PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes
Virtual Meeting – Webex Audio and Video
August 4, 2020

Meeting Attendees

Water Advisory Committee (WAC)

State of Colorado
Jojo La – Member

State of Wyoming
Jeff Cowley - Alternate

State of Nebraska
Jessie Winter – Member
Jennifer Schellpeper – Alternate

U.S. Fish and Wildlife Service
Tom Econopouly – Member
Jeff Runge – Alternate
Matt Rabbe

U.S. Bureau of Reclamation
Brock Merrill – Member
Mahonri Williams - Alternate

Downstream Water Users
Cory Steinke – Chair
Jeff Shafer – Member
Brandi Flyr – Member
Tyler Thulin
Nolan Little

Colorado Water Users
Jon Altenhofen – Member
Luke Shawcross – Alternate
Kyle Whitaker

Upper Platte Water Users

Environmental Groups
Jacob Fritton – Member
Bill Taddicken - Member

Executive Director's Office (EDO)
Jason Farnsworth, ED
Justin Brei
Julia Grabowski
Scott Griebling
Tom Smrdel
Seth Turner
Kevin Werbylo
Bill Hahn, Special Advisor

Contractors

Welcome and Administrative: *Cory Steinke, WAC Chair*
Introductions were made by identifying those signed into Webex. There were no specific agenda modifications, but Turner noted recent changes to the meeting documents posted on the website.

Minor edits to the May meeting minutes were noted. Regarding lines 270-271 of the minutes, Altenhofen asked Nebraska DNR to clarify the meaning of the "fully appropriated condition." Winter said that fully appropriated for Nebraska means essentially that supplies and demands are in a balanced state, that demands do not exceed available supplies. Altenhofen made a motion to approve the May meeting minutes, second by Flyr. Hearing no opposition, Steinke declared the minutes approved.

WAP Projects and Other Brief Water Updates

Leasing and Recharge Projects: *Seth Turner, EDO*
Turner recapped the reporting from the leasing and recharge projects memo. Spring recharge occurred at the Thirty Mile and Orchard-Alfalfa canals (CPNRD) and at the Dawson County Canal (NPPD). In June, the GC approved surface water leasing agreements to continue the pilot exchange projects with CPNRD and NPPD for another year while the Nebraska "grand bargain" continues to be negotiated. Altenhofen asked about the volume of the CPNRD surface water lease, and Flyr said it is likely to be similar to last year, a bit more than 14,000 AF.

La asked about the status and timeline of score analyses for the CPNRD and NPPD recharge projects, which were noted in the memo as "ongoing." Turner said that coordination with Nebraska DNR on URFs continues, and that DNR hired a consultant to review certain aspects of the COHYST model. Schellpeper explained that DNR hired McDonald Morrissey for the COHYST review and it is hoped there will be some results from that in a month or so. With that uncertainty, there is not currently a specific timeline for completing the score analyses.

Platte Basin Hydrology Update: *Scott Griebling, EDO*
Griebling gave an update on Platte Basin hydrology for the year through July, with a focus on flows at Grand Island. To date, the instantaneous peak flow was 12,700 cfs, and the flow volume for the year already exceeds the wet year threshold. Gaged flows at Grand Island have been above the daily median flow for the entire year so far. Storage volume in the Lake McConaughy EA increased by over 100,000 AF between January 2019 and April 2020 due to high river flows and limited opportunities to make releases. Water was released from the EA starting at the end of April and continued with various purposes (channel maintenance, germination suppression, target flows) through most of May-June-July until the chokepoint test was terminated on July 24.

Recapture Wells Pilot Project*: Kevin Werbylo, EDO*
Werbylo reported that for the past couple months, Jason Farnsworth and John Thorburn have been negotiating a water service agreement (WSA) between the Program and Tri-Basin Natural Resources District (TBNRD) for the construction and operation of 8-10 recapture wells in the

Cottonwood Ranch area. The agreement will be presented to the GC for approval in September. Werbylo and Nolan Little (TBNRD) will start scouting locations for wells and talking with landowners; the goal is to have wells in the ground and operational by next spring.

Altenhofen asked about the budget approved by the finance committee for the project. Werbylo said the approved budget was around $1 million. Farnsworth recently updated the finance committee on the terms of the WSA, the plan for the Program to pay for construction, and for TBNRD to buy back the project through future recapture well pumping of equivalent value. The structure of the WSA is similar to that between the Program and CNPPID for the Cottonwood Ranch broad-scale recharge project. No specific action was taken by the finance committee.

Farnworth added that the final agreement is to be structured as a pass-through such that TBNRD will own the project and the Program will pay for construction and operating costs. The project is essentially cost-neutral for TBNRD, but TBNRD has the legal authority to install and operated wells for recapture in ways that the Program does not. The agreement is also based on actual costs, not speculation about future costs or water volumes. The Program will provide full funding for construction up front, but any amount not used will be refunded; the Program will also pay for TBNRD's time and materials, and electrical costs.

Altenhofen asked who will be responsible for turning the wells on/off, who will read the meters. Farnsworth said TBNRD will be responsible, and that operating plans will be developed to meet Program objectives. Essentially, TBNRD will function as a contractor providing services, and the Program covers costs. This initial recapture project will be at a pilot scale but will likely be scaled up to a larger regional project that may also include Nebraska DNR.

Sediment Augmentation Project*: Tom Smrdel, EDO*

Smrdel provided an update on the full-scale sediment augmentation project, beginning with a review of how the river form changed between 1938 and the present, particularly the south channel below the J-2 Return. This will be the 4th year of the project, and a contractor is expected to be hired next week. For the first three years, augmentation to the main channel averaged about 60,000 tons/year of sand and gravel.

Focus areas each year have progressed downstream, but this year the plan is to both increase material quantity to 75,000 tons and move the work location back upstream and widen into the high terrace. The intent is to arrest incision and diminish the river's energy. A pre-bid meeting was held last week, and the bid opening is scheduled for August 10. Altenhofen asked about the range of bids; Smrdel said four bids are expected next week and the cost estimate is around $150,000. For 2021, sediment augmentation work may migrate downstream to the vicinity of Plum Creek.

Cottonwood Ranch BSR Project: *Kevin Werbylo, EDO*

Werbylo explained that the objectives of the first fill at Cottonwood Ranch are to (1) test the project infrastructure, (2) identify needed improvements and maintenance items, (3) identify long-term monitoring needs, and (4) learn and adjust.

First fill operations began the 3rd week of July, during which cells 1, 2, and 4 south of the Peterson Drain were filled, and a bit of water spilled into cell 5. For this initial fill operation, the Program took advantage of EA water released concurrently for North Platte chokepoint test and diverted about 150 AF over 3 days. Cells 5 and 7 are expected to be filled during the 3rd week of August, and finally cells 3, 6, and 8 north of the Peterson Drain in September. If needed, there may be an additional fill period in early October.

Werbylo said the only real issue encountered during the initial fill was cavitation across the pipeline valves from pressure drop. This is being investigated and should be fixed with operational adjustments. Altenhofen asked about the pipeline size, Werbylo said 36" at the discharge point and 42" coming down from the Phelps County Canal.

The berms that define the recharge cells are 3-4' tall, and photos show them ponding 1.5-2' of water at the time of the initial fill. Werbylo explained the self-regulating control gates, how they can be programmed to maintain a desired water surface elevation in the ponds. Werbylo showed many photos of the project during the initial fill, both from ground level and aerial drone images.

Altenhofen asked about water table depths at the start of the initial fill. Werbylo said the EDO hasn't looked at the data yet, as the loggers will be downloaded next week, but the depth was probably 1-1.5 feet (maybe more). Altenhofen asked about total construction cost, Werbylo said about $5 million, inclusive of the contractor claim settlement.

La asked if there is an operations plan for filling the project. Werbylo said there is an operations plan for the first fill that was developed as an internal document for the EDO and NPPD, including details of the project, what is to be monitored, items to check, etc. La clarified that the question was more related to fill next spring; Werbylo said the Program is to provide an operations plan to NPPD annually, and there should be more details of that to share in the fall.

North Platte Chokepoint Test Flow Release: *Seth Turner and Justin Brei, EDO*

Turner gave a comprehensive overview of the North Platte chokepoint test, from the planning process to implementation and a decision by the National Weather Service (NWS). Turner began by acknowledging the broad planning workgroup, including U.S. Fish and Wildlife Service, CNPPID, NWS, Nebraska DNR, City of North Platte, Lincoln County Emergency Manager, NPPD, Reclamation, CWCB, WWDO, and Program staff.

The chokepoint test was driven by the Program water management goal of achieving 3,000 cfs at the North Platte chokepoint, critically "while remaining below flood stage." Discharge at the current minor flood stage for the North Platte River at North Platte is less than 2,000 cfs but

increasing to 6.5 ft could gain substantial additional flow capacity for EA releases (up to 800 cfs more based on DNR's April 2020 rating curve). Turner reviewed a map of the chokepoint area as well as the NWS flood stages and impacts descriptions as they were written prior to the chokepoint test.

The primary objective of the chokepoint test was to pursue increasing minor flood stage from 6.0 ft to 6.5 ft by releasing EA water to achieve target stages, conducting extensive monitoring and data collection, and documenting findings for review by NWS. A secondary objective was to test the performance of the State Channel Berm, which was rehabilitated by the Program in 2018, under high flow conditions.

Turner reviewed the test planning timeline from mid-April through early July, including the process of engaging several entities not normally involved in Program activities and the many iterations of the schedule that evolved based on feedback from the planning workgroup and changing river conditions. The planning process culminated in an Implementation Plan for chokepoint test that covered objectives, coordination of staff and roles/responsibilities for the many parties involved, communication protocols, the schedule for EA releases and stage targets at North Platte, monitoring locations and types of data/information to be collected, and triggers for termination of the test. A press release was distributed as widely as possible, not only to media outlets, but on the Program and City of North Platte websites, NWS North Platte twitter, and to rural fire departments and village clerks in Lincoln County. Campaign-style advisory signs were also printed and installed in Cody Park and other areas of concern near the riverfront in and around North Platte.

Monitoring covered numerous sites on both sides of the river, concentrated around the Highway 83 bridge, Cody Park, and North River Road. Locations ranged from as far upstream as the Buffalo Bill State Park Campground to as far downstream as the North Platte WWTP south of Highway 30. Data loggers were installed in several locations in and near the State Channel Berm, the Program has an existing groundwater monitoring well at the North River Rd and North Washboard Rd intersection, and staff gages were installed in 3 ponds on the south side of the river to serve as proxies for groundwater levels.

The chokepoint test officially began on July 13; the North Platte River at North Platte was already at 6.0 ft, so no ramp up was necessary to reach that initial stage. Site measurements by Nebraska DNR produced shifting flow targets that required adjusting the EA release necessary to achieve and maintain a particular stage during the test. The EA release was already at 550 cfs at the start of the chokepoint test and increased in three increments to a maximum of 1,325 cfs for several days starting July 21. Following a decision by NWS to not increase the minor flood stage, the EA release was abruptly terminated and reduced to zero in two steps on July 24. The total volume of EA water released for the chokepoint test was about 21,000 AF.

Turner showed the progression of stage and discharge at North Platte during the chokepoint test, as well as discharge at the upstream Keystone and Sutherland gages. The Keystone gage just

below Lake McConaughy showed a clear signal from the changes in the EA release, but there was considerable attenuation seen at the Sutherland and North Platte gages, and it took longer than expected to reach a stage of 6.5 ft after the EA release was increased to do so. Precipitation events in the Sutherland and North Platte areas and high transit losses also factored into operations during the test.

The EDO and NWS took extensive photos at monitoring locations during the chokepoint test. Ultimately, the change in stage at North Platte was only about 6 inches. As expected, the Cody Park boat ramp and parking lot became increasingly flooded as the test progressed. An area at the intersection of North River Rd and North Washboard Rd that typically flooded during past high flow events showed no water at all. The State Channel Berm and culvert performed as designed; minor overtopping of a couple low spots was observed, and the berm will be revisited during low flows to determine and maintenance needs.

On July 22, the EDO responded to flooding complaints on agricultural lands west of Sarben (more than 30 miles to the west of North Platte) and adjacent to the Muskrat Run Wildlife Management Area a few miles outside of North Platte and upstream of the chokepoint. Drone photos were taken at the areas of concern and observations reported during the next daily coordination call.

Additional high water concerns were observed at two properties in the Vieyra Drive/Red Fox Lane/Darlene Road area of North Platte on the south side of the river, homes built very close to the river channel. Observations included water encroaching to within a few feet of the foundation of one home, septic system backup issues, an inaccessible barn/garage, and flooding of an underground storm cellar. The owner of the property on Red Fox Lane is a USGS employee who installed a staff gage in his own backyard pond and recorded observations that were reported to the EDO. NWS visited these properties on July 23-24 and based on these observations declared on the morning of July 24 that there would be no change to the minor flood stage. At that point, the chokepoint test was terminated and CNPPID cut the EA release to zero as quickly as possible.

The chokepoint test objective of increasing the minor flood stage in order to increase available flow capacity for EA releases was not achieved, but observations indicate that the State Channel Berm performed as designed and kept high water away from the North River Rd and North River Rd area. Turner noted that a document was provided to the WAC showing NWS flood impacts definitions before and after the chokepoint test. Prior to the test, the focus was on the north side of the river and low-lying areas of Cody Park. After the test, having observed no issues on the north side, NWS shifted focus to the south side of the river, particularly the impacted areas as described.

La asked if there were any insurance claims associated with the chokepoint test, and Farnsworth said there were none. La also asked how much the test release cost the Program. Farnsworth explained the general costs were quite low as the monitoring involved reallocating current staff

time towards the effort and working with partners, rather than hiring an outside consultant to run the test. The cost of the water used in the release is difficult to put a specific dollar amount on, but it could fall in the $1-2 million range. This cost must be viewed in light of the low opportunity cost for the release as the Lake McConaughy EA was nearly full and potentially in danger or resetting. This was a very efficient use of the EA water by all accounts.

There was additional discussion of next steps. Farnsworth said there is little the Program can do with regard to flood stage now that NWS has made a decision; these determinations are subjective and based on site-specific observations rather than being based on analytical solutions like FEMA flood maps. The EDO will reevaluate options to determine what can be accomplished given existing constraints in the river.

Alternatives for routing water around North Platte were briefly discussed as well. Altenhofen mentioned that using the Sutherland Canal was considered years ago, even before the Program began. Brei added that there were more recent investigations of the Suburban, North Platte, and Keith-Lincoln canals, which divert from the North Platte River but have wasteways that return to the South Platte River.

The NWS decision regarding flood stage was not what the Program had hoped for, but Econopouly noted that the NWS contributed a lot to the chokepoint test, including during the planning process, providing a daily weather forecast starting July 1, and taking photos at monitoring sites every day during the test.

Additional Business: *Cory Steinke, WAC Chair*
The next GC meeting is scheduled for September 15-16. Farnsworth said the nature of the meeting, in person or virtual, is in flux given the uncertain situation with COVID-19. The next WAC meeting is scheduled for Tuesday October 27 and will likely be another virtual meeting.

Action Items

General WAC

ED Office