PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes
Nebraska Game and Parks Commission – Lake McConaughy Visitors Center
August 11, 2015

Meeting Attendees

Water Advisory Committee (WAC)

State of Colorado
Suzanne Sellers – Member

State of Wyoming
Bryan Clerkin – Member
Lee Arrington – Alternate (phone)

State of Nebraska
Jessie Weitjes

U.S. Fish and Wildlife Service
Tom Econopouly – Member

U.S. Bureau of Reclamation
Brock Merrill – Alternate

Downstream Water Users
Cory Steinke – Chair
Duane Woodward – Member
Jeff Shafer – Member
Landon Shaw – Member
Nolan Little
Tyler Thulin
Mike Drain

Colorado Water Users
Jon Altenhofen – Member
Luke Shawcross (phone)

Upper Platte Water Users
Dennis Strauch – Member

Environmental Groups
Duane Hovorka – Member (phone)
Bill Taddicken – Member

Executive Director's Office (ED Office)
Jerry Kenny, ED
Scott Griebling
Seth Turner

Welcome and Administrative: *Cory Steinke, WAC Chair*
Introductions were made. There were no agenda modifications. Steinke reported no changes to the May 2015 WAC meeting minutes. Motion to approve was made by Woodward and seconded by Shafer, and the May 2015 minutes were unanimously approved.

WAP Project and Water Updates

J-2 Regulating Reservoirs: *Cory Steinke, CNPPID*
Steinke reported that there was a closed-door meeting prior to the start of the August 11 WAC meeting to discuss issues that have emerged in the past 10 days. The J2 project team is not being secretive, but distributing information selectively. New information provided by RJH indicates that costs for the J2 Regulating Reservoirs have increased significantly. Kenny reported that there is a pending meeting with the Nebraska Department of Natural Resources (DNR) to discuss, and additional meetings will be held with Colorado, Colorado Water Users, and others. There are plans to report on project status to the GC in September.

Econopouly asked about the reasons for the increased costs for the project. Steinke responded that it was a number of things, including construction costs, design concept changes, and other factors. Steinke also reported that the Central Nebraska Public Power and Irrigation District (CNPPID) is moving forward with land acquisition at the project site, and cultural studies will continue this fall after crops are out.

Phelps Groundwater Recharge Pumping: *Jerry Kenny, ED*
Kenny reported that the EDO's Sartori presented to the Tri-Basin Natural Resources District (NRD) in July. There are no project obstructions anticipated, but rule changes are required to complete implementation. Votes on the rule changes by the Tri-Basin NRD are expected soon.

CPNRD Water Leasing: *Duane Woodward, CPNRD*
Woodward reported that the water rights for the proposed water transfers have been filed. A handout was provided that shows calculations for the proposed transfers and return flows (e.g., diversions, consumptive use, water needed to be returned, excess diversions and recharge, estimated costs) for Thirty Mile Canal, Cozad Canal, and Orchard-Alfalfa (aka Southside). High flows in 2015 made this a good year to experiment with water leases.

NPPD Water Leasing: *Jeff Shafer, NPPD and Jerry Kenny, ED*
Kenny reported that negotiations are still underway with regard to cost, and that they are also trying to determine return flow obligations and other relevant factors. There are plans to have a meeting with the new director of the Nebraska DNR.

CNPPID Water Leasing: *Jerry Kenny, ED*
Kenny reported a significant amount of progress made recently. An arrangement has been established in which irrigators under the CNPPID system would relinquish surface water to be leased to the Program. Water leasing will proceed initially under a one-year pilot program, which will be limited to 3,000 acres. It is anticipated that much of the water will come from fallowing

or dryland farming pivot corners. Steinke reported that there will be checking to make sure land really was irrigated prior to the water being made available for leasing.

The coming year will be an excellent opportunity to test the water leasing concept. Following a wet year (2015), Lake McConaughy is near-full, CNPPID irrigators will receive a full allocation in 2016, and no swapping of water will be allowed within CNPPID system. As a result, the Program will be the only customer in the leasing market. Kenny stated that this will be expensive water for the Program, but it would otherwise just be held in storage in Lake McConaughy. Ultimately, the pilot program will be low risk, potentially high reward opportunity.

A draft lease agreement presented to the CNPPID board and approved, but there may still be minor tweaking. The agreement will be presented to GC in September 2015, and the lease market could be opened in October 2015. Acquired water would be transferred to Environmental Account (EA) in Lake McConaughy; the timing of this reallocation would probably be Fall 2016.

Taddicken expressed concern about ability to actually release water whenever requested; Steinke and Kenny assured that it should not be an issue. Releases from the EA for the benefit of the Program could be made along with regular CNPPID irrigation deliveries, representing only a small percentage of total releases.

Other Water Updates (Wet Meadows, COHYST, and 2015 High Flows): *Scott Griebling, EDO*

Wet Meadows Peer Reviews—Griebling reported that the EDO is crafting responses to comments, and hopes to have responses to work group in September, but won't be ready for GC yet. There are WAC and TAC members in the work group and the EDO intends to have responses ready for the December 2015 GC.

COHYST—Griebling reported that progress is being made on the development of the graphical user interface (GUI) for the COHYST models. An initial version of the GUI is working, successfully running an integration of all three COHYST models (groundwater, surface water, and watershed). The GUI automates the process of running the models and saves a lot of processing time. There will be continued testing of the GUI by the COHYST group and the EDO. Other updates to the models include extending the simulation period (from 1947 to 2010).

2015 High Flows—Griebling reported that the EDO is preparing memorandum summarizing high flow events since 2007; this document will be presented to the WAC in October. In 2015, Grand Island peaked at 16,200 cfs, flows not seen since 1996. The 2015 high flow period lasted for 58 days in May, June, and July; return periods were estimated for flow volumes over various durations (e.g., 7-day, 14-day, 21-day, 42-day, etc) that ranged from 24 to 39 years. It was also noted that the 58-day flow volume during the 2015 high flow period exceeded the entire 4-year flow volume measured at Grand Island from 2003-2006.

Econopouly added that there is presently a lot of water in the EA (~69,000 AF). Deliveries from Pathfinder Reservoir will soon be made (combined volume of about 43,000 AF from the Pathfinder Modification allocation and the Pathfinder Municipal Account lease). USFWS is looking at ways to release at different times to optimize the beneficial use of EA water for habitat and species purposes.

Update on Choke Point and State Channel Modification: *Jerry Kenny, ED*

Kenny reported that a major breakthrough was achieved in a recent meeting with the Corps of Engineers. The central issue involves impacted wetlands from filling in the hole in the dike and from getting soil to fill the hole.

Mitigation was proposed involving the Program's downstream Fox Tract in the Fort Kearny Complex, which includes acres of constructed wetlands. A few acres of these wetlands could be separated and designated to the Corps. The Corps took issue with the "complex" being in a different HUC than the work site in question (1,200 feet apart). Additionally, the Corps also took issue with Fox Tract wetlands now being "existing" even though they were created by the Program.

A resolution was reached involving new lands acquired by the Program across the road from the Fox Tract. The Corps agreed to waive the HUC issue if the Program creates new wetlands at 4:1 ratio, or about 8-10 acres of new wetlands on the lands across from the Fox Tract.

Therefore, hopefully by next summer, the State Channel Modification will be in place. The National Weather Service (NWS) is eager to raise flood stage from 6 feet to 6.5 feet, highly motivated to get away from the scenario (which occurred in the very-dry 2012) in which high flows released for downstream irrigation trigger flood stage. The Program and NWS will need to coordinate with county emergency services personnel, and need to demonstrate (at 6.5 feet) that there is no threat to people, property, or the national economy.

Sellers asked how the demonstration would occur—model or otherwise. Kenny responded that it has to be a demonstration of real water flowing at a stage of 6.5 feet.

North Platte Basin Water Resources Development Timeline: *Seth Turner, EDO*

Turner presented on the status of a water resources development timeline the EDO has been pulling together from more than 80 reference sources. The objectives of the study include identifying irrigation diversions and reservoirs, when the structures were built and by whom, water rights, physical capacities, and other details. The EDO intends to use this information to better understand the overall history of the Platte River basin and the cause-and-effect relationships of development and river changes.

This information may also serve as the basis for additional technical work on the development of naturalized flows and analysis of morphological changes in the rivers. The timeline presently includes the North Platte River from its headwaters in Colorado to the confluence at North Platte,

Nebraska, including tributaries such as the Laramie River, Horse Creek, Pumpkin Creek, and Blue Creek. The South Platte and central Platte River mainstem from the CO-NE state line to Kearney are also included. The next step with the timeline is to add the South Platte Basin of Colorado.

Excess Flow Determination Methods: *Scott Griebling, EDO*

Griebling gave a presentation on excess flow determination, and reported that there is a memo available for review on the WAC website. The purpose of this review was to standardize methodology, enhance coordination, and act as water user guidance to the Nebraska DNR. The work by the EDO and the Program was a suggestion to the DNR, which ultimately makes the determination of available excess flows (presently based on flows at Grand Island). Jesse Bradley at the DNR provided comments on the work by the EDO and the Program.

Steinke illustrated concerns from the perspective of downstream water users: There are two days' river travel time from the J2 return to Grand Island. If, for example, the flow is 2,500 cfs at Overton, but only 1,100 cfs at Grand Island, users could take water today at Overton, knowing the wave would get to Grand Island in two days and still satisfy flow targets. Use of Grand Island as the determining gage would require waiting two days until the flow reached Grand Island, resulting in missed diversion opportunities,

Griebling stated that if there are no objections, the EDO will not suggest any alternate method to the DNR. No objections were registered.

Hydrologic Conditions Review: *Scott Griebling, EDO*

Griebling presented on the methods and calculations used to determine hydrologic condition (e.g., wet, normal, or dry) at various intervals. The hydrologic condition is used to set target flows on real-time and annual bases. The annual hydrologic condition is assigned retroactively based on average annual flow at Grand Island. Wet years are defined as the highest 33% (≥ 1575 cfs), dry years are the lowest 25% (≤ 939 cfs), and normal years are those with average annual flows in-between (940-1574 cfs). Annual hydrologic condition is used in various analyses, for example those involving OPSTUDY (1947-1994) data. Last year (2014) was designated as a "normal" hydrologic condition. The real-time hydrologic condition looks ahead, and is used more to guide operations. The method for determining real-time hydrologic condition is based on a paper published by Anderson and Rodney of the USFWS.

In addition, the EDO has been experimenting with development of a temporary hydrologic condition for short periods (e.g., two weeks) when Palmer Drought Severity Index (PDSI) values needed for real-time hydrologic condition calculations are not yet available. Presentation of this method and results let to an extended discussion. Griebling stated that the approach so far has been to minimize the amount of time that supposed excesses are diverted when they shouldn't be. Steinke added that the concern for the water users is how efficient or aggressive they can be with diverting excesses without causing problems with the target flows.

Recommendations are for the EDO to refine the methods for temporary hydrologic condition. In particular, the EDO will review the percentage of time the temporary method predicts dry and the real-time ends up normal; the percentage of time dry condition is predicted dry and the real-time is dry; and the percentage of time the temporary predicts normal but the real-time result is dry. Kenny stated that the EDO will complete this additional work and then present to the WAC again, before presenting to the GC. Whether or not to use the temporary hydrologic condition may ultimately be a policy decision for the GC.

2014 Annual Flow Summary: *Scott Griebling, EDO*

Griebling presented the updated version of the 2014 Annual Flow Summary Report, noting the changes in the document due to newly available data. Griebling also presented cumulative hydrographs for the FWS target flows.

Weekly Flow Summary Introduction and Website Tutorial: *Scott Griebling, EDO*

The EDO prepares weekly flow summaries, usually on Monday or Tuesday. These include several weeks of flow data through the critical habitat reach (e.g., gage flows at Overton, Kearney, and Grand Island), as well as point flows at gages and diversion structures upstream as reported by the Nebraska DNR and other agencies. The weekly flow summaries were previously sent out internally by email, but will now be made available to the public on the Program website under the "Publications and Data" tab.

Griebling also gave a brief presentation on how to use the Program website. He noted that the website is designed to work best with Internet Explorer, as some functionality is not available in other browsers such as Firefox or Chrome. Also of note, some pages such as "Pictures" require clicking small arrows at the top or bottom of the page to get to additional content on other pages.

2016 Draft Water Plan Budget: *Jerry Kenny, ED*

Kenny presented on the proposed 2016 Water Plan budget. Numbers presented were current as of the meeting date, but subject to change. The following bullets offer a summary of Kenny's slides:

- WP-1: Chokepoint ($1.2M)
  - Recent progress/breakthroughs on permitting
  - Vegetation clearing
    - Local landowners requesting that the Program do these actions
    - Keep everything in the realm of not needing a permit from the Corps
  - Land acquisition
  - State Channel Berm modification construction, possible in Fall 2015, but most likely in 2016.
- WP-4: WAP Projects ($17.3M)
  - Mostly J2 regulating reservoirs ($14.4M)
    - RJH is updating feasibility cost
    - Room was left in budget for potential ~10% increase in cost

- Recharge and Pumping ($264,000)
  - Phelps County Canal recharge ($28/AF)
  - Elwood Reservoir recharge ($43/AF) – 500 AF delivery
  - Augmentation well on Cook (budget for 2 wells, one currently planned in the Tri-Basin NRD - $44/AF)
- Water Leasing ($2.7M)
  - CPNRD transferred surface water
  - CNPPID Irrigator surface water
    - Assume 3,000 acres at 9" water/acre = 2,250 AFY
    - During full allocation years
    - Water available in Lake McConaughy
    - Irrigators switch to dryland farming for parcels from which water leased
  - CNPPID storage water, NPNRD surface water, NPPD surface water

- WP-5: Management Tool, e.g., COHYST ($30,000)
- WP-8: Special Advisors ($100,000)
  - Hydrogeology (Bill Hahn)
  - Economics (George Oamek)
  - Civil engineer for reservoir design (as J2 design progresses)
- WP-9: Water Resources Studies, e.g., hydroclimatic indices ($25,000)
  - Past years cost-share with CWCB
  - Program in the lead now
  - Just received North Platte draft from Dewberry
  - Work this year was to make more quantitative assessment of flows into Lewellen

Merrill suggested color-coding the cost summary table to identify those projects that are already under contract.

Additional Business: *Cory Steinke, WAC Chair*

Upcoming meeting schedule:

- GC on September 8-9 in Kearney
- WAC on October 20 at Lake McConaughy Visitors Center
- GC on December 1-2 in Denver

Action Items

General WAC

- None

ED Office

- Conduct further temporary hydrologic condition analysis
- Color code cost summary table by contracted projects