



SUMMARY

**Lower Platte River Basin Water Management Plan Coalition
Technical Committee Meeting
May 4, 2016, 10:00 to 1:00 P.M.
Offices of Lower Loup NRD
2620 Airport Rd, Ord, NE**

In Attendance: S. Rock (HDR), A. Rupe (JEO), J. Engel (HDR), P. Woodward (PMRNRD), M. Petermann (PMRNRD), D. Wilcox (NARD), M. Sousek (LENRD), D. Ehrman (LPSNRD), D. Schulz (LPSNRD), A. Baum (ULNRD), Jessie Winter (NDNR), Jennifer Schellpeper (NDNR), Kate Tillotson (UENRD), Dennis Schueth (UENRD), Tylr Naprstek (LLNRD), Russ Callan (LLNRD), Butch Koehlmoos (LLNRD), Jessie Bradley (TFG)

I. **Brief Review of Methodology for Basin Accounting.**

- a. Presentation on the progress of the analysis up through Nov. 2015. Review of how the NDNR INSIGHT methodology accounts for supplies and demands as well as how excess supply is calculated and how that is tied to the fully appropriation determination.
- b. Review on how the Basin Accounting added additional demand scenarios including the “with and without” hydropower scenarios as well as the 80% streamflow at Louisville.
- c. Last November the technical/management group was focusing on the 80% streamflow at Louisville demand scenario and excess supply numbers by basin as a benchmark for future development. The group had not yet reached consensus on how this accounting should be used – as a guideline for future development or setting firm numbers for future development. There was general consensus that accounting would be used for tracking supplies and uses in the basin and would support water transfers and reporting.

II. **Summary of changes to INSIGHT.** The group was updated about changes that have occurred to INSIGHT since we last met in November 2015.

- a. A referencing error was found by in the DNR’s supporting files that feed into the INSIGHT data that directly affect the calculation of the 80% streamflow at Louisville.
- b. Once corrected, the demand associated with maintaining an 80% streamflow at Louisville nearly doubled.
- c. This has a direct impact on all numbers previously presented as part of the basin accounting.
- d. Beginning in December 2015, an independent QC of the DNR INSIGHT supporting files was conducted.
- e. While not frequent, some errors were discovered that will impact the Lower Platte basin numbers; although the biggest driver to the changes in the numbers is the original error found (the 80% SF at LV).



III. **Updated Basin Accounting with Changes.** The updated (draft) basin accounting numbers using the new INSIGHT results were shared with the group.

Demands (25yr AVG)	SWD (AF)	GWCU (AF)	Hydro (AF)	Max(Instr/ Induced GW) (AF)	Max(Instr/ Induced GW/ 80% LV) (AF)
Lower Platte Subbasins	320,279	296,471	-	1,012,138	4,245,582
Loup Basin	217,348	429,479	1,855,850	-	-
Elkhorn Basin	19,315	336,683	-	-	-

These were still draft at the time of this meeting. Final results will be published in the Basin Accounting documentation once finalized.

25yr AVG Annual SF @ LV (AF)=	5,306,977
80% x [25yr AVG Annual SF @ LV] (AF)=	4,245,582
19% x [25yr AVG Annual SF @ LV] (AF)=	1,008,326

BIG PICTURE - FULL LOWER PLATTE BASIN	Loup Hydro Demand	Instream Demand	Induced GW Demand	80% SF at LV	Annual Supply (AF)	Annual Demand (AF)	Annual Excess (AF)
Hydro Demand Applied (with 80% LV)	X	X	X	X	4,729,422	5,865,157	(1,135,735)
Hydro Demand Applied (without 80% LV)	X	X	X		4,729,422	3,475,425	1,253,997
Max (Instream, 80% LV, Induced GW Recharge)		X	X	X	4,729,422	5,865,157	(1,135,735)
Max (Instream, Induced GW Recharge)		X	X		4,729,422	2,631,713	2,097,709

Much discussion centered on the decision to use 80% as a demand scenario and its appropriateness. For comparison, the instream flow demand scenario (capped to historic undepleted streamflow and reduced to reflect 1993 GWCU) is approximately 20% of the streamflow at Louisville. Realizing that the instream flow demand is reduced by historic streamflow, the group wanted to review other demand options such as:

- a. What % of streamflow at Louisville corresponds to the full instream flow demand (not capped to historic streamflow or adjustment to reflect 1993 GWCU)
- b. What % of streamflow at Louisville corresponds to zeroing out the excess supply in the basin?
- c. How does varying % of streamflow at Louisville correlate to excess flow in the subbasin level?
- d. Some discussion on whether the flow value being used at LV should also be reduced by the 1993 GWCU to account for depletions that have yet to be reflected in the gage?

The group requested the spreadsheet tool be set up to generate plots of excess supply vs. % streamflow at Louisville for both with and without hydropower scenarios. A function will be generated for each subbasin based on the curve and allow the user to estimate excess supply by varying % of streamflow at Louisville.



IV. **Path Forward.** The meeting concluded with a discussion of the purpose of the accounting in the Basin Plan. The general themes that emerged from the discussion included:

- a. The Plan can utilize the basin accounting to set “bookends” within which to operate (e.g. support NRDs in decisions to grant new uses). These would be a recommendation and it was recognized that not all NRDs are comfortable with setting hard limits.
- b. Would provide some framework within which to operate to provide protection/certainty to both upstream/downstream basins.
- c. Support water transfer activities
- d. Provide a ledger/scorecard to evaluate the basin activities as move forward. Way to quantify impacts to basin (positive or negative) going forward.

V. **Upcoming Schedule**

- a. Management Committee Meeting – TBD; Doodle poll will be sent out
- b. Draft Report tentative by May 31 to Technical Committee
- c. Draft Plan tentative by June 15

VI. **Other**

VII. **Adjourn**