

Lower Platte River Basin  
Draft Basin Water Management Plan  
Coalition Board Meetings

## **DRAFT AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
Basin Wide Plan Coalition Board Meeting  
June 13, 2014, 1:00 – 3:00 P.M.  
Central Community College, Columbus, NE  
Building 2 – West Education Center, Room 205**

- I. Introductions
- II. Coalition background and project purpose
- III. Project scope of work and schedule
- IV. Draft goals and objectives
- V. Coalition Board business
- VI. Next Meeting
- VII. Other
- VIII. Adjourn

**DRAFT MEETING MINUTES**  
**Lower Platte River Basin Water Management Plan Coalition**  
**Basin Wide Plan Coalition Board Meeting**  
**June 13, 2014, 1:00 – 3:00 P.M.**  
**Platte Central College, Columbus, NE**

**Attendees:** K. Walden, G. Reiser, J. Adams, D. Anderson, R. Callan, P. Zillig, S. Japp, A. Williams, A. Rupe, A. Baum, G. Johnson, R. Case, D. Samuelson, B. Henkel, R. Tesar, K. Hatfield Edstrom, L. Heilman, D. Jacobson, A. Bleed, C. Johannes, J. Miyoshi, S. Staab, G. Osborn, M. DeKalb, B. Dunnigan, J. Schneider, J. Bradley, J. Nelson, D. Rasmussen, V. Ellermann, L. Schultz, C. Loseke, R. Oakland, J. McDermott, B. Hilger, G. Ruzicka, M. Schmidt, J. Birkel, R. Zessin, J. Engel, S. Rock, B. Koehlmoos, D. Schueth

- I. Introductions
  - B. Koehlmoos (LLNRD), Coalition Chair opened the meeting.
  - Question regarding Integrated Management Planning (IMP) process and associated requirements. B. Koehlmoos clarified that this effort is not an IMP but rather a basin wide planning process for water management.
- II. Coalition background and project purpose
  - B. Koehlmoos provided an overview of the effort; described the Coalition background and the project's purpose. He noted that the Coalition is an interlocal agreement between the 7 Lower Platte Basin NRDs and the NDNR. The interlocal agreement is for up to 5 years.
- III. Project scope of work and schedule
  - J. Engel (HDR) provided an overview of the scope of the project and the schedule of events and meetings that will take place over the anticipated 18 months of the project.
- IV. Draft goals and objectives
  - K. Hatfield Edstrom led a facilitated discussion of the draft goals and objectives for the Basin-wide Plan. Each goal area and associated objectives (provided on handout as well) were read aloud and comments and questions were received and discussed.

**Goal 1:** Collectively develop a water management plan for the Lower Platte Basin that maintains a balance between current and future water supplies and demands.

- Question on what baseline condition for the planning effort. Existing conditions will serve as the baseline condition for the planning effort.

**Discussion on Objectives:**

- Questions regarding why planning effort considered concern about supplies and uses outside of the Lower Platte Basin. Discussion and examples were given (such as Platte River Program activities, upstream activities that may impacting inflows to the lower reaches, and imported water from other basins such as the Missouri River) to illustrate the importance of being aware and proactive as a group to be in the best position to address challenges and respond to opportunities.
- Question regarding the potential of objectives that are tied to more than one goal. Discussion of the draft nature of these goals and the iterative process that will be employed during development and refinement to define and tie specific objectives to the associated goal. Focus will be on the most important objectives to support the goal, with additional objectives added as time permits. If participants have specific objectives they would like to be considered by the technical committee, they can send input to K. Hatfield Edstrom at [Katie.hatfieldedstrom@hdrinc.com](mailto:Katie.hatfieldedstrom@hdrinc.com)
- Question requesting more information for directors as the planning process moves forward as constituents have a lot of questions. Means of communication and distribution of materials through the project website and committee members was discussed as means of providing information to participants as well as the general public. The dynamics of the planning process and the continuum of questions arising and being addressed through the process that has been observed in water planning efforts throughout the state were also discussed.
- Question on whether similar coalitions had been formed in the state. Similar example groups were discussed, including in the Upper Platte River Basin and the upcoming effort in the Republican Basin. It was noted that many of the prior efforts were required by statute and the voluntary nature of this effort will forward additional flexibility. The anticipated nature of the basin wide plan was also discussed, namely that it contains broader goals and objectives for the basin that are implemented through the more detailed individual IMPs of the individual districts.

- Question on state statute related to water banking. State statute is currently silent on water banking, although several water banking arrangements exist in Nebraska in different forms. Intent of the effort under this scope of work is to address the many question regarding types and functions of water banks and its potential application in the Lower Platte River basin; (where do we have authority, whether or not this makes sense, how to do it, what it might provide, etc.) It was emphasized that this is a planning process and is not implementing anything.
- Question regarding intent of plan to set guidelines that individual IMPs must stay within (similar to basin-wide IMP). Distinction of this being a voluntary basin wide water management plan (not an IMP) was made. The general collaboration and opportunity for participants to work together on water planning for the future within the basin is the primary intent, not to establish mandatory requirements for individual IMP efforts.

**Goal 2:** Develop and implement water use policies and practices that contribute to the protection of existing surface and groundwater uses while allowing for future water development.

**Discussion on Objectives:**

- In the first objective, be explicit on underground and above ground storage.
- What opportunities exist outside the basin? Add opportunities to cooperate within other districts, water quality, upstream impacts on downstream, etc.

**Goal 3:** Develop and maintain a water supply and use inventory based on the best available data and analysis.

**Discussion on Objectives:** None

Members of the Coalition were encouraged to forward additional thoughts on goals/objectives to Dustin Wilcox or Katie Hatfield Edstrom

[DWilcox@nrdnet.org](mailto:DWilcox@nrdnet.org) or [Katie.hatfieldedstrom@hdrinc.com](mailto:Katie.hatfieldedstrom@hdrinc.com)

V. Other Discussion Items

- Meeting materials will be posted to project website available to Coalition members as well as the general public. Website is currently under development

and email will be sent when it goes live. Website will be hosted by NDNR but all districts will link to it on their individual websites.

- Question on different types of conjunctive use projects was discussed. Different types of projects and their applicability to the Lower Platte Basin will be evaluated as part of this project. NDNR has a powerpoint available on its website under the Integrated Water Management link that provides information on conjunctive management and examples of what some other NRDs throughout the state have done. The project website will contain a link to this presentation as well.

VI. Coalition Board business

VII. Next Meeting

The next Coalition meeting will be held in conjunction with the Legislative assembly in early 2015. Date, time and location to be determined.

VIII. No other business was discussed.

IX. Meeting adjourned at 2:40 P.M.

## **AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
Basin Wide Plan Coalition Board Meeting  
January 27, 2015, 2:00 – 2:50 P.M.  
Embassy Suites, Regents Room F  
Lincoln, NE**

- I. Introductions
- II. Meeting Objective: Election of Chair and Vice-Chair for 2015 and to provide update on project activities since June 2014 kickoff meeting
- III. Board Business
  - a. Selection of Chair and Vice-Chair for 2015
- IV. Update on Project Activities
  - a. Ground and surface water controls
  - b. Water banking examples
  - c. DNR fully appropriated methodologies/INSIGHT database
  - d. Data collection and infrastructure inventory
  - e. Goals, Objective, and Action Item Development
- V. Update on scope and schedule
- VI. Project Website
- VII. Water Banking Workshop
  - a. Central Community College – Platte Campus, March 10; 10 a.m. to 1 p.m.
- VIII. Other
- IX. Public Comment
- X. Adjourn

## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Basin Wide Plan Coalition Board Meeting  
January 27, 2015, 2:00 – 2:50 P.M.  
Embassy Suites, Regents Room F  
Lincoln, NE**

**Attendees:** A. Baum (ULNRD), A. Rupe (JEO), D. Samuelson (LPSNRD), K. Harschild (LPSNRD), M. Sittler (LPRCA), D. Wiles (UENRD), D. Schueth (UENRD), K. Hatfield Edstrom (HDR), D. Kovan (LPNNRD), B. Hilger (LPNNRD), J. McDermott (LPNNRD), C. Johannes (LPNNRD), B. Clausen (LPNNRD), D. Veskerna (LPNNRD), R. Oakland (LPNNRD), L. Angle (LPNNRD), J. Hannah (LPNNRD), R. Callan (LLNRD), G. Johnson (LPSNRD), J. Winkler (PMRNRD), J. Myoshi (LPNNRD), G. Kruse (LLNRD), D. Wilcox (NARD), H. Thoene (LLNRD), D. Jacobson (LPSNRD), P. Zillig (LPSNRD), P. Woodward (PMRNRD), R. Zelt (USGS), B. Koehlmoos (LLNRD), Jesse Bradley (NDNR), J. Engel (HDR), Simone Rock (HDR), Pat Engelbert (HDR)

- I. Introductions – Bob Hilger called the meeting to order. All attendees introduced themselves and indicated who they represented.
- II. Meeting Objective: Election of Chair and Vice-Chair for 2015 and to provide update on project activities since the June 2014 kick-off meeting.
- III. Board Business
  - a. Selection of Chair and Vice-Chair for 2015: Bob Hilger was elected Chair; Gary Loftus was elected Vice-Chair.
- IV. Update on Project Activities – John Engel (HDR) provided an overview of all planning activities since the June 2014 kick-off meeting with the Coalition Board. Engel presented on the following topics. A PowerPoint presentation of the information will be available on the project website.
  - a. Ground and surface water controls
  - b. Water banking examples
  - c. DNR fully appropriated methodologies/INSIGHT database
  - d. Data collection and infrastructure inventory in the basin
  - e. Goals, Objective, and Action Item Development
- V. Update on scope and schedule – Engel provided an update on the project schedule. Noted upcoming meetings with the Technical Committee, Management Committee and the first Water Banking Workshop.
- VI. Project Website – The Department is hosting the project website and it is a home for meeting materials, resources, and contact information for the project.



- VII. Water Banking Workshop
  - a. Central Community College – Platte Campus, March 10; 1:00 – 3:00 p.m.
- VIII. Other
- IX. Public Comment – Mr. Japp inquired how the plan will ensure that private access is regulated to any water provided by actions of the public basin plan. Engel noted that implementation of the plan actions could result in additional flows for different purposes. Depending on the purposes, different administrative authorities may exist that could be used to protect flows.
- X. Adjourn – Hilger adjourned the meeting at 2:40 p.m.

Lower Platte River Basin  
Draft Basin Water Management Plan  
Management Committee Meetings

## **DRAFT AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
Basin Wide Plan Management Committee Meeting  
May 28, 2014, 9:30 A.M.  
Offices of Lower Platte South NRD, Lincoln, NE**

- I. Introductions
- II. Meeting Objective: Review Consultant contract and planning for June 13<sup>th</sup>, 2014 Coalition Board Meeting.
- III. Consultant Contract
  - a. Scope
  - b. Fee
  - c. Schedule
- IV. June 13<sup>th</sup> Coalition Board Meeting
  - a. Meeting logistics
  - b. Meeting materials
    - i. Presentation
    - ii. Handouts
- V. Next Meeting
- VI. Other
- VII. Adjourn

## DRAFT MEETING MINUTES

Lower Platte River Basin Water Management Plan Coalition  
Basin Wide Plan Management Committee Meeting  
May 28, 2014, 9:30 A.M.  
Offices of Lower Platte South NRD, Lincoln, NE

### I. Introductions

#### a. Attendees

G. Johnson, LPSNRD	P. Zillig, LPSNRD
J. Miyoshi, LPNDRD	B. Koehlmoos, LLNRD
J. Engel, HDR	D. Wilcox, NARD
D. Schueth, UENRD	G. Hunt, HDR
R. Callan, LLNRD	M. Petermann, P-MRNRD
B. Flyr, DNR	B. Henkel, P-MRNRD
R. Wozniak, LENRD	A. Rupe, JEO
D. Kracman, TFG	A. Baum, ULNRD
K. Hatfield Edstrom, HDR	J. Bradley, NDNR

### II. Meeting Objective: Review Consultant contract and planning for June 13<sup>th</sup>, 2014 Coalition Board Meeting.

### III. Consultant Contract

#### a. Scope

- i. **The Scope of Services in the draft contract was reviewed task by task. Specific items of discussion are noted below.**
- ii. **Task 220 - Management Committee meetings – Advantages and disadvantages of coincident management and technical committee meetings were discussed. Current draft schedule includes some coincident meetings of the two committees. Content and project progress will likely determine meeting content and committee attendance. No changes to be made to current scope.**
- iii. **Task 260 Project Website – One Coalition member to host, with others providing link to host. HDR to provide materials to keep site updated. It was concluded that DNR would host the website. HDR to provide DNR shell of website page and content, including downloadable PDFs of notices of meetings, project description, and previous meeting minutes, and scope of work.**
- iv. **Task Series 300 - Key Assumption #4 references climate scenarios to be evaluated. Clarification was made that a simplified approach to developing climate scenarios will be used, consisting of existing and available climate projections for the area or simplified adjustments to historic observations.**
- v. **Task Series 400 – Three to five alternatives for conjunctive management and alternative water supplies will be evaluated in detail. It is anticipated that larger list of alternatives will be screened in conjunction with the Technical Committee to identify the three to five best alternatives. Consistent criteria will be used in evaluation.**
- vi. **Task Series 400 – Expectations of final report contents was discussed. The HDR team will make a recommendation to the Coalition regarding water bank formation and structure. For conjunctive management and alternative water supplies projects, HDR to bring factors related to each alternative forward for Coalition consideration but will not make a recommendation.**

- vii. **Task Series 500 Documentation – Draft copies of the documentation will be provided electronically. One bound copy and one electronic copy of the final report will be provided to each coalition member.**
- b. **Fee**
  - i. **The estimated contract fee of \$358,000 was discussed. Coalition members have a budget of \$160,000 for the current fiscal year. J. Bradley offered that DNR would fund the remaining portion of the contract (approximately \$200,000), with the Coalition’s approval, as the study purposes and goals align with the mission of the Integrated Water Management section. G. Johnson made a motion for the Management Committee to accept DNR’s funding offer and approve the contract. A. Baum seconded. Motion passed unanimously. Coalition Board will be advised of the approved contract elements at the June 13, 2014 meeting.**
  - ii. **Member contributions for the next fiscal year’s budget were discussed, in light of DNR’s financial commitment to cover the remaining portion of the contract. G. Johnson made a motion to maintain the member contribution at \$20,000 each for the next fiscal year. M. Petermann seconded. Member contributions could potentially be used for pilot projects, meet matching fund requirements for potential grants, other Coalition activities, or implementation of plan elements. Motion carried unanimously.**
  - iii. **J. Engel to provide Coalition anticipated breakdown of contract costs by fiscal year for use in budgeting.**
- c. **Schedule**
  - i. **J. Bradley indicated that it is unlikely that DNR’s new rules for basin evaluations will be adopted for use this year. It is anticipated that the new rules will be finalized in the spring of 2015. Task 340 schedule may be adjusted to allow completion and potential recommendations be made to DNR for incorporation in the new rules.**
  - ii. **NRD Board of Director meetings: All meetings are arbitrarily shown as occurring on Mondays. It is anticipated that presentations will be made to each Board as part of their regular meeting or subcommittee meeting and will be scheduled for the October/November 2015 board meeting cycle.**

IV. **June 13<sup>th</sup> Coalition Board Meeting**

- a. **Meeting logistics**
  - i. **Meeting to be held in Room 205 of Building 2 - West Education Center, Central Community College in Columbus. Meeting will be held from 1:00 to 3:00 pm.**
  - ii. **Facility seats 120. Anticipate an average of approximately 7 to 8 attendees from each NRD.**
  - iii. **K. Hatfield Edstrom will send calendar invite to Dustin for distribution.**
- b. **Meeting materials**
  - i. **Presentation**
    - 1. **The draft presentation was reviewed. Specific edits include:**
      - **Include Coalition background information (members, agreement, roles of each committee) up front for attendees. Remaining topics of presentation to then cover project purpose, scope and tasks, schedule, and goals and objectives for the plan.**
      - **Basin map to be added to presentation. May be useful to have a board for use throughout the project. HDR to prepare.**

- **Following presentation and discussion on goals and objectives, Coalition Board business meeting will be held. Business items for discussion to included process, contract, cost, and budgeting.**

ii. **Handouts**

1. **Draft schedule graphic was discussed. HDR to edit to illustrate meetings supporting project work.**
2. **Basin map to be included in handouts.**
3. **Roster of committee members to be included in handouts, including name, role, phone number, email, and organization. Roster to be organized by committee.**
4. **Scope and fee will be available in ppt or pdf format for reference during meeting. Scope, fee, and schedule should be distributed prior to meeting as only a few hard copies are anticipated to be available at the meeting.**
5. **The Coalition agreement in full will be sent out before meeting. G. Johnson will create a one page bulleted summary of the agreement for inclusion in the handouts.**
6. **Handouts to include:**
  - **One page summary of Coalition agreement**
  - **Goals and objectives**
  - **Scope/schedule graphic**
  - **Basin map**
  - **Committee Roster**

V. **Next Meeting**

- a. **Meeting set for 9:30 AM, Wednesday September 10<sup>th</sup> in Wahoo at LPNNRD. Anticipate meeting will be to finalize the goals and objectives.**
- b. **To be determined whether the September 10<sup>th</sup> meeting is a joint meeting with the technical committee or if they will meet the prior week.**
- c. **J. Engel to contact technical committee member to schedule June 2014 meeting.**

VI. **Other**

- a. **Technical Committee Leadership - They will choose their own chair and leadership at their first meeting. D. Wilcox will take care of committee business until they meet and vote on it. First meeting to occur some time in June. Butch offered to host first tech committee meeting.**

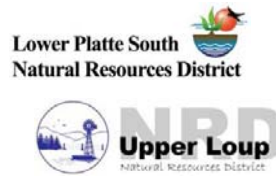
VII. **Adjourn**

- a. **Meeting adjourned at approximately 11:20 a.m.**

## **DRAFT AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
September 12, 2014, 9:30 – 11:30 A.M.  
Offices of Lower Platte North NRD  
511 Commercial Park Road, Wahoo, NE 68066**

- I. Introductions
- II. Meeting Objectives
  - a. Update on Technical Committee meetings
  - b. Discuss Technical Committee interpretations of goals and objectives
- III. Technical Committee Meeting Review
  - a. July 10, 2014 (handout – meeting minutes)
  - b. September 3, 2014 (handout – meeting minutes)
- IV. Technical Committee interpretation of plan goals and objectives (handout)
- V. Water banking fact sheet (handout)
- VI. Upcoming Technical Committee meeting topics
- VII. Website Update
- VIII. Schedule Update
- IX. Other
- X. Adjourn



**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
September 12, 2014, 9:30 to 11:30 A.M.  
Offices of Lower Platte North NRD  
511 Commercial Park Rd, Wahoo, NE**

**Meeting Summary**

**Invited:** Adam Rupe (JEO), Katie Hatfield Edstrom (HDR), Simone Rock (HDR), John Engel (HDR), Ann Williams (HDR), Anna Baum (ULNRD), Brandi Flyr (DNR), Brian Henkel (PMRNRD), Butch Koehlmoos (LLNRD), Dennis Schueth (UENRD), Dustin Wilcox (NARD), Glenn Johnson (LPSNRD), Jesse Bradley (DNR), John Myoshi (LPNNRD), Ken Berney (LENRD), Marlin Petermann (PMRNRD), Paul Zillig (LPSNRD), Russ Callan (LLNRD), Stan Staab (LENRD), Curt Becker (LENRD), Dan Schultz (LPSNRD), Dell Harris (LLNRD), Dick Ehrman (LPSNRD), Kyle Yrkoski (ULNRD), Larry Angle (LPNNRD), Rick Wozniak (LENRD), Russ Oaklund (LPNNRD), Tom Riley (UENRD)

**Present:** Adam Rupe (JEO), Katie Hatfield Edstrom (HDR), Simone Rock (HDR), John Engel (HDR), Ann Williams (HDR), Anna Baum (ULNRD - telephone), Brian Henkel (PMRNRD), Butch Koehlmoos (LLNRD), Dennis Schueth (UENRD), Dustin Wilcox (NARD), Glenn Johnson (LPSNRD), Jesse Bradley (DNR), John Myoshi (LPNNRD), Marlin Petermann (PMRNRD), Russ Callan (LLNRD), Stan Staab (LENRD - telephone)

I. Meeting Objectives

- a. Update on Technical Committee meetings.
- b. Discuss Technical Committee interpretations of goals and objectives.  
See Goals & Objectives handout for redlines and Management Committee responses for clarification.

II. John Engel updated the Management Committee on the activities of the technical committee. Handouts were included for the July 10, 2014 and September 3, 2014 Technical Meeting Minutes for the Management Committee information and comment. No questions or comments were received.

III. Technical Committee interpretation of plan goals and objectives (handout) was presented to the Management Committee for comment. See attached revised Goals & Objectives table for redlines and responses to the request for clarification from the Management Committee.

IV. Water banking fact sheet (handout)

- a. Revise the introductory paragraph to state: “The Lower Platte Basin is in the process of identifying a common methodology and accounting system that would provide as a guideline for the member NRD’s in the event that individual member NRD’s should decide in the future to adopt a water bank to support water management activities. This summary document provides basic information on current water banking in Nebraska.”
- b. Add Nebraska Revised Statute 46.739 (and others related to GW authorities of NRD) to the list of state statutes.





- c. Consider removing “LPRBWMPC Website” link from the document or revise description to remove acronym.

V. Upcoming Technical Committee meeting topics.

- a. Work on Action Items to support Goals & Objectives.
- b. Review datasets that are available and how to house data.
- c. DNR current methodology for INSIGHT. Goal is to understand methodology, determine how it can be applied to the Lower Platte Basin and determine if it may need modification or enhancement to best serve management needs.

VI. Website Update.

- a. There have been technical issues with IT at NDNR which has slowed building the website, but progress has been made and we should see draft for review soon. The DNR anticipates reviewing the website as early as the week of Sept. 21<sup>st</sup>. Will send out link to the group when website goes live.
- b. All Management Committee Meeting Agendas and Minutes will be pushed out to the website when final. Technical Committee agendas and meeting summaries will also be posted following meetings. All work products will be submitted to technical and management committees for review and approval prior to posting.

VII. Next Meeting

- a. Upper Elkhorn NRD, O’Neil, NE. December 12<sup>th</sup> 11:00 A.M. (will confirm time with group in early November)

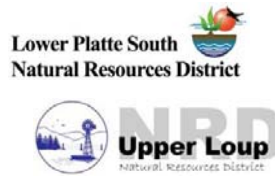
VIII. Action items: None at this time.

IX. Adjourn: Meeting adjourned at approximately 11:40 pm.

## **DRAFT AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
December 12, 2014, 11:00 – 1:00  
Offices of Upper Elkhorn NRD  
301 North Harrison Street, O’Neill, NE 68763**

- I. Introductions
- II. Meeting Objectives
  - a. Update on Technical Committee meetings
  - b. Discuss draft action items to support goals and objectives
- III. Technical Committee Meeting Review
  - a. October 28, 2014 (handout – meeting minutes)
  - b. December 2, 2014 (handout – meeting minutes)
- IV. Draft action items to support plan goals and objectives
- V. Upcoming Technical Committee meeting topics
  - a. Water banking/conjunctive management opportunities
  - b. DNR depletion analysis tool
  - c. Database
  - d. Action items
- VI. Website Update
  - a. DNR Insight presentation from 12/2/2014 Technical Committee meeting
- VII. Schedule Update
  - a. Next Technical Committee meeting
    - i. February 2, 2015 at LLNRD in Ord, NE
  - b. Next Management Committee meeting
    - i. ??
  - c. Next Coalition Board Committee
    - i. ??
  - d. Water Banking Workshop I
    - i. Tentatively scheduled for March, date and location TBD
- VIII. Other
- IX. Adjourn



**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
December 12, 2014, 11:00 – 1:00  
Offices of Upper Elkhorn NRD  
301 North Harrison Street, O’Neill, NE 68763**

**Meeting Summary**

**Invited:** Dell Harris (LLNRD), Butch Koehlmoos (LLNRD), Tim Freed (NDNR), Amy Zoller (NDNR), Jesse Bradley (NDNR), Russ Callan (LLNRD), John Miyoshi (LPNNRD), Russ Oaklund (LPNNRD), Larry Angle (LPNNRD), Anna Baum (ULNRD), Rick Wozniak (LENRD), Dick Ehrman (LPSNRD), Paul Zillig (LPSNRD), Marlin Petermann (PMRNRD), Brian Henkel (PMRNRD), Dan Schulz (LPSNRD), Dustin Wilcox (NARD), Dennis Schueth (UENRD), Stan Staab (LENRD), John Engel (HDR), Simone Rock (HDR), Katie Hatfield Edstrom (HDR), Adam Rupe (JEO), Ken Berney (LENRD), Curt Becker (LENRD), Glen Johnson (LPSNRD)

**Present:** Butch Koehlmoos (LLNRD), Jesse Bradley (NDNR), Russ Callan (LLNRD), John Miyoshi (LPNNRD), Marlin Petermann (PMRNRD), Brian Henkel (PMRNRD), Dustin Wilcox (NARD), Dennis Schueth (UENRD), Stan Staab (LENRD), John Engel (HDR), Simone Rock (HDR), Adam Rupe (JEO), Marsha Hart (UENRD), Ann Williams (HDR), Mike Sousek (LPNNRD)

Via Telephone: Katie Hatfield Edstrom (HDR), Anna Baum (ULNRD), Paul Zillig (LPSNRD)

- I. John Engel led a discussion and update on the 10/28 and 12/2 Technical Committee Meetings. Much discussion centered on the meeting summary for the 12/2 Technical Committee meeting regarding the notes on the INSIGHT methodology. Jesse Bradley with the DNR was able to answer several questions regarding the methodology and how it can be incorporated and used in this planning effort.
- II. John Engel walked the Management Committee through the draft action items developed by the Technical Committee to support goals and objectives. The bulk of the meeting centered on the action items, their meaning and intent, and how and when they will be implemented either as part of this current effort and/or future efforts of the Coalition.
- III. The Management Committee was updated on the progress of the website and invited to view the DNR Insight presentation from the 12/2/2014 Technical Committee meeting that has been posted.
- IV. Next meetings:
  - a. Next Technical Committee meeting:
    - i. February 2, 2015 at LLNRD in Ord, NE (10am to 1pm)
  - b. Next Management Committee meeting
    - i. February 19, 2015 at LENRD in Norfolk, NE (10am to 12 pm)
  - c. Next Coalition Board Committee
    - i. January 27<sup>th</sup>, 2015 at NARD Legislative Conference (2-3pm)
  - d. Water Banking Workshop I
    - i. March 10<sup>th</sup> in Columbus, NE (10am to 3pm??)

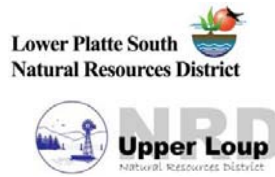


- V. Action items:
- a. Add Marlin Petermann to the Technical Committee distribution list in Brian's absence.
  - b. Update Goals & Objectives table to reflect discussion (redline format for Management Committee review).
  - c. Technical Committee to refine action items for education programs for submittal to the Management Committee.
  - d. HDR to contact Central Community College in Columbus regarding meeting space availability for Workshop.
- VI. Adjourn: Meeting adjourned at approximately 1:35 pm.

## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
February 19, 2015, 10:00 – 12:00  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

- I. Introductions
- II. Meeting Objectives
  - a. Coalition Board/Technical Committee meeting update
  - b. Discuss material for water banking workshop
  - c. Discuss potential purposes/needs of water bank
  - d. Discuss basin accounting/banking concept
- III. Water banking workshop
  - a. Background information on water banking
  - b. LLNRD and CPNRD lessons learned
  - c. Purpose/need of water bank
  - d. Basin wide accounting concept
- IV. Purpose/Needs of water bank
- V. Basin wide accounting/banking concept
- VI. Unappropriated flow analysis update
- VII. Information/Education approach
- VIII. Schedule Update
  - a. Next Technical Committee meeting
    - i. April 2, 2015 at LENRD in Norfolk, NE
  - b. Next Management Committee meeting
    - i. ??
  - c. Water Banking Workshop I
    - i. March 10, 2015, 1:00 – 3:00 pm at Central Community College
- IX. Other
- X. Adjourn



**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
February 19, 2015, 10:00 – 12:00  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

**Meeting Summary**

**Present:** K. Hatfield Edstrom (HDR), A. Williams (HDR), J. Engel (HDR), D. Schueth (UENRD), P. Woodward (PMNRD), J. Miyoshi (LPNNRD), G. Johnson (LPSNRD), R. Wozniak (LENRD), M. Bushnell (LENRD), C. Becker (LENRD), A. Baum (ULNRD), D. Wilcox (NARD), M. Sousek (LENRD), D. Kracman (TFG), S. Rock (HDR), J. Bradley (NDNRD), B. Koehlmoos (LLNRD), P. Hartman (JEO)

- I. Water banking workshop: John Engel led the group through the presentation given by David Kracman at the last technical committee meeting. Discussion included the following:
  - a. Emphasize local control
  - b. Emphasize this is voluntary participation but a consistent framework to work within will be established
  - c. Examples of how a water bank would work
  
- II. **Purpose/Needs of water bank:** John Engel led a discussion of the list of purpose and needs of water banks that were generated at the last technical committee meeting. Discussion included the following:
  - a. Lower Loup retires acres and “banks” the water but ultimately that water recharges to the river and is recaptured downstream. There needs to be a way for that credit to be given to Lower Loup for those banking efforts or there is no reason to bank the water instead.
  - b. How does Central Platte NRD sell water upstream?
  - c. Inter Local Agreement: metrics, targets, tools, etc.
  - d. Central Platte lease program with Twin Platte & Tri-Basin NRDs
  - e. How to protect water as it moves?
    - i. If storage water, it would need a water use permit (DNR protect water)
    - ii. DNR cannot protect natural recharge accretions to the river
    - iii. Could pump groundwater to surface water, then DNR can issue a conduct water permit
  - f. Advantages of a basin wide approach with agreed upon accounting methods was discussed versus individual districts and inter local agreements.
  - g. Rules and regulations addressing individual trans-district transfers were discussed.
  - h. How the Republican basin accounting works
  - i. How the Upper Platte basin accounting works
  - j. How to prevent a water grab upstream



- III. **Basin wide accounting/banking concept:** John Engel led a discussion of the basin wide accounting/banking concept that was discussed at the technical committee meeting including proportioning supplies and demands.
- IV. **Unappropriated flow analysis update:** John Engel provided an update on the unappropriated water analysis including the presentation that was given to the technical committee.
- V. **Information/Education approach:** It was discussed whether a fact sheet would be beneficial for the state legislature. HDR will coordinate with NARD to work with the management committee on development of the fact sheet. A second fact sheet for landowners was discussed.
- VI. **Schedule Update:**
  - a. Water Banking Workshop I
    - i. March 10, 2015, 1:00 – 3:00 pm at Central Community College
  - b. Next Technical Committee meeting
    - i. April 2, 2015 at LENRD in Norfolk, NE
    - ii. Topics will include the 2<sup>nd</sup> Water Banking Workshop & Unappropriated Water Analysis
  - c. Next Management Committee meeting
    - i. April 16, 2015 at LPNNRD in Wahoo, NE 10:00 am – 12:00 pm
- VII. **Adjourn:** Meeting adjourned at approximately 12:00 pm.

## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
April 28, 2015, 1:30 – 3:30 PM  
Offices of Lower Platte South NRD  
3125 Portia St, Lincoln, NE 68521**

- I. Introductions
- II. Meeting Objectives
  - a. Technical Committee meeting update
  - b. Discuss topics to cover at second water banking workshop
  - c. Discuss examples of conjunctive management projects
- III. Water banking workshop
  - a. Recap of first water banking workshop on March 10
  - b. Topics to cover at next water banking workshop
  - c. Schedule for water banking workshop #2
  - d. Basin wide accounting examples
- IV. Conjunctive Management
  - a. List of potential conjunctive management projects by NRD (handout)
  - b. Projects identified for further evaluation:
    - i. Isolated aquifer recharge (LPSNRD – Valparaiso area)
    - ii. Irrigation Canal Recharge (LLNRD - Sargent Irrigation District)
    - iii. New multi-purpose reservoir (LENRD – Battle Creek Reservoir)
    - iv. Existing reservoir modification (LLNRD – Sherman Reservoir)
  - c. Excess flow analyses
  - d. Sargent Canal Conjunctive Management Example
- V. Schedule Update
  - a. Next Technical Committee meeting
    - i. May 12, 2015 at LLNRD in Ord, NE
  - b. Next Management Committee meeting
    - i. ??
  - c. Water Banking Workshop II
    - i. TBD
- VI. Other
- VII. Adjourn



**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
April 28, 2015, 1:30 – 3:30 PM  
Offices of Lower Platte South NRD  
3125 Portia St, Lincoln, NE 68521**

**Meeting Summary**

**Present:** Simone Rock (HDR), David Kracman (TFG), Butch Koehlmoos (LLNRD), Tim Freed (NDNR), Mike Sousek (LENRD), John Myoshi (LPNNRD), Russ Callan (LLNRD), Marlin Petermann (PMRNRD), Glenn Johnson (LPSNRD), Adam Rupe (JEO), Anna Baum (ULNRD), Lalit Jha (JEO), Dustin Wilcox (NARD), John Engel (HDR), Dennis Schueth (UENRD), Paul Zillig (LPSNRD), Frank Kwapnioski (Public)

- I. Technical Committee meeting update: John Engel reviewed the meeting minutes from the April 2, 2015 Technical Committee meeting.
- II. J. Engel led a discussion on feedback from the first waterbanking workshop. Overall, it sounds like the managers have received good feedback from board members. Additional comments included the following:
  - a. How can a water bank result in water in the Platte (MUD wellfield)? (LPSNRD)
  - b. Water not making it past Columbus, where are losses occurring near North Bend? Can water released from an upstream storage facility even make it past Fremont? (LPNNRD)
  - c. Needs to be made clear that the Coalition is not intended to setup and run water bank. Coalition is intended to establish a common methodology for water accounting and establish framework should member NRDs choose to set up a water bank in their NRD. (PMRNRD)
- III. Discuss topics to cover at second water banking workshop: Building off the previous topic, the group held a discussion of topics to discuss at the next water banking workshop. Comments included the following:
  - a. Review the purpose of the Coalition and its goal with respect to avoiding fully-appropriated status as a whole basin. What the Coalition is and what it is not.
  - b. Review goals and objectives.
  - c. Lead into a common basin accounting method to quantify supplies and demands by NRD.
  - d. Discuss options for quantifying the amount of “excess supply” and “allowable development” by NRD and how the to build a factor of safety into allowable development (e.g. reduce allowable development by a percentage).
  - e. Explain how this would be used as a baseline by NRD going forward. Allowable development would be difference between near term and long term demands (GW Depletions versus GW Consumptive use at a point in time).
  - f. Items c through e above would be a result of agreement within the Coalition.
  - g. Discuss period of record for basin accounting (rolling average, drought period or mitigation plan for drought years).
- IV. Excess Flow – J. Engel presented information regarding the excess flow analysis conducted on the lower Platte, Loup, and Elkhorn gage locations.
  - a. Make clear that excess flow is typically available in the NonPeak Season and that shortages still occur in the Peak Season (UENRD).

- V. Conjunctive Management Examples
  - a. Handout of potential projects suggested by NRD and the 4 projects being investigated further as part of this analysis.
    - i. Isolated aquifer recharge (LPSNRD – Valparaiso area)
    - ii. Irrigation Canal Recharge (LLNRD - Sargent Irrigation District)
    - iii. New multi-purpose reservoir (LENRD – Battle Creek Reservoir)
    - iv. Existing reservoir modification (LLNRD – Sherman Reservoir)
  - b. Needs to be made clear that any projects highlighted are for examples of how the basin accounting could be used for member NRDs to set up a water bank and work together. These projects are not being implemented by the Coalition - just examples of how it could be used.
  - c. Sargent example – expand results to monthly to show retiming benefit.
  
- VI. Action items:
  - a. HDR to send Basin Accounting Draft TM out to technical and management committee
  - b. HDR to send Draft Basin Wide Management Plan, Sections I-III to group by end of May for comment.
  
- VII. Schedule Update
  - a. Technical Committee meeting
    - i. May 12, 2015 at LLNRD in Ord, NE; 10:00 AM to 1:00 PM
  - b. Management Committee meeting
    - i. June 3, 2015 at MRNRD in Curtis, NE to immediately follow the NARD Manager’s meeting (tentatively 4:00PM to 6:00 PM)
  - c. Water Banking Workshop II
    - i. Tentatively June 18, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
  
- VIII. Adjourn: Meeting adjourned at approximately 3:15 PM

## **DRAFT AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
June 3, 2015, 3:00 – 5:00 PM  
Nebraska College of Technical Agriculture  
404 E 7<sup>th</sup> St, Curtis, NE 69025**

- I. Introductions
- II. Meeting Objectives
  - a. Technical Committee meeting update
  - b. Discuss basin-wide accounting approach
  - c. Upcoming meeting schedule (Management and 2<sup>nd</sup> Water Banking Workshop)
- III. Technical Committee meeting update (handout of May 12, 2015 meeting)
- IV. Basin-wide Accounting Methodology
  - a. Accounting fundamentals/tie to fully appropriated basin methodology
  - b. Current status/estimates of supplies and uses for Lower Platte/Loup/Elkhorn basins
  - c. Approaches for accounting/monitoring
  - d. Example project accounting
- V. Schedule Update
  - a. Next Technical Committee meeting
    - i. TBD – LENRD, Norfolk, NE
  - b. Next Management Committee meeting
    - i. TBD
  - c. Water Banking Workshop II
    - i. Tentatively – June 18, 11:00-1:00
- VI. Budget Discussion
- VII. Other/Public Comment
- VIII. Adjourn

## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
June 3, 2015, 3:00 – 5:00 PM  
Nebraska College of Technical Agriculture  
404 E 7<sup>th</sup> St, Curtis, NE 69025**

**Present:** Simone Rock (HDR), David Kracman (TFG), Butch Koehlmoos (LLNRD), Mike Sousek (LENRD), John Myoshi (LPNNRD), Tom Mountford (LPNNRD), Russ Callan (LLNRD), Marlin Petermann (PMRNRD), Glenn Johnson (LPSNRD), Adam Rupe (JEO), Anna Baum (ULNRD), Dustin Wilcox (NARD), John Engel (HDR), Dennis Schueth (UENRD), Paul Zillig (LPSNRD), Jesse Bradley (NDNR), Katie Hatfield Edstrom (HDR)

- I. **Technical Committee meeting update (handout of May 12, 2015 meeting):** John Engel reviewed the meeting minutes from the May 12, 2015 Technical Committee Meeting
  
- II. **Basin-wide Accounting Methodology**
  - a. Accounting fundamentals/tie to fully appropriated basin methodology
    - i. Review of DNR methodology.
    - ii. Some discussion on downstream demands and instream flow and if legally binding. Jesse pointed out that it is in DNR rules in how they determine Fully-appropriated status. If goal is to not be fully-appropriated, then makes sense to include these demands in Lower Platte Basin Accounting.
    - iii. Make clear that % BWS used in partitioning demands to subbasins is using un-depleted water (Streamflow + SWCU + GW Depl), not just gaged Streamflow.
  - b. Current status/estimates of supplies and uses for Lower Platte/Loup/Elkhorn basins
    - i. Draft basin accounting complete for all basins. Lower Elkhorn basin information presented at meeting and discussion on how to read results and plots and what they mean.
    - ii. Draft technical memorandum on basin accounting is nearly complete. HDR to distribute to both technical committee and management committee.
  - c. Approaches for accounting/monitoring
    - i. Suggestions included capping the first 5 years of additional allowable use.
      1. % Available Basin Water Supply, or
      2. Flat Number such as 10,000 acres
    - ii. Alternate Supply approaches were discussed (annual/seasonal averages, drought periods, etc.)
    - iii. Management committee directed the technical committee to develop recommendation of supply scenario to determine available supply for use and appropriate % of allowable use to be available for development over the next 5 years.
  - d. Example project accounting
    - i. Sargent canal example presented with updated plots and analysis results. Example of how retiming of water can increase peak season supply (tie to basin accounting).

**III. Schedule Update**

- a. Next Technical Committee meeting
  - i. July 18<sup>th</sup> LENRD, Norfolk, NE, 10:00 - 1:00
- b. Next Management Committee meeting
  - i. July 7<sup>th</sup> – Kearney, NE. 10:00 -12:00. Location TBD.
- c. Water Banking Workshop II
  - i. Rescheduled! Tentatively July 20th, 11:00-1:00. Columbus, NE

**IV. Action Items**

- a. JEO to obtain Skull and Bone Creek information from Lower Platte North NRD
- b. Simone to obtain 1993 instream flow data from Jesse Bradley.

**V. Adjourn approximately 6 P.M.**

**SUMMARY**

**Lower Platte River Basin Water Management Plan Coalition  
 Management Committee Meeting  
 July 7, 2015, 10:00 – 12:00 PM  
 Younes Conference Center, Room: Diamond 1  
 416 Talmadge Road, Kearney, NE 68845**

**Present:** Simone Rock (HDR), Butch Koehlmoos (LLNRD), Mike Sousek (LENRD), John Myoshi (LPNNRD), Russ Callan (LLNRD), Marlin Petermann (PMRNRD), Paul Woodward (PMRNRD), Adam Rupe (JEO), Anna Baum (ULNRD), Dustin Wilcox (NARD), John Engel (HDR), Jessie Wietjes (DNR), Jennifer Schellpeper (DNR)

**I. Technical Committee meeting update (handout of June 18, 2015 meeting):** John Engel reviewed the meeting minutes from the June 18, 2015 Technical Committee Meeting

**II. Basin-wide Accounting Methodology**

- a. Discussion of Instream Flow Demands and statutory requirements
- b. Discussion of alternate demand scenarios (handout)
  - i. Drought Period 2002- 2005
  - ii. 80% Streamflow at Louisville as surrogate for Instream Flow demand
    - 1. Refine time period of days < 500 cfs at Lincoln wellfield to peak months only (July/Aug).

Updated table

Months of July & August Only; POR 1988 to 2014; Count days 1674				
Percent Flow @ LV	Number of Days < 500 cfs	Number of Days < 500 cfs	Number of Days < 1000 cfs	Number of Days < 1000 cfs
100	15	1%	88	5%
90	22	1%	105	6%
80	32	2%	125	7%
70	44	3%	173	10%
60	55	3%	248	15%
50	88	5%	353	21%
40	125	7%	446	27%
30	248	15%	606	36%
20	446	27%	910	54%

- c. % of allowable additional use over next 5 years – results reviewed
  - i. Look into components of Lower Platte Above North Bend and verify Streamflow negative in NonPeak season. (Confirmed).
  - ii. Change summary table drought period to correspond to 80% at LV demand scenario (not instream flow scenario).

Updated table

All units are in AF					
Subbasin	Annual Avg. Excess (Based on 80% LV)	1% of Excess	$\Sigma$ 1% (Over 5-yrs)	Drought (80% of LV) (2002-2005)	Peak (80% of LV) (25yr Avg)
North Loup	343,291	3,433	17,165	63,864	52,168
South Loup	-	-	-	-	-
Middle Loup	323,878	3,239	16,194	14,791	13,720
Lower Loup	132,604	1,326	6,630	-	32,187
Elkhorn Above Norfolk	74,430	744	3,721	-	9,383
Elkhorn Norfolk to Waterloo	567,960	5,680	28,398	148,792	185,249
Above North Bend	3,796	38	190	86,621	49,783
North Bend to LV	154,988	1,550	7,749	-	-

- iii. Explain how a zero could be “mitigated” using retiming or projects.
- iv. Discussions on if want to limit allowable development using peak season and how that would be interpreted in Plan (possibly minimum of peak drought or peak 25-year average).

**III. Water Banking Workshop II**

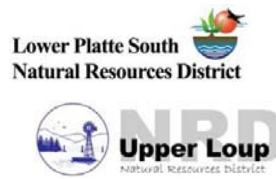
- a. Review goals of water banking
- b. Basin accounting concept
  - i. Discussion included level of detail to present at Workshop – conceptual vs. draft results. Consensus was to present draft results to generate discussion.
- c. Examples of accounting/water banking

**IV. DNR Depletion Tool – Jessie Wietjes, DNR:** Jessie Wietjes led the group in discussion of the DNR depletion tool and its applicability to the Lower Platte Basin. Discussion included timeframe and staffing needs for adding more functions to the tool. Jessie to provide summary list of questions to technical committee and technical committee to discuss need of improving tool or going with DNR tool in existing format.

**V. Schedule Update**

- a. Water Banking Workshop II
  - i. Monday July 20, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- b. Next Technical Committee meeting
  - i. LLNRD, Ord, NE on August 11, 2015; 10:00 AM to 1:00 PM
- c. Next Management Committee meeting
  - i. LLNRD, Ord, NE on Sept 1, 2015; 11:00 AM to 1:00 PM

**VI. Adjourn approximately 12:10 P.M.**



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
June 18, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

- I. Introductions and Administrative Items
- II. Recap of June 3, 2015 Management Committee Meeting and Discussions (handout)
- III. Basinwide Accounting Concept
  - a. Accounting fundamentals/tie to fully appropriated basin methodology
  - b. Current status/estimates of supplies and uses for Lower Platte/Loup/Elkhorn basins
  - c. Approaches for accounting/monitoring
    - i. Water supply scenario for allowable additional use
    - ii. % of allowable additional use to allow over next 5 years
  - d. Example project accounting
- IV. Goals/Objectives/Action Items – refining and detail (adding measurable and timing elements to current goals and objectives)
- V. Anticipated topics to cover at second water banking workshop
  - a. Review the purpose of the Coalition - review of what Coalition is and what it is not.
  - b. Review and discuss the goals of water banking
  - c. Discuss concept for a common basin accounting method to quantify supplies and demands by basin/ NRD
  - d. Discuss estimating the amount of “excess supply” or “allowable future development” by basin/NRD
  - e. Discuss how this would be used as a baseline by each NRD going forward under the basinwide plan.
  - f. Implementation/water management by each NRD based on items (c) through (e) (Framework agreed to at Coalition level – implementation at NRD level)
- VI. Next Technical Committee meeting
- VII. Upcoming Meetings
  - a. Management Committee meeting – July 7, 2015 in Kearney, 10:00 to 12:00, exact location TBD
  - b. Water banking workshop II – Monday July 20, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- VIII. Other
- IX. Adjourn





## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
Sept 9, 2015, 11:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

- I. Introductions and Administrative Items
- II. Recap of August 11, 2015 Technical Committee Meeting and Discussions (handout)
- III. Recap of July 20, 2015 Water Banking Workshop #2
- IV. Basin-wide Accounting Concept
  - a. Inclusion of Loup Power demand
  - b. Limit peak to July-August
- V. Goals/Objectives/Action Items – refining and detail - adding measurable and timing elements to current goals and objectives (handout)
- VI. Update on scope & schedule
  - a. Possibility of additional meetings before Water Banking Workshop #3?
- VII. Status/Discussion on Project Deliverables
- VIII. Next Management Committee meeting
- IX. Upcoming Meetings
  - a. Technical Committee meeting – October 7, 2015 in Norfolk at offices of LENRD, 10:00 to 1:00
- X. Other
- XI. Adjourn



## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
Sept 9, 2015, 11:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

In Attendance: S. Rock (HDR), J. Petersen (JEO), J. Engel (HDR), D. Kracman (TFG), P. Woodward (PMRNRD), M. Petermann (PMRNRD), D. Wilcox (NARD), M. Sousek (LENRD), B. Koehlmoos (LLNRD), R. Callan (LLNRD), J. Bradley (NDNR), J. Miyoshi (LPNNRD), G. Johnson (LPSNRD), P. Zillig (LPSNRD), D. Schueth (UENRD), B. Score (UENRD), A. Baum (ULNRD)

**I. Introductions & Administrative Items**

**II. Recap of August 11, 2015 Technical Committee Meeting and Discussions (handout)**

**III. Recap of July 20, 2015 Water Banking Workshop #2**

**IV. Basin-wide Accounting Concept**

- a. Inclusion of Loup Power demand. J. Engel led the group through a presentation of the draft results for the demand scenarios with and without hydropower demands represented for the Loup River Subbasin and how this shifts supplies/demands between the Loup and Lower Platte Subbasins. Will present results from both scenarios in Plan to bookend the excess supply.
- b. Further discussion on the anticipated use of potential “caps” or “limits” on excess supply for development in next 5 yrs. that will be presented in plan document. Discussion included anticipated plan contents and intent of the caps or limits. Is it the intent for the Coalition to have authority to impose these limits on individual NRDs? Should it be a suggestion? Guideline? Requirement? Discussion included that the overall purpose of plan was to work together and that while it may not necessarily be a rule from the Coalition, there would need to be an agreement by member NRDs on the level of allowable development over the next 5 years. The more structured and defined the allowable limits are in the plan, the more flexibility that is afforded to water banking activities. HDR to draft this section of the plan document for review and discussion by the Management Committee at the next meeting.
- c. Limit peak season to July-August (instead of current June-August approach). Discussion with Manager’s regarding technical committee recommendation to consider July/August subset as part of analysis. Due to accuracies of current modeling tools, level of effort required, consistency with current FA methodology, and uncertainty in how/if results would be considered; decision was made to include this recommendation in the Plan itself as part of the action items for the next 5yrs.

**V. Goals/Objectives/Action Items:** refining and detail - adding measurable and timing elements to current goals and objectives (handout) – Handout briefly reviewed. Comments/questions directed to J. Engel.



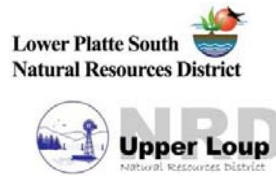
- VI. **Update on scope & schedule:** Time did not permit for this agenda item. J. Engel to include a more detailed scope/schedule/deliverables update in next invoice progress report for distribution by B. Koehlmoos.
- VII. **Status/Discussion on Project Deliverables:** Time did not permit for this agenda item. See item VI.
- VIII. **Next Management Committee meeting:** Set to immediately follow the Manager’s meeting in Beatrice on November 4<sup>th</sup> (tentatively 3:30 p.m.)
- IX. **Upcoming Meetings**
  - a. Technical Committee meeting – October 7, 2015 in Norfolk at offices of LENRD, 10:00 to 1:00.
  - b. Tentative plan to meet with Loup, Elkhorn, and Lower Platte Subbasins individually in month of October. Exact dates to be determined.
  - c. Tentative plan to hold final Water Banking Workshop in mid November. Dates discussed included week of November 16<sup>th</sup>. HDR to check availability of Central Community College facilities and send out Doodle Poll to determine exact dates.
- X. **Other**
  - a. Request to have “mini-update” on schedule/scope (possibly 3-4 slides) at morning basin meetings at NARD conference on Sept. 29<sup>th</sup>. Could be presented by NRD managers/staff or HDR. HDR to prepare draft and forward to B. Koehlmoos for review.
- XI. Adjourn at approximately 1:00 p.m.



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
November 4, 2015, 3:30 to 5:30 P.M.  
Holiday Inn Express  
4005 N 6<sup>th</sup> St., Beatrice, NE**

- I. Introductions and Administrative Items
- II. Recap of Subbasin Workshops
  - a. Common points as well as differences between subbasins
  - b. Comments from board members post-workshop?
- III. Format of November 17, 2015 Water Banking Workshop #3
  - a. Recap of Subbasin Workshops
    - i. Common points as well as differences between subbasins
    - ii. Basin Accounting with respect to Loup hydropower demand
    - iii. Plan implementation and allowable development limits for initial 5-year period
  - b. Defining what the Plan will include and where it will end
  - c. Next Steps
    - i. Example transactions for illustrative purposes
    - ii. NRDs opportunities to create individual waterbanks, cooperative projects, and/or inter-local agreements as necessary
- IV. Status/Discussion on Project Deliverables
- V. Next Management Committee meeting
- VI. Upcoming Meetings
  - a. Water Banking Workshop #3 – November 17, 2015 in Columbus, Central Community College Campus, 11:00-1:00
  - b. Technical Committee meeting – December 9, 2015 in Ord at offices of LLNRD, 10:00 to 1:00
- VII. Other
- VIII. Adjourn



## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
November 4, 2015, 3:30 to 5:30 P.M.  
Holiday Inn Express  
4005 N 6<sup>th</sup> St., Beatrice, NE**

In Attendance: S. Rock (HDR), J. Engel (HDR), K. Hatfield (HDR), A. Rupe (JEO), D. Kracman (TFG), M. Petermann (PMRNRD), D. Wilcox (NARD), M. Sousek (LENRD), B. Koehlmoos (LLNRD), R. Callan (LLNRD), J. Schellpeper (NDNR), J. Miyoshi (LPNNRD), T. Mountford (LPNNRD), P. Zillig (LPSNRD), A. Baum (ULNRD)

### I. **Introductions & Administrative Items**

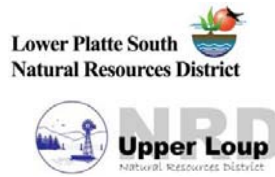
II. **Recap of Subbasin Workshops.** The HDR Team led the group through a review of the takeaways from the three subbasin workshops. Group agreed that the information presented generally agreed with the discussions at the workshops. This information will be presented to the whole group at the November 17<sup>th</sup> Water banking Workshop #3. Comments from directors post-workshop were generally supportive and thought topics and discussion were productive. Some directors were disappointed that a portion of the workshops were split into individual NRDs and had hoped for opportunity to regroup and work together on discussion topics.

III. **Format of November 17, 2015 Water Banking Workshop #3.** The HDR Team led the managers through a discussion of main points to hit at the next water banking workshop. These included:

- a. Recap of Subbasin Workshops
  - i. Common points as well as differences between subbasins
  - ii. Basin Accounting with respect to Loup hydropower demand
  - iii. Plan implementation and allowable development limits for initial 5-year period
- b. Defining what the Plan will include and where it will end
- c. Next Steps
  - i. Example transactions for illustrative purposes
  - ii. NRDs opportunities to create individual water banks, cooperative projects, and/or inter-local agreements as necessary

Highlights of the discussion included the following:

- Much of the discussion centered around how to account for the Loup hydropower demand as well as how to implement a 5-year limit on development.
- The Loup hydropower demand plays a large role in not only the demand on the Loup River subbasin, but because it is non-consumptively used during hydropower generation, it also plays a large role in the supply of the Lower Platte reach below the Loup River confluence.
- For the Loup Hydropower Demand representation (both as demand to the Loup River subbasin and supply to the Lower Platte subbasin), two bookend approaches were discussed:
  - The first approach is to assume that the portion of the Loup Hydropower appropriation above the instream flow demands on the Loup River subbasin could be consumptively used through subordination agreements, as allowed under current statutes. This approach would yield a conservatively small estimate of Loup River subbasin inflows into the Lower Platte subbasin.



- The second approach is to assume that the Loup Hydropower demand would be represented as it is currently determined and quantified in the DNR INSIGHT database. This approach could overestimate Loup River subbasin inflows into the Lower Platte subbasins as supply if future subordination agreements are made that allow portion of the Loup hydropower appropriation to be consumptively used.
- Some members expressed their opinion that the Lower Platte subbasins should not include the Loup Hydropower demand as part of their supply as statute allows subordination agreements to consumptively use that water and assuming its presence into perpetuity during planning activities could lead to future shortages in the Lower Platte subbasin. .
- Some members also expressed concern that if the Lower Platte subbasins develop beyond their allotment of allowable development, or based on the full Loup hydropower contribution to their supply, then others in the basin may start developing as well in an effort to “protect” or “stake claim” to the supply which could lead to fully-appropriated status.
- Some members expressed their opinion that DNR currently accounts for the Loup Hydropower demand non-consumptive use as outflow from the Loup basin as supply into the Lower Platte subbasin as both on INSIGHT and in the proposed fully appropriated analysis methodology.
- All members expressed a need for a middle ground. One suggestion was to quantify the portion of the Loup Hydropower demand that exceeds the instream flows demands on the Loup River subbasin and track and treat it separately as it could potentially be consumptively used in the future.
- It was decided that the HDR Team will develop estimates of supply, demand, and allowable development using several approaches:
  - Nominal volume to each NRD (not specifically based on computed supplies, demands, or surpluses)
  - Treat entire basin as a whole and quantify surpluses at Louisville, then distribute based on:
    - Equally amongst NRDs
    - By subbasin based on proportion of supply
    - By subbasin based on proportion of irrigated acreage
  - Determine allowable development by subbasin by comparing supplies and uses by subbasin (Elkhorn, Loup, Lower Platte Reach)
  - Determine allowable development using available gages within each individual subbasins
    - 4 in the Loup
    - 2 in the Elkhorn
    - 2 in the Lower Platte Reach

IV. **Status of Project Deliverables.** The HDR Team anticipates a draft Plan will be available prior to the December 9<sup>th</sup> technical committee meeting in Ord.

V. **Next Management Committee meeting.** The next manager’s committee meeting was scheduled for January 12<sup>th</sup> at the offices of the Lower Platte North NRD in Wahoo from 10:00 a.m. – 12:00 p.m.



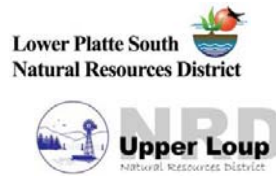
VI. **Upcoming Meetings**

- a. Water Banking Workshop #3 – November 17, 2015 in Columbus, Central Community College Campus, 11:00-1:00
- b. Technical Committee meeting – December 9, 2015 in Ord at offices of LLNRD, 10:00 to 1:00

VII. **Other**

VIII. Adjourn at approximately 5:30 p.m.





## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Management Committee Meeting  
July 6, 2016, 11:00 to 1:00 P.M.  
Offices of Lower Platte North NRD  
511 Commercial Park Road, Wahoo, NE**

- I. Introductions and Administrative Items
- II. Meeting Purpose
  - Obtain Management Committee direction on 3 Items to finalize plan:
    - a. Desired target % of flows at Louisville to maintain as a goal
    - b. Based on (a) – desired approach to distribute excess supply amongst NRDs
    - c. Basin-wide Plan Implementation – How NRDs intend to implement basin-wide plan and how prescriptive should plan be
- III. Brief Review of Methodology for Basin Accounting
  - a. Demand Scenarios: 80%, Hydropower, Instream Flow Demands
  - b. Snapshot of what has been covered and where we left off.
  - c. Summary of changes to INSIGHT
- IV. Updated Basin Accounting with INSIGHT changes incorporated
- V. Management direction
  - a. Target % of flows at Louisville
  - b. Distribution of excess supply among the member NRDs (potential approaches below)
    - i. Evenly
    - ii. % Supply
    - iii. Irrigable Acres
  - c. Plan implementation at the NRD level?
    - i. How prescriptive will the plan be? Operate in bookends/general guidelines or more prescriptive for this first 5-yr increment?
    - ii. What are the pros/cons of both approaches?
- VI. Upcoming Meetings
  - a. None currently planned - TBD
- VII. Other
- VIII. Adjourn





**AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
 Management Committee Meeting  
 August 22, 2016, 10:00 to 12:00 P.M.  
 Offices of Lower Elkhorn NRD  
 601 E Benjamin Ave, Norfolk, NE**

- I. Introductions and Administrative Items
- II. Review water supplies, uses, and net between supplies and uses. Analysis based on:
  - a. Available flow evaluation completed at Louisville for entire basin
  - b. Maintaining 40% of historic Louisville gage flow as downstream demand
  - c. Average of most recent 25 year period used
  - d. Peak Season used (June, July, August) in analysis with check of non-peak season
  - e. Computed available flow at Louisville distributed among the Elkhorn (32%), Loup (44%), and Lower Platte River (24%) sub-basins based on proportion of supply provided by each at Louisville
  - f. Hydropower demands not included – special constraint for adding new uses in the Loup River basin above Genoa.

	Average Annual Available Flow (acre-feet)	
	NonPeak	Peak
<b>Full Lower Platte</b>	<b>598,602</b>	<b>194,843</b>
Elkhorn (32%)	173,677	61,960
Loup (44%)	293,912	85,171
Lower Platte Subbasin (24%)	131,013	47,712

- g. As discussed at July meeting, target limit for new uses over the next 5 year increment is 10% of that available:

	Average Annual Available Flow (acre-feet)		10% Target Limit (Total over next 5 years)	
	NonPeak	Peak	NonPeak	Peak
<b>Full Lower Platte</b>	<b>598,602</b>	<b>194,843</b>	<b>59,860</b>	<b>19,484</b>
Elkhorn (32%)	173,677	61,960	17,368	6,196
Loup (44%)	293,912	85,171	29,391	8,517
Lower Platte Subbasin (24%)	131,013	47,712	13,101	4,771

- h. Targets can be full consumptive use (conservative) or depletions



- III. Plan implementation
  - a. Coalition board approval/acceptance
  - b. Individual NRD boards
    - i. Action required now?
    - ii. Board action only when elements are specifically implemented by individual NRDs?
- IV. Possible efforts going forward in support of action items and management activities by NRD and DNR
  - a. Water budget on refined scale (grid-by-grid) – South Loup Example
  - b. Making INSIGHT more dynamic (allow user input to test scenarios)
- V. Coalition Board meeting
- VI. Other
- VII. Adjourn

Lower Platte River Basin  
Draft Basin Water Management Plan  
Subbasin Workshops



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Lower Platte Subbasin Workshop  
October 14, 2015, 12:00 to 3:00 P.M.  
Mahoney State Park**

- I. Introductions and Administrative Items
- II. Meeting Purpose
- III. Project Background (15 minutes)
- IV. Water Banking Review (30 minutes)
- Break (5 minutes)
- V. Small Group Discussions (105 minutes)
- Break (10 minutes)
- VI. Goals/Opportunities Subbasin/Basinwide (15 minutes)
- VII. Upcoming Meetings
  - a. Elkhorn Subbasin Workshop
  - b. Loup Subbasin Workshop
  - c. Water banking workshop III – Tuesday, November 17, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- VIII. Adjourn

# Lower Platte Subbasin Workshop - LPNNRD

October 14, 2015

1. Could a water bank be a useful tool in the basin for helping to improve the balance between water supplies and water demands, or are existing management tools sufficient?
  - *Currently allow water transfers based on an Acre to Acre basis. Interested in creating water-bank to allow transfers based on Acre-Feet based on SDF. LPNNRD has been working on this as part of their IMP process.*
2. Could a water bank be used in the basin to prevent fully appropriated conditions in the future?
  - *Yes, the purpose of a water-bank would be to maintain sustainability in the District while allowing new uses. This concept would fit into avoiding fully-appropriated status. The long term goal would be to avoid fully-appropriated status while the short term focus is on the Special Quantity Areas.*
3. Could a water bank be used to provide an additional “cushion” of protection beyond the supply and demand methodologies used by DNR for INSIGHT calculations (and potentially for future fully appropriated determinations)? If so, what amount (in acre-feet), or range of amount, of additional protection might be beneficial?
4. Related to the previous question, are there any estimates of what amount of additional supplies may be needed to support anticipated future development, and could water banking be a potential tool to use in meeting that future need?
5. Is there a particular situation within the basin where a specific need (present or future) could be met by using a water bank to provide a set amount of water at a specific location, at a specific time? Could a water bank of that type be used to provide water to a user outside of the basin?
  - *A water-bank could be used to address quantity issues in the Special Quantity Areas. Don't see a huge expansion of irrigated acres in the future- more mature subbasin with regard to agriculture development. Future growth would more likely be industry and municipal needs. Water could be captured in a reservoir for transfer to downstream users (e.g. a Skull Creek type project).*
6. What resources are currently in place within the basin, and the NRDs, that could be included in a water bank?
  - *Increase capacity of existing dams or new dams for additional storage to capture.*

7. Are there sites where new resources could be constructed to use with a future water bank?
  - *A Skull Creek type project to transfer to downstream users for compensation could be an option.*
  - *Possible recharge ponds in Platte-Colfax areas. Possibility of injection wells to inject water to Special Quantity Areas mentioned.*
  - *Potential recharge opportunities in Todd Valley.*
  - *Discussion about possibility of using the Dakota Aquifer – data is lacking. Further discussion on how banking would work with multiple aquifers in system.*
  
8. What area or areas within the basin could be used for a water bank? Should both surface and groundwater be part of a water bank within the basin?
  - *Hydrologically connected areas could participate. Some discussion on revision to hydrologically connected areas based on results of current/future studies.*
  - *Transfers are only allowed from groundwater to surface water.*
  
9. If a water bank, or multiple water banks, were to be established within the basin, would it be managed by solely the NRDs, or would there be other entities involved with management? DNR? Private groups? What type of education and outreach might be needed with a water bank?
  - *The NRD would manage the water-bank within District boundaries.*
  - *Inter-local agreement would be necessary for multiple NRDs inside subbasin boundaries regarding development of “excess supply”.*
  - *Industry partners (financing a project) could include City of Lincoln, City of Omaha, and Fremont.*
  
10. Should the bank be designed to store water in a physical location, or should it be more institutionally based? Should the bank have the ability to purchase water entitlements on its own, or should it serve more as a facilitator?
  - *Transfers would be more of “paper water” while a new reservoir or recharge pond would be a physical location.*
  
11. What type of verification could be used to ensure accurate accounting of banking transactions? Aerial imagery? Site verification? Other?
  - *Aerial imagery is currently used for verification as well as electronic metering/reporting.*
  
12. How could irrigator participation be encouraged within a water bank within the basin? Could a bank be set up to provide for instream flows owned by NRDs or NGPC? What other considerations might be important within this basin with a future water bank?
  -

13. How do you envision implementation of the basin-wide management plan?

- *Envision the Plan being for information and recommendation only and the NRD will work with implementing all or part of the Plan in its IMP.*
- *See the Plan as establishing a common accounting system as a framework for which the basin water-banks will operate.*
- *NRD sees benefit of the recommendation of a 1% per year development of “excess supply” for each NRD for next 5-years while work on implementing the Plan into individual IMPs. While a recommendation in Plan, NRD would likely adopt this recommendation at NRD level.*

14. Loup Power District’s large non-consumptive use plays a large role in supplying water to the Lower Platter River. In planning for the future, how should the current appropriation be treated? Assume it will be as currently represented in INSIGHT? Assume a portion may be consumptively used in the future?

- *No final consensus on how to proceed. It would definitely need to be a discussion and agreement between the Loup NRDs and Lower Platte NRDs. Cannot assume that water would be available until an agreement is made.*

# Lower Platte Subbasin Workshop - LPSNRD

October 14, 2015

1. Could a water bank be a useful tool in the basin for helping to improve the balance between water supplies and water demands, or are existing management tools sufficient?
  - *Yes, depending on what type of bank was created.*
  - *There is the potential for the Lower Platte area to be a recipient of another water source through a water bank.*
  
2. Could a water bank be used in the basin to prevent fully appropriated conditions in the future?
  - *Yes, but it could also be used for additional purposes. A water bank could be used to provide flexibility in the future, by providing an opportunity to use water in the future. It could enable the area to be more proactive in managing future development.*
  - *The City of Lincoln will have continued growth, which will require proper water management.*
  - *Water banking could be the first step in setting up a water market, and could serve as an intermediate tool prior to a fully appropriated determination.*
  
3. Could a water bank be used to provide an additional “cushion” of protection beyond the supply and demand methodologies used by DNR for INSIGHT calculations (and potentially for future fully appropriated determinations)? If so, what amount (in acre-feet), or range of amount, of additional protection might be beneficial?
  - *There may be negative consequences in not using up to the total supply, in that you might lose the opportunity to use that portion of supply in the future.*
  - *Reservoirs could serve as a way to store a portion of the currently unused supply.*
  - *The question of using a “cushion” brings up the concept of how risk averse you’re willing to be.*
  - *It’s important to recognize that water stored in reservoirs could be used to supply wells downstream.*
  
4. Related to the previous question, are there any estimates of what amount of additional supplies may be needed to support anticipated future development, and could water banking be a potential tool to use in meeting that future need?
  - *Yes, the NRD’s Planning Department has projections of future demands out to 2040. Also, the Lincoln Water System projects future water demands, and considers per capita water use. It’s the group’s understanding that LWS projections are counting on big efficiency improvements in the future.*
  - *Climate change impacts will also need to be considered for future estimates of demands.*



5. Is there a particular situation within the basin where a specific need (present or future) could be met by using a water bank to provide a set amount of water at a specific location, at a specific time? Could a water bank of that type be used to provide water to a user outside of the basin?
  - *The Lincoln well field could be involved in a future water bank, along with other potential uses that might need to “fill in” shortages.*
  - *Drought management planning would need to be a part of these future considerations.*
  - *Dry-year leasing could be an option with irrigators as a way of providing additional supplies.*
  - *There may be needs in the future for water for new industries.*
  - *There may be potential for a future water bank to help provide protection for domestic wells during droughts, so that irrigators would not have to be regulated as currently occurs in some situations with groundwater drawdown.*
  
6. What resources are currently in place within the basin, and the NRDs, that could be included in a water bank?
  - a. Canals?
    - *There are no major canals in the Lower Platte subbasin.*
  - b. Reservoirs?
    - *There are many smaller reservoirs in the Lower Platte subbasin, many of which are used primarily for flood control and recreation. Overall, surface water storage is limited.*
  - c. Recharge/Seepage sites?
    - *Potential recharge areas are not widespread, and induced recharge would be difficult for most locations.*
  - d. Aquifers?
    - *While there is groundwater use in the Lower Platte subbasin, and a large number of groundwater wells used for irrigation and municipal supplies, overall aquifer storage is limited – particularly compared to other areas with access to aquifer systems such as the Ogallala aquifer.*
  - e. Other infrastructure?
    - *No other major infrastructure was identified.*
  - f. Existing banking operations?
    - *No banking operations currently are in place in the Lower Platte subbasin.*
  
7. Are there sites where new resources could be constructed to use with a future water bank?
  - *The Skull Creek subbasin has potential reservoir sites that could be linked with a water bank.*
  - *There might be augmentation sites available within the subbasin, or just outside of the Lower Platte. The Todd Valley was identified as a potential augmentation wellfield site.*

- *Shell Creek could potentially be an area considered for future water banking activities.*
  - *During these discussions, the question arose as to the reasoning behind the basin boundaries as defined by DNR for the INSIGHT project and database. DNR staff provided some information on how the boundaries were defined. There was some concern among the group that including the portion of the Loup River draining below Genoa might have implications to future water planning efforts, including those related to water banking.*
8. What area or areas within the basin could be used for a water bank? Should both surface and groundwater be part of a water bank within the basin?
- *Multiple NRDs could be included within water banks that serviced the Lower Platte subbasin.*
  - *Within the Lower Platte subbasin, while any water bank involving the exchange of water on irrigated lands would likely be of limited benefit, there may still be a need to include those forms of exchanges.*
  - *Both surface water and groundwater would need to be included in a water bank.*
  - *There needs to be recognition that there are flow responsibilities below Ashland (below confluence with Salt Creek).*
9. If a water bank, or multiple water banks, were to be established within the basin, would it be managed by solely the NRDs, or would there be other entities involved with management? DNR? Private groups? What type of education and outreach might be needed with a water bank?
- *A water bank should be managed by the NRDs.*
  - *There is no interest in having private groups manage water banks. However, private entities (such as irrigators, industry, and other potential customers) would likely be involved with any future water bank.*
  - *Education and outreach will be important for both legislators and water banking participants.*
  - *There will need to be clear and consistent rules and regulations for the bank.*
  - *Water banks involving the Lower Platte subbasin will need to consider the important impacts from Loup Public Power in determining the overall water balance for the region. There is an opportunity to partner with Loup Power in developing upstream storage options.*
  - *When considering issues related to Loup Power, it also needs to be recognized that power rights do not necessarily represent the highest and best use, and other forms of water rights may have a higher value.*

10. Should the bank be designed to store water in a physical location, or should it be more institutionally based? Should the bank have the ability to purchase water entitlements on its own, or should it serve more as a facilitator?
- *Future water banks would likely need to include both structural and institutional components.*
  - *The water bank should have the ability to purchase and own water entitlements.*
  - *Existing water law – including statute governing intentional recharge – must be considered in developing the strategic policy of a water bank.*
11. What type of verification could be used to ensure accurate accounting of banking transactions? Aerial imagery? Site verification? Other?
- *Any water banking activities involving intentional recharge would need to include thorough measurement and verification.*
  - *While the LPSNRD does not currently employ the use of aerial imagery to verify levels of consumptive use, it could be a tool used in a future water bank.*
12. How could irrigator participation be encouraged within a water bank within the basin? Could a bank be set up to provide for instream flows owned by NRDs or NGPC? What other considerations might be important within this basin with a future water bank?
- *It will depend on the form of the water bank, but irrigator participation would likely be an important part of any future banking operations.*
  - *While there is currently no interest in obtaining an instream flow right through the NRD, instream flows may be a tool that will need to be considered in a future water bank. Cooperation with NGPC also cannot be ruled out.*
  - *Dry-year leases could be an important component of a future water bank in this area.*
13. How do you envision implementation of the basin-wide management plan?
- *There is a range of possible ways in which the basin-wide management plan could be structured, implemented, and enforced, ranging from voluntary and non-binding aspects to the other extreme of hardwired binding allocations for specific regions. There was significant and wide-ranging discussion on this point, but in general the extreme polar views were discounted, and instead there was interest in finding an approach that was less extreme, while still containing assurances those actions would be taken across the Coalition to protect the water needs of its members.*
  - *One-size does NOT fit all, and the differences across different portions of the Coalition area need to be recognized and respected.*
  - *The basin-wide plan needs a structure which is based on the needs determined in the development of the plan, and/or on agreements developed outside the plan, between Coalition members.*
  - *Interlocal agreements of some form may be helpful in the future implementation of the basin-wide plan.*

14. Loup Power District's large non-consumptive use plays a large role in supplying water to the Lower Platter River. In planning for the future, how should the current appropriation be treated? Assume it will be as currently represented in INSIGHT? Assume a portion may be consumptively used in the future?

- *While the group did discuss the importance of Loup Power in any future water banking activities, and with respect to the basin-wide plan, they did not come to a conclusion on how exactly the non-consumptive use should be treated with respect to the water supply and demand balance.*



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Elkhorn Subbasin Workshop  
October 19, 2015, 2:00 P.M. to 5:00 P.M.  
Offices of Lower Elkhorn NRD, Norfolk, NE**

- I. Introductions and Administrative Items
- II. Meeting Purpose
- III. Project Background (15 minutes)
- IV. Water Banking Review (30 minutes)
- Break (5 minutes)
- V. Small Group Discussions (105 minutes)
- Break (10 minutes)
- VI. Goals/Opportunities Subbasin/Basinwide (15 minutes)
- VII. Upcoming Meetings
  - a. Loup Subbasin Workshop
  - b. Water banking workshop III – Tuesday, November 17, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- VIII. Adjourn

# Elkhorn Subbasin Workshop - UENRD

October 19, 2015

1. Could a water bank be a useful tool in the basin for helping to improve the balance between water supplies and water demands, or are existing management tools sufficient?
  - *Population is declining in this NRD. Most irrigated acres have already been developed and are located north of the Elkhorn on the very northern edge of the basin boundary or on the eastern edge of the district.*
  - *District feels the existing management tools are sufficient.*
2. Could a water bank be used in the basin to prevent fully appropriated conditions in the future?
  - *Foresee using a water-bank as to facilitate transfers – but again on a limited basis.*
3. Could a water bank be used to provide an additional “cushion” of protection beyond the supply and demand methodologies used by DNR for INSIGHT calculations (and potentially for future fully appropriated determinations)? If so, what amount (in acre-feet), or range of amount, of additional protection might be beneficial?
  - *Could possibly “bank” acres from transfers to create a cushion.*
4. Related to the previous question, are there any estimates of what amount of additional supplies may be needed to support anticipated future development, and could water banking be a potential tool to use in meeting that future need?
  - *Demand not high at this time for additional supply.*
5. Is there a particular situation within the basin where a specific need (present or future) could be met by using a water bank to provide a set amount of water at a specific location, at a specific time? Could a water bank of that type be used to provide water to a user outside of the basin?
  - *This district does not have any special quantity areas at this time.*
6. What resources are currently in place within the basin, and the NRDs, that could be included in a water bank?
  - *There is very little existing infrastructure in this district.*
  - *Change in operation of Spencer Hydro facility and the change in hydro demand could be considered a “deposit” into the bank.*

7. Are there sites where new resources could be constructed to use with a future water bank?
  - *A new dam located at Oakdale (Cedar Creek) is only feasible location for new dam. Only purpose would be to sell water to downstream districts for profit. Past discussions show little support for such a project.*
  - *Noted that there is good transmissivity near Elgin that could potentially support for a recharge site but there are no notable declines in this area to support one at this time.*
  
8. What area or areas within the basin could be used for a water bank? Should both surface and groundwater be part of a water bank within the basin?
  - *CRP Land could be used to "bank" water.*
  - *Some areas where quality issues or local decline would be scrutinized for participation. Would use a ranking system to prioritize areas.*
  - *Groundwater only (no surface water) would be part of the bank.*
  - *Not doing surface water to groundwater transfers at this time.*
  
9. If a water bank, or multiple water banks, were to be established within the basin, would it be managed by solely the NRDs, or would there be other entities involved with management? DNR? Private groups? What type of education and outreach might be needed with a water bank?
  - *Water-bank would be managed solely by the NRD.*
  
10. Should the bank be designed to store water in a physical location, or should it be more institutionally based? Should the bank have the ability to purchase water entitlements on its own, or should it serve more as a facilitator?
  - *The water-bank would be used to facilitate transfers only unless a physical reservoir at Oakdale was ever constructed as this would be physical water.*
  
11. What type of verification could be used to ensure accurate accounting of banking transactions? Aerial imagery? Site verification? Other?
  - *Farmers have 1-2 years to irrigate a transfer and the field is inspected by NRD staff.*
  - *If a full transfer of irrigated acres occurs, staff inspects old land to make sure not irrigated. For partial transfers, this inspection doesn't necessarily occur.*
  
12. How could irrigator participation be encouraged within a water bank within the basin? Could a bank be set up to provide for instream flows owned by NRDs or NGPC? What other considerations might be important within this basin with a future water bank?
  - *The NRD newsletter would be used to educate irrigators and encourage participation.*
  - *NRCS Cost share.*

13. How do you envision implementation of the basin-wide management plan?

- *District foresees the management of allowable development occurring at the subbasin level.*
- *District sees the Plan recommending allowable development by NRD. The NRD can limit the development even further in own rules.*





## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Loup Subbasin Workshop  
October 21, 2015, 3:00 P.M. to 6:00 P.M.  
Offices of Lower Loup NRD, Ord, NE**

- I. Introductions and Administrative Items
- II. Meeting Purpose
- III. Project Background (15 minutes)
- IV. Water Banking Review (30 minutes)
- Break (5 minutes)
- V. Small Group Discussions (105 minutes)
- Break (10 minutes)
- VI. Goals/Opportunities Subbasin/Basinwide (15 minutes)
- VII. Upcoming Meetings
  - a. Water banking workshop III – Tuesday, November 17, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- VIII. Adjourn

# Loup Subbasin Workshop - ULNRD

October 21, 2015

1. Could a water bank be a useful tool in the basin for helping to improve the balance between water supplies and water demands, or are existing management tools sufficient?
  - *District does not have an issue with water supply.*
  - *District just now starting to talk about water transfers.*
  - *District foresees transfers being acre-to-acres type transfers.*
2. Could a water bank be used in the basin to prevent fully appropriated conditions in the future?
  - *Yes, could be used to avoid fully-appropriated status, but again there is no real water quantity issues in this district.*
3. Could a water bank be used to provide an additional “cushion” of protection beyond the supply and demand methodologies used by DNR for INSIGHT calculations (and potentially for future fully appropriated determinations)? If so, what amount (in acre-feet), or range of amount, of additional protection might be beneficial?
  - *Yes, could be used to avoid fully-appropriated status, but again there is no real water quantity issues in this district.*
4. Related to the previous question, are there any estimates of what amount of additional supplies may be needed to support anticipated future development, and could water banking be a potential tool to use in meeting that future need?
  - *Yes, could be used to avoid fully-appropriated status, but again there is no real water quantity issues in this district*
5. Is there a particular situation within the basin where a specific need (present or future) could be met by using a water bank to provide a set amount of water at a specific location, at a specific time? Could a water bank of that type be used to provide water to a user outside of the basin?
  - *Excess supply could be captured and traded (sold) to downstream users for profit.*
  - *Possibility to provide extra water to Thomas Livestock.*
6. What resources are currently in place within the basin, and the NRDs, that could be included in a water bank?
  - *Very little existing infrastructure exists within district – some existing ditches and Milburn Dam.*
7. Are there sites where new resources could be constructed to use with a future water bank?
  - *Possibility of using existing ditches for storage but these areas are hayed so would need to be compensated for losses.*

- *Possibly a new reservoir at Mullen. Previous analysis showed this project had a low benefit-to-cost ratio but use was for hydropower not for storing and selling water. May rank better if purpose was to sell water downstream. Issues identified included sand accumulation and potential federal oversight.*
8. What area or areas within the basin could be used for a water bank? Should both surface and groundwater be part of a water bank within the basin?
- *Blaine and South Loup would be excluded from participation.*
9. If a water bank, or multiple water banks, were to be established within the basin, would it be managed by solely the NRDs, or would there be other entities involved with management? DNR? Private groups? What type of education and outreach might be needed with a water bank?
- *Any water-bank would be managed solely by the NRD.*
  - *Possibly 3<sup>rd</sup> party would be brought in to assist with running the water-bank. Costs of running a bank coupled with small staff could outweigh any benefit.*
  - *Would expect DNR to assist with basin accounting and data management.*
10. Should the bank be designed to store water in a physical location, or should it be more institutionally based? Should the bank have the ability to purchase water entitlements on its own, or should it serve more as a facilitator?
- *NRD would act as facilitator and bank would be mostly institutional unless a physical reservoir was built to sell water downstream.*
11. What type of verification could be used to ensure accurate accounting of banking transactions? Aerial imagery? Site verification? Other?
- *Currently no verification occurring.*
12. How could irrigator participation be encouraged within a water bank within the basin? Could a bank be set up to provide for instream flows owned by NRDs or NGPC? What other considerations might be important within this basin with a future water bank?
- *Any education efforts would require outside facilitation from a 3<sup>rd</sup> party.*
13. How do you envision implementation of the basin-wide management plan?
- *Envision the Plan as an accountant of the supplies and demands in the basin and a way to collaborate with other NRDs.*
  - *Not okay with being told how to develop excess or run a water-bank.*
  - *Does not like the idea of recommendations on a "cap" on development.*
  - *Does not see implementing any projects without participation/coordination with Lower Loup NRD.*

# Water Banking Subbasin Workshops

## Major Take-home Themes

November 2, 2015

### Lower Platte South NRD

- The Lower Platte subbasin would likely serve as a recipient of water supplies if a new water bank were to be created. Projects such as providing for flow enhancement during critical times for the Lincoln wellfield should be considered when evaluating water banking alternatives.
- There is a concern that if excess supplies are not utilized in some form, that they could be forfeited in the future, and there was discussion on whether water banking in some form could potentially be used to protect those excess supplies.
- Other than smaller reservoirs (usually managed for flood control and/or recreation rather than water supply) and groundwater wells where adequate aquifers can be found, water infrastructure – particularly conveyance structures such as canals – is limited.
- Water banks should be managed by the NRDs, but private groups (such as irrigators, industry, etc.) will likely be banking participants.
- Loup Public Power has a huge impact on the overall supply and demand balance in the subbasin, and there may be an opportunity to partner with Loup Power in developing upstream storage options.
- Dry-year leases and instream flow rights are potential tools that could be used in conjunction with future water banks.
- One-size does not fit all with respect to water management in the overall Coalition area, but the basin-wide management plan needs to include provisions that will provide assurances to its members that actions will be taken across the Coalition to protect the water needs of its members.
- Interlocal agreements outside of the basin-wide management plan may serve as a mechanism to formalize future banking arrangements, such as providing supplies from upstream in the Coalition area to enhance the supply in the Lower Platte subbasin.

## Lower Elkhorn NRD

- There is a potential for significant irrigation development in the District, with excess surface water in the east, and good groundwater supplies in the west, with about 25,000 acres within the 10-50 hydrologically-connected area.
- While there are no major canals within the subbasin, there are a number of potential reservoir, recharge, and detention sites that have already been identified, which could be included within a water banking system.
- The subbasin could be divided into hydrologically connected and disconnected regions, with a focus on preventing fully appropriated conditions in the former, and a focus on managing aquifer declines (and associated interference issues) in the latter.
- There is an interest in looking at smaller-scale projects such as small reservoir recharge and using valving on tile drainage outflows for retiming benefits, but there will be a need to “prove-up” the recharge benefits.
- There is interest in depositing water associated with allowable new development into a water bank.
- With respect to the Basin plan, there is a need for coordination between NRDS and developing a common method of reporting and overall accounting, which will foster management actions and help better identify the “tipping point” with respect to Fully Appropriated status. However, the plan itself should not be one-size-fits-all, and shouldn’t in itself contain binding mechanisms. Individual NRDs should have an incentive to work with other NRDs in the Coalition, since deviating from overall Coalition goals will be to their own detriment.
- Overall, the subbasin and Coalition area is fortunate to not be in the more serious condition that exists in the western portion of the state, and should have more flexibility in identifying management actions to protect long-term water supplies and development.
- The bank itself should be managed by the NRD, but need to coordinate – especially the accounting – with the DNR.

### Lower Loup NRD

- The Lower Loup NRD is unique in the Coalition area in that it already owns and operates a water bank, as part of its larger water transfer program.
- Future water banking efforts could be used for a number of purposes such as facilitating transfers, offsetting future municipal needs, and protecting existing uses, and could serve as an alternative to regulation.
- Water banking operations could also be used to alleviate individual water shortages that currently occur at times with irrigation rights that are junior in seniority to the Lower Platte's in-stream flow rights, or to reduce groundwater declines in certain areas.
- The Lower Loup is also unique in the Coalition area with respect to the quantity of surface water infrastructure, in terms of canals and reservoirs managed by 6 different irrigation districts. Farwell and Sargent Irrigation Districts are the two primary systems. Extensive groundwater well development is also present in the subbasin.
- Existing reservoirs in the subbasin, including Calamus and Davis Creek, have established operational policies (including agreements with Loup Power District) that would need to be considered in some larger-scale water banking transfers.
- Sites have already been identified for new projects for water storage and recharge, including the Lillian Creek area.
- Local control, with just compensation and willing participants and partners, needs to be maintained for future water banking activities.
- The issues of both the Loup Public Power, and the approach to implementation of the basin-wide management plan, are complex, and will require further deliberations internally within each NRD, and between Coalition member NRDs.

### Papio-Missouri River NRD

Water banking is viewed as an extension of the IMP process – those stakeholders would also be engaged

- Bank would be NRD managed with the goals of avoiding FA/OA status and ensuring water supply for domestic uses
  - Accounting through DNR
  - Bank would be set up along hydrologically connected areas
  - Perhaps separate banks for surface and groundwater?
- Recommendations of planning effort (80% of existing flows and 1%/year over 5 years of new development) seem to be a reasonable way to move forward
- With limited local opportunities to develop new water, the NRD sees working with upstream NRD critical to securing water
- While paper water/accounting is important for long term sustainability; the ability to manage for drought with storage/augmentation is an important need

- Basin plan should be utilized as a tool to get all NRDs on the same page. While there should still be local control, downstream NRD's need some sort of assurance that upstream NRDs will follow recommendations/guidelines
  - Some sort of understanding of accounting/reliability on Loup Hydro is a concern to be addressed
  - Papio would be OK with strict rules/guidelines if other NRDs would too
- At some level, there is concerns with ensuring banking is legal/statutorily authorized

Lower Platte River Basin  
Draft Basin Water Management Plan  
Technical Committee Meetings





## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Kickoff Meeting  
July 10, 2014, 10:00 to 12:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

- I. Introductions
- II. Administrative Items
  - a. Role of the Technical Committee and its members
  - b. Ground rules for meetings
  - c. Selection of a Chair
- III. Review of the scope of work and project schedule
- IV. Review and discussion of draft goals and objectives
  - a. Review of comments from 6/13/2014 Coalition Board meeting
- V. Current data collection/tool development efforts discussion by NRD and DNR
- VI. Current ground/surface water control discussion by NRD and DNR (time permitting)
- VII. Next meeting time and place
- VIII. Review of action items
- IX. Other
- X. Adjourn



**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Kickoff Meeting  
July 10, 2014, 10:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

**Meeting Summary**

**Invited:** Jeff Henson (JEO), Curt Becker (LENRD), Jesse Bradley (NDNR), Russ Callan (LLNRD), Larry Angle (LPNNRD), Brandi Flyr (NDNR), Rick Wozniak (LENRD), Dick Ehrman (LPSNRD), Kyle Yrkoski (ULNRD), Brian Henkel (PMRNRD), Dan Schulz (LPSNRD), Dustin Wilcox (NARD), Tom Riley (UENRD), Russ Oakland (LPNNRD), John Engel (HDR), Simone Rock (HDR), Katie Hatfield Edstrom (HDR), Adam Rupe (JEO), Curt Becker (LENRD)

**Present:** Larry Angle (LPNNRD), Brian Henkel (PMRNRD), Taryn Serwatoski (PMRNRD), Dick Ehrman (LPSNRD), Adam Rupe (JEO), Dell Harris (LLNRD), Brandi Flyr (NDNR), Tom Riley (UENRD), Curt Becker (LENRD), Rick Wozniak (LENRD), Dustin Wilcox (NARD), Kyle Yrkoski (ULNRD), Tylr Naprstek (LLNRD), Russ Callan (LLNRD), Simone Rock (HDR), John Engel (HDR), Katie Hatfield Edstrom (HDR)

**I. Administrative Items**

- a. Role of the Technical Committee and its members: J. Engel described his perspective on what the role of the Technical Committee would be and what the responsibilities are of its members. The Committee will serve the Coalition as technical experts in water planning, basin water resources, and their District's activities; provide input to the planning process, act as a liaison between the committee and individual Districts; and provide recommendations to the Management Team.
- b. Ground rules for meetings: K. Hatfield Edstrom discussed the established ground rules for all meetings of the Coalition including the Coalition Board meetings, Management Team meetings and Technical Committee meetings. The rules are as follows:
  - Be willing to reach consensus.
  - Strive to meet the stated purpose and expected outcomes of the meeting.
  - Respect the agenda.
  - Listen actively to others.
  - No one-on-one side meetings or conversations.
  - Stay professional, not personal.
  - Manage your own input – no long speeches.
  - Do not interrupt other participants.
  - Leave the meeting with a clear sense of next steps.
  - Once consensus has been reached, support group decisions and actions.
- c. Selection of a Chair: The Committee agreed that co-chairs would provide flexibility for the chair. B. Henkel (PMRNRD) and R. Callan (LLNRD) were nominated and accepted as co-chairs of the Committee. Primary function of the co-chairs will be as spokesmen for the Technical Committee when briefing Coalition Board and Management Committees.

**II. Review of the scope of work and project schedule:** J. Engel provided a brief overview of the scope of work and project schedule. It was noted that the discussion regarding water banking may be moved up earlier in the process. The Committee noted that examples of water banking systems would help to clarify misconceptions of how water banking works. K. Hatfield Edstrom noted



that she would develop language for the website and provide links to resources to help educate the public and interested stakeholders.

III. Review and discussion of draft goals and objectives

- a. Review of comments from 6/13/2014 Coalition Board meeting: J. Engel provided an overview of the comments received at the Coalition Board meeting. It was noted that the meeting summary for the Board meeting provide a summary of the comments.
- b. A line by line review of the draft goals and objectives garnered input from the Committee regarding the members' interpretation of each objective and recommendations for the Management Team to consider. See Appendix A for a table of Goals, Objectives, Tech Committee interpretations, and recommendations for consideration by the Management Committee. Following Technical Committee comment, this table will be forwarded to Management Committee for review and comment and further discussed at the next Technical Committee meeting, where final recommendations to the Management Committee will be made.
- c. The Tech Committee agreed that a Glossary of Terms would be helpful to help avoid confusion.
- d. A discussion regarding how often the plan would be reviewed or updated. DNR suggested a review similar to that used in the IMP process.

IV. Current data collection/tool development efforts discussion by NRD and DNR: J. Engel led a discussion regarding the existing data collection efforts and tools used by the Districts. Members provided input and agreed to provide more detailed notes with an electronic distribution of the data collection table. J. Engel will send out to the Committee.

V. A summary of current controls in the basin was briefly discussed. Summary will be extended to include other controls within state, as well as western U.S. for discussion at the next meeting.

VI. Next meeting time and place: The Committee discussed locations for future Committee meetings. LLNRD and LENRD offered to host on alternating dates. It was agreed that all future meetings would be three hours and a working lunch will be included.

VII. Action items:

- a. HDR - Goals/Objectives Document will be sent to group for review.
- b. HDR – Data collection table will be sent to group for additional input.
- c. D. Ehrman – to send HDR flight plan and map for upcoming flight study.
- d. HDR – to begin glossary of terms for the Water Management Plan.
- e. HDR – to prepare water banking resources and education for discussion at next meeting and general public on the website.

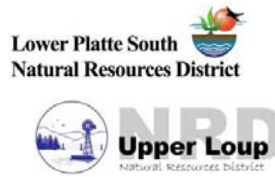
VIII. Adjourn: Meeting adjourned at approximately 12:45pm.



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
September 3, 2014, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

- I. Introductions
- II. Administrative Items
  - a. Review of ground rules for meetings
- III. Discussion of draft goals and objectives
  - a. Review of interpretation document sent to Management Committee (handout)
  - b. Discussion of comments received from Management Committee
- IV. Water Banking
  - a. Review of fact sheet for website (handout)
  - b. Discussion of example water banking programs (handout)
- V. Ground/surface water control summary, examples, discussion
- VI. Current data collection/tool development summary update
- VII. Website update
- VIII. Next meeting time and place
- IX. Review of action items
- X. Other
- XI. Adjourn



## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
September 3, 2014, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

In Attendance: Rick Wozniak (LENRD), Larry Angle (LPNNRD), Curt Becker (LENRD), Dustin Wilcox (NARD), Tyler Naprstek (LLNRD), John Petersen (JEO), Brandi Flyn (NDNR), Russ Callan (LLNRD), Dick Ehrman (LPSNRD), Dan Schulz (LPSNRD), Brian Henkel (P-MRNRD), Karen Griffin (Olsson Associates), Simone Rock (HDR), John Engel (HDR), Katie Hatfield Edstrom (HDR), David Kracman (Flatwater)

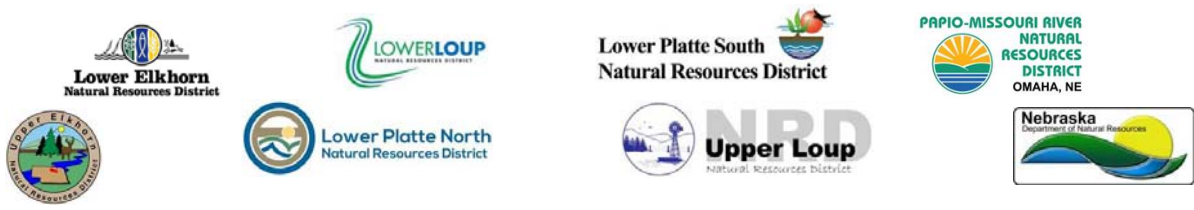
- I. **Introductions** were made and review of ground rules for the meeting was discussed.
- II. **Discussion of draft goals and objectives:** John Engel discussed the review process that the group took part in to provide input on the draft Goals and Objectives document. The Technical Committee was asked to review the table to assure that their input was accurately documented. Next steps with the document is to review with the Management Team in the next meeting, with a primary focus of confirming the interpretation of the goals and objectives to allow the Technical Committee to begin development of action items. Dustin Wilcox noted that generally speaking of the document with several managers, the sentiment was that the Technical Committee should not get “too hung up” on the wording of the goals/objectives.

Data Tables – recommendation to add acre certification to summary table.

- III. **Water Banking:** John Engel and David Kracman presented a 1-page handout that was developed to provide the general public and interested stakeholders and board members with a description of water banking. This document will be posted on the project website. Links to several additional resources on water banking will also be made available.

The Committee discussed the document and agreed that a short preface that clarifies this project activity will focus on assembling information on types, structures, functions, and examples of water banks for the Coalition’s consideration as one potential tool in their water management tool box. No water banking instrument is being implemented at this time. Additional edits to the document include:

- Remove Lower Platte River Basin Water Management Coalition subtitle
- Consider including the word “Current” in the title; Summary of Current Water Banking and adding “in Nebraska”
- Reword the phrase “result in retimed accretions to surface flows” for better public understanding. Review remaining document for ‘over-technical’ terms as well.
- Spell out CNPPID
- Link to Statutes in the table of statutes; consider providing more of a summary for each statute in the table if space permits (prefer to keep it to 1 page).
- Add state statute references to table that entitle NRDs to manage groundwater.
- Make sure that all links are active once made a pdf
- Add a date to document footer



Additionally, David Kracman provided a discussion of existing water banking efforts. Checklist summaries were used and are helpful to use as a framework for comparing different approaches to water banking. David reviewed the Lower Loup NRD and Central Platte NRD water banking systems. Kracman also briefly reviewed the Kern water banking system in California.

Specific questions/discussion:

- How water banks address permanent versus temporary banking (how to calculate depletions for a temporary basis; exemptions to the 2/10 rule for maintaining appropriation)
- Confirm the depletion referenced in transfers is the rate at the end of the 50-yr time period and not cumulative volume.
- How conversions from agricultural use to industrial use are handled (LLNRD assumes 1 acre corn equivalent to 12 inches based on their district NCCIR to provide quantities for this type of transfer)
- Attaching conservation easements to deed to stop out of state investor water development
- Additional staffing costs associated with managing the water bank (transfers)
- LLNRD only allows transfers downstream to protect the surface water appropriations
- Brandi gave examples of Twin Platte NRD & Upper Niobrara as “unofficial” water banks via their transfer system
- Question about current and future ELM model revisions, depletion estimates and if LLNRD will go back and recalculate depletions based on revisions. To date the revised depletion estimates due to revisions have not been significant. In addition the tools are use to provide relative differences in depletion not absolute values.
- Do the water banks allow flexibility to changes in state statute?
- If basin is declared fully appropriated in the future, are banks essentially reset to zero?
- Does water banking need to be consistent across the basin?

#### IV. **Break/lunch**

V. **Groundwater Controls:** John Engel led a discussion on ground and surface water controls in Nebraska, referencing the handout. The handout summarizes the regulatory controls currently employed. The group was asked to provide input regarding the existing voluntary controls in place for each NRD. Specific programs included cost sharing on flow meters. LLNRD mentioned incentives for keeping development out of wellhead protection areas.

Engel presented initial findings of research conducted on controls utilized in Western United States (Kansas, Texas, Wyoming, and California specifically presented). (PowerPoint of research findings). Discussion included:

- Discussion on action triggers based on aquifer condition
- Discussion of merits of “safe yield” concept
- Challenges of multi-year allocation amounts and need for setting 1 year maximum on multi-year pool to prevent “draining” account
- Request to include New Mexico in example of controls
- Question regarding how efficiencies referenced in some controls are measured and are they a positive (water savings) or negative (increased consumptive use)?
- Vegetative growth is referenced in goal/objectives for this effort – has this (riparian consumptive use) been addressed elsewhere?





- VI. **Current data collection/tool development summary update:** The Committee discussed the need to determine what database platform would be appropriate for basin wide planning effort. It was noted that a couple of different database platforms were currently being used by some Coalition member NRDs. The Committee agreed that this would need to be a discussion for an upcoming meeting. DNR hosting the database was discussed. B. Flyr requested information on data space requirements. Discussion of CSD as alternate option for data storage in lieu of DNR as well. HDR to compile information on data size and types for future discussion with the Technical Committee.
- VII. **Website update:** Katie Hatfield Edstrom updated the Committee on the website progress. Due to some IT issues at NDNR, the website was stalled momentarily, but is back on track and well into development. She will inquire again with NDNR early next week to hopefully provide an update at the Management Team meeting on the 12<sup>th</sup>.
- VIII. **Next meeting time and place:** Katie Hatfield Edstrom will send a doodle poll to the Committee for a date and time mid/late October. The meeting will be held at the LLNRD. Russ Callan will send Katie potential dates/times available of LLNRD conference room.
- IX. **Review of action items:**
- a. HDR to check on reference depletion levels for Rick Wozniak
  - b. HDR to add acre certification column to data table
  - c. HDR to remove “volunteer” from the LPNNRD’s Required Water Use Reports column on the data table
  - d. HDR to begin draft of Glossary of Terms for project website.
  - e. HDR to compile information on database requirements.
  - f. Russ Callan to send Katie Hatfield Edstrom potential dates/times for next Tech Committee meeting
  - g. Katie Hatfield Edstrom to send doodle poll to Committee for next meeting
  - h. Change D. Ehrman in ELM (Data Table) reference to Tyler Naprstek
  - i. Kracman/Engel update Water Banking 1-pager; redistribute to Technical Committee for final review before sending to the Management Team
- X. **Adjourn at 1:00 pm**



## AGENDA

### Lower Platte River Basin Water Management Plan Coalition Technical Committee Meeting October 28, 2014, 10:00 to 1:00 P.M. Offices of Lower Loup NRD 2620 Airport Rd, Ord, NE

- I. Introductions
- II. Administrative Items
- III. Discussion of draft goals and objectives
  - a. Discussion of comments/clarifications received from Management Committee at 9/12/2014 meeting
- IV. Action items
  - a. Develop and discuss action items for each objective.
- V. Data Needs (if time permits)
  - a. Data inventory list, responsible parties, and identification of what data to be maintained and updated by Coalition members (e.g. monitoring well data, M&I use, irrigated/certified acres).
  - b. Discuss how data will be housed & accessed.
    - i. Linkages to datasets already maintained (intent not to recreate or house data maintained by others).
    - ii. Format/frequency
    - iii. Provide links to non-spatial data (e.g. studies) by basin for reference.
- VI. Website update
- VII. Next meeting
- VIII. Review of action items from September 3, 2014 meeting/summarize new action items.
  - a. Kracman/Engel update Water Banking 1-pager. **Completed.**
  - b. HDR to begin draft of Glossary of Terms for project website. **Started.**
  - c. Engel to confirm the depletion referenced in transfers is the rate at the end of the 50-yr time period and not cumulative volume. **Will provide update.**
  - d. Request to include New Mexico in example of controls. **Will provide update.**
  - e. Question regarding how efficiencies referenced in some controls are measured and are they a positive (water savings) or negative (increased consumptive use)? **Will provide update.**
  - f. Vegetative growth is referenced in goal/objectives for this effort – has this (riparian consumptive use) been addressed elsewhere? **Will provide update.**
- IX. Other
- X. Adjourn





## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
October 28, 2014, 10:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

In Attendance: Rick Wozniak (LENRD), Larry Angle (LPNNRD), Dennis Schueth(UENRD), Jason Moudry (LLNRD), Dustin Wilcox (NARD), Adam Rupe (JEO), Patrick Hartman (JEO), Russ Callan (LLNRD), Dell Harris (LLNRD), Dick Ehrman (LPSNRD), Dan Schulz (LPSNRD), Brian Henkel (P-MRNRD), Kyle Yrkoski (ULNRD), Simone Rock (HDR), John Engel (HDR), Katie Hatfield Edstrom (HDR)

- I. **Introductions** were made and review of ground rules for the meeting was discussed.
- II. **Discussion of draft goals and objectives:** John Engel led a discussion of the comments/clarifications received by the Management Committee at 9/12/2014 meeting and walked through edits to goals and objectives table.
- III. **Action Items:** John Engel led the group through an interactive discussion and live editing session for developing potential action items for each individual objective. The file that was live edited was sent out in draft form to the technical committee via email on 11/4/2014. These draft action items will be modified in language and redistributed to the group prior to the next meeting.
- IV. **Data Needs:** Time was not permitted to go into detail on this topic. This will be discussed at the next meeting.
- V. **Website Update:** The website is now live and the water banking one-pager will be pushed out to the website by 10/31/2014 barring any edits from the technical committee.
- VI. **Next meeting time and place:** The next meeting will be held at the offices of Lower Elkhorn NRD in Norfolk, NE on December 2, 2014 from 10:00 to 1:00 PM.
- VII. **Adjourn at 1:00 pm**



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
December 2, 2014, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

- I. Introductions
- II. Administrative Items
- III. Fully Appropriated Methodology and INSIGHT database
  - a. Background and methodology approach
  - b. INSIGHT database
  - c. Discussion

*(Focus of the discussion will be on suitability of the methodology and INSIGHT database for use in the LPB plan and as a management tool)*
- IV. Action items
  - a. Review of Action Items developed at October 28, 2014 meeting
- V. Website update
- VI. Next Technical Committee meeting
- VII. Upcoming Meetings
  - a. Management Committee meeting – December 12, 2014 in O’Neill
  - b. Water banking workshop - TBD
- VIII. Other
- IX. Adjourn



## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
December 2, 2014, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

In Attendance: Rick Wozniak (LENRD), Larry Angle (LPNNRD), Dennis Schueth (UENRD), Tylr Naprstek (LLNRD), Dustin Wilcox (NARD), Adam Rupe (JEO), Marsha Hart (UENRD), Russ Callan (LLNRD), Tom Mountford (LPNNRD), Dick Ehrman (LPSNRD), Curt Becker (LENRD), Brian Henkel (P-MRNRD), Kyle Yrkoski (ULNRD), Simone Rock (HDR), John Engel (HDR), Katie Hatfield Edstrom (HDR), Amy Zoller (DNR), Jesse Bradley (DNR)

- I. **Introductions** were made and review of ground rules for the meeting was discussed.
- II. **Fully Appropriated Methodology and INSIGHT database:** Jesse Bradley (DNR) led a presentation and discussion of the DNR's INSIGHT database development, assumptions, data, and its potential applicability to this project. Jesse also presented an example application of the data and methods on a similar planning effort on the Verdigre Creek watershed in the Niobrara River basin. The presentation and link to the INSIGHT database has been posted to the Basin website. Some of the discussion items included:
  - a. Types and estimates of water uses and demands, and the ability to further refine types and spatial definitions of both were discussed.
  - b. Options for spatially refining INSIGHT to a smaller scale are often limited by surface water gages. Approaches for estimating surface water flows to allow more refinement was discussed.
  - c. The groundwater demands can be spatially refined in the modeled areas fairly simply by refining and extracting information from the models in smaller defined zones.
  - d. Groundwater demand considers the hydrologically connected areas to main stem streams - not full basin groundwater demand (see Appendix A of INSIGHT documentation for detailed description).
  - e. Current methodology does not consider use preferences of appropriations (municipal, agricultural, hydropower, etc.), but data is available and could be considered if desired as part of this effort.
  - f. Allocation of downstream use demands to upstream basins and flexibility in applying different approaches was discussed in detail.
  - g. A net non-consumptive use for hydropower and instream flow demands was considered, i.e. recognizing non-consumptive nature of uses and its availability to meet downstream demands as well.
  - h. The scale (basin wide versus target areas) that is desired and which tools or models are appropriate for specific goals was discussed.
  - i. The need to create a hierarchy of best available data or methods for use in estimating supplies and uses was discussed.
  - j. DNR planning tool for estimating depletive effects of uses is under development; DNR will present more information on this tool at next technical committee meeting.
  - k. DNR intends to maintain and update the INSIGHT database every 5 yrs, but will update the water use uses on annual basis, likely coincident with the annual evaluation efforts. As better information, tools, and data become available they will be incorporated.
- III. **Action items:** Time was not permitted to go into detail on this topic. John Engel will send out draft revisions to the action item language to the technical committee for comment. These draft action items will be presented at the next Management Meeting for discussion.
- IV. **Website update:** The website is live and updated. The DNR's INSIGHT presentation will be added to the website as a resource. No further discussion.



**V. Upcoming Meetings:**

- a. Management Committee meeting – December 12, 2014, 11:00 – 1:00pm in O’Neill
- b. Technical Committee meeting – February 2<sup>nd</sup>, 2015, 10:00 – 1:00pm in Ord, NE
- c. Water banking workshop – TBD (March timeframe)

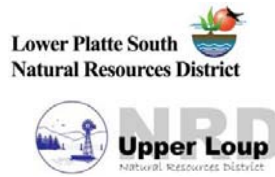
**VI. Adjourn at 1:00 pm**



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
February 10, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

- I. Introductions
- II. Administrative Items
- III. Recap of January 27, 2015 Coalition Board Meeting
- IV. DNR depletion analysis tool
- V. Concept for basin-wide accounting
- VI. Materials for March 10, 2015 Water banking workshop
- VII. Unappropriated Water Analysis
- VIII. Action items
- IX. Next Technical Committee meeting
- X. Upcoming Meetings
  - a. Management Committee meeting – February 19, 2015 in Norfolk
  - b. Water banking workshop – March 10, 2015 1:00 to 3:00
- XI. Other
- XII. Adjourn



## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
February 10, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

In Attendance: S. Rock (HDR), K. Hatfield Edstrom (HDR), D. Kracman (Flatwater), D. Schulz (LPSNRD), M. Hart (UENRD), M. Petermann (PMRNRD), P. Woodward (PMRNRD), L. Angle (LPNNRD), R. Callan (LLNRD), R. Wozniak (LENRD), A. Rupe (JEO), D. Schueth (UENRD), A. Baum (ULNRD), A. Zoller (NDNR), T. Freed (NDNR), J. Wietjes (NDNR), J. Engel (HDR), J. Bradley (NDNR), D. Wilcox (NARD), T. Naprstek (LLNRD)

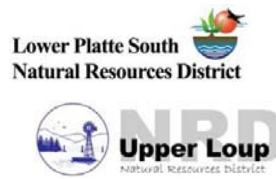
- I. **Introductions** were made and review of ground rules for the meeting was discussed.
- II. **Administrative Items:** John provided an update of changes in the Coalition president and vice-president positions.
- III. **Recap of January 27, 2015 Coalition Board Meeting:** John Engel discussed the presentation at the NARD conference.
- IV. **DNR depletion analysis tool:** Jessie Wietjes with the DNR presented the DNR depletion analysis tool under development as part of the Upper Platte Basin project. DNR anticipates the tool to go live for the Upper Platte basin in the next few months and eventually state wide by the end-of-summer. In addition, the tool will also be used for reporting water transfers to the Department. Jessie explained the inner workings of the tool and indicated that multiple climatic scenarios could be built into the tool.  
  
A question was asked regarding reporting M&I use. Jessie indicated that the reporting component of the tool is not currently set up for M&I reporting but could potentially be set up to include that in the future.
- V. **Materials for March 10, 2015 Water banking workshop:** David Kracman presented a detailed PowerPoint of the history and accepted definition of water banking as well as examples of various kinds of water banking both in Nebraska as well as an example in California. David also discussed a “menu of options” approach for the Water Banking workshop.

Discussion/suggestions for the format of the Water banking workshop included the following:

- a. Focus on the WHY. What is the NEED of each NRD for a water bank? Potential needs include:
  - i. Protect existing uses
  - ii. Establish consistency in accounting
  - iii. Facilitate transfers
  - iv. Prevent fully-appropriated status in the future
  - v. Allow for future development
  - vi. Sustainability in the non-hydrologically connected areas (outside 10/50 area)
- b. Address the types of banks.
  - i. Physical water storage bank (underground storage, reservoir storage, or NCORPE type project).
    - 1) Good for immediate delivery on demand (no lag).
  - ii. ‘Paper’ water - tracking of water conservation efforts –acre retirements; transfers to lower depletion lands; conservation easements; etc. Goals typically long term to offset depletions and protect water supplies.
- c. Both have utility and can be complimentary. Once a consistent accounting method is established and reporting/information sharing of water supplies and uses is initiated by all NRDs in the Basin, individual NRDs can then choose to pursue and manage banks.
- d. Costs for deposits, recharge, transfers, etc. will need to be determined – should not be current focus.
- e. Lessons learned from CPNRD and LLNRD would be helpful.



- VI. **Concept for basin-wide accounting:** John Engel presented a Power Point of a basin wide accounting concept where supplies and demands will be partitioned consistent with the INSIGHT methodology and could be further subdivided down to subbasin level with the goal of defining for each NRD a supply and demand number for management. The technical committee seemed in general supportive of such a concept.
- VII. **Unappropriated Water Analysis:** John Engel presented a Power Point of the components/methodology for calculating excess flow in the Loup, Elkhorn, and Lower Platte basins as well as subbasins. Example plots from the draft results for the North Loup basin were displayed and explained to the technical committee. The analysis is not yet complete for all the subbasins and final results will be provided at a later date.
- VIII. **Action items:** Time did not allow for discussion of this agenda item.
- IX. **Next Technical Committee Meeting:** Katie to send out doodle poll for March 16<sup>th</sup> or week of March 30<sup>th</sup>.
- X. **Upcoming Meetings:**
- a. Management Committee meeting – February 19, 2015 at LENRD offices in Norfolk
  - b. Water banking workshop – March 10, 2015 1:00 to 3:00 p. m. Central Platte Community College, Columbus
- XI. **Adjourn at 1:00 pm**



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
April 2, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

- I. Introductions
- II. Administrative Items
- III. Recap of March 10, 2015 Water Banking Workshop
- IV. Examples of CPNRD/LLNRD water banking accounting
- V. Unappropriated Water Analysis and example
- VI. Concept for basin-wide accounting
- VII. Action items
- VIII. Next Technical Committee meeting
- IX. Upcoming Meetings
  - a. Management Committee meeting – April 28, 2015 in Wahoo
- X. Other
- XI. Adjourn





## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
April 2, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

In Attendance: S. Rock (HDR), D. Schulz (LPSNRD), D. Ehrman (LPSNRD), John Petersen (JEO), M. Hart (UENRD), M. Petermann (PMRNRD), P. Woodward (PMRNRD), L. Angle (LPNNRD), R. Callan (LLNRD), D. Schueth (UENRD), A. Baum (ULNRD) (by telephone), T. Freed (NDNR), J. Engel (HDR), D. Wilcox (NARD), T. Naprstek (LLNRD), Curt Becker (LENRD)

- I. **Introductions** were made and review of ground rules for the meeting was discussed.
- II. **Administrative Items:**
- III. **Recap of March 10, 2015 Water Banking Workshop:** John provided a recap of the first Water Banking Workshop. There were approximately 60-70 people in attendance. The next water banking workshop is anticipated to occur at the end of May or early June.
- IV. **Examples of CPNRD/LLNRD water banking accounting:** John went through the portion of the presentation given at the Water Banking Workshop related to the CPNRD/LLNRD water banking examples. John also went through a brief presentation on accounting in the Republican basin. Discussion from the technical committee included:
  - a. How did the CPNRD come to the \$8,000/AF figure?
  - b. How to account for banked acres? (Russ indicated that Jesse Bradley is looking into this).
  - c. John referenced presentation given by David McAdams of Duke University to PRRIP Governance Committee. The DNR is working with McAdams to develop options for a water market structure.
  - d. The Republican basin is set up for allowable depletions by basin and basins can trade depletions.
  - e. Currently NDNR has no way to administer passive recharge to a river once it reaches the river.
  - f. Some discussion on how to monitor Streamflow and the need for more stream gages.
- V. **Unappropriated Water Analysis and example:** John walked the technical committee through the Excess Flow spreadsheet, the revised methodology for upstream basins, and how to read the plots for the quantity and number of days excess flow. John walked through a sample linear recharge project on Sargent canal using the ELM SDF grid, AWAS, and the available excess flows. Discussion from the presentation included the following:
  - a. Would it be better to call the project “accretion” and not “recharge” project?
  - b. Could incorporate a 3-day or 7-day consecutive flow constraint into the excess flow to have a better idea of how reliable flows.



- c. Middle Loup, why are the flows post-2008 so much greater? Is it something with the gage itself or the number of days excess flow was available due to operations either at Genoa or on the Platte itself.
- d. Not all water is new water. Look into discounting (TPNRD example).
- e. Is Sargent a federal project?
- f. Sargent canal water can be diverted to Semler dam for storage.
- g. Should trim back dates of available excess flow due to ice. Irrigation season runs Apr 15 – Sept 15.
- h. Would be beneficial to look into benefit of retiming of water and create a \$/AF similar to TPNRD example.

JEO presented the group with a draft matrix for ranking potential recharge projects. LLNRD posed some questions on the need and applicability of using a matrix such as the one that was presented. LPNNRD and LPSNRD had some discussion on the use of non-hydrologically connected water in bedrock. LPSNRD discussed using recharge in their special management areas as a way of maintaining water surface elevations.

VI. **Concept for basin-wide accounting:** Time did not allow for discussion of this agenda item.

VII. **Action items:**

- a. HDR to work up TM on basin-wide accounting for distribution to the technical committee prior to the next meeting.

VIII. **Next Technical Committee Meeting:** John to send out Doodle Poll for May 12 – May 15; Next meeting at LLNRD (Ord) on May 12, 2015.

IX. **Upcoming Meetings:**

- a. Management Committee meeting – April 28, 2015 at LPSNRD (Lincoln); 1:30 – 3:30 (time and location changed due to water sustainability funding rules public hearing).
- b. Water Banking Workshop #2 – TBD (End of May/early June)

X. **Adjourn at 1:00 pm**



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
May 12, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

- I. Introductions
- II. Administrative Items
- III. Recap of April 28, 2015 Management Committee Meeting and Discussions (handout)
- IV. Basinwide Accounting Concept
  - a. INSIGHT and benefits of using it as a basis
  - b. Supply and Demand Methodology in INSIGHT
  - c. Options for estimating allowable future consumptive uses
  - d. Management and implementation at NRD level
- V. Anticipated topics to cover at second water banking workshop
  - a. Review the purpose of the Coalition - review of what Coalition is and what it is not.
  - b. Review and discuss the goals of water banking
  - c. Discuss concept for a common basin accounting method to quantify supplies and demands by basin/ NRD
  - d. Discuss estimating the amount of “excess supply” or “allowable future development” by basin/NRD
  - e. Discuss how this would be used as a baseline by each NRD going forward under the basinwide plan.
  - f. Implementation/water management by each NRD based on items (c) through (e) (Framework agreed to at Coalition level – implementation at NRD level)
- VI. Goals/Objectives/Action Items – refining and detail (adding measurable and timing elements to current goals and objectives)
- VII. Next Technical Committee meeting
- VIII. Upcoming Meetings
  - a. Management Committee meeting – June 3, 2015 at MRNRD in Curtis, NE to immediately follow the NARD Manager’s meeting (tentatively 4:00 PM to 6:00 PM)
  - b. Water banking workshop II – June 18, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- IX. Other
- X. Adjourn



## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
May 12, 2015, 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), D. Kracman (TFG), P. Woodward (PMRNRD), M. Petermann (PMRNRD), A. Baum (ULNRD), D. Wilcox (NARD), D. Harris (LLNRD), R. Wozniak (LENRD), R. Callan (LLNRD), B. Koehlmoos (LLNRD), L. Angle (LPNNRD), A. Zoller (NDNR), M. Hart (UENRD), T. Naprstek (LLNRD), D. Schulz (LPSNRD), D. Ehrman (LPSNRD), J. Schellpeper (NDNR – via telephone)

### I. **Introductions**

### II. **Administrative Items**

### III. **Recap of April 28, 2015 Management Committee Meeting (handout)**

- a. Item II, (c) from meeting summary: Make statement less firm. Coalition could act as a bookkeeper. NDNR could also act as bookkeeper.
  - i. Example: wetland banks and USACE oversight
  - ii. Example: DNR acts as bookkeeper for Republican basin
  - iii. DNR acts as bookkeeper/provides oversight for Upper Platte basin
  - iv. Discussion on structuring checks/balances so not just deals between NRDs; some oversight needs to be built into plan;
  - v. Possible annual reporting
  - vi. Suggestion that projects need to meet a set of goals or criteria in order to qualify for “approval”.
    - 1) Example: USACE wetland mitigation bank rules
      - a. Only use transfer as “last resort”. Can’t minimize impact or offset impact locally; must demonstrate need, etc.
      - b. Possible project oversight for first 5 years.
- b. Item V, (a) (i): Change ‘Isolated’ aquifer to ‘local aquifer’ or ‘tributary aquifer’
- c. Item V, (a) (iv): LENRD notes they are looking at canals for recharge/retiming.
- d. Item V, (a) (i): Discussions included the following:
  - i. Some question on how the Valparaiso project benefits the entire basin.
  - ii. Would water come from surface water diversion?
  - iii. Is this offsetting future demands or satisfying immediate need?
  - iv. Where does recharge come from now?
  - v. Noted that area crosses 3 NRD boundaries.
- e. Item V, (a) (iv): Some discussion on looking into reach-gain-loss to see if water can reach the lower Platte basin in drought scenario.
- f. Item V, (a) (iii): Check into USACE Skull Creek for reservoir site nearer to Lower Platte as potential project

### IV. **Basinwide Accounting Concept**

- a. INSIGHT and benefits of using it as a basis
- b. Supply and Demand Methodology in INSIGHT
- c. Options for estimating allowable future consumptive uses



- i. Ideas included “Manage to the average, Plan for the drought” (Republican)
  - ii. How to define a “dry” or “water short” year
  - iii. Pull 2002 – 2005 data to compare to 25-year average
  - iv. Base % reduction of allowable use on ratio of high-to-low years
  - v. How to deal with average rainfall changes (seasonality/ intensity)?
  - vi. Look at peak rainfall events & snowpack for trends (Look at UNL Climate Study)
- d. Management and implementation at NRD level

V. **Anticipated topics to cover at second water banking workshop**

Time did not permit for this agenda item.

VI. **Goals/Objectives/Action Items**

Time did not permit for this agenda item.

VII. **Action items:** Technical committee members assigned “homework” to send goals of a water bank

VIII. **Next Technical Committee Meeting:** HDR to send out Doodle Poll once June 18<sup>th</sup> water banking workshop confirmed. Possible conference for next meeting.

IX. **Upcoming Meetings**

- a. Management Committee meeting – June 3, 2015 at MRNRD in Curtis, NE to immediately follow the NARD Manager’s meeting (tentatively 4:00 PM to 6:00 PM)
- b. Water banking workshop II – Tentatively June 18, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM

X. **Adjourn at 1:00 pm**



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
June 18, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

- I. Introductions and Administrative Items
- II. Recap of June 3, 2015 Management Committee Meeting and Discussions (handout)
- III. Basinwide Accounting Concept
  - a. Accounting fundamentals/tie to fully appropriated basin methodology
  - b. Current status/estimates of supplies and uses for Lower Platte/Loup/Elkhorn basins
  - c. Approaches for accounting/monitoring
    - i. Water supply scenario for allowable additional use
    - ii. % of allowable additional use to allow over next 5 years
  - d. Example project accounting
- IV. Goals/Objectives/Action Items – refining and detail (adding measurable and timing elements to current goals and objectives)
- V. Anticipated topics to cover at second water banking workshop
  - a. Review the purpose of the Coalition - review of what Coalition is and what it is not.
  - b. Review and discuss the goals of water banking
  - c. Discuss concept for a common basin accounting method to quantify supplies and demands by basin/ NRD
  - d. Discuss estimating the amount of “excess supply” or “allowable future development” by basin/NRD
  - e. Discuss how this would be used as a baseline by each NRD going forward under the basinwide plan.
  - f. Implementation/water management by each NRD based on items (c) through (e) (Framework agreed to at Coalition level – implementation at NRD level)
- VI. Next Technical Committee meeting
- VII. Upcoming Meetings
  - a. Management Committee meeting – July 7, 2015 in Kearney, 10:00 to 12:00, exact location TBD
  - b. Water banking workshop II – Monday July 20, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- VIII. Other
- IX. Adjourn





## DRAFT SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
June 18, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

In Attendance: S. Rock (HDR), A. Rupe (JEO), J. Engel (HDR), P. Woodward (PMRNRD), M. Petermann (PMRNRD), D. Wilcox (NARD), R. Wozniak (LENRD), R. Callan (LLNRD), L. Angle (LPNNRD), M. Hart (UENRD), T. Naprstek (LLNRD), T. Freed (NDNR), D. Ehrman (LPSNRD), C. Becker (LENRD), Brian Bruckner (LENRD)

### I. **Introductions & Administrative Items**

### II. **Recap of June 3, 2015 Management Committee Meeting (handout)**

### III. **Basinwide Accounting Concept** - John Engel led the group through a discussion of the Basinwide Accounting to date. PowerPoint highlighted how the methodology would apply to the Elkhorn basin as well as a sample retiming project in the Loup Basin. Discussion items included the following:

- a. **Water supply scenario for allowable additional use.** Discussion included 25YR Average (consistent with INSIGHT), 2002 – 2005 Drought Average, and an alternative to the Instream Flow (80% Streamflow at Louisville)
  - i. PowerPoint over Nebraska Revised Statutes, Section 46-713 and how the law is written regarding Instream Flow Demands. Discussion on how this calculation is performed with regard to accounting for 1993 GWCU demands and how this reduces the Instream Flow Demand applied to the basin.
  - ii. Maximizes basin excess supply because DNR methods result in applying a smaller demand on the basin than the full Instream Flow Demand in the FAB Analysis. Could lead to an artificially inflated “Excess Supply”.
  - iii. Looked at what would happen if limited development to only allowing a 20% reduction in streamflow at Louisville gage. For this alternative, this limitation replaces the Instream Flow demand in the calculations. Explained that this was more conservative and could be used as part of the basin accounting instead of the Instream Flow Demand for Basinwide Plan.
  - iv. Distributed comparison plots of the 3 supply estimate alternatives investigated (25 YR Avg, 2002 – 2005 Drought Avg, and 80% Streamflow at Louisville). Results showed the drought period to be very conservative and the Instream Flow demand alternative to be the least conservative with the 80% Streamflow in-between the other 2 alternatives.
  - v. Results indicate that if Instream Flow Demand is used to determine “Excess Supply”, and that full “Excess Supply” was developed, then streamflow at Louisville could be depleted beyond 20%.
  - vi. Further Discussion Items included:
    - 1) What is the technical basis for choosing one alternative over the other?



- 2) 20% reduction in Streamflow at Louisville is arbitrary. Why not 15% or 30%? Is there a physical basis?
- 3) Desire to err on the conservative side. Don't want to allow development and then turn-around and tell producers to shut off wells or other forms of regulation.
- 4) The Technical Committee proposes for Management Committee to utilize the 20% reduction in Streamflow at Louisville supply estimate alternative (Annual, 25YR AVG) to determine the Supply, Demands, and "Excess" for the Basinwide Accounting, with a check on the Peak Season to make sure new development does not exceed Peak Season supplies. Address drought by utilizing drought management plans.

b. **% of allowable additional use to allow over next 5 years.** Direction from Management Committee was to determine a % of the "Excess Supply" to develop over the next 5 years.

- i. Some members expressed concern that setting a limit on development on each NRD could be tough sell.
- ii. Members of Management Committee in attendance expressed that a recommendation on a reasonable limit is what was proposed and desired by Management Committee for consideration.
- iii. How would transfers be handled in Basin Accounting? What needs to be reported, in what format, and how often? Needs to build into Plan.
- iv. Would water transfers from an upper basin through a lower basin artificially increase Streamflow in the record? Could this lead to an artificially increase in BWS for a lower basin which is just leasing water from an upper basin?

c. **Example project accounting – Sargent Canal on Middle Loup.** John led group through expanded example of Sargent Canal retiming project and how retimed flows to the Peak Season can be used to increase Peak Season Supply.

- i. Discussion on if the % limit on development should include this water created by projects or if this would be available for 100% development on-top of the % "Allowable Use".

IV. **Goals/Objectives/Action Items – refining and detail (adding measurable and timing elements to current goals and objectives).** Adam Rupe led the group through a discussion of SMART/measurable goals and the possible need to incorporate into the existing draft set of Goals & Objectives. Some discussion on which goals this would be appropriate for. Due to time constraints, HDR will work with JEO on incorporating SMART/Measurable goals and distribute to Tech Committee for review.

V. **Anticipated topics to cover at second water banking workshop**

- a. Review the purpose of the Coalition - review of what Coalition is and what it is not.
- b. Review and discuss the goals of water banking
- c. Discuss concept for a common basin accounting method to quantify supplies and demands by basin/ NRD
- d. Discuss estimating the amount of "excess supply" or "allowable future development" by basin/NRD and how water banking activities are accounted for.





- i. Some concern of using the word “Excess Supply” without further clarification to what this means. Need to be very clear with the Coalition or this may be interpreted as fully available. Not all acres created equal.
- ii. Some concern of using the term “Allowable Future Development”. Consider changing term to be more reflective of what Basin Accounting is doing. Purpose of determining the “Excess Supply” is to determine that amount of water that may potentially be utilized and still stay out of a “Fully Appropriated” status.
- iii. Explain better that the % limit is suggested to build in a “factor-of-safety” while testing the Basin Accounting methodology. Could change the period-of-analysis in the 5-year update which could change the “Excess Supply” number. This % provides some conservatism.
- iv. Need to bring it all back to Fully Appropriated. Purpose of this is to explain where each NRD is with regard to FA status and help them stay out of FA status.
- e. Need to walk Coalition through a full example of how a transfer or project would work within the Basin Accounting.

**VI. Action items:**

- a. HDR to send Technical Committee summary of Basin Accounting period-of-analysis recommendation.
- b. HDR to work with JEO on incorporating SMART/Measureable goals into existing draft set of Goals & Objectives.
- c. HDR/TFG to send out Water Banking Materials to Tech Committee by July 13<sup>th</sup> for review of material/semantics.
- d. HDR to send out Draft Plan (Sections 1-3) to group for review prior to August Tech Committee Mtg.
- e. HDR to send out TM on Controls, Excess Flow, and Basin Accounting to group prior to August Tech Committee Mtg.

**VII. Next Technical Committee Meeting:** HDR to send out Doodle Poll for August 11<sup>th</sup> through August 14<sup>th</sup>. Location will be Ord.

**VIII. Upcoming Meetings**

- a. Management Committee meeting – July 7, 2015 in Kearney, 10:00 to 12:00, exact location TBD
- b. Water banking workshop II – Monday July 20, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM

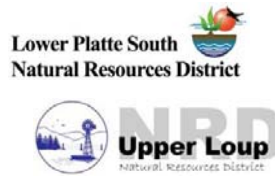
**IX. Adjourn at 1:00 pm**



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
August 11, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Loup NRD  
2620 Airport Rd, Ord, NE**

- I. Introductions/Administrative Items
- II. Recap of July 7, 2015 Management Committee Meeting
- III. Recap of July 20, 2015 Water Banking Workshop #2
- IV. Basinwide Accounting Concept
  - a. Review of recommendation
  - b. Comments received:
    - i. Inclusion of Loup Power demand
    - ii. Limit peak to July-August
- V. Conjunctive Management Project evaluations update
- VI. Water banking workshop #3 (handout)
- VII. Goals/Objectives/Action Items – refining and detail - adding measurable and timing elements to current goals and objectives (handout)
- VIII. Next Technical Committee meeting
- IX. Upcoming Meetings
  - a. Management Committee meeting – September 1, 2015 at LLNRD in Ord, NE (11:00 - 1:00)
  - b. Water banking workshop #3 – TBD
- X. Other
- XI. Adjourn



## DRAFT SUMMARY

### Lower Platte River Basin Water Management Plan Coalition

#### Technical Committee Meeting

August 11, 2015, 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), D. Kracman (TFG), P. Woodward (PMRNRD), M. Petermann (PMRNRD), D. Wilcox (NARD), M. Sousek (LENRD), R. Wozniak (LENRD), C. Becker (LENRD), R. Callan (LLNRD), L. Angle (LPNNRD), J. Schellpeper (NDNR), T. Freed (NDNR), D. Ehrman (LPSNRD)

#### I. Introductions & Administrative Items

#### II. Recap of July 7, 2015 Management Committee Meeting

#### III. Recap of July 20, 2015 Water Banking Workshop #2

#### IV. Basinwide Accounting Concept

a. Review of recommendation made to Management Committee.

b. Comments received:

i. Inclusion of Loup Power demand – discussion of effects on both the Loup basin and the Lower Platte reaches of including the Loup Power District demands in the excess flow analysis.

1) HDR followed up with DNR after the meeting and the hydropower data in INSIGHT is already reflecting the streamflow cap at Loup at Genoa + Loup Canal at Genoa + Loup basin GW depletion. Will distribute this upstream as a demand and downstream as a required inflow.

Hydropower scenario should be complete by next Management Committee meeting.

2) Russ shared concern of applying hydropower demand at all; theoretically full demand could be consumptively used before leaving basin if agreements are worked out. Discussion regarding ‘bookends’ – without hydropower analysis minimizes required inflows into Lower Platte reach; with hydropower maximizes required inflow term into Lower Platte reach.

3) HDR to update demand comparison plot to include hydropower.

ii. Limit peak to July-August.

1) HDR followed up with DNR after the meeting and DNR can tentatively provide the subset for the July-August timeframe by September 4<sup>th</sup> – barring any setbacks. Results will be provided to Technical Committee at next meeting.

V. **Conjunctive Management Project evaluations update.** Sargent Canal Fact Sheet shared with group. Edits to include adding location map and distributing to group. Battle Creek Fact Sheet under development.

VI. **Water banking workshop #3 (handout).** John led the group in a discussion of potential format/topics for the 3<sup>rd</sup> Water Banking Workshop. It is the recommendation of the technical committee to meet with the Loup, Lower Platte, and Elkhorn subbasins individually to discuss



existing infrastructure and potential projects prior to 3<sup>rd</sup> Water Banking Workshop in order to target discussions and maximize involvement of individual NRDs.

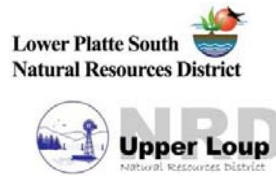
VII. **Goals/Objectives/Action Items** – refining and detail - adding measurable and timing elements to current goals and objectives (handout). Handout provided to all in attendance highlighting wording changes to include SMART goals. Suggestion to replace “will be used for DNR’s FAB analysis” with “provided to DNR” for Goal 1, Obj. 2 and Goal 2, Obj. 2. Technical committee to review and provide any other suggestions or comments directly to the team.

VIII. Upcoming Meetings

- a. Management Committee meeting – September 1, 2015 at LLNRD in Ord, NE (11:00 - 1:00)
- b. Water banking workshop #3 – TBD
- c. Technical Committee meeting – October 7, 2015 at LENRD in Norfolk, NE (10:00 – 1:00)

IX. Other

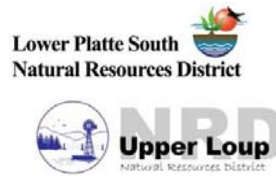
X. Adjourn



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
October 6, 2015, 10:00 to 1:00 P.M.  
Offices of Lower Elkhorn NRD  
601 E. Benjamin Ave., Suite 101, Norfolk, NE**

- I. Introductions and Administrative Items
- II. Recap of September 9, 2015 Management Committee Meeting and Discussions (handout)
- III. Conjunctive Management Project Update
- IV. Sub-basin Workshop Meeting format and material review
  - a) Brief background presentation on subbasin supplies, uses, and available supplies for future development. This would be a brief summary presentation.
  - b) District/Subbasin purposes of water bank/conjunctive management projects – Facilitated participation
  - c) Opportunities and types of water bank/CM projects to meet District/subbasin goals. – Facilitated participation
  - d) Inventory of basin resources – (when and where supplies and uses are, existing infrastructure, etc.) – Facilitated participation
  - e) Discussion of goals/opportunities for the Lower Platte River basin as a whole. – Facilitated participation
- V. Discussion on the basinwide accounting concept/allowable development and implementation
- VI. Next Technical Committee meeting/deliverable review/project completion
- VII. Upcoming Meetings
  - a. Management Committee meeting – November 4, 2015 in Beatrice, 3:30 to 5:30, exact location TBD
  - b. Water banking subbasin workshops:
    - i. LPNNRD, LPSNRD, PMRNRD - Wednesday, October 14, 12:00 – 3:00; Mahoney State Park
    - ii. LENRD, UENRD – Monday, October 19, 2:00 – 5:00; Offices of Lower Elkhorn NRD
    - iii. LLNRD, ULNRD – Wednesday, October 21, 3:00 – 6:00; Offices of Lower Loup NRD
  - c. Water banking workshop III – Tuesday, November 17, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- VIII. Other
- IX. Adjourn

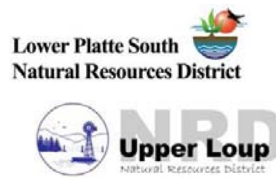


## SUMMARY

**Lower Platte River Basin Water Management Plan Coalition  
Technical Committee Meeting  
October 7, 2015  
10:00 a.m. to 1:00 p.m.  
Office of Lower Elkhorn NRD  
Norfolk, NE**

In Attendance: S. Rock (HDR), A. Rupe (JEO), J. Engel (HDR), D. Kracman (TFG), P. Woodward (PMRNRD), M. Petermann (PMRNRD), D. Wilcox (NARD), M. Sousek (LENRD), L. Angle (LPNNRD), T. Freed (NDNR), D. Ehrman (LPSNRD), D. Schulz (LPSNRD), A. Baum (ULNRD), B. Bruckner (LENRD)

- I. **Recap of September 9, 2015 Management Committee Meeting and Discussions (handout)**
- II. **Conjunctive Management Project Update.** Three of the five example conjunctive management projects have been completed to date (Sargent Canal recharge, Skull Creek, Dwight-Valparaiso-Brainard recharge). Sherman Reservoir and a NCORPE style augmentation project are in-process.
- III. **Sub-basin Workshop Meeting format and material review.** John Engel led the group on a facilitated discussion on the format of the subbasin workshops and what each group would like to get out of the meetings. Items of discussion included the following:
  - a. Brief background presentation on subbasin supplies, uses, and available supplies for future development. This would be a brief summary presentation.
  - b. District/Subbasin purposes of water bank/conjunctive management projects – Facilitated participation
  - c. Opportunities and types of water bank/CM projects to meet District/subbasin goals. – Facilitated participation
  - d. Inventory of basin resources – (when and where supplies and uses are, existing infrastructure, etc.) – Facilitated participation
  - e. Discussion of goals/opportunities for the Lower Platte River basin as a whole. – Facilitated participation
- IV. **Discussion on the basin wide accounting concept/allowable development and implementation.** John Engel led the group in a facilitated discussion on the perception of the members (and respective boards) on how prescriptive the plan should be in its recommendations. Consensus was to bring forward at subbasin workshops and at Water banking Workshop #3 for further discussion.
- V. **Next Technical Committee meeting/deliverable review/project completion.**
  - a. The next technical committee meeting will be held at the LLNRD in Ord on Tuesday, December 1, 2015 from 10:00 to 1:00.
  - b. It is anticipated that the draft of the Plan will be available in early December for review/comments.



VI. **Upcoming Meetings**

- a. Management Committee meeting – November 4, 2015 in Beatrice, 3:30 to 5:30, exact location TBD
- b. Water banking workshop III – Tuesday, November 17, 2015 at Platte College in Columbus, NE; 11:00 AM to 1:00 PM
- c. Technical Committee meeting – Tuesday, December 1, 2015 in Ord, 10:00 to 1:00.

VII. **Other**

VIII. **Adjourn**





## AGENDA

**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**

- I. Introductions/Administrative Items
- II. Brief Review of Methodology for Basin Accounting
  - a. Demand Scenarios: 80%, Hydropower, Instream Flow Demands
  - b. Snapshot of what has been covered and where we left off.
- III. Summary of changes to INSIGHT
- IV. Updated Basin Accounting with Changes
  - a. Comparison to previous accounting results
- V. Path Forward
  - a. Purpose/role of basin accounting in Basin Planning (big picture).
    - i. What does this accounting tell us?
    - ii. How do we want to use this information when planning?
    - iii. These don't necessarily have to be the same.
  - b. Possible use of an alternate demand scenario?
  - c. Possible use of an alternate distribution of "excess supply" among NRDs?
- VI. Upcoming Schedule
  - a. Management Committee Meeting – May/June?
  - b. Draft Report tentative by May 31 to Technical Committee
  - c. Draft Plan tentative by June 15
- VII. Other
- VIII. Adjourn





## 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	-	-	-

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:

- What % of streamflow at Louisville corresponds to the full instream flow demand (not capped to historic streamflow or adjustment to reflect 1993 GWCU)
- What % of streamflow at Louisville corresponds to zeroing out the excess supply in the basin?
- How does varying % of streamflow at Louisville correlate to excess flow in the subbasin level?
- 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**

Lower Platte River Basin  
Draft Basin Water Management Plan  
Water Banking Workshops

## **DRAFT AGENDA**

**Lower Platte River Basin Water Management Plan Coalition  
WATER BANKING WORKSHOP #1  
March 3, 2015, 1:00 – 3:00 P.M.  
Central Community College – Platte Campus  
Room 205 West Education Center  
Columbus, NE**

- I. Introductions
- II. Water Banking Background Information
- III. Accounting/Credit Examples
- IV. CPNRD/LLNRD Water Banking experiences
- V. Questions
- VI. Adjourn



## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
WATER BANKING WORKSHOP #2  
July 20, 2015, 11:00 – 1:00 P.M.  
Central Community College – Platte Campus  
Room 205 West Education Center  
Columbus, NE**

- I. Recap (11:00 – 11:10)
- II. Basin-wide Accounting Concept (11:10 – 11:50)  
- Q/A (11:50 – 12:00)
- III. Break (12:00 – 12:05)
- IV. Examples of Basin-wide Accounting (12:05 – 12:35)  
- Q/A (12:35 – 12:45)
- V. Next Steps (12:45 – 12:50)
- VI. Other Discussion (12:50 – 1:00)
- VII. Adjourn at 1:00 pm





July 20, 2015 – Lower Platte Basin Water Management Plan Coalition  
 Water Banking Workshop 2  
 Columbus, NE

Name	Affiliation	Email/phone
Bob Haligey	LPNNRD	
Butch Koelmer	CLNRD	
Marlin Petermann	PMNRD	
Rich Tesar	PMNRD	
John Winkler	PMNRD	
Jim Thompson	PMNRD	
Dennis Schueth	USNRD	
Paul Woodward	PMNRD	
Bobbie Christensen	ULNRD	
Dustin Wilcox	NARD	
Jane Ruzicka	LPNNRD	
Larry Angle	LPNNRD	
John Myrski	LPNNRD	
Chris Carlson	LENRD	
Carl Becker	LENRD	
Russ Gellera	LLNRD	
Debbie Schutte	LENRD	
Clint Johannes	LPNNRD	
Dannye Kluthe	LENRD	
Cliff Loseke	LNNRD	
Adam Ryan	SEO	
Karen Amen	LPSNRD	





Lower Platte North  
Natural Resources District

Lower Platte South  
Natural Resources District



Upper Loup  
Natural Resources District



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Glenn Johnson	"	gjohnson@lpsnrd.org
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Bruce Johnson	"	bjohnson2@unl.edu
Vern Barrett	"	
Tim Freed	DNR	tim.freed@nebraska.gov







Lower Platte North  
Natural Resources District

Lower Platte South  
Natural Resources District



Upper Loup  
Natural Resources District

PAPIO-MISSOURI RIVER  
NATURAL  
RESOURCES  
DISTRICT  
OMAHA, NE



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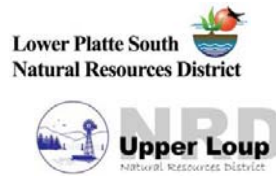
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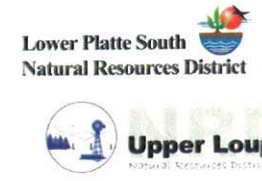


## AGENDA

**Lower Platte River Basin Water Management Plan Coalition  
WATER BANKING WORKSHOP #3  
November 17, 2015, 11:00 – 1:00 P.M.  
Central Community College – Platte Campus  
Room 205 West Education Center  
Columbus, NE**

Meeting Objective: To provide feedback and summarize the subbasin workshop meetings for the group, as well as provide additional information and examples of how several types of water banking arrangements could be structured in the Lower Platte Basin.

- I. Subbasin Workshop Meetings Recap (11:00 – 11:15)
- II. Inter-subbasin/ Inter-NRD opportunities and examples for water banking (11:15 – 12:00)
- III. Break (12:00 – 12:05)
- IV. Basin-wide Accounting (12:05 – 12:35)
  - Loup Hydropower Effects
  - Allowable development approaches over the next 5 years
- V. Next Steps (12:35 – 12:50)
  - a. Elements of completed plan
- VI. Public Comment/Other Discussion (12:50 – 1:00)
- VII. Adjourn at 1:00 pm



**Lower Platte River Basin Water Management Plan Coalition**  
**WATER BANKING WORKSHOP #3**  
**November 17, 2015, 11:00 – 1:00 P.M.**  
**Central Community College – Platte Campus**  
**Room 205 West Education Center**  
**Columbus, NE**

Name	Affiliation	Email/phone
Tyler Naprstek	LLNRD	tnaprstek@llnrd.org
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