

Water Committee Meeting
Thursday, January 30, 2020 7:30 AM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. REGULATORY

2.A. GROUND WATER MANAGEMENT AREA

2.A.1. Variance Reconsidered

John Wotipka would like to reduce the number of acres on his application, LPN-V-014-0407, from 99 acres to 80 acres. This reduction in acres would increase the ranking score from 292.5 to 312.5. A flow meter and water use report is already in place on this field.

Juranek Ag (Galen) would like the Committee and Board to reconsider application, LPN-013-0240. Mr. Juranek would like to expand 68 acres on to his 516.09 acres that are currently irrigated with 7 wells. Given the soil conditions, with regards to soil type and irrigation system, Mr. Juranek cannot increase his score above the minimum 300 point threshold. He would like the Board to consider a good cause variance and allow for an expansion of acres without increasing the consumptive use. The three year rolling allocation would be set at 23.86 acre inches.

Committee and staff discussed that in this situation with soil types and sub-surface drip irrigation, which would raise his score over the 300 points threshold, is not the correct irrigation system compared to a pivot. The soils have a tendency to crust and the groundwater levels could be within 1 foot of the surface.

2.A.2. Well Permit Program

2.A.2.a. Well Permits Approved

No permits have been approved in 2020.

2.A.3. Morse Bluff Well Permit

2.A.4. Special Quantity Subareas

2.A.5. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

2.A.6. Voluntary Integrated Water Management Plan - LPNNRD

Staff and Bob Hilger met with NeDNR for discussion on the Goal and Objectives of the V-IMP. Jesse Korus presented preliminary findings of the SQS# 2 study, which is a joint project with UNL, DNR and NRD. Staff feels that Jesse could make a presentation to the Board sometime on this information. (attachments)

Discussion of the Acre Feet Allotment was explained and that the depletion numbers were a joint agreement with the Coalition. DNR also mention that they would like to continue a joint project with the NRD on installing more data loggers district wide. A followup meeting with DNR will be conducted in the Spring.

2.A.7. Cost Share Programs

2.A.7.a. Municipal Wells Water Use Information

City Water Usage Reports

Attached is 2019 information on total water pumped from wells for Towns/Villages/Cities/Well fields within the LPNNRD Boundary.

2.A.7.b. Flow Meter and Variance Policy

Attached is some information on Flow Meter Policies and Variance approval. Staff is wanting some discussion on these policies and enforcement of them.

Staff showed the Committee the policy implemented on variances on new/replacement wells and expanded water use from existing wells that was implemented on July 13, 2009. Committee felt that this policy should be enforced and staff should proceed on bringing these individuals or tracts of land into compliance. The date that will be used is July 13, 2009. Letters will be sent out with the original paperwork with a deadline given to producers, who staff feels is out of compliance, to contact staff on meeting compliance on the flow meter policy.

All variances are conditional, so the Board can issue a cease and desist order to take away the well permit and/or the certified irrigation acres that was granted upon the variance approval.

2019 District Wide Flow Meter Update- as of 1/28/2020

New or replacement wells:

New or Replacement wells with flow meters that have reported for 2019: 423

New or Replacement wells WITH flow meters that have NOT reported for 2019: 45

New or Replacement wells WITHOUT flow meters or no records shown: 20

Variances:

Variances with flow meters that have reported for 2019: 104

Variances WITH flow meters that have NOT reported for 2019: 20

Variances WITHOUT flow meters or no records shown: 9

Variances that were NOT expanded or PARTIALLY expanded: 6

Reporting in hours:

Wells and variiances that have reported in hours in the past; no flow meter requirement (before 2009): 63

Voluntary meters (that we know of):

Wells that voluntarily installed flow meters that have reported at some point: 32

SQS #1 Update- As of 1/28/2020

We have readings for all of the wells in this area that are in use **(25/25)**

SQS #2 Update - As of 1/28/2020

We have readings for 267 of the 279 meters in this area; still waiting on 13 reports; have been in contact or have left voicemails with all of the remaining people that haven't reported. **(267/279)**

2.A.8. Bellwood Phase 2 Area

2020 is the eighteenth year for this Phase 2 Area.

Year	Nitrate-nitrogen Range	Percent	Percent	Percent
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		Nitrate-nitrogen 0 to 8.0 ppm	Nitrate-nitrogen 8.01 to 10.00 ppm	Nitrate-nitrogen 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% (31 of 72)	8% (6 of 72)	49% (35 of 72)
2016	0 to 35.1 ppm	34% (25 of 74)	11% (8 of 74)	55% (41 of 74)
2017	0 to 23.5 ppm	36% (27 of 74)	15% (11 of 74)	49% (36 of 74)
2018	0 to 30.9 ppm	40% (25 of 63)	11% (7 of 63)	49% (31 of 63)
2019	0 to 24.5 ppm	48% (22 of 46)	9% (4 of 46)	43% (20 of 46)

2.A.9. Richland - Schuyler Phase 2 Area and Hearing Information

A hearing was conducted Thursday, January 30, 2020 at 8:30 am. Page 18, Section H in the Groundwater Rules and Regulations outlines the criteria needed to move this area into a Phase 3 Area. (attached) The map attached shows the area, highlighted in yellow, that is being proposed to move into a Phase 3 Management Area. The public notice is also attached describing the legal descriptions of the 10 additional sections. The minutes and documents submitted into the record are attached for Board review.

As 2020 is the fifth year of this Phase 2 Area it meets the criteria outlined as 80% (24 of 30) of the wells are over the 10 PPM threshold.

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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	29% (10 of 34)	9% (3 of 34)	62% (21 of 34)
2017	2.44 to 25.4 ppm	23% (8 of 35)	(0 of 35)	77% (27 of 35)
2018	1.75 to 29.3 ppm	25% (5 of 20)	10% (2 of 20)	65% (13 of 20)

2019	0.80 to 35.9 ppm	7% (2 of 30)	13% (4 of 30)	80% (24 of 30)
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2.A.10. Richland - Schuyler Phase 3 Area

2020 is the fifth year of this Phase 3 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
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	23% (55 of 238)	12% (29 of 238)	65% (154 of 238)
2016	0 to 50.5 ppm	25% (58 of 228)	10% (22 of 228)	65% (148 of 228)
2017	0 to 53.4 ppm	25% (60 of 238)	6% (14 of 238)	69% (164 of 238)
2018	0 to 56.9 ppm	26.5% (50 of 189)	6.3% (12 of 189)	67.2% (127 of 189)
2019	0 to 39.4 ppm	26% (52 of 199)	11% (22 of 199)	63% (125 of 199)

2.A.11. LPNNRD Operator Certification

2.B. LIVESTOCK WASTE PERMITS

The LPNNRD has received # 1 livestock permit applications from DEQ since the last Water Committee meeting.

Name	Livestock	Type of Permit	Legal Description	County
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Beller Feedlot	cattle	Expansion	SW1/4 13-20N-4W	Platte

Description of permit application Expanding the feedlot to another 7000 head

3. GROUND WATER PROGRAMS

3.A. DECOMMISSIONED WELL PROGRAM

3.A.1. Well Estimates

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

Well Owner	Type of Well	Cost Share Estimate	County

3.A.2. Plugged Wells

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

Well Owner	Type of Well	Cost Share Estimate	County
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Selma Schmit Limited Partnership	Irrigation	\$1,000	Butler

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

3.B.1. Vadose Soil Sampling

An invoice for \$13,229.16 is attached per contract from EA Engineering for vadose soil sampling conducted in the Nitrogen Management Areas. The meeting on February 26 in Schuyler starting at 1 pm will feature Dan Snow - UNL Water Center discussing the results.

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

3.B.3. Nitrogen Management

Staff is starting to look at potential BMPs for the management areas. Again more discussion is planned for the meeting in Schuyler.

Some discussion ideas

- Fertigation or split applications
- Cover Crops
- Manure Management
- Grants
- UNL involvement

Committee and staff discussed the possibilities of grant funding for chemigation equipment, remote flow meters, weather stations and funding for a UNL research project.

3.B.4. Lower Platte River Consortium

3.C. Water Flow Meters

Thoughts on Water Flow Meters

- Grants usually only go for 3 years and normally 2.
- Grants usually are designed for a designated management area.
- Is a Water Flow Meter the Cost of Doing Business?
- All High Capacity Wells including livestock and industrial?

This was last proposal from last Committee Meeting

- Year 1 - All wells in Nitrate Management Areas
 - \$1000 cost-share for the flow meter and extra \$500 for a check valve if needed.
 - Second year \$600 cost-share only, with Year 2 in new area would be occurring also.
- Year 2 - Dodge, Colfax and Butler County
 - \$1000 cost-share for the flow meter and extra \$500 for a check valve if needed.
 - Second year \$600 cost-share only, with Year 3 in new area would be occurring also.
- Year 3 - Platte, Boone and Madison
 - \$1000 cost-share for the flow meter and extra \$500 for a check valve if needed.
 - Second year \$600 cost-share only, with Year 4 in new area would be occurring also.
- Year 4 - Saunders County
 - \$1000 cost-share for the flow meter and extra \$500 for a check valve if needed.
 - Second year \$600 cost-share only,
- After the fifth year no cost share available and all meters not installed would be required to install at their cost.

LPNNRD would set a date that all high capacity wells are required to have meters during the fifth year.

Meter Details (this would stay the same)

- Meter Installation handled by Private Companies
- Meter Maintenance will be contracted out with about 1000 meters a year.

Quote seen at a water conference "If water is not measured it can't be managed."

The purpose of installing flow meters for the LPNNRD is to get a better understanding of sustainable aquifers for future generations. This will also allow the LPNNRD to be pro-active instead of re-active if water consumption becomes an issue. A producer can utilize the flow meter on how the well is actually performing and increase irrigation management efficiency. The Committee recommended to start setting aside funding, like \$200,000 a year, into a sinking fund for the purpose of a grant match.

3.D. GROUND WATER QUALITY SAMPLING

3.E. Watersmart Grant Update

At last month's Board Meeting a quote from the Metos Company was approved for \$38,075.34, which the Bureau of Reclamation (BOR) is paying \$19,037.67. Staff submitted the grant assuming that the cost would be closer to \$105,000, which is reflected in the

FY2020 Budget. The BOR portion of the grant was for \$52,500. Staff was wondering if the Committee would consider expanding this grant to other areas within the District? Staff would look at more remote reads for data loggers, weather stations, water flow meters and maybe Platte River cameras and level sensors.

4. SURFACE WATER PROGRAMS

4.A. USGS STREAM FLOW GAUGING SITES

5. OTHER

5.A. GMDA Winter Conference

Committee and staff discussed how saltwater intrusion is influencing the aquifers in Florida. Complete report will be given at Board Meeting.

5.B. COMMENTS FROM THE PUBLIC