



**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM**  
**Water Advisory Committee Meeting Minutes**  
Nebraska Game and Parks Commission – Lake McConaughy Visitor Center  
August 2, 2022

**Meeting Attendees**

**Water Advisory Committee (WAC)**

**State of Colorado**

Kara Scheel – Member  
Emily Zmak – Alternate (virtual)

**State of Wyoming**

Jeff Cowley – Member  
Michelle Gess

**State of Nebraska**

Jesse Bradley – Alternate (virtual)  
Kari Burgert – Alternate (virtual)  
Justin Ahern (virtual)  
Jim Ostdiek (virtual)

**U.S. Fish and Wildlife Service**

Jeff Runge – Member (virtual)  
Mark Porath – Alternate (virtual)  
Matt Rabbe – Alternate (virtual)

**U.S. Bureau of Reclamation**

Brock Merrill – Member (virtual)

**Downstream Water Users**

Cory Steinke – Chair  
Brandi Flyr – Member  
Jeff Shafer – Member (virtual)  
Mike Drain – Alternate  
Michael Krondak (virtual)  
Nolan Little  
Randy Zach (virtual)

**Colorado Water Users**

Jon Altenhofen – Member (virtual)  
Kyle Whitaker – Member (virtual)  
Joe Frank – Alternate (virtual)  
Jason Marks  
Kevin Urie (virtual)

**Water Advisory Committee (WAC)**

**Upper Platte Water Users**

Dennis Strauch – Member

**Environmental Groups**

Jacob Fritton – Member  
Melissa Mosier – Member (virtual)  
Josh Wiese – Member (virtual)

**Executive Director's Office**

Jason Farnsworth, ED  
Justin Brei  
Kristen Cognac  
Malinda Henry (virtual)  
Sarah Hinshaw  
Chad Smith (virtual)  
Seth Turner  
Malia Volke (virtual)  
Ed Weschler

**Contractors/Interested Parties**

None



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

10 Introductions were made. The agenda was modified to include Jesse Bradley of Nebraska DNR  
11 discussing the Perkins County Canal project as part of the Brief Water Updates. Minor edits to  
12 member/alternate roles in the May WAC meeting minutes were noted. Strauch motioned to  
13 approve, second by Marks, no objections, minutes approved.  
14

15 **Brief Water Updates:**

16  
17 ***Leasing and Recharge Projects: Seth Turner, EDO***

18 The 7 new recapture wells near Cottonwood Ranch and the Cook well began operating in April  
19 or May and continued pumping until June 2, at which point they were shut off due to flows at  
20 Grand Island above the 800 cfs target during the EA release for germination suppression.  
21 Pumping resumed on July 6. Through July 28, the 8 recapture wells pumped a combined total of  
22 1,062 AF for the year.  
23

24 The Program and USFWS agreed to lease 9,600 AF from the Pathfinder Municipal Account.  
25 The Pathfinder EA peaked at 18,032 AF on June 20. The Wyoming Water Development Office  
26 sent a letter to the U.S. Bureau of Reclamation on August 1 requesting release of that water  
27 (minus evaporation losses from the EA) for delivery to Lake McConaughy before the end of WY  
28 2022.  
29

30 There have been no excess flows for diversion into recharge projects.  
31

32 ***Recapture Network Construction: Seth Turner, EDO***

33 The 7 new recapture wells were successfully completed and began operating in April or May.  
34 The pipelines continue to leak, and the EDO and Tri-Basin NRD are waiting for the contractor to  
35 provide detailed information about how those will be repaired.  
36

37 ***J-2 Funding Agreement: Jason Farnsworth, ED***

38 Farnsworth explained that the Program, CNPPID, and the State of Nebraska had a funding  
39 agreement for the J-2 Regulating Reservoirs project that was put on hold, and the agreement  
40 sunsets this year. There is about \$11 million of Program funds sitting in an account. The three  
41 entities are writing an amendment which will transition the Program out of the agreement but  
42 allow the funds to still be available to use for Water Action Plan (WAP) projects within the  
43 CNPPID system. The amendment will also involve disposal of lands that were acquired for the  
44 J-2 project.  
45

46 ***Platte Basin Hydrology: Ed Weschler, EDO***

47 Weschler showed a figure with Grand Island flows to date for calendar year 2022. Peak daily  
48 flow for the year (2,380 cfs) occurred on June 8 during the EA release. Cumulative flow through  
49 late July was 376,021 AF. Turner noted that only one year (2013) had lower cumulative flow at  
50 this point in the year, and that was followed by flooding in September-October. After 15  
51 consecutive normal or wet years, average daily flow for the year is currently 909 cfs, below the



939 cfs threshold for dry annual hydrologic condition. Weschler showed the current U.S. Drought Monitor, which continues to show moderate or worse drought conditions over most of the Platte River basin, with an extensive pocket of severe drought in far northeast Colorado and southwest Nebraska. In a consistent manner, precipitation is well below normal across much of the basin.

Farnsworth asked how conditions this year compare to the early 2000s. Steinke said the river is taking flow as fast as CNPPID can release it (i.e., transit losses are high due to the dry conditions). Conditions are close to the early 2000s, but not quite as bad. Grand Island flow recently dropped to 10-14 cfs but went dry in the early 2000s. Irrigation demand is high due to lack of precipitation and high corn prices.

***Perkins County Canal: Jesse Bradley, Nebraska DNR***

Bradley provided an update on Nebraska's proposed South Platte Compact Canal (aka Perkins County Canal) project. There is a link to project information on the Nebraska DNR website (<https://dnr.nebraska.gov/perkins-county-canal>). An RFP was issued to solicit consulting services for tasks outlined in the appropriations bill, essentially an independent review of the project concept. Task 1 – estimate costs to complete canal and associated reservoirs; Task 2 – develop timeline for completion of canal and reservoirs; Task 3 – examine the cost-effectiveness of alternatives; and Task 4 – evaluate impacts to Nebraska water users in the Platte River basin. A consulting team was selected (Zanjero and H2Options), work has started, and results are expected to be presented to the Nebraska legislature by the end of the year. Nebraska DNR is also having monthly meetings about the project with the Colorado Division of Water Resources. An RFP for design and permitting services is expected to be released in the next few weeks, which will have a much larger scope than the current work.

Altenhofen asked several questions that were addressed by Bradley. Altenhofen: Where in the project timeline will they look at how the Nebraska New Depletions Plan applies? Bradley: This will be part of evaluation of impacts and alternatives during the permitting process. Altenhofen: Will the current work be done by December? Bradley: Yes, but don't confuse this study with the design/permitting RFP. This is an independent review for the legislature in advance of seeking appropriations for the project. Altenhofen: Will Task 3 be looking at the 3 States Agreement? Bradley: Likely not. Altenhofen: Will the current work include looking at lands in Colorado needed for the project? Bradley: Maybe, but it is not a critical part of this initial review.

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

Turner presented a background review of the North Platte chokepoint and Program efforts to solve channel capacity issues there during the First Increment. The chokepoint is the reach of the North Platte River extending a few miles upstream and downstream of the Hwy 83 bridge at the City of North Platte. It is a potential constraint on the ability to deliver Program water from the Lake McConaughy EA (upstream) to the Associated Habitat Reach (downstream). The Program has a goal of achieving and maintaining 3,000 cfs flow capacity through the chokepoint



reach while remaining below minor flood stage (currently 6.0 ft). Average shift-adjusted capacity at flood stage over the past two years is about 1,770 cfs. Over the 15 years since the start of the Program, the capacity has varied between 1,500 cfs and 2,000 cfs. Many factors combined to limit chokepoint capacity, including reduced median and peak flows, increased sediment deposition, development in the flood plain, and vegetation encroachment (primarily phragmites).

From the start of the Program in 2007, numerous solutions were pursued, including clearing and reopening overgrown flow paths, HEC-RAS and sediment transport modeling, property buyouts or flood easements, spraying and disking vegetation, and conceptual development of large-scale engineering projects involving channel widening, dredging, and installation of jetties. Two projects were completed to mitigate flooding in the neighborhood along the north bank of the river: the Whitehorse Creek Drainage Project in 2014 and the State Channel Berm rehabilitation in 2018. A flow test was conducted in July 2020 to evaluate performance of the flood-proofing projects. With successful performance it was hoped that National Weather Service (NWS) would increase minor flood stage to 6.5 ft, which would increase capacity below flood stage by about 800 cfs. The flood-proofing projects worked as intended, but impacts were observed elsewhere in the reach, and NWS declined to raise flood stage.

All of this was reviewed with the Chokepoint Planning Workgroup in 2021. The concept of a large-capacity bypass canal emerged as the only potential solution guaranteed to eliminate the capacity constraints at the chokepoint. The concept was presented to the Governance Committee (GC) in June 2022. Land rights remain the biggest hurdle, with 9-16 landowners impacted by a potential bypass canal (in-channel engineering solutions in the chokepoint reach would involve 50-60 parcels). The Program does not have the power of condemnation, and no stakeholder organization expressed willingness to take on such a large project or to use eminent domain if needed. The GC directed the Executive Director's Office (EDO) to evaluate how much capacity is actually needed to achieve Program science goals.

#### *Chokepoint Framing Document*

Farnsworth explained that the EDO is putting together a chokepoint policy framework document as a means to facilitate that task, similar to the pallid sturgeon process, which is a way to walk the GC through the linkages of science and policy decisions. The draft will be presented to the GC in September. In June, the GC approved the Extension Science Plan through 2032, elements of which will be used to assess chokepoint capacity needs. This will include monitoring channel response to germination suppression releases and to mechanical intervention. Vegetation research is underway. The EDO has both a machine learning model that allows the input of flow variables and control methods to predict channel response and an operations model that incorporates EA accruals, chokepoint capacity, and other factors to determine if flow targets can be achieved at Grand Island. This work will be ongoing over the next several years, and in 2027 the Program will take what has been learned to start developing tools for a structured decision-making (SDM) process.



This approach recognizes that the Program is out of tools for dealing with the chokepoint capacity issues and will allow for focusing on other questions so that the GC has a whole slate of changes in policy, changes in prioritization and capacity needs for the chokepoint, and cost-benefit analyses to consider going into Second Increment negotiations.

Altenhofen asked about development of the machine learning model. Farnsworth said that Patrick Farrell of the EDO already developed the model with guidance from the ISAC, and the EDO's geomorphologists will help refine the model; at some point it will also undergo peer review. Science Plan activities are set up on 3 or 4-year iterations, with check-ins at the end of each cycle to determine if an activity is working. All of this will wrap up by 2027, followed by SDM, which will likely look at policy alternatives rather than physical engineering alternatives for the chokepoint. In response to a question from Mosier, Farnsworth added that the operations model simulates water accounting and flow routing based on different combinations of hydrology and water projects contributing to the Lake McConaughy EA. This will give us the flexibility to look at the tradeoffs of different changes to chokepoint policies.

Runge asked about aggradation through the chokepoint and continued loss of capacity into the future. Brei and Turner said that while there was a clear downward trend in capacity from the mid-80s to the early 2000s, it has been relatively stable since the start of the Program in 2007. There were some short-term gains in capacity following major floods (e.g., 2011) but capacity has mostly stayed in the 1,500-2,000 cfs range over the last 15 years; the last two years have been consistently within the narrower 1,700-1,800 cfs range. Runge noted that it has been a while since we've experienced long-term drought and it is uncertain how the channel will respond if drought persists in the coming years. What happens will be very important for informing future operations. It was also noted that LiDAR would be helpful for answering the question of ongoing aggradation. Brei said that bathymetric LiDAR of the chokepoint reach was done once, in 2017, and it would be worth doing again if we get deeper into drought.

Marks asked if the Program and VESPR will be sharing data and information on chokepoint work. Farnsworth said that the Program provided documentation, models, etc. at the start of VESPR's work. Mosier said River Design Group will be done with their chokepoint evaluation in the fall, so that will be shared with the Program by the end of the year, along with the North Platte social science work that is ongoing in parallel.

#### *EA Releases for Germination Suppression*

Turner provided a summary of the recent EA release for germination suppression. EA water was released from May 25-June 24, at an average rate just below 1,300 cfs and totaling about 79,400 AF. EA water was present at Grand Island from June 1-July 1; 62,182 AF of the released water reached Grand Island (78%) and accounted for 66% of all flow at Grand Island during that period. There were 18 days with average daily flow greater than 1,500 cfs, and average flow for the month was 1,521 cfs.



Turner went on to review germination suppression releases from 2020 and 2021 and presented results from an exercise to estimate the amount of available capacity (North Platte River and Sutherland Canal combined) that went unused during all 3 germination suppression releases, how much additional EA water could have been released, how much additional flow would have reached Grand Island, and how many more days might the germination suppression flow target have been achieved. Turner identified lessons learned from the EA releases, including the importance and value of coordination calls and the need to be aggressive with flood stage limits in order to get as much water to Grand Island as possible for Program science purposes.

Extensive discussion followed:

- Altenhofen asked how much shortage reduction resulted from the recent EA release. Turner said that had not yet been quantified. The germination suppression flow target was 1,500 cfs, but the USFWS target flow was only 800 cfs based on the dry real-time hydrologic condition. (EA water that will count as shortage reduction would be anything above natural flow up to 800 cfs.)
- In response to Altenhofen, it was also clarified that germination suppression was not a factor in the original determination of USFWS target flows. The flow target for germination suppression resulted from other studies completed by the Program.
- Altenhofen asked if the recent EA release was routed down the Sutherland Canal or North Platte River. Turner said it was split, with about 700 cfs through the Sutherland Canal for most of the release period; this was determined based on intended releases back to the South Platte River from NPPD's North Platte hydro facility.
- Steinke added that we need to be creative how water is moved through the system, especially at the beginning of irrigation season, so the coordination calls during the EA release were very helpful.
- Turner showed that in each of the 3 years of germination suppression releases, there has been an inflection point around the 3<sup>rd</sup> week of June with significant declines in available conveyance capacity. In 2 of 3 years this has resulted in limitations on EA water that could be released and thus limitations on achieving the germination suppression flow target at Grand Island. Steinke said that irrigation demand has been kicking up earlier than normal, in the past it was usually the first week of July. Farnsworth commented that it is usually during drought that flows reach flood stage at North Platte because of the increased downstream irrigation demand.
- It was noted that because of changes in the river channel at Grand Island, in the past it has required 2,000 cfs to cover the same channel width that 1,500 cfs covers now.
- Altenhofen asked if the germination suppression flows work. Farnsworth characterized it as working in the moment, but vegetation does start to grow after flows tail off through the habitat reach. But since that is later in the growing season, it becomes a matter of whether the vegetation will produce seeds before it dies. For this reason, measurement of germination suppression success is not done until the fall. Overall, the decline in unvegetated channel width has been slower than in the past.



- There was discussion of public messaging for these releases and how to politically define a successful germination suppression release.
- Around 70,000 AF remained in the Lake McConaughy EA after the release.
- Runge asked what conditions would allow the channel to actually widen. Farnsworth said 30-day average flows above 15,000 cfs. Runge noted that flows at these levels represent high-magnitude peak flows which exceed flood stage and is typically achieved when Lake McConaughy is filling and spilling.
- Runge described how the germination suppression release represents short-term maintenance until peak large flow events return. These releases result in substantial withdrawals of the EA, and because of this limitation, we may not be able to support a germination suppression release beyond 2023.
- Runge also mentioned steady decline in Lake McConaughy storage, and while representing a small proportion of lake outflows, EA releases contribute toward low reservoir content which further reduces the likelihood of peak flows returning.
- Runge stated that testing of the germination suppression release is important and observed effectiveness of this release is promising. Recognizing that we are still in a testing phase for the germination suppression release, it is important to consider next steps post-testing. Runge encouraged the PRRIP to evaluate the sustainability of germination suppression release considering limited EA and declining lake content. Are there alternative EA management strategies that similarly achieve biological objectives when germination suppression releases cannot be maintained long-term?

The discussion turned to EA release policies, including the bypass agreement, canal and river capacities, and flood stage limitations. When there is EA water in the system, releases cannot be made that would intentionally exceed flood stage. If irrigation demand goes up, the EA release necessarily has to go down. Runge said USFWS requested the 200 cfs buffer because of the 2-day travel time to North Platte and the potential risk of damages if flood stage is exceeded.

Runge suggested that releases up to the choke point capacity would yield, at most, an extra 160 cfs at Grand Island when considering a 200 cfs release with a conveyance loss of 20 percent (best case scenario). Runge proposed an evaluation where biological benefits from the extra 160 cfs should be weighed against the potential for property damage. It is important to avoid any perception of prioritizing Program science over the welfare of North Platte residents, so development of this type of qualitative assessment would show the PRRIP is considering flood risk. Defining risk is a subjective a policy decision which is why it is helpful to have the GC input on acceptable risk.

Brei said that from the chokepoint test, we know what the impacts are when flows go 6 inches and 600-800 cfs over flood stage. Drain added that the FERC license requirements include no obligation to hedge, a release just cannot be made that would knowingly go over flood stage. Runge reiterated the value in knowing the risks of exceeding flood stage, even if unintentional, and whether that is acceptable to the GC. Steinke said we can get better at managing these EA releases by pushing the limits.

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.



**Water Action Plan:** *Seth Turner, EDO*

Turner presented an overview of the Program’s water objective, the meaning and process of “scoring” a WAP project, and the score status for the Program’s 12 active WAP projects. The overall water objective remains 130,000 AF per year (AFY) reductions to target flow deficits at Grand Island, but the Extension approach is to first get to 120,000 AFY as quickly as possible. Marks asked for clarification of where total score stands today. Turner said about 94,000 AFY with 80,000 AFY from the 3 initial state water projects and the 6 scored WAP projects totaling 14,170 AFY. This sounds like less than the WAP Update Report showed because that included estimated project scores getting to about 114,000 AFY.

Scheel asked why half of the active WAP projects have not yet been scored. Turner said to some extent the EDO just hasn’t gotten to them yet. For a couple recharge projects, a draft score analysis was completed but not yet finalized. A couple leasing projects have been operating on 1-year agreements, and we’ve been waiting for long-term guarantees before scoring. The original intent was to score projects as part of the process of determining whether to proceed, but that has shifted over time as several WAP projects were quickly implemented when the opportunity came up and scored later.

This was followed by explanation of some proposed changes to the Program’s portfolio of leasing and recharge projects. The Program is negotiating leases of surface water from CPNRD and NPPD through the end of the Extension in 2032. The proposed CPNRD lease is for about 14,200 AFY and has an estimated score of 12,400 AFY. The proposed NPPD lease is for 3,306 AFY, with an estimated score of about 2,900 AFY. Flyr explained that the leased surface water is storage water that is not released from Lake McConaughy to the canals downstream. The number of acres enrolled may vary a bit from year to year. Drain added that there is no water right transfer, the water is put into a holding program set up by CNPPID. Altenhofen asked about the cost for the proposed surface water leases. Turner said \$90/AF fixed rate (no escalator) through the Extension. Farnsworth added that the Program’s cheapest water is \$65/AF from Pathfinder, but the effective cost is about \$75/AF after losses in transit to Lake McConaughy.

The CPNRD canal recharge project (Thirty Mile, Cozad, and Orchard-Alfalfa) has diverted infrequently since 2018, and the NPPD canal recharge project (Gothenburg and Dawson County) has been limited by lack of excess flows over the last 18 months. These projects may be allowed to sunset as Program WAP projects when the current Water Service Agreements expire, if not sooner (can be accomplished by not allocating budget). Those canals could still be used for recharge for Integrated Management Plan (IMP) compliance or other purposes. The CNPPID irrigator lease had a significant decline in enrollment when the unit cost was reduced from \$220/acre to \$100/acre and may also be allowed to sunset at the end of 2023.

Negotiations are also underway for a surface water lease with CNPPID, the same pool of Net Controllable Conserved Water (NCCW) that was rejected by the GC in 2013 but with entirely





new terms, and the Program is also looking at constructing a gravity outlet from Elwood Reservoir to Plum Creek. The EDO expects that completed score analyses for Cottonwood Ranch broad-scale recharge and the new recapture network plus the discussed project changes will get us to 120,000 AFY.

Mosier asked about the new terms for leasing NCCW and why it was originally declined. Turner explained that the original offer was for up-front payment of about \$58 million for 25 years of water, but that wasn't feasible to do within the Program's water budget, particularly given the priority of the J-2 Project at the time. Farnsworth said that the State of Nebraska and water users are in a much different place than a decade ago, and the water users have been trying to hammer out terms for the past couple years. Drain noted that CNPPID's FERC license requires them to offer the NCCW to the Program and that it can be for the cost of the conservation measures that were implemented years ago, but CNPPID is willing to consider a lower cost. The proposed CNPPID lease would also eliminate the EA reset: if Lake McConaughy reaches regulatory capacity, then the EA automatically resets to 100,000 AF every day for as long as the reservoir remains full. Water was lost to resets during flood events in 2011 and 2016 and narrowly avoided in 2019.

Farnsworth said there are several agreements getting written and there will hopefully be a flurry of approvals by the end of this year to secure the Program's water supply through the Extension. This has been in process for about 2 years and we're only now at a point that it can be discussed with the WAC.

**Additional Business:** *Cory Steinke, WAC Chair*

The next GC meeting will be September 13-14 in Kearney. There will be a reception and dinner to celebrate retiring GC members and EDO staff. The next WAC meeting is scheduled for October 25. In-person or virtual will be determined later, depending on whether there are details of water agreements to review and discuss.

**Action Items**

**General WAC**

- None

**ED Office**

- None