

Water Committee Meeting  
Wednesday, March 29, 2017 5:00 PM  
Lower Platte North NRD Office  
P.O. Box 126  
Wahoo, NE 68066

## 1. UNFINISHED BUSINESS

None

## 2. REGULATORY

### 2.A. GROUND WATER MANAGEMENT AREA

#### 2.A.1. Flow Meter Compliance Hearing at 4 pm

Certified letters, on the hearing date set by the Board, were sent out to the following producers that didn't have flow meters installed as of March 15, 2017.

Bryce Grotelueschen

Smokie Joe Farms (Larry Beiermann)

Terry Lutjens

Larry Beiermann called and notified staff that the meters have been installed. Staff inspected and verified that the water flow meters were correctly installed on March 28.

Terry Lutjens has an invoice in the NRD office showing that the water flow meters have been purchased. Staff is waiting to hear from Mr. Lutjens or the installer that the meters have been installed.

Bryce Grotelueschen has an invoice in the NRD office that the water flow meters have been purchased. Staff is waiting to hear from Mr. Grotelueschen or the installer that the meters have been installed.

These producers are working in good faith with staff to get the flow meters installed in a timely matter. Staff recommends that the Board gives these producers until May 1, 2017 before further action is needed.

#### 2.A.2. Irrigated Acres for 2016 in the HCA and NHCA

No activity

#### 2.A.3. Variance Request in the Hydrologically Connected Area (Limited Development Area)

No activity

#### 2.A.4. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)

No activity

2.A.5. Variance Requests in the Restricted Development Areas

No activity

2.A.6. Well Permit Program

2.A.6.a. Well Permits Approved

Wells Permits Approved: 1

<b>Landowner</b>	<b>Number Of Wells</b>	<b>Number Of New Irrigated Acres</b>	<b>Type Of Well</b>	<b>County</b>	<b>Subarea</b>
David Rasmussen	1	0	Irrigation	Platte	Upper Newman Grove

The total number of approved permits for 2017 is 8

Location of Approved Well Permits for 2017: Correct as of 3/22/2017

<b>County</b>	<b>Irrigation - New</b>	<b>Irrigation - Replacement</b>	<b>Stock</b>	<b>Commercial</b>	<b>Municipal</b>	<b>Other</b>	<b>Total</b>
<b>Butler</b>	1	0	0	0	0	0	1
<b>Colfax</b>	0	0	0	0	0	0	0
<b>Dodge</b>	0	0	0	0	0	1	1
<b>Boone</b>	0	0	0	0	0	0	0
<b>Madison</b>	0	0	0	0	0	0	0
<b>Platte</b>	2	0	0	0	0	0	2
<b>Saunders</b>	4	0	0	0	0	0	4
<b>Total</b>	7	0	0	0	0	1	8

#### 2.A.6.b. John Vandenberg Well Permit Application

John Vandenberg has applied for a supplemental well in the SW 1/4 of SE 1/4 of Section 34-T15N-R3E Butler County, David City subarea. Mr. Vandenberg currently irrigates 118 acres from well G-167673 but this well is producing 350-400GPM which is 1/2 of the projected output. Mr. Vandenberg hopes that by adding a second well, and nozzle the pivot at 550GPM, he can still continue to irrigate his field. Attached is a map of the field, a well log provided by Sargent Irrigation Co., and the ENWRA flight line from 2015 (1/2 mile from well location).

This well is two miles west of SQS #1.

#### 2.A.7. Well Interference Complaints

No activity

#### 2.A.8. Potential Violation of Expanded Irrigation

No activity

#### 2.A.9. Special Quantity Subareas

##### **#1 (Butler-Saunders)**

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. 2017 will be the third year of their allocation for this SQS area.

##### **#2 (Platte-Colfax)**

Flow meter cost-share applications continue to be received. Flow meter reporting forms are also being returned. Staff is working on allocation calculations.

#### 2.A.10. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

No new information to report

#### 2.A.11. Voluntary Integrated Water Management Plan - LENRD and LPNDRD

No new information to report

#### 2.A.12. Cost Share Programs

##### 2.A.12.a. Irrigation Well Sample Kits

##### **a. Irrigation Well Sample Kits**

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

#### 2.A.12.b. Nebraska Agricultural Water Management Network (NAWMN)

At certification meetings there were little interest.

#### 2.A.12.c. Flow Meter Maintenance Program

The flow meter maintenance tools (crimpers, dies, cable) have been delivered to Tri City Meters so they can begin inspecting the flow meters in SQS #1 and SQS #2. Information about Tri City and our meter maintenance program was sent out to the land owners and tenants.

Initially we thought there were approximately 330 high capacity irrigation wells in these two areas. After inspections we realized that actually 25 of the 30 irrigation wells in SQS #1 are being used. In SQS #2 there are approximately 260 active irrigation wells in use. Therefore we have approximately 285 total irrigation wells that Tri City meters is contracted to do meter maintenance on.

Tri City plans on starting there inspections/maintenance on a quarter of these wells beginning after April 1st; weather permitting. Typically they would do the inspections in the late fall after harvest but some wells in these areas had flow meters installed prior to the requirement of flow meters in the SQS areas. It would be best to make these wells with existing flow meters our first priority and have them checked before the irrigation season in 2017. Tri City meters will inspect one quarter of the wells each year and it should take around a week for them to do so.

After delivering the tools for the meter maintenance discussion came up about the electromagnetic flow meters. Mark Vansodall (Tri City Meters President) recommended that these types of meters have "grounding straps" installed. Grounding straps help protect the meters from lightning or any other form of electricity that might occur in the pipe. There are only 7 electromagnetic flow meters installed currently in SQS #2. There are zero installed in SQS #1. Six of those meters are the SeaMetrics brand of meter and they should have these "grounding straps" already installed. The one other meter is a Growsmart meter. After talking with him he gave an estimate on what it would cost to install them if they don't already have one and if they do already have one installed what it would cost to repair them if damage occurs. Here is his estimate:

The SeaMetrics meters that are in our District SHOULD HAVE the ground straps already installed on them. In that case, the only ones I would replace would be the ones that had been damaged by rodents, or such.

The ground straps are \$15.00 for a set. Labor would be 1/2hr (based on a \$65.00/hr rate), so your total would be \$47.50 installed.

#### 2.A.12.d. Flow Meter Cost Share in SQS #2

##### 2.A.12.d.1. Flow Meter Cost Share Program

A request was sent to Kent Zimmerman on March 15, 2017 to approve expansion of the flow meter cost-share from the Water Sustainability Fund grant. The request was

asking to offer cost-share to producers in the Butler - Saunders Special Quantity Subarea (SQS #1) and to producers one mile outside the sections of the SQS #2 border, except to the north as this is a different NRD. Kent commented that a decision on this request could come within a couple of weeks.

2.A.12.d.2. Flow Meter Cost Share in SQS #2

As of March 27, 2017 we have received a total of 184 applications. Six 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 April 10, 2017 Board Meeting, we will have a total of 12 cost-share applications to approve.

Water Sustainability Fund (WSF)	
8 inch meters	10 x 8" meters or 10 x \$770 = \$8,470
6 inch meters	3 x 6" meters or 3 x \$577 = \$577
WSF Total	\$9,047
	So Running Total WSF Grant = \$127,235 of \$200,000 grant
	So Remaining Total of WSF Grant = \$72,765

□

**Total For Flow Meter Cost Share Program**

WSF For approval at April 10, 2017 Board Meeting = \$9,047

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2.A.13. Bellwood Phase 2 Area

016 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.]

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2016 is the fourteenth year for this Phase 2 Area.



134 Annual Fertilizer Application Reports for 2016 have been received. Matt Mimick (tenant) has turned in reports for the Stuart Gerhold tracts.

#### 2.A.14. 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)

61 Annual Fertilizer Application Reports for 2016 have been received. Reports from Chuck Emanuel, Brian Goff, and Mark Horejsi were received in March.

#### 2.A.15. 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)

409 Annual Fertilizer Application Reports have been received. Mark Horejsi's reports were received in mid-March.

## 2.A.16. LPNNRD Operator Certification

### 2.A.16.a. LPNNRD Operator Certification Classes

Online testings in March:

Cert #	Cert date	Name	Re-cert	Comments
6904	3/1/2017	Curtis Tisthammer	Yes	
6956	3/8/2017	Colten Schafersman	new	
6957	3/8/2017	Ryan Mullenhoff	new	SQS #2
6973	3/10/2017	James Macholan	Yes	
6974	3/14/2017	David Polacek	Yes	Frontier CO-OP
6975	3/14/2017	Ross Nantkes	new	Frontier CO-OP
6976	3/14/2017	Seth Robeson	new	Frontier CO-OP
6977	3/14/2017	Trent Jakub	new	Frontier CO-OP
6978	3/14/2017	Alex Rezac	Yes	
6979	3/14/2017	Gregory Rezac	Yes	
6980	3/14/2017	Jerome Rezac	Yes	
6981	3/14/2017	Joseph Rezac	Yes	
6982	3/14/2017	Thomas E Rezac	Yes	
7063	3/21/2017	Matt Jedlicka	Yes	
7064	3/21/2017	Gary Nelson	Yes	

### 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	26	2
# 8	Thursday, March 9th @ 1:30 p.m.	David City – Hruska Library	15	2
# 9	Wednesday, March 15th @ 7:00 p.m.	ARDC - Mead	40	7
# 10	Thursday, March 16th @ 7:00 p.m.	Columbus - Ag Park	40	8
<b>Totals</b>			<b>320</b>	<b>5</b>

**5**

316 letters with class schedule for those expiring 4/1/2017 were mailed in December. [84]

84 letters with class schedule for those that expired 4/1/2016 were mailed in December. [48]

88 letters with class schedule for those that expired 4/1/2015 were mailed in December. [56]

320 reminder letters for the March classes were mailed in February, after Lindsay class.

2.A.17. Certifying Acres in Saunders and Dodge Counties

2.A.18. Water Use Reports

The District has received approximately 1/3 of the approximately 650 reports sent out. The current average district-wide is 2.7 in/ac. One point of interest is the Fremont Health dewatering well report shows a usage of 304 million gallons of water. In comparison, a 135-acre pivot that puts on 7" of water pumps 25 million gallons of water.

**Water Use Reports**

There were 12 meters that installation happen after the 2016 crop season. in which a list is attached. A water use report utilizing a required flow meter was not received for 2016, which has a 27 inch/acre 3-year rolling allocation. A number should be assessed to these wells without flow meters. If 27 inches is taken as the base amount and put over a 3 years period, that would come up to 9 inches for the water use.

2.B. CHEMIGATION

Currently there are 573 active permits throughout the District. The renewal letters for these active permits were sent out on March 27th.

For 2017 we have 2 renewals and 2 new permit applications for a current total of 4. Inspections for 0 renewal permits have been completed.

The breakdown by County for the Total Number of Renewals within the LPNNRD.

County	Number of Renewals
Boone	1
Butler	
Colfax	1
Dodge	
Madison	
Platte	
Saunders	

The breakdown by county of the number of renewal inspections completed.

County	Number of Renewal Inspections Completed
Boone	
Butler	
Colfax	
Dodge	
Madison	
Platte	
Saunders	

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

County	New Chemigation Applications
Boone	
Butler	
Colfax	
Dodge	
Madison	
Platte	
Saunders	

## 2.C. LIVESTOCK WASTE PERMITS

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

Name	Livestock	Type of Permit	Legal Description	County

Description of permit application

### 3. GROUND WATER PROGRAMS

#### 3.A. DECOMMISSIONED WELL PROGRAM

##### 3.A.1. Well Estimates

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

Well Owner	Type of Well	Cost Share Estimate	County
Loran & Karen Houska	Irrigation	635.59	Saunders
Westlake Inc	Irrigation	720.47	Dodge

##### 3.A.2. Plugged Wells

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

Well Owner	Type of Well	Cost Share Estimate	County
Morbach Inc.	Irrigation	654.34	Butler
Terry McDonald	Irrigation	568.89	Butler

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

#### 3.B.1. Elkhorn Loup Model (ELM)

No new information to report

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

A meeting is scheduled for April 18 at LPNNRD starting at 1:30 pm.

#### 3.B.3. Platte and Elkhorn River Valley Integrated Water Monitoring

No new information to report

#### 3.B.4. Lower Platte River Consortium

A meeting was held on March 27 at LPSNRD. The group approved the sites proposed which are going to be used for the drought study. It was decided to add site 2c on the Elkhorn River and eliminate site 13, which is located in LPN, for groundwater monitoring. A map is attached showing all of the sites.

The Consortium is hosting a workshop on May 16 at LPSNRD to discuss the draft drought tool, thresholds and existing and potential projects. This workshop is designed for Consortium and key staff members.

### 3.C. NEW MONITORING WELLS

Dana Divine, Sue Lackey and Katie Cameron will be meeting with staff on April 24 about monitoring wells within the District. This was a budget item on the 2016 - 17 budget but the wells didn't get installed. With the new AEM flight lines maps being done sometime in August, potentially better locations can be considered for these wells in the Fall of 2017. Discussion at the meeting on the 24th will be on location, installation time-table and costs. Hopefully the Committee and Board will consider keeping this budget item for next year's budget.

### 3.D. GROUND WATER ENERGY LEVELS

Groundwater levels were started on March 27 in the Upland Areas. At this time the Uplands and Todd Valley have been completed. Staff is working on the Platte Valley and plan on doing Shell Creek next week.

### 3.E. GROUND WATER QUALITY SAMPLING

No new activity to report

### 3.F. FORMER ORDNANCE PLANT NEAR MEAD

No new information to report

## 4. SURFACE WATER PROGRAMS

No new activity to report

### 4.A. STATE LAKES, FOR THE WEEK OF

Sampling for bacteria and toxic algae usually begins the first part of April

#### 4.A.1. Bacteria Sampling

#### 4.A.2. Toxic Algae

## 5. OTHER

### 5.A. Phoenix Web Group

Neil Johnson - CEO from the Phoenix Web Group would like the Board to consider signing the agreement to proceed with modules agreed upon at the March 13, 2017 Board Meeting. These modules were Phase II and Phase III Reporting, Water Use Reporting, Static Water Levels (SQS) and Chemigation. Staff at the Phoenix Web Group would begin working on these modules but the LPNNRD will not be billed until next budget year. If the NRD would proceed before the budget year it will receive a 30% discount. Attached is summary of these modules and costs.

### 5.B. GMDA SUMMER CONFERENCE

The GMDA Summer Conference is planned for May 24-25, 2017 in Albuquerque, New Mexico.

### 5.C. 2017 SUMMER INTERNS

Received a few applications but hoping for a lot more. Normally applications increase after spring break.

### 5.D. COMMENTS FROM THE PUBLIC