

OMAHA SYSTEMS RESTORATION TEAM

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Mid-West Electric Consumers
2019 Annual Meeting
Denver, Colorado

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GOOD NEWS BUT A LOT OF WORK LEFT TO DO!



PURPOSE

- 2019 Flood Event Summary
- Levee System Damages
- On-Going Construction
- Path Forward



FLOOD IMPACTS – MISSOURI RIVER LEVEE SYSTEM

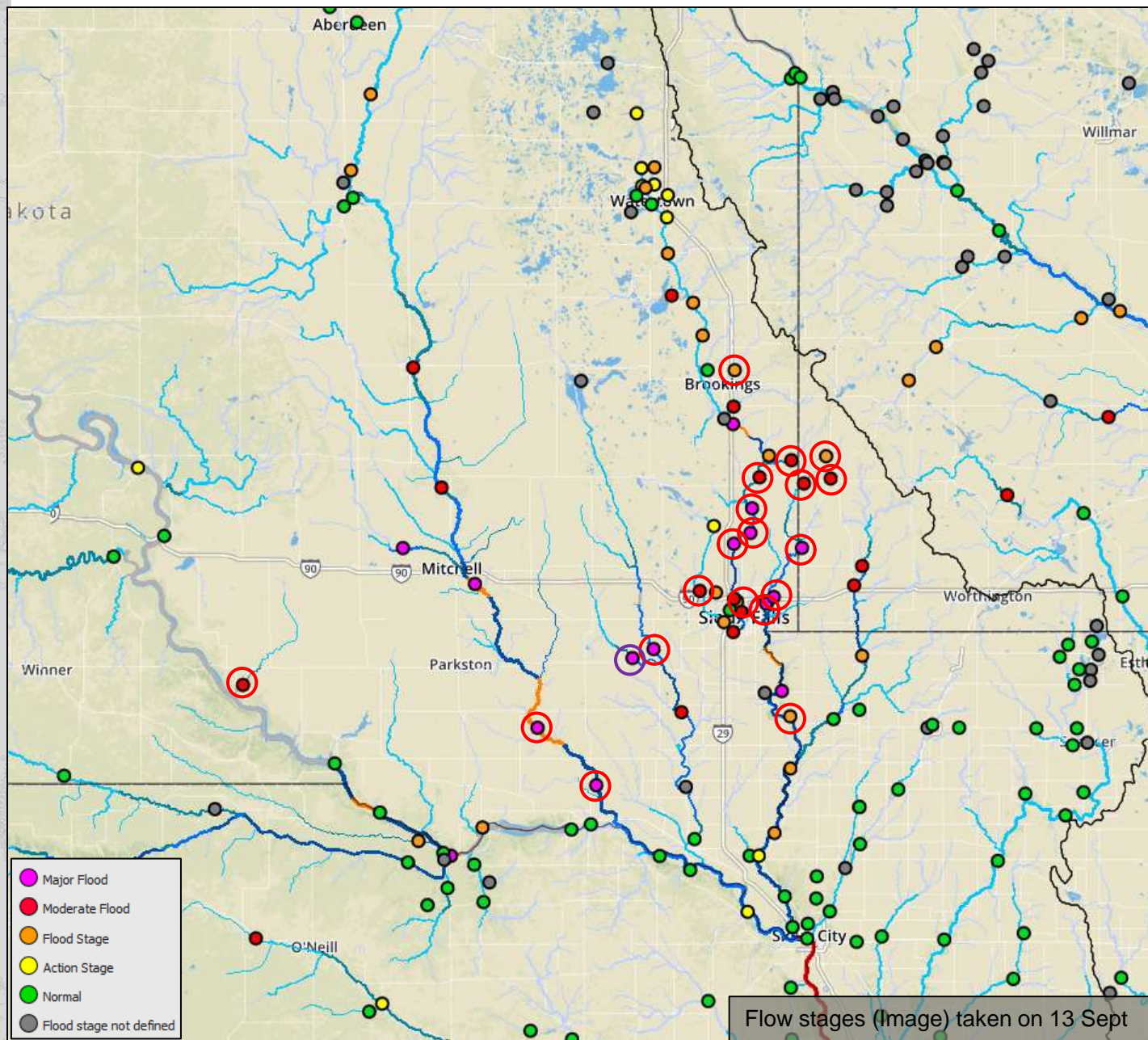
Status as of 06 Dec 2019 at 1000							
State	River	Levee System	Federal or Non-Federal	Type of Failure			Initial Breach Closed
				Previousl y	Currently Overtopp	Breach	
IA	Missouri River	Missouri River L611-614	Federal	x		x3	x3
IA	Missouri River	Missouri River L601	Federal	x		x7	x1
IA	Watkins Ditch	L601 - Watkins Ditch RB	Federal	x			
IA	Missouri River	Missouri River L594	Federal	x		x5	x2
NE, IA, MO	Missouri River	Missouri River L575	Federal	x		x7	x3
MO	Nishnabotna River	L561 - Nishnabotna LB	Federal	x			
MO	Missouri River	Missouri River L550	Federal	x		x7	x2
MO	Missouri River	Missouri River L536	Federal	x		x5	
NE	Missouri River	Missouri River R616-613	Federal	x			
NE	Missouri River	Missouri River R613	Federal	x		x1	x1
NE	Missouri River	Missouri River R573	Federal	x			
NE	Missouri River	Missouri River R562	Federal	x		x10	
NE	Missouri River	Missouri River R548	Federal	x			
NE	Missouri River	Missouri River R520	Federal				
NE	Platte River	Western Sarpy	Federal	x			
NE	Platte River	Clear Creek	Federal	x		x2	x2
NE	Platte River	Valley - Union	Non-Federal	x		x1	x1
NE	Platte River	Ames Diking	Non-Federal	x		x1	
NE	Platte River	YMCA Camp Kitaki	Non-Federal	x			
NE	Missouri River	Lake Waconda	Non-Federal	Boils			

- Widespread, unprecedented damage
 - over 50 breaches
 - 15 breaches closed
 - 35 breaches remaining
 - 19 breaches on active
 - 16 breaches on inactive
- Request for Assistance on levee systems active in PL 84-99
 - 60 levee & channel systems
 - 352 miles of levees





Preliminary New Record Stages Observed 12-16 September 2019



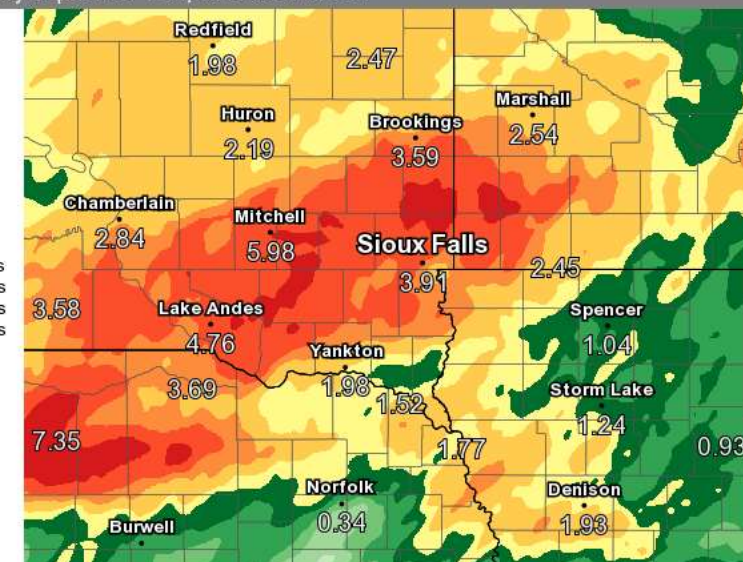
- Red Circles indicate river gage has set a new record stage (preliminary)
- Purple Circle indicate river gage has tied previous record stage (1)
- 19 Total Gages have Observed New Records (as of 0800 16 Sept 2019)

48 Hour Observed Precipitation (ending 0500 12 September 2019)



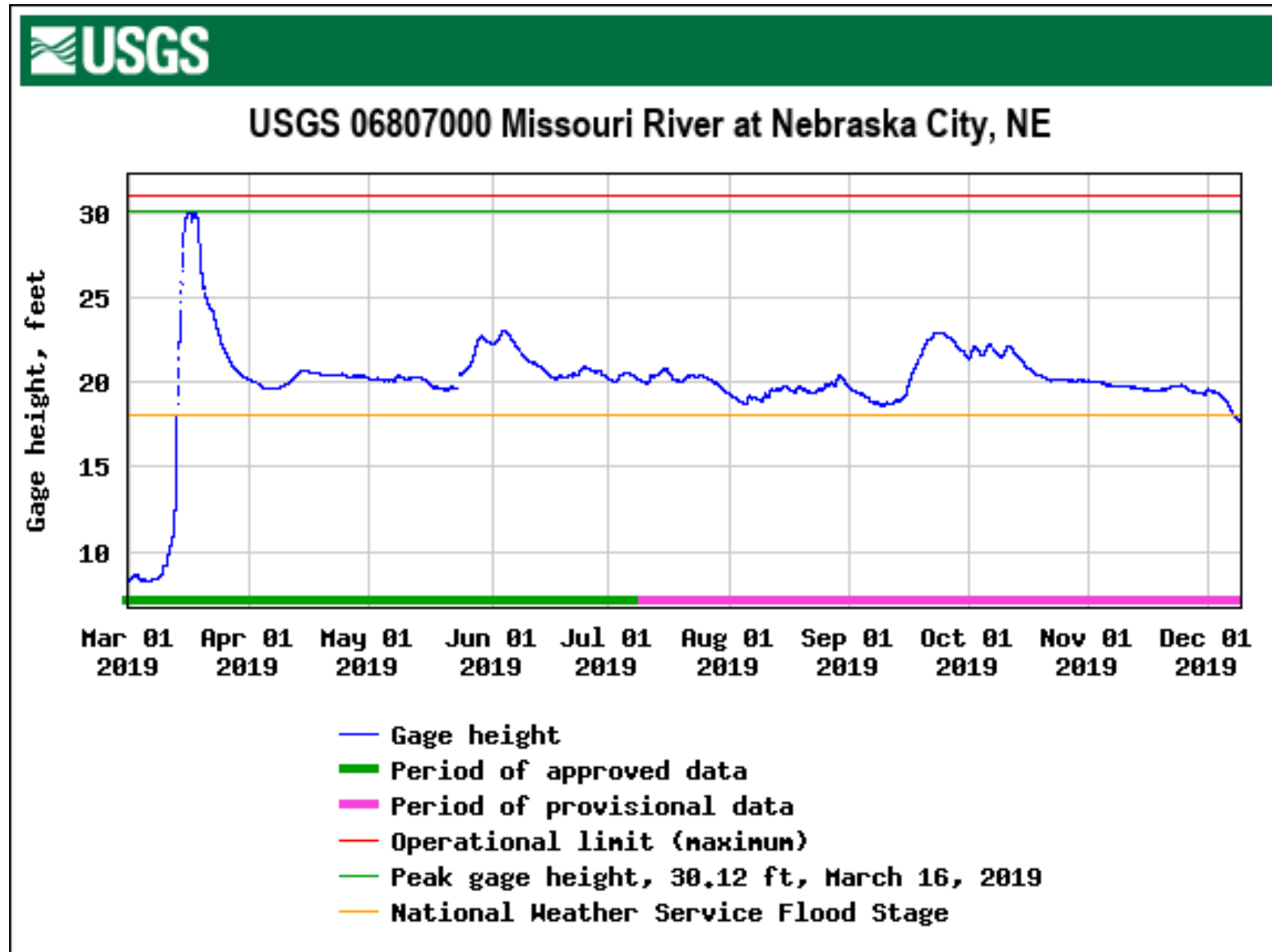
Observed Precipitation

Valid Ending Thursday September 12th, 2019 at 5 AM CDT



Graphic Created
September 12th, 2019
5:50 AM CDT

AND THE FLOOD CONTINUES



L611-614



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L-611-614_A_I

Upper breach on L-611-614, ~4 miles SE of Offutt AFB on opposite side of river
Flying downstream, flow through breach is right to left, 27MAR2019



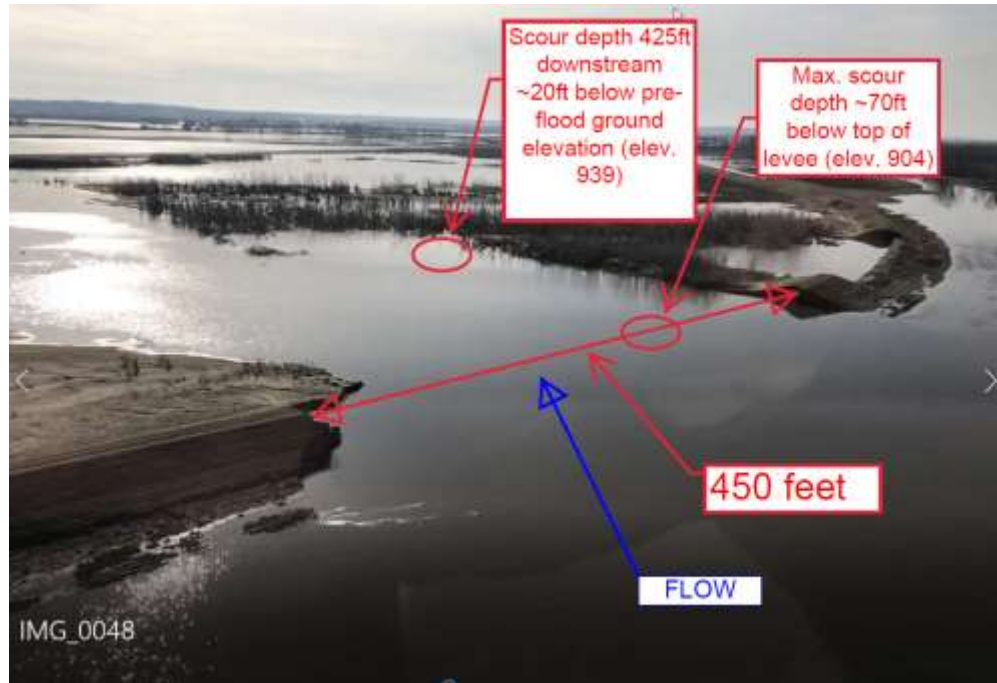
LEVEE SYSTEM DAMAGES – L-611-614, DOWNSTREAM END ON 27MAR2019



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L-611-614 – INITIAL CLOSURE 12 JUNE 2019



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L-611-614 – 01 SEPTEMBER 2019



L611-614 Interim Repairs

CONSTRUCTION STATUS:

- ☐ RDI Interim repairs contract awarded 7 SEP in the amount of \$13.1M and 120 day performance period
- ☐ Working critical section loss (CSL) repairs north of Highway 34, north of Old Highway 34, and by the outlet breach
- ☐ 80% complete with all critical section loss repairs
- ☐ Launchable toe rip rap section is complete
- ☐ Outlet Breach closed 6 DEC, Sand pad to be completed mid-DEC. Stockpile clay for outlet this week.



Outlet Breach Closure (12/06)



Outlet breach sand borrow operation (12/03)

L601



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L-601 INLET BREACHES

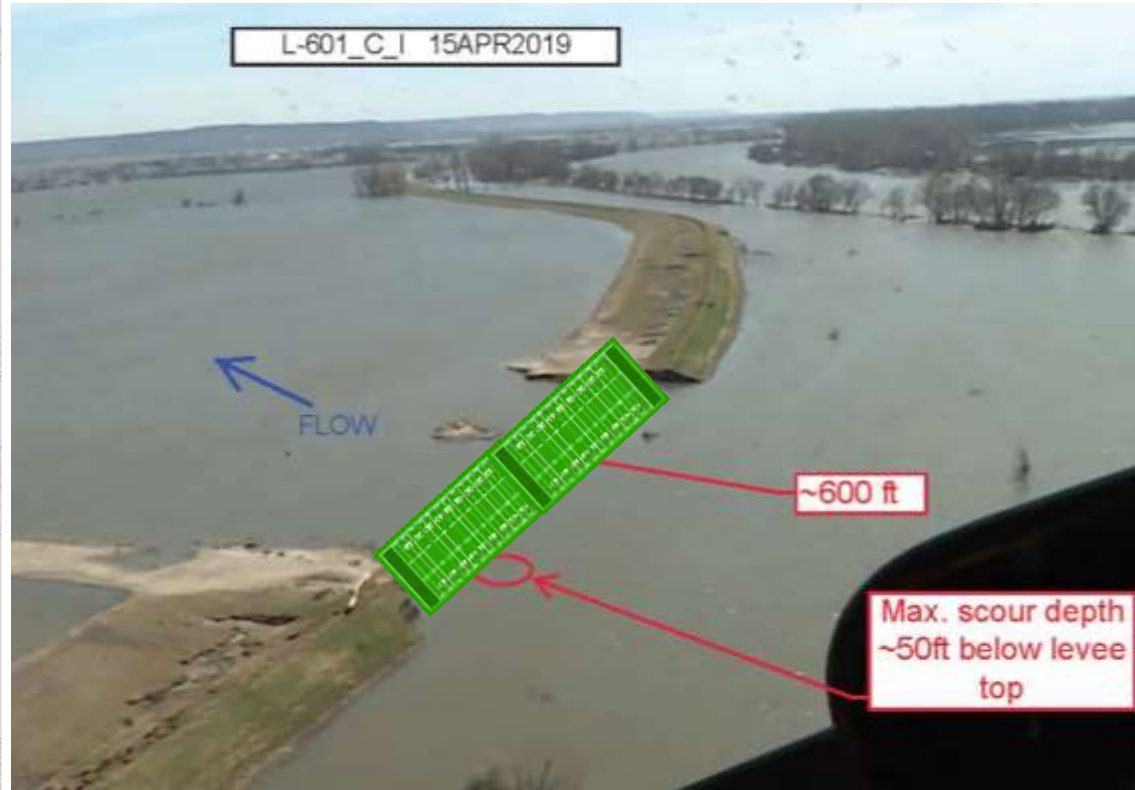
FLYING SOUTH, 27MAR2019



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L-601 – INITIAL CLOSURE 03 JULY 2019



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L-601 Initial Breach Repair

CONSTRUCTION STATUS:

- ☐ Contract scope of work is complete
- ☐ Breach repair Final Inspection held 3 OCT 2019

Sand berm repairs (10/24)



L-601 Pool Elevation (10/30)



Sand berm repairs (10/24)

L594



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L-601 OUTLET/L-594 INLET DOUBLE BREACH



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L594A-I BREACH CLOSURE – 28 OCTOBER 2019



L-594 A Initial Breach Repair

CONSTRUCTION STATUS:

- ☐ Awarded on 16 SEP 2019
- ☐ Mining clay at Haynie Slough
- ☐ Clay hauling to "A" intent to stockpile at 594_A for follow on contract placement – *to be complete today*
- ☐ MILESTONES:
 - ☐ (ACTUAL) Close east side of breach = 12 October 2019
 - ☐ (ACTUAL) Close west side of breach = 28 October 2019
 - ☐ (ACTUAL) Notch Waubonsie Creek closure = 31 October 2019
 - ☐ (ACTUAL) Final Inspection for "A" = 22 November 2019
 - ☐ De-mobilization = Trailer and most equipment demobilized week of 2 DEC



L594_A_I Breach Closure (11/22)



Downstream Waubonsie Creek (11/22)

L575



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L-575_A_I

Upstream breach on L-575, ~3 miles NNW of Percival, IA
Flying downstream, flow through breach is right to left, 27MAR2019



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L-575_A – INITIAL CLOSURE 20 JUNE 2019



Initial Closure – 20 June



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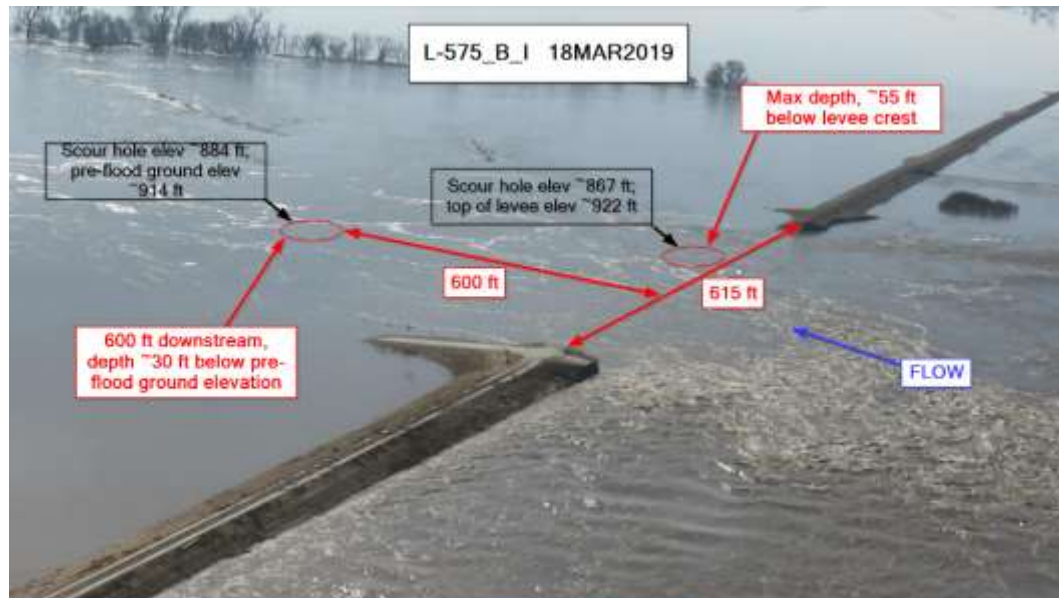


L-575_B_I

Middle breach on L-575, ~4.5 miles W of Hamburg, IA
Flying downstream, flow through breach is right to left, 27MAR2019



L-575_B



Rock Revetment Complete Closure – 01 July



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L-575 B INITIAL BREACH REPAIR – INITIAL CLOSURE 25 JULY 2019



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L575 Interim Repairs



L575_B (10/7) 27



L575_B (10/15)



L575_A (10/15)



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L-575
Downstream
End



18MAR2019

15APR2019



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L-575 OUTLET BREACHES – 10 SEPTEMBER 2019



L575 Interim Repairs



L575 C – D Repairs (11/24)



Critical section loss repairs

CONSTRUCTION STATUS:

- ☐ Crest and critical section loss repairs being performed with 3 separate crews
- ☐ The contractor is performing restoration efforts at Cooper Creek borrow location.
 - ☐ Cooper Creek mining of 167,000 (100% complete)
- ☐ Running clay to CSL and crest repair areas then stockpiling clay at A, then B.
- ☐ Placing riprap at groins
- ☐ Preparing new access roads to outlet breach with dropping water elevations
- ☐ Est completion date for clay/rock stockpiling is late DEC 2019
- ☐ Pre-Final Inspection scheduled 16DEC.



Crest Repairs

L550



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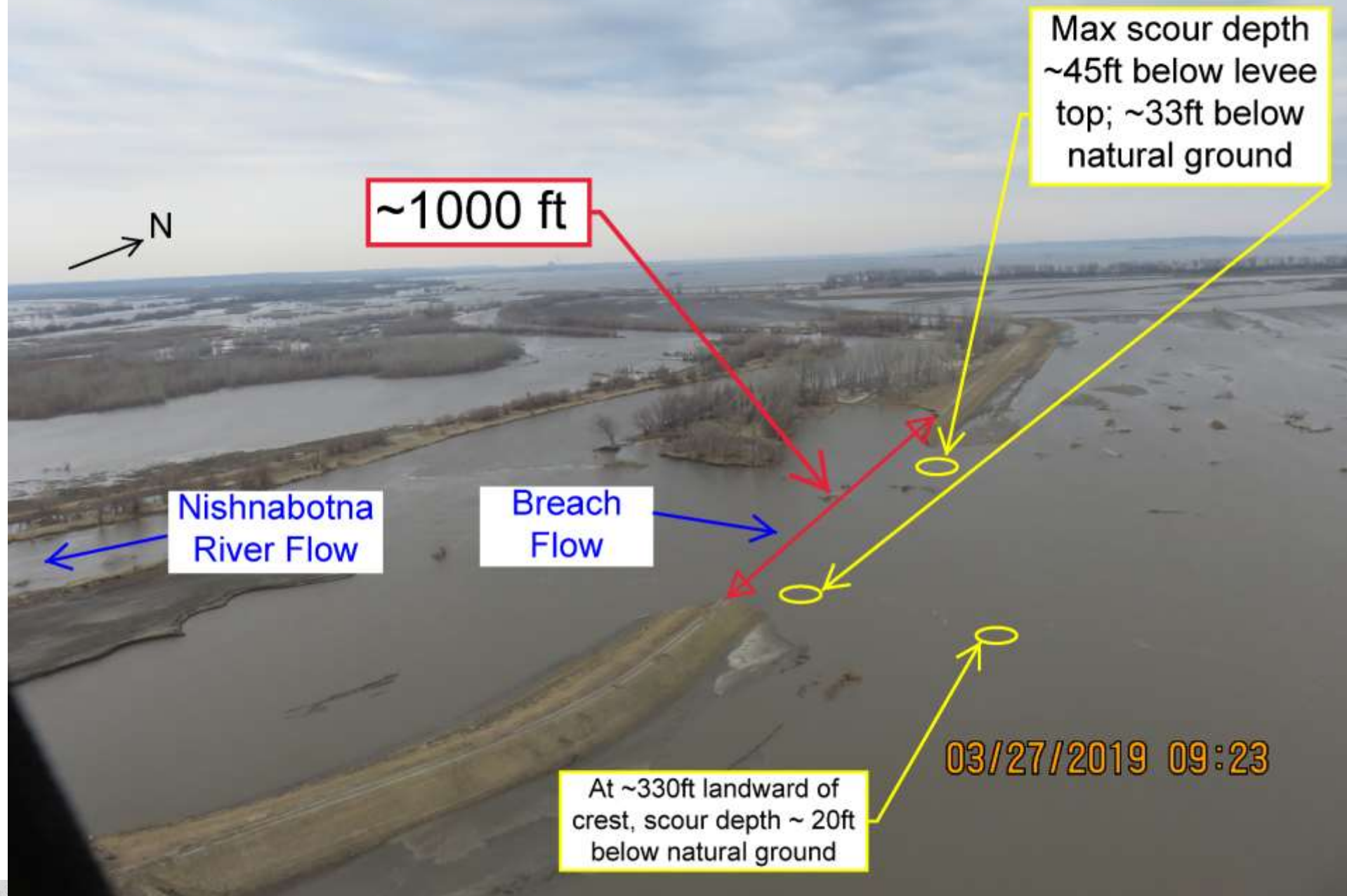
L-550_A_I
15APR2019



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L-550_A_I, RM 543



L-550-A-I SAND BORROW AREA



L-550-A-I CLOSURE



L-550_A_I AUGUST 3, 2019



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L-550_A_I CLOSURE – INITIAL CLOSURE 24 AUGUST 2019



L-550_A_I CLOSURE MOVIE



L-550_B_I
27MAR2019



L-550_B_I, RM 538
27MAR2019



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L-550-B-I CLOSURE – 12 SEPTEMBER 2019



L-550, DOWNSTREAM END



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L550 Interim Repairs

High Creek Borrow (10/19)



L-550_B (10/20)



L-550_B (10/21)



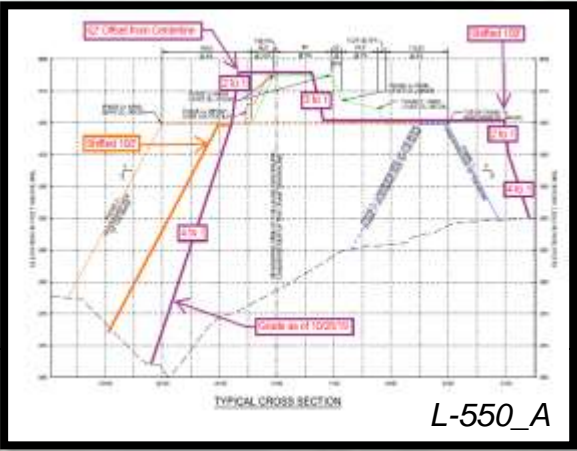
L-550_B Chute Revetment (10/21)



L-550_B Sand Borrow Operation (10/20)



L-550_B (10/20)



L-550_B (10/20)

L550 Interim Repairs

CONSTRUCTION STATUS:

- ☐ North breach closed on 24 August 2019; South breach closed on 12 September 2019
- ☐ Sand placement at "A" and "B" is substantially complete
- ☐ Continue mining clay borrow site at High Creek
- ☐ Crest and critical section loss repairs are on-going.
 - ☐ DM 4 (levee crest and CSL north of A) is 100% complete.
 - ☐ DM 5 (between A and b) clay placement is 100% complete. Placing surfacing.
 - ☐ DM9 (between B and Brownville Bridge) clay placement is 95% complete.
- ☐ Continue stockpiling clay near levee repairs north at "A" and "B" breach.
- ☐ Started placing clay on riverside face of inlet breaches 7 DEC. Complete by late DEC.
- ☐ Recon on outlet breach water levels today, start preparatory measures



Critical section loss repairs



DM9 Crest Repairs



DM2 Riverside Pad – Prep for Clay

L536



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An aerial photograph showing a large, elongated iceberg floating in the ocean. The iceberg has a light brown, textured surface, possibly covered in snow or ice. The surrounding water is dark blue-grey. In the upper right, a small portion of a ship's hull is visible.



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R-616-613 Final Repairs

CONSTRUCTION STATUS:

- ☐ Award & NTP on 7 AUG 2019 with CCD on 5 NOV 2019
- ☐ Contract has been extended into March 2020 to account for relief well repairs and replacement on R-616 and R-613
- ☐ **TURNOVER PLAN:**
 - ☐ R-616 complete on 17 OCT 2019 and subsequently turned over to NRD
 - ☐ R-613 west of Harlan-Lewis Rd had final inspection on 5 NOV and subsequently turned over to NRD
 - ☐ Remainder of R-613 target completion 22 DEC.
 - ☐ R613 Breach excavation and backfill complete. Performing DM006 clay placement, surfacing, and ECB placement.



R-613 Crest Repairs (12/05)



R-613 Breach Excavation and Repair (12/05)

NEBRASKA TRIBUTARY PROJECTS



Tributary Construction Projects

COLUMBUS – LOUP RIVER LB [68%]

☐ Construction Status:

- CV: \$2,223,000 | PoP: 90 | CCD: 09JAN20
- DA #5 (gabion basket) is now complete and ready for seeding
- Remaining repairs consist of underwater fill and riprap at DA #3
- Expect substantial completion 20DEC19



DA #5: Removing sedimentation to prepare for riprap



DA #5: Repairs complete and ready for seeding

WESTERN SARPY – PLATTE RIVER [33%]

☐ Construction Status:

- CV: \$4,235,783 | PoP: 120 | CCD: 04FEB20
- Resolving differing site condition involving deeper than planned river bottom depths at flexamat repair location
- Continuing to stockpile riprap for flexamat placement
- Cohesive fill nearing completion behind sheet pile wall
- Scarifying landside slopes to remove erosion runnels



Performing density tests behind the sheet pile wall



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Cohesive fill being placed behind the sheet pile.

Tributary Construction Projects

CEDAR CREEK (OMAHA FISH & WILDLIFE) [97%]

☐ Construction Status

- CV: \$1,343,200 | PoP: 180 | CCD: 13APR20
- Pre-final inspection scheduled for 25NOV19
- Post-construction survey data under review
- Final inspection: Week of 09DEC19



OMAHA – MISSOURI RIVER RB [3%]

☐ Construction Status

- CV: \$1,255,879 | PoP: 180 | CCD: 19MAY20
- Pre-construction meeting held on 05DEC19
- Contractor preparing schedule and work plan
- Contractor coordinating inspections of drainage structures with manufacturer

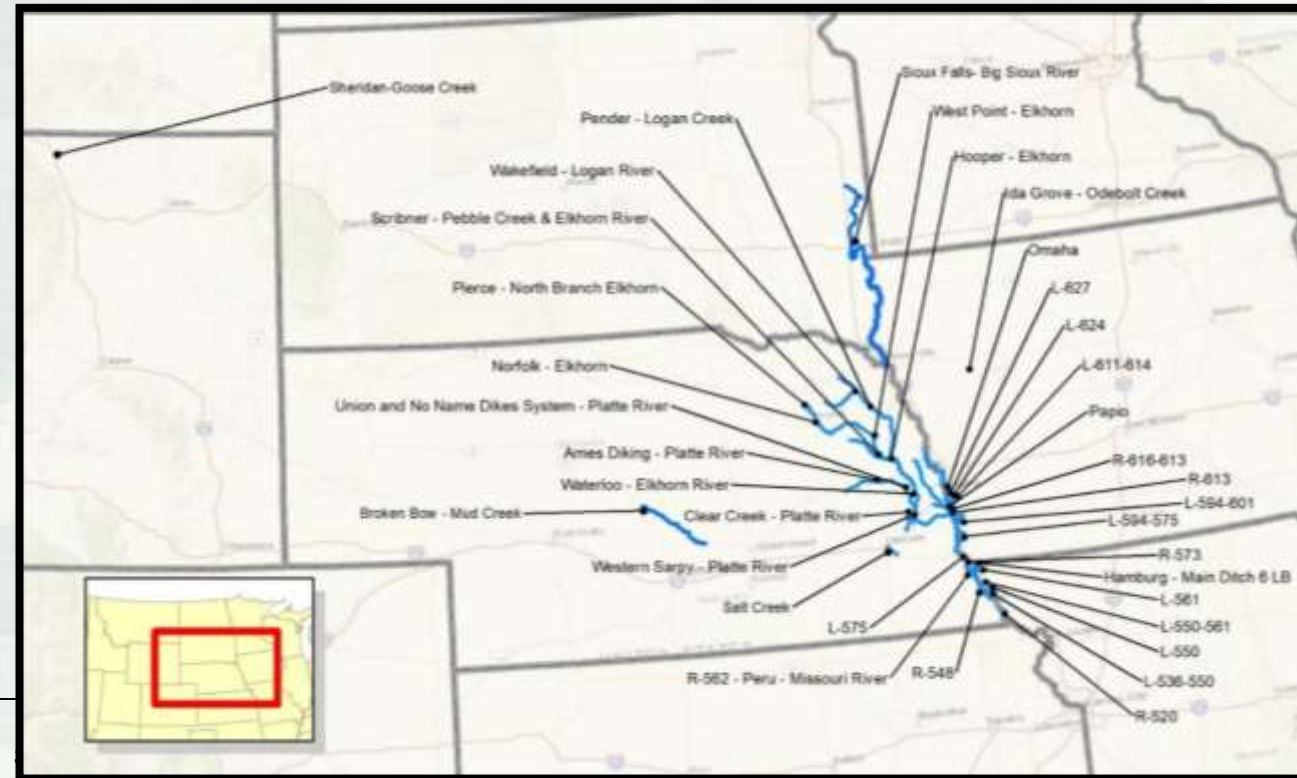


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Tributary Construction Projects

CONSTRUCTION COMPLETE PROJECTS

- ❑ Pierce – North Branch Elkhorn River RB [95%]
 - CV: \$183,000 | PoP: 60 | CCD: 15OCT19
 - Substantially complete. Final inspection conducted 01OCT19.
 - Substantial Completion Letter delivered 11NOV19.
 - As-builts submitted and under review.
 - Awaiting release of claims.
- ❑ Broken Bow – Mud Creek [95%]
 - CV: \$165,000 | PoP: 60 | CCD: 07DEC19
 - Substantially complete. Final inspection conducted 17OCT19.
 - Awaiting final submittals and conducting contract closeout.
 - Substantial Completion Letter delivered 15NOV19.
- ❑ Ida Grove – Odebolt Creek [95%]
 - CV: \$359,000 | PoP: 90 | CCD: 13JAN20
 - Substantially complete. Final inspection conducted 04NOV19
 - Awaiting final submittals and conducting contract closeout.
 - Substantial Completion Letter delivered 15NOV19.
- ❑ Scribner – Pebble Creek LB and Elkhorn River RB [95%]
 - CV: \$93,500 | PoP: 60 | CCD: 01DEC19
 - Substantially complete. Final inspection conducted 05NOV19.
 - Awaiting final submittals and conducting contract closeout.
 - Substantial Completion Letter delivered 15NOV19.



Materials Moved to Date

	Total	Units
Clay	466,199	CY
Sand	2,910,172	CY
Rip Rap & Shot Rock	133,664	Tons
Levee Surfacing	37,010	Tons
Erosion Control Mat	135,376	SY
Seeding	95,980	SY
Other Aggregate	32,010	Tons



PATH FORWARD

- Continue repairs along the Missouri River Levees, including outlet breaches.
 - Complete Engineering & Design and award construction contracts on Tributaries by the end of the January for the vast majority of projects.
 - The first construction contracts have been completed.
 - Conduct field damage assessments for Missouri River Projects as areas become accessible (water levels recede).
- ❖ All work is subject to availability of funding which is determined by Congress and HQUSACE.
- ❖ **\$150M in construction contract awards thus far for levee repairs.**



AWARDED CONTRACTS

Contracts Awarded – 23
Total Current Amount - \$150M

2019 Flood - Rehabilitation Status Tracking				COMMON NAME	Current Contract Amount I	CONTRACT TYPES		Solicitation/ Contract Number
State	Miles of Levee	System Name	Authority			CONTRACT VEHICLE	FIXED PRICE/ COST-TYPE	
INITIAL BREACH REPAIRS - RDI 1 (UNRESTRICTED)								
MO		L-550-561 - Missouri River LB - (INITIAL BREACH REPAIR & INTERIM REPAIRS)	Federal	L-550	\$ 36,922,585	RDI-1 (UR) (Exp 7/15/2019)	C/R	W9128F19F0148
IA,MO, NE		L-575 (BW-McKissock-Buchanan-Atchison-Hamburg) - (STAGE 2 LEVEE CONSTRUCTION ON BREACHES L-575A-I & L-575B-I PLUS INTERIM REPAIRS)	Federal	L-575	\$ 16,271,875	RDI-1 (UR) (Exp 7/15/2019)	C/R	W9128F19F0176
		TOTAL INITIAL BREACH REPAIRS-RDI 1 UNRESTRICTED			\$ 53,194,460			
INITIAL REPAIRS - MISSOURI RIVER RECOVERY PROGRAM MATOC								
IA		L-611-614-MoRiv LB & Upr Pony Crk Ditch LB & L1BLB - INITIAL BREACH REPAIR	Federal	L-611/614	\$ 10,883,110	MRRP MATOC	FFP	W9128F19F0113
IA,MO, NE		L-575 (BW-McKissock-Buchanan-Atchison-Hamburg) - (STAGE 1 LEVEE CONSTRUCTION ON BREACH L-575B-I)	Federal	L-575	\$ 22,835,443	MRRP MATOC	FFP	W9128F19F0107
IA,MO, NE		L-575 (BW-McKissock-Buchanan-Atchison-Hamburg) - (STAGE 1 LEVEE CONSTRUCTION ON BREACH L-575A-I)	Federal	L-575	\$ 8,990,570	MRRP MATOC	FFP	W9128F19F0101
		TOTAL REPAIRS - MRRP MATOC			\$ 42,709,123			
INTERIM REPAIRS - LEFT BANK MISSOURI RIVER - RDI 1 (SB, SDVOSB & 8a)								
IA		L-611-614-MoRiv LB & Upr Pony Crk Ditch LB & L1BLB	Federal	L-611/614	\$ 13,101,945	RDI-1 (SB) (\$20M Max)	C/R	W9128F19F0261
IA		L-594-575 (BW-PV-Waubonsie) - INITIAL BREACH REPAIR	Federal	L-594	\$ 5,833,872	RDI-1 (SDVO) (\$6M Max)	C/R	W9128F19F0285
IA	1.62	Hamburg - Main Ditch 6 LB	Federal	Ditch 6	\$ 3,777,863	RDI-1 (8a) (\$20M Max)	C/R	W9128F19F0314
NE	8.63	R-613 - Platte LB & Papillion RB & MO River RB	Federal	R-613	\$ 10,328,852	RDI-1 (SB)	C/R	W9128F19F0214
NE	9.67	R-616-613 - MO Riv RB & Papillion Cr LB	Federal	R-616-613				
		TOTAL INTERIM REPAIRS RDI 1 (SB, SDVOSB & 8A)			\$ 33,042,532			
FINAL REPAIRS - IFB								
NE		Union & No Name Dikes System - Platte River LB (NF)-BREACH REPAIR	Non-Federal	Union & No-Name	\$ 1,058,247	IFB (SB)	FFP	W9128F19C0010
IA		L-601 - BREACH REPAIR	Federal	L-601	\$ 8,500,000	IFB (SB)	FFP	W9128F19C0024
IA		L-594-575 (BW-PV-Waubonsie) - BREACH REPAIR	Federal	L-594	\$ 362,424	IFB (SB)	FFP	W9128F19C0025
NE		Clear Creek - Platte River RB - BREACH REPAIR	Federal	Clear Creek	\$ 1,370,313	IFB (SB)	FFP	W9128F19C0013
NE	2.68	Pierce - North Branch Elkhorn RB	Federal	Pierce	\$ 187,500	IFB (SB)	FFP	W9128F19C0033
NE	7.7	Western Sarpy - Platte River LB	Federal	Western Sarpy	\$ 4,235,783	IFB (SB)	FFP	W9128F19C0037
NE	0.17	Broken Bow - Mud Creek LB	Federal	Broken Bow	\$ 161,738	IFB (SB)	FFP	W9128F19C0048
NE	0.17	Broken Bow - Mud Creek RB	Federal					
NE	5.17	Columbus - Loup River LB	Federal	Columbus	\$ 2,223,000	IFB (SB)	FFP	W9128F19C0042
NE	5.44	Scribner - Pebble Creek LB & Elkhorn River RB	Federal	Scribner	\$ 93,500	IFB (SB)	FFP	W9128F19C0041
IA	0.12	Ida Grove - Odebolt Creek LB	Federal	Ida Grove (Odebolt Creek LB)	\$ 359,000	IFB (SB)	FFP	W9128F20C0002
NE	0.8	Cedar Creek (Omaha F&W) - Platte RB (NF)	Non-Federal	Cedar Creek (Omaha F&W)	\$ 1,350,426	IFB (SB)	FFP	W9128F20C0003
NE	13.26	Omaha - Missouri River RB	Federal	Omaha	\$ 1,255,879	IFB (SB)	FFP	W9128F20C0004
		TOTAL FINAL REPAIRS - IFB			\$ 21,157,808			



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AWARDED TRIBUTARY PROJECTS

Location	Contract Vehicle	Scheduled Advertisement	Bid Opening (Tuesday-Friday at 2:00 in room 158)	Contract Award	Solicitation Number	Contract Number	Contractor Bid
Pierce	IFB (SB)	7/2/2019	8/1/2019	8/7/2019	W9128F19B0021	W9128F19C0033	\$183,000.00
Western Sarpy	IFB (SB)	8/19/2019	9/3/2019	9/25/2019	W9128F19B0025	W9128F19C0037	\$4,235,783.05
Cedar Creek	IFB (SB)	8/21/2019	9/4/2019	10/5/2019	W9128F19B0023	W9128F20C0003	\$1,343,200.00
Ida Grove – Odebolt Cr.	IFB (SB)	8/19/2019, 9/11/2019	9/5/2019, 9/25/2019	10/2/2019	W9128F19B0029, W9128F19B0038	W9128F20C0002	\$359,000.00
Broken Bow – Mud Cr LB/RB	IFB (SB)	8/20/2019	9/6/2019	9/26/2019	W9128F19B0037	W9128F19C0048	\$165,000.00
Scribner	IFB (SB)	8/19/2019	9/10/2019	9/19/2019	W928F19B0026	W9128F19C0041	\$93,500.00
Columbus – Loup River LB	IFB (SB)	8/19/2019	9/12/2019	9/26/2019	W9128F19B0034	W9128F19C0042	\$2,223,000.00
Omaha – Mo River RB	IFB (SB)	10/4/2019	10/18/2019	11/5/2019	W9128F19B0024, W9128F20B0004	W9128F20C0004	\$1,255,879.04



UNAWARDED TRIBUTARY PROJECTS

Location	Contract Vehicle	Scheduled Advertisement	Bid Opening (Tuesday-Friday at 2:00 in room 158)	Contract Award	Solicitation Number
Clear Creek	IFB (SB)	11/1/2019	11/21/2019	12/6/2019	W9128F19B0031
L-561 Nish	IFB (SB)	11/15/2019	12/10/2019	12/23/2019	W9128F19B0030
Waterloo	IFB (SB)	12/16/2019	12/27/2019	1/17/2020	W9128F19B0032
Norfolk – Elkhorn RB/LB	IFB (SB)	12/2/2019	12/16/2019	12/30/2019	W9128F20B0009
Ames (Non-Fed)	IFB (SB)	11/24/2019	12/10/2019	12/29/2019	W9128F19B0033
Wakefield	IFB (SB)	12/23/2019	1/15/2020	2/5/2020	W9128F20B0007
Union & No Name	IFB (SB)	1/13/2020	1/31/2020	2/13/2020	W9128F20B0006
Pender	IFB (SB)	12/13/2019	12/30/2019	1/17/2020	W9128F20B0008
Salt Creek Project	IFB (SB)	12/13/2019	12/31/2019	1/21/2020	W9128F20B0014
Papillion Creek Project	IFB (SB)	12/13/2019	1/3/2020	1/21/2020	W9128F20B0011
Lake Waconda	IFB (SB)	1/24/2020	2/7/2020	2/27/2020	W9128F20B0012
Sioux Falls, SD	IFB (SB)	12/20/2019	1/8/2020	1/29/2020	W9128F20B0015
West Point	IFB (SB)	3/30/2020	4/14/2020	5/4/2020	W9128F20B0013
L-627	IFB (SB)	4/24/2020	2/13/2020	3/10/2020	W9128F20B0010
Sheridan, WY	IFB (SB)				W9128F20B0017



DISCUSSION



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