



LOWER PLATTE SOUTH natural resources district

3125 Portia Street | P.O. Box 83581 • Lincoln, Nebraska 68501-3581
P: 402.476.2729 • F: 402.476.6454 | www.lpsnrd.org

Memorandum

TO: Board of Directors
DATE: January 14, 2022
FROM: David Potter, Assistant General Manager 
SUBJECT: Integrated Management Subcommittee Information

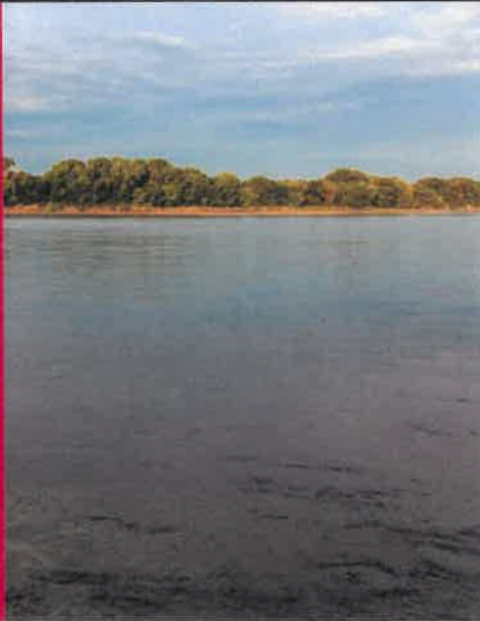
The Integrated Management Subcommittee did not meet prior to the board meeting but does have one item on the agenda for discussion. Since the item pertaining to the Lower Platte Basin Coalition will involve a discussion on the second increment by the entire Board and does not require action at this time, it was suggested by subcommittee chair Chelsea Johnson to have John Engel with HDR present information on the item one time instead of twice.

In 2009, LPSNRD adopted rules and regulations for the management of ground and surface water in what is known as the hydrologically connected area (HCA). The HCA was delineated by the Nebraska Department of Natural Resources (NeDNR) based upon the likelihood of hydrologic connection between surface water and shallow ground water. For LPSNRD, this area consists of all or parts of about 70 sections along both sides of Salt Creek roughly between Waverly and Ashland, and then along the south side of the Platte River from Ashland to Plattsmouth.

As a natural extension of the above activities, LPSNRD developed its voluntary Integrated Management Plan (IMP) in conjunction with NeDNR. Following approval by both LPSNRD and NeDNR, the IMP became effective on May 15, 2014. As part of the effort toward a more comprehensive management strategy, LPSNRD joined six other NRDs (LLNRD, LPNDRD, LENRD, PMRNRD, ULNRD and UENRD) and NeDNR to form the Lower Platte River Basin Coalition (Coalition) to jointly develop a water management plan for the entire Lower Platte River basin. The intent of the basin-wide plan is to inform and provide consistency for the individual NRD IMPs. As of early 2018, all seven participating NRD Boards and NDNR had approved the Interlocal Agreement that continues the Coalition and adopted the first five-year (increment) plan. Directors Jacobson and Hellerich are the LPSNRD representatives on the Coalition.

The first five-year increment allowable depletion period/plan is coming to an end and we need to look at the second five-year increment. John Engel will provide information on the first increment and the method of dividing up excess water development in the Platte among the NRDs, identify the benefits of the plan, what is proposed for the second increment, and answer any questions the Board may have. He will be presenting the attached power point.

Based on Board feedback from the participating NRDs, the second increment plan update and recommendations will be finalized and approved by the Coalition Board in April, then each NRD Board will consider the Interlocal Agreement and Second Increment Plan for approval.



Lower Platte Basin-Wide Management Plan Update Lower Platte South NRD Meeting

January 19, 2022



© 2014 HDR, Inc., all rights reserved..



1

**Background Information on
Coalition and Plan**

2

**Plan update recommendations for
the 2nd Increment**

3

Next Steps

1. Background information on Coalition and Plan

Membership

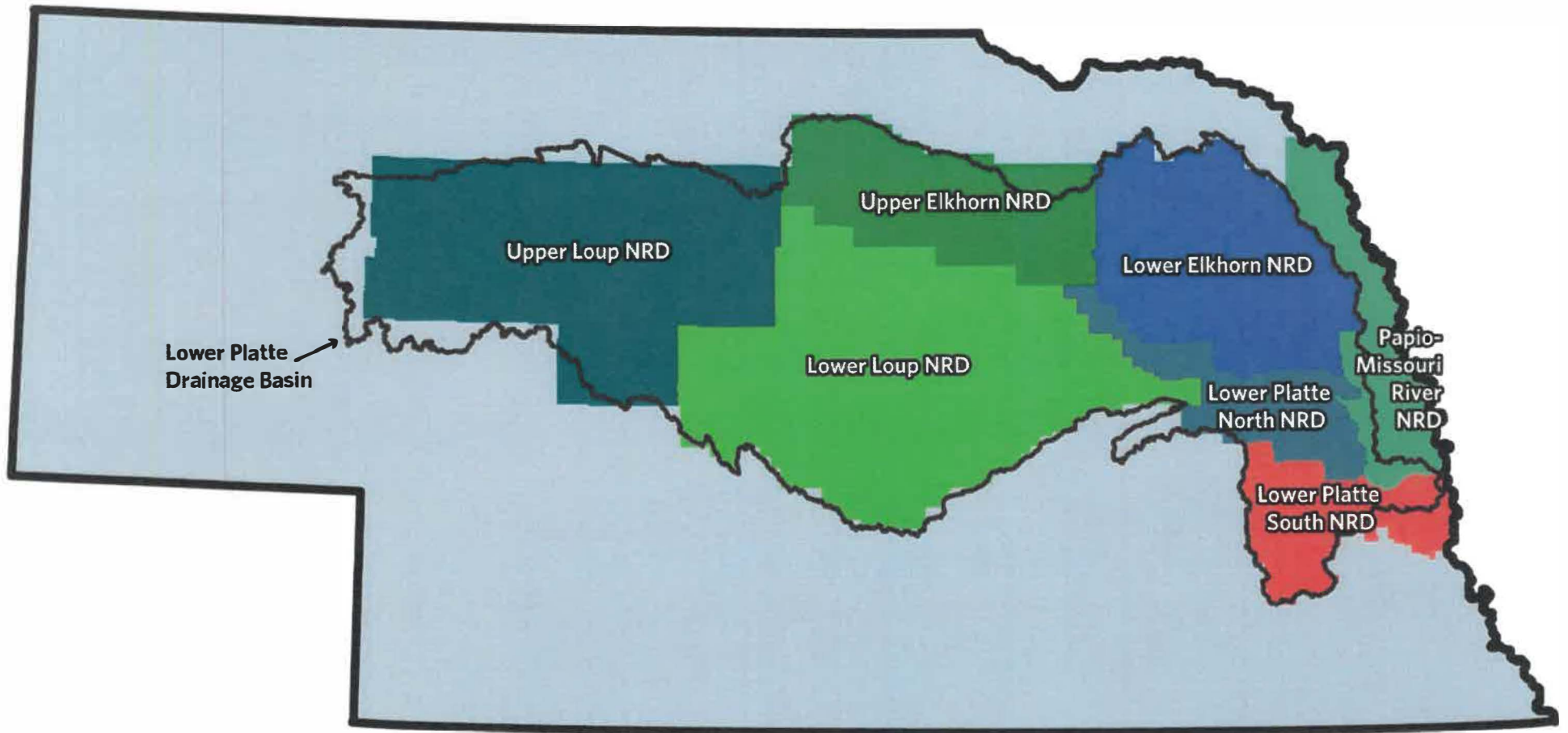


NDNR, NARD, and 7 member NRDs:

- Lower Loup NRD (Lead party for Coalition; contracting member on behalf of Coalition)
- Lower Platte North NRD
- Lower Platte South NRD
- Lower Elkhorn NRD
- Papio-Missouri River NRD
- Upper Loup NRD
- Upper Elkhorn NRD



Membership



Purpose of Project / Plan Goals

- Develop and maintain a **water supply and use inventory** based on the best available data and analysis.
- Collectively develop a water management plan for the Lower Platte Basin that **maintains a balance between current and future water supplies and demands.**
- 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.**

Basin-wide plan intent is to inform and provide consistency for the individual NRD Integrated Management Plans (IMPs)

Plan Recommendations

- Track and account for uses using Basin-Wide Accounting methodology
- Annual meeting to discuss activities/uses/coordinate NRD/DNR activities, monitor progress on goals and objectives
- Cumulative development during the first 5-year increment be limited to 10% of the 25-year (1988-2012) average annual excess during the peak season (June-July-August)
- 5-yr update (*This is today's topic.....*)

First Increment Development

- Use depletions for tracking – also track and report full consumptive use
- Provides a level of protection of basin water supply in future
- Avoids “race-to-bottom” or “race-to-fully-appropriated”
- Allows for planning beyond 5yr increment
- Allows for carry-over (incentive to save); Not a “use it or lose it”

Basin	Average Peak Season Excess Supply (acre-feet)	First 5-year Increment Allowable Development (acre-feet)
Full Lower Platte Basin	188,073	18,807
Loup Basin (46% BWS)	86,514	8,651
Elkhorn Basin (32% BWS)	60,183	6,018
Lower Platte Subbasins (22% BWS)	41,376	4,138

First 5-year Increment Allowable New Development (Depletions) by NRD

NRD	Sub-Basin	First 5-year Increment Allowable New Development (Depletions) – Peak Season	
		% Sub-Basin	AF
Upper Loup NRD	Loup River	32%	2,768
Lower Loup NRD		68%	5,883
Upper Elkhorn NRD	Elkhorn River	25%	1,504
Lower Elkhorn NRD		75%	4,514
Papio-Missouri River NRD	Lower Platte River	21%	869
Lower Platte South NRD		24%	993
Lower Platte North NRD		55%	2,276

What is considered new development?

- Uses within the hydrologically connected area
 - New crop irrigation, both from groundwater and surface water
 - New industrial wells and uses
 - New municipal uses above any current permitted uses (MUD and Lincoln's full permitted use demands are accounted for)
 - New depletions due to surface water projects (reservoir evaporation, etc.)

****New uses are still managed and regulated according to your IMP***

Benefits of Plan

- Provides a level of protection that existing uses are protected while allowing for responsible development of new uses.
- Provides a level of certainty and consistency in the basin accounting. In lieu of the plan, no consistent tracking and accounting to evaluate impacts and protect existing users.
- Building off the previous bullet, if demands were developed in excess of supply, basin could be declared fully-appropriated.

Benefits of Plan

- Provides a level of protection with regard to all basin supplies, including surface water, under DNR/NRD jurisdiction. Interlocal agreement and incorporation into the individual IMPs provides means to limit new uses in the basin – protecting existing uses.
- Provides the accounting basis for setting up any water transfers/banking activities between parties within the basin.
- Encourages cooperation between NRDs and DNR in managing the water resources of the basin.

Summary of First 5-year Increment Activity

New Development (Depletions) allowed

NRD	First 5-year Increment		
	Allowable (AF)	Allocated	Remaining
Upper Loup NRD	2,768	787	1,981
Lower Loup NRD	5,883	843	5,040
Upper Elkhorn NRD	1,504	311	1,193
Lower Elkhorn NRD	4,514	1,256	3,258
Papio-Missouri River NRD	869	97	772
Lower Platte South NRD	993	91	902
Lower Platte North NRD	2,276	1,094	1,182
TOTAL	18,807	4,479	14,328

2. Plan Update Recommendations for 2nd Increment

Activities/Recommendations

- Updated analysis of basin supplies and uses
- Allowable depletions analysis for 2nd Increment
- Timeline for next plan review/update

Updated Analysis of Basins Supplies and Uses

- Original analysis used 1988-2012 data
- Two options:
 - 1988-2020 (33 years of data)
 - 1996-2020 (25 years of data)
- NeDNR conducted statistical analysis – both meet unbiased criteria
- Management committee's recommendation is to use 25-yr period (1996-2020) data for analysis

2nd Increment Development – Allowable Depletions

- Cumulative development during the **second** 5-year increment be limited to 10% of the 25-year (1996-2020) average annual excess during the peak season (June-July-August) adjusted by allocated but unused 1st increment development
- Average annual excess during peak season = 242,319 AF
- Carryover of allowable depletions from first increment = 14,328 AF
- Adjusted annual excess = 227,991 AF

Basin	Average Peak Season Excess Supply (acre-feet)	Second 5-year Increment Allowable Development (acre-feet)
Full Lower Platte Basin	227,991	22,799
Loup Basin (46% BWS)	104,876	10,488
Elkhorn Basin (32% BWS)	72,957	7,296
Lower Platte Subbasins (22% BWS)	50,158	5,016

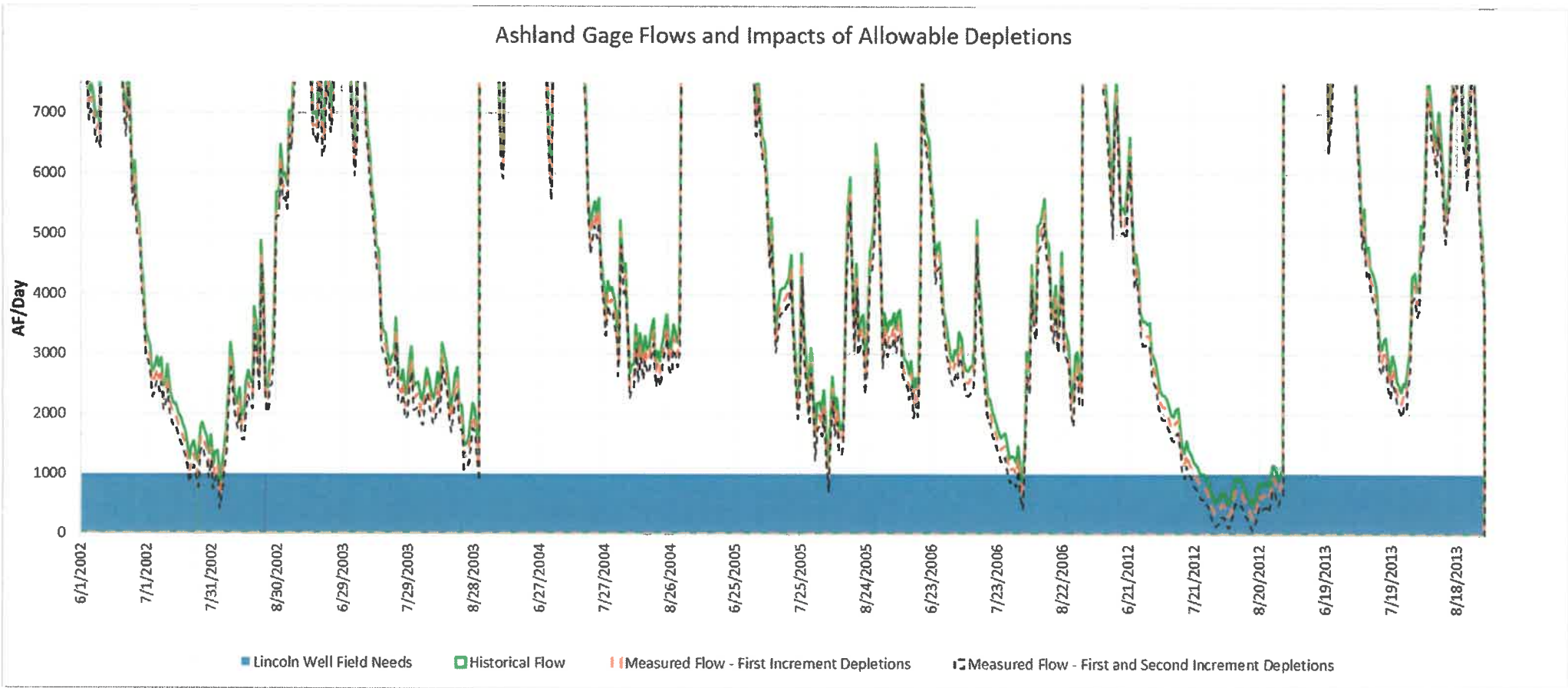
Total Allowable New Development (Depletions) by NRD

NRD	Allowable Depletions by NRD		
	New 2 nd Increment	Carryover from 1 st Increment	Total
Upper Loup NRD	3,356	1,981	5,337
Lower Loup NRD	7,132	5,040	12,172
Upper Elkhorn NRD	1,824	1,193	3,017
Lower Elkhorn NRD	5,472	3,258	8,730
Papio-Missouri River NRD	1,053	772	1,825
Lower Platte South NRD	1,204	902	2,106
Lower Platte North NRD	2,759	1,182	3,941
TOTAL	22,799	14,328	37,127

Timeline for next review/update

- Alternatives to the 5-yr increment updates considered (10-yr increment, availability of new models/data available, precipitation pattern changes, drought occurrences, etc.)
- Recommendation: Keep 5-yr increment for updates but note include language in plan to study appropriate scientific triggers for plan update, such as drought occurrence, completion of existing drought plans, new modeling tool completion, or updated data.

Platte River at Ashland



Summary of Recommendations

- Use of 25-yr period (1996-2020) for evaluating supplies and uses
- Updated allowable depletions for each NRD that includes 1st increment carryover
- Maintain 5-yr increment for plan review/update, with plan language included to study appropriate scientific triggers

3. Next Steps

Next Steps

- Presentation of Management Committee recommendations to boards in December/January
- Discuss any board feedback on recommendations in January
- Finalize 2nd Increment Plan update and recommendations - February
- Coalition Board meeting in April to approve ILCA and Plan for next 5-yr Increment.
- ILCA and 2nd Increment Plan taken to each NRD board for approval following Coalition Board approval

Questions?