



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes
Virtual Meeting
May 6, 2025

PRRIP Water Advisory Committee Meeting Attendees		
Name	Affiliation	Member or Alternate
Department of the Interior (DOI)		
Brock Merrill	U.S. Bureau of Reclamation (USBR)	Member
Steven Labay	U.S. Fish and Wildlife Service (USFWS)	Member
State of Wyoming		
Michelle Hubbard	WY SEO	
State of Colorado		
Kara Scheel	Colorado Water Conservation Board (CWCB)	Member 2025 WAC Vice Chair
Don Baggus	Colorado Parks and Wildlife (CPW)	
Amy Ostdiek	CWCB	
State of Nebraska		
Jennifer Schellpeper	Nebraska Department of Natural Resources (NeDNR)	Member
Kari Burgert	NeDNR	Alternate
Justin Ahern	NeDNR	
Mike Archer	Nebraska Game and Parks Commission (NGPC)	
Jeremy Gehle	NeDNR	
Hua Guo	NeDNR	
Caitlin Kingsley	NeDNR	
Tyler Martin	NeDNR	
Jack Mensinger	NeDNR	
Jim Ostdiek	NeDNR	
Upper Platte Water Users		
Dennis Strauch	Pathfinder Irrigation District	Member
Colorado Water Users		
Jon Altenhofen	Northern Water	Member
Kyle Whitaker	Northern Water	Member
Joe Frank	Lower South Platte Water Conservancy District	Alternate
Rich Belt	South Platte Water Related Activities Program (SPWRAP)	
Jason Marks	Denver Water	
Downstream Water Users		
Cory Steinke	Central Nebraska Public Power and Irrigation District (CNPPID)	Member 2025 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)	



PRRIP Water Advisory Committee Meeting Attendees		
Downstream Water Users		
Tyler Thulin	CNPPID	
Randy Zach	NPPD	
Environmental Entities		
Jacob Fritton	The Nature Conservancy (TNC)	Member
Abraham Kanz	The Crane Trust	Member
Melissa Mosier	Audubon	Member
Executive Director's Office (EDO)		
Justin Brei	Engineering/Colorado Coordinator	
Libby Casavant	Hydraulic Engineer	
Jason Farnsworth	Executive Director	
Malinda Henry	Science Lead	
Quinn Lewis	River Scientist	
Chad Smith	Science Policy Coordinator	
Seth Turner	Water Plan Coordinator	
Ed Weschler	Water Resources Engineer	
Other Participants		
N/A		

Welcome and Administrative: *Cory Steinke, 2025 WAC Chair*

Meeting participants were identified from Teams. There were no agenda modifications. There was one minor edit to the original draft of the February 2025 meeting minutes. Merrill made a motion to approve the minutes, second by Shafer. February 2025 meeting minutes were approved with no objections.

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

Platte Basin hydrology:

Weschler provided an update on hydrology across the Platte River Basin. The annual hydrologic condition designation for 2024 was normal based on an average flow of about 1,050 cfs at Grand Island. Flow at Grand Island has been below the USFWS target flows for almost the entire year through the end of April, and hydrologic condition designations for March-April and May were dry. Moderate to extreme drought conditions persist across southeastern Wyoming, the Nebraska Panhandle, and central Nebraska. Much of the South Platte Basin in Colorado remains drought-free with some abnormally dry areas along the Front Range. Snowpack across most of Colorado as of early May was well below median, with peak snow water equivalent (SWE) occurring early and proceeding on a downward trajectory. Likewise, most of the North Platte Basin in Wyoming had below-median snowpack and similar SWE trends.

Leasing, recharge, and recapture projects:

Turner reported that there were no divertible excess flows in the first 4 months of 2025. Recapture wells #1-7 began pumping on March 10. Cumulative pumping through April 18 was



about 750 AF, which translates to about 19.3 AF/day and 9.7 cfs. Additional pumping from April 19-May 5 was estimated to be about 325 AF. Ongoing maintenance issues with the meter are preventing operation of the Cook well.

Final enrollment in the CNPPID irrigator lease for 2025 was 1,129 acres, an increase of only 76 acres over 2024 despite increasing the price paid from \$100/acre to \$160/acre. At 9"/acre, this will result in a credit of about 847 AF to the Lake McConaughy EA in October. For some additional perspective on this lease, Turner noted that the average credit to the EA from 2021-2025 was 854 AF. In comparison, evaporation and seepage losses from the EA from October 2024-March 2025 averaged 1,650 AF/month. The EA credit from the CNPPID irrigator lease was 790 AF in October 2024 compared to evaporation and seepage losses of nearly 1,800 AF in the same month.

Negotiations for longer-term surface water leases with CPNRD and NPPD are still ongoing and are expected to be discussed at the June GC meeting.

Cottonwood Ranch maintenance and operations transition:

The damaged valve actuator in the north outlet vault at Cottonwood Ranch was finally replaced on February 25. Plans are in place to calibrate digital pressure gages that were installed last fall on May 28, followed by testing of outlet valve cavitation on May 29. In the absence of excess flows, both tasks are to be accomplished using up to 150 AF of EA water during the release for germination suppression. The next maintenance task at Cottonwood Ranch will be the installation of 2 new monitoring wells near the eastern boundary of Cell 8, where groundwater emerging at the surface in the adjacent private property has been an issue during recharge operations.

Turner said coordination with CNPPID to transition recharge project operations continues to move along. CNPPID is expecting to complete integration of the Rubicon gates with their SCADA system by late May. The EDO is working on a project user manual for CNPPID.

Monitoring wells:

In February, the TAC and WAC reviewed monitoring wells at 10 Program project sites and recommended removal of instruments from more than 50 wells and the decommissioning of others. As of early May, instruments were removed from the monitoring wells at 8 of the 10 sites, with only the Fox/Spiedel and Binfield wet meadows sites left to remove. In addition, ownership of one well (GW-1) at the North Platte chokepoint was transferred to Twin Platte NRD and two of the Phelps recharge wells (MW-3 and MW-5) were transferred to Tri-Basin NRD.

Lake McConaughy EA release for germination suppression:

Turner reminded the committee that this will be the 6th year (starting 2020) for making an EA release for germination suppression. The purpose is to test management hypotheses for two of the Science Plan Extension Big Questions related to whether Program water can be used



effectively to maintain suitable whooping crane habitat and help to control phragmites. During this test, EA water will be used to try to maintain a flow of 1,500 cfs at Grand Island from June 1-30. Allowing for travel time and ramping, the EA release will start no later than May 23. There will be twice-weekly coordination meetings between the EDO, USFWS, CNPPID, NPPD, and NeDNR for the duration of the EA release. The current dry river conditions through the associated habitat reach (AHR) will likely require a high rate of EA release. As noted previously, up to 150 AF from this release will be used for infrastructure testing at Cottonwood Ranch.

Wet meadows peer review:

An update on wet meadows was requested during WAC discussions in February. Turner reported that the EDO hired Calvin Miller, P.E., Ph.D as a Special Advisor. He is currently working on responses to the peer review, in particular rewriting one of the document chapters. It is anticipated that this work will be completed and there will be more to report at the next WAC meeting.

Elwood Outlet Feasibility Study: Seth Turner, EDO

Phase 1 of the Elwood Outlet Feasibility Study is proceeding from the Expanded Recapture Reconnaissance Study that was completed in 2024. The EDO is working with the same consultant team led by LRE Water with subconsultants RJH and Inter-Fluve. Based on preliminary discussions with potentially impacted landowners, the feasibility study is focusing on buried pipeline options only (no open channel) with 100 cfs capacity. Turner noted that the recon study showed diminishing incremental gains in project score going from 50 cfs to 100 cfs capacity, but the larger pipeline would provide greater operational flexibility for the Program.

RJH developed 9 possible pipeline alignments on both sides of Hwy 283 that were reviewed by the EDO and CNPPID in late March. CNPPID identified their preferences for access and operations. Based on feedback from the EDO, RJH subsequently investigated the feasibility of moving a couple of the proposed alignments into the Hwy 283 right-of-way to potentially avoid needing easements with private landowners. They found that deep trench cuts (>50 ft) or tunneling would significantly complicate construction and increase costs.

The consultants, EDO, and CNPPID met again on May 1 and selected a preferred pipeline alignment to advance to 30% design (Turner's presentation included plan and profile views). Pipeline intake options at the E-65 Canal were also discussed, with CNPPID proposing a structure similar to the Phelps County Canal intake for the Cottonwood Ranch delivery pipeline. RJH is coordinating with Nebraska DOT to get permission to use a large existing box culvert for conveyance under Hwy 283. CNPPID will develop an easement option for the primary affected landowner.

The EDO is anticipating presentation of the 30% outlet pipeline design at the August WAC meeting and September GC meeting.

**Water Action Plan Projects Scoring vs Accounting:** *Seth Turner, EDO*

In response to discussions at the February WAC meeting, Turner gave a presentation explaining scoring and accounting for Program water projects. The EDO also developed a more detailed memo to accompany the presentation. Turner stressed that the most important takeaway message is that scoring and accounting are not the same thing. Scoring and accounting both calculate the same thing, which is reductions to target flow deficits at Grand Island, but the purposes and methods are different.

Scoring is a theoretical estimate of water project performance and is the metric that counts towards achieving the Program's First Increment Water Objective of reducing deficits by 130,00-150,000 AF per year. In contrast, accounting is an assessment of actual operational water project performance. Accounting provides insights into the ongoing validity of the assumptions made in a score analysis and can inform the need to revise a water project score, e.g., the Pathfinder Municipal Account lease and CNPPID irrigator lease.

Scoring Methods and Results

The basic methodology for a Program water project score analysis was established in 2010 through a case study using the J-2 Regulating Reservoirs project and continues to serve as the template for all subsequent score analyses. Scoring relies on modeled hydrology from OPSTUDY (which was used during the pre-Program NEPA process), specifically a "present" conditions scenario with the three initial state water projects (Tamarack 1, Lake McConaughy EA, Pathfinder Modification Project) in place. The OPSTUDY hydrology dictates a 1947-1994 analysis period but a daily or monthly time step can be used depending on the project specifics.

USFWS target flows at Grand Island come from Appendix A-5 of the Water Plan Reference Materials in the Program Document. In a score analysis, target flows are dictated by the annual hydrologic condition (wet, average/normal, or dry), which is a retroactive designation based on average flow for the year at Grand Island. Modeled EA water is included in the modeled Grand Island flow used to calculate shortages, but EA water is excluded from excess flow calculations for recharge projects that require divertible excesses. Program water added to the river is routed from the point of return to Grand Island using loss factors from the WMC Loss Model. Program water contributions upstream of Overton count 100% towards the score result but return flows below Overton are discounted based on distance downstream.

In a typical scoring process, the EDO develops an initial analysis which may include multiple operational or water availability scenarios, basically assumptions about how the project will operate and how much water will be available to it. The "score" value for a given scenario is the 48-year average annual deficit reduction based on the 1947-1994 period. The analysis is then reviewed by the Scoring Subcommittee, which can recommend changes to the analysis and ultimately recommends a score value for GC approval. Importantly, this often involves negotiation.



Turner presented a table showing six Water Action Plan (WAP) projects with approved scores totaling 14,170 AF. The Pathfinder Municipal Account lease was originally scored in 2014 and revised in 2019 based on operational water yields in the first several years of the lease project. The most recent completed and approved score analysis was for the CNPPID irrigator lease in 2019, which is subject to revision if the project continues beyond 2025 due to persistent lower enrollment than was assumed in the score analysis.

Scheel asked about scoring of the three initial state projects. Turner confirmed that those are collectively credited with a score of 80,000 AF, so the total approved exceeds 94,000 AF. Active WAP projects for which analyses have not been formally completed are estimated to have combined scores of nearly another 20,000 AF.

Accounting Methods and Results

Turner explained that water projects operations accounting has been done for each year since the start of the Program in 2007 (most recent completed is 2023). Accounting uses real operational data: approved USGS flows at Grand Island, USFWS target flows based on the real-time hydrologic condition, and for recharge projects, actual lease volumes or excess flow diversions made when NeDNR declares excesses to be available. The real-time hydrologic condition is updated by the EDO seven times per year using a methodology developed and published by USFWS in 2006.

Mosier asked if that potential for intra-year variability in the hydrologic condition is the key difference between annual and real-time. Turner said yes; with the annual hydrologic condition, one series of target flows is used through the entire year, but with the real-time hydrologic condition, the target flows could switch from the wet series to normal to dry throughout the year.

In general, accounting results to date have been less than corresponding project scores. The original accounting memo completed in 2019 attempted to address this issue and identified two key factors. The first is time. As noted previously, project scores are 48-year averages. Most WAP projects came online in 2012 or later and have at most 13 years of operations data. Another aspect of time is that the creation of return flows to the river from recharge projects is a long, slow process. The second key factor is the reduced availability of excess flows from 2007-present compared to 1947-1994. The EDO did an analysis of this in 2015 that needs to be updated.

Mosier asked what prompted the excess flows analysis in 2015. Turner said was a combination of factors including actual operations experience vs modeling assumptions and observed recent hydrology vs the 1947-1994 period. For example, in a score analysis, if the modeled flow is greater than the USFWS target flow or instream flow, then it's an excess and can be diverted. Generally speaking, 1947-1994 had greater frequency of wetter periods. Recent hydrology has been drier and for operational purposes, NeDNR has to say there are excesses available. This is not as simple as "is the flow mathematically above the target at Grand Island" as NeDNR also



has to take into account permitted instream flow water rights held by NGPC and CPNRD at six locations between Overton and Louisville. USFWS target flows are unpermitted and essentially advisory, whereas the NGPC/CPNRD instream flows are permitted and all must be met for there to be excesses. Gehle confirmed the factors that NeDNR considers when determining excess availability. Turner noted that there is also a practicality issue in that, in a model environment, if there are 3 days of excesses in February, water can be diverted, but in the real world, that may not be feasible due to ice or other issues.

Scoring vs Accounting for EA Releases

Turner discussed how in a score analysis, EA water is only released to reduce deficits (typically starting in March), as that is how a project's contribution towards the First Increment Water Objective is assessed. In practice, EA water is released for specific species/habitat benefits (e.g., during whooping crane migrations) or for scientific testing purposes (e.g., germination suppression). As a consequence, any deficit reductions that occur are incidental to the purpose of the release. Turner provided a few examples from the 2022-2024 EA releases to illustrate how this works.

Turner noted that the memo provided to the WAC is draft and feedback is welcome. The memo includes links to all of the scoring and accounting documentation available in the libraries on the Program website.

Platte River Modeling: *Steve Labay, USFWS*

Labay presented an overview of 2D HEC-RAS modeling in general, explained the particulars of a model of the AHR that he is developing, and discussed possible Platte River applications. The AHR model extends from Lexington to the Bader Park Bridge (near Chapman), about 100 river miles. The model utilizes 2024 LiDAR, 100 ft x 100 ft cell size (reduced to 25 ft x 25 ft in the river channel), and runs on a 15-second time step. Potential applications include evaluation of hydrocycling effects, sediment transport, rain on grid modeling, and assistance with operations. Labay showed a brief demonstration run of the model to evaluate depth, velocity, and water surface elevation at Odessa.

Farnsworth asked if this modeling had been discussed with the EDO's Casavant; Labay said not yet. Farnsworth added that, to the extent that the model is being developed for Program purposes, it would be useful for the WAC to have further discussion of how it fits in given the tight bounds on the committee's purview. Steinke emphasized the importance of communication between USFWS, the EDO, WAC, and stakeholders during the development of the modeling tool. Farnsworth expressed appreciation for the fresh thinking about how RAS can be used to address attenuation and other challenging issues. The 2D HEC-RAS model being developed by others for analyses related to pallid sturgeon was also briefly discussed.

**Wyoming Depletions Plan Update:** *Michelle Hubbard, WY SEO*

Hubbard provided updates on Wyoming depletions for Water Year (WY) 2024. Baseline No. 1 is related to irrigation above Guernsey Reservoir. In compliance with the Modified North Platte Decree, intentionally irrigated acreage above Guernsey was 202,228 acres, which is below the benchmark of 226,000 acres. Kendrick Project irrigated lands were equal to the benchmark of 24,249 acres. Baseline No. 2 accounts for water usage in 6 categories: irrigation, municipal, industrial, rural domestic, retired/mitigation, and post-1997 activities. Wyoming reported underruns (benchmark minus annual reported use) of about 54,000 AF during the irrigation season and about 5,300 AF during the non-irrigation season. For Baseline No. 3, post-1997 new on-channel storage in the South Platte River Basin totaled 100.82 AF.

Nebraska Depletions Plan Update: *Kari Burgert, NeDNR*

Burgert presented the Nebraska New Depletion Plan (NNDP) update for calendar year 2023. Permitted water uses included 30 groundwater transfers, 48 groundwater wells, two groundwater variances, and 10 surface water permits. Permits are classified as being within the AHR or upstream of the AHR. Groundwater well permits included replacement (26), supplemental (18), and industrial (4) uses. Of the 10 surface water permits in 2023, eight were for temporary recharge and 2 were for temporary manufacturing. Nebraska's analysis of depletions from new uses and the effects of mitigation activities results in a positive net stream effect each year from 2023-2033. Turner asked what types of mitigation activities were represented in the analysis. Burgert said it is mostly changes in crop patterns, from areas with high stream depletion factors to areas with lower stream depletion factors. Turner asked if the analyses were done using COHYST. Burgert said the stream depletion factors are mapped out by zones based on an earlier iteration of COHYST but remain static across time for NNDP analyses.

Federal Depletions Plan Update: *Steve Labay, USFWS*

Labay summarized the USFWS reporting on tiered Platte River biological opinions for calendar year 2024. Seven consultations relying on coverage provided by the Program were completed in 2024, including three in Wyoming, three in Colorado, and one in Nebraska. Three of the depletions were Federal, one in each state, all associated with road maintenance at missile sites. In total since 2007, USFWS has completed 236 tiered consultations.

Colorado Depletions Plan Updates: *Kara Scheel, CWCB and Jon Altenhofen, Northern Water*

Scheel reported on depletions in the North Platte Basin of Colorado for WY2024. Consumptive uses (CU) include irrigation (84,283 AF); population (115 AF); new post-1997 industrial uses (258 AF); and new post-1997 piscatorial, wildlife, and environmental uses (45 AF). The total CU of 84,701 AF compared to a baseline of 111,785 AF results in an underrun of 27,084 AF.

Altenhofen provided updates on the Tamarack 1 groundwater recharge project and Colorado's Plan for Future Depletions (CPFD). Tamarack 1 is funded through the South Platte Water Related Activities Program (SPWRAP) and pumps 16 wells to recharge ponds at the Tamarack State Wildlife Area from November through March. This produces accretion credits in subsequent months. Other contributions to Tamarack 1 come from the Heyborne Project and



unused accretions leased from other recharge projects. Collectively, the elements of Tamarack 1 produced 6,531 AF of shortage reduction credits at the CO-NE state line in 2024; the average from 2008-2024 is 8,074 AF.

CPFD utilizes the same sources of accretion credits as Tamarack 1 in order to mitigate for depletions associated with post-1997 population growth in the South Platte River Basin. Accounting for accretions and depletions associated with six water supply categories results in depletions in May and June. In 2024, the May-June depletions were 2,461 AF, offset by 5,757 AF of retimed accretions at the CO-NE state line in those same months. Since 2007, CPFD depletions averaged 2,288 AF and offsets average 5,016 AF.

Additional Business: *Cory Steinke – 2025 WAC Chair*

Remaining WAC meetings in 2025 are scheduled for August 5 and October 28. Steinke said he would confirm availability of the conference room at the Lake McConaughy Visitor Center on August 5.

Action Items

General WAC

- N/A

EDO

- N/A