# PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
## Water Advisory Committee Meeting Minutes
CNPPID Office – Gothenburg, Nebraska
May 6, 2014

## Meeting Attendees

**Water Advisory Committee (WAC)**

**State of Colorado**
Suzanne Sellers – Member
Brent Schantz

**State of Wyoming**
Lee Arrington – Alternate
Bryan Clerkin – Alternate
Barry Lawrence
Matt Hoobler

**State of Nebraska**
Amy Zoller
Jim Schneider

**U.S. Fish and Wildlife Service (USFWS)**
Tom Econopouly – Member
Jeff Runge - Alternate
Matt Rabbe

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

**Upstream Water Users**
Dennis Strauch – Member

**Colorado Water Users**
Jon Altenhofen – Member

**Bureau of Reclamation (BOR)**
Brock Merrill – Alternate

**Environmental Groups**
Duane Hovorka - Member
Bill Taddicken

**Executive Director's Office (ED Office)**
Jerry Kenny, ED
Scott Griebling
Janice Rainwater
Sira Sartori

**Welcome and Administrative:** *Cory Steinke, WAC Chair*
Introductions were made. There were no agenda modifications. Steinke reviewed the February 2014 WAC Minutes. Shafer made a motion to approve the modified February 2014 WAC Minutes, which was seconded by Merrill. **The February minutes were unanimously approved.**

**WAP Project Updates**

***J-2 Regulating Reservoir:*** *Cory Steinke, CNPPID*
Steinke explained that land is in the appraisal process. Monitoring wells have been installed to track groundwater levels when water is in the canals. Mike Drain will soon initiate the permitting process. At this point, there are questions from the public about road location and reservoir seepage. Neither of those issues is anticipated to be a problem.

***Phelps Groundwater Recharge:*** *Jerry Kenny, ED*
The Phelps groundwater recharge project score was approved by the Governance Committee (GC) in December 2013. At this point, a temporary permit has been approved and a permanent permit is in the application process. The Program is working with CNPPID on a permanent lease agreement. Internally, the Program is looking at the possibility of groundwater recharge in the E65 Canal. This possibility will be discussed more completely at the August WAC meeting. Sellers asked about whether the ED Office could have a memo for evaluation of the technical analysis of this lease agreement, specifically regarding the E65 Canal. Kenny responded that a memorandum could be provided to the WAC at the August meeting.

***NPPD Water Leasing:*** *Jeff Shafer, NPPD*
Shafer said that NPPD is in discussion with the NDNR and will be filing an amended transfer application. NPPD will increase the transfer acreage, but the methodology for the transfer volume will stay the same. The lease will be filed with the state hopefully by May 23, 2014.

***CPNRD Water Leasing:*** *Duane Woodward, CPNRD*
Woodward provided a map to the group and discussed the surface water leasing tracts under the Thirty-Mile, Cozad and Orchard-Alfalfa Canals. Woodward explained that most of the irrigators along the Thirty Mile Canal have signed up for leasing. Leasing paperwork for the Thirty Mile Canal is almost complete and CPNRD is working on the Cozad paperwork. The CPNRD is working on obtaining the water rights transfer permits for the three canals. All new structures on the Orchard Alfalfa are almost completed, and clearing and reshaping of the canal system will begin this fall. The work on the other canals is almost finished as well.

Woodward said that scoring of the water leasing project is in progress. The first draft of the recharge score analysis has been completed and included evaluation of excess flows after diversions into the J2 Regulating Reservoir. The scoring for the surface water portion of the lease will be completed at a later time.

***CNPPID Water Leasing:*** *Jerry Kenny, ED*
Kenny explained that there are currently two possibilities under discussion for leasing CNPPID water. The first option is that the Program could lease water from individual irrigators. Irrigators could lease water to the Program on a short-term basis and the CNPPID would manage the process. Payments would be made directly to the irrigators.

The second water leasing possibility is for storage water in Lake McConaughy. The CNPPID would not be required to offer storage water every year, and if they were to offer it, the Program could choose whether to purchase any or all of the water offered. There would be little or no permitting issues because this storage water is covered under the EA water right process that is already in place.

Altenhofen asked about the price of the storage water and Kenny responded that the price would be set in advance. Sellers asked about the timeframe for negotiations and Kenny estimated that an agreement could be brought to the GC in December. The GC will likely discuss the lease at the June and September meetings as well. Sellers asked if the ED Office could provide a memorandum to the WAC describing the project. Kenny said more details would be provided at the next WAC meeting in August and a memorandum could be distributed.

***NPNRD Water Leasing:*** *Jerry Kenny, ED*
The ED Office is looking at working with the North Platte NRD (NPNRD) to develop water leasing in the district. For surface water leasing, the NPNRD requires "dry-up" of the land so there would not be an increase in groundwater pumping. If groundwater is relinquished for water leasing, the Program would have to pump the water into the river to protect the flow, otherwise as an accretion to the river, it will be considered natural flow and could be used by another water user. An advantage to leasing from the NPNRD area is that it is upstream of McConaughy and leased water may be stored and regulated. The disadvantage is that the water must travel farther, so losses are larger. Altenhofen pointed out that, of the four leasing programs, the NPNRD and CNPPID options could provide water to the EA. Kenny noted that there has already been an NPNRD irrigator interested in water leasing and the Program will evaluate the option further.

**Hydroclimatic Indices Update:** *Jerry Kenny, ED*
Kenny explained that the hydroclimatic indices report was to determine whether climatic characteristics can be used to make accurate long-term predictions of streamflow on the North Platte River. Specifically, the investigation addressed whether a reasonable prediction of May, June, and July flows at the Lewellen gage can be made in early January. A decision tree was developed to use indices to determine whether Lewellen flows would be "average," "wet," or "dry." Kenny noted that these are not the same as the hydrologic condition descriptions used by the Program.

In the report, 73% of the flows were predicted correctly using the methodology outlined by the decision tree. If under-predictions are included as "positive" misses, the accuracy increases to

89%. For a low-cost investigation, the method shows good potential of being useful. Encouraged by the results of the North Platte investigation, there will be efforts to use hydroclimatic indices to predict South Platte River flows beginning July 1, 2014. The method could potentially be developed to naturalize the flow or to include reservoir levels. Kenny pointed out that this method maintains its validity even with climate change because the indices are used as predictors.

**Annual Flow Summary:** *Scott Griebling, ED Office*

Griebling presented an overview of the 2014 annual flow summary document, discussing key hydrologic events and characteristics of 2013 and briefly summarizing historical flows at the Grand Island gage, the McConaughy EA account status and release history, and high flows at the Overton gage in the context of short duration high flow (SDHF) criteria. Flows in 2013 were low during the first part of the year then very high during and after the fall due to floods on the South Platte River.

**Wet Meadows – 2013-2014 Data Update and ET Monitoring:** *Scott Griebling, ED Office*

Griebling summarized the evapotranspiration (ET) monitoring plan of the wet meadow hydrologic monitoring project. The plan involves estimating ET using the Penman equation and data from onsite High Plains Regional Climate Center (HPRCC) weather stations. Crop coefficients developed by the USGS for riparian grassland will also be used. In addition, modified atmometers are to be installed this spring to provide a comparison and a check on these estimates. Similar methods will be used at other wet meadow sites the Program plans to instrument in the future.

Woodward motioned to support the evapotranspiration monitoring plan and Econopouly seconded the motion. The plan was unanimously supported.

Griebling also presented a brief summary of the data collected at the wet meadow sites and an update on the peer review process for the monitoring approach. The peer review will likely occur in September of this year.

**Tracking of New Sand Pits & Reservoirs:** *Amy Zoller, NDNR*

Zoller, standing in for Jesse Bradley, explained the NDNR method for determining changes in the consumptive use of small man-made water bodies between 2005 and 2010. To investigate the impacts of new sandpits and small reservoirs without permits, a 2005 water body inventory was compared to a 2010 inventory to identify new or expanded water bodies.

The 2005 inventory was completed using aerial photography and was used as a baseline. A semi-automated approach was used to classify 2010 FSA imagery to extract water bodies from the near-infrared band values. Features identified as new or expanded were sent to the NRDs for review. 94 sandpits and 9 reservoirs were verified as new or expanded.

The NRCS consumptive use calculator was used to calculate the change in consumptive use. The results of the NDNR calculations show that the net consumptive use of the sand pits was a decrease of 698 acre-feet per year. The net evapotranspiration from the unpermitted reservoirs was an increase of 20 acre-feet per year. Kenny asked Jim Schneider how this information would impact the Program's Off-Channel Sand and Water projects. Schneider responded that since the sandpits are a net benefit to the river, he doesn't see a need to continue looking at depletions from new sandpits.

**Federal Depletions Plan Update:** *Matte Rabbe, USFWS*

Rabbe referred to four documents provided to the WAC. First was a letter for the tiered biological opinion. There are two spreadsheets: one outlines each project and another that details federal depletions recording and forecasts of Colorado annual depletions. There haven't been any Federal depletions in Wyoming or Nebraska during the First Increment. The last document is a memo of agreement between the U.S. Fish and Wildlife Service and the U.S. Forest Service. The agreements were developed as a mechanism to offset depletions between agencies.

**Nebraska Depletions Plan Update:** *Jim Schneider, NDNR*

Schneider provided a short memo that summarizes the NDNR annual report and annual update. The amount of accretions from mitigation is greater than depletions. The NDNR will report on industrial water use when all the information is compiled.

Schneider reported that the COHYST models have been completed and peer reviewed. There'll be some updates as the model project progresses, and reports are available. The model analysis will be completed in 2016.

**Wyoming Depletions Plan Update:** *Matt Hoobler, WY SEO*

Hoobler reported that the State of Wyoming has complied with the three baselines outlined in their depletions plan (Modified North Platte Decree, Irrigation & Non-Irrigation Season, South Platte Storage). Wyoming's water use translated to the state line was 72,195 acre-feet and 5,256 acre-feet in the non-irrigation season.

Hoobler said that, this year, there are a couple of plans that Wyoming has to consider for how they assess depletions. The Platte River Basin Groundwater Plan by the Wyoming State Geological Survey will be helpful for the 2014 analysis of hydrologic connectivity. The Platte River Basin Water Plan will be completed in 2016. The Wyoming Water Development Office is currently in the process of looking for a contractor. This plan occurs every 5 years and provides basin-wide water use information.

**Colorado Depletions Plan Update:** *Jon Altenhofen, Northern CO Water & Suzanne Sellers, CWCB*

Sellers reviewed and summarized the North Platte Basin annual report for 2013. She explained that for the North Platte accounting, the Colorado Division of Water Resources uses satellite imagery to determine the irrigated acres in the North Platte basin each year.

Altenhofen explained that the depletions in the South Platte River basin are driven by population growth, which has slowed during the Program's First Increment. Municipalities can cover depletions using the South Platte Water Related Activities Program (SPWRAP), which utilizes Tamarack 1 for the future depletions. Based on the depletions and groundwater retiming accretions, it is probable that the increased depletive effect of the population growth will be offset.

Altenhofen explained that there has been a reduction of irrigated acres in the South Platte Basin. Much of that reduction may be attributed to wells being shut down. There has been legislative effort to turn the wells back on, but the State Engineer requires a full augmentation plan.

Havorka asked whether the depletions for industrial uses have changed with the expansion of oil wells. Altenhofen responded that a monitoring program is starting in the South Platte Basin to determine whether assumptions need to be changed. At this point, it is believed that a safety factor built into the model will account for oil wells and hydraulic fracturing.

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

The 2014 meeting schedule is posted on the WAC website. **The next WAC meeting is scheduled for August 12, 2014, from 9:30 am – 3:00 pm (Mountain Time) at the Lake McConaughy Visitors Center**.

**Action Items**

General WAC

- No action items

ED Office

- Brief memorandum on the technical aspects (specifically for the E65 Canal) of the permanent lease agreement with CNPPID for groundwater recharge at the next WAC meeting.
- Brief memorandum on the potential CNPPID storage water leasing project at the next WAC meeting.