



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

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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



52 939 cfs threshold for dry annual hydrologic condition. Weschler showed the current U.S.
53 Drought Monitor, which continues to show moderate or worse drought conditions over most of
54 the Platte River basin, with an extensive pocket of severe drought in far northeast Colorado and
55 southwest Nebraska. In a consistent manner, precipitation is well below normal across much of
56 the basin.

57
58 Farnsworth asked how conditions this year compare to the early 2000s. Steinke said the river is
59 taking flow as fast as CNPPID can release it (i.e., transit losses are high due to the dry
60 conditions). Conditions are close to the early 2000s, but not quite as bad. Grand Island flow
61 recently dropped to 10-14 cfs but went dry in the early 2000s. Irrigation demand is high due to
62 lack of precipitation and high corn prices.

63
64 ***Perkins County Canal:*** *Jesse Bradley, Nebraska DNR*
65 Bradley provided an update on Nebraska’s proposed South Platte Compact Canal (aka Perkins
66 County Canal) project. There is a link to project information on the Nebraska DNR website
67 (<https://dnr.nebraska.gov/perkins-county-canal>). An RFP was issued to solicit consulting
68 services for tasks outlined in the appropriations bill, essentially an independent review of the
69 project concept. Task 1 – estimate costs to complete canal and associated reservoirs; Task 2 –
70 develop timeline for completion of canal and reservoirs; Task 3 – examine the cost-effectiveness
71 of alternatives; and Task 4 – evaluate impacts to Nebraska water users in the Platte River basin.
72 A consulting team was selected (Zanjero and H2Options), work has started, and results are
73 expected to be presented to the Nebraska legislature by the end of the year. Nebraska DNR is
74 also having monthly meetings about the project with the Colorado Division of Water Resources.
75 An RFP for design and permitting services is expected to be released in the next few weeks,
76 which will have a much larger scope than the current work.

77
78 Altenhofen asked several questions that were addressed by Bradley. Altenhofen: Where in the
79 project timeline will they look at how the Nebraska New Depletions Plan applies? Bradley:
80 This will be part of evaluation of impacts and alternatives during the permitting process.
81 Altenhofen: Will the current work be done by December? Bradley: Yes, but don’t confuse this
82 study with the design/permitting RFP. This is an independent review for the legislature in
83 advance of seeking appropriations for the project. Altenhofen: Will Task 3 be looking at the 3
84 States Agreement? Bradley: Likely not. Altenhofen: Will the current work include looking at
85 lands in Colorado needed for the project? Bradley: Maybe, but it is not a critical part of this
86 initial review.

87
88 **North Platte Chokepoint:** *Seth Turner, EDO and Jason Farnsworth, ED*
89 Turner presented a background review of the North Platte chokepoint and Program efforts to
90 solve channel capacity issues there during the First Increment. The chokepoint is the reach of
91 the North Platte River extending a few miles upstream and downstream of the Hwy 83 bridge at
92 the City of North Platte. It is a potential constraint on the ability to deliver Program water from
93 the Lake McConaughy EA (upstream) to the Associated Habitat Reach (downstream). The
94 Program has a goal of achieving and maintaining 3,000 cfs flow capacity through the chokepoint



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

101
102 From the start of the Program in 2007, numerous solutions were pursued, including clearing and
103 reopening overgrown flow paths, HEC-RAS and sediment transport modeling, property buyouts
104 or flood easements, spraying and disking vegetation, and conceptual development of large-scale
105 engineering projects involving channel widening, dredging, and installation of jetties. Two
106 projects were completed to mitigate flooding in the neighborhood along the north bank of the
107 river: the Whitehorse Creek Drainage Project in 2014 and the State Channel Berm rehabilitation
108 in 2018. A flow test was conducted in July 2020 to evaluate performance of the flood-proofing
109 projects. With successful performance it was hoped that National Weather Service (NWS)
110 would increase minor flood stage to 6.5 ft, which would increase capacity below flood stage by
111 about 800 cfs. The flood-proofing projects worked as intended, but impacts were observed
112 elsewhere in the reach, and NWS declined to raise flood stage.

113
114 All of this was reviewed with the Chokepoint Planning Workgroup in 2021. The concept of a
115 large-capacity bypass canal emerged as the only potential solution guaranteed to eliminate the
116 capacity constraints at the chokepoint. The concept was presented to the Governance Committee
117 (GC) in June 2022. Land rights remain the biggest hurdle, with 9-16 landowners impacted by a
118 potential bypass canal (in-channel engineering solutions in the chokepoint reach would involve
119 50-60 parcels). The Program does not have the power of condemnation, and no stakeholder
120 organization expressed willingness to take on such a large project or to use eminent domain if
121 needed. The GC directed the Executive Director's Office (EDO) to evaluate how much capacity
122 is actually needed to achieve Program science goals.

123
124 *Chokepoint Framing Document*

125
126 Farnsworth explained that the EDO is putting together a chokepoint policy framework document
127 as a means to facilitate that task, similar to the pallid sturgeon process, which is a way to walk
128 the GC through the linkages of science and policy decisions. The draft will be presented to the
129 GC in September. In June, the GC approved the Extension Science Plan through 2032, elements
130 of which will be used to assess chokepoint capacity needs. This will include monitoring channel
131 response to germination suppression releases and to mechanical intervention. Vegetation
132 research is underway. The EDO has both a machine learning model that allows the input of flow
133 variables and control methods to predict channel response and an operations model that
134 incorporates EA accruals, chokepoint capacity, and other factors to determine if flow targets can
135 be achieved at Grand Island. This work will be ongoing over the next several years, and in 2027
136 the Program will take what has been learned to start developing tools for a structured decision-
137 making (SDM) process.



138 This approach recognizes that the Program is out of tools for dealing with the chokepoint
139 capacity issues and will allow for focusing on other questions so that the GC has a whole slate of
140 changes in policy, changes in prioritization and capacity needs for the chokepoint, and cost-
141 benefit analyses to consider going into Second Increment negotiations.
142

143 Altenhofen asked about development of the machine learning model. Farnsworth said that
144 Patrick Farrell of the EDO already developed the model with guidance from the ISAC, and the
145 EDO's geomorphologists will help refine the model; at some point it will also undergo peer
146 review. Science Plan activities are set up on 3 or 4-year iterations, with check-ins at the end of
147 each cycle to determine if an activity is working. All of this will wrap up by 2027, followed by
148 SDM, which will likely look at policy alternatives rather than physical engineering alternatives
149 for the chokepoint. In response to a question from Mosier, Farnsworth added that the operations
150 model simulates water accounting and flow routing based on different combinations of
151 hydrology and water projects contributing to the Lake McConaughy EA. This will give us the
152 flexibility to look at the tradeoffs of different changes to chokepoint policies.
153

154 Runge asked about aggradation through the chokepoint and continued loss of capacity into the
155 future. Brei and Turner said that while there was a clear downward trend in capacity from the
156 mid-80s to the early 2000s, it has been relatively stable since the start of the Program in 2007.
157 There were some short-term gains in capacity following major floods (e.g., 2011) but capacity
158 has mostly stayed in the 1,500-2,000 cfs range over the last 15 years; the last two years have
159 been consistently within the narrower 1,700-1,800 cfs range. Runge noted that it has been a
160 while since we've experienced long-term drought and it is uncertain how the channel will
161 respond if drought persists in the coming years. What happens will be very important for
162 informing future operations. It was also noted that LiDAR would be helpful for answering the
163 question of ongoing aggradation. Brei said that bathymetric LiDAR of the chokepoint reach was
164 done once, in 2017, and it would be worth doing again if we get deeper into drought.
165

166 Marks asked if the Program and VESPR will be sharing data and information on chokepoint
167 work. Farnsworth said that the Program provided documentation, models, etc. at the start of
168 VESPR's work. Mosier said River Design Group will be done with their chokepoint evaluation
169 in the fall, so that will be shared with the Program by the end of the year, along with the North
170 Platte social science work that is ongoing in parallel.
171

172 *EA Releases for Germination Suppression*

173

174 Turner provided a summary of the recent EA release for germination suppression. EA water was
175 released from May 25-June 24, at an average rate just below 1,300 cfs and totaling about 79,400
176 AF. EA water was present at Grand Island from June 1-July 1; 62,182 AF of the released water
177 reached Grand Island (78%) and accounted for 66% of all flow at Grand Island during that
178 period. There were 18 days with average daily flow greater than 1,500 cfs, and average flow for
179 the month was 1,521 cfs.
180



181 Turner went on to review germination suppression releases from 2020 and 2021 and presented
182 results from an exercise to estimate the amount of available capacity (North Platte River and
183 Sutherland Canal combined) that went unused during all 3 germination suppression releases,
184 how much additional EA water could have been released, how much additional flow would have
185 reached Grand Island, and how many more days might the germination suppression flow target
186 have been achieved. Turner identified lessons learned from the EA releases, including the
187 importance and value of coordination calls and the need to be aggressive with flood stage limits
188 in order to get as much water to Grand Island as possible for Program science purposes.
189

190 Extensive discussion followed:
191

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



- 223 • There was discussion of public messaging for these releases and how to politically define
224 a successful germination suppression release.
- 225 • Around 70,000 AF remained in the Lake McConaughy EA after the release.
- 226 • Runge asked what conditions would allow the channel to actually widen. Farnsworth
227 said 30-day average flows above 15,000 cfs. Runge noted that flows at these levels
228 represent high-magnitude peak flows which exceed flood stage and is typically achieved
229 when Lake McConaughy is filling and spilling.
- 230 • Runge described how the germination suppression release represents short-term
231 maintenance until peak large flow events return. These releases result in substantial
232 withdrawals of the EA, and because of this limitation, we may not be able to support a
233 germination suppression release beyond 2023.
- 234 • Runge also mentioned steady decline in Lake McConaughy storage, and while
235 representing a small proportion of lake outflows, EA releases contribute toward low
236 reservoir content which further reduces the likelihood of peak flows returning.
- 237 • Runge stated that testing of the germination suppression release is important and
238 observed effectiveness of this release is promising. Recognizing that we are still in a
239 testing phase for the germination suppression release, it is important to consider next
240 steps post-testing. Runge encouraged the PRRIP to evaluate the sustainability of
241 germination suppression release considering limited EA and declining lake content. Are
242 there alternative EA management strategies that similarly achieve biological objectives
243 when germination suppression releases cannot be maintained long-term?
244

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

250

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

259

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



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

267 Turner presented an overview of the Program’s water objective, the meaning and process of
268 “scoring” a WAP project, and the score status for the Program’s 12 active WAP projects. The
269 overall water objective remains 130,000 AF per year (AFY) reductions to target flow deficits at
270 Grand Island, but the Extension approach is to first get to 120,000 AFY as quickly as possible.
271 Marks asked for clarification of where total score stands today. Turner said about 94,000 AFY
272 with 80,000 AFY from the 3 initial state water projects and the 6 scored WAP projects totaling
273 14,170 AFY. This sounds like less than the WAP Update Report showed because that included
274 estimated project scores getting to about 114,000 AFY.

275
276 Scheel asked why half of the active WAP projects have not yet been scored. Turner said to some
277 extent the EDO just hasn’t gotten to them yet. For a couple recharge projects, a draft score
278 analysis was completed but not yet finalized. A couple leasing projects have been operating on
279 1-year agreements, and we’ve been waiting for long-term guarantees before scoring. The
280 original intent was to score projects as part of the process of determining whether to proceed, but
281 that has shifted over time as several WAP projects were quickly implemented when the
282 opportunity came up and scored later.

283
284 This was followed by explanation of some proposed changes to the Program’s portfolio of
285 leasing and recharge projects. The Program is negotiating leases of surface water from CPNRD
286 and NPPD through the end of the Extension in 2032. The proposed CPNRD lease is for about
287 14,200 AFY and has an estimated score of 12,400 AFY. The proposed NPPD lease is for 3,306
288 AFY, with an estimated score of about 2,900 AFY. Flyr explained that the leased surface water
289 is storage water that is not released from Lake McConaughy to the canals downstream. The
290 number of acres enrolled may vary a bit from year to year. Drain added that there is no water
291 right transfer, the water is put into a holding program set up by CNPPID. Altenhofen asked
292 about the cost for the proposed surface water leases. Turner said \$90/AF fixed rate (no
293 escalator) through the Extension. Farnsworth added that the Program’s cheapest water is \$65/AF
294 from Pathfinder, but the effective cost is about \$75/AF after losses in transit to Lake
295 McConaughy.

296
297 The CPNRD canal recharge project (Thirty Mile, Cozad, and Orchard-Alfalfa) has diverted
298 infrequently since 2018, and the NPPD canal recharge project (Gothenburg and Dawson County)
299 has been limited by lack of excess flows over the last 18 months. These projects may be allowed
300 to sunset as Program WAP projects when the current Water Service Agreements expire, if not
301 sooner (can be accomplished by not allocating budget). Those canals could still be used for
302 recharge for Integrated Management Plan (IMP) compliance or other purposes. The CNPPID
303 irrigator lease had a significant decline in enrollment when the unit cost was reduced from
304 \$220/acre to \$100/acre and may also be allowed to sunset at the end of 2023.

305
306 Negotiations are also underway for a surface water lease with CNPPID, the same pool of Net
307 Controllable Conserved Water (NCCW) that was rejected by the GC in 2013 but with entirely
308 new terms, and the Program is also looking at constructing a gravity outlet from Elwood



309 Reservoir to Plum Creek. The EDO expects that completed score analyses for Cottonwood
310 Ranch broad-scale recharge and the new recapture network plus the discussed project changes
311 will get us to 120,000 AFY.
312

313 Mosier asked about the new terms for leasing NCCW and why it was originally declined. Tumer
314 explained that the original offer was for up-front payment of about \$58 million for 25 years of
315 water, but that wasn't feasible to do within the Program's water budget, particularly given the
316 priority of the J-2 Project at the time. Farnsworth said that the State of Nebraska and water users
317 are in a much different place than a decade ago, and the water users have been trying to hammer
318 out terms for the past couple years. Drain noted that CNPPID's FERC license requires them to
319 offer the NCCW to the Program and that it can be for the cost of the conservation measures that
320 were implemented years ago, but CNPPID is willing to consider a lower cost. The proposed
321 CNPPID lease would also eliminate the EA reset: if Lake McConaughy reaches regulatory
322 capacity, then the EA automatically resets to 100,000 AF every day for as long as the reservoir
323 remains full. Water was lost to resets during flood events in 2011 and 2016 and narrowly
324 avoided in 2019.
325

326 Farnsworth said there are several agreements getting written and there will hopefully be a flurry
327 of approvals by the end of this year to secure the Program's water supply through the Extension.
328 This has been in process for about 2 years and we're only now at a point that it can be discussed
329 with the WAC.
330

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

332 The next GC meeting will be September 13-14 in Kearney. There will be a reception and dinner
333 to celebrate retiring GC members and EDO staff. The next WAC meeting is scheduled for
334 October 25. In-person or virtual will be determined later, depending on whether there are details
335 of water agreements to review and discuss.
336

337 **Action Items**

338
339 **General WAC**

- 340 • None

341
342 **ED Office**

- 343 • None