



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes

Virtual Meeting
August 5, 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
Matt Rabbe	USFWS	Alternate
State of Wyoming		
Jeff Cowley	Wyoming State Engineer's Office (WY SEO)	Member
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)	
State of Nebraska		
Kari Burgert	Nebraska Department of Water, Energy, and Environment (NeDWEE)	Alternate
Mike Archer	Nebraska Game and Parks Commission (NGPC)	
Tyler Martin	NeDWEE	
Jim Ostdiek	NeDWEE	
Brett Roberg	NGPC	
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 (SPWRAP)	
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)	
Travis Preston	North Platte Natural Resources District (NPNRD)	
Scott Shaneman	NPNRD	
John Thorburn	TBNRD	
Tyler Thulin	CNPPID	
Randy Zach	NPPD	



PRRIP Water Advisory Committee Meeting Attendees		
Environmental Entities		
Jacob Fritton	The Nature Conservancy	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	
Quinn Lewis	River Scientist	
Seth Turner	Water Plan Coordinator	
Ed Weschler	Water Resources Engineer	
Other Participants		
Tom MacDougall	RJH Consultants	
Jon Mohr	LRE Water	

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

Meeting participants were identified from Teams. There were no agenda modifications. There were no revisions to the original draft of the May WAC meeting minutes. Shafer made a motion to approve the minutes, second by Merrill, minutes approved without objection.

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

Platte Basin hydrology:

Weschler presented a flow summary for the Grand Island gage for January-July 2025. Flows were below USFWS targets for most of the year until the end of May. There were significant rain events that created flow peaks at the beginning and end of June during the EA release for germination suppression. Rainfall totaling 2-4" was reported in and around North Platte on June 3 and 5-7.5" was reported in and around Grand Island on June 26.

Natural flow increases from precipitation resulted in there being excess flows available from May 29-June 13 and June 25-July 3. The temporary hydrologic condition designation for August-September is dry. Drought conditions in late July were improved in much of the Platte Basin relative to late April.

Leasing, recharge, and recapture projects:

Turner reported that excess flows totaling nearly 2,800 AF were diverted into Elwood Reservoir during the periods of availability in early June and late June/early July. The Program receives 50% of total excess flows in Elwood. Seven of the Program's recapture wells were running most of the time from March 10-May 28 (except for a period in mid-May to remove beaver dams from the discharge channel), were off during the EA release for germination suppression, and resumed pumping on July 8. As of July 25, cumulative recapture pumping for the year was about 1,700 AF.



In July the GC approved one-year surface water leasing agreements for 2025 with CPNRD (15,000 AF max) and NPPD (3,306 AF max) at \$110/AF. This price is an increase from \$90/AF in recent years. Leased water will be credited to the Lake McConaughy EA in October.

The Pathfinder Municipal Account (20,000 AF capacity) did not completely fill this year, peaking near 15,800 AF in late June. Wyoming offered and the Program was therefore obligated (per the terms of the lease agreement) to accept a lease of 4,800 AF from the Pathfinder Municipal Account at \$65/AF. Likewise the Pathfinder EA (33,493 AF capacity) did not fill this year, peaking under 11,300 AF (roughly 1/3 of capacity) in late June. This is a much lower yield from the Pathfinder EA than in recent years and the second lowest volume ever. The Program will receive all Pathfinder EA water minus evaporation losses over the summer. Water from both Pathfinder accounts is expected to be released and delivered (minus transit losses) to the Lake McConaughy EA by the end of September (end of Water Year 2025).

CNPPID irrigator lease:

Turner showed a figure illustrating the history of the CNPPID irrigator lease project from 2016-2025. Enrollment increased in each of the first 5 years to nearly full enrollment in 2020 (2,242 acres out of 3,000 acres max), then declined by about 2/3 in 2021 when the payment was first reduced from \$220/acre to \$100/acre. For the 5 years from 2021-2025 enrollment and yield stayed low, with an average of 1,140 acres (out of 3,000 acres max) resulting in an average credit of 854 AF (0.75 AF per acre enrolled) to the Lake McConaughy EA in October each year.

For 2025, the Program increased the payment from \$100/acre to \$160/acre but the enrollment of 1,129 acres was only 76 acres more than in 2024. Credit to the EA in 2025 will be 847 AF.

Turner offered a few numbers for committee members to consider: In 10 years of the irrigator lease project, yield credited to the EA has exceeded 1,000 AF only 3 times. Also, the average annual yield of 854 AF for the past 5 years is less than the 884 AF average monthly seepage and evaporation losses from the EA.

Turner said that the GC will need to make a decision in September how to proceed with the irrigator lease for 2026. CNPPID expressed a preference for returning to the typical November-December enrollment period, as the January-February enrollment period in 2025 was inconvenient. This year is the second 1-year extension of a 5-year agreement that originally covered the 2019-2023 growing seasons. If the decision is to continue the lease, it would be good to lock it in through the end of the Extension instead of repeating this discussion every year.

Scheel asked about the last slide stating that a decision will be needed for 2026 at the September GC. Turner said that referred to the need to decide in September 2025 how to proceed with the irrigator lease for the 2026 growing season so that if it is to continue, enrollment can proceed in November-December 2025.



Steinke asked if the EDO had looked at commodity prices this year vs last year; irrigators might expect to make \$160 per acre farming instead of leasing the water. Turner said that the feedback was that everyone would prefer the \$220/acre paid in the first 5 years of the irrigator lease, but the relatively small fluctuations in enrollment over the last 5 years are a product of changing cropping patterns from year to year more than changes in the people enrolling lands in the irrigator lease. Steinke added that as technology has improved for corner irrigation systems, the labor-intensive corners and odd-shaped parcels that made up much of the enrolled lands in the early years of the irrigator lease have gone away.

Steinke said it ultimately depends on what the GC says. Turner replied that the GC has previously provided feedback that even though the yield from the irrigator lease is relatively small, it's not nothing and does contribute towards meeting the First Increment Water Objective. Turner added that the purpose of this current discussion is to see if WAC members have any particular feedback on the future of the irrigator lease. Steinke reiterated that if the Program's water goals haven't been met and this is available water, it's up to the GC to decide how to proceed.

Mosier asked if there were other ideas from George Oamek's study last year that haven't been tried yet. Turner said the \$160 price paid in 2025 was based on Oamek's evaluation of the difference in the rental price for irrigated vs dryland farmland. Mosier asked if producers had specified preferences for duration of agreements. Turner said that the irrigators were less interested in having locked in multi-year agreements on their end because they like the flexibility of annual leasing. Turner also clarified that from the EDO's perspective the benefit of a longer-term agreement between the Program and CNPPID is that it guarantees some longevity for the irrigator lease project but still allows flexibility for the irrigators to make decisions each year based on enrollment limits and price paid.

Steinke said he didn't see anything from CNPPID's perspective that would impede continuation of the irrigator lease, but Lake McConaughy dam repairs might force them to release water and that could change things. Turner noted that there has always been a provision that if CNPPID has an irrigation allocation, then the irrigator lease can't happen in that year. Steinke added that if the extra water is really worth it to the Program, then going back to higher prices would tell us if the finances are the controlling factor for enrollment.

Turner asked Merrill if he had any thoughts given his position when the GC approved the irrigator lease for this year that it was OK to try it for a year at a higher price to see what happens and then reevaluate. Merrill said this is pricey water for what the Program is getting, the most expensive in the Program's water portfolio. Doing the irrigator lease for 10 years and getting more than 1,000 AF only 3 times isn't great. Merrill said he's not taking a specific position at this time but there are other considerations moving forward that will require making hard financial decisions (e.g., is money better spent on phrag spraying than 1,000 AF of water). Steinke made a comment that if the data shows you get about the same acres enrolled at a lower



price, why pay higher? There was further discussion of the potential effects of corn and beef prices.

Turner was asked about expected EA contributions in the fall. He said the leases are now locked in and will yield about the same as recent years but Pathfinder contributions will be way down, with 4,800 AF coming from the Municipal Account and the EA filling to only about 1/3 of capacity. Much will depend on storable natural inflows during the October-April period, but having released nearly 100,000 AF from the EA for germination suppression this year and expecting less coming in, the EA will likely be much lower than recent years by next spring.

EA Release for Germination Suppression: *Seth Turner, EDO*

Turner presented an overview of the EA release for germination suppression in May-June 2025. This was the 6th year for the germination suppression release, starting in 2020. Extension Big Questions #1 and #2 are related to the use of Program water and phragmites management to maintain suitable whooping crane habitat through the Associated Habitat Reach (AHR). The related management hypotheses are that a 30-day minimum flow of 1,500 cfs between June 1 and July 15 can suppress vegetation germination and expansion in the channel, and in combination with continued herbicide spraying, can help to slow the expansion of phragmites. The 1,500 cfs flow target is evaluated at the Grand Island gage near the downstream end of the AHR. This location is about 200 river miles and 8 days' travel time downstream from Lake McConaughy.

Turner described the context for planning this year's release: Flow declined continuously through April and May. During the weekend preceding the first EA release coordination meeting, the average flow at Grand Island was 4 cfs. The planning team was anticipating a very dry river channel through the AHR with significant transit losses and likely conveyance capacity constraints through the North Platte Chokepoint due to early and high irrigation demands following dry conditions through the winter and spring. Timely precipitation in late May avoided the capacity constraints, and the EA release was ramped up to 1,850 cfs over a few days starting May 22. The release rate was held at that level through the last week of May, then reduced to 1,600 cfs for the first 3 weeks of June. Precipitation events combined with the EA release resulted in flows well above the 1,500 cfs target at both the beginning and end of June. After the first peak, flow declined significantly and hovered just above the 1,500 cfs target for the middle two weeks of June.

As the mid-month lull persisted, it was recognized that flows first exceeded 1,500 cfs at Grand Island on May 30. A decision was made to shift the typical June 1-30 target window by a couple days so that the 30th day of high germination suppression flows would instead be June 28. The EA release was terminated at the end of the day on June 21 so that the last of the EA water would pass through Grand Island on June 28. In total, 98,509 AF was released from the Lake McConaughy EA at an average rate of 1,600 cfs from May 22-June 21, by far the largest volume released for germination suppression to date. Based on USGS provisional flow data downloaded by the EDO in mid-July, the average flow at Grand Island from May 30-June 28 was just under



2,250 cfs, with 29 of 30 days exceeding the 1,500 cfs flow target. June 24 was the only day to not reach the target, and just barely so at 1,460 cfs. Turner showed a figure comparing EA releases for germination suppression from 2023-2025 to illustrate how the releases continue to be very different every year.

Turner also discussed the routing of EA water through the upper part of the system from Lake McConaughy to the confluence at North Platte. Water is preferentially routed through NPPD's Sutherland Canal; this year about 76% of the EA water went through the canal and 24% was released down the North Platte River. Despite concerns during the initial EA release planning, the North Platte Chokepoint was not a limiting factor. Flow through the Chokepoint was right around the 6.0 ft minor flood stage from June 17-20, but there was only 150 cfs of EA water being released to the North Platte River at that time and no adjustments or curtailments were necessary. In now 6 years of EA releases for germination suppression, the North Platte Chokepoint has been a limitation on only about 10 days in June 2022.

Turner thanked those from USFWS, CNPPID, NPPD, and NeDWEE who helped to coordinate another successful EA release for germination suppression.

Altenhofen asked if there was a report specifically addressing the effects on germination from the spring 2023 Platte River high flows from the rain in Colorado. Turner said no but Lewis with the EDO is working with the TAC on an assessment of the overall effectiveness of germination suppression. Lewis said there are a few different lines of data being used to answer the question of effectiveness, including direct observations of flow level and vegetation growth and the presence or absence of vegetation. The methodology is still being developed.

Altenhofen asked about the scale of the imagery used to see what got washed out. Lewis said we don't have the ability to get photos through the entire AHR but there are stationary trail cameras going back to 2020 that are evenly distributed through the AHR and take a photo every hour. Altenhofen asked when more information would be available. Brei said the analysis and reporting will be on a multi-year basis rather than annually. Altenhofen said the GC may be interested in spot photos demonstrating a successful year for germination suppression.

Farnsworth provided some additional info and clarifications: The intent of germination suppression isn't to scour sandbars but rather to prevent any vegetation from establishing in the first place. The Program's geomorph monitoring report has annual analyses going back to 1998; in the early 2000s it was dry like it is now and the vegetation grew into the channel. That isn't happening now, from Quinn's work we see a signal that germination suppression is working. However we continue to implement large-scale phrag spraying so it is a challenge to determine what part of the effects we're seeing can be attributed to water and what can be attributed to spraying or mechanical intervention.

Altenhofen asked if it's mostly phragmites, cottonwoods, or other vegetation that we're trying to prevent from germinating. Farnsworth said it's all of the above. On a given sandbar you might have over a hundred different plant species, but as time progresses you get willows, phrag, or



cottonwoods. We're looking at 2-3 year time increments to see if any vegetation is getting started.

Scheel asked if the Program has invested time or resources to try to dial in the EA releases more accurately; the graphs show that we're above the target a lot of the time but could we make releases so that the water we have goes a lot further? Turner said that would be ideal but it's such a challenge to predict what conditions will be a week or more out. The last week of May this year we were releasing over 1,800 cfs and it rained a bit, but the significant precip events didn't hit until the first week of June when that high EA water was past Overton and we had no more control over it. A big thunderstorm that hits around North Platte or between Kearney and Grand Island makes it really hard to dial in releases when it doesn't occur until the EA water is already in the river, particularly given the travel time and distance from Lake McConaughy to Grand Island.

Scheel said Colorado uses a NOAA tool that pulls together snowpack and melt conditions along with reservoir operations, allowing the state to really dial in releases. It's a tool that has been very helpful for the Colorado River system but may not exist for the Platte. Farnsworth asked if a show & tell would be useful, Scheel said that would be really useful for the program. Rabbe agreed and asked how flashy the Colorado River is with rain events since that's what drives the Central Platte fluctuations. Scheel said it's different hydrology and longer travel times but there are still big monsoons that contribute to rain events in the Colorado basin. Rabbe said it's worth pointing out that it's not viewed as "wasted" if we hit 3,000 cfs with an EA release because for that time you're covering even more of the channel that might otherwise be out of the water. He agreed with the premise that better predictions would be useful. Lewis added that it's a goal of his assessment to understand what different release adjustments would do. If it's a wet year, can we release less, and so forth. Moving forward we have a goal to make the EA releases more efficient.

LaBay asked about the Program's experience engaging with National Weather Service (NWS) during EA releases. Turner said the Program worked with NWS during efforts to increase flood stage at North Platte. During the chokepoint flow test in 2020, NWS provided some forecast input and monitoring assistance but the Program hasn't worked with them routinely. Brei said that's something we could do; with reduced budgets they might not be able to help but it's worth reaching out to see if NWS would consider helping.

Whitaker asked how many years we've done the EA release for germination suppression and how often the North Platte chokepoint has been an issue. Turner said this was the 6th year and that there have been chokepoint capacity constraints on about 10 days out of about 180 days of germination suppression releases. Whitaker asked if there was any time difference routing through the Sutherland Canal vs the North Platte River. Turner said no, the EA water is tracked and administered to arrive at the confluence of the North Platte and South Platte River at about the same time just before much of it is re-diverted into the Tri-County Supply Canal.



Elwood Outlet 30% Design: *Tom MacDougall, RJH Consultants*

MacDougall of RJH Consultants presented on the current status of the Elwood Outlet 30% design (Phase 1 of the Elwood Outlet Feasibility Study), including a review of concepts, description of the preferred alternative, 30% design plan sheets, and costs. Presentation slides were made available to the WAC via the PRRIP website after the meeting. The objective of the project is to convey up to 100 cfs of Program excess flow water from Elwood Reservoir via gravity pipeline to Plum Creek and then to the Platte River during periods with deficits to USFWS target flows at Grand Island.

Earlier in the year, RJH (working as a subconsultant to project lead LRE Water) developed an initial portfolio of 9 potential pipeline alignments across properties on both sides of Hwy 283. Following a preliminary review by the EDO and CNPPID, two additional alignments in the Hwy 283 right-of-way were added. Based on further review by the EDO and CNPPID, a preferred alignment that traverses private property on the west side of Hwy 283 was selected to be advanced to 30% design. This alignment is similar to that mapped out during the Expanded Recapture Reconnaissance Study in 2024. MacDougall showed plan and profile views of the preferred alignment, which has its intake at the E65 Canal at an elevation of about 2566 ft and discharges at an elevation just below 2490 ft. Length of the proposed pipeline is approximately 4,738 ft.

MacDougall reviewed the advantages and disadvantages of pipe materials (HDPE and steel) that were evaluated by RJH; HDPE pipe was selected for the 30% design. Key features of the pipeline include a check structure in the E65 Canal (to raise the elevation at the intake and to prevent water from flowing backwards up the canal); a turnout/intake structure; a flow meter vault; air valve vaults; a discharge valve vault and plunge pool on the west side of Hwy 283; and a discharge to Plum Creek on the east side of Hwy 283. MacDougall showed 30% design plan sheets and location photos for each of these structures. RJH proposes to convey water under Hwy 283 through an existing 8 ft x 8 ft concrete box culvert; they are seeking permission from the Nebraska Department of Transportation (NDOT) but that has not yet been granted.

RJH currently estimates the base construction cost for the pipeline and all appurtenant structures at about \$5.5 million. Once engineering (10%), construction management (15%), contingencies (30%), and other unlisted items (10%) are included, the opinion of probable construction cost increases to about \$9.05 million. MacDougall also discussed next steps, including topographic and boundary surveys; obtaining NDOT permission to use the existing culvert for conveyance; obtaining easements from the primary affected private landowner; performing a geotechnical exploration; obtaining environmental permitting requirements; and final analyses and design. CNPPID is working with the private landowner to secure an easement option while the feasibility study and further design work are still underway.

Brei asked MacDougall if RJH had considered boring the pipeline under Hwy 283 and directly to Plum Creek rather than using the existing culvert for conveyance. MacDougall said that could be done but would be quite a bit more expensive. Brei commented on the significant cost of the



check structure in the E65 Canal, as designed to maintain the functionality of CNPPID's existing siphon, but also noted the uncertainty around how long that siphon would remain in operation. Steinke said CNPPID intends to continue operating the existing siphon as long as it is functional but given the check structure cost, other plans could be considered. Brei asked about cost estimates for the pipeline materials and labor for installation. MacDougall said the unit costs used are consistent with current rates but noted there has been a lot of fluctuation in those costs over the past 5-6 years.

There was discussion of the dual outlet valves, with inquiries specifically related to the smaller of the two. The larger 30" outlet valve can release flows from about 13 cfs up to 100 cfs; the smaller 8" outlet valve can release from 1 cfs up to about 25 cfs. Whitaker asked about the need or desire to have outlet control down to a single cfs. Turner said from a Program perspective relating to deficit reductions, we'd like the measured release rates to be as accurate as possible. If the Program wants to release 50 cfs to reduce deficits, we'd like to know that the actual release rate is very close to that. However, Turner said it probably wouldn't ever be worthwhile for the Program to release single-digit flows through the outlet pipeline, as that can be accomplished with the existing recapture wells. The capability for single-digit release rates has more to do with proposed CNPPID operations.

Thulin confirmed that CNPPID makes small deliveries to irrigators on Plum Creek. That is currently done with 4-5 individual metered turnouts from one of the existing siphons so that the accounts can be measured separately. If the siphon is abandoned in the future there would still need to be a means of making those deliveries. Whitaker commented that there would need to be a cost split with CNPPID if the Elwood outlet were to accommodate their specific operations. Farnsworth said that CNPPID is fair about splitting costs for things like this and noted that irrigation features could be beneficial to the Program by making permitting of the pipeline much easier. Steinke said CNPPID would expect to have those conversations if they are adding elements to the pipeline that cost additional money.

Turner said the score estimates from Expanded Recapture Reconnaissance Study were an incremental gain of 4,500 AF from a 50 cfs outlet from Elwood and 5,000 AF from a 100 cfs outlet. The score increase going from 50 cfs to 100 cfs is not a lot, but you get a lot more operational flexibility. If the Program were to proceed with building the Elwood outlet pipeline, having that flexibility is better than building too small and wishing you hadn't. Turner also noted the score estimates done for the recon study built on the original Elwood recharge score model and assumed continued reservoir operations similar to today. Analyses for the Elwood outlet have not yet taken into account how CNPPID may change their operations with a new E65 Canal, siphons, and gravity inlet to Elwood Reservoir. That would change how they operate for irrigation and would likely change how the Program stores and releases excess flows. Specific details are still unknown and difficult to evaluate in the context of the Elwood outlet.

Steinke asserted that the amount of excess flows delivered to Elwood would go up with the new canal and gravity inlet. By moving water through the reservoir faster, the Program's score for



Elwood recharge would go up. The outlet could be a big tool for the Program that would be much greater than the yield from the irrigator lease. In response to a question from Whitaker, Steinke said that the seepage repair completed in 2024 restored Elwood Reservoir to full operational capacity. With the existing siphons and all water needing to be pumped into Elwood Reservoir, inflow rates are limited to about 250 cfs but the new canal, siphons, and gravity inlet would be able to deliver 500 cfs. That doubles the capacity and removes the pumps which means more excess flows could be captured. Steinke noted that the new canal and inlet is specifically a CNPPID project but benefits everyone. Whitaker said this would be a good conversation to have at the GC level to understand what the benefits could be and the proportionality of the benefits. What would the State of Nebraska get out of the Elwood outlet, and what would their contribution be?

Steinke described Elwood Reservoir and the proposed Elwood outlet pipeline as a consolation prize for the J2 Reservoir that didn't happen. It's an existing reservoir and still a developing project with many moving parts but sort of a mini-J2 Reservoir. Farnsworth added that it's actually a much larger reservoir but with much smaller release capacity. The Program could put a lot of water into Elwood but can't get it out nearly as quickly as J2 Reservoir could have released back to the river.

Farnsworth said the approach for discussion with the GC will be a high level overview of how the Elwood outlet would work and how it would relate to Program goals and CNPPID's system; this would set the stage before discussing costs. Turner said that with Elwood recharge, the average seepage rate has been about 12 cfs into the aquifer. The outlet would release almost 10 times as much with an immediate return to the river instead of waiting years. The near-term benefit of having the Elwood outlet is much more significant than that from Elwood as a recharge project. Farnsworth added that we need to put the cost and benefits into context so the GC can determine what we should do. We're at a decision point where we need the GC to say "commit more resources" if it's viable or "put it on hold" if more discussion is needed.

Water Projects Accounting Updates: *Seth Turner, EDO*

Turner presented updates to Program water projects accounting for 2024. Accounting uses actual project operations, USGS Platte River flow data, and real-time hydrologic condition and target flows to evaluate reductions to target flow deficits at Grand Island. This is in contrast to scoring which is a theoretical analysis that uses modeled hydrology for the 1947-1994 historical period and assumed water project operations. Turner identified where to find documentation or presentations on previous accounting updates. New updates for 2024 include Lake McConaughy EA accruals and releases as well as integrated accounting of Phelps recharge, Elwood recharge, and the Program's 8 recapture wells. The updates incorporated CNPPID corrections to Elwood data for 2020, 2022, and 2023, as well as EDO adjustments to the timing of recapture well pumping in 2022 and 2023. At present, the EDO still does not have the means to incorporate the Cottonwood Ranch recharge project into these analyses; deliveries totaling 1,144 AF were made in 2024.



There are 7 water sources that contribute to the Lake McConaughy EA: April-October Storable Natural Inflows (SNI), No-Cost Net Controllable Conserved Water, Pathfinder EA, Pathfinder Municipal Account lease, CNPPID irrigator lease, CPNRD surface water lease, and NPPD surface water lease. Accruals from these sources totaled 101,109 AF in 2024. Two EA releases (during spring whooping crane migration and May-June germination suppression) resulted in 113,653 AF returned to the river and 84,500 AF of deficit reductions at Grand Island. The magnitude of deficit reductions was much higher than in recent years because of normal real-time hydrologic conditions and higher USFWS target flows at the time of release. Deficit reductions resulting from EA releases averaged 39,400 AF over the 2012-2024 period (since the Pathfinder Modification Project came online). As discussed at the May WAC meeting, EA releases are rarely if ever made for the specific purpose of reducing deficits, so the deficit reductions that do occur are incidental to the species or habitat purpose of the release.

Combined invoiced excess flow diversions into Phelps and Elwood for recharge totaled 6,825 AF in 2025, with actual recharge estimated to be 4,000 AF (diversions and recharge in Phelps are assumed to be simultaneous but water diverted into Elwood remains in reservoir storage until it seeps out). Recapture well pumping in 2024 totaled 2,440 AF. Net accretions from recharge and recapture pumping were about 3,900 AF and resulted in 2,800 AF of deficit reductions at Grand Island. Average annual deficit reductions from recharge and recapture were about 1,900 AF for the 2011-2024 period. Turner noted that incidental deficit reductions from EA releases were about 20 times greater than from recharge and recapture, reflecting the importance of controllable water supplies.

Turner showed some overall numbers for recharge and recapture starting in 2011 (Phelps recharge began in 2011, Elwood recharge in 2015, Cook recapture well in 2016, and 7 additional recapture wells in 2022). Invoiced diversions for Phelps and Elwood recharge total 108,118 AF, with 80% or more having been between project startup and 2019. Recharge totaled 100,200 AF, including additional seepage between the Phelps headgate and CNPPID's measurement flume at MP 1.6 of the canal. Recapture pumping totaled 8,580 AF, with 87% occurring after the new wells were completed in 2022. Total lagged river returns of 55,800 AF produced 26,700 AF of deficit reductions at Grand Island. As of 12/31/2024, it was estimated that about 44,400 AF of the recharged water remained in the aquifer.

Turner followed by showing a series of charts illustrating various aspects of the recharge and recapture project operations and accounting. Of 75,002 AF diverted into Elwood Reservoir for the Program, an estimated 62,753 AF seeped into the aquifer as recharge; 7,174 AF was lost to evaporation, and 5,075 AF remained in reservoir storage at the end of 2024. The aggregate recapture pumping of 8,580 AF resulted in depletive effects of 6,476 AF and a net benefit to the river of 2,104 AF. The depletive effects count against the intentionally recharged water remaining in the aquifer, as the goal of recapture pumping is to accelerate the return flows during periods of shortage. The net benefit volume reflects contributions to the river from recapture pumping above what would have happened through naturally-occurring baseflow returns.



Turner showed how the accretion rates from Phelps and Elwood have evolved over time as well as the impacts of recapture pumping. Overall, from September 2011-December 2024 (since the start of Phelps recharge), lagged accretions to the river have averaged 5.8 cfs and resulted in average deficit reductions of 2.8 cfs. From May 2015-December 2024 (since the start of Elwood recharge), the numbers are slightly higher, with average lagged accretions of 6.9 cfs and average deficit reductions of 3.2 cfs.

Turner also presented some rough cost analyses for the Program's recharge projects. Expenditures for excess flow diversions into Phelps and Elwood since 2011 totaled about \$4.5 million. Based on the invoiced volumes, the effective unit costs were \$25.40/AF for Phelps and \$52.29/AF for Elwood. With 48% of return flows resulting in deficit reductions at Grand Island, the effect unit costs for deficit reductions (excluding recapture construction and pumping costs) were estimated to be about \$53/AF for Phelps and \$110/AF for Elwood. Turner reminded the WAC that the Program has prepaid CNPPID for \$9.15 million worth of excess flow diversions into Phelps and Elwood. As of the end of 2024, \$8.62 million of that remained, representing more than 164,500 AF of excess flows still to be delivered. The agreement can be extended through 2042 but at current rates of excess flow availability could go longer than that.

For EA water, purchased supplies totaled nearly \$20.9 million and resulted in an effective unit cost of \$100.93/AF. With about 53% of EA release water reducing deficits at Grand Island, the effective unit cost of deficit reductions from EA water is about \$240/AF. The net result is that EA water costs about 2.2-4.5 times more than recharge and recapture per AF of deficit reduction, reflecting a premium cost for controllable water supplies, but that controllable EA water creates 20.7 times more deficit reductions at Grand Island.

Additional Business: *Cory Steinke – 2025 WAC Chair*

The final WAC meeting of the year is scheduled for October 28, location TBD.

Altenhofen asked about the status of the wet meadows analysis, Farnsworth said the revisions should be completed before the next WAC meeting.

Action Items

General WAC

- N/A

EDO

- N/A