

Water Committee Meeting
 Wednesday, December 2, 2015 5:00 PM
 Lower Platte North NRD Office
 P.O. Box 126
 Wahoo, NE 68066

1. REGULATORY

1.A. GROUND WATER MANAGEMENT AREA

1.A.1. Variance Request in the Hydrologically Connected Area (Limited Development Area)

No new updates.

1.A.2. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)

No new updates.

1.A.3. Variance Requests in the Restricted Development Areas

No new updates.

1.A.4. Well Permit Program

1.A.4.a. Well Permits Approved

The district received 5 well permit applications for approved new well variances from the Hydrologically Connected area. The deadline for these permits is January 10th 2016. The University well is really a remediation well for the Corps of Engineers and the clean up efforts at the Former Ordnance Plant.

Wells Permits Approved: #

Landowner	Number of Wells	Number of New Irrigated Acres	Type of Well	County	Subarea
University of Nebraska	1	0	Remediation	Saunders	Todd Valley
Debi Gorley	1	65	Irrigation	Saunders	Todd Valley
Raymond Hemmer	1	127	Irrigation	Platte	Lower Newman Grove
Dean Hallgren	1	151	Irrigation	Platte	Newman Grove
Larry Kurtenbach	1	135	Irrigation	Madison	Upper Newman Grove
James L Mick	1	78.5	Irrigation	Butler	Bellwood

The total number of approved permits for 2015 is 43
 Location of Approved Well Permits for 2015: Correct as of 12/2/2015

County	Irrigation - New	Irrigation - Replacement	Stock	Commercial	Municipal	Other	Total
Butler	2	2	1	0	0	0	5
Colfax	1	3	1	0	0	0	5
Dodge	3	3	0	0	0	0	6
Boone	1	2	0	0	0	0	3
Madison	1	0	0	0	0	0	1
Platte	6	2	1	0	0	0	9
Saunders	6	3	0	1	0	4	14
Total	20	15	3	1	0	4	43

1.A.4.b. AM
 JJ
 Investments

LLC Supplemental Well Request

AM JJ Investments LLC has submitted a well permit application for a new supplemental well in the SE 1/4 SE 1/4 of Section 1-T17N-R3E Colfax County, Schuyler Subarea. The 68 acre field is currently gravity irrigated from well G-057647. They will be converting to pivot irrigation and will have two center pivots due to the odd size of the field. and instead of burying pipe, they would like to drill a new well so each pivot has its own well. The new well will irrigate 20 of the 68 certified irrigated acres.

1.A.4.c. Dean Novak Supplemental Well

Dean Novak has submitted an application for a new supplemental well in the SW 1/4 NW 1/4 of Section 9-T17N-R4E, Colfax County, Schuyler Subarea. The well will irrigate 44 certified irrigated acres previously irrigated by well G-063688 (located in the NW 1/4 SW 1/4 of the same section). The land was recently purchased, and Mr. Novak would like his own well on the property.

1.A.5. Ron Slady Transfer Request

Ronald Sladky has requested a transfer of 80 certified irrigated acres. The certified irrigated acres to be transferred are located in the following sections*:

-24.7 Acres in the NW 1/4 SW 1/4; and NW 1/4 of Section 15-T14N-R7E Saunders County, Weston Subarea

-32.9 Acres in the NW 1/4 NE 1/4 of Section 15-T14N-R7E Saunders County, Todd Valley Subarea

-22.4 Acres in the NW 1/4 NW 1/4 of Section 14-T14N-R7E Saunders County, Todd Valley Subarea (surface water)
*-Rose Colored on map

The 80 acres will be transferred to two fields in the following legal description**:
-22.1 Acres in the SW 1/4 NE 1/4 of Section 15-T14N-R7E Saunders County, Swedeburg Subarea
-57.9 Acres in the W 1/2 SE 1/4 of Section 15-T14N-R7E Saunders County, Swedeburg Subarea
**-Green Colored in map

The well that will be used (G-051467) is in the SE 1/4 NW 1/4 of Section 15-T14N-R7E Saunders County, Weston Subarea. The attached map shows the location of the above listed legal descriptions.

1.A.6. Special Quantity Subareas

1.A.6.a. LPNNRD SQS Operator Certification Classes

SQS #1 (Butler-Saunders)

All 30 of the irrigation well sites have been visited by staff and a water level was measured in 28 of these wells. 25 of these sites have a flow meter; the other five wells were not used in 2015.

SQS #2 (Platte-Colfax)

Three informational classes have been set. Each of these classes will be held at Ag Park, Columbus:

1. Thursday, January 14, 2016, at 10:00 a.m. (prior to afternoon certification class)
2. Thursday, February 11, 2016, at 1:30 p.m.
3. Tuesday, March 29, 2016, at 3:00 p.m. (prior to evening certification class)

Attendance by SQS #2 producers is required.

1.A.6.b. Flow Meter Maintenance Program

Several representatives from area companies have been asked to attend the Water Committee to describe their program on flow meter maintenance. LPNNRD staff feel that we could do this internally at a comparable cost, since our District's primary focus will be on compliance of water allocations, not just maintenance. Doug Jensen and Jim Panek from McCrometer Great Plains; Mark Vanosdall from Tri-City meters; and Tyler Mensik from an irrigation equipment dealership were in attendance. Questions were directly to Tri-City Meters and McCrometer representatives. The Water Committee will look at this further before requesting bids. Currently only the 30 meters in the Butler - Saunders SQS would be inline for any maintenance program.

Discussion then moved to allowing the use of mag-meters as part of the District Approved Flow Meters. In 2014 when flow meters were first reviewed, little information was available on mag-meters.

1.A.7. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

The last Water Banking meeting for the LPRBC was held at the Community College in Columbus NE on Tuesday November 17, 2015.

- The board for ULNRD does not agree with the 'a Basin Plan' telling them how to develop excess water.
- The accounting for the Loup Hydropower is a concern to both the Loup and Platte sub-basins. One sub-basin would benefit, while the other sub-basin will just be that much closer to being declared 'Fully Appropriated'.
- Hesitation on whether or not the 'a Basin Plan' should recommend a 5 year cap on further development. The Lower Loup and Lower Elkhorn NRD's have not issued new irrigated acres for the past several years.

The next technical committee meeting for the LPRBC is scheduled for Ord at the LLNRD on December 9, 2015.

1.A.8. Voluntary Integrated Water Management Plan - LENRD and LPNNRD

We have received two invoices from Olsson Associates for services rendered on our V-IMP. The first invoice is for a total of \$4,502.03 and the second invoice is for \$491.39 for a total of \$4,993.42.

There is \$22,527.48 left on this contract from the original amount of \$174,700.

1.A.9. Cost Share Programs

1.A.9.a. Irrigation Well Sample Kits

A total of 325 kits have been mailed out, while just one kit remains outstanding (Mark Horejsi). Another producer called on December 2nd for a sample kit. The results for 320 samples have been received and mailed to producers.

1.A.10. Bellwood Phase 2 Area

2015 is the thirteenth year for this Phase 2 Area. Earlier this year this area was reduced from 32 sections to 21 sections - to be in compliance with **Section G Ground Water Quality Management Area - Phase Two Rule 1 Phase Two Criteria.**

Year	Nitrate-nitrogen Range	Percent Nitrate-nitrogen	Percent Nitrate-nitrogen	Percent Nitrate-nitrogen
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		0 to 8.0 ppm	8.01 to 10.00 ppm	greater than 10 ppm
2004	0 to 25 ppm	46.3% (44 of 95)	8.4% (8 of 95)	45.3% (43 of 95)
2005	0 to 25 ppm	47% (44 of 94)	15% (14 of 94)	38% (36 of 94)
2006	0 to 24 ppm	41% (29 of 71)	14% (10 of 71)	45% (32 of 71)
2007	0 to 31 ppm	48% (48 of 100)	9% (9 of 100)	43% (43 of 100)
2008	0 to 28 ppm	53.75% (43 of 80)	7.5% (6 of 80)	38.75% (31 of 80)
2009	0 to 22 ppm	45.5% (41 of 90)	15.5% (14 of 90)	39% (35 of 90)
2010	0 to 35.7 ppm	48.65% (54 of 111)	11.71% (13 of 111)	39.64% (44 of 111)
2011	0 to 26.6 ppm	51% (56 of 110)	6% (7 of 110)	43% (47 of 110)
2012	0 to 28.9 ppm	57% (61 of 107)	9% (10 of 107)	34% (36 of 107)
2013	0 to 25.8 ppm	50% (53 of 107)	9% (10 of 107)	41% (44 of 107)
2014	0 to 22.3 ppm	51% (55 of 108)	13% (14 of 108)	36% (39 of 108)
2015	0 to 32.3 ppm	43.5% (30 of 69)	7.2% (5 of 69)	49.3% (34 of 69)

1.A.11. Richland - Schuyler Phase 2 Area

2015 is the twelfth year of this Phase 2 Area. The 55 sections of this area went into a Phase 3 Area to be in compliance with **Section H Ground Water Quality Management Area - Phase Three Rule 1 Phase Three Criteria**, effective September 1, 2015.

Year	Nitrate-nitrogen Range	Percent Nitrate-nitrogen 0 to 8.0 ppm	Percent Nitrate-nitrogen 8.01 to 10.00 ppm	Percent Nitrate-nitrogen greater than 10 ppm
2004	0 to 47 ppm	30% (42 of 139)	10% (14 of 139)	60% (83 of 139)
2005	0 to 120 ppm	31.3% (74 of 236)	10.2% (24 of 236)	58.5% (138 of 236)
2006	0 to 53 ppm	28% (50 of 181)	14% (26 of 181)	58% (105 of 181)
2007	0 to 99 ppm	32% (75 of 231)	10% (22 of 231)	58% (134 of 227)
2008	0 to 46 ppm	28% (53 of 190)	12% (23 of 190)	60% (114 of 190)
2009	0 to 57 ppm	33% (72 of 216)	6% (13 of 216)	61% (131 of 216)
2010	0 to 57.5 ppm	31% (70 of 229)	7% (15 of 229)	62% (142 of 229)
2011	0 to 65.8 ppm	28% (67 of 241)	9% (21 of 241)	63% (153 of 241)
2012	0 to 52.6 ppm	29% (70 of 241)	9% (21 of 241)	62% (150 of 241)
2013	0 to 94.0 ppm	25% (63 of 252)	9% (23 of 252)	66% (166 of 252)
2014	0 to 101.0 ppm	27% (68 of 251)	9% (22 of 251)	64% (161 of 251)
2015	0 to 53.3 ppm	22.31% (52 of 233)	12.45% (29 of 233)	65.24% (152 of 233)

Also on September 1, 2015, the ten sections immediately north of this area became a Phase 2 Area. These sections are: Township 18 North, Range 2 East, sections 31 to 36; Township 18 North, Range 3 East, sections 31 to 34. Though reports for the 2015 crop year aren't required these producers will need to have soil samples prior to their 2016 corn crop. The six water samples collected in November were from this new Phase 2 area.

1.A.12. LPNNRD Certification

1.A.12.a. LPNNRD Operator Certification Classes

Three on-line test requests were received in November. One of these has completed the test and a certification card was sent.

Cert. Number	Cert. Date	Name	Re-Cert.	Comments
6527	11/10/15	Marian Meduna	No	First-timer

Staff met with UNL County Extension Educators on November 23rd to work out the class schedule for 2016. Michael Rethwisch, UNL Extension Educator for Butler County, has health issues and will be likely unable to help with classes in 2016. The number of producers to certify in 2016 will be approximately 300.
[class schedule is attachment]

1.A.12.b. LPNNRD Acre Certification

Landowner Brach Johnson wants clarification on 'No action taken' at the last Board meeting on November 9th on his request for getting his property of 32.8 acres in the NW 1/4 of the NE 1/4 of Section 7, T18N, R2E Colfax County, to be listed as certified irrigated acres (please see attached document). This is in the Platte - Colfax SQS subarea.

The acres in question were granted irrigation permission in 2010 (at the time this area was open to additional irrigated acres). The land was and remains in CRP. The acres were originally certified along with the adjoining 120 acres (to complete the circle), however no crop was ever planted and the tract was never irrigated. Since the land was not irrigated within two years of approval the acres were de-certified. Since this tract is in the SQS we would leave ourselves open to criticism (and potential legal action) if we would allow this tract to be irrigated when it has no irrigated history. Jovan Lausterer agrees that we should not allow this tract to be irrigated and related similar circumstances in the Lower Elkhorn NRD where the district court upheld that LENRD's identical definition was legal and appropriate.

Mr. Johnson is requesting a formal vote from the Board on whether this ground is listed as certified irrigated acres or not.

1.B. CHEMIGATION

No new updates.

1.C. LIVESTOCK WASTE PERMITS

No new updates

2. GROUND WATER PROGRAMS

2.A. DECOMMISSIONED WELL PROGRAM

2.A.1. Well Estimates

One new well has been reviewed and approved by Gottschalk for decommissioning since the last Committee meeting.

Well Owner	Type of Well	Cost Share Estimate	County
Tom Christopherson	Domestic 5"	\$643.88	Saunders

2.A.2. Plugged Wells

Five wells have been plugged, reviewed, and ready for cost share payment approval this month.

Well Owner	Type of Well	Cost Share Estimate	County
Kevin Ziegenbein	Irrigation	\$650.69	Saunders
Knuth Trust	2 x Domestic	\$309.00	Saunders
Frontier Coop	2 x irrigation	\$1,184.35	Colfax

2.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

2.B.1. Eastern Nebraska Water Resources Assessment (ENWRA)

Katie Cameron (ENWRA coordinator) is requested we send our planned flight lines for the Water Sustainability Fund (WSF) application to the FYRA contractor. We are interested in flying both SQS areas with the Platte - Colfax SQS having a higher priority. This application will be turned in this December.

Katie is also working on updating the ENWRA Long Range Plan, which was little changed at the last ENWRA meeting held on November 10, 2015.

2.B.2. Platte & Elkhorn River Integrated Water Monitoring Project

During the development of the Lower Platte River Voluntary Basin-wide Management Plan, several discussions amongst the seven NRDs (Coalition) have focused on mitigating drought, or very low streamflow conditions, in the Lower Platte River to meet the needs of public water supplies for over half of Nebraska's population and instream flow rights. If groundwater or surface water were able to be stored in upstream portions of the Basin and retimed to meet these shortages, the Coalition then questioned how much of that water released into the river would actually make it to the lower reach of the Platte River and past the streamflow gage at Louisville.

One particular area of interest for potential streamflow losses in the Platte River is between approximately Fremont and the confluence with the Elkhorn River. See attached proposal. A previous study done by Lower Platte North NRD in the early 1990's (Sandpit Lever Recorder Study) indicated a connection between the Platte River and ground water, but the study named above should provide much more information about this hydrologic connection.

2.B.3. Location of Tile Drains in LPNNRD

Attached is more information on the Tile Drain Study proposed by USGS. They will seek a WSF grant to help pay for this project. The question on the location and number of tile drains in our district was a concern stated during our Stakeholders Meeting for our V-IMP. USGS gave a presentation on details on the quantity and quality objectives of the study to the Water Committee. After much discussion, no motion was made to approve moving ahead with this project. Committee members would reconsider this study in future years when fewer study applications are being pursued.

2.C. GROUND WATER ENERGY LEVELS

Staff completed the collection of the Fall GWEL readings in November. As anticipated, most of these fall readings were up in comparison to Fall 2014.

[Comparison table is attachment]

2.D. FORMER ORDNANCE PLANT NEAR MEAD

The latest public availability meeting was held by the Corps of Engineers on November 18, 2015 at the Yutan VFW hall in Yutan NE. Ed Louis is the new Project Manager for this site. He has worked on this project before so is really returning to familiar ground.

- Presentation was given on the 2014 Containment Evaluation to keep the contaminate plumes in check (see attached map).
- The new containment well EW-18 is in the process of being drilled and will use UV light to treat the RDX (an explosive compound) at the source.
- The COE plans to drill at least 3 test holes deep into the Omadi Sandstone (part of the Dakota formation) to see if contaminants have entered the bedrock. We may be able to also obtain regular water quality parameters at these depths, since this is of recent interest to the ENWRA NRD's.

3. SURFACE WATER PROGRAMS

3.A. USGS STREAM FLOW GAUGING SITES

USGS has sent a joint funding agreement to the LPNNRD for their continued gauging sites on Wahoo and Shell Creeks and the continuous reading ground water monitoring site south of Mead. The agreement has the LPNNRD share at \$16,490 and this has already been listed as an item in the Water Programs budget. The agreement runs from October 1, 2015 to September 31, 2016.

4. OTHER

4.A. GMDA ANNUAL CONFERENCE

Staff is busy working out the details for the upcoming GMDA conference in Sacramento CA on January 5-8, 2016.

Current registration stands at ~80.

4.B. COMMENTS FROM THE PUBLIC

Arnie Stuthman again addressed the Water Committee about 45 acres he wants to irrigate in the Platte - Colfax SQS area. He purchased a pivot and buried underground pipe from an existing well to the property and then mailed in his request to the LPNNRD in early 2013 for additional irrigated acres. His original request was lost in the mail.