Water Plan Update

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PRRIP Governance Committee Meeting

December 8, 2021

PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

Water Projects Acquisition Summary

- Accounting analyses updated to include 2019 and 2020 operations
- Memo is final, Fact Sheets will be updated

- In-Kind/Unpaid sources = 868,000 AF
  - Lake McConaughy 10% of Storable Natural Inflows = 612,400 AF
  - Pathfinder EA releases = 251,800 AF (~87% reaches Lake McConaughy)
  - No-Cost NCCW = 3,800 AF
- Paid sources >300,000 AF
  - Includes all other recharge/leasing projects except Tamarack

Program Flow Contributions, 2007-2020

Project/Source	Total River Contributions [AF]	Program Water at Grand Island [AF]	Program Deficit Reductions at Grand Island [AF]
Return Flows from WAP Recharge*	45,700	39,300	18,800
Tamarack**	271,500	232,700	96,600
Lake McConaughy EA Releases	710,300	539,600	411,000
TOTAL =	**1,027,400**	**811,600**	**526,400**
*Includes Phelps+Cook, Elwood, CPNRD canals			
**Based on accretions at CO-NE state line			

Also at end of 2020…

- 153,000 AF in Lake McConaughy EA
- 8,900 AF in Elwood Reservoir
- 46,000 AF from Phelps/Elwood recharge in aquifer storage (available for recapture)
- Accounting incomplete for ~33,000 AF recharge (CPNRD + NPPD canals)

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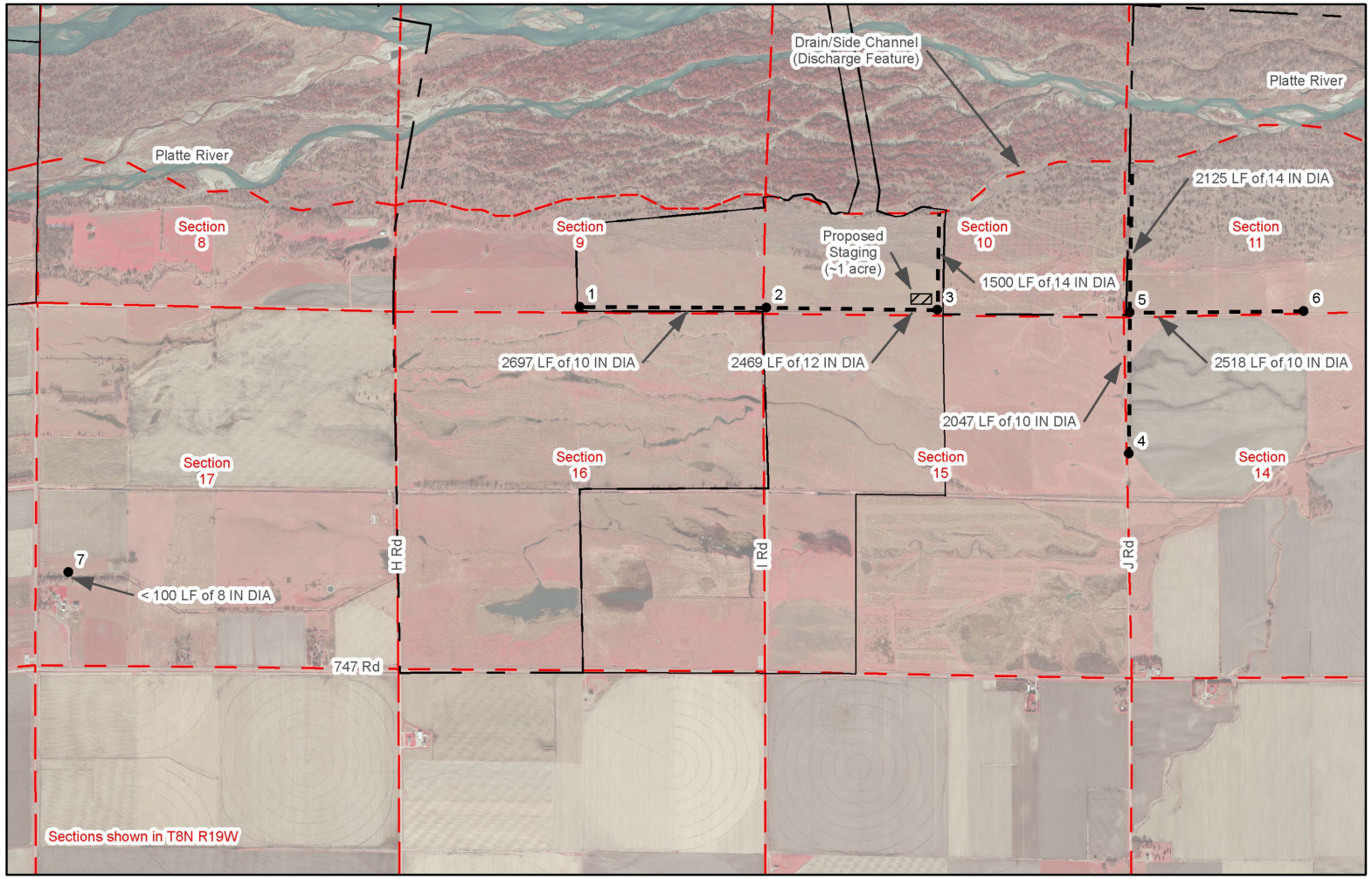
Recapture Network



General Augmentation Plan

Legend

- Augmentation Wells
- Pipeline Alignments
- Proposed Staging
- Program Leased
- Program Owned
- Sections

N

0 0.25 0.5 Miles

Figure 1a

Date: 8/30/2021

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Well Drilling

- Awarded to Downey Drilling
- Bid was $178,004
- Change order for additional $22,830
  - Furnish and install stainless steel wire-wrap well screen
  - Increased well depths
- Schedule
  - Exploratory drilling, sampling, geophysical logging in October
  - Construction to start in December
- Cook well
  - Separate quote for $9,711 to install and test smaller-capacity pump/motor
  - SCADA to be installed, Tri-Basin NRD will operate with recapture network

Pipeline Network

- Awarded to J&G Dirtworks
- Bid was $803,770
- Change order expected for pipeline outlet structures
- Construction underway week of November 15
  - Oversight by Miller & Associates and Tri-Basin NRD
  - Construction proceeding rapidly (low groundwater, no dewatering)
- Substantial completion required by March 31, 2022

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North Platte Chokepoint

- July 2020 Chokepoint Test
  - Successful demonstration of flood-proofing projects
  - Unsuccessful at increasing flood stage to 6.5 ft
  - Flow capacity at 6.0 ft about 1850 cfs with 10/29 shift
- Vegetation suppression releases in 2020 and 2021
  - 2020 release routed down North Platte River
  - 2021 release mostly routed through Sutherland Canal
  - Chokepoint capacity is constraint in dry years with significant irrigation deliveries

North Platte Chokepoint

- Vegetation treatment
  - Sprayed areas upstream of Hwy 83 bridge in 2021
  - Planning to disk same areas in 2022
  - Not expected to gain capacity
- No clear path to achieve large capacity increases at chokepoint
  - Need > 1000 cfs gain
  - Seeking other solutions
- Planning workgroup suggested revisiting bypass canal options
  - Technically feasible, permanent solution to capacity issues
  - Reviewing past work (e.g., 2013 SDMF, 2016 Anderson report)
  - Preliminary conversations with CNPPID, NPPD, and HDR (permitting)
  - Plan to discuss in greater depth in March