PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes
Virtual Meeting – Microsoft Teams
February 7, 2023

PRRIP Water Advisory Committee Meeting Attendees		
Name	**Affiliation**	**Member or Alternate**
Department of the Interior		
Brock Merrill	U.S. Bureau of Reclamation (USBR)	Member
Jeff Runge	U.S. Fish and Wildlife Service (USFWS)	Member
State of Wyoming		
Jeff Cowley	Wyoming State Engineer's Office (WY SEO)	Member
Michelle Gess	WY SEO	
State of Colorado		
Kara Scheel	Colorado Water Conservation Board (CWCB)	Member
State of Nebraska		
Kari Burgert	Nebraska Department of Natural Resources (NDNR)	Alternate
Justin Ahern	NDNR	
Mike Archer	Nebraska Game and Parks Commission (NGPC)	
Upper Platte Water Users		
Dennis Strauch	Pathfinder Irrigation District	Member
Colorado Water Users		
Jon Altenhofen	Northern Water	Member
Kyle Whitaker	Northern Water	Member
Jason Marks	Denver Water	
Kevin Urie		
Downstream Water Users		
Cory Steinke	Central Nebraska Public Power and Irrigation District (CNPPID) – *2023 WAC Chair*	Member
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)	
Travis Preston	North Platte Natural Resources District (NPNRD)	
Tyler Thulin	CNPPID	
Randy Zach	NPPD	
Environmental Entities		
Jacob Fritton	The Nature Conservancy	Member
Melissa Mosier	Audubon Great Plains	Member
Carrie Roberts	The Crane Trust	Member
Rich Walters	The Nature Conservancy	Alternate
Josh Wiese	The Crane Trust	Alternate

PRRIP Water Advisory Committee Meeting Attendees	
Executive Director's Office (EDO)	
Jason Farnsworth	Executive Director
Chadwin Smith	Science Policy Coordinator
Seth Turner	Water Plan Coordinator
Justin Brei	Engineering/Colorado Coordinator
Libby Casavant	Hydraulic Engineer
Kristen Cognac	Hydrogeologist
Helen Davis	Geospatial Analyst
Sarah Fancher	Fluvial Geomorphologist
Ed Weschler	Water Resources Engineer
Other Participants	
n/a	

Welcome and Administrative: *Cory Steinke, 2022 WAC Chair*
Meeting attendees were identified from Microsoft Teams. There were no agenda modifications. There were no revisions to the original draft of the October 2022 WAC meeting minutes. Marks made a motion to approve the minutes, second by Strauch, no objections, approved.

Nomination and Election of WAC Officers for 2023: *Cory Steinke, 2022 WAC Chair and Seth Turner, EDO*

Steinke asked if anyone was opposed to the WAC having both a chair and vice chair. Turner explained the proposal to have both officers, and potentially rotating annually, was consistent with what the TAC did in January and part of a broader effort to increase committee engagement. Farnsworth added that there has been feedback that the EDO is doing too much talking at people and that the committees should be more interactive. There was discussion of the role of the WAC: advise the GC on water matters, help the EDO with technical water issues, etc.

Altenhofen suggested that annual rotation of officers was too frequent given the technical nature of the WAC. Marks asked if this also implied a change in Turner's role. Turner clarified that there is no proposed change to his role in the planning and coordination of WAC meetings or water-related technical activities; the intent of having a vice chair is simply to have another committee member run meetings in the absence of the chair. Scheel volunteered to serve as WAC vice chair. Steinke said that the WAC's technical role has declined in recent years. Flyr noted that many of the meeting participants were unfamiliar. Turner acknowledged the point, saying that there has been a lot of member/participant turnover and only one in-person meeting in the last 3 ½ years. Turner said a return to more frequent in-person meetings and other activities such as a water projects tour would be valuable for all those involved, if the committee is in favor. There was discussion of providing more information in the meeting attendance

roster, and Turner said a link to the WAC member list on the Program website[1] would be provided in the meeting minutes.

Altenhofen nominated Steinke as 2023 WAC chair and Scheel as vice chair, second by Strauch. There were no objections, and the motion was approved.

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

Leasing, Recharge, and Recapture Projects:
Turner provided updates on recent Program water projects operations. Recapture well pumping in 2022 totaled 2,261 AF for the Cook well and the seven new wells near Cottonwood Ranch. There have been no excess flows and no recent diversions for recharge. CNPPID and NPPD have temporary annual permits to divert excess flows for recharge that expire soon and will be renewed. In December, the GC approved a Water Service Agreement to continue Phelps and Elwood recharge through December 31, 2032. Work on long-term surface water lease agreements with CPNRD and NPPD is ongoing. The CNPPID irrigator lease program enrolled 1,320 acres for 2023, which will result in a 990 AF credit to the Lake McConaughy EA in October. The leasing agreement for that project expires December 31, 2023 and the potential to renew will be discussed with the WAC later in the year. As of January 31, the Pathfinder Municipal Account held 11,153 AF and the Pathfinder EA held 3,114 AF.

Steinke asked if there were any noticeable impacts to groundwater levels from the recapture well pumping. Little said that regional pumping had a clearly noticeable effect because of the hot, dry irrigation season, but it would be hard to attribute anything specific to the recapture wells.

Platte Basin Hydrology*:*
Weschler said the usual Grand Island flow summary figure was not updated because the gage has reported continuous "ice" conditions since November 13. Drought conditions across the basin have improved somewhat since October, particularly in the South Platte basin in Colorado. Much of the North Platte basin through the Nebraska Panhandle and into eastern Wyoming, as well as southwestern Nebraska, remained in extreme to exceptional drought as of February 6. Snowpack conditions as of February 6 show the South Platte basin in Colorado at 112% of normal. In both the South Platte and North Platte/Laramie basins, snow water equivalent tracked close to normal until the very end of December and increased through most of January before starting to level out again.

Lake McConaughy Environmental Account*:*
Runge said USFWS had no specific updates regarding the Lake McConaughy EA. Turner said, unless USFWS proposed other priorities, the top priority release this year would again be for germination suppression through June. Turner also said the EDO would like to have the ability to use a few hundred AF of EA water for infrastructure testing at Cottonwood Ranch if excess

[1] https://platteriverprogram.org/group/water-advisory-committee/members

flows continue to be unavailable into the spring; this would also facilitate data collection to inform a groundwater model the EDO will begin developing for the broad-scale recharge and recapture well projects. Runge said USFWS would prefer to wait until after the mid-March change in target flows to commit. Turner said this is a "just in case" measure but we need to plan ahead because CNPPID has to get a permit to use EA water in this manner. Marks asked how much EA water is expected to be used for germination suppression. Turner said it depends how dry it is in late May and June; last year we released 80,000 AF.

2021 WAP Projects Operations Accounting Updates: *Seth Turner, EDO*

Turner presented a series of tables and figures to illustrate Program water projects operations accounting, which was updated to include calendar year 2021. Total accruals to the Lake McConaughy EA (67,206 AF) were much lower in 2021 than previous years, mostly because of significantly reduced contributions from the Pathfinder Reservoir accounts: there was no water available for leasing from the Pathfinder Municipal Account and accruals to the Pathfinder EA were less than 10,000 AF. Releases from the Lake McConaughy EA totaled 70,375 AF.

Steinke asked if there was pressure to show the target flow deficit reductions at Grand Island resulting from EA releases, as it is tough to see accounting results that suggest released water is not being counted toward something. Farnsworth noted that the EA is operated to provide water for species benefits, not specifically to provide deficit reductions. Turner agreed and said additional text would be added to the relevant presentation slide to help clarify this issue before the slides are distributed to the WAC. Turner said the deficit reductions are calculated and shown for EA releases (and recharge projects) because that is the metric used to assess project performance in score analyses and this provides a real-world comparison.

Invoiced recharge diversions included 2,482 AF into Phelps, 3,764 AF into Elwood, and 563 AF into the NPPD canals. The Cook well pumped 541 AF in 2021. The tables and figures for recharge projects also show calculated accretions (return flows) to the river, deficit reductions at Grand Island (i.e., accretions reaching Grand Island when there are shortages), and accretion rates (ranging from about 2-5 cfs for Phelps in 2021 and more than 5 cfs for Elwood). As of December 31, 2021, there was estimated to be just under 5,500 AF of Program recharge water in Elwood Reservoir and about 40,000 AF that was recharged from the reservoir but had not yet returned to the river as lagged accretions.

Elwood Seepage Repair and E65 Canal/Siphon Projects: *Tyler Thulin, CNPPID*

Thulin provided updates on two CNPPID design and construction projects. Because of limited siphon capacity on the E65 canal (350 cfs), Elwood Reservoir was constructed in the late 1970s to provide supplemental irrigation water supply. Water is pumped into the reservoir in the spring and released during periods of high irrigation demand.

In recent years, the average water surface elevation remained higher due to use of the reservoir for recharge. Significant seepage was observed at the Pump Station Dam in 2019, and consultant RJH was hired to investigate. RJH determined that there was potentially unsafe seepage at the

Pump Station Dam and Main Dam when the water surface elevation is above 2597 ft (maximum elevation is 2607 ft). Design of the seepage repairs is complete and was approved by the state. RJH estimated construction costs at $4.2 million; 3 bids were received, ranging from $3.8 million to $6.2 million. Construction is expected to begin after July 17, 2023 and be completed by summer 2024.

Altenhofen inquired about the fixes for seepage, and Thulin said it includes toe drains and blanket drains. Farnsworth noted that because of the importance of Elwood Reservoir to Program recharge operations, the Program is contributing $2 million to the seepage repair construction costs as part of the new water service agreement with CNPPID for recharge. Steinke added that the estimated $6 million cost was split three ways between the parties benefiting from Elwood recharge (the third party being the State of Nebraska).

The existing E65 siphons have a capacity that is often less than downstream irrigation demands. They have been in service for more than 80 years and are nearing the end of their useful life. The design for the new alignment includes about 5,500 ft of new canal and 5,800 ft of new siphon and is about 2 miles shorter than the existing canal. The new siphons are proposed to be fusion welded HDPE with about 102" outside diameter and 450 cfs capacity. The new canal will allow for gravity flow of water into Elwood Reservoir rather than pumping.

A feasibility study was completed by JEO, with construction costs estimated to be $15 million. CNPPID applied for and received a Water Sustainability Fund Grant for $8.9 million. Three proposals were received, and CNPPID selected a JEO/HDR team to design the project. The design is anticipated to be completed in January 2024, with construction to begin in early 2024 and potentially be completed by the end of 2024. Thulin opined that this schedule may be too optimistic.

Steinke said technology finally progressed to the point that this new canal and siphon system can be built. Altenhofen asked if the old canal would be abandoned. Thulin said it will continue to be used until it no longer makes sense to maintain it.

VESPR North Platte Chokepoint Investigation: *Melissa Mosier, Audubon*

Mosier presented a high-level summary of a recent study of the North Platte chokepoint reach that was completed on behalf of the VESPR (Vision for an Ecologically-Sound Platte River) group. The full study report and peer review documentation were made available to the WAC. A more in-depth review was presented to the North Platte Chokepoint Planning Workgroup on February 1 by the River Design Group (RDG) and FYRA (now Houston Engineering) consultants who completed the study and peer review.

The study was funded by VESPR participants including The Crane Trust, Nebraska Game & Parks Commission, Audubon, The Nature Conservancy, and Ducks Unlimited. The study set out to address four key questions: (1) What are the major factors contributing to a loss of channel capacity at the North Platte chokepoint reach; (2) What is the flooding risk to the city of North

Platte under various high flow conditions; (3) What is the projected future capacity at the North Platte chokepoint under various management conditions; and (4) What potential actions could increase capacity through the North Platte chokepoint?

RDG defined an equilibrium channel profile through the chokepoint reach and completed 10 hydraulic modeling scenarios to evaluate sensitivity of channel capacity to variables that included widening bridge openings, removing the Tri-County Canal diversion dam, bypassing the diversion dam and dredging the upstream channel, and removing extensive swaths of vegetation.

RDG concluded that modifications to the Tri-County Canal diversion dam were necessary to increase flow and sediment conveyance capacity. Any benefits from bridge widening were determined to be localized and temporary. Vegetation removal would require extensive effort for minimal gains in capacity, which would be temporary under the current hydrologic regime. Active (dredging) and passive (river erosion) methods of sediment removal would be necessary to increase local flow conveyance.

The report provides more detail on the sediment removal concept, including benefits, feasibility concerns, and the need to develop a sediment transport model to address additional questions. RDG also proposed a direct canal connection concept between the outlet canal from the NPPD hydro plant and the Tri-County Canal.

Regarding potential modifications to the Tri-County Canal diversion dam, Altenhofen said that Obermeyer bladder gates are now widely used on the lower South Platte River in Colorado and can lay down completely to facilitate sediment flushing. There was discussion that lowering the diversion dam gates or cutting pilot channels are actions that would still require abundant water to effectively flush sediment. Farnsworth noted that there is limited potential for flood flows within the drainage area upstream of the diversion dam. Steinke said that about 75-80% of the combined annual flow at the confluence of the North Platte and South Platte rivers already gets diverted by the Tri-County Canal. Farnsworth also commented on differences between Program and VESPR objectives at the chokepoint, with the Program focused on capacity at the Highway 83 bridge, several miles upstream of the canal diversion dam.

Marks asked about VESPR's interest in the North Platte chokepoint. Mosier explained that the VESPR participants went through a landscape design process and looked for places that could influence larger landscape-level changes. The North Platte chokepoint stood out as a limiting factor in the implementation of larger-scale ecological resilience practices in the central Platte. The chokepoint study was identified as a priority, but VESPR efforts are subject to available financial resources.

North Platte Chokepoint Study RFP: *Seth Turner, EDO and Jason Farnsworth, ED*

To preface the RFP discussion, Farnsworth explained that in late-summer 2022, the owner of a 90- to 100-acre property upstream of the Highway 83 bridge approached the Program with an

offer to buy the land. In considering the offer, it became apparent that any future work in the river channel upstream of the Highway 83 bridge would involve this property. The GC elected to purchase the property and take another shot at a study to identify potential solutions to the capacity issue. The acquisition was expected to be completed by mid-February. The cost was about $490,000.

Turner described the key elements of the RFP for the chokepoint study, which was informed by discussion with the Chokepoint Planning Workgroup a week earlier. The proposed schedule is as follows: with recommendation from the WAC, the RFP would advance to the Finance Committee (FC) on February 21, then to the GC on March 7-8. If the scope is approved by the GC and a selection panel seated, the RFP would be released in mid-March, followed by a mandatory pre-proposal meeting on or around March 30, and proposals would be due by April 14. The selection panel would review proposals, and interviews are anticipated in early May, with final consultant selection to be made no later than May 25 (just prior to Memorial Day weekend). Scoping work with the selected consultant and the Chokepoint Planning Workgroup would begin in mid- to late-June, and the consultant could make an initial presentation to the WAC in August.

The consultant selection is to be based on qualifications; the RFP includes a list of the expected skills and experience. The general outline of the study begins with a comprehensive alternatives analysis process that encompasses all alternatives considered for the chokepoint reach in previous Program studies, potential bypass options, ideas from the VESPR report, the proposed Perkins County Canal, etc. This will be followed by updating existing hydraulic models to a current conditions baseline. After potential alternatives are screened, a select number will be modeled in detail (likely 2D hydraulic and sediment transport) to evaluate the potential to achieve and maintain 3,000 cfs conveyance capacity through the chokepoint reach. The approved budget for the study is $400,000, and the consultant contract will be for one year, ending June 2024.

Altenhofen made a motion to advance the RFP for FC and GC approval, with a second from Mosier. There were no objections, and the motion passed.

Expanded Recapture Study RFP: *Seth Turner, EDO*

Turner explained that with the Program having recently completed construction of a pilot-scale recapture network near Cottonwood Ranch, CNPPID soon to construct a seepage repair system that will allow full recharge operations to resume at Elwood Reservoir, and there being an estimated 40,000 AF or more of Program recharge water that is in the aquifer but has not yet returned to the river, the Program will be leading a feasibility study to explore options for expanding recapture operations associated with recharge projects on the south side of the Platte River. This encompasses water recharged through Elwood, Phelps, and the Cottonwood Ranch broad-scale recharge project. Nebraska DNR also has an interest in the study because of their recharge projects in the same areas.

The general outline of the study is to evaluate the feasibility (and potential locations) of additional recapture wells, a potential gravity outlet from Elwood Reservoir to Plum Creek, and combinations of both. The feasibility study will likely include assessing conveyance issues in Plum Creek, including bridges or other obstructions, bank stability, and so forth.

The plan is to convene a new workgroup that will meet once or twice in March-April to define the scope of the feasibility study. A draft RFP will be presented to the WAC in May, followed by the FC on May 30, and the GC on June 13-14. If this schedule is maintained, the RFP would be released in mid- to late-June, with proposals due in late July, and consultant selection would be completed prior to the September GC meeting.

Turner requested volunteers for the workgroup. Those signing up included Altenhofen, Steinke, Thulin, Flyr, Little, Burgert, Schellpeper, Gess, and Fritton (and/or other environmental reps).

Future Meeting Topics and Water Projects Tour: *Seth Turner, EDO*

Steinke began this discussion by asking what is the role of this group, where do we want it to go? The WAC doesn't make decisions but does provide guidance to the GC. Routine reports to the WAC are fine and necessary, but what new things would members like to see? Should there be more discussion of what Program water does, projects, history?

Turner said this dovetails with the approach discussed with the TAC in January: we want to increase engagement from the advisory committees. Turner noted that he'd once again presented a lot of material during this WAC meeting and asked if there are other particular topics the committee would like the EDO to cover. With consistent virtual meetings the last few years the WAC has fallen into a routine. With many new members, are there topics that haven't been covered in a while that should be?

Mosier proposed several ideas, including future water supply availability, the Perkins County Canal (as noted by Jesse Bradley during the Chokepoint Planning Workgroup meeting), Colorado water legislation, and implications of future climate scenarios. Altenhofen emphasized that the Perkins County Canal will be a hot topic as it relates to the Program. If HDR is doing the current Perkins study and also permitting services work for the Program, is that good or bad? Communication between the HDR project team and the EDO is important to make sure that Program constraints, depletions plans, and other issues are understood. Farnsworth said the Program will start a process in March to figure out how to deal with Perkins moving forward.

Runge proposed discussion of Lake McConaughy EA management and how we use water at Grand Island as a surrogate for species benefits. Releases from the EA should be high efficiency and highly effective. Operational flexibility and how to maximize the benefit of EA releases also needs to be considered.

Turner said the last time that the WAC went on a water projects tour was in May 2018, and before that May 2015. If the committee is interested, this year would be a great opportunity to

do so again to facilitate in-person engagement. Responses from WAC members were positive, and Turner said a tour will be planned for May 2-3 to coincide with the WAC and EAC/RCC meetings and requested that members email him with any suggestions for tour stops.

Additional Business: *Cory Steinke, 2023 WAC Chair*
2023 WAC Meeting Schedule: May 2, August 1, October 24. May meeting will be in-person, followed by a tour of Program-relevant water projects.

Action Items

General WAC
- N/A

ED Office
- Send email to WAC soliciting suggestions for water projects tour.