



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes
Virtual Meeting – Microsoft Teams
February 6, 2024

| PRRIP Water Advisory Committee Meeting Attendees | | |
|--|---|---------------------|
| Name | Affiliation | Member or Alternate |
| Department of the Interior (DOI) | | |
| Brock Merrill | U.S. Bureau of Reclamation | Member |
| Matt Rabbe | 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 (CWCB) | Member |
| Amy Ost diek | CWCB | |
| State of Nebraska | | |
| Jennifer Schellpeper | Nebraska Department of Natural Resources (NDNR) | Member |
| Jesse Bradley | NDNR | Alternate |
| Kari Burgert | NDNR | Alternate |
| Justin Ahern | NDNR | |
| Mike Archer | Nebraska Game and Parks Commission | |
| Avery Dresser | NDNR | |
| Ryan Kelly | NDNR | |
| Caitlin Kingsley | NDNR | |
| Jim Ost diek | NDNR | |
| Upper Platte Water Users | | |
| Dennis Strauch | Pathfinder Irrigation District | Member |
| Colorado Water Users | | |
| Jon Altenhofen | Northern Water | Member |
| Kyle Whitaker | Northern Water | Member |
| Rich Belt | South Platte Water Related Activities Program | |
| Craig Brownell | Lower South Platte Water Conservancy District | |
| 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) | |
| Scott Shaneman | North Platte Natural Resources District | |
| Tyler Thulin | CNPPID | |

This document is a draft based on one person's notes of the meeting. The official meeting minutes may be different if corrections are made by the Water Advisory Committee before approval.



| PRRIP Water Advisory Committee Meeting Attendees | | |
|--|----------------------------------|-----------|
| Environmental Entities | | |
| Jacob Fritton | The Nature Conservancy | Member |
| Melissa Mosier | Audubon Great Plains | Member |
| Josh Wiese | The Crane Trust | Alternate |
| Executive Director's Office (EDO) | | |
| Jason Farnsworth | Executive Director | |
| Seth Turner | Water Plan Coordinator | |
| Justin Brei | Engineering/Colorado Coordinator | |
| Libby Casavant | Hydraulic Engineer | |
| Ed Weschler | Water Resources Engineer | |
| Other Participants | | |
| Pat Engelbert | HDR | |
| Matt McConville | HDR | |
| Jonathan Mohr | LRE Water | |

Welcome and Administrative: *Cory Steinke, 2023 WAC Chair*

Meeting participants were identified from Microsoft Teams. There were no agenda modifications. There were no revisions to the original draft of the October 2023 WAC meeting minutes. Shafer made a motion to approve the minutes, second by Scheel. No objections, minutes approved.

Altenhofen nominated Steinke as 2024 WAC Chair and Scheel as 2024 WAC Vice Chair. No objections, both approved.

Perkins County Canal: *Jesse Bradley, NDNR*

Bradley introduced a presentation on the proposed Perkins County Canal (slides were made available to the WAC after the meeting via the Program website), noting that this is the same presentation used to start permitting discussions, including preliminary talks with the Corps of Engineers, the Bureau of Reclamation, and USFWS. Following up on this point at the end of the meeting, Altenhofen asked about DOI involvement in Perkins. Rabbe confirmed that Bradley gave the same presentation to USFWS and that the agency is just taking in information, not making any preliminary judgments or decisions. Merrill likewise said the same presentation was given to Reclamation regional officers in Billings but Reclamation is not involved in funding or permitting the project in any way.

Article VI of the 100-year old South Platte Compact explicitly allows for construction of a South Divide Canal (aka Perkins County Canal) for purposes of irrigation in Nebraska. That canal would divert water from the South Platte River in Colorado, follow an alignment generally along the South Platte, and convey water across the state line into Nebraska. There is not a lot of flexibility in the route the canal can take. Elements of the project are dictated by the terms of the Compact. Since this would effectively involve diversion of water for irrigation during the non-



33 irrigation season, construction of a reservoir in Nebraska would be needed. Nebraska is
34 currently moving forward aggressively with project design and development.

35
36 Bradley said Colorado's position is that Nebraska has no protection of water during the non-
37 irrigation season and cannot call for water without construction of the canal. The Western Canal
38 can call for water during the irrigation season. Bradley added that Nebraska's concern is the
39 proliferation of non-irrigation season water use upstream in Colorado, e.g., well pumping and
40 depletions (with augmentation plans to mitigate). Augmentation was scaled up after a Colorado
41 court decision in the early 2000s mandated mitigation for depletions. Nebraska sees about
42 90,000 AF of diversions (depletions + pumping) during the non-irrigation season in Colorado,
43 including about 1,000 existing groundwater wells and equating to about 270 cfs. There are also
44 increasing demands and shortages in Colorado, with various projects at different stages of
45 development along the lower South Platte, plus new foothills reservoirs. PRRIP and Colorado's
46 New Depletion Plan allow South Platte depletions to increase by about 100,000 AF. All of this
47 combines to reduce flows into Nebraska, but only the lower section of the South Platte below the
48 Balzac gage is impacted by the Compact. The Perkins diversion would be in this lower section,
49 and a new Nebraska canal cannot directly impact uses in the upper section of the South Platte
50 above the Balzac gage.

51
52 Without the canal, i.e., a No Action scenario, Bradley asserted that Nebraska believes Colorado
53 could increase consumptive use until the only water crossing the state line is the (up to) 120 cfs
54 required for the Western Canal during the irrigation season. Nebraska sees the Perkins County
55 Canal as the only way the state can preserve some South Platte water for its own use. The
56 project would result in less reduction of flows at the Colorado-Nebraska state line. There is no
57 new irrigation development proposed, as the water would be used to support existing irrigation
58 demands downstream, including potential exchanges to North Platte River canals. The Compact
59 requires that the first use of Perkins County Canal water be for irrigation; there would be no
60 expansion, just support for existing surface water irrigation of about 100,000 acres.

61
62 Bradley reported that an evaluation by the consultant Zanjero for the Nebraska legislature found
63 that there would be roughly 75,000-100,000 AF available to Nebraska during the non-irrigation
64 season with the canal. The Perkins County Canal could also potentially help to address issues
65 with the North Platte chokepoint (a concern for USFWS) by moving up to 1,000 cfs down the
66 South Platte River that cannot be done currently.

67
68 Bradley noted that the Perkins County Canal would require NEPA and ESA analyses. No
69 federal funding is proposed for the project, only state funding. A 404 permit would likely be
70 needed for the South Platte River diversion structure. The PRRIP Second Increment would also
71 require NEPA and ESA analysis but NEPA for the Perkins County Canal is expected to proceed
72 first. Bradley stressed that the Perkins County Canal is not a Program project, and he is not
73 suggesting it is, but it could still provide potential benefits to address the North Platte chokepoint
74 and secure water supplies.



76 Altenhofen said he has many questions about Bradley's presentation and Nebraska's
77 assumptions (Altenhofen provided additional clarifying comments and details that are appended
78 to the end of these minutes). How would this not be a Program project if it is benefitting the
79 Program? He recommended that everyone read the Nebraska New Depletion Plan, which
80 includes a moratorium on storage development in Nebraska. Nebraska also cannot negatively
81 impact another state's (i.e., Colorado's) project(s) for the Program. Altenhofen also noted that in
82 mid-winter, such as now, Colorado diversions are all frozen except for the 30 wells pumping for
83 recharge to benefit the Program.

84
85 Whitaker noted that new foothills reservoir projects in Colorado such as Chimney Hollow and
86 the Gross Reservoir expansion are storage facilities for Colorado River water and benefit the
87 South Platte through return flows. Whitaker asked how Nebraska envisions non-irrigation
88 season diversions to occur given excess flows availability, river dry up, and other factors.
89 Bradley said the plan is a direct surface diversion. Nebraska anticipates their impacts to the river
90 would be similar to what's already occurring, on the order of 270 cfs depletions, not taking out
91 more than current. Bradley added that Program provisions can't supersede the South Platte
92 Compact and that Nebraska has a superior right to the water.

93
94 Altenhofen said a 1985 Nebraska Supreme Court decision held that a prospective Perkins County
95 Canal would have to address ESA issues, but Bradley disagreed with that interpretation.
96 Altenhofen said that a 1921 call for the Perkins County Canal would shut down the junior
97 Tamarack wells. Bradley suggested that the canal could accomplish what Tamarack does more
98 efficiently. He said everything is still conceptual, with design only about 10% complete, and
99 collaborative discussions with Colorado are ongoing; Nebraska simply doesn't want to miss out
100 on the opportunity to secure more water. Altenhofen asserted that there is much to discuss and
101 that it needs to start at the Governance Committee (GC) level sooner than later.

102
103 Whitaker asked for clarification that other uses are not to be expanded, that Perkins would just be
104 a firming project. Bradley confirmed that there are no plans to bring new lands into irrigated
105 production as part of the project.

106
107 Steinke asked how to move forward with discussions of this? How do we keep WAC
108 discussions Program-related and not political? Keep Perkins County Canal as a standing agenda
109 item? Shafer suggested that as the Water Advisory Committee, the group should remain silent
110 until the GC asks for advice, and only then do some work on it. Responding to Shafer,
111 Altenhofen said that as a Colorado stakeholder and WAC member, he's not just going to wait for
112 Nebraska to address mitigation for Tamarack, we need to understand how this would impact
113 Tamarack.

114
115 Farnsworth asserted that the March GC meeting would be the right time to start discussing the
116 project at that level. Farnsworth asked Bradley if the project Purpose & Need has anything to do
117 with the Program. Bradley said no, not even irrigation, the Purpose & Need is just to secure
118 water rights under the South Platte Compact. Altenhofen said there needs to be discussions with



the Corps. Bradley asked if the WAC is the right place for discussion. Farnsworth replied that there needed to be a GC discussion about how and when to engage the WAC vs policy vs inter-state issues. There needs to be a major conversation to figure out how to proceed over the long term. This project is increasingly “real” every quarter, and the Program needs to figure out what to do. Steinke said the WAC should wait for direction from the GC, that we want to keep the WAC out of the politics if possible. Responding to Altenhofen, Farnsworth said the GC meeting is March 11-12 (Monday-Tuesday) at the Holiday Inn in Kearney.

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

Platte Basin Hydrology:

Weschler provided an update on Platte Basin hydrology. Based on flow volume (812,888 AF) and average flow rate (1,123 cfs), the annual hydrologic condition for 2023 was normal. Platte River flows at Grand Island were below targets for much of the late fall and early winter; there were ice conditions for most of January.

Compared to late October, abnormally dry conditions spread across much of the South Platte Basin in Colorado and into the North Platte Basin in Wyoming. Aside from these areas and a few small pockets of moderate drought, much of the rest of the Platte Basin is not under drought conditions.

As of February 5, Colorado snowpack in the South Platte and North Platte was at 91% of median or higher despite tracking below median for nearly the entire season to date. Wyoming snowpack in the North Platte subbasins was generally lower, ranging from 65% of normal in the Lower North Platte to 84% in the Sweetwater and Upper North Platte. North Platte snowpack likewise had tracked below median for nearly the entire season to date.

Wyoming Property Flow Split:

Casavant said this project would involve closing a breach between river channels on the Program’s Wyoming property east of Kearney that is allowing water to flow into the north channel and away from whooping crane habitat in the Rowe Sanctuary area. There were no substantial changes to the project approach or design from what was presented at the October WAC meeting. A more detailed design and bid package were developed and presented to the Finance Committee for review on January 19; approval is pending. The permit application was submitted to the Corps of Engineers in early January. They provided some feedback and requests for clarification, and a decision on that is also expected soon.

Shafer said he’d been reviewing old aerial photos, which show that sometimes flow goes from the north channel to the south. Are we worried about consequences if the north channel gets more flow and we can’t move it south? We don’t want to cut off flow from north to south. Casavant and Farnsworth both acknowledged that this is a potential concern but there are likely issues that would present elsewhere first. Brei added that flow just doesn’t often move from



north to south at the specific project location. Farnsworth noted that the north channel elevation is lower.

Whitaker expressed some of the same concerns. When you start to mess with the hydraulics of a sand bed river, nature is going to win. How durable is this berm supposed to be? Is it strong enough to hold up to the next event that might engage the other channel? Casavant responded that the berm elevation matches islands on either side. The berm would be under water in a 5,000 cfs event. Toe protection should help mitigate the risk, but the berm is not hardened. Brei said the actual overtopping flow is likely higher than 5,000 cfs and that similar projects last 5 years or more. Overtopping is rare, scour happens over time, and a full washout is unlikely to happen without warning. A project to protect an outside bend at the Spiedell property lasted about 7 years. Other locations would have significant permitting hurdles, but the flow split on the Wyoming property is something we can actually fix since the Program owns it. The non-concrete design also has fewer permitting hurdles. Casavant added that this is a wide flow area, so we won't see scour here like on an outside bend.

Altenhofen said if the berm provides benefits for 7 years then washes out, just rebuild it. Sand dams wash out all the time on the lower South Platte in Colorado. Altenhofen also asked who is handling permitting? Farnsworth said HDR and that it will be a Nationwide 27 permit. Farnsworth added that the Program has a sponsorship agreement with Rowe Sanctuary and gets to count associated habitat acres. The flow split upstream at the Kearney bridge evolves over time, but the Wyoming property provides greater bang for buck in terms of restoring flows to whooping crane habitat. Flow splits elsewhere are beyond the Program's capabilities.

Casavant showed a chart illustrating flow increases at Rowe with the restored berm, about 35%. Altenhofen asked about costs. Casavant said about \$79,000, which was increased a bit from previous estimates to help establish vegetation on the berm. Steinke summarized this as the cheapest option to help protect habitat downstream, for however long it lasts.

Rabbe added that we're also considering the germination suppression flow. At 1,500 cfs we're losing a lot of flow to the north channel and not seeing germination suppression being as successful at this location. This project can be thought of as a way to offset costs of disking and spraying the river.

Farnsworth said this project will be discussed with the Governance Committee in March to address concerns.

Leasing, Recharge, and Recapture Projects:

Turner reported on recent water projects operations and activities. Excess flow diversions into four groundwater recharge projects (Cottonwood Ranch BSR, Elwood Reservoir, Phelps County Canal, NPPD Dawson County Canal) totaled 6,130 AF in 2023. Pumping from 8 recapture wells totaled 2,768 AF. Temporary recharge permits for CNPPID and NPPD will expire March 1; both entities plan to apply for new permits.



Enrollment in the CNPPID irrigator lease for 2024 totaled 1,053 acres, which will result in a credit of 790 AF to the Lake McConaughy EA in October. This is the 2nd-lowest enrollment, just above the 1,037 acres in the first year of the project (2016).

Excess flows were declared available on February 2; CNPPID was diverting water into Phelps County Canal and then delivering to Cottonwood Ranch. There was potential for excesses through February 14, after which the target flow at Grand Island increases to 3,350 cfs.

North Platte Chokepoint Study:

Turner reported on progress made by the Anderson Consulting Engineers project team. Field work in October included sediment sample collection, floating the Chokepoint reach, and touring the Tri-County Diversion Dam with CNPPID. A subcontractor completed extensive cross-section surveying around the same time. A geomorphic assessment is underway, and the EDO reviewed preliminary findings. Baseline hydraulic and sediment transport models were updated based on the 2017 bathymetric LiDAR and calibrated based on the new cross-section surveys. Development and review of potential alternatives to achieve and maintain 3,000 cfs conveyance capacity through or around the Chokepoint is ongoing. An alternatives memo was recently prepared by the consultant and will be discussed with the Chokepoint Planning Workgroup on February 13. The team has also started planning for the final phase of the study, which is anticipated to be completed in the summer.

Expanded Recapture Reconnaissance Study:

Turner reported on work progress by the consultant team led by LRE Water. Field surveying and data collection in Plum Creek were completed by Inter-Fluve and LRE Water in November, followed by desktop data analyses and modeling of Plum Creek. Results identifying a safe conveyance capacity in Plum Creek are expected soon. RJH developed preliminary Elwood Reservoir gravity outlet concepts and presented those to the EDO in January. LRE Water is evaluating potential recapture wells sites in the floodplain south of the Platte River and along Plum Creek. Tradeoff analyses are expected to proceed soon, with study completion anticipated in late summer.

Lake McConaughy EA Spring Release: Matt Rabbe, USFWS

Rabbe discussed tentative plans for a spring whooping crane release from the Lake McConaughy EA. USFWS would be aiming to have 1,000-1,200 cfs through the Associated Habitat Reach during the first 2-3 weeks of April, so releases from the EA would be initiated around March 25. Anticipated release rates/volumes TBD depending on conditions at the time; USFWS is trying to balance EA carryover volume while still ensuring adequate supplies for germination suppression. Steinke noted that CNPPID plans to start pumping about 150 cfs into Elwood Reservoir on April 1. This may require increased EA release to make up the difference for reduced releases back to the river at the J-2 Return.

**2024 Water Plan Tasks:** *Seth Turner, EDO*

Turner outlined Water Plan tasks that the EDO plans to work on in 2024, including several related to the Cottonwood Ranch broad-scale recharge (BSR) project. Cavitation in the valves of the delivery pipeline outlets has limited the range of operations for project water deliveries since the first test fills in 2020. To avoid cavitation, the outlets have to be operated at 20% open or less or greater than 65% open, effectively eliminating mid-range operations. Funds were budgeted for this task, and the EDO plans to work with Miller & Associates and/or others to diagnose and repair this issue. Rabbe asked if the current excess flow deliveries could be used for the diagnostic work and evaluating potential solutions. Turner said the excess flows came up too quickly and unexpectedly, so there was no time to coordinate the effort to do that. The EDO is hoping to do the diagnostic testing in the April/May timeframe, ideally if there are excess flows after Phelps County Canal is already filled.

There are also plans to install additional monitoring wells at Cottonwood Ranch, in particular to have surface water level readings in Cell 7, which doesn't have a Rubicon gate outlet, and on the east side of Cell 8, where groundwater emerging at the surface in an adjacent alfalfa field on private property is problematic.

Additionally, the EDO is pursuing development of a groundwater model for the project in order to develop unit response functions for both BSR and recapture wells for use in score analyses and operations accounting. This will involve coordination with NDNR and eventually the Scoring Subcommittee. A preliminary model was developed using COHYST but the effort is currently on hold after the recent departure of the EDO's groundwater modeler. In response to a question from Rabbe, Turner clarified that the BSR project and recapture wells have NOT been scored yet.

The EDO recently contracted George Oamek to conduct an updated economics and alternatives analysis for the CNPPID irrigator lease project. The work is just getting underway and Oamek is coordinating with CNPPID to plan a workshop with irrigators to gather information and feedback on the lease project.

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

Thulin presented an overview of the E65 Canal and Elwood Reservoir system operations. E65 diverts from the Tri-County Supply Canal just upstream of Johnson Lake as an open canal that then passes through 3 siphons. A gate can be closed at Hwy 283 to back up water to pump into Elwood Reservoir. The existing siphons limit conveyance capacity to 350 cfs but irrigation demand can exceed 500 cfs; releases from Elwood Reservoir are used to make up the difference.

Seepage issues were identified at the toe of the Elwood Reservoir pump station dam in 2019. After several years to diagnose the problems and design appropriate repairs, construction of repairs finally began in September 2023 but is proceeding slowly. The contractor is supposed to complete work by mid-July but is behind schedule, having installed only 660 ft of more than 7,000 ft of pipeline as of the February 6 WAC meeting. They are currently excavating around



and below the existing inlet/outlet pipeline, work which has to be done by April 1 in order to start pumping into Elwood for irrigation. Brei asked about operational water levels in Elwood Reservoir. Thulin said water levels in have been restricted to 2597 ft (10 ft below normal full pool) in recent years and confirmed that they will return to 2607 ft full pool once the seepage repair is complete.

The new E65 canal and siphons will have a capacity of 450 cfs or more and will allow gravity flow into Elwood Reservoir. Total cost for the project is now estimated to be about \$20 million. Access agreements with landowners caused a one-year delay, so design is about a year behind schedule. Construction is now anticipated to start in mid-2025 and conclude in 2026.

Schellpeper asked about sources of funding for these projects. Thulin said CNPPID received funding for the seepage repair from the State of Nebraska and the Program, so that is covered. Steinke said CNPPID received a major grant from the state for E65 and they are applying for a \$5 million WaterSMART grant in April.

Additional Business: *Cory Steinke, 2024 WAC Chair*

The next WAC and TAC meetings will be held back-to-back in person in Ogallala on May 7-8, location and schedule/agendas TBD. The WAC meeting must end at noon to allow an adequate lunch break before starting the TAC meeting, so start time will be worked out backwards depending on material to be covered. More information to be provided as the meeting dates get closer.

Action Items

General WAC

- N/A

ED Office

- N/A

Perkins County Canal Additional Discussion:

Altenhofen raised numerous questions concerning the Nebraska's Perkins Canal presentation. To Altenhofen, a main question yet to be answered by Nebraska is will the Perkins follow the obligations/requirements of the Nebraska New Depletion Plan (NNDP) approved by PRRIP (by NNDP, Perkins is a new water related activity begun after July 1, 1997) OR operate with no consideration for negative effects on PRRIP because it is a "Compact allowed" project? Nebraska argues that the Perkins canal project is not a "Program Project" even though they claim it will benefit the Program but what about the negatives when the Perkins diverts during times of shortages to target flows? Altenhofen reminded the WAC that if Perkins does benefit PRRIP that it must be scored by the WAC scoring committee.

Bradley stated that no federal dollars will be used for the Perkins Project but newspaper articles about the Nebraska legislature note the use of federal dollars for the Perkins from the American



333 Rescue Plan Act and the federal infrastructure bill. Altenhofen noted that PRRIP has the “Good
334 Neighbor Policy” that states “All lands and water will be acquired from willing sellers or
335 lessors.” The J-2 reservoir in Nebraska was eliminated as a Program project because unwilling
336 seller and PRRIP cannot condemn.

337
338 Whitaker noted that two of the Colorado projects being developed and shown in the presentation
339 (Chimney Hollow Reservoir and Gross Reservoir enlargement) are transmountain projects from
340 the Colorado River and do not deplete South Platte River flows. Whitaker also noted that if the
341 Perkins Canal is not drying the river at its diversion point, it cannot put on its December 17, 1921
342 call (for October 16 through March 31) against upstream junior rights in Water District 64 per
343 Colorado’s right to regulate and control the Perkins diversion. Altenhofen stated for this day of
344 February 6, 2024, that 16 recharge wells at Tamarack with 1996-1998 priority are pumping 55
345 cfs to develop Colorado’s Tamarack I Plan obligation of shortage reductions and that if the
346 Perkins was diverting today it would call out this Colorado PRRIP approved project and
347 therefore Colorado would not meet its PRRIP obligations. Bradley stated that the Perkins
348 Project will benefit and improve Colorado’s Tamarack I score but with no details
349 given. Farnsworth noted that many of these issues need to be discussed at the GC level.