

Water Committee Meeting
Wednesday, March 1, 2017 5:00 PM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS

No unfinished business from last Water Committee.

2. REGULATORY

2.A. GROUND WATER MANAGEMENT AREA

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

2.A.1.a. Rohwer Variance Application

The District received a letter, signed by Keith Rohwer and David Woita, relinquishing variance LPN-V-013-0312 for 100 acres approved at the October 2016 Board meeting. The approved acres in the Hydrologically Connected Area for 2017 is now 2389.52. The Board has the authority to approve up to 2500 per year. Attached is the submitted letter from Mr. Rohwer and Mr. Woita as well as the HCA spreadsheet from the October Board meeting.

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

No new updates.

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

Martin Erickson is asking the Water Committee to review the variance condition regarding the size of the monitoring well that is to be drilled on the northwest boundary of the field. Staff recommends a 4" well to allow adequate room for a dedicated sampling pump as well as a data logger. Mr. Erickson would like to have a 2" well drilled instead of the 4". The well will be approximately 220' and the cost is \$6.50/ft for a 2" well and \$15.00/ft for a 4" well. This results in a cost savings of ~\$1,870 for Mr. Erickson. Due to the variable water quality that is present in the Dakota aquifer, staff feels that a 4 inch diameter well is required in order to allow proper monitoring of the water quality and quantity in the aquifer. The diameter of a dedicated pump is at least 1.5 inches leaving little

room for water flow around the pump itself. In addition the diameter of the connecting cables needs to be taken into account, to again allow adequate water flow within the pump casing of the monitoring well.

The Committee members discussed this and took no action to modify the variance condition for a 4 inch diameter monitoring well.

2.A.4. Well Permit Program

2.A.4.a. Well Permits Approved

Accidental change. See Board meeting agenda for well permit breakdown.

2.A.4.b. David Rasmussen Well Permit

David Rasmussen is requesting a new well to irrigate 0 new acres in the SW 1/4 of the SW 1/4, Section 7, T20N, R4W, Upper Newman Grove Subarea, Platte County. The ground was previously irrigated from well G-148938, but due to a family discrepancy, he can no longer irrigate the 62.4 certified irrigated acres with this well. Attached is the well log from G-148938 as well as a map of the field in question.

2.A.4.c. Kment Well Permit Application

Dave Kment is requesting a new well for 0 new acres in the NW1/4 SE1/4 S34-T17N-R3E Octavia Subarea, Butler County. The new well will help supplement well G-162426 which currently irrigates 86.59 certified irrigated acres. Attached is the well log from G-162426 as well as a map of the field in question.

2.A.5. Special Quantity Subareas

Butler Saunders SQS Area (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. All 25 flow meter reporting forms have been returned. Angle has completed the allocation calculations for these wells. 2017 will be the third year of their allocation for this SQS area.

Platte-Colfax SQS Area (SQS #2)

Flow meter cost-share applications continue to be received. Flow meter reporting forms are also being returned – reports for about 30 registered irrigation wells are yet to be received. Reporting deadline was November 1, 2016. Staff is working on allocation calculations.

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

No new updates.

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

Staff met with Amy Zoller of DNR on February 23, 2017 and discussed our V-IMP between our two agencies. LPNNRD would like to move forward with our plan and no longer wait on possible changes involving the Lower Platte River Basin Coalition (LPRBC). These changes (such as water transfers) will be incorporated into our V-IMP at a later date. Since our V-IMP will only cover the hydrologically connected portions of our District, this V-IMP will be a subset of the District wide GWMA.

Some changes were made to the current V-IMP plan and these will be taken back to DNR for further review.

2.A.8. Cost Share Programs

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

A couple of requests have been received for 2017. Kits will be mailed out prior to the irrigation season.

2.A.8.b. Flow Meter Maintenance Program

For our meter maintenance program via our contract we are responsible for providing the cable and crimper tools that are needed to make sure the meters are not tampered with. In order for this to happen we need the steel stainless twist sealing cable, 5 crimper tools, the lead seals, and also the die engravers that are used in the crimpers to stamp on the lead seals. The crimper tool will engrave the LPN logo and year it was inspected with the engraved dies. We contacted McCrometer for the order and the order has been placed. The total price for these items is \$1562.10. Since we are inspecting a 1/4 of the meters per year we will need to purchase 4 more die engraved seals in 2021. The die engraved seals that were purchased on this order are for the years of 2017-2020.

=====

The contract between the LPNNRD and Tri-Cities Meter Inc. has been sent to our contractor for their review (see attached contract).

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

2.A.8.c.1. Question on Flow Meter Cost Share Program

Mark Luchsinger has submitted a flow meter cost share application for improvements to his 2005 flow meter to bring it up to LPNNRD approved flow meter requirements. He installed anti-reverse, changed units on the register from gallons to acre inches, etc. for a total cost of \$538.50.

Points of discussion:

- Water comm. currently cost-share on flow meters previously installed. This meter was installed in 2005 so we could pay him \$770 which is from the WSF.
- Pay him 60% of \$538.50 or \$323.10 (which is from WSF).
- If part of our FMMP, cost of parts are to be paid by producer. LPNNRD share would be for site visit and labor by Tri-City meters, but contract not signed yet. Therefore \$0 to Mr. Luchsinger.

After some discussion the Committee members felt that Mr. Luchsinger showed a good faith effort in upgrading his existing flow meter at a lower cost of \$538.50 when purchase of a new flow meter would have cost \$770 in cost share funds.

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

A second mailing was sent to producers in January to encourage them to take advantage of this cost-share program. We have had a little up-tick in the number of applications received as a result.

As of February 28, 2017 we have received a total of 175 applications. Several of these still need to be inspected to insure that the meter is installed properly. Seven well sites have applied for 2 meters each, but following motion of the Water Committee, only one meter per irrigation system will receive funding. Therefore, for the March 13, 2017 Board Meeting, we will have a total of 8 cost-share applications to approve.

Water Sustainability Fund (WSF)	
8 inch meters	6 x 8" meters or 6 x \$770 = \$4,620
6 inch meters	2 x 6" meters or 2 x \$577 = \$1,154
WSF Total	\$5,774
	So Running Total WSF Grant = \$118,188 of \$200,000 grant
	So Remaining Total of WSF Grant = \$81,812

LPNNRD For GWEL Cooperators	
8 inch meter	1 x 8" meters or 1 x \$230 = \$230
6 inch meter	0 x 6" meters or 0 x \$172 = \$0
Carry over (8 inch meter)	0 x 8" meter or 0 x \$230 = \$0
LPNNRD Total	\$230

Total For Flow Meter Cost Share Program	
WSF & LPNNRD	For approval at March 13, 2017 Board Meeting = \$6,004

Staff plan to send in our first reimbursement request for our Flow Meter cost share grant to the WSF later this week. The request will be for \$96,226.

2.A.8.c.3. Expansion of Flow Meter Cost Share Program

We have seven applications that were recently received (which still need processing) and all of these are 8 inch meters. If later approved this would make the running total for our WSF grant with ~\$76,400 remaining. Staff recommends opening this up the SQS #1 producers. We will need to go back to the WSF to get their approval.

2.A.8.c.4. No Flow Meter Installed in SQS #2

Letters and cost share forms were sent to the nine producers (on 12 irrigation wells) who have not yet installed flow meters (see attached list). As of March 1, 2017 one of these people has applied for cost share, Lawrence Kasik. Cease & Desist action should be considered on the other individuals and whether or not we want to impose an acre inch penalty for not installing a flow meter last irrigation season.

The average water use in SQS #2 was around 4.5 to 5 acre inches during the summer of 2016. Committee members discussed imposing a water use allocation penalty of 9 acre inches on those producers who failed to install flow meters.

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.*]

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.]*

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	34% (25 of 74)	11% (8 of 74)	55% (41 of 74)

129 Annual Fertilizer Application Reports for 2016 have been received. Both Mike Ebel and Daryl Finecy have turned in reports. Oaklund spoke to Finecy regarding reports for section 13. Finecy said that he didn't farm these tracts in 2016 as the owner, Stuart Gerhold, had a different tenant. Oaklund spoke with Gerhold on Friday and mailed the Phase 2 information to the tenant, Matt Mimick, on Monday after speaking with him on the phone.

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	29% (10 of 34)	9% (3 of 34)	62% (21 of 34)

57 Annual Fertilizer Application Reports for 2016 have been received. Still awaiting reports from Chuck Emanuel, Brian Goff, and Mark Horejsi. Reporting deadline was December 31st.

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	25% (58 of 228)	10% (22 of 228)	65% (148 of 228)

399 Annual Fertilizer Application Reports have been received. Reports from Dan Zoucha, Leander Rerucka, and Chad Sukstorf were received in February. Mark Horejsi still has not sent in his reports; he has reports for both of these Phase 2 areas. Report deadline is December 31st.

2.A.12. LPNNRD Operator Certification

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

Online testings in February:

Cert #	Cert date	Name	Re-cert	Comments
6881	2/9/2017	Kevin Tobin	No	

2017 Certification Classes for Nitrogen and Water Management

Class	Date & time	Location	Attend	First-Timers
# 1	Thursday, January 5th @ 3:00 p.m. (after Corn Expo)	Fremont - Christensen Field	36	6
# 2	Wednesday, January 18th @ 1:00 p.m.	ARDC - Mead	42	12
# 3	Thursday, January 26th @ 1:30 p.m.	Columbus - Ag Park	46	5
# 4	Thursday, February 7th @ 9:30 a.m.	David City – Hruska Library	28	3
# 5	Friday, February 10th @ 10:00 a.m.	Lindsay - Village Office	22	5
# 6	Wednesday, March 1st @ 9:30 a.m.	Columbus - Pinnacle Bank	25	5
#7	Tuesday, March 7th @ 9:00 a.m.	Fremont - Extension Office		
# 8	Thursday, March 9th @ 1:30 p.m.	David City – Hruska Library		

# 9	Wednesday, March 15th @ 7:00 p.m.	ARDC - Mead		
# 10	Thursday, March 16th @ 7:00 p.m.	Columbus - Ag Park		

199 36

316 letters with class schedule for those expiring 4/1/2017 were mailed in December.
84 letters with class schedule for those that expired 4/1/2016 were mailed in December.
88 letters with class schedule for those that expired 4/1/2015 were mailed in December.
320 reminder letters for the March classes were mailed in February, after Lindsay class.

2.B. CHEMIGATION

The final summary report for 2016 is attached. Also attached is a chemigation procedural guideline that will help out to follow and be our standard operating procedure. There are different scenarios that are presented in the field when meeting and inspecting the permits with the certified applicators. This guideline is also attached.

Chemigation renewals will be mailed March 27, 2017 to the permit holders of the 573 approved permits. We have already received 2 renewal permits from a couple of individuals who always get them in early.

2.C. LIVESTOCK WASTE PERMITS

The LPNDRD has received no new livestock permit applications from DEQ since the last Water Committee meeting.

3. GROUND WATER PROGRAMS

3.A. DECOMMISSIONED WELL PROGRAM

3.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
Morbach Inc.	16" Irrigation well	\$654.34	Butler

3.A.2. Plugged Wells

No wells have been plugged, reviewed, or ready for cost share payment approval this month.

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

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

3.B.1.a. ENWRA Annual Membership

Attached is our Annual membership in ENWRA.

3.B.1.b. ENWRA Geo-Cloud Program

Attached is the latest Geo-Cloud contract with ENWRA. ENWRA obtained a grant from the WSF to fund the majority of money for the Geo-Cloud program. This will take all the AEM data collected in the State, C&SD test hole data, registered well logs of selected high capacity wells, NRD's ground water energy level measurements, and MODFLOW software to model the aquifers in selected areas of Nebraska.

Denmark has already developed software to perform these mapping capabilities (called Geo-Scenes) and this project will now be designed to also work in Nebraska. Part of this program will allow the general public to create maps as well.

3.B.2. Lower Platte River Consortium

The latest meeting of the Lower Platte River Consortium met at LPSNRD on February 23, 2017. Agenda and minutes of the last meeting are attached. The next steps are to submit a work plan to the Bureau of Reclamation (BOR) in February, an annual report to WSF, and obtaining property access for the instrumentation of river sites during the Spring of this year. The proposed monitoring sites are on the attached map.

3.C. GROUND WATER ENERGY LEVELS

Staff will begin the Spring readings from our GWEL network later this month.

3.D. WATER USE REPORTS

482 water use reports were sent out on 2/23/2017. Staff is recommending that all permits and variances that were approved prior to May 8th 2008 be excluded from future water use report mailings if they were only reporting the hours that the well was on. This makes up 43 of the 703 total reports. Also, efforts are being made to bring well permits and variances that have not installed a flow meter into compliance.

4. OTHER

4.A. COMMENTS FROM THE PUBLIC