

Water Committee Meeting  
Wednesday, January 2, 2019 5:00 PM  
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 and Well Permit Extension

Tim Shanahan has submitted to the District a variance extension request for his application LPN-V-017-0454 in Section 28-T16N-R7E, Saunders County. The application for a new well to irrigate 135 acres was approved 11/13/2017 and letters were sent 11/15/2017. Mr. Shanahan feels that the letter was lost in the mail.

Tim Shanahan was present at the Committee meeting and realized that it was his responsibility to followup on his variance request. He explained that the well and irrigation equipment would be installed before the 2019 irrigation season.

Staff and Committee discussed if the mail service can be an excuse. Other discussion was about the 2017 variances and that variances prior to 2017 should not be approved in these circumstances. Staff will do a better job on following up on variances and well permits, so maybe this situation will not happen again.

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

Joe Houska has declined Variance LPN-V-013-0362, which was approved at the October 2018 Board Meeting. Attached is a list of variances for the Committee to consider, if they would like to approve other variances. Staff will have a couple of options for the Committee to consider.

Committee will look at the variances that were not approved at the January Committee Meeting. They also directed staff to re-evaluate James Penne Jr application, which was denied because of over 20% Class 6 and HEL soils.

#### 2.A.3. Well Permit Program

##### 2.A.3.a. Well Permits Approved

Wells Permits Approved: #

Landowner	Number of Wells	Number of New Irrigated Acres	Type of Well	County	Subarea

The total number of approved permits for 2018 is #

Location of Approved Well Permits for 2018: Correct as of #####

County	Irrigation - New	Irrigation - Replacement	Stock	Commercial	Municipal	Other	Total
Butler							
Colfax							
Dodge							
Boone							
Madison							
Platte							
Saunders							
Total							

#### 2.A.4. Fremont-Dodge County Drainage Improvement Options

There will be much discussion in the near future between the NRD, City of Fremont and Dodge County regarding drainage from the City of Fremont to the east in Dodge County. Mountford has sent out information on the topic via email, it will be discussed in all three committee's and it's attached, please review.

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

The technical group has met a couple of times to discuss online reporting, which HDR has been working on. The plan is to have online reporting available by February 1, 2019. This will cut down on the size of the written IMP reports that are due March 1. The written report will just be a summary without the specific details on acre feet consumptions. A management meeting is planned for April to review the IMP reports.

#### 2.A.6. Cost Share Programs

##### 2.A.6.a. Irrigation Well Sample Kits

##### 2.A.6.b. Flow Meter Maintenance Program

Tri-City will be entering its third season maintaining the flow meters in SQS #1 & SQS #2.

Breakdown of meters visited per year:

2017 (completed): SQS #1- 8 meters  
SQS #2- 68 meters

2018 (completed): SQS #1- 16 meters  
SQS #2- 68 meters

2019 (planned): SQS #1- 1 meter (not operating correctly)  
SQS #2- 72 meters

2020 (planned): SQS #1 - TBD  
SQS #2- 69 meters

Attached is the maintenance rotation spreadsheet

Staff would like to discuss offering meter maintenance District wide. The Committee directed staff to present numbers with more information for District wide Meter Maintenance at the January Committee Meeting.

## 2.A.7. Bellwood Phase 2 Area

2018 is the sixteenth year for this Phase 2 Area.

<b>Year</b>	<b>Nitrate-nitrogen Range</b>	<b>Percent Nitrate-nitrogen 0 to 8.0 ppm</b>	<b>Percent Nitrate-nitrogen 8.01 to 10.00 ppm</b>	<b>Percent Nitrate-nitrogen greater than 10 ppm</b>
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)
<b>2018</b>	<b>0 to 30.9 ppm</b>	<b>39% (24 of 62)</b>	<b>11% (7 of 62)</b>	<b>50% (31 of 62)</b>

## 2.A.8. Richland - Schuyler Phase 2 Area

2018 is the third year of this Phase 2 Area. There are 45 registered active irrigation wells in the ten sections of this new area.

Staff is planning to conduct extensive water sampling in the Richland-Schuyler area in 2019 and recommend proceeding after receiving the water sample results.

<b>Year</b>	<b>Nitrate-nitrogen Range</b>	<b>Percent Nitrate-nitrogen 0 to 8.0 ppm</b>	<b>Percent Nitrate-nitrogen 8.01 to 10.00 ppm</b>	<b>Percent Nitrate-nitrogen greater than 10 ppm</b>
2016	1.47 to 41.8 ppm	29% (10 of 34)	9% (3 of 34)	62% (21 of 34)

2017	2.44 to 23.6 ppm	19% (4 of 21)	(0 of 21)	81% (17 of 21)
2018	1.75 to 29.3 ppm	26% (5 of 19)	11% (2 of 19)	63% (12 of 19)

### 2.A.9. Richland - Schuyler Phase 3 Area

2018 is the third 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)
2018	0 to 56.9 ppm	25% (46 of 182)	7% (12 of 182)	68% (124 of 182)

### 2.A.10. LPNNRD Operator Certification

#### 2.A.10.a. 2019 LPNNRD Certification Classes for Nitrogen and Water Management

Class	Date & time	Location
# 1	Thursday, January 3rd @ 3:30 p.m.	Fremont - Extension Office

? Note: Corn Expo at Christensen Field ?

(after the Corn Expo)  
ENREC - Mead (formerly  
ARDC)

# 2	Monday, January 14th @ 7:00 p.m.	
# 3	Friday, February 1st @ 9:30 a.m.	Columbus - Ag Park ?
# 4	Monday, February 4th @ 1:00 p.m.	David City - Butler County Events Center, at Fairgrounds
# 5	Thursday, February 7th @ 9:30 a.m.	Lindsay - Village Office
# 6	Wednesday, February 20th @ 9:30 a.m.	Columbus - Ag Park ?
# 7	Monday, March 11th @ 6:00 p.m. ♦	Fremont - Extension Office David City - Butler County Events Center, at Fairgrounds
# 8	Tuesday, March 12th @ 9:30 a.m.	ENREC - Mead (formerly ARDC)
# 9	Wednesday, March 20th @ 7:00 p.m.	
# 10	Thursday, March 21st @ 7:00 p.m.	Columbus - Ag Park ?

? Ag Park classes will be on second floor. Entrance is on south side - accessible by stairs or elevator.

**Ten classes**

♦ "Zoom" class - may allow taking certification class from remote computer for **this**

**date only!** If interested please contact Aaron Nygren at [anygren2@unl.edu](mailto:anygren2@unl.edu) or Daryl Andersen at [dandersen@lpnrrd.org](mailto:dandersen@lpnrrd.org) before the end of February to receive

instructions on how to pre-register for the March 11th class.

**On Friday, February 15th @ 1:00 p.m. a special class will be held at the Oak Ball-**

**Room in Schuyler. This class will focus on the Phase 2/3 management areas; these areas have higher nitrogen/nitrate in the groundwater. Producers who**

**live or farm in these areas are encouraged to attend this class as more aggressive ideas to address this ongoing problem will be presented and input/**

**discussion from area producers is needed!**

**Outside Speakers with expertise will also present.**

**This class will meet the Nitrogen & Water Management certification requirement.**

## 2.A.11. Groundwater Rules and Regulations Discussion

### Discussion Items

Water Flow Meters - Staff and Committee discussed the issue of the water flow meter

requirement for new well permits and variances. Staff has found situations that flow meters have not installed. This information has become easier to track by using the Phoenix Database. Staff will be utilizing the field application in the next few months to investigate all variance applications.

Staff and Committee discussed if water flow meters are needed District wide. How important is it to provide accurate information compared to estimated consumption use when reporting on the IMPs and if future modeling efforts are conducted? The cost and how many meters is still an unknown.

Phase Areas - Staff plans on addressing the requirements with the Committee after more intensive water sampling is conducted by staff in the Summer 2019.

Variances - Discussion on setting a minimum score for variances that can be approved. Staff is planning to go through the complete scoring process with the Committee or Board before proceeding on with the variance discussion.

## 2.B. LIVESTOCK WASTE PERMITS

The LPNNRD has received # 2 livestock permit applications from DEQ since the last Water Committee meeting.

<b>Name</b>	<b>Livestock</b>	<b>Type of Permit</b>	<b>Legal Description</b>	<b>County</b>
RA2H Farms	Poultry	New Construction	S½SW¼ 27-14N-8E	Saunders
Cuda Pork	Swine	New Construction	SW¼ SW¼ 28-18N-2E	Colfax

Description of permit application

## 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
Carol L & Geraldine F. Zimmer	Irrigation	\$804.59	Butler
Donald Birkel Trust	Irrigation	\$1,101.77	Butler
Morbach Inc	Irrigation	\$712.67	Butler

### 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
Platte Center Development LLC	Irrigation	\$1,067.55	Platte

## 3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

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

Attached is an invoice for \$30,000 for ENWRA dues and the NRD commitment of \$3,400 for the GeoCloud project. A check has been receive from ENWRA for \$9,150 for dues credit for 2019.

### 3.B.2. Lower Platte River Consortium

The next meeting, which will be reviewing the comments and final draft, is planned for Tuesday, January 22, 2019 starting at 1:30 pm at Lower Platte South. Attached are the options that was reviewed by HDR and presented at the public open house.

Staff recommends as the initial study is being finalized and the next potential steps are projects, that a Board member act as a liaison or possibly a voting member for this group. Committee commented that Staff can be the voting representative for this group. Information on the proposed projects, as they are brought forward, will be presented and discussed with the Committee.

### 3.C. NEW MONITORING WELLS

### 3.D. GROUND WATER QUALITY SAMPLING

## 4. OTHER

### 4.A. GMDA ANNUAL CONFERENCE

The conference was held in Phoenix January 7-9, 2019.

### 4.B. COMMENTS FROM THE PUBLIC