059: Station_1 61+00: 16 ' x 3 ' depression: Repair depression (M)
		<b>M</b>	There are some infrequent minor depressions less than 6 inches deep in the levee crown, embankment, or access roads that will pond water.	
		<b>U</b>	There are depressions greater than 6 inches deep that will pond water.	
9. Cracking	<b>A</b>	<b>A</b>	Minor longitudinal, transverse, or desiccation cracks with no vertical movement along the crack. No cracks extend continuously through the levee crest.	
		<b>M</b>	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.	
		<b>U</b>	Cracks exceed 6 inches in depth. Longitudinal cracks are longer than the height of the levee and/or exhibit vertical movement along the crack. Transverse cracks extend through the entire levee width.	
10. Animal Control	<b>M</b>	<b>A</b>	Continuous animal burrow control program in place that includes the elimination of active burrowing and the filling in of existing burrows.	N21L_2013_a_0162: Station_1 28+00: Multiple animal burrows 5+/- on riverside slope.: Fill burrows (M)
		<b>M</b>	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.	
		<b>U</b>	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.	

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
11. Culverts/ Discharge Pipes <sup>3</sup> (This item includes both concrete and corrugated metal pipes.)	<b>U</b>	<b>A</b>	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.	See Interior Drainage System, Item 9. Culverts/Discharge Pipes.
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no discharge pipes/ culverts.	
12. Riprap Revetments & Bank Protection	<b>M</b>	<b>A</b>	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.	N21L_2013_a_0157: Station_1 30+00: Station_2 28+00: Buried or missing riprap: Uncover or replace riprap (M) N21L_2013_a_0171: Station_1 24+00: Riprap displacement: Replace riprap (M)
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.	
13. Revetments other than Riprap	<b>NA</b>	<b>A</b>	Existing revetment protection is properly maintained, undamaged, and clearly visible.	
		<b>M</b>	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.	

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		<b>U</b>	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.	
		<b>N/A</b>	There are no such revetments protecting this feature of the segment / system.	
14. Underseepage Relief Wells/ Toe Drainage Systems	<b>NA</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no relief wells/ toe drainage systems along this component of the FDR segment / system.	
15. Seepage	<b>A</b>	<b>A</b>	No evidence or history of unrepaired seepage, saturated areas, or boils.	
		<b>M</b>	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.	
		<b>U</b>	Evidence or history of active seepage, extensive saturated areas, or boils.	

<sup>1</sup> If there is significant growth on the levee that inhibits the inspection of animal burrows or other items, the inspection should be ended until this item is corrected.

<sup>2</sup> Detailed survey elevations are normally required during Periodic Inspections, and whenever there are obvious visual settlements.

<sup>3</sup> The decision on whether or not USACE inspectors should enter a pipe to perform a detailed inspection must be made at the USACE District level. This decision should be made in conjunction with the District Safety Office, as pipes may be considered confined spaces. This decision should consider the age of the pipe, the diameter of the pipe, the apparent condition of the pipe, and the length of the pipe. If a pipe is entered for the purposes of inspection, the inspector should record observations with a video camera in order that the condition of the entire pipe, including all joints, can later be assessed. Additionally, the video record provides a baseline to which future inspections can be compared.

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 <p>N 42° 07' 19" W 77° 57' 20"</p> <p>9/24/2013 9:50:31 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0060 <b>Title:</b> USACE_CELRB_N21L_2013_a_0060_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Multiple trees on landside slope and within 15' of the toe; Station_1: 61+00; Station_2: 58+00</p>
 <p>N 42° 07' 19" W 77° 57' 20"</p> <p>9/24/2013 9:50:47 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0060 <b>Title:</b> USACE_CELRB_N21L_2013_a_0060_2.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Multiple trees on landside slope and within 15' of the toe; Station_1: 61+00; Station_2: 58+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0060 <b>Title:</b> USACE_CELRB_N21L_2013_a_0060_3.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Multiple trees on landside slope and within 15' of the toe; Station_1: 61+00; Station_2: 58+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0103 <b>Title:</b> USACE_CELRB_N21L_2013_a_0103_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Trees on landside and crown; Station_1: 54+00; Station_2: 46+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0103 <b>Title:</b> USACE_CELRB_N21L_2013_a_0103_2.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Trees on landside and crown; Station_1: 54+00; Station_2: 46+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0103 <b>Title:</b> USACE_CELRB_N21L_2013_a_0103_3.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Trees on landside and crown; Station_1: 54+00; Station_2: 46+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0103 <b>Title:</b> USACE_CELRB_N21L_2013_a_0103_4.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Trees on landside and crown; Station_1: 54+00; Station_2: 46+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0151 <b>Title:</b> USACE_CELRB_N21L_2013_a_0151_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation in riprap; Station_1: 33+00</p>



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 <p>N 42° 07' 08" W 77° 56' 49"</p> <p>9/24/2013 12:28:33 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0156 <b>Title:</b> USACE_CELRB_N21L_2013_a_0156_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 33+00; Station_2: 24+00</p>
 <p>N 42° 07' 03" W 77° 56' 49"</p> <p>9/24/2013 12:41:36 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0156 <b>Title:</b> USACE_CELRB_N21L_2013_a_0156_2.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 33+00; Station_2: 24+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0163 <b>Title:</b> USACE_CELRB_N21L_2013_a_0163_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Trees; Station_1: 28+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0167 <b>Title:</b> USACE_CELRB_N21L_2013_a_0167_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 26+00</p>



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 <p>N 42° 06' 58" W 77° 56' 50" 9/24/2013 12:49:00 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0173 <b>Title:</b> USACE_CELRB_N21L_2013_a_0173_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 21+00; Station_2: 24+00</p>
 <p>N 42° 06' 54" W 77° 56' 42" 9/24/2013 12:58:42 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0181 <b>Title:</b> USACE_CELRB_N21L_2013_a_0181_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 17+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0221 <b>Title:</b> USACE_CELRB_N21L_2013_a_0221_1.jpg  <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Trees on bank on LB; Station_1: 0+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0222 <b>Title:</b> USACE_CELRB_N21L_2013_a_0222_1.jpg  <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap on LB; Station_1: 0+00; Station_2: 0+00</p>





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 <p>N 42° 06' 32" W 77° 56' 18"</p> <p>9/24/2013 1:52:34 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0230 <b>Title:</b> USACE_CELRB_N21L_2013_a_0230_1.jpg  <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 0+00</p>
 <p>N 42° 07' 21" W 77° 57' 28"</p> <p>9/24/2013 9:39:34 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0053 <b>Title:</b> USACE_CELRB_N21L_2013_a_0053_1.jpg  <b>Rated Item:</b> 2. Sod Cover <b>Caption:</b> Rating: Acceptable; Remarks: Levee in good condition; Station_1: 67+00</p>



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 <p>N 42° 07' 18" W 77° 57' 10"</p> <p>9/24/2013 10:04:37 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0072 <b>Title:</b> USACE_CELRB_N21L_2013_a_0072_1.jpg <b>Rated Item:</b> 2. Sod Cover <b>Caption:</b> Rating: Acceptable; Remarks: Lanside of levee, sod cover in good condition; Station_1: 53+00</p>
 <p>N 42° 07' 19" W 77° 57' 18"</p> <p>9/24/2013 9:53:09 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0063 <b>Title:</b> USACE_CELRB_N21L_2013_a_0063_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Misc. encroachments (dog kennel and shed); Station_1: 59+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0066 <b>Title:</b> USACE_CELRB_N21L_2013_a_0066_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Miscellaneous encroachments tree house and deck. Shed o.k.; Station_1: 57+00; Station_2: 53+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0078 <b>Title:</b> USACE_CELRB_N21L_2013_a_0078_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Acceptable; Remarks: Utility pole - O.K.; Station_1: 52+00</p>



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 <p>N 42° 07' 17" W 77° 57' 08"</p> <p>9/24/2013 10:18:44 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0079 <b>Title:</b> USACE_CELRB_N21L_2013_a_0079_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Acceptable; Remarks: Utility pole and guy wire - O.K.; Station_1: 52+00</p>
 <p>N 42° 07' 17" W 77° 57' 07"</p> <p>9/24/2013 10:23:17 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0091 <b>Title:</b> USACE_CELRB_N21L_2013_a_0091_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Fence on levee; Station_1: 47+00; Station_2: 50+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0091 <b>Title:</b> USACE_CELRB_N21L_2013_a_0091_2.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Fence on levee; Station_1: 47+00; Station_2: 50+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0116 <b>Title:</b> USACE_CELRB_N21L_2013_a_0116_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Acceptable; Remarks: Bridge; Station_1: 44+00</p>



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 <p>N 42° 07' 13" W 77° 56' 59"</p> <p>9/24/2013 12:00:29 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0124 <b>Title:</b> USACE_CELRB_N21L_2013_a_0124_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Fence; Remove fence or submit modification request; Station_1: 34+00; Station_2: 43+00</p>
 <p>N 42° 07' 12" W 77° 56' 57"</p> <p>9/24/2013 12:05:43 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0128 <b>Title:</b> USACE_CELRB_N21L_2013_a_0128_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Acceptable; Remarks: Utility pole; Station_1: 40+00</p>



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 <p>N 42° 07' 10" W 77° 56' 54" 9/24/2013 12:17:05 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0134 <b>Title:</b> USACE_CELRB_N21L_2013_a_0134_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Fence; Station_1: 38+00</p>
 <p>N 42° 07' 02" W 77° 56' 49" 9/24/2013 12:44:07 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0166 <b>Title:</b> USACE_CELRB_N21L_2013_a_0166_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Stairs in bank; Station_1: 27+00</p>



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**Inspect ID:** N21L\_2013\_a\_0179 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0179\_1.jpg  
**Rated Item:** 3. Encroachments **Caption:** Rating: Minimally Acceptable; Remarks: Shoaling along toe; Station\_1: 17+00; Station\_2: 21+00



**Inspect ID:** N21L\_2013\_a\_0122 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0122\_1.jpg  
**Rated Item:** 6. Erosion/ Bank Caving **Caption:** Rating: Minimally Acceptable; Remarks: Erosion in riprap along concrete; Station\_1: 43+00



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	<p><b>Inspect ID:</b> N21L_2013_a_0059 <b>Title:</b> USACE_CELRB_N21L_2013_a_0059_1.jpg <b>Rated Item:</b> 8. Depressions/ Rutting <b>Caption:</b> Rating: Minimally Acceptable; Remarks: 16 ' x 3 ' depression; Station_1: 61+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0162 <b>Title:</b> USACE_CELRB_N21L_2013_a_0162_1.jpg <b>Rated Item:</b> 10. Animal Control <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Multiple animal burrows 5+/- on riverside slope.; Station_1: 28+00</p>



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 <p>N 42° 07' 06" W 77° 56' 49"</p> <p>9/24/2013 12:34:52 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0157 <b>Title:</b> USACE_CELRB_N21L_2013_a_0157_1.jpg <b>Rated Item:</b> 12. Riprap Revetments &amp; Bank Protection <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Buried or missing riprap; Station_1: 30+00; Station_2: 28+00</p>



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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Vegetation and Obstructions	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	Obstructions, vegetation, debris, or sediment have impaired the channel flow capacity or blocked more than 10% of a culvert opening. Sediment and debris removal required to re-establish flow capacity.	
2. Encroachments	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
3. Ponding Areas	<b>A</b>	<b>A</b>	No trash, debris, structures, or other obstructions present within the ponding areas. Sediment deposits do not exceed 10% of capacity.	N21L_2013_a_0097: Station_1 49+00: Ponding Area: NA (A)
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no ponding areas associated with the interior drainage system.	
4. Fencing and Gates <sup>1</sup>	<b>M</b>	<b>A</b>	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.	N21L_2013_a_0034: Station_1 88+00: Fence on head wall is dislodged at both ends from headwall: Repair fence (M)
		<b>M</b>	Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.	
		<b>U</b>	Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured.	
		<b>N/A</b>	There are no features noted that require safety fencing.	
5. Concrete Surfaces (Such as gate)	<b>U</b>	<b>A</b>	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.	N21L_2013_a_0176: Station_1 23+00: 48" CMP inlet: NA (A)

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
wells, outfalls, intakes, or culverts)		<b>M</b>	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.	N21L_2013_a_0107: Station_1 47+00: Headwall broken rebar exposed: Repair headwall (M) N21L_2013_a_0143: Station_1 36+00: Sanitary sewer structure - severely damaged: Repair structure (U)
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the interior drainage system.	
6. Tilting, Sliding or Settlement of Concrete and Sheet Pile Structures <sup>2</sup> (Such as gate wells, outfalls, intakes, or culverts)	<b>A</b>	<b>A</b>	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the interior drainage system.	
7. Foundation of Concrete Structures <sup>3</sup> (Such as culverts, inlet and discharge structures, or gatewells.)	<b>A</b>	<b>A</b>	No active erosion, scouring, or bank caving that might endanger the structure's stability.	
		<b>M</b>	There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. The rate of erosion is such that the structure is expected to remain stable until the next inspection.	
		<b>U</b>	Erosion or bank caving observed that may lead to structural instabilities before the next inspection.	
		<b>N/A</b>	There are no concrete items in the interior drainage system.	
8. Monolith Joints	<b>N/A</b>	<b>A</b>	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.	
		<b>M</b>	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.	

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		<b>U</b>	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.	
		<b>N/A</b>	There are no monolith joints in the interior drainage system.	
9. Culverts/ Discharge Pipes <sup>4</sup>	<b>U</b>	<b>A</b>	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.	N21L_2013_a_0069: Station_1 53+00: 24" RCP pipe not videotape inspected: Videotape inspect pipe (U) N21L_2013_a_0093: Station_1 49+00: 2- 36" RCP: Pipes not videotape inspected: need videotape inspection (u) N21L_2013_a_0099: Station_1 48+00: 12" CMP rusted: Repair or replace 12" CMP (U) N21L_2013_a_0113: Station_1 44+00: 12" CMP rusted and corroded: Repair or replace 12" CMP (U) N21L_2013_a_234: Station_1 36+00: 36" CMP pipe not videotape inspected: Videotape inspect pipe (U) N21L_2013_a_235: Station_1 40+00: 48" CMP pipe not videotape inspected: Videotape inspect pipe (U)
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no discharge pipes/ culverts.	
10. Sluice / Slide Gates <sup>5</sup>	<b>A</b>	<b>A</b>	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.	N21L_2013_a_0068: Station_1 53+00: Not operated: NA (A) N21L_2013_a_0094: Station_1 49+00: Sluice gate good condition: NA (A)
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no sluice/ slide gates.	

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
11. Flap Gates/ Flap Valves/ Pinch Valves <sup>1</sup>	<b>A</b>	<b>A</b>	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required.	N21L_2013_a_0043: Station_1 82+00: 42" Flap gate: NA (A) N21L_2013_a_0175: Station_1 23+00: 48" CMP outlet, flap gate exercised: NA (A)
		<b>M</b>	Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance.	
		<b>U</b>	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	
		<b>N/A</b>	There are no flap gates.	
12. Trash Racks (non-mechanical)	<b>NA</b>	<b>A</b>	Trash racks are fastened in place and properly maintained.	
		<b>M</b>	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.	
		<b>U</b>	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.)	
		<b>N/A</b>	There are no trash racks, or they are covered in the pump stations section of the report.	
13. Other Metallic Items	<b>NA</b>	<b>A</b>	All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern.	
		<b>M</b>	Corrosion seen on metallic parts appears to be maintainable.	
		<b>U</b>	Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.	
		<b>N/A</b>	There are no other significant metallic items.	
14. Riprap Revetments of Inlet/ Discharge Areas	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.	
15. Revetments other than Riprap	<b>NA</b>	<b>A</b>	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.	

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		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no such revetments protecting this feature of the segment / system.	

<sup>1</sup> Proper operation of this item must be demonstrated during the inspection.

<sup>2</sup> The sponsor should be monitoring any observed movement to verify whether the movement is active or inactive.

<sup>3</sup> Inspectors must have as-built drawings available during the inspection so that the lateral distance to the heel and toe of the floodwalls can be determined in the field.

<sup>4</sup> The decision on whether or not USACE inspectors should enter a pipe to perform a detailed inspection must be made at the USACE District level. This decision should be made in conjunction with the District Safety Office, as pipes may be considered confined spaces. This decision should consider the age of the pipe, the diameter of the pipe, the apparent condition of the pipe, and the length of the pipe. If a pipe is entered for the purposes of inspection, the inspector should record observations with a video camera in order that the condition of the entire pipe, including all joints, can later be assessed. Additionally, the video record provides a baseline to which future inspections can be compared.

<sup>5</sup> Proper operation of the gates (full open and closed) must be demonstrated during the inspection if no documentation is available. Be aware of both manual and electrical operators.

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**Inspect ID:** N21L\_2013\_a\_0097 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0097\_1.jpg  
**Rated Item:** 3. Ponding Areas **Caption:** Rating: Acceptable; Remarks: Ponding Area;  
Station\_1: 49+00



**Inspect ID:** N21L\_2013\_a\_0034 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0034\_1.jpg  
**Rated Item:** 4. Fencing and Gates **Caption:** Rating: Minimally Acceptable; Remarks:  
Fence on head wall is dislodged at both ends from headwall; Station\_1: 88+00



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**Inspect ID:** N21L\_2013\_a\_0176 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0176\_1.jpg  
**Rated Item:** 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts)  
**Caption:** Rating: Acceptable; Remarks: 48" CMP inlet; Station\_1: 23+00



**Inspect ID:** N21L\_2013\_a\_0107 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0107\_1.jpg  
**Rated Item:** 5. Concrete Surfaces **Caption:** Rating: Minimally Acceptable; Remarks: Headwall broken rebar exposed; Station\_1: 47+00



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



**Inspect ID:** N21L\_2013\_a\_0143 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0143\_1.jpg  
**Rated Item:** 5. Concrete Surfaces **Caption:** Rating: Unacceptable; Remarks: Sanitary sewer structure - severely damaged; Station\_1: 36+00



**Inspect ID:** N21L\_2013\_a\_0069 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0069\_1.jpg  
**Rated Item:** 9. Culverts/Discharge Pipes **Caption:** Rating: Unacceptable; Remarks: 24" RCP, pipe not videotape inspected; videotape inspect pipe; Station\_1: 53+00



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 <p>N 42° 07' 16" W 77° 57' 04"</p> <p>9/24/2013 10:32:50 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0099 <b>Title:</b> USACE_CELRB_N21L_2013_a_0099_1.jpg <b>Rated Item:</b> 9. Culverts/Discharge Pipes <b>Caption:</b> Rating: Unacceptable; Remarks: 12" CMP rusted; Station_1: 48+00</p>
 <p>N 42° 07' 14" W 77° 57' 00"</p> <p>9/24/2013 10:47:55 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0113 <b>Title:</b> USACE_CELRB_N21L_2013_a_0113_1.jpg <b>Rated Item:</b> 9. Culverts/Discharge Pipes <b>Caption:</b> Rating: Unacceptable; Remarks: 12" CMP rusted and corroded; Station_1: 44+00</p>



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**Inspect ID:** N21L\_2013\_a\_0068 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0068\_1.jpg  
**Rated Item:** 10. Sluice/ Slide Gates **Caption:** Rating: Acceptable; Remarks: Not operated; Station\_1: 53+00



**Inspect ID:** N21L\_2013\_a\_0094 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0094\_1.jpg  
**Rated Item:** 10. Sluice/ Slide Gates **Caption:** Rating: Acceptable; Remarks: Sluice gate good condition; Station\_1: 49+00



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**Inspect ID:** N21L\_2013\_a\_0043 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0043\_1.jpg  
**Rated Item:** 11. Flap Gates/ Flap Valves/ Pinch Valves **Caption:** Rating: Acceptable;  
**Remarks:** 42" Flap gate; Station\_1: 82+00



**Inspect ID:** N21L\_2013\_a\_0043 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0043\_2.jpg  
**Rated Item:** 11. Flap Gates/ Flap Valves/ Pinch Valves **Caption:** Rating: Acceptable;  
**Remarks:** 42" Flap gate; Station\_1: 82+00




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	<p><b>Inspect ID:</b> N21L_2013_a_0175 <b>Title:</b> USACE_CELRB_N21L_2013_a_0175_1.jpg <b>Rated Item:</b> 11. Flap Gates/ Flap Valves/ Pinch Valves <b>Caption:</b> Rating: Acceptable; <b>Remarks:</b> 48" CMP outlet, flap gate exercised; Station_1: 23+00</p>



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# Flood Damage Reduction Channels

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Vegetation and Obstructions	<b>U</b>	<b>A</b>	No obstructions, vegetation, debris, or sediment accumulation within the channel. Concrete channel joints and weep holes are free of grass and weeds.	N21L_2013_a_0030: Station_1 91+00: Unwanted vegetation in riprap RB: Remove unwanted vegetation (M) N21L_2013_a_0031: Station_1 91+00: Unwanted vegetation on RB: Remove unwanted vegetation (M) N21L_2013_a_0046: Station_1 75+00: 30" CMP 20% silted. Sediment in riprap: Remove sediment (M) N21L_2013_a_0047: Station_1 72+00: Station_2 74+00: Unwanted vegetation on LB: Remove unwanted vegetation (M) N21L_2013_a_0049: Station_1 66+00: Station_2 72+00: Unwanted vegetation in LB riprap: Remove unwanted vegetation (M) N21L_2013_a_0056: Station_1 65+00: Station_2 52+00: Unwanted vegetation in LB Riprap: Remove unwanted vegetation (U) N21L_2013_a_0073: Station_1 54+00: Debris in channel: Remove debris (M) N21L_2013_a_0077: Station_1 59+00: Station_2 53+00: Unwanted vegetation in riprap on RB: Remove unwanted vegetation (M) N21L_2013_a_0089: Station_1 51+00: Typical unwanted vegetation in weep hole: Remove unwanted vegetation (M) N21L_2013_a_0105: Station_1 46+00: Station_2 44+00: Trees on LB channel crest: Remove trees (M) N21L_2013_a_0123: Station_1 34+00: Station_2 43+00: Vegetated shoal along LB toe: Remove vegetated shoal (M) N21L_2013_a_0188: Station_1 12+00: Station_2 16+00: Unwanted vegetation in riprap on RB: Remove unwanted vegetation (M) N21L_2013_a_0198: Station_1 4+00: Station_2 0+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21L_2013_a_0201: Station_1 0+00: Weir: NA (A) N21L_2013_a_0203: Station_1 0+00: Unwanted vegetation on left bank from weir to weir: Remove unwanted vegetation (M) N21L_2013_a_0204: Station_1 0+00: Station_2 0+00: Unwanted vegetation in riprap on RB: Remove unwanted vegetation (U) N21L_2013_a_0209: Station_1 0+00: Station_2 0+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21L_2013_a_0213: Station_1 0+00: Station_2 0+00:
		<b>M</b>	Obstructions (including log jams), vegetation, debris, or sediment are minor and have not impaired channel flow capacity, but should be removed. Sediment shoals have not developed to the extent that they can support vegetation other than non-aquatic grasses. A limited volume of grass and weeds may be present in concrete channel joints and weep holes.	
		<b>U</b>	Obstructions (including log jams), vegetation, debris or sediment have impaired the channel flow capacity. Sediment shoals are well established and support woody and/or brushy vegetation. Sediment and debris removal required to re-establish flow capacity.	

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# Flood Damage Reduction Channels

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
				Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21L_2013_a_0218: Station_1 0+00: Station_2 0+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21L_2013_a_0233: Station_1 0+00: Multiple large tree debris in channel at wier: Remove tree debris (M)
2. Shoaling <sup>1</sup> (sediment deposition)	<b>U</b>	<b>A</b>	No shoaling or minor, non-vegetated shoaling is present.	N21L_2013_a_0001: Station_1 103+00: Station_2 92+00: Shoaling LB and RB.: Remove shoaling. (M)
		<b>M</b>	More widespread vegetated and non-vegetated shoaling is present. Non-aquatic grasses are present on shoal. No trees or brush is present on shoal, and channel flow is not significantly reduced. Sediment and debris removal recommended.	N21L_2013_a_0012: Station_1 111+00: Station_2 106+00: Shoaling along RB: Remove shoaling (M)
		<b>U</b>	Shoaling is well established, stabilized by saplings, brush, or other vegetation. Shoals are diverting flow to channel walls. Channel flow capacity is reduced and maintenance is required.	N21L_2013_a_0021: Station_1 97+00: Shoaling in drainage inlet channel (photos taken from the middle of inlet channel): Remove shoaling (M) N21L_2013_a_0025: Station_1 93+00: Shoaling from drainage outlet channel into channel: Remove shoaling (M) N21L_2013_a_0032: Station_1 91+00: Shoaling under bridge: Remove shoaling (M) N21L_2013_a_0038: Station_1 87+00: Shoaling in channel: Remove shoaling (M) N21L_2013_a_0044: Station_1 83+00: Station_2 78+00: Shoal along RB: Remove shoal (M) N21L_2013_a_0135: Station_1 34+00: Station_2 38+00: Shoaling along LB: Remove shoaling (M) N21L_2013_a_0179: Station_1 17+00: Station_2 21+00: Shoaling along toe: Remove shoal (M) N21L_2013_a_0206: Station_1 0+00: Shoaling in channel along RB: Remove shoal (M) N21L_2013_a_0211: Station_1 0+00: Shoaling in channel: Remove shoal (U) N21L_2013_a_0217: Station_1 0+00: Station_2 0+00: Shoaling: Remove shoaling (U)
3. Encroachments	<b>M</b>	<b>A</b>	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 channel.	N21L_2013_a_0003: Station_1 104+00: Pedestrian bridge: NA (A)
		<b>M</b>	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.	N21L_2013_a_0004: Station_1 104+00: Intake pipe to pump station for golf coarse water: NA (A) N21L_2013_a_0050: Station_1 72+00: Station_2 69+00: Miscellaneous encroachments, gardens and bushes: Remove encroachments or submit a modification request (M)
		<b>U</b>	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the channel.	N21L_2013_a_0051: Station_1 69+00: Unwanted vegetation in drainage channel to river: Remove unwanted vegetation (M)

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
				N21L_2013_a_0055: Station_1 65+00: Gage house: NA (A) N21L_2013_a_0112: Station_1 46+00: Station_2 44+00: Fence on LB channel crest: Remove fence or submit modification request (M)
4. Erosion	<b>M</b>	<b>A</b>	No head cutting or horizontal deviation observed.	N21L_2013_a_0013: Station_1 102+00: Erosion along RB: Repair erosion (M)
		<b>M</b>	Head cutting and horizontal deviation evident, but is less than 1 foot from the designed grade or cross section.	N21L_2013_a_0027: Station_1 91+00: Erosion under bridge: Repair erosion (M)
		<b>U</b>	Head cutting and horizontal deviation of more than 1 foot from the designed grade or cross section. Corrective actions required to stop or slow erosion.	N21L_2013_a_0074: Station_1 55+00: Erosion on bank: Repair erosion (M) N21L_2013_a_0081: Station_1 52+00: Seepage: NA (M) N21L_2013_a_0114: Station_1 44+00: 15 x 3' erosion: Repair erosion (M) N21L_2013_a_0137: Station_1 39+00: Erosion, lack of riprap: Replace riprap (M) N21L_2013_a_0142: Station_1 37+00: Erosion lack of riprap: Replace riprap (M)
5. Concrete Surfaces	<b>M</b>	<b>A</b>	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.	N21L_2013_a_0100: Station_1 48+00: 1' x 10' x 18" erosion in concrete: Repair concrete (M)
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
6. Tilting, Sliding or Settlement of Concrete Structures <sup>2</sup>	<b>A</b>	<b>A</b>	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	
		<b>M</b>	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.	

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
7. Foundation of Concrete Structures <sup>3</sup>	<b>A</b>	<b>A</b>	No active erosion, scouring, or bank caving that might endanger the structure's stability.	
		<b>M</b>	There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. For the purposes of inspection, the erosion or scour is not closer to the riverside face of the wall than twice the floodwall's underground base width if the wall is of L-wall or T-wall construction; or if the wall is of sheetpile or I-wall construction, the erosion is not closer than twice the wall's visible height. Additionally, rate of erosion is such that the wall is expected to remain stable until the next inspection.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
8. Slab and Monolith Joints	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
9. Flap Gates/ Flap Valves/	<b>A</b>	<b>A</b>	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required.	N21L_2013_a_0148: Station_1 34+00: 18" HDPE Flap gate: NA (A)

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
Pinch Valves <sup>4</sup>		<b>M</b>	Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance.	
		<b>U</b>	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	
		<b>N/A</b>	There are no flap gates.	
10. Riprap Revetments & Banks	<b>U</b>	<b>A</b>	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.	N21L_2013_a_0026: Station_1 91+00: Riprap covered or missing: Uncover or replace riprap (U)
		<b>M</b>	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.	N21L_2013_a_0041: Station_1 83+00: Riprap displacement: Repair riprap (M)
		<b>U</b>	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.	N21L_2013_a_0119: Station_1 43+00: Erosion in riprap along concrete: Repair erosion (M)
		<b>N/A</b>	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.	N21L_2013_a_0121: Station_1 42+00: Erosion in riprap along concrete: Repair erosion (M) N21L_2013_a_0186: Station_1 13+00: Displaced riprap: Replace riprap (M) N21L_2013_a_0216: Station_1 0+00: Displacement of riprap along concrete: Replace riprap (M)
11. Revetments other than Riprap	<b>M</b>	<b>A</b>	Existing revetment protection is properly maintained, undamaged, and clearly visible.	N21L_2013_a_0083: Station_1 52+00: 15' x 3' concrete spalling: Repair spalling (M)
		<b>M</b>	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.	N21L_2013_a_0085: Station_1 52+00: Typical spalling: NA (A)
		<b>U</b>	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.	N21L_2013_a_0086: Station_1 52+00: Station_2 43+00: Minor unwanted vegetation at concrete joints: Remove unwanted vegetation (M)
		<b>N/A</b>	There are no such revetments protecting this feature of the segment / system.	N21L_2013_a_0088: Station_1 51+00: Typical cracking in concrete: Monitor cracking (M) N21L_2013_a_0090: Station_1 50+00: 3' X 8" erosion in concrete rebar exposed: Repair concrete (M) N21L_2013_a_0111: Station_1 45+00: Cracking in concrete: Repair cracking (M) N21L_2013_a_0127: Station_1 41+00: Spalling on bank: Repair spalling (M)

<sup>1</sup> If weather and flow conditions allow, inspectors should walk in the channel and probe shoal areas in order to estimate extent of blockage of the cross-sectional area where shoaling is present.

<sup>2</sup> The sponsor should be monitoring any observed movement to verify whether the movement is active or inactive.

<sup>3</sup> Inspectors must have as-built drawings available during the inspection so that the lateral distance to the heel and toe of the floodwalls can be determined in the field.

<sup>4</sup> Proper operation of this item must be demonstrated during the inspection.

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	<p><b>Inspect ID:</b> N21L_2013_a_0030 <b>Title:</b> USACE_CELRB_N21L_2013_a_0030_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation in riprap RB; Station_1: 91+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0031 <b>Title:</b> USACE_CELRB_N21L_2013_a_0031_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation on RB; Station_1: 91+00</p>



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 <p>N 42° 07' 26" W 77° 57' 37" 9/24/2013 9:26:08 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0046 <b>Title:</b> USACE_CELRB_N21L_2013_a_0046_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> 30" CMP 20% silted. Sediment in riprap; Station_1: 75+00</p>
 <p>N 42° 07' 25" W 77° 57' 36" 9/24/2013 9:28:02 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0047 <b>Title:</b> USACE_CELRB_N21L_2013_a_0047_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation on LB; Station_1: 72+00; Station_2: 74+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0049 <b>Title:</b> USACE_CELRB_N21L_2013_a_0049_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation in LB riprap; Station_1: 66+00; Station_2: 72+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0049 <b>Title:</b> USACE_CELRB_N21L_2013_a_0049_2.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation in LB riprap; Station_1: 66+00; Station_2: 72+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0049 <b>Title:</b> USACE_CELRB_N21L_2013_a_0049_3.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation in LB riprap; Station_1: 66+00; Station_2: 72+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0049 <b>Title:</b> USACE_CELRB_N21L_2013_a_0049_4.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation in LB riprap; Station_1: 66+00; Station_2: 72+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0056 <b>Title:</b> USACE_CELRB_N21L_2013_a_0056_1.jpg  <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in LB Riprap; Station_1: 65+00; Station_2: 52+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0056 <b>Title:</b> USACE_CELRB_N21L_2013_a_0056_2.jpg  <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in LB Riprap; Station_1: 65+00; Station_2: 52+00</p>



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**Inspect ID:** N21L\_2013\_a\_0073 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0073\_1.jpg  
**Rated Item:** 1. Vegetation and Obstructions **Caption:** Rating: Minimally Acceptable;  
**Remarks:** Debris in channel; Station\_1: 54+00



**Inspect ID:** N21L\_2013\_a\_0077 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0077\_1.jpg  
**Rated Item:** 1. Vegetation and Obstructions **Caption:** Rating: Minimally Acceptable;  
**Remarks:** Unwanted vegetation in riprap on RB; Station\_1: 59+00; Station\_2: 53+00



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 <p>N 42° 07' 15" W 77° 57' 01" 9/24/2013 10:38:19 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0105 <b>Title:</b> USACE_CELRB_N21L_2013_a_0105_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Trees on LB channel crest; Station_1: 46+00; Station_2: 44+00</p>
 <p>N 42° 07' 14" W 77° 56' 59" 9/24/2013 12:01:00 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0123 <b>Title:</b> USACE_CELRB_N21L_2013_a_0123_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Vegetated shoal along LB toe; Station_1: 34+00; Station_2: 43+00</p>



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**Inspect ID:** N21L\_2013\_a\_0123 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0123\_2.jpg  
**Rated Item:** 1. Vegetation and Obstructions **Caption:** Rating: Minimally Acceptable;  
**Remarks:** Vegetated shoal along LB toe; Station\_1: 34+00; Station\_2: 43+00



**Inspect ID:** N21L\_2013\_a\_0188 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0188\_1.jpg  
**Rated Item:** 1. Vegetation and Obstructions **Caption:** Rating: Minimally Acceptable;  
**Remarks:** Unwanted vegetation in riprap on RB; Station\_1: 12+00; Station\_2: 16+00





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 <p>N 42° 06' 41" W 77° 56' 34" 9/24/2013 1:14:02 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0198 <b>Title:</b> USACE_CELRB_N21L_2013_a_0198_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 4+00; Station_2: 0+00</p>
 <p>N 42° 06' 41" W 77° 56' 34" 9/24/2013 1:14:19 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0201 <b>Title:</b> USACE_CELRB_N21L_2013_a_0201_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Acceptable; Remarks: Weir; Station_1: 0+00</p>





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 <p>N 42° 06' 37" W 77° 56' 24" 9/24/2013 1:38:55 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0203 <b>Title:</b> USACE_CELRB_N21L_2013_a_0203_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Unwanted vegetation on left bank from weir to weir; Station_1: 0+00</p>
 <p>N 42° 06' 37" W 77° 56' 24" 9/24/2013 1:38:55 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0203 <b>Title:</b> USACE_CELRB_N21L_2013_a_0203_2.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Unwanted vegetation on left bank from weir to weir; Station_1: 0+00</p>



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 <p>N 42° 06' 37" W 77° 56' 23" 9/24/2013 1:37:29 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0204 <b>Title:</b> USACE_CELRB_N21L_2013_a_0204_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap on RB; Station_1: 0+00; Station_2: 0+00</p>
 <p>N 42° 06' 37" W 77° 56' 24" 9/24/2013 1:38:55 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0209 <b>Title:</b> USACE_CELRB_N21L_2013_a_0209_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 0+00; Station_2: 0+00</p>



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 <p>N 42° 06' 37" W 77° 56' 24" 9/24/2013 1:38:55 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0209 <b>Title:</b> USACE_CELRB_N21L_2013_a_0209_2.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 0+00; Station_2: 0+00</p>
 <p>N 42° 06' 34" W 77° 56' 20" 9/24/2013 1:43:37 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0213 <b>Title:</b> USACE_CELRB_N21L_2013_a_0213_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 0+00; Station_2: 0+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0218 <b>Title:</b> USACE_CELRB_N21L_2013_a_0218_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 0+00; Station_2: 0+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0233 <b>Title:</b> USACE_CELRB_N21L_2013_a_0233_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Multiple large tree debris in channel at wier; Station_1: 0+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0001 <b>Title:</b> USACE_CELRB_N21L_2013_a_0001_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoaling LB and RB.; Station_1: 103+00; Station_2: 92+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0012 <b>Title:</b> USACE_CELRB_N21L_2013_a_0012_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoaling along RB; Station_1: 111+00; Station_2: 106+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0021 <b>Title:</b> USACE_CELRB_N21L_2013_a_0021_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoaling in drainage inlet channel (photos taken from the middle of inlet channel); Station_1: 97+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0021 <b>Title:</b> USACE_CELRB_N21L_2013_a_0021_2.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoaling in drainage inlet channel (photos taken from the middle of inlet channel); Station_1: 97+00</p>



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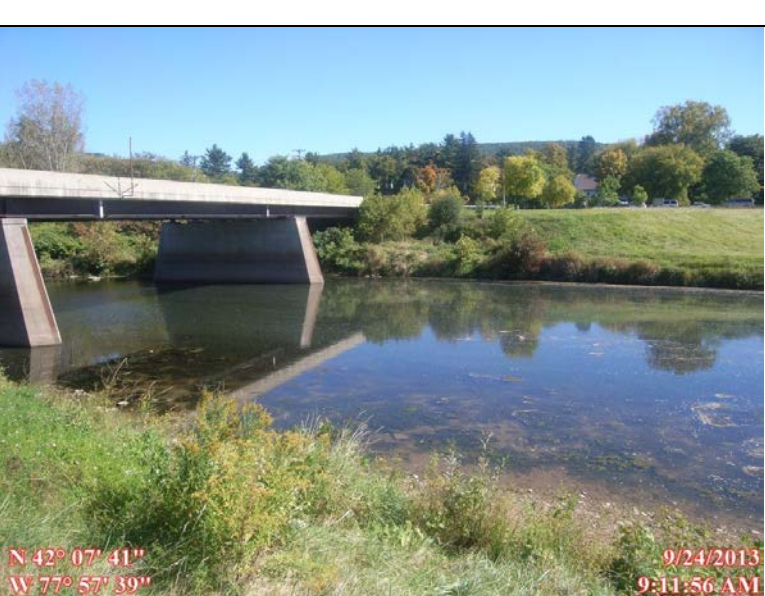
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 <p>N 42° 07' 45" W 77° 57' 42" 9/24/2013 9:01:12 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0025 <b>Title:</b> USACE_CELRB_N21L_2013_a_0025_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoaling from drainage outlet channel into channel; Station_1: 93+00</p>
 <p>N 42° 07' 41" W 77° 57' 39" 9/24/2013 9:11:56 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0032 <b>Title:</b> USACE_CELRB_N21L_2013_a_0032_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoaling under bridge; Station_1: 91+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0038 <b>Title:</b> USACE_CELRB_N21L_2013_a_0038_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoaling in channel; Station_1: 87+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0044 <b>Title:</b> USACE_CELRB_N21L_2013_a_0044_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoal along RB; Station_1: 83+00; Station_2: 78+00</p>



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 <p>N 42° 06' 54" W 77° 56' 42" 9/24/2013 12:59:53 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0179 <b>Title:</b> USACE_CELRB_N21L_2013_a_0179_2.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Shoaling along toe; Station_1: 17+00; Station_2: 21+00</p>
 <p>N 42° 06' 37" W 77° 56' 23" 9/24/2013 1:37:29 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0206 <b>Title:</b> USACE_CELRB_N21L_2013_a_0206_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Shoaling in channel along RB; Station_1: 0+00</p>





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 <p>N 42° 06' 37" W 77° 56' 24" 9/24/2013 1:38:55 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0211 <b>Title:</b> USACE_CELRB_N21L_2013_a_0211_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Unacceptable; Remarks: Shoaling in channel; Station_1: 0+00</p>
 <p>N 42° 06' 35" W 77° 56' 22" 9/24/2013 1:42:10 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0211 <b>Title:</b> USACE_CELRB_N21L_2013_a_0211_2.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Unacceptable; Remarks: Shoaling in channel; Station_1: 0+00</p>



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**Inspect ID:** N21L\_2013\_a\_0217 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0217\_1.jpg  
**Rated Item:** 2. Shoaling (sediment deposition) **Caption:** Rating: Unacceptable;  
Remarks: Shoaling; Station\_1: 0+00; Station\_2: 0+00



**Inspect ID:** N21L\_2013\_a\_0003 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0003\_1.jpg  
**Rated Item:** 3. Encroachments **Caption:** Rating: Acceptable; Remarks: Pedestrian  
bridge; Station\_1: 104+00



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	<p><b>Inspect ID:</b> N21L_2013_a_0004 <b>Title:</b> USACE_CELRB_N21L_2013_a_0004_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Acceptable; Remarks: Intake pipe to pump station for golf course water; Station_1: 104+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0050 <b>Title:</b> USACE_CELRB_N21L_2013_a_0050_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Miscellaneous encroachments, gardens and bushes; Station_1: 72+00; Station_2: 69+00</p>



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 <p>N 42° 07' 23" W 77° 57' 32" 9/24/2013 9:33:53 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0050 <b>Title:</b> USACE_CELRB_N21L_2013_a_0050_2.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Miscellaneous encroachments, gardens and bushes; Station_1: 72+00; Station_2: 69+00</p>
 <p>N 42° 07' 22" W 77° 57' 31" 9/24/2013 9:34:44 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0051 <b>Title:</b> USACE_CELRB_N21L_2013_a_0051_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Unwanted vegetation in drainage channel to river; Station_1: 69+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0051 <b>Title:</b> USACE_CELRB_N21L_2013_a_0051_2.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Unwanted vegetation in drainage channel to river; Station_1: 69+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0055 <b>Title:</b> USACE_CELRB_N21L_2013_a_0055_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Acceptable; Remarks: Gage house; Station_1: 65+00</p>



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	<p><b>Inspect ID:</b> N21L_2013_a_0112 <b>Title:</b> USACE_CELRB_N21L_2013_a_0112_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Fence on LB channel crest; Station_1: 46+00; Station_2: 44+00</p>
	<p><b>Inspect ID:</b> N21L_2013_a_0013 <b>Title:</b> USACE_CELRB_N21L_2013_a_0013_1.jpg <b>Rated Item:</b> 4. Erosion <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Erosion along RB; Station_1: 102+00</p>



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 <p>N 42° 07' 42" W 77° 57' 39" 9/24/2013 9:05:23 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0027 <b>Title:</b> USACE_CELRB_N21L_2013_a_0027_1.jpg <b>Rated Item:</b> 4. Erosion <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Erosion under bridge; Station_1: 91+00</p>
 <p>N 42° 07' 18" W 77° 57' 09" 9/24/2013 10:16:15 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0081 <b>Title:</b> USACE_CELRB_N21L_2013_a_0081_1.jpg <b>Rated Item:</b> 4. Erosion <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Seepage; Station_1: 52+00</p>



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**Inspect ID:** N21L\_2013\_a\_0114 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0114\_1.jpg  
**Rated Item:** 4. Erosion **Caption:** Rating: Minimally Acceptable; Remarks: 15 x 3' erosion; Station\_1: 44+00



**Inspect ID:** N21L\_2013\_a\_0137 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0137\_1.jpg  
**Rated Item:** 4. Erosion **Caption:** Rating: Minimally Acceptable; Remarks: Erosion, lack of riprap; Station\_1: 39+00



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**Inspect ID:** N21L\_2013\_a\_0142 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0142\_1.jpg  
**Rated Item:** 4. Erosion **Caption:** Rating: Minimally Acceptable; Remarks: Erosion lack of riprap; Station\_1: 37+00



**Inspect ID:** N21L\_2013\_a\_0100 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0100\_1.jpg  
**Rated Item:** 5. Concrete Surfaces **Caption:** Rating: Minimally Acceptable; Remarks: 1' x 10' x 18" erosion in concrete; Station\_1: 48+00



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 <p>N 42° 07' 08" W 77° 56' 50"</p> <p>9/24/2013 12:27:38 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0148 <b>Title:</b> USACE_CELRB_N21L_2013_a_0148_1.jpg <b>Rated Item:</b> 9. Flap Gates/ Flap Valves/ Pinch Valves <b>Caption:</b> Rating: Acceptable; <b>Remarks:</b> 18" HDPE Flap gate; Station_1: 34+00</p>
 <p>N 42° 07' 42" W 77° 57' 39"</p> <p>9/24/2013 9:06:56 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0026 <b>Title:</b> USACE_CELRB_N21L_2013_a_0026_1.jpg <b>Rated Item:</b> 10. Riprap Revetments &amp; Banks <b>Caption:</b> Rating: Unacceptable; <b>Remarks:</b> Riprap covered or missing; Station_1: 91+00</p>



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 <p>N 42° 07' 14" W 77° 57' 00"</p> <p>9/24/2013 10:50:03 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0119 <b>Title:</b> USACE_CELRB_N21L_2013_a_0119_1.jpg <b>Rated Item:</b> 10. Riprap Revetments &amp; Banks <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Erosion in riprap along concrete; Station_1: 43+00</p>
 <p>N 42° 06' 51" W 77° 56' 40"</p> <p>9/24/2013 1:04:40 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0186 <b>Title:</b> USACE_CELRB_N21L_2013_a_0186_1.jpg <b>Rated Item:</b> 10. Riprap Revetments &amp; Banks <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Displaced riprap; Station_1: 13+00</p>



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 <p>N 42° 06' 33" W 77° 56' 19" 9/24/2013 1:46:35 PM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0216 <b>Title:</b> USACE_CELRB_N21L_2013_a_0216_1.jpg <b>Rated Item:</b> 10. Riprap Revetments &amp; Banks <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Displacement of riprap along concrete; Station_1: 0+00</p>
 <p>N 42° 07' 18" W 77° 57' 09" 9/24/2013 10:16:15 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0083 <b>Title:</b> USACE_CELRB_N21L_2013_a_0083_1.jpg <b>Rated Item:</b> 11. Revetments other than Riprap <b>Caption:</b> Rating: Minimally Acceptable; Remarks: 15' x 3' concrete spalling; Station_1: 52+00</p>





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## Flood Damage Reduction Channels

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 <p>N 42° 07' 18" W 77° 57' 09"</p> <p>9/24/2013 10:16:15 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0085 <b>Title:</b> USACE_CELRB_N21L_2013_a_0085_1.jpg <b>Rated Item:</b> 11. Revetments other than Riprap <b>Caption:</b> Rating: Acceptable; Remarks: Typical spalling; Station_1: 52+00</p>
 <p>N 42° 07' 18" W 77° 57' 09"</p> <p>9/24/2013 10:15:37 AM</p>	<p><b>Inspect ID:</b> N21L_2013_a_0086 <b>Title:</b> USACE_CELRB_N21L_2013_a_0086_1.jpg <b>Rated Item:</b> 11. Revetments other than Riprap <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Minor unwanted vegetation at concrete joints; Station_1: 52+00; Station_2: 43+00</p>



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## Flood Damage Reduction Channels

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**Inspect ID:** N21L\_2013\_a\_0088 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0088\_1.jpg  
**Rated Item:** 11. Revetments other than Riprap **Caption:** Rating: Minimally Acceptable;  
Remarks: Typical cracking in concrete; Station\_1: 51+00



**Inspect ID:** N21L\_2013\_a\_0111 **Title:** USACE\_CELRB\_N21L\_2013\_a\_0111\_1.jpg  
**Rated Item:** 11. Revetments other than Riprap **Caption:** Rating: Minimally Acceptable;  
Remarks: Cracking in concrete; Station\_1: 45+00




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## Flood Damage Reduction Channels

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	<p><b>Inspect ID:</b> N21L_2013_a_0127 <b>Title:</b> USACE_CELRB_N21L_2013_a_0127_1.jpg <b>Rated Item:</b> 11. Revetments other than Riprap <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Spalling on bank; Station_1: 41+00</p>



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**Attachment D – Genesee River - Right Bank Levee and  
Dyke Creek – Left Bank Levee Inspection Report**





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# Flood Damage Reduction Segment / System Inspection Report

Name of Segment / System: Genesee River - Right Bank Levee and Dyke Creek – Left Bank Levee, Wellsville

Public Sponsor(s): NYSDEC - Region 9

Public Sponsor Representative: Theodore A. Myers, P.E.

Sponsor Phone: (716) 851-7070

Sponsor Email: tamyers@gw.dec.state.ny.us

Corps of Engineers Inspector: D. Bennett, D. Mitchell, J. Kasperski Inspection Start Date: 9/24/2013

Inspection End Date: 9/24/2013

Inspection Report Prepared By: Daniel A. Bennett, P.E. Date Report Prepared: \_\_\_\_\_

Internal Technical Review (for Periodic Inspections) By: \_\_\_\_\_ Date of ITR: \_\_\_\_\_

Final Approved By: \_\_\_\_\_ Date Approved: \_\_\_\_\_

Type of Inspection:	<input type="checkbox"/> <b>Initial Eligibility Inspection</b> <input checked="" type="checkbox"/> <b>Continuing Eligibility Inspection (Routine)</b> <input type="checkbox"/> <b>Continuing Eligibility Inspection (Periodic)</b>	Overall Segment / System Rating: <input type="checkbox"/> <b>Acceptable</b> <input type="checkbox"/> <b>Minimally Acceptable</b> <input checked="" type="checkbox"/> <b>Unacceptable</b>
Contents of Report:	<input checked="" type="checkbox"/> <b>Instructions</b> <input type="checkbox"/> <b>Initial Eligibility Inspection</b> <input checked="" type="checkbox"/> <b>General Items for All Flood Control Works</b> <input checked="" type="checkbox"/> <b>Levee Embankment</b> <input type="checkbox"/> <b>Concrete Floodwalls</b> <input type="checkbox"/> <b>Sheet Pile and Concrete I-walls</b> <input type="checkbox"/> <b>Interior Drainage System</b> <input type="checkbox"/> <b>Pump Stations</b> <input checked="" type="checkbox"/> <b>FDR System Channels</b>	<p>Note: In addition to the report contents indicated here, a plan view drawing of the system, with stationing, should be included with this report to reference locations of items rated less than acceptable. Photos of general system condition and any noted deficiencies should also be attached.</p> <p>Note: This inspection rating represents the Corps evaluation of operations and maintenance of the flood damage reduction system and may be used in conjunction with other information for a levee certification determination for National Flood Insurance Program (NFIP) purposes if applicable. An Acceptable Corps inspection rating, alone, does not equate to a certifiable levee for the NFIP. It is recommended for levee systems currently accredited by the Federal Emergency Management Agency (FEMA) for NFIP purposes receiving a Corps Minimally Acceptable or Unacceptable rating, be evaluated by the levee owner to determine the potential impacts to the certification for FEMA.</p>



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

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

<b>1. Levee segment / system and district: (name of the segment / system and levee district)</b> Genesee River - Right Bank Levee and Dyke Creek – Left Bank Levee, Wellsville for CELRB
<b>2. Reporting period: (month/day/year to month/day/year)</b>
<b>3. Summary of maintenance required by last inspection report:</b>
<b>4. Summary of maintenance performed this reporting period:</b>
<b>5. Summary of maintenance planned next reporting period:</b>
<b>6. Summary of changes to segment / system since last inspection:</b>
<b>7. Problems/ issues requiring the assistance of the US Army Corps of Engineers:</b>



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**Flood Damage Reduction Segment / System  
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Genesee River - Right Bank and Dyke**

**Pre-Inspection Form  
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# Public Sponsor Pre-Inspection Report

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

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

Name	Position	Mailing Address	Phone Number	Email Address





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

**A. Purpose of USACE Inspections:**

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

**B. Types of Inspections:**

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

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

**C. Inspection Boundaries:**

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

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

**D. Land Use Definitions:**

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

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



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**E. Use of the Inspection Report Template:**

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

**F. Individual Item / Component Ratings:**

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

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

**G. Overall Segment / System Ratings:**

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

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

**H. Eligibility for PL84-99 Rehabilitation Assistance:**

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

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

**I. Reporting:**

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

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

**J. Notification:**

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

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

## General Items for All Flood Damage Reduction Segments / Systems

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Operations and Maintenance Manuals	<b>A</b>	<b>A</b>	Levee Owner's Manual, O&M Manuals, and/or manufacturer's operating instructions are present.	Sponsor presented O&M Manual prior to the start of the inspection
		<b>M</b>	Sponsor manuals are lost or missing or out of date; however, sponsor will obtain manuals prior to next scheduled inspection.	
		<b>U</b>	Sponsor has not obtained lost or missing manuals identified during previous inspection.	
2. Emergency Supplies and Equipment (A or M only)	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	The sponsor does not maintain an adequate supply of flood fighting materials as part of their preparedness activities.	
3. Flood Preparedness and Training (A or M only)	<b>M</b>	<b>A</b>	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.	Sponsor does not have a written Emergency Action Plan
		<b>M</b>	The sponsor maintains a good working knowledge of flood response activities, but documentation of system-specific emergency procedures and emergency contact personnel is insufficient or out of date.	

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



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General Items for All Flood Damage Reduction  
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# Levee Embankments

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Unwanted Vegetation Growth <sup>1</sup>	<b>U</b>	<b>A</b>	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.	N21R_2013_a_0007: Station_1 0+00: Station_2 0+00: Unwanted vegetation on the riverside: Remove unwanted vegetation (M) N21R_2013_a_0027: Station_1 35+00: Station_2 35+00: Unwanted vegetation trees on levee bank: Remove unwanted vegetation (U) N21R_2013_a_0028: Station_1 35+00: Tree: Remove tree (U)
		<b>M</b>	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.	
		<b>U</b>	Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above and must to be removed to reestablish or ascertain levee integrity.	
2. Sod Cover	<b>A</b>	<b>A</b>	There is good coverage of sod over the levee.	
		<b>M</b>	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.	
		<b>U</b>	Over 50% of the sod cover is missing or damaged over a significant portion or portions of the levee embankment.	
		<b>N/A</b>	Surface protection is provided by other means.	
3. Encroachments	<b>M</b>	<b>A</b>	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.	N21R_2013_a_0030: Station_1 35+00: Log debris in channel: Remove debris (M) N21R_2013_a_0083: Station_1 74+00: Fence with vegetation: Remove vegetation (M)
		<b>M</b>	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.	
		<b>U</b>	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee.	
4. Closure Structures (Stop Log, Earthen Closures, Gates, or Sandbag	<b>NA</b>	<b>A</b>	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.	

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



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## Flood Damage Reduction Segment / System Inspection Report Genesee River - Right Bank and Dyke

Levee Embankments  
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# Levee Embankments

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
Closures) (A or U only)		<b>U</b>	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.	
		<b>N/A</b>	There are no closure structures along this component of the FDR segment / system.	
5. Slope Stability	<b>A</b>	<b>A</b>	No slides, sloughs, tension cracking, slope depressions, or bulges are present.	
		<b>M</b>	Minor slope stability problems that do not pose an immediate threat to the levee embankment.	
		<b>U</b>	Major slope stability problems (ex. deep seated sliding) identified that must be repaired to reestablish the integrity of the levee embankment.	
6. Erosion/ Bank Caving	<b>A</b>	<b>A</b>	No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability.	
		<b>M</b>	There are areas where minor erosion is occurring or has occurred on or near the levee embankment, but levee integrity is not threatened.	
		<b>U</b>	Erosion or caving is occurring or has occurred that threatens the stability and integrity of the levee. The erosion or caving has progressed into the levee section or into the extended footprint of the levee foundation and has compromised the levee foundation stability.	
7. Settlement <sup>2</sup>	<b>A</b>	<b>A</b>	No observed depressions in crown. Records exist and indicate no unexplained historical changes.	
		<b>M</b>	Minor irregularities that do not threaten integrity of levee. Records are incomplete or inclusive.	
		<b>U</b>	Obvious variations in elevation over significant reaches. No records exist or records indicate that design elevation is compromised.	
8. Depressions/ Rutting	<b>M</b>	<b>A</b>	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.	N21R_2013_a_0003: Station_1 0+00: 6' x 4' depression.: Repair depression (M)
		<b>M</b>	There are some infrequent minor depressions less than 6 inches deep in the levee crown, embankment, or access roads that will pond water.	
		<b>U</b>	There are depressions greater than 6 inches deep that will pond water.	
9. Cracking	<b>A</b>	<b>A</b>	Minor longitudinal, transverse, or desiccation cracks with no vertical movement along the crack. No cracks extend continuously through the levee crest.	
		<b>M</b>	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.	

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# Levee Embankments

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
		<b>U</b>	Cracks exceed 6 inches in depth. Longitudinal cracks are longer than the height of the levee and/or exhibit vertical movement along the crack. Transverse cracks extend through the entire levee width.	
10. Animal Control	<b>A</b>	<b>A</b>	Continuous animal burrow control program in place that includes the elimination of active burrowing and the filling in of existing burrows.	
		<b>M</b>	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.	
		<b>U</b>	Animal burrow control program is not effective or is nonexistent. Significant maintenance is required to fill existing burrows, and the levee will not provide reliable flood protection until this maintenance is complete.	
11. Culverts/ Discharge Pipes <sup>3</sup> (This item includes both concrete and corrugated metal pipes.)	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no discharge pipes/ culverts.	
12. Riprap Revetments &	<b>A</b>	<b>A</b>	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.	

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# Levee Embankments

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

Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
Bank Protection		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.	
13. Revetments other than Riprap	<b>A</b>	<b>A</b>	Existing revetment protection is properly maintained, undamaged, and clearly visible.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no such revetments protecting this feature of the segment / system.	
14. Underseepage Relief Wells/ Toe Drainage Systems	<b>NA</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no relief wells/ toe drainage systems along this component of the FDR segment / system.	
15. Seepage	<b>A</b>	<b>A</b>	No evidence or history of unrepaired seepage, saturated areas, or boils.	
		<b>M</b>	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.	
		<b>U</b>	Evidence or history of active seepage, extensive saturated areas, or boils.	

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<sup>1</sup> If there is significant growth on the levee that inhibits the inspection of animal burrows or other items, the inspection should be ended until this item is corrected.

<sup>2</sup> Detailed survey elevations are normally required during Periodic Inspections, and whenever there are obvious visual settlements.

<sup>3</sup> The decision on whether or not USACE inspectors should enter a pipe to perform a detailed inspection must be made at the USACE District level. This decision should be made in conjunction with the District Safety Office, as pipes may be considered confined spaces. This decision should consider the age of the pipe, the diameter of the pipe, the apparent condition of the pipe, and the length of the pipe. If a pipe is entered for the purposes of inspection, the inspector should record observations with a video camera in order that the condition of the entire pipe, including all joints, can later be assessed. Additionally, the video record provides a baseline to which future inspections can be compared.

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 <p>N 42° 06' 43" W 77° 56' 26"</p> <p>9/24/2013 2:06:05 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0007 <b>Title:</b> USACE_CELRB_N21R_2013_a_0007_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Unwanted vegetation on the riverside; Station_1: 0+00; Station_2: 0+00</p>
 <p>N 42° 07' 13" W 77° 56' 08"</p> <p>9/24/2013 2:25:15 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0027 <b>Title:</b> USACE_CELRB_N21R_2013_a_0027_1.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; <b>Remarks:</b> Unwanted vegetation trees on levee bank; Station_1: 35+00; Station_2: 35+00</p>



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	<p><b>Inspect ID:</b> N21R_2013_a_0027 <b>Title:</b> USACE_CELRB_N21R_2013_a_0027_2.jpg <b>Rated Item:</b> 1. Unwanted Vegetation Growth <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation trees on levee bank; Station_1: 35+00; Station_2: 35+00</p>
	<p><b>Inspect ID:</b> N21R_2013_a_0030 <b>Title:</b> USACE_CELRB_N21R_2013_a_0030_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Log debris in channel; Station_1: 35+00</p>



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 <p>N 42° 07' 31" W 77° 57' 41" 9/24/2013 3:33:57 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0083 <b>Title:</b> USACE_CELRB_N21R_2013_a_0083_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Fence with vegetation; Station_1: 74+00</p>
 <p>N 42° 06' 42" W 77° 56' 28" 9/24/2013 2:03:58 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0003 <b>Title:</b> USACE_CELRB_N21R_2013_a_0003_1.jpg <b>Rated Item:</b> 8. Depressions/ Rutting <b>Caption:</b> Rating: Minimally Acceptable; Remarks: 6' x 4' depression.; Station_1: 0+00</p>



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# Flood Damage Reduction Channels

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
1. Vegetation and Obstructions	<b>U</b>	<b>A</b>	No obstructions, vegetation, debris, or sediment accumulation within the channel. Concrete channel joints and weep holes are free of grass and weeds.	N21R_2013_a_0031: Station_1 32+00: Station_2 35+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U)
		<b>M</b>	Obstructions (including log jams), vegetation, debris, or sediment are minor and have not impaired channel flow capacity, but should be removed. Sediment shoals have not developed to the extent that they can support vegetation other than non-aquatic grasses. A limited volume of grass and weeds may be present in concrete channel joints and weep holes.	N21R_2013_a_0039: Station_1 28+00: Station_2 35+00: Unwanted vegetation on left bank: Remove unwanted vegetation (U)
		<b>U</b>	Obstructions (including log jams), vegetation, debris or sediment have impaired the channel flow capacity. Sediment shoals are well established and support woody and/or brushy vegetation. Sediment and debris removal required to re-establish flow capacity.	N21R_2013_a_0040: Station_1 35+00: Station_2 28+00: Unwanted vegetation on right bank: Remove unwanted vegetation (U) N21R_2013_a_0043: Station_1 24+00: Station_2 22+00: Unwanted vegetation on both banks: Remove unwanted vegetation (U) N21R_2013_a_0044: Station_1 27+00: Station_2 24+00: Unwanted vegetation on right bank: Remove unwanted vegetation (U) N21R_2013_a_0058: Station_1 17+00: Unwanted vegetation in riprap on LB: Remove unwanted vegetation (U) N21R_2013_a_0060: Station_1 22+00: Station_2 18+00: Heavy unwanted vegetation both banks: Remove unwanted vegetation (U) N21R_2013_a_0066: Station_1 18+00: Debris on upstream face of bridge abutment.: Remove debris (M) N21R_2013_a_0071: Station_1 11+00: Debris on upstream face of bridge abutment.: Remove debris (M) N21R_2013_a_0092: Station_1 71+00: Station_2 68+00: Unwanted vegetation in riprap: Remove unwanted vegetation (U) N21R_2013_a_0097: Station_1 66+00: Unwanted vegetation in riprap: Remove unwanted vegetation (M) N21R_2013_a_0100: Station_1 65+00: Unwanted vegetation in riprap on RB: Remove unwanted vegetation (U)
2. Shoaling <sup>1</sup> (sediment deposition)	<b>U</b>	<b>A</b>	No shoaling or minor, non-vegetated shoaling is present.	N21R_2013_a_0029: Station_1 35+00: Station_2 35+00: Shoaling along right bank: Remove shoaling (M)
		<b>M</b>	More widespread vegetated and non-vegetated shoaling is present. Non-aquatic grasses are present on shoal. No trees or brush is present on shoal, and channel flow is not significantly reduced. Sediment and debris removal recommended.	N21R_2013_a_0036: Station_1 34+00: Shoal in channel: Remove shoal (M)
		<b>U</b>	Shoaling is well established, stabilized by saplings, brush, or other vegetation. Shoals are diverting flow to channel walls. Channel flow capacity is reduced and maintenance is required.	N21R_2013_a_0038: Station_1 29+00: Station_2 32+00: Shoaling along left bank: Remove shoal (M) N21R_2013_a_0045: Station_1 29+00: Station_2 25+00: Shoaling in channel: Remove shoaling (U) N21R_2013_a_0065: Station_1 12+00: Shoal in channel:

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
				Remvove shoal (M) N21R_2013_a_0072: Station_1 11+00: Shoaling in drainage channel to Dyke creek: Remove shoaling (U) N21R_2013_a_0080: Station_1 11+00: Station_2 2+00: Shoaling on both banks: Remove shoaling (M)
3. Encroachments	<b>U</b>	<b>A</b>	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 channel.	N21R_2013_a_0041: Station_1 24+00: Outfall covered with vegetation: Remove vegetation (U)
		<b>M</b>	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.	
		<b>U</b>	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the channel.	
4. Erosion	<b>A</b>	<b>A</b>	No head cutting or horizontal deviation observed.	
		<b>M</b>	Head cutting and horizontal deviation evident, but is less than 1 foot from the designed grade or cross section.	
		<b>U</b>	Head cutting and horizontal deviation of more than 1 foot from the designed grade or cross section. Corrective actions required to stop or slow erosion.	
5. Concrete Surfaces	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
6. Tilting, Sliding or Settlement of Concrete Structures <sup>2</sup>	<b>A</b>	<b>A</b>	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	
		<b>M</b>	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.	

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
7. Foundation of Concrete Structures <sup>3</sup>	<b>A</b>	<b>A</b>	No active erosion, scouring, or bank caving that might endanger the structure's stability.	
		<b>M</b>	There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. For the purposes of inspection, the erosion or scour is not closer to the riverside face of the wall than twice the floodwall's underground base width if the wall is of L-wall or T-wall construction; or if the wall is of sheetpile or I-wall construction, the erosion is not closer than twice the wall's visible height. Additionally, rate of erosion is such that the wall is expected to remain stable until the next inspection.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
8. Slab and Monolith Joints	<b>A</b>	<b>A</b>	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.	
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no concrete items in the channel.	
9. Flap Gates/ Flap Valves/	<b>M</b>	<b>A</b>	Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required.	N21R_2013_a_0049: Station_1 22+00: 24"CMP flap gate damaged: Repair flapgate (M)

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Rated Item	Rating	Rating Guidelines		Location/Remarks/Recommendations
Pinch Valves <sup>4</sup>		<b>M</b>	Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance.	N21R_2013_a_0076: Station_1 8+00: 18" CMP flap gate pipe separated: Repair flap gate (M)
		<b>U</b>	Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced.	
		<b>N/A</b>	There are no flap gates.	
10. Riprap Revetments & Banks	<b>M</b>	<b>A</b>	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.	N21R_2013_a_0050: Station_1 22+00: Missing or covered riprap: Uncover or replace riprap (M)
		<b>M</b>	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.	N21R_2013_a_0051: Station_1 22+00: Missing or covered riprap: Uncover or replace riprap (M)
		<b>U</b>	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.	
		<b>N/A</b>	There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section.	
11. Revetments other than Riprap	<b>M</b>	<b>A</b>	Existing revetment protection is properly maintained, undamaged, and clearly visible.	N21R_2013_a_0057: Station_1 12+00: Station_2 18+00: Unwanted vegetation in concrete: Remove unwanted vegetation (U) N21R_2013_a_0077: Station_1 6+00: Unwanted vegetation between concrete joints both banks: Remove unwanted vegetation (M)
		<b>M</b>	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.	
		<b>U</b>	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.	
		<b>N/A</b>	There are no such revetments protecting this feature of the segment / system.	

<sup>1</sup> If weather and flow conditions allow, inspectors should walk in the channel and probe shoal areas in order to estimate extent of blockage of the cross-sectional area where shoaling is present.

<sup>2</sup> The sponsor should be monitoring any observed movement to verify whether the movement is active or inactive.

<sup>3</sup> Inspectors must have as-built drawings available during the inspection so that the lateral distance to the heel and toe of the floodwalls can be determined in the field.

<sup>4</sup> Proper operation of this item must be demonstrated during the inspection.

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 <p>N 42° 07' 12" W 77° 56' 08"</p> <p>9/24/2013 2:28:14 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0031 <b>Title:</b> USACE_CELRB_N21R_2013_a_0031_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 32+00; Station_2: 35+00</p>
 <p>N 42° 07' 13" W 77° 56' 17"</p> <p>9/24/2013 2:38:20 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0039 <b>Title:</b> USACE_CELRB_N21R_2013_a_0039_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation on left bank; Station_1: 28+00; Station_2: 35+00</p>



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 <p>N 42° 07' 13" W 77° 56' 17"</p> <p>9/24/2013 2:37:37 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0039 <b>Title:</b> USACE_CELRB_N21R_2013_a_0039_2.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation on left bank; Station_1: 28+00; Station_2: 35+00</p>
 <p>N 42° 07' 13" W 77° 56' 17"</p> <p>9/24/2013 2:37:37 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0040 <b>Title:</b> USACE_CELRB_N21R_2013_a_0040_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation on right bank; Station_1: 35+00; Station_2: 28+00</p>



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 <p>N 42° 07' 09" W 77° 56' 24"</p> <p>9/24/2013 2:43:50 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0043 <b>Title:</b> USACE_CELRB_N21R_2013_a_0043_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation on both banks; Station_1: 24+00; Station_2: 22+00</p>
 <p>N 42° 07' 09" W 77° 56' 24"</p> <p>9/24/2013 2:43:40 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0044 <b>Title:</b> USACE_CELRB_N21R_2013_a_0044_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation on right bank; Station_1: 27+00; Station_2: 24+00</p>



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**Inspect ID:** N21R\_2013\_a\_0058 **Title:** USACE\_CELRB\_N21R\_2013\_a\_0058\_1.jpg  
**Rated Item:** 1. Vegetation and Obstructions **Caption:** Rating: Unacceptable; Remarks: Unwanted vegetation in riprap on LB; Station\_1: 17+00



**Inspect ID:** N21R\_2013\_a\_0060 **Title:** USACE\_CELRB\_N21R\_2013\_a\_0060\_1.jpg  
**Rated Item:** 1. Vegetation and Obstructions **Caption:** Rating: Unacceptable; Remarks: Heavy unwanted vegetation both banks; Station\_1: 22+00; Station\_2: 18+00



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 <p>N 42° 07' 04" W 77° 56' 28" 9/24/2013 2:54:07 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0066 <b>Title:</b> USACE_CELRB_N21R_2013_a_0066_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Debris on upstream face of bridge abutment.; Station_1: 18+00</p>
 <p>N 42° 07' 03" W 77° 56' 36" 9/24/2013 3:05:47 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0071 <b>Title:</b> USACE_CELRB_N21R_2013_a_0071_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Debris on upstream face of bridge abutment.; Station_1: 11+00</p>





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	<p><b>Inspect ID:</b> N21R_2013_a_0092 <b>Title:</b> USACE_CELRB_N21R_2013_a_0092_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap; Station_1: 71+00; Station_2: 68+00</p>
	<p><b>Inspect ID:</b> N21R_2013_a_0097 <b>Title:</b> USACE_CELRB_N21R_2013_a_0097_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Unwanted vegetation in riprap; Station_1: 66+00</p>





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 <p>N 42° 07' 18" W 77° 57' 10" 9/24/2013 3:43:27 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0100 <b>Title:</b> USACE_CELRB_N21R_2013_a_0100_1.jpg <b>Rated Item:</b> 1. Vegetation and Obstructions <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in riprap on RB; Station_1: 65+00</p>
 <p>N 42° 07' 13" W 77° 56' 09" 9/24/2013 2:27:45 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0029 <b>Title:</b> USACE_CELRB_N21R_2013_a_0029_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Shoaling along right bank; Station_1: 35+00; Station_2: 35+00</p>



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Genesee River - Right Bank and Dyke

Flood Damage Reduction Channels  
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## Flood Damage Reduction Channels

For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

 <p>N 42° 07' 13" W 77° 56' 13" 9/24/2013 2:32:20 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0036 <b>Title:</b> USACE_CELRB_N21R_2013_a_0036_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Shoal in channel; Station_1: 34+00</p>
 <p>N 42° 07' 13" W 77° 56' 17" 9/24/2013 2:37:36 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0038 <b>Title:</b> USACE_CELRB_N21R_2013_a_0038_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Shoaling along left bank; Station_1: 29+00; Station_2: 32+00</p>



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## Flood Damage Reduction Channels

For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

 <p>N 42° 07' 09" W 77° 56' 24"</p> <p>9/24/2013 2:45:58 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0045 <b>Title:</b> USACE_CELRB_N21R_2013_a_0045_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Unacceptable; <b>Remarks:</b> Shoaling in channel; Station_1: 29+00; Station_2: 25+00</p>
 <p>N 42° 07' 03" W 77° 56' 35"</p> <p>9/24/2013 3:03:20 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0065 <b>Title:</b> USACE_CELRB_N21R_2013_a_0065_1.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; <b>Remarks:</b> Shoal in channel; Station_1: 12+00</p>



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## Flood Damage Reduction Channels

For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels



**Inspect ID:** N21R\_2013\_a\_0072 **Title:** USACE\_CELRB\_N21R\_2013\_a\_0072\_1.jpg

**Rated Item:** 2. Shoaling (sediment deposition) **Caption:** Rating: Unacceptable;

Remarks: Shoaling in drainage channel to Dyke creek; Station\_1: 11+00



**Inspect ID:** N21R\_2013\_a\_0080 **Title:** USACE\_CELRB\_N21R\_2013\_a\_0080\_1.jpg

**Rated Item:** 2. Shoaling (sediment deposition) **Caption:** Rating: Minimally Acceptable;

Remarks: Shoaling on both banks; Station\_1: 11+00; Station\_2: 2+00





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## Flood Damage Reduction Channels

For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

 <p>N 42° 07' 05" W 77° 56' 43" 9/24/2013 3:22:58 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0080 <b>Title:</b> USACE_CELRB_N21R_2013_a_0080_2.jpg <b>Rated Item:</b> 2. Shoaling (sediment deposition) <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Shoaling on both banks; Station_1: 11+00; Station_2: 2+00</p>
 <p>N 42° 07' 09" W 77° 56' 24" 9/24/2013 2:44:40 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0041 <b>Title:</b> USACE_CELRB_N21R_2013_a_0041_1.jpg <b>Rated Item:</b> 3. Encroachments <b>Caption:</b> Rating: Unacceptable; Remarks: Outfall covered with vegetation; Station_1: 24+00</p>



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Flood Damage Reduction Segment / System  
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Genesee River - Right Bank and Dyke

Flood Damage Reduction Channels  
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## Flood Damage Reduction Channels

For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

 <p>N 42° 07' 04" W 77° 56' 29" 9/24/2013 2:58:00 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0057 <b>Title:</b> USACE_CELRB_N21R_2013_a_0057_1.jpg <b>Rated Item:</b> 11. Revetments other than Riprap <b>Caption:</b> Rating: Unacceptable; Remarks: Unwanted vegetation in concrete; Station_1: 12+00; Station_2: 18+00</p>
 <p>N 42° 07' 05" W 77° 56' 43" 9/24/2013 3:21:12 PM</p>	<p><b>Inspect ID:</b> N21R_2013_a_0077 <b>Title:</b> USACE_CELRB_N21R_2013_a_0077_1.jpg <b>Rated Item:</b> 11. Revetments other than Riprap <b>Caption:</b> Rating: Minimally Acceptable; Remarks: Unwanted vegetation between concrete joints both banks; Station_1: 6+00</p>



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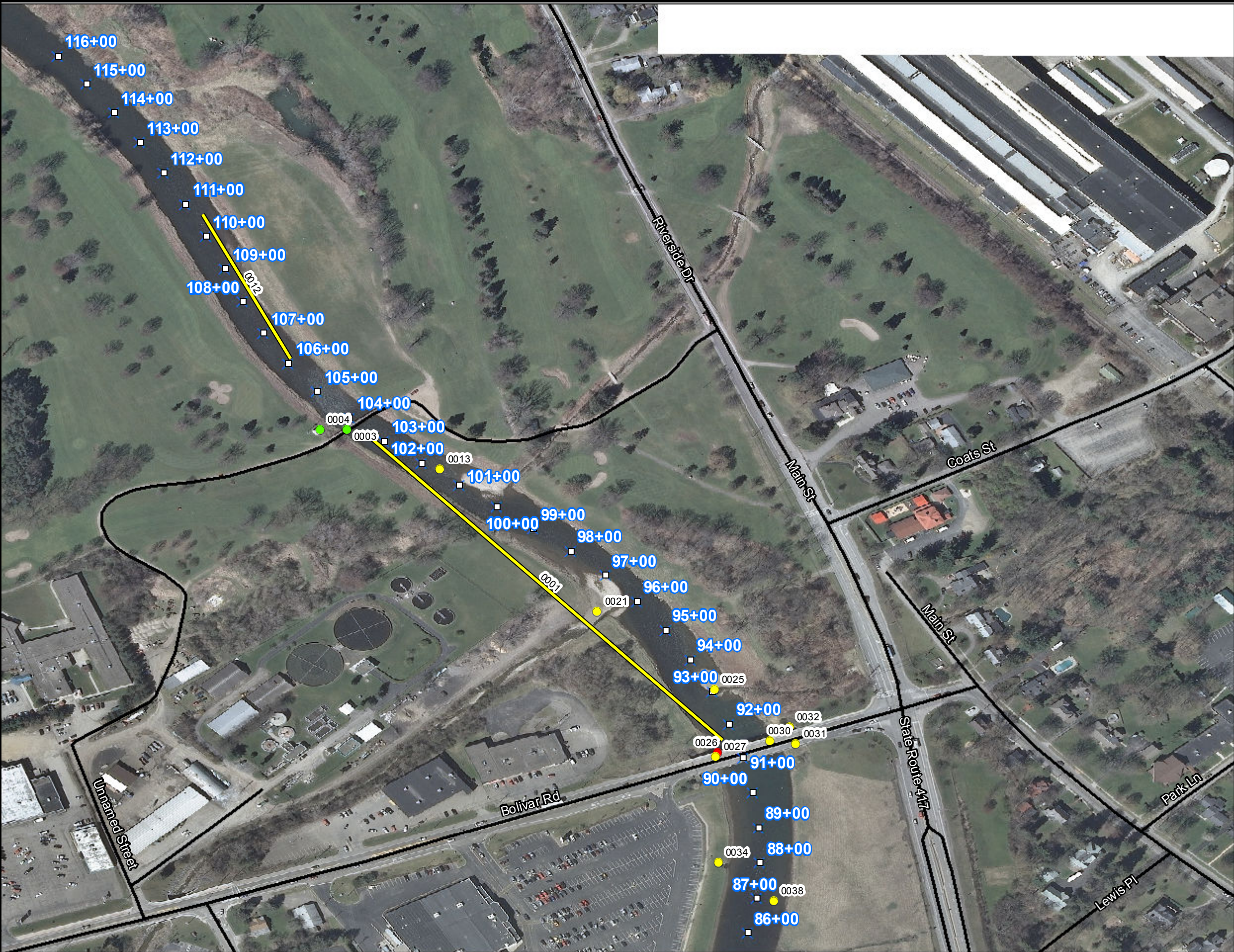
Flood Damage Reduction Segment / System  
Inspection Report  
Genesee River - Right Bank and Dyke

Flood Damage Reduction Channels  
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## Attachment E – Deficiency Location Maps





### Levee Inspection Map

**Genesee River - Left Bank and Channel, Wellsville**

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix: USACE\_CELRB\_N21L\_2013\_a  
Map created: 02 October 2014

**Observation Points**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

**Observation Lines**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

0 310 620 Feet

US Army Corps of Engineers

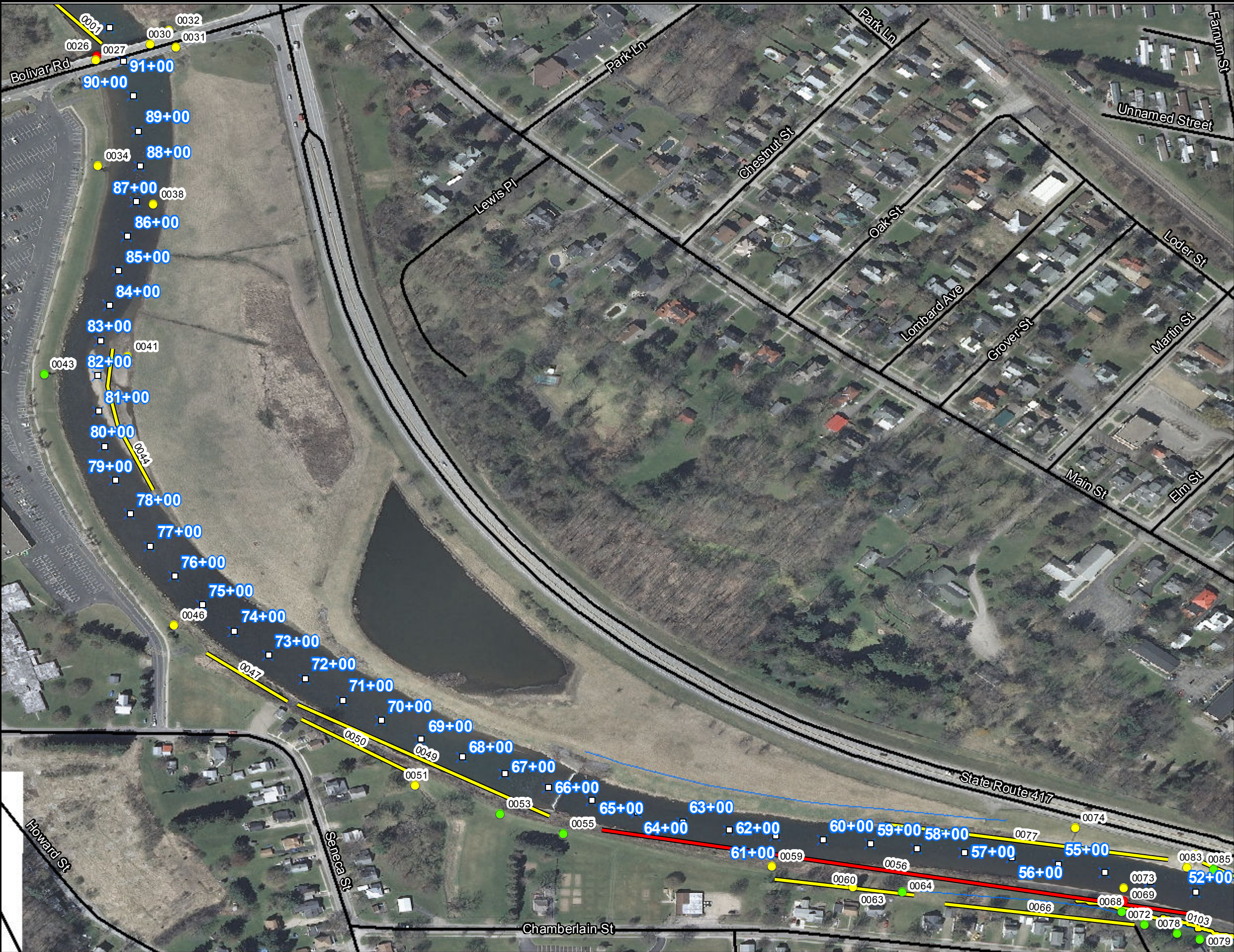
N

Allegany New York

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Potter Pennsylvania





# Levee Inspection Map

## Genesee River - Left Bank and Channel, Wellsville

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix:  
USACE\_CELRB\_N21L\_2013\_a  
Map created: 02 October 2014

### Observation Points

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

### Observation Lines

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

0 310 620 Feet



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of Engineers

N

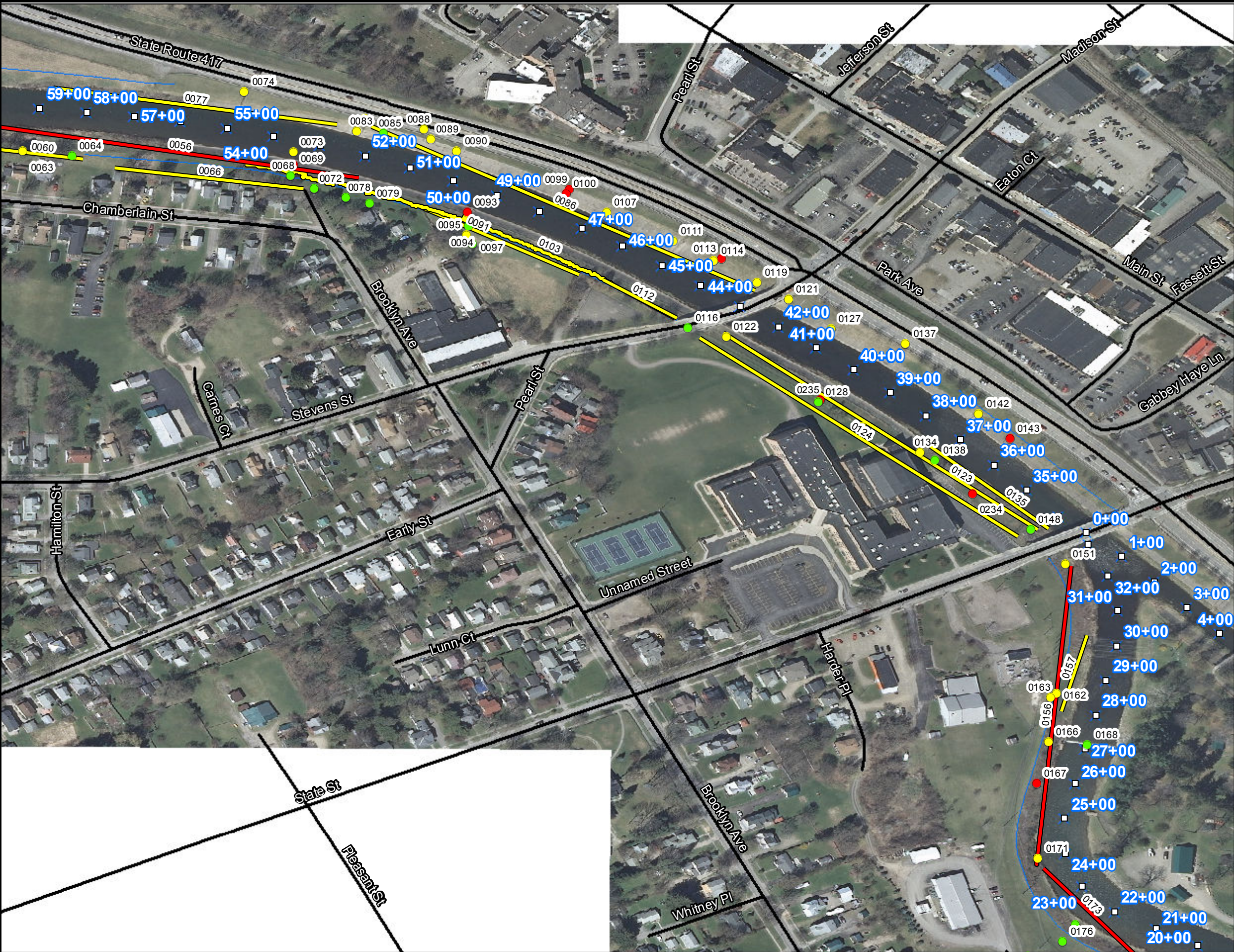


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## Levee Inspection Map

### Genesee River - Left Bank and Channel, Wellsville

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix:  
USACE\_CELRB\_N21L\_2013\_a  
Map created: 02 October 2014

#### Observation Points

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

#### Observation Lines

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

0 310 620 Feet



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New York

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Potter

Pennsylvania





### Levee Inspection Map

**Genesee River - Left Bank and Channel, Wellsville**

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix: USACE\_CELRB\_N21L\_2013\_a  
Map created: 02 October 2014

**Observation Points**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

**Observation Lines**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

0 310 620 Feet

US Army Corps of Engineers

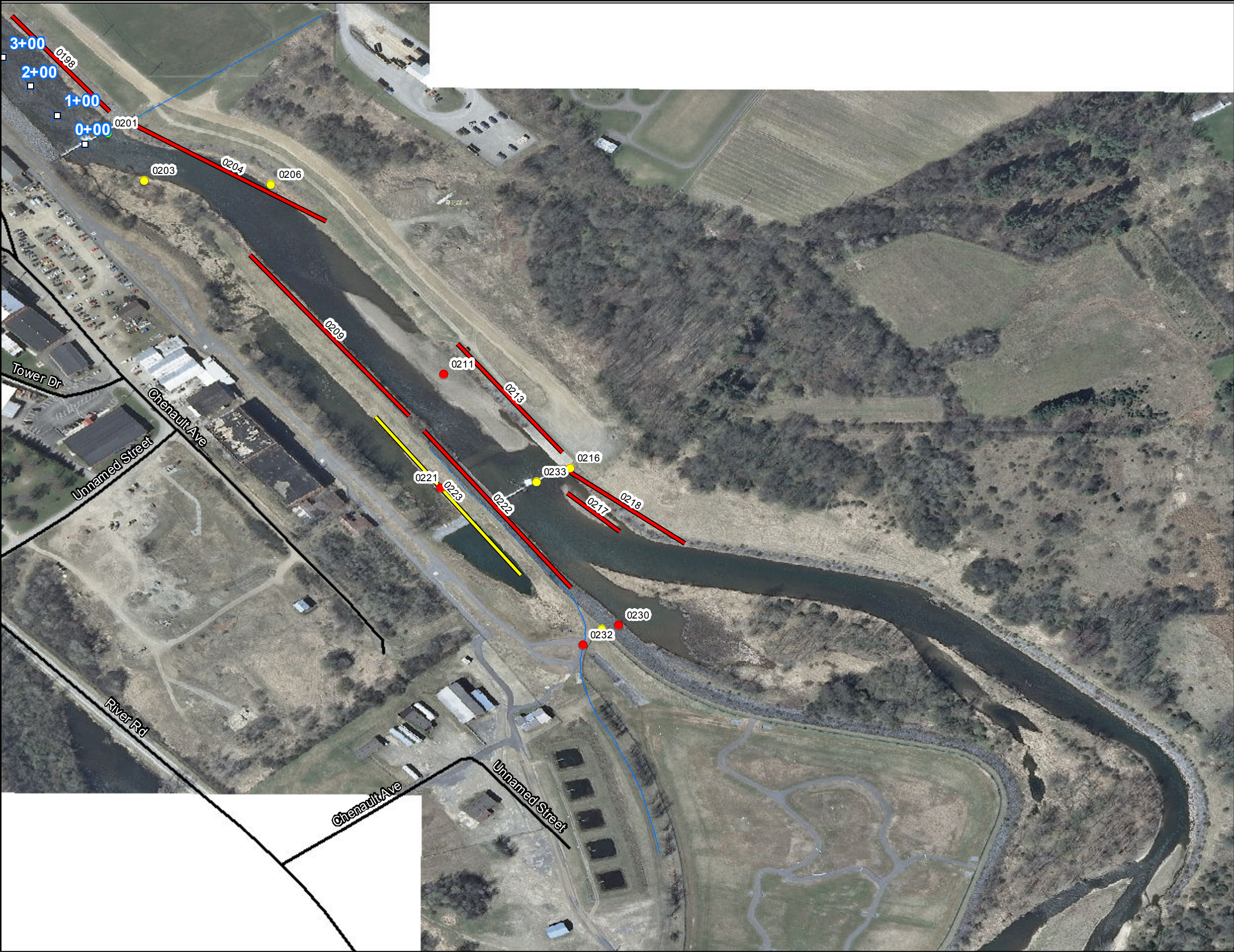
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Allegany New York

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Potter Pennsylvania





**Levee Inspection Map**

**Genesee River - Left Bank and Channel, Wellsville**

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix:  
USACE\_CELRB\_N21L\_2013\_a  
Map created: 02 October 2014

- Observation Points**
- Acceptable
  - Minimally Acceptable
  - Unacceptable
  - Not Applicable
- Observation Lines**
- Acceptable
  - Minimally Acceptable
  - Unacceptable
  - Not Applicable

0 310 620 Feet



Allegany New York



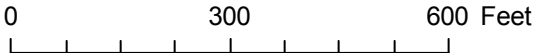


**Levee Inspection Map**

**Genesee River - Right Bank and Dyke Creek, Wellsville**

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix:  
USACE\_CELRB\_N21R\_2013\_a  
Map created: 02 October 2014

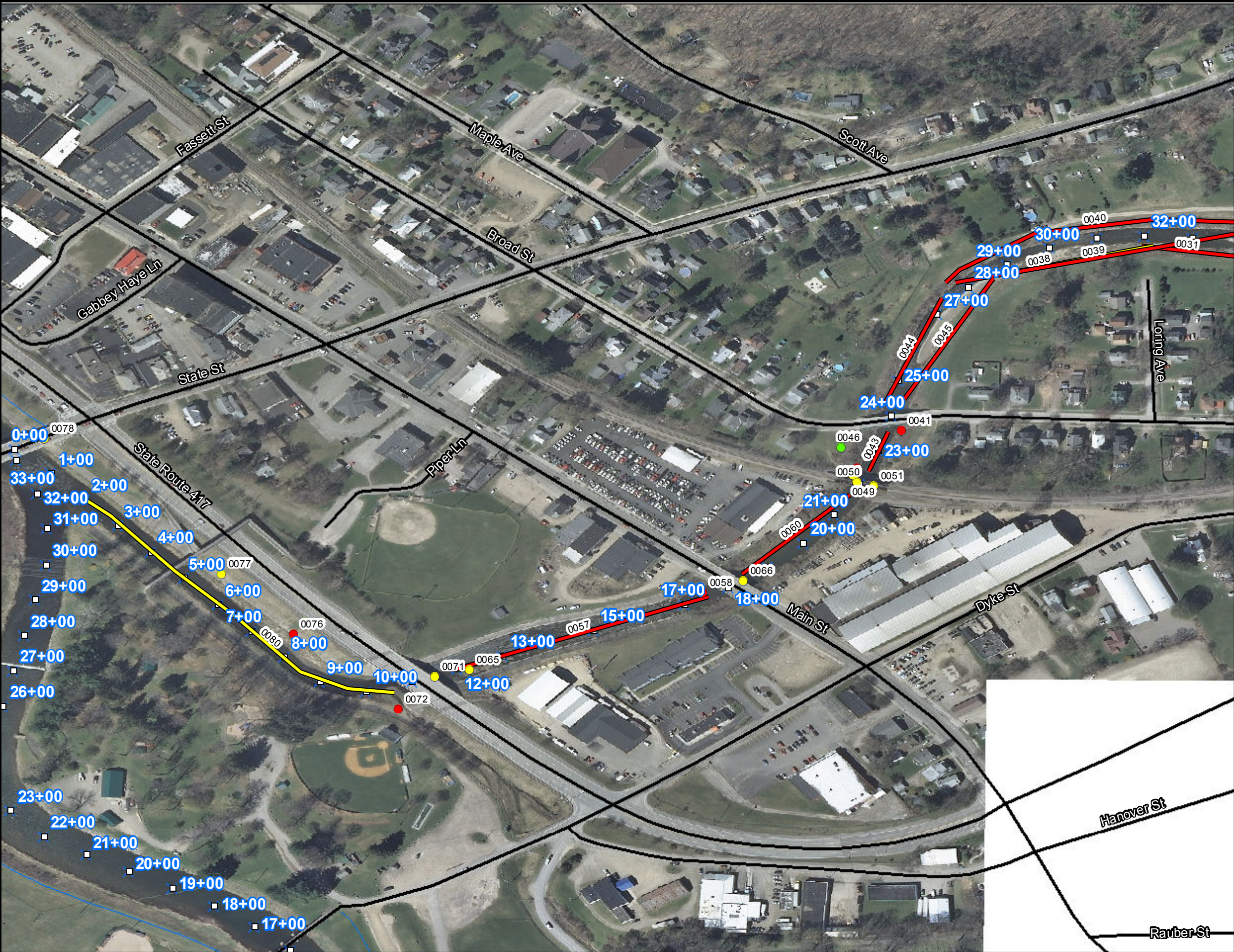
- Observation Points**
- Acceptable
  - Minimally Acceptable
  - Unacceptable
  - Not Applicable
- Observation Lines**
- Acceptable
  - Minimally Acceptable
  - Unacceptable
  - Not Applicable



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# Levee Inspection Map

## Genesee River - Right Bank and Dyke Creek, Wellsville

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix: USACE\_CELRB\_N21R\_2013\_a  
Map created: 02 October 2014

### Observation Points

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

### Observation Lines

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

0 300 600 Feet



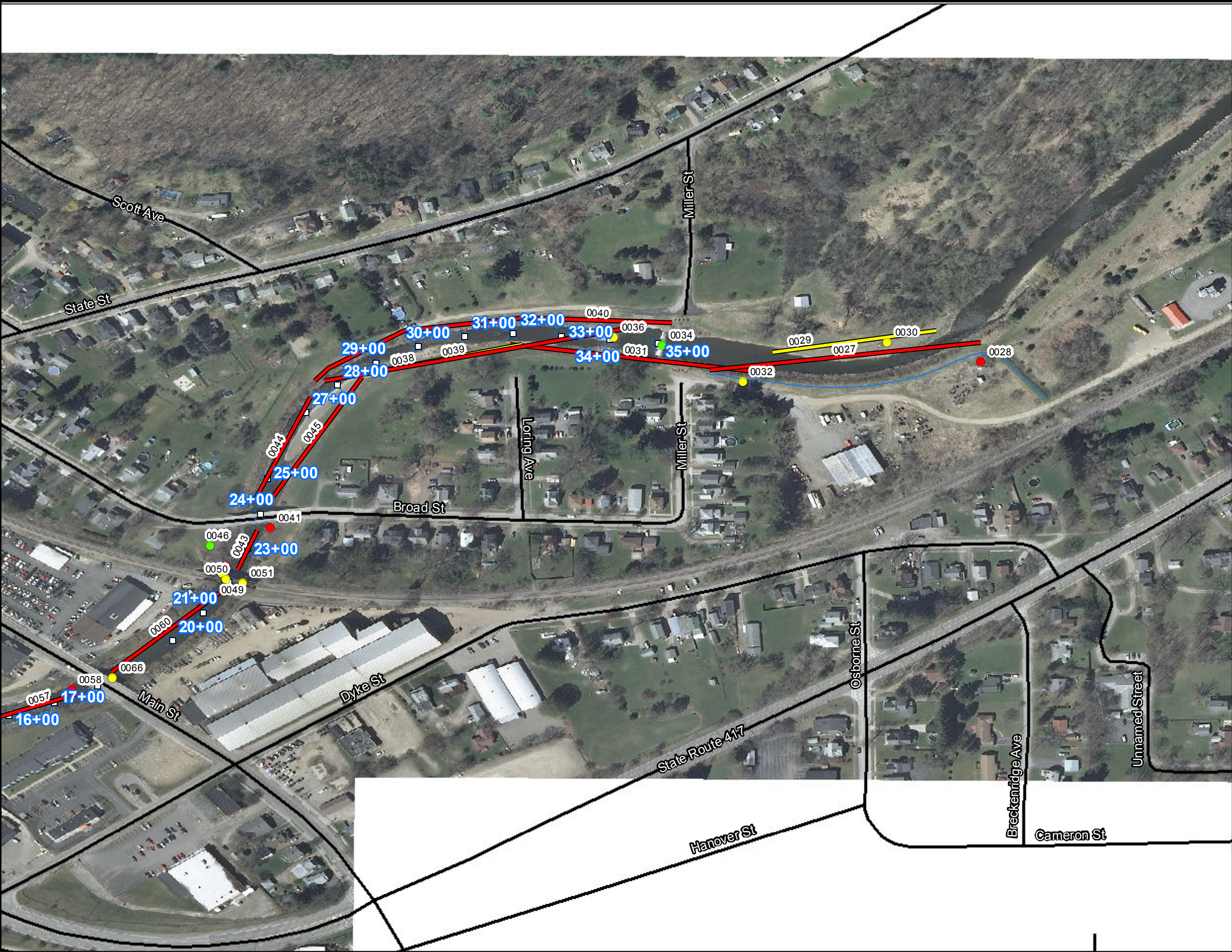
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### Levee Inspection Map

**Genesee River - Right Bank and Dyke Creek, Wellsville**

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix: USACE\_CELRB\_N21R\_2013\_a  
Map created: 02 October 2014

**Observation Points**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

**Observation Lines**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

0 300 600 Feet

US Army Corps of Engineers

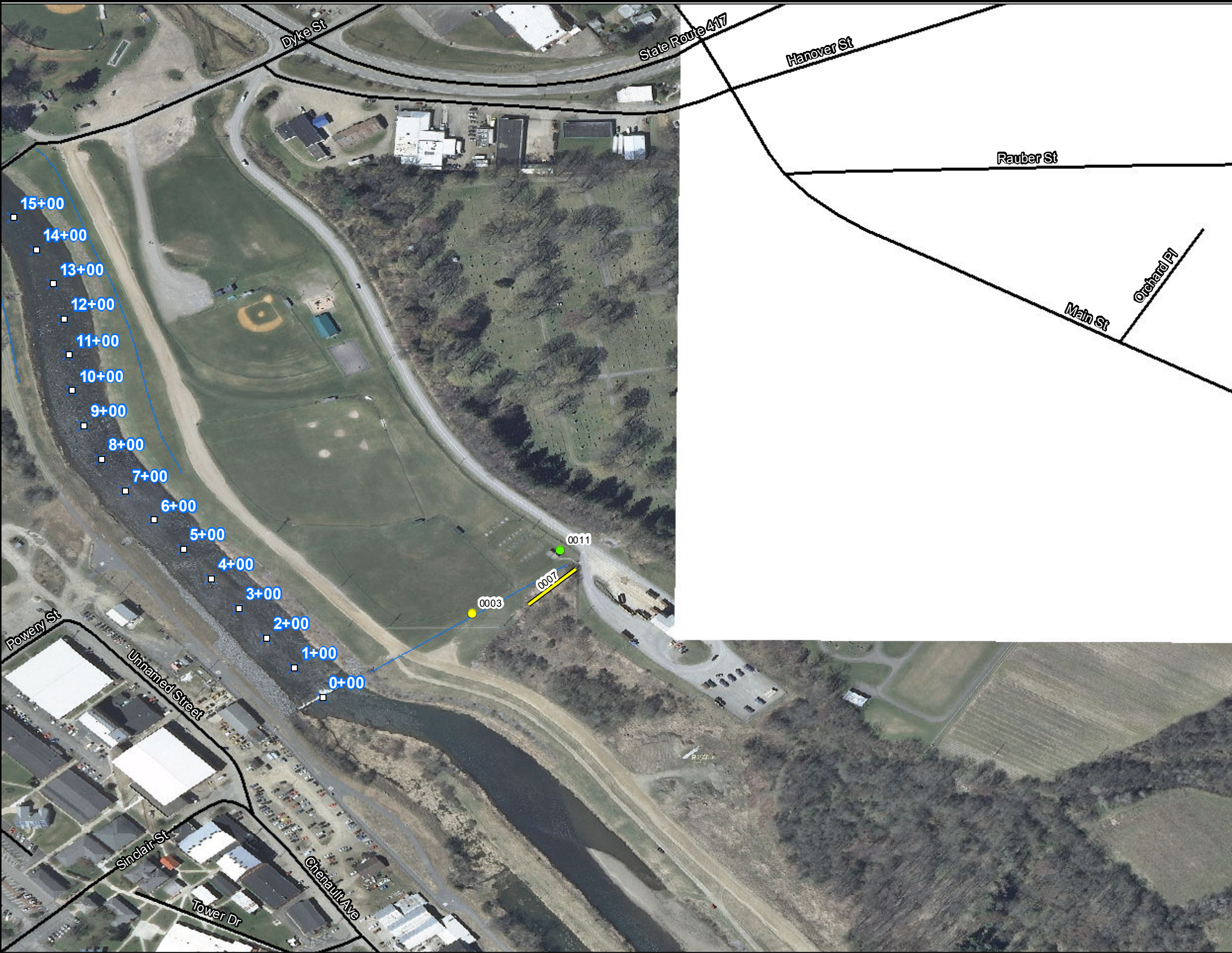
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Allegany New York

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Potter Pennsylvania





### Levee Inspection Map

**Genesee River - Right Bank and Dyke Creek, Wellsville**

Location: Wellsville, NY  
Year/cycle: 2013 a  
Inspection type: Routine  
Inspected by: D. Bennett  
Inspection date(s): Sep. 24, 2013  
Observation ID prefix: USACE\_CELRB\_N21R\_2013\_a  
Map created: 02 October 2014

**Observation Points**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

**Observation Lines**

- Acceptable
- Minimally Acceptable
- Unacceptable
- Not Applicable

0 300 600 Feet

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N

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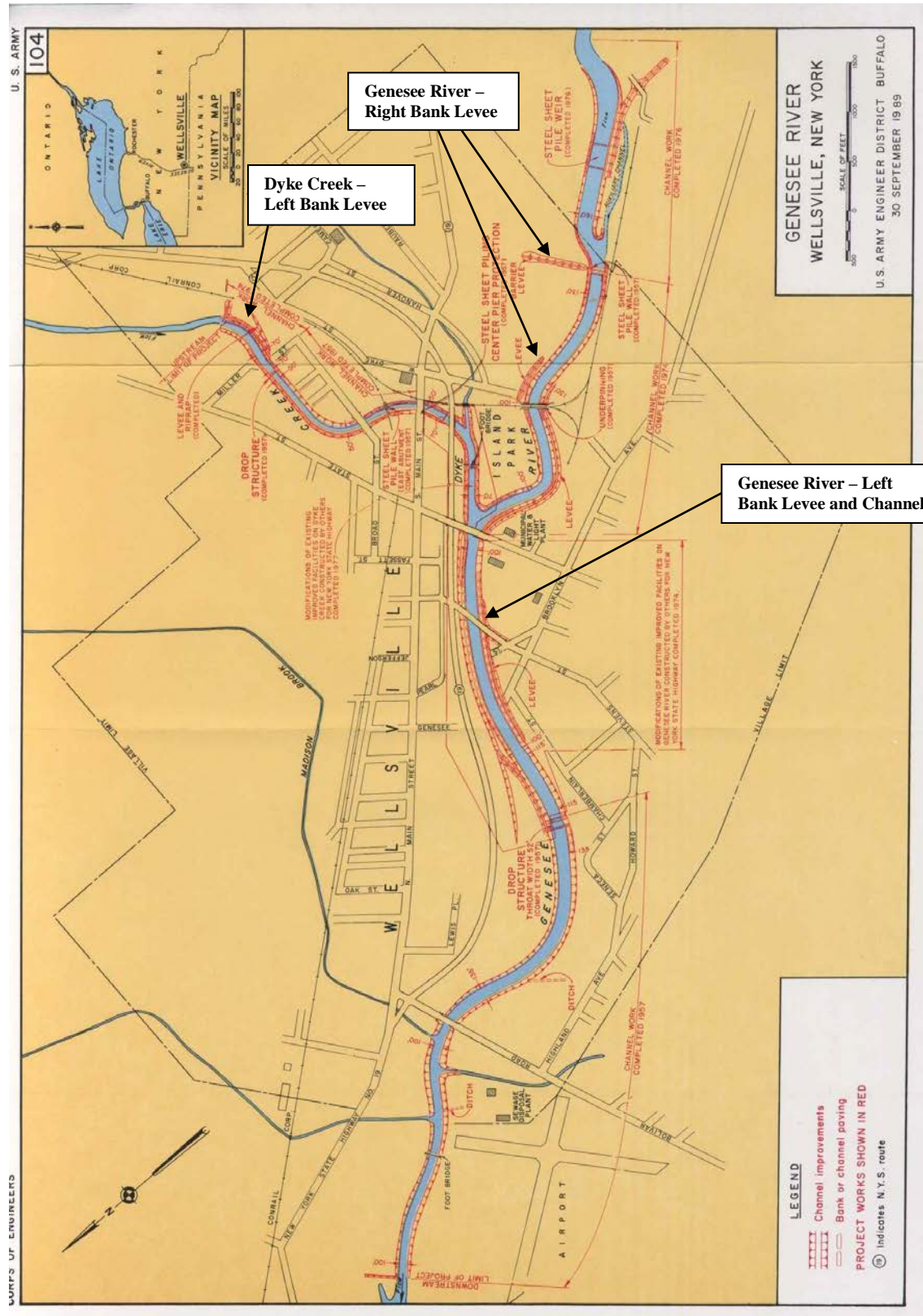
Potter Pennsylvania



## Attachment F – Project Map

Subject: FY13 Joint Routine Inspection of Completed Works, Flood Damage Reduction Project, Genesee River and Dyke Creek, Wellsville, New York 09/24/13

Attachment “F” – Project Map



Attachment G – Sponsor Request –  
Existing Unauthorized Modification



**SUBJECT: Sponsor Request - Existing Unauthorized Modification to  
USACE – Buffalo District Inspection of Completed Works Project**

To: Robert W. Remmers, P.E., PMP  
Levee Safety Program Manager  
U.S. Army Corps of Engineers, Buffalo District  
1776 Niagara St.  
Buffalo, NY 14207  
Phone: (716) 879-4277  
E-Mail: [robert.w.remmers@usace.army.mil](mailto:robert.w.remmers@usace.army.mil)

Name of Federal Inspection of Completed Works Project:

---

Sponsor's Organization:

---

Sponsor's Point of Contact Information:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

**1. General:** The above sponsor requests after-the-fact U.S. Army Corps of Engineers (USACE) review and approval of the existing unauthorized modification as described below.

**2. Brief description or scope of work of modification:**

**SUBJECT: Sponsor Request - Existing Unauthorized Modification to  
USACE – Buffalo District Inspection of Completed Works Project**

3. **Purpose of modification:**

---

4. **Approx. timeframe that work was performed (Mo./Yr. to Mo./Yr.):**

---

5. **Property name, description, and address (if applicable):**

---

6. **Location of modification (Body of Water, Bank, Approximate Stationing, Nearby Streets, etc.):**

---

7. **Potential Impacts to project by modification:** Is this modification, in the Sponsor's opinion, impacting any of the following?

a. Reliability of the project to function as designed?

Yes \_\_\_\_\_

No \_\_\_\_\_

Comments:

---

**SUBJECT: Sponsor Request - Existing Unauthorized Modification to  
USACE – Buffalo District Inspection of Completed Works Project**

b. Sponsor's and/or USACE's ability to adequately inspect the project during normal conditions?

Yes \_\_\_\_

No \_\_\_\_

Comments:

---

c. Sponsor's and/or USACE's ability to adequately inspect the project during potential or actual flood conditions?

Yes \_\_\_\_

No \_\_\_\_

Comments:

---

d. Sponsor's ability to adequately operate and maintain the project?

Yes \_\_\_\_

No \_\_\_\_

Comments:

---

e. Sponsor's ability to conduct flood fighting operations during an emergency?

Yes \_\_\_\_

No \_\_\_\_

Comments:



**SUBJECT: Sponsor Request - Existing Unauthorized Modification to  
USACE – Buffalo District Inspection of Completed Works Project**

f. Has the modification affected the structural or geotechnical integrity of project components (including stability, embankment or floodwall strength, seepage, sideslopes, etc.)?

Yes \_\_\_\_

No \_\_\_\_

Comments:

---

g. Has the modification had adverse impacts on the hydraulic or coastal functioning of the project?

Yes \_\_\_\_

No \_\_\_\_

Comments:

---

h. Has the modification had adverse impacts on the interior drainage system or drainage facilities (i.e outfalls, gatewells, storm sewer lines, pump stations, drainage ditches, etc.)?

Yes \_\_\_\_

No \_\_\_\_

Comments:

---

i. Has the modification had adverse impacts on environmental aspects of the project?

Yes \_\_\_\_

No \_\_\_\_

Comments:

**SUBJECT: Sponsor Request - Existing Unauthorized Modification to  
USACE – Buffalo District Inspection of Completed Works Project**

j. Has the modification had adverse impacts on safety aspects of the project?

Yes \_\_\_\_\_

No \_\_\_\_\_

Comments:

---

k. Are there changes to the easement requirements for this project as a result of this modification?

Yes \_\_\_\_\_

No \_\_\_\_\_

Comments:

---

l. Has the modification had any other adverse impacts on project components not addressed in 7.f. – 7.k. above?

Yes \_\_\_\_\_

No \_\_\_\_\_

Comments:

---

m. Was a USACE Regulatory permit required/obtained (for the completed modification work within “Waters of the United States”)? If so, what type – Section 10, Section 404?

Yes \_\_\_\_\_

No \_\_\_\_\_

Type: \_\_\_\_\_

Comments:

---

**SUBJECT: Sponsor Request - Existing Unauthorized Modification to USACE – Buffalo District Inspection of Completed Works Project**

n. Describe additional operations and maintenance required as a result of this modification. (Note: Sponsor is required to ensure that adequate additional operations and maintenance is performed, even if modification is by a third party).

Comments:

---

**8. The following documents are attached in support of this modification request:**

Detailed Plans \_\_\_\_\_ Drawings/Sketches \_\_\_\_\_ Photos \_\_\_\_\_ Written Details \_\_\_\_\_  
Other \_\_\_\_\_ (Describe):

**9. CONDITIONS:** A site inspection between USACE and the sponsor (and other interested stakeholders) may be conducted during an upcoming USACE inspection, or at some other time, to determine the acceptability of the completed work. As-Built drawings, construction photographs, and/or other documentation of the work may also be required, if requested by USACE. Other conditions or requirements may apply and will be provided in writing at the time of approval of the request.

If the modification request is disapproved, the sponsor will be notified in writing as to the reasons for disapproval. Corrections to, or complete removal of, the completed work may be required if it is determined during the USACE review of this request, or during the site inspection, that the modification work is not in accordance with submitted documentation.



**SUBJECT: Sponsor Request - Existing Unauthorized Modification to  
USACE – Buffalo District Inspection of Completed Works Project**

**10. Signature/Date:**

**Applicant:**

---

Name of applicant's organization or agency

---

Printed name of applicant's representative

---

Signature of applicant's representative

---

Date signed

**Sponsor:**

---

Name of sponsor's organization or agency

---

Printed name of sponsor's representative

---

Signature of sponsor's representative

---

Date signed

**NOTE: An electronic copy of this form is available by contacting Robert Remmers at e-mail address [robert.w.remmers@usace.army.mil](mailto:robert.w.remmers@usace.army.mil).**

**Updated: 10/2/13 (RWR)**

## Attachment H – Emergency Preparedness Plan Guidance

## **Attachment “H” – Emergency Preparedness Plan Guidance**

### **Sample Outline for Emergency Preparedness Plan**

The local sponsor must develop and maintain an Emergency Preparedness Plan for flood preparedness. These plans should address, at minimum, the following key elements:

1. Organizational Chart/Roster: A chain of command that indicates who will be contacted during a flood emergency.
2. List of Important Project Features: A bullet point list or annotated map that identifies: potentially critical weak points; locations of important structures such as gates, drains, closures; alternate access points, should areas become impassible; available sources of emergency supplies.
3. Flood Plan Response: The written plan does not need to be long or wordy, but should indicate what needs to be done during a flood fight and when. The plan should identify the hierarchy of responsibility, procedures, and equipment. Evacuation plans should be included in the flood plan response.
4. Short Term Planning Elements: Provisions to address temporary situations. For example, what to do in case of flooding during short term construction or replacement of critical elements.
5. Continued Plan Management: Plan should be reviewed annually and amended or revised as necessary; updates to critical information and contacts should be included.

Refer to pages 35 through 52 of Levee Owner’s Manual for Non-Federal Flood Control Works, for additional specific information. This document is available for download via the following link:

[http://www.nws.usace.army.mil/Portals/27/docs/emergency/LeveeOwnersManual\(final\).pdf](http://www.nws.usace.army.mil/Portals/27/docs/emergency/LeveeOwnersManual(final).pdf)

### **Guidance for Emergency Preparedness Plans**

Reference: USACE Levee Owner’s Manual for Non-Federal Flood Control Works (pgs. 35-51)

1. Develop flood fight organizational roster (identify chain of command, who notifies who, contact information). Include list of important utility contacts.
2. Identify required supplies, materials, and equipment for floodfighting:



**SUBJECT: FY13 Joint Routine Inspection of Completed Works, Flood Damage Reduction Project – Genesee River and Dyke Creek, Wellsville, NY (09/24/13)**

- Supplies: safety gear (i.e. flotation vests, ropes, first aid kits, etc.), communication equipment, maps, flashlights, rain gear, cameras, etc.
- Materials: sandbags, sand, lumber, plastic sheeting, shovels, riprap, etc.
- Equipment: dump trucks, loaders, dozers, pumps, lighting, sandbag filling machines, vehicles, small boats, etc.

Where are these items stored or where can they be procured quickly during/prior to a flood event?

What quantities of materials and supplies to be needed (rough estimate) – how much is already on hand and how much can be obtained during a floodfight? How many of each piece of equipment are readily available? How many more can be obtained during a floodfight? Who are the sources for the supplies, materials, and equipment?

Might contractors be used during a floodfight? Are there pre-arranged contract agreements in place?

3. Training in floodfighting procedures (i.e. proper way to fill sandbags, etc.), conducting floodfighting exercises, and applying lessons learned from previous flood events.

4. Develop a site-specific flood fight plan.

- At what flood stages should various floodfighting alarms be triggered (initial notification of possible flood event, advance mobilization of floodfighting resources, actual floodfighting?)
- List of important project features and how they should be accessed and inspected before, during, and after a flood event.
- Identify the most likely modes of failure or flooding, and emergency actions to be taken.
- List of potential assembly areas for flood fighters and potential staging areas for equipment and materials.
- Floodfighting patrols:
  - Who should go on them?
  - What should responders look for?
  - Where do they access the project?
  - Reporting procedures/forms?

**SUBJECT: FY13 Joint Routine Inspection of Completed Works, Flood Damage Reduction Project – Genesee River and Dyke Creek, Wellsville, NY (09/24/13)**

- Discussion of safety of floodfighting participants and impacted public. List of potential hazards and how to mitigate/avoid them.

5. Evacuation Plan:

- Who's in charge of coordinating (Emergency Management Office, local officials, etc.)? Who's in charge of executing (police, fire department, etc.)? What support groups will be utilized (i.e. media)?
- What are the evacuation routes to be taken?
- Locations of emergency shelters?

6. Recordkeeping (documentation of labor, materials, and equipment for potential reimbursement; gage readings, photographs, damage reports, forms to be used, etc.)

7. After Action Review – discussion on lessons learned from current floodfight event.

**NOTE: This list is only meant to provide sample guidance of what might be included in a Emergency Preparedness Plan and is not meant to be all-inclusive. Each project and flood event has its own peculiarities. This list is a living document and will be improved in the future as more input and guidance is received.**

Prepared by: Robert W. Remmers, P.E., PMP, LSPM  
USACE - Buffalo  
Updated: 16 July 2014