

Water Committee Meeting
Wednesday, November 2, 2016 5:00 PM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS

No unfinished business from the September 28, 2016 Water Committee.

2. REGULATORY

2.A. GROUND WATER MANAGEMENT AREA

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

No updates.

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

No updates

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

2.A.3.a. Martin Erickson Variance Request

The Martin Erickson variance request (which is within one mile of the border with the Hydrologically Connected Area (HCA)) was to be further reviewed before possible approval. This land ranked high enough for consideration with other variance requests in the HCA.

Staff presented information about the geology in the area and described the variance policy on irrigation in the restricted development area.

A large audience was in attendance and they submitted a petition stating opposition to the LPNNRD granting an irrigation well permit in Section 20, T14N, R7E (see attached). Much discussion followed.

2.A.4. Well Permit Program

2.A.4.a. Well Permits Approved

Two new permits were approved since the last Committee meeting.

Landowner	Number Of Wells	Number Of New Irrigated Acres	Type Of Well	County	Subarea
Robert Rausch	1	0	Replacement (Aquaculture)	Colfax	North Bend
Scott Sukstorf	1	97	Irrigation (Approved Variance)	Saunders	Todd Valley

The total number of approved permits for 2016 is 17.

Location of Approved Well Permits for 2016: Correct as of 9/27/2016

County	Irrigation - New	Irrigation - Replacement	Stock	Commercial	Municipal	Other	Total
Butler	0	0	0	0	0	0	0
Colfax	0	1	0	0	0	1	2
Dodge	0	3	0	0	0	4	7
Boone	1	1	0	0	0	0	2
Madison	0	0	0	0	0	0	0
Platte	0	0	0	0	0	0	0
Saunders	2	2	1	0	0	1	6
Total	3	7	1	0	0	6	17

2.A.4.b. William Becker Well Permit

William Becker has submitted an application for a new well to irrigate 0 new acres in the NE 1/4 of Section 13-T22N-R6W, Upper Newman Grove Subarea, Boone County.

Attached is the log for well G-044901, which he is currently using to irrigate the 230 acre

farm. The new well will be used to irrigate the east 80 acres while the existing well will continue to be used to irrigate the west 150 acres. Attached is also a section map for the legal description listed above. The green line on the map represents an approved variance. Variance # LPN-V-011-0095 was approved as an expansion from an existing well in 2011, but he wants this new supplemental well so he can keep up with his irrigation.

2.A.5. Special Quantity Subareas

Butler - Saunders SQS (SQS #1)

There are 30 irrigation wells in this area. 25 of these have a flow meter; the other five wells were not used in 2016. Only eight flow meter reporting forms have been returned so far.

Platte - Colfax SQS (SQS #2)

Staff has continued checking flow meters and measuring water levels. Flow meter cost-share applications continue to be received in the mail each day. Flow meter reporting forms are also being returned – 123 have been received so far.

2.A.5.a. SQS Flow Meter Maintenance Program

Request for Proposals for our Flow Meter Maintenance Program were sent out in early October with a deadline of November 1st. Requests were sent to area irrigation supply companies, meter companies, well drillers and pump installers.

We have received replies from three companies and these are shown below. With at total of ~330 sites for both SQS areas and inspected once every four years, that works out to ~83 inspections per year.

Companies	Cost per Site Visit	Cost for 83 Wells
McCrometer	\$50	\$4,150
Tri-City Meters	\$55	\$4,565
Marx Repair	\$75	\$6,225

The Committee took no formal action, but asked staff to contact these companies for a price breakdown in replacement parts.

2.A.6. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

The Board of Directors meeting was held on October 17, 2016 at LLNRD in Ord. The main topic was the draft plan for Basin wide water accounting and allowable new water uses within the Basin. The table below is based on water flow at Louisville. This is based on water flow thru 2012. Talking with HDR representatives, any expansion since that time may have to be taken into account as part of the First 5 year Increment.

Basin	Average Peak Season, Excess Supply (acre-feet)	First 5 year Increment, Allowable Development (Peak Season) (acre-feet)
Full Basin	194,843	19,484
Loup Basin (44% BWS)	85,171	8,517
Elkhorn Basin (32% BWS)	61,960	6,196
Lower Platte Basin (23% BWS)	47,712	4,771

The Lower Platte sub-basins water allotment of 4,771 acre feet in the first 5 year increment, would be divided between LPN, LPS, and Papio NRD's. This has yet to be negotiated.

2.A.7. Voluntary Integrated Water Management Plan - LENRD and LPNNRD

The latest Stakeholder meeting was held on October 5, 2016 and only three stakeholders showed up.

DNR wants to make some changes to the V-IMP so it is under further review. The final plan may not be approved until early next year.

2.A.8. Cost Share Programs

2.A.8.a. Irrigation Well Sample Kits

Requests for 347 irrigation kits have been received. Ten of these kits haven't yet been used – letters for these have been mailed to producers. Producers have collected 73 water sample since Labor Day. All sample results have been mailed to producers.

2.A.8.b. Flow Meter Cost Share in SQS #2

For this Water Committee, we have a total of 25 cost-share applications that have been reviewed and are ready for approval (see attached sheet).

- 24 applications for 8" meters or 24 x \$770 = \$18,480
- 1 application for a 6" meter or 1 x \$577 = \$577
- For a total of \$19,057

2.A.8.b.1. Flow Meter Cost Share Program

As of October 28, 2016, we have received a total of 101 applications. Several of these still need to be inspected to insure that the meter is installed properly. Some questions

have arisen so the LPNDRD needs to establish a priority ranking system for funding these applications.

1) Do we fund flow meters that should have already been installed when the well permit was issued? This well permit requirement applied to all new and replacement wells. Well permit issued between October 1, 2005 and May 8, 2008 the LPN required time totalizer or flow meter. Well permit issued after May 8, 2008 we required flow meter.

2) A couple of these applications are within one mile of the SQS area. (One application is at least 6 miles from the SQS #2 area).

3) One application has two meters off of one well. Do we just cost share on one or establish a minimum acre size for a flow meter? Recall we had a question like this a couple of months ago for a gravity corner system on ~5 acres.

Water Committee members felt that #1 (meters already purchased before the SQS areas were declared) could be funded if these have not already received LPNDRD cost share through another program.

2.A.9. Bellwood Phase 2 Area

2016 is the fourteenth year for this Phase 2 Area. Phase 2 information packets with order were mailed to producers in June, before the start of irrigation.

This area was reduced from 32 sections to 21 sections in 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
2015	0 to 32.3 ppm	43% (31 of 72)	8% (6 of 72)	49% (35 of 72)
2016	0 to 35.1 ppm	37% (25 of 68)	12% (8 of 68)	51% (35 of 68)

Hough Farms water sample of G-065461 collected in August had a **93.6 ppm** result for G-065461. After talking with Tommy Hough it was determined that this sample was collected while they were chemigating at this well. Oaklund arranged with Tommy Hough to re-sample this well. The result of the second sample was 13.6 ppm, which is within the range of previous sample results (3.70 to 18.5 ppm). *[Note: The 93.6 result was removed from the above table.]*

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2016	0 to 35.1 ppm	34% (25 of 73)	11% (8 of 73)	55% (40 of 73)

2.A.10. Richland - Schuyler Phase 2 Area

2016 is the first year of this Phase 2 Area. There are 45 registered active irrigation wells in the ten sections of this new area.

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
2016	1.47 to 41.8 ppm	30% (9 of 30)	7% (2 of 30)	63% (19 of 30)

2.A.11. Richland - Schuyler Phase 3 Area

2016 is the first year of this Phase 3 Area. This Phase 3 area went into effect September 1, 2015. The 55 sections of this area first went into a Phase 2 Area in 2004.

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
2015	0 to 53.3 ppm	23% (55 of 238)	12% (29 of 238)	65% (154 of 238)
2016	0 to 50.5 ppm	24.6% (55 of 224)	9.8% (22 of 224)	65.6% (147 of 224)

2.A.12. LPNNRD Operator Certification

No test requests were received in October.

2.A.13. Acre Certification

Steve Gehring currently has two pivots in 11-19-1W that are Acre Certified (see attached). He would like to reconfigure the fields so the pivot that currently spins $\frac{3}{4}$ in the NW $\frac{1}{4}$ makes a full circle and to swing the existing pivot in SW $\frac{1}{4}$, NW $\frac{1}{4}$, and NW $\frac{1}{4}$, SW $\frac{1}{4}$ so that it only covers a portion of the NW $\frac{1}{4}$, SW $\frac{1}{4}$. This would result in a gain of 3.14 acres in irrigation. This is under the 4.9 that we usually allow without question, but because this is within an SQS area it requires further scrutiny. Mr. Gehring would like to request he be granted the 3.14 acres of additional irrigation so that he may make more efficient use of the big pivot.

After some discussion the Committee members took no action.

2.B. CHEMIGATION

For 2016 we have 478 renewals and 95 new permit applications for a current total of 573. In 2015 we had a total of 515 chemigation permits.

The breakdown by County for the Total Number of Renewals (478) within the LPNNRD.

County	Number of Renewals
Boone	50
Butler	64
Colfax	23
Dodge	86
Madison	6
Platte	81
Saunders	168

The breakdown by county of the number of 138 renewal inspections completed.

County	Number of Renewal Inspections Completed
Boone	15
Butler	20
Colfax	5
Dodge	21
Madison	1
Platte	28
Saunders	48

The breakdown, by county for the 95 new chemigation permit applications, are listed below:

County	New Chemigation Applications
Boone	5
Butler	14
Colfax	11
Dodge	13
Madison	0
Platte	12
Saunders	40

Three landowners cancelled their new chemigation permits.

2.C. LIVESTOCK WASTE PERMITS

The LPNNRD has received one livestock permit applications from DEQ since the last Water Committee meeting.

Name	Livestock	Type of Permit	Legal Description	County
Wilke Farms	Swine 1,660 head 664 A.U.	Update of Nutrient Management Plan	SE, Section 1, T19N, R1E	Platte

Wilke Farms: Change in manure application sites

3. GROUND WATER PROGRAMS

3.A. DECOMMISSIONED WELL PROGRAM

3.A.1. Well Estimates

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

Well Owner	Type of Well	Cost Share Estimate	County
Spencer Wedberg	Irrigation	581.81	Dodge
Daniel Havlovic	Hand dug	196.68	Saunders

Reznicek Farms	2 x Irrigation	965.77	Dodge

3.A.2. Plugged Wells

One well has been plugged, reviewed, and ready for cost share payment approval this month.

Well Owner	Type of Well	Cost Share Estimate	County
St. John's Lutheran Church	Domestic	\$981.15	Platte

This domestic well had a 24 inch casing and 50 ft. deep.

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

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

AEM Flights in the SQS areas and the Water Sustainability Fund

Staff has sent in our first reimbursement request to DNR for our WSF grant to do the AEM helicopter flights in the our SQS areas. This reimbursement request combines our first two invoices from Aqua-Geo Frameworks for a total of \$199,999.80 (see table below).

		First Reimbursement Request	Amount Remaining in Grant
Total Project Cost	\$ 416,666.00	\$ 333,333.00	\$ 83,333.00
WSF Grant Request of 60%	\$ 250,000.00	\$ 199,999.80	\$ 50,000.20
LPNNRD Match of 40%	\$ 166,666.00	\$ 133,333.20	\$ 33,332.80

3.B.2. Lower Platte River Consortium

The Lower Platte River Consortium Agreement is attached. This study will assist with drought planning by looking at potential water storage sites, river flow augmentation sites, groundwater storage sites, etc. and the ability of the Platte River to convey water downstream for municipal, and other users.

The cost to the LPNNRD will be \$14,850 for this fiscal year.

3.C. NEW MONITORING WELLS

Phoenix is still working on the remote reading of our Swedeburg monitoring well. Phoenix is doing this as part of a pilot study and therefore it is no charge to the LPNNRD.

3.D. GROUND WATER ENERGY LEVELS

Staff have started measuring the Fall ground water energy levels. In many areas the measurements have been up from last fall and some even up over last spring. So far the exceptions appear to be the David City Subarea and the Platte Valley wells north of the river, which seem to be down from last fall. Staff is currently working on the Platte Valley and still needs to do the Shell Creek aquifers.

Attached is the precipitation map of rainfall to date for 2016 from the High Plains Regional Climate Center

4. OTHER

4.A. GMDA ANNUAL CONFERENCE

The 2017 annual GMDA Conference will be held in Ft. Worth Texas on January 9 - 11, 2017. See attached flyer.

4.B. COMMENTS FROM THE PUBLIC