

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

1. Water Committee

1.A. UNFINISHED BUSINESS

From the September 27 Water Committee and October 9 Board Meeting:

To table the approval of variances until a policy can be put in place on handling variance violations and determination of the allotment of Acre Feet within the Hydrological Connected Area. This motion, made by Frank Pollard and seconded by Larry Feala, Passed.

More information is available and can be handled under 1.B.1.b

From the August 30 Water Committee and September 11 Board Meeting:

To table the variance request from Sandra Muhle for 115 acres until the 2016 AEM data can be analyzed. This motion, made by Larry Feala and seconded by Dave Saalfeld, Passed.

To table the variance request from Duane Ohlrich for 66 acres until the 2016 AEM data can be analyzed. This motion, made by Dave Saalfeld and seconded by Frank Pollard, Passed.

More information is available under 1.B.1.c

1.B. REGULATORY

1.B.1. GROUND WATER MANAGEMENT AREA

Attached is a draft Violation Policy for review. The policy combined GW management, chemigation and irrigation endguns violations. Jovan has looked them over and gave some initial suggestions which are incorporated in this draft of the violation policy.

1.B.1.a. Development Area Map

Staff is recommending a change to the Lower Platte North NRD Development Area Map. As we begin to move towards managing ground water depletions on an acre foot scale, it is increasingly more important to use the most current maps. Attached is the proposed map for the Hydrologically, Non-Hydrologically, and Restricted Development Areas. Staff has overlaid the boundaries of the old map to show the differences. Legal council feels that development area boundaries follow legally defined boundaries (ex. section line).

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

All applicants were notified of the one month delay on the decision to approve new development in the Hydrologically Connected Area (HCA). After last months discussion, the ranking sheet has one change. It is the recommendation of the staff to not approve application LPN-V-012-0221, for 77 acres, due to the 74% Class 6, 7, and 8 highly erodible land class.

The new ranking sheet is attached. The Board has the discretion to approve up to 2500 acres per year in the HCA. Per the agreement with Lower Platte South NRD and Papio Missouri River NRD, the Lower Platte North NRD can allow up to 2275.9 acre feet of depletions to the Platte River between 2017-2021. Last year the District approved 364.00 acre feet of depletion.

1.B.1.c. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)

Attached is GIS and AEM information on Sandra Muhle and Duane Ohlrich.

1.B.1.d. Well Permit Program

1.B.1.d.1. Well Permits Approved

Wells Permits Approved: 1

Landowner	Number of Wells	Number of New Irrigated Acres	Type of Well	County	Subarea
Mary Ann Burke	1	0	Irrigation Replacement	Butler	Octavia

The total number of approved permits for 2017 is 23

Location of Approved Well Permits for 2017: Correct as of 11/1/2017

County	Irrigation - New	Irrigation - Replacement	Stock	Commercial	Municipal	Other	Total
Butler	1	4	0	0	0	0	5
Colfax	0	1	0	0	0	0	1
Dodge	0	0	0	0	0	5	5
Boone	0	0	0	0	0	0	0
Madison	0	0	0	0	0	0	0
Platte	2	0	0	0	1	0	3
Saunders	5	0	0	0	2	0	9
Total	8	5	0	0	3	5	23

1.B.1.d.2. Tim Vaughan Pond Well Variance

Tim Vaughan has applied for a new pond well for ducks in S14-T13N-R9E, Wann Subarea, Saunders County. Attached is the approved policy on pond wells. Mr. Vaughan would like to pump 60 acre inches per year on the 2 acre pond which is more than the 9 acre inches allowable under the policy. Also attached is a map of the section in question. The map shows the current pond is .12 acres in size.

1.B.1.e. Special Quantity Subareas

The deadline for reporting water use for meters within the SQS areas is November 1 as by LPN Rules.

SQS #1 has 4 meter reports in out of 33

SQS #2 has 59 meter reports in out of 271

This deadline can come in the middle of harvest, so something to reconsider when updating the Groundwater Rules.

1.B.1.e.1. Flow Meters - Stock Wells

Staff has been working with livestock producers in the SQS areas to get water flow meters installed on high capacity livestock wells or a series of connected wells.

Rule 2.4 in the GWMA Rules and Regulations states "All Landowners withdrawing Ground Water from a high capacity well, those wells pumping greater than 50 gallons per minute, in the Special Quantity Subarea must install a District approved Flow Meter for measuring Ground Water withdrawals."

At this time staff has not found any of the livestock wells in question to have a flow meter installed. One producer commented to staff that he does not plan on installing a flow meter until the NRD forces him.

Staff would like to set the date of January 31, 2018 on when flow meters for high capacity livestock wells need to be installed or Cease and Desist order will be issued.

1.B.1.f. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

A meeting was held with LPS and Papio-Missouri to discuss the distribution of allowable new depletions of 4,138 acre feet over a 5 - year period within the Lower Platte Basin Hydrologically Connected Area. After some discussion and negotiation within the group a percentage was agreed on by all parties.

LPN - 55%; LPS - 24%; Papio-Missouri - 21%

Lower Platte North will receive 2275.9 Acre Feet to distribute until 2021 in which is the allowable depletion for this 5-year segment.

Water use on the depletion would include by not inclusive for irrigated acres, industry and livestock.

A meeting for the technical group is scheduled for November 13 in Norfolk.

1.B.1.g. Cost Share Programs

1.B.1.g.1. Irrigation Well Sample Kits

352 irrigation kits have been mailed out in 2017 (27 of these since Labor Day). All of these have been returned and sample results have been sent to producers.

1.B.1.g.2. Flow Meter Cost Share in SQS #2

As of November 1, 2017 we have received a total of 192 applications. Five applications have been received since increasing the boundary 2 miles beyond the SQS #2 boundary. Two of the applications didn't have meters installed when staff inspected them.

Therefore, for the November 13, 2017 Board Meeting, we will have a total of 3 cost-share applications to approve.

At the June 28, 2017 Water Committee, motion (1) offer cost-share for flow meters to producers within 2 miles of the SQS #2 Boundary with-in LPNNRD and (2)to offer cost-share within the SQS #2 area to convert gallons reading registers to acre-inches. Cost-share for registers conversion will be \$225 with producer paying the labor cost. Deadline for invoices will be by March 1.

At the November 30, 2016 Water Committee, motion was made to fund GWEL cooperator wells at \$1,000 per 8 inch meters (\$770 from WSF and \$230 from LPNNRD = \$1,000) and at \$749 per 6 inch meters (\$577 from WSF and \$172 from LPNNRD = \$749)

Water Sustainability Fund (WSF)	
8 inch meters	3 x 8" meters or 3 x \$770 = \$2,310
6 inch meters	XX x 6" meters or XX x \$577 = \$0
WSF Total	\$0
	So Running Total WSF Grant = \$81,769 of \$200,000 grant
	So Remaining Total of WSF Grant = \$118,231

LPNNRD For GWEL Cooperators	
8 inch meter	0 x 8" meters or 1 x \$230 = \$0
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	\$0

Total For Flow Meter Cost Share Program

1.B.1.h. Bellwood Phase 2 Area

2017 is the fifteenth 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
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)

1.B.1.i. Richland - Schuyler Phase 2 Area

2017 is the second 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)
2017	2.44 to 25.4 ppm	23% (8 of 35)	(0 of 35)	77% (27 of 35)

1.B.1.j. Richland - Schuyler Phase 3 Area

2017 is the second 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
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)

1.B.1.k. LPNNRD Operator Certification

One online test was completed in October and certification card was mailed to producer. (Tenant was re-certified so landowner could apply for flow meter cost-share.)

1.B.1.k.1. 2018 LPNNRD Certification Classes for Nitrogen and Water Management

Class	Date & time	Location
# 1	Thursday, January 4th @ 3:30 p.m. (after Corn Expo)	Fremont - Extension Office
# 2	Pending	Schuyler or North Bend
# 3	Wednesday, January 17th @ 7:00 p.m. [Dryland focus/emphasis]	ENREC (formerly known as ARDC)

# 4	Tuesday, January 30th @ 9:30 a.m. *Special class at 1:00 p.m. AEM	Columbus - Ag Park
# 5	Thursday, February 5th @ 1:00 p.m. [Dryland focus/emphasis]	Butler County Events Center
# 6	Thursday, February 8th @ 9:30 a.m.	Lindsay - Village Office
# 7	Pending	Schuyler
# 8	Tuesday, February 27th @ 9:30 p.m.	Columbus - Pinnacle Bank
# 9	Wednesday, March 7th @ 9:00 a.m.	Fremont - Extension Office
# 10	Tuesday, March 13th @ 9:30 a.m.	Butler County Events Center
# 11	Tuesday, March 20th @ 7:00 p.m.	ENREC (ARDC)
# 12	Thursday, March 22nd @ 7:00 p.m. **Special class afternoon. AEM	Columbus - Ag Park

*Katie Cameron will be speaking on AEM information and general geology on January 30 and March 13.

**James Cannia will be speaking on AEM information and general geology on March 22 in Columbus at 3 pm.

1.C. GROUND WATER PROGRAMS

1.C.1. DECOMMISSIONED WELL PROGRAM

1.C.1.a. 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
James L Paulas	Irrigation	\$ 436.46	Dodge
Kirk Strong	Domestic	\$166.88	Saunders

1.C.1.b. 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
Diann Svatora	Irrigation	\$752.14	Colfax

1.C.2. Chemigation

2017 Permit Summary and the 2016 Application Summary is attached:

1.C.3. GROUND WATER ENERGY LEVELS

Staff began collection of the Fall measurements 10/23/2017. Uplands and Todd Valley sites were done last week. Platte Valley sites should be completed this week and Shell Creek is scheduled for next week. As expected, the 2017 Fall water levels have been slightly lower than the 2015 Fall water levels due to more irrigation this summer.

1.C.4. Eastern Nebraska Water Resources Assessment (ENWRA)

Katie Cameron would like to come to the January Board meeting to give an update from ENWRA.

1.C.5. Lower Platte River Consortium

A meeting is scheduled for November 28 at LPS. This meeting will be discussing the next workshop which is planned for January.

1.D. SURFACE WATER PROGRAMS

1.D.1. USGS STREAMGAGES

The agreement attached is between USGS and LPN for two streamgages at Shell Creek near Columbus and Wahoo Creek at Ashland and one real-time groundwater level monitoring site near Mead. LPN share will be \$16,860 to keep these sites active, which was included in this year's budget.

1.E. OTHER

A. Last week Andersen and Oaklund attended the Nebraska Water Center Symposium at Innovation Campus Conference Center in Lincoln. The theme was "Managing Impacts to Water Quality in Production Agriculture" with most presentations having Nitrogen-Nitrate component. 2017 yield results for Project SENSE weren't yet available as Fall harvest is ongoing.

B. Tracy McConnell of Grosch Irrigation Co, North Bend, contacted LPNNRD regarding data collection for new municipal wells in Mead. McConnell inquired about availability of data

loggers to collect data for their engineers. Grosch has drilled two test hole wells near the west edge of Mead. The north well had pump test last week and the pump test for the south well started the morning. Oaklund has installed data loggers in wells in Mead as per McConnell's request. The Village of Mead's plan is for two new municipal wells and a new water tower.

1.E.1. GMDA ANNUAL CONFERENCE

The Annual Conference will be at the Hilton Capitol Center in downtown Baton Rouge, Louisiana, January 16-19, 2018.

The Conference will begin the morning of the 16th with a few presentations then a field trip to view the Old River Control Structure, arriving back in time for the welcoming reception. There will have technical sessions on Thursday with a board meeting Thursday afternoon. There will be a spouses tour on Thursday to Magnolia Mound Plantation and the Louisiana Rural Life Museum with a stop for lunch.

Any Board Member wishing to go, please let staff know.

The policy is to send 2 from the Water Dept. and 2 Board members.

1.E.2. COMMENTS FROM THE PUBLIC

Mary Kay Wotipka asked the Committee and Staff about the variance on their property. Staff explained that the plan is update the Groundwater Rules and Regulations and look at a Acre Feet Depletion per well instead of certified irrigated acres on variances. The plan is to have something in place by Spring of 2018.