



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes
Conference Call
February 6, 2018

Meeting Attendees

Water Advisory Committee (WAC)
State of Colorado

State of Wyoming

Bryan Clerkin – Member
Jeff Cowley - Alternate

State of Nebraska

Jessie Strom – Member
Jesse Bradley – Alternate

U.S. Fish and Wildlife Service

Tom Econopouly - Member
Jeff Runge – Alternate

U.S. Bureau of Reclamation

Brock Merrill – Alternate

Downstream Water Users

Cory Steinke – Chair
Jeff Shafer – Member
Brandi Flyr - Member
Mike Drain - Alternate
Tyler Thulin
Tracy Zayac
Nolan Little

Colorado Water Users

Jon Altenhofen – Member

Upper Platte Water Users

Dennis Strauch - Member

Environmental Groups

Jacob Fritton – Member
Rich Walters

Executive Director’s Office (EDO)

Jason Farnsworth
Chad Smith
Scott Griebeling
Seth Turner
Kevin Werbylo
Courtney Black
Bill Hahn (Special Advisor)

Contractors

Jim Cannia – Aqua Geo Frameworks



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

48 Introductions were made. A minor edit to the attendees list of the October 2017 meeting minutes
49 was noted. Motion to approve minutes was made by Shafer, seconded by Clerkin, unanimously
50 approved.

51
52 Shafer made a motion to nominate Steinke to continue as WAC Chair, Altenhofen seconded,
53 unanimously approved.

54
55 Farnsworth thanked the committee members for their support in the wake of PRRIP Executive
56 Director Jerry Kenny's death. Farnsworth reported that the EDO is working on both internal and
57 external options for taking over Jerry's duties as ED. Proposals will be presented to the
58 signatories on February 14 and to the GC in March. For now, the EDO will continue to move
59 forward business as usual, with Jerry's duties being split between Farnsworth and Smith.

60
61 **WAP Projects and Other Brief Water Updates**

62 ***Lakeside Gravel Pit: Kevin Werbylo, EDO***

63 Werbylo reported that the Program acquired an existing gravel pit near I-80 Exit 257. A
64 consultant was hired to design the slurry wall, inlet/outlet works, and other features of the
65 project. Currently in the very early stages of design, focused on information gathering.
66 Consultant is finishing a site survey and borehole drilling (to get depth to an impermeable layer
67 and other geotechnical properties) as the basis for design of the slurry wall. More information
68 will be available after the collected data is assessed, likely by the time of the May WAC meeting.

69
70 ***CPNRD Water Leasing: Brandi Flyr, CPNRD***

71 Flyr reported that the 2017 leasing/recharge operations at the Thirty Mile, Cozad, and Orchard-
72 Alfalfa canals had concluded. CPNRD is currently working to simplify accounting processes,
73 making it easier to track the water going through the canals, seepage losses, etc.

74
75 ***NPPD Water Leasing: Jeff Shafer, NPPD***

76 Shafer reported that NPPD plans to make diversions for recharge in the spring if excess flows are
77 available.

78
79 ***CNPPID Water Leasing (Phelps, Elwood, Irrigators): Cory Steinke, CNPPID***

80 Steinke reported that CNPPID continues to deliver recharge water to the Phelps County Canal
81 and Elwood Reservoir, even with ice. Diversions will continue if there are excesses but they will
82 need to shut off by mid-February or earlier.

83
84 Enrollment for the third year of the irrigator leasing pilot program resulted in 2,055 acres signed
85 up. The water leasing agreement was amended to increase maximum enrolled area from 2,000
86 acres to 2,100 acres. Turner asked if there had been any discussion of moving the irrigator
87 leasing beyond pilot status to something more permanent. Steinke said this is up for discussion;
88 the leasing can only occur during full-allocation years, and any decision would need to be
89 approved by the CNPPID Board of Directors.



90 ***Acquire & Retire Project: Seth Turner, EDO***

91 Turner reported on activities related to the Program's irrigated property near Bayard, Nebraska.
92 New fencing and gates were installed in December. A concrete check structure will be installed
93 in early spring to improve the effectiveness of the flood irrigation; the Program will pay for the
94 labor and materials, expected to be around \$1,500. The Alliance Irrigation District is preparing a
95 schedule for irrigation deliveries. Irrigation on the Program property is presently scheduled for
96 April 13, May 28, and September 13; EDO staff plan to be on site to take flow measurements in
97 the ditch.

98

99 ***Project Scoring: Courtney Black & Seth Turner, EDO***

100 Turner reported on the status of scoring analyses for Elwood Reservoir recharge and the CPNRD
101 surface water transfer/groundwater recharge project. For Elwood, a groundwater model was
102 developed, to be described in detail by Griebeling and Hahn later in the meeting. This model is a
103 pre-cursor to the actual score analysis. The tentative plan is to engage the scoring subcommittee
104 in early spring and have the score analysis ready to present to the GC in June.

105

106 For the CPNRD project, the EDO is reviewing methods and calculations, coordinating with
107 Brandi Flyr at CPNRD as needed. A call with CPNRD is scheduled for February 8 to discuss
108 various questions. To help with this effort, the EDO is bringing on Sira Sartori (formerly of
109 Headwaters and EDO staff) as a temporary Special Advisor, with a meeting scheduled for
110 February 14. The time frame for analysis is similar to Elwood but could be pushed back to
111 September for presentation to the GC.

112

113 ***Wet Meadows: Scott Griebeling, EDO***

114 Griebeling reported that the EDO is still monitoring wet meadows sites and collecting data and
115 will continue to do so through 2019. EDO is also continuing data analysis to answer questions
116 from the outset of the wet meadows study. The wet meadows analysis is lower priority at this
117 time (due to an increased focus on project scoring) but is expected to ramp back up in the spring
118 and summer.

119

120 **Cottonwood Ranch Broad-Scale Recharge Update: Kevin Werbylo, EDO**

121 Werbylo reported on the status of the broad-scale recharge project. Several items are coming
122 together for presentation/approval at the GC in March: the final design plans and bid documents
123 (HDR, with help from EDO); the WSA with CNPPID to build and deliver water through the
124 pipeline from Phelps County Canal; and the land agreement with NPPD. The EDO is also
125 working on operations criteria and modeling.

126

127 Project permitting is critical path. The PCN (404) was submitted to the Corps, expect to have
128 permit by May or June 2018. EDO is also coordinating with Nebraska DNR. The plan is to
129 permit the project as aquifer storage and recovery. DNR will also need to grant a dam safety
130 exemption, as the project involves low berms, not dams.

131



132 Project schedule, assuming permitting proceeds as planned: construction of berms in summer
133 2018; pipeline installed after the irrigation season; project operational in late 2018 or early 2019.

134
135 Werbylo showed a map of the site layout (pipeline, berms, ponded areas, borrow areas) as well
136 as typical berm sections and typical flume and outlet structures. Right now, the total recharge
137 (i.e., ponded) area is about 470 acres, of which 267 acres will be considered crane habitat with
138 ponded depth of 12 inches or less. Estimated volume of recharge ponds is about 575 acre-feet.
139 These finished areas and volumes are expected to decrease slightly but final numbers are still
140 coming together. Average annual diversions to the project are expected to be on the order of
141 20,000 acre-feet, of which 13,000 acre-feet will be recharged and about 5,000 acre-feet per year
142 reach the river during times of shortage. Volumes are based on recharge and groundwater
143 accretions to river only and do not include direct surface releases or recapture wells. It was
144 noted that the volume at the river, or yield, is not the same as the score after project water is
145 routed to Grand Island.

146
147 There were questions and discussions of the collector pipes under the berms and potential flow
148 metering, downstream recapture wells, and the possibility of direct surface water releases to the
149 river.

150
151 The most recent construction cost estimates are \$3-3.5M for on-site infrastructure and \$1M for
152 pipeline. The Program is responsible for the up-front capital cost of pipeline, but CNPPID will
153 buy it back through delivery of water. Responding to a question from Clerkin, Thulin said
154 pipeline costs are currently less than in fall 2017; CNPPID will prepare revised cost estimate for
155 the pipeline. Costs do not include recapture wells, but those are minor costs compared to other
156 project infrastructure. Overall, it is expected to be within budget.

157
158 **Elwood Recharge Modeling:** *Scott Griebing, EDO & Bill Hahn, Hahn Water Resources*
159 Griebing gave an overview of Elwood Reservoir, which is owned by CNPPID and located south
160 of Johnson Reservoir, near the divide between the Platte and Republican river basins. Water is
161 delivered into Elwood via the E65 Canal and a pumpstation. The reservoir is unlined and seeps
162 30-100+ acre-feet per day. It is used by the PRRIP and others for intentional recharge. Elwood
163 Reservoir does not drain directly into tributaries to the Platte River, nor does it collect any
164 significant tributary inflow. Plum Creek is northeast of Elwood and can intercept seepage water.

165
166 Along with the surface divide between basins, there is an underlying groundwater divide. Key
167 questions for scoring include: Where does the water go (Platte or Republican)? What is the
168 timing and location of returns? The past assumption was a 50/50 split of recharge flows to the
169 Platte and Republican basins.

170
171 To model Elwood seepage as part of scoring analyses, there were several options: analytical
172 approach, COHYST model, standalone groundwater model. Hahn presented an overview of the
173 groundwater model and methods, which are a localized application of the COHYST model. To
174 develop the Elwood model, minor localized modifications were made to the groundwater model



175 component of COHYST to improve model calibration near Elwood Reservoir. No changes were
176 made to the watershed or surface water models, and the full integrated COHYST model was not
177 run for this analysis. The local changes implemented to improve calibration did not have
178 impacts on the larger COHYST model.

179

180 Griebling and Hahn worked with Hayden Strickland at ERC to develop this model. There are 2
181 model runs: a baseline run (historic conditions) and an impact run (assumes 10 cfs continuous
182 recharge from Elwood Reservoir). The model results were extended from the 26-year study
183 period of the COHYST model to the 48 years used in the OPSTUDY model that serves as the
184 basis for all scoring analyses.

185

186 Results show that eventually about 20% of water goes to the Republican basin, 80% to the Platte.
187 Bradley confirmed this is consistent with results seen by Nebraska DNR. These results also
188 make Elwood more appealing to the Program, with more returns to Platte than previously
189 assumed. Model results also show that significant recharged water remains in storage beneath
190 Elwood for a long time. The Program could use recapture wells to pump into Plum Creek. In
191 response to question from Runge, Griebling clarified that the model results show Program
192 recharge only.

193

194 The EDO plans to score the Elwood project as recharge without recapture wells, then update
195 later if/when recapture wells are added. Steinke added that CNPPID is trying to make more
196 space available in Elwood for recharge, reducing irrigation demands by improving efficiencies,
197 etc. This year has the least amount ever stored in Elwood for irrigation.

198

199 **Project Site Screening:** *Seth Turner & Kevin Werbylo, EDO*

200 Turner reported on efforts by the EDO, working in collaboration with Hahn Water Resources
201 and CPNRD, to identify viable sites for future broad-scale recharge or slurry wall gravel pit
202 projects. What started as a more general exploration was narrowed to focus on potential
203 recharge sites for re-timing the surface water leased from Thirty Mile, Cozad, and Orchard-
204 Alfalfa canals. A draft memo with an annotated long-list of 24 sites was prepared by Hahn in
205 July 2017. Ten sites requiring delivery through CNPPID or NPPD canals were eliminated,
206 leaving a list of 14 sites to which water could be delivered through CPNRD canals that were
207 looked at more closely. From that list, 8 sites were eliminated as too small or too far from the
208 river for successful broad-scale recharge beneficial to the Program. Moving forward, a short list
209 including 6 large sites from the original list (ranging from 740 acres to 2,200 acres) will be
210 prioritized for further evaluation in 2018. The EDO also plans to assess the feasibility of surface
211 storage in a group of dry canyons located between the Thirty Mile Canal and the Tri-County
212 Supply Canal.

213

214 **Project Status & Scores Update:** *Seth Turner, EDO*

215 Turner presented an overall update on the status of Water Action Plan (WAP) projects. The
216 Cottonwood Ranch broad-scale recharge and Lakeside gravel pit projects are underway and
217 anticipated to be operational in early 2019 and early 2020, respectively. Two additional slurry



218 wall gravel pits are planned for sites near Lakeside, but both must be mined out first. Other
219 projects already in progress or planned for the coming years include additional recapture wells
220 for the Phelps and Elwood recharge projects; storage or recharge facilities to re-time surface
221 water transferred from CPNRD; similar re-timing for surface water from NPPD; CNPPID
222 irrigator leasing; and acquire & retire of irrigated lands. Turner requested that the districts send
223 an email when they start and end diversions for recharge or surface water transfers so that the
224 EDO can better keep track of real time project operations. Runge mentioned USFWS interest in
225 facilitating flow releases through power interference.

226
227 Projects with combined scores totaling 40,000 acre-feet or more are expected to be in place by
228 2025. Current approved project scores total 7,120 acre-feet, excluding the J-2 Reservoirs.
229 Scoring analyses for Elwood recharge and CPNRD leasing/recharge are expected to be
230 completed in 2018. NPPD recharge is likely to be the next project scored.

231
232 WY 2018 forecasts of May-June-July flows developed by Special Advisor Dmitry Smirnov of
233 Dewberry were shown. Based on January 15 forecasts, most locations are forecast to have
234 average to below average flows. Committee members expressed interest in maintaining
235 forecasts for future years. There was discussion of comparing actual flows to forecasts to
236 determine if any revisions to forecast methodology are needed.

237
238 **Central Platte AEM Survey:** *Jim Cannia, Aqua Geo Frameworks & Kevin Werbylo, EDO*
239 Cannia reported on an Airborne ElectroMagnetic (AEM) survey of the central Platte that was
240 conducted to assess subsurface geologic conditions. Survey flights took place in summer 2016,
241 and data analysis and documentation were completed in the time since then; a report is now
242 available for review. Results of the study can be used to help assess recharge potential as well as
243 the depth and extent of the low-permeability layer needed to develop slurry wall gravel pits.

244
245 **Additional Business:** *Cory Steinke, WAC Chair*
246 The next WAC meeting is scheduled for May 1, 2018 at the Lake McConaughy Visitors Center.

247
248 Turner proposed a tour of Program water projects to follow the May WAC meeting, the first
249 such tour since 2015. Committee members were interested. The EDO will put together a draft
250 schedule/agenda for the tour and will get back to the WAC to finalize details.

251
252 Econopouly reported that USFWS looking into late winter releases from the Lake McConaughy
253 EA, waiting for ice to clear. The EAC-RCC meeting will occur sometime around March 6.
254 USFWS would like to improve communications around EA releases. Whooping crane release
255 begins March 23.

256
257



258 **Action Items**

259

260 **General WAC**

- 261
- CNPPID to prepare revised cost estimate for pipeline to deliver water from Phelps County Canal to Cottonwood Ranch.
 - CNPPID, CPNRD, and NPPD to send email to EDO staff (Farnsworth, Beck, Turner) notifying of the start or end (and rates) of excess flow diversions for recharge or surface water transfers.
 - USFWS to provide written documentation regarding interest in power interference.

267

268 **ED Office**

- EDO to develop itinerary for tour of Program water projects on May 1-2, following the next WAC meeting.

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