

Water Committee Meeting
Wednesday, September 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. Violation Policy

Violation Policy has been reviewed by Jovan Lausterer and his comments are on the attached document.

Committee members reviewed the policy and recommended some changes:

- First paragraph to read: "The LPNNRD will **authorize the General Manager to** determine which of the following controls to impose contingent on the severity of the violation, length of time violation occurred, the size **and scope** of the ~~operation~~ **violation**, previous violations, and/or be based on any economic benefit derived from the violation".
- Add 'right of appeal' to the policy. If the accused violator wishes to appeal the ruling of the General Manager, that individual may request a written appeal to the Board of Directors within a specified number of days.

This will be sent back to Jovan Lausterer for his further review.

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

The District received 8 applications for a total 363 acres. The deadline for applications in the HCA is September 15th.

1.A.3. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)

The deadline for new applications was August 15th. All new applications were ranked and added to the list for Committee review. There were a total of 5 new applications for a total of 308 acres, which brings the total to 1,231.68 acres. The Board had the option to approve up to 1,000 acres, however in 2014, the Board approved just 415.2 acres since the size of Non-Hydrologically Connected Area had been reduced due to the designation of the Special Quantity Subareas (SQS).

1.A.4. Variance Requests in the Restricted Development Areas

Martin Erickson would like to submit an application for 152 new irrigated acres in the NE 1/4 of Section 20-14-7E Swedeburg Subarea, Saunders County. Attached are the required three test holes. The district has already allowed Joe Houska to apply for new acres in the NW 1/4 of the same section since he is within one mile of the Hydrologically Connected Area. Mr. Erickson's application is also within one mile of the HCA.

Following the LPNNRD Policy for Irrigation Development in the Restricted Development Area (RDA)

- #4 "Require notices be sent to adjacent landowners notifying them about the proposed well and allow them to testify at a Water Committee or Board meeting to present their case for or against the proposed well, before the permit for the proposed well can be approved by the NRD." Letters will need to be sent if he ranks high enough to possibly be approved.
- #8 "Require three test holes to show the geology at and near the proposed well site. One test hole will be drilled at the proposed well site with the second and third test hole drilled approximately 300 feet from the proposed well site and spaced from each other. If a registered well with a well log exists within a 1,000 feet of the proposed well site then this well log maybe used to replace one of the required test holes." Mr. Erickson has met this requirement with one test hole and two well logs within a 1,000 feet (his domestic well G-161164 and a CSD test hole).

1.A.5. Well Permit Program

1.A.5.a. Well Permits Approved

Wells Permits Approved: 3

Landowner	Number of Wells	Number of New Irrigated Acres	Type of Well	County	Subarea
Terry Beller	1	0	Livestock	Platte	Lower Newman Grove
Sandy Pointe Lake Development	2	0	PWS	Saunders	Wann

The total number of approved permits for 2015 is 35

Location of Approved Well Permits for 2015: Correct as of 9/2/2015

County	Irrigation - New	Irrigation - Replacement	Stock	Commercial	Municipal	Other	Total
Butler	1	2	1	0	0	0	4
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	0	0	0	0	0	0	0
Platte	3	2	1	0	0	0	6
Saunders	4	3	0	1	0	3	11
Total	13	15	3	1	0	3	35

1.A.5.b. Supplemental Well for Kristopher Kavan

Kristopher Kavan has submitted an application for a new supplemental well in the NW ¼ NW ¼ of Section 20-16-7E Todd Valley Subarea, Saunders County. The well will service a 128 acre pivot that is currently irrigated by well G-145362 located in the NE ¼ NE ¼ of Section 19-16-7E.

1.A.6. Special Quantity Subareas

1.A.6.a. SQS Summer Measurements

Summer measurements in both SQS areas were done generally from August 10 to 21, 2015.

SQS#2 (Platte - Colfax SQS)

The summer measurements were compared to the spring measurements for this year. Looking at SQS#2 (Platte - Colfax SQS) and comparing the GWEL wells inside the SQS to outside the SQS shows the following:

Outside the SQS#2 boundary		Inside the SQS#2 boundary	
Number of GWEL wells	12	Number of GWEL wells	15
Range (Comparing Spring to Summer)	-0.44 to -18.41	Range (Comparing Spring to Summer)	+0.24 to -34.45
Median value	-3.47	Median value	-11.74

So while the summer had generally good rainfall, we are noticing a greater decline within the Platte - Colfax SQS area than outside this area.

SQS#1 (Butler - Saunders SQS)

Getting measurements for this SQS area were more difficult since many producers did not need to run their wells and therefore no access roads had been established. Only 6 wells were measured and two of these were monitoring wells near UP-10, which is outside this SQS area.

1.A.6.b. SQS#1 Flow Meter Installation

All 30 of the irrigation well sites have been visited by staff. A flow meter has been installed at 25 of these wells. A signed letter has been received from producers of the other five wells that they will not irrigate in 2015. Observations in this area through the irrigation season indicated that there wasn't much irrigating here this summer, probably due to the ample precipitation and to conserve the water of their allocation.

Approving the use of magmeters for LPNNRD was again discussed by the Committee. As was mentioned last winter, two of problems of magmeters is the reliance on a battery to provide adequate power for the meter to record and store information and because of this they can be more easily tampered with. The advantages of magmeters is no moving parts. Magmeters are still relatively new but the Water Committee will likely revisit this issue in the future.

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

The last technical committee meeting was on August 11th in Ord at LLNRD. Water banking was again the focus of the meeting. Another topic concerned the Lower Platte River below North Bend and whether or not this area was approaching 'Fully Appropriated'.

The next technical committee will met in Norfolk on October 7th at LENRD.

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

Olsson Associates is nearing completion of the Water Inventory Study and it should be ready after Labor Day.

1.A.9. Cost Share Programs

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

A total of 308 kits have been mailed out so far for the summer while results for 106 of these have been returned to the producers. Many kits came in at the end of August and 134 samples have been recently taken HHS Lab in Lincoln and we are awaiting these results. Seven samples were received on the day of the Committee meeting (Wednesday September 2nd) and 61 kits are still 'outstanding' with producers and have not been used.

1.A.9.b. Nebraska Agricultural Water Management Network (NAWMN)

Equipment has been delivered to 18 producers. Karen Rezac has sent invoice's to them and payment has been received from all 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**. This became effective at the LPNNRD Board meeting on March 9, 2015. A few water sample results have been received.

Year	Nitrate-nitrogen Range	Percent Nitrate-nitrogen	Percent Nitrate-nitrogen	Percent Nitrate-nitrogen
		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)
			Reduced Phase 2 Area	
2015	0.20 to 23.3 ppm	20% (3 of 15)	13% (2 of 15)	67% (10 of 15)

Staff collected thirteen water samples from wells in the eleven sections removed (now in Phase 1 , like most of our district): thirteen nitrate samples [range of 0.00 to 15.8 ppm; seven were 0 to 8 ppm; one in 8.01 to 10 ppm; and five were > 10 ppm] and one pesticide sample [all 25 constituents were least than the "Reporting Limit".

1.A.11. Richland - Schuyler Phase 2 and 3 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 Criteria** (effective September 1, 2015). [Section H of our Rules & Regs is attached]

Year	Nitrate-nitrogen Range	Percent	Percent	Percent
		Nitrate-nitrogen 0 to 8.0 ppm	Nitrate-nitrogen 8.01 to 10.00 ppm	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)
			This will become Phase 3 Area	
2015	0 to 51.2 ppm	23.5% (20 of 85)	14.1% (12 of 85)	62.4% (53 of 85)

Also going into effect 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. During the 2015 irrigation season staff collected a water sample for nitrate from ten wells in this new area [range of 2.05 to 20.7 ppm; three were 0 to 8 ppm; two were 8.01 to 10 ppm; and five were > 10 ppm].

Fall Fertilizer Application Date

For our radio ad spot with radio station KTIC we should include both a reminder to producers that they need to wait until November 1st before fall fertilizer can be applied on non-sandy soils and that no fall fertilizing is allowed in the Phase 3 Area. For sandy soils fertilization is not allowed until after March 1st.

1.A.12. LPNNRD Certification

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

There have been no more on-line test requests since mid-June.

1.B. CHEMIGATION

For 2015 we have 420 renewals and 94 new permit applications for a current total of 514. Inspections for 119 renewal permits, 91 new permits, and 1 emergency permit have been completed.

The breakdown, by county for the 94 new chemigation permit applications, are listed below:

Butler - 11	Colfax - 7	Saunders - 38
Platte - 18	Dodge - 18	Madison - 1
Boone - 1		

1.C. LIVESTOCK WASTE PERMITS

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

Name	Livestock	Type of Permit	Legal Description	County
Jeremy Janssen	Swine			
31705 325 Avenue	12,000 Head	New Construction and Operating Permit	NE1/4, SE1/4, Section 9, T18N, R2W	Platte
Platte Center NE 68653	480 A.U.			

2. GROUND WATER PROGRAMS

2.A. DECOMMISSIONED WELL PROGRAM

2.A.1. Well Estimates

No new wells have been submitted for decommissioning since the last Committee meeting.

2.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
Charles Emanuel & Sons	One irrigation well	\$487.56	Dodge

2.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

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

The next round of test holes will be discussed with ENWRA later this month. LPN plans have approximately four to six more test holes to be done.

Katie Cameron (ENWRA Coordinator) has placed information from the flight lines flown in the Spring 2015 and the Fall 2014 on the ENWRA website at enwra.org. Click on the "2015 AEM" tab to show the reports and geologic cross-sections. A map showing the flight lines for Lower Platte North NRD are attached. Each flight line is broken down to 10 mile segments and listed as a, b, c, etc. So flight line L101701b represents the central portion of SQS#2 (Platte-Colfax SQS).

2.C. GROUND WATER ENERGY LEVELS

Staff have performed the summer measurements in the SQS areas from August 10 to 21st and the measurements on August 31 for the Wann Basin area as part of the multi-agencies network to help the clean-up efforts of the US Army Corps of Engineers at the Former Ordnance Plant near Mead.

Results from the Wann Basin area will be presented next month.

2.D. GROUND WATER QUALITY SAMPLING

2.D.1. State Wide Network Groundwater Quality Sampling

Staff has sampled 23 of the 53 SWN Sites. It is likely that we will not be able to sample any more wells due to the continued rain. We will have the final results at the September 30th Water Committee.

3. OTHER

3.A. 2015 SUMMER INTERNS

August 14th was the last day for our three summer interns. Two are now attending classes at UNL and one has a class to complete at Wayne State College. Job well done and thanks to Bob Heiman and Russ Oaklund for hiring another good crew.

3.B. COMMENTS FROM THE PUBLIC

Six members from the general public attended the Water Committee (see attached sign-in sheet).