

02/08/2024

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM Water Advisory Committee Meeting Minutes

Virtual Meeting – Microsoft Teams

October 24, 2023

PRRIP Water Advisory Committee Meeting Attendees		
Name	Affiliation	Member or Alternate
Department of the Interior		
Brock Merrill	U.S. Bureau of Reclamation	Member
Mark Porath	U.S. Fish and Wildlife Service (USFWS)	Alternate
State of Wyoming		
George Moser	Wyoming Water Development Office	Alternate
Michelle Hubbard	Wyoming State Engineer's Office	
State of Colorado		
Kara Scheel	Colorado Water Conservation Board	Member
State of Nebraska		
Jennifer Schellpeper	Nebraska Department of Natural Resources (NDNR)	Member
Kari Burgert	NDNR	Alternate
Justin Ahern	NDNR	
Caitlin Kingsley	NDNR	
Upper Platte Water Us	Sers	
n/a		
Colorado Water Users		
Jon Altenhofen	Northern Water	Member
Kyle Whitaker	Northern Water	Member
Joe Frank	Lower South Platte Water Conservancy District	Alternate
Jason Marks	Denver Water	
Kevin Urie		
Downstream Water Us	sers	
Cory Steinke	Central Nebraska Public Power and Irrigation District	Member
	(CNPPID) – 2023 WAC Chair	
Brandi Flyr	Central Platte Natural Resources District (CPNRD)	Member
Jeff Shafer	Nebraska Public Power District (NPPD)	Member
Nolan Little	Tri-Basin Natural Resources District (TBNRD)	
Tyler Thulin	CNPPID	
Environmental Entities	5	
Jacob Fritton	The Nature Conservancy	Member
Melissa Mosier	Audubon Great Plains	Member



	PRRIP Water Advisory Committee Meeting Attendees	
Executive Director's Office (EDO)		
Jason Farnsworth	Executive Director	
Seth Turner	Water Plan Coordinator	
Justin Brei	Engineering/Colorado Coordinator	
Libby Casavant	Hydraulic Engineer	
Kristen Cognac	Hydrogeologist	
Sarah Fancher	Fluvial Geomorphologist	
Ed Weschler	Water Resources Engineer	
Other Participants		
Michelle Martin	Anderson Consulting Engineers	
Matt McConville	HDR	
Mark Mitisek	LRE Water	
Jonathan Mohr	LRE Water	

6 7

Welcome and Administrative: Cory Steinke, 2023 WAC Chair

Meeting participants were identified from Microsoft Teams. Altenhofen requested a Perkins
County Canal update discussion, which Steinke said could be brought up at the end of the
meeting under Additional Business. There were no revisions to the original draft of the August
2023 WAC meeting minutes. Altenhofen made a motion to approve the minutes, second by
Merrill. No objections, minutes approved.

14 Brief Water Updates: Ed Weschler and Seth Turner, EDO

14 15

16 Platte Basin Hydrology:

17 Weschler reported that flows at Grand Island were below targets for an extended period in

18 August and September but there was a brief period of excess flows in late September. Much of

19 the Platte River basin—including the South Platte in Colorado, the North Platte in Wyoming, and

20 the Nebraska Panhandle—remains drought-free. Parts of the basin in Nebraska remain in

21 varying levels of drought, ranging from abnormally dry in Lincoln County and the area around

22 Lake McConaughy to extreme/exceptional drought at the easternmost extent of the Program's

Associated Habitat Reach. Parts of the North Platte Basin in Wyoming received 100%-300% of

24 normal precipitation from July 22-October 19, while precipitation was at or below normal across

25 much of the South Platte Basin in Colorado during the same time period. Precipitation in central

- 26 Nebraska was near-normal and drier to the east and west.
- 27

28 Leasing, Recharge, and Recapture Projects:

29 Turner reported that aggregate pumping by the Program's 8 recapture wells from the start of the

30 year through October 18 was 2,635 AF. Most of the wells had been pumping continuously since

31 July 27. Excess flows were diverted into Phelps County Canal from September 26-28, and about

- 32 553 AF was then delivered to Cottonwood Ranch from September 27-October 5. The amount
- released from the Pathfinder EA in September was 32,385 AF, of which 26,491 AF was credited
- 34 to the Lake McConaughy EA after accounting for transit losses. Leases and other surface water

- 35 credited to the Lake McConaughy EA in October included CPNRD (10,666 AF), NPPD (2,456
- 36 AF), the CNPPID irrigator lease (990 AF), and No-Cost NCCW (314 AF). CPNRD and NPPD
- 37 lease volumes were reduced relative to previous years because there were 18 non-exchange days
- 38 on which the South Platte River at North Platte flow exceeded 2,500 cfs.
- 39

40 Shafer asked if there was consideration of turning off the recapture wells in anticipation of

- 41 forecast cold weather the next week; Turner said not yet, but he would look into it. Shafer also
- 42 noted that due to CNPPID's planned releases to lower Johnson Lake, there was potential for
- 43 excess flows in the coming week. However, NPPD did not plan to divert because of expected
- 44 freezing conditions coinciding with those higher flows. Turner added that the Program did not
- plan to request diversion of any potential excess flows because CNPPID's planned flow release 45 from October 26-November 6 was effectively substituting for a fall whooping crane release from
- 46
- 47 the Lake McConaughy EA.
- 48

49 North Platte Chokepoint Study: Michelle Martin, Anderson Consulting Engineers

- 50 Martin provided a progress update for the chokepoint study. The project team led by Anderson
- 51 Consulting Engineers is currently working on Task Order #2, which includes field work, data
- 52 collection, and a geomorphic assessment. Martin and Brian Murphy (River Works) visited the
- 53 chokepoint in mid-October, including a meeting with CNPPID at the Tri-County Canal
- 54 diversion. They floated a 9-mile reach upstream of the Hwy 30 bridge and collected sediment
- 55 samples to inform the sediment transport modeling and geomorphic assessment. Martin and
- 56 Murphy also visited areas of the North Platte River reach upstream of the chokepoint where 57 access was possible, including Birdwood Creek. Local firm TC Engineering completed
- 58 surveying of 50 river cross sections to support the Anderson team's modeling efforts.
- 59

60 The project team is concurrently working on updating the existing conditions model for a 10-

61 mile reach of the North Platte River through the chokepoint using SRH-2D. The geomorphic

- 62 assessment is also underway, and this second phase of the study is expected to wrap up in January.
- 63
- 64

65 Altenhofen asked about the timeline for the alternatives analysis. Martin said they are

- 66 developing information for the proposed new alternatives and bringing all of the short-listed
- 67 alternatives to an equal level of information in advance of the more detailed alternatives analysis
- 68 that will come in the next phase of the study. That should lead to a refined selection of
- 69 alternatives for detailed analysis by January, and the study will conclude by late May or early
- 70 June 2024. Turner added that the short list of alternatives was developed by the project team and
- 71 the EDO over the summer and reviewed with the North Platte Chokepoint Planning Workgroup
- 72 in an August 28 meeting.
- 73
- 74 Expanded Recapture Reconnaissance Study: Jonathan Mohr and Mark Mitisek, LRE Water
- 75 Mohr and Mitisek gave a presentation that introduced the project team, provided an overview of
- major tasks, and reviewed the project schedule. The team is led by LRE Water and includes RJH 76
- and Inter-Fluve. Mohr is the overall project manager, and Mitisek is the technical lead. RJH is 77



- focused on the Elwood Reservoir outlet component of the study, and Inter-Fluve is responsiblefor the Plum Creek assessment.
- 80
- 81 There was a site visit on September 19-20 that included participants from LRE Water, TBNRD,
- 82 CNPPID, Nebraska DNR, and the EDO. The group visited the Program's existing recapture
- 83 wells at Cottonwood Ranch, Elwood Reservoir, the E-65 Canal, and sites along Plum Creek.
- 84
- 85 Inter-Fluve is planning Plum Creek field work for November 7-9; TBNRD has been leading the
- 86 effort to get access permission from landowners. Inter-Fluve will be surveying cross-sections
- 87 and taking photos/making observations of sediment, vegetation, geomorphology, and
- infrastructure. Two temporary stage monitoring stations are also to be installed. RJH will begin
 work on the gravity outlet assessment in November.
- 90
- 91 LRE Water is concurrently working on baseflow separation and transit loss analyses of Plum
- 92 Creek. Mitisek presented preliminary results from those analyses, which show a pronounced
- 93 baseflow increase following the construction of Elwood Reservoir in the late 1970s; Plum Creek
- 94 also appears to be a gaining stream below Elwood. Altenhofen asked if the gains were from
- 95 point inflows or coming from the aquifer. Mitisek said there were few significant tributary
- 96 inflows, so the gains appear to be primarily coming from Elwood seepage.
- 97
- 98 Later efforts will include the hydrogeologic assessment, which will include a review of
- 99 construction details from existing recapture wells to help establish aquifer parameters and a GIS-
- 100 based site selection of potential new recapture well locations. Following the November field
- 101 work, the Plum Creek watershed/stream assessment will be completed in December-January, and
- an alternatives assessment using the GoldSim model will be completed between January and
- 103 April. The project is scheduled to conclude by August 2024.
- 104

105 **Wyoming Property Flow Split**: Libby Casavant, EDO

- 106 Casavant gave a presentation to introduce the Wyoming property flow split project, an effort to
- 107 close a breach between channels that is effectively sending water away from whooping crane
- 108 habitat along the south channel and in the Rowe Sanctuary area. The Wyoming Property is
- 109 Program land in the Platte River channel a few miles east of Kearney. Several years ago, a
- 110 narrow strip of land between the north and middle river channels washed out. Since then, water
- 111 has preferentially flowed into the north channel—which is not suitable whooping crane habitat—
- because it has a lower bed elevation. The goal of the project is to use a combination of trees with
- root wads and fill material sourced from the nearby areas to construct a low trapezoidal berm to
- restore the channel separation and restore flows to whooping crane habitat on the middle and
- south channels. A wetland delineation was already completed by HDR (the Program's
- 116 permitting consultant), a permit application is expected to be submitted to the Corps in
- 117 November, and construction is planned to be completed by March 2024, prior to the spring
- 118 whooping crane migration. Construction is expected to cost about \$70,000.
- 119



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- 120 Scheel asked if this was the first time the WAC has discussed this project. Turner said
- 121 permitting activities have been going on for a few months but this is the first time presenting to
- 122 the WAC. Scheel asked if the magnitude of "less flow" to the south channel has been assessed.
- 123 Casavant said no, but it could be. Scheel also asked if Rowe Sanctuary was on board with this
- 124 plan. Mosier from Audubon confirmed Rowe's support since it would provide more flow
- through the reach, but noted Cody Wagner and Amanda Hegg from Rowe would have more information.
- 120
- Altenhofen asked how long it had taken for the north and middle channels to merge. Casavant said it occurred sometime between the 2010 and 2022 imagery that was shown; Mosier said it might have been during the 2019 high flows. Farnsworth said it was partially broken through before that and reiterated the key issue that the north channel is 0.5-1 ft lower than the middle
- and south channels, and whenever there are high flows, more goes north.
- 133
- 134 Scheel asked about design flows for the berm. Casavant said at 5 ft high it would be overtopped
- 135 by a 50-year flow; the elevation also matches the adjacent islands. Farnsworth added that the
- berm would not completely cut off the north channel and that a nationwide permit is being
- 137 pursued for the project. Farnsworth emphasized that the north channel is not suitable habitat for
- 138 whooping cranes, so getting more flow back into the middle and south channels is a major
- 139 benefit in that regard. Altenhofen asked if there were other Program properties along the north
- 140 channel. Yes, including the Spiedell property, but from a Program perspective it is preferred to
- 141 keep as much flow directed south as possible.
- 142
- 143 Urie asked if it made sense to look upstream where the middle channel splits from the south
- 144 channel. Casavant said the project location on the Wyoming property was selected because the
- 145 Program owns the land. Farnsworth said it might be possible to mitigate future issues like this
- 146 by modifying vegetation spraying. Ahern noted a concern about sediment and channel stability
- 147 because the breach is on an outside bend in both the north and middle channels. Casavant said
- 148 we are attempting to attenuate the scour with tree root wads. There is no intention of choking off
- 149 the north channel, just restoring the channel separation that was previously there.
- 150

151 **<u>2024 Water Plan Budget:</u>** Seth Turner, EDO

- 152 Turner reviewed the water-related budget line items for 2024. Excess flow diversions into
- 153 Phelps County Canal and Elwood Reservoir for recharge were pre-paid at least through 2032
- 154 under the Water Service Agreement between the Program and CNPPID that was approved in
- 155 December 2022, so no new funds are needed. The CPNRD canals have not diverted excess
- 156 flows for Program recharge since May 2020, so no funds are allocated for 2024. The only new
- 157 funding for canal recharge (WPRT-1) is for the NPPD canals, up to 5,000 AF at \$36.99/AF.
- 158
- 159 Item WPRT-3 for Cottonwood Ranch broad-scale recharge totals \$208,000 for 2024 and
- 160 includes funds for maintenance of the Rubicon gates, as-needed maintenance of the berms, and
- 161 groundwater monitoring equipment. The total also includes \$20,000 for engineering and
- 162 \$100,000 for construction to resolve cavitation issues in the delivery pipeline outlets.



- 163 WPRT-4 funding covers all project operation and maintenance costs under an agreement with
- 164 Tr-Basin NRD, including property easements and insurance, remote operation service
- 165 subscriptions, horsepower and energy costs, as-needed general maintenance, and Tri-Basin NRD 166 staff time and expenses.
- 167
- 168 Around \$25 million was budgeted under WPST-1 in 2023 for long-term surface water lease
- 169 agreements through the end of the Extension. Negotiations for those agreements continue, so the
- 170 GC approved one-year agreements in 2023 for CPNRD (up to 15,000 AF) and NPPD (up to
- 171 3,306 AF) leases at a unit cost of \$90/AF. One-year lease agreements with the same terms are
- 172 assumed again for 2024, resulting in a total budget of \$1,648,000 for WPST-1 in 2024.
- 173
- 174 WPST-2 includes budget for 9,600 AF from the Pathfinder Municipal Account lease at \$65/AF.
- 175 The CNPPID irrigator lease project was extended for one year through the 2024 irrigation
- 176 season, with WPIR-1 assuming enrollment up to 3,000 acres at \$100/acre, plus a \$10,000
- 177 administration fee that is paid to CNPPID.
- 178
- 179 Additional budget items include \$21,000 for general maintenance and property taxes at Program
- 180 lands that were acquired for water project purposes; \$42,000 for water monitoring equipment and
- 181 activities, which includes \$20,000 for Platte River stream gages at Cottonwood Ranch, \$5,000
- 182 for the Overton stream gage, and \$6,000 for weather stations; \$10,000 for as-needed
- 183 maintenance of the State Channel Berm at the North Platte Chokepoint; and \$20,000 for as-
- 184 needed Special Advisor services for water projects. Total Water Plan budget for 2024 is about \$3.2 million.
- 185
- 186

187 Contracts for the North Platte Chokepoint Study and the Expanded Recapture Reconnaissance

188 Study were awarded in 2023, and both studies will conclude in 2024. No new funds are

189 anticipated beyond the current contract amounts, and it is not expected that the GC would take

190 any immediate action on recommendations that emerge from those studies.

- 191
- 192 Special Advisor funds allocated for either 2023 or 2024 may be used to update an economic
- 193 analysis of the CNPPID irrigator lease. The EDO is reaching out to economist (and former
- 194 Headwaters employee) George Oamek about doing this work.
- 195
- 196 Mosier asked about the cost for the recapture well project under WPRT-4. Turner said it
- 197 includes some fixed annual costs such as easement payments to private property owners on
- 198 whose land some of the wells are located, but the annual electricity costs still remain uncertain.
- 199 Once we have more time operating the project, and electricity costs are better known, it is
- 200 expected that the overall budget for the project will be less in future years.
- 201
- 202 Altenhofen inquired about expenditures for water in 2023. Turner said most of the recharge
- 203 water is now prepaid, and the Program had not yet been billed for the CPNRD and NPPD surface
- 204 water leases, which were lower volumes than previous years. Total for 2023 will probably be



- 205 less than \$1.5 million. Farnsworth added that the unit costs are fixed each year, so expenditures come down to volumes diverted or leased. 206
- 207

208 WY2024 EA Annual Operating Plan (AOP): Mark Porath, USFWS

- 209 The WY2024 EA AOP was reviewed at the Fall EAC/RCC meeting on October 18 and was
- 210 included in the meeting materials for the WAC meeting. Porath described the EA releases that
- 211 are high priorities for USFWS in 2024, including the germination suppression release (targeting
- 212 1,500 cfs at Grand Island from June 1-30) and a spring whooping crane release. Winter
- 213 snowpack and Lake McConaughy storable natural inflows will be monitored closely to help
- 214 guide decision-making when those releases get closer, particularly for the spring whooping crane 215 release.
- 216
- 217 Turner added that the water supply in the EA is very good right now because of a smaller-than-
- 218 expected germination suppression release in 2023 and near-maximum yields from the Pathfinder
- 219 accounts that were delivered in June and September. If no EA releases were made in 2024, the
- 220 EA volume at the end of the water year could be greater than 190,000 AF (nearing the 200,000
- 221 AF maximum) given projected non-irrigation season storable natural inflows and assuming
- 222 average Pathfinder deliveries in 2024. The USFWS priority releases are therefore highly likely
- 223 but release magnitudes will depend on conditions at the time.
- 224

225 Additional Business: Cory Steinke, 2023 WAC Chair

- 226 The 2024 WAC meetings are scheduled for February 6, May 7, August 6, and October 29.
- 227 Turner said he would send placeholder meeting invites before the end of the year.
- 228

229 Altenhofen raised the issue of Nebraska's ongoing study of the proposed Perkins County Canal 230 and recommended several references for WAC members to review relating to relevant sections

231 of the Program Document, the State Depletions Plans, and recent activities in Colorado and

232 Nebraska. It was suggested by others that this may be a political topic better suited to GC

- 233 discussion, but Altenhofen emphasized the relevance to the WAC because of technical and
- 234 operational aspects of the Perkins project that could potentially impact Program water projects
- 235 including Colorado's water contributions to the Program. Altenhofen also asserted that if
- 236 Perkins County Canal were to have Program benefits, it would need to be scored as a Program
- 237 water project. Other specific items noted and questions raised by Altenhofen included the
- 238 following:
- 239
- 240 241
- The State of Nebraska maintains an informative and regularly-updated Perkins County • Canal website.¹

¹ https://dnr.nebraska.gov/perkins-county-canal

- Program Document² (PDF pages 37-39), discusses Depletions Plans for new water related activities (e.g., Perkins County Canal) and mitigation requirements for impacts to target flows and other Program water projects (e.g., Colorado's Tamarack Project).
- Program Document (PDF page 74), refers to the Program's "Good Neighbor Policy" and specifies that "All lands and water will be acquired from willing sellers or lessors." This implies that condemnation cannot be used for Program water projects. Nebraska has indicated Program benefits from the Perkins County Canal. At town hall meetings held by Colorado in Julesburg and Sterling in September, at least one attendee reported hearing of eminent domain from Nebraska representatives. Is that appropriate in the context of these Program policies?
- A recent Nebraska Supreme Court decision³ (page 329) related to a new Nebraska diversion from the Platte River refers to instream flow rights as "state-protected flows under the Program" and states that Nebraska DNR "...cannot allow new uses of the Platte River unless adverse effects on state-protected flows are either prevented or offset."
 Would that provision apply to the Perkins County Canal?
- 257

263

Altenhofen concluded with the hope that Nebraska and their consultant (HDR) will soon address these issues in forthcoming reports and in discussions with the WAC and GC. Farnsworth added that the GC will eventually need to address the Perkins County Canal from a policy perspective given potential Program benefits, the interstate compact, and other issues. Schellpeper said there were no specific updates from Nebraska DNR but referred to the website for more information.

- 264 Action Items
- 265266 General WAC
- 267 N/A
- 268

270

- 269 <u>ED Office</u>
 - Send placeholder meeting invites for 2024 WAC meetings.

² <u>https://platteriverprogram.org/document/final-platte-river-recovery-implementation-program-full-document-appendices</u>

³ <u>https://law.justia.com/cases/nebraska/supreme-court/2023/s-23-028.html</u>