

Water Committee Meeting  
Wednesday, May 31, 2017 5:00 PM  
Lower Platte North NRD Office  
P.O. Box 126  
Wahoo, NE 68066

## 1. UNFINISHED BUSINESS

At the May 8, 2017, Board Meeting, the following motion to table was passed by all present:

**A motion by Dave Saalfeld and second by Jim McDermott to table until budgeting time, budgeting \$20,000 for the development of an aquifer risk map for FY17-18 and continue discussion on development of the interactive mapping tool, with cost estimates presented in the budget for committee review**

At the May 8, 2017, Board Meeting, the following motion to table was passed by all present:

**Ruzicka make the motion, seconded by Clausen, to table the LPRCA Interlocal Agreement until next month**

Dave Potter has been invited to attend the Projects Committee Meeting and Board Meeting.

## 2. REGULATORY

### 2.A. ITEMS FOR WATER COMMITTEE

### 2.B. GROUND WATER MANAGEMENT AREA

#### 2.B.1. Irrigated Acres for 2016 in the HCA and NHCA

No new activity to report

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

No new activity to report

#### 2.B.3. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)

No new activity to report

2.B.4. Variance Requests in the Restricted Development Areas

No new activity to report

2.B.5. Well Permit Program

No new activity to report

2.B.5.a. Well Permits Approved

Wells Permits Approved: 0

The total number of approved permits for 2017 is 11

Location of Approved Well Permits for 2017: Correct as of 5/31/2017

<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>	2	1	0	0	0	0	3
<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>	5	0	0	0	0	0	5
<b>Total</b>	9	1	0	0	0	1	11

2.B.6. Irrigation Runoff Complaint

No new activity to report

## 2.B.7. Well Interference Complaints

No new activity to report

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

No new activity to report

## 2.B.9. Special Quantity Subareas

Terry Lutjens has installed all of the required water flow meters on his irrigation wells. Staff inspected and certified the meters on Thursday, May 25. Tri City Meter will be going to all the recently installed sites and put a seal on them.

### 2.B.9.a. LPNNRD SQS Operator Certification Classes

No new activity to report

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

No new activity to report

## 2.B.11. Cost Share Programs

### 2.B.11.a. Irrigation Well Sample Kits

No new activity to report

### 2.B.11.b. Nebraska Agricultural Water Management Network (NAWMN)

No new activity to report

### 2.B.11.c. Flow Meter Maintenance Program

Received invoices from Tri City Meters for 6 producers who's flow meters needed additional repair. The NRD will be sending out invoices to the producers for reimbursement. The total of all the invoices that will be reimbursed is \$1480.81.

### 2.B.11.d. Flow Meter Cost Share in SQS #2

No new activity to report

#### 2.B.11.d.1. Flow Meter Cost Share in SQS #2

At the November 30, 2016 Water Committee, a 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)

As of May 23, 2017 we have received a total of 176 applications. Only 5 of these still need to be inspected to insure that the meter is installed properly.

The LPNNRD has received no flow meter cost-share applications since the last Water Committee meeting.

Water Sustainability Fund (WSF)	
8 inch meters	0 x 8" meters or 0 x \$770 = \$0
6 inch meters	0 x 6" meters or 0 x \$577 = \$0
WSF Total	\$0
	So Running Total = \$132,432
	So Running Total WSF Grant = \$79,459 of \$200,000 grant
	So Remaining Total of WSF Grant = \$120,541
	So LPN 40% Share = \$52,973

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	
WSF & LPNNRD	For approval at May 8, 2017 Board Meeting = \$0

2.B.12. Bellwood Phase 2 Area

No new activity to report

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.]*

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of previous sample results (3.70 to 18.5 ppm). [Note: The 93.6 result was removed from the above table.]


2.B.13. Richland - Schuyler Phase 2 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

No new activity to report

2.B.14. Richland - Schuyler Phase 3 Area

No new activity to report

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

## 2.B.15. LPNNRD Operator Certification

No new activity to report

### 2.B.15.a. LPNNRD Operator Certification Classes

Cert. Number	Cert. Date	Name	Re-Cert.	Comments

2.B.16. Certifying Acres in Saunders and Dodge Counties

## 2.C. CHEMIGATION

For 2017 we have 443 renewals and 25 new permit applications for a current total of 453. Inspections for 0 renewal permits and 3 new permits have been completed.

Deadline for Chemigation Renewals is June 1.

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

County	Number of Renewals
Boone	49
Butler	42
Colfax	30
Dodge	73
Madison	6
Platte	85
Saunders	158

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	3
Butler	2
Colfax	1
Dodge	2
Madison	0
Platte	6
Saunders	11

## 2.D. LIVESTOCK WASTE PERMITS

The LPNNRD has received #2 livestock permit applications from DEQ since the last Water Committee meeting. Both of these sites are located southeast of Bruno in SQS #1. These are wean-to-finish facility with the plan to double the number of weaned pigs. Current livestock wells are registered at 9 and 20 GPM.

Name	Livestock	Type of Permit	Legal Description	County
Wilke Farms	Swine	Major Modification	SW¼ NW¼ 26-15N-04E	Butler
Wilke Farms	Swine	Major Modification	SE¼ NE¼ 22-15N-04E	Butler

## 2.E. GROUNDWATER RULES AND REGULATIONS

Questions involving the Groundwater Rules and Regulation:

1. Require all flow meter for agricultural use to be Acre-Inch?
2. Do you want to allow time totalizers for water use?
3. Should we put the 27 inch rolling allocation in the acre inch allocation? Adjust every 3 years instead of yearly?
4. Hydrologically Connected Areas has been allowing 2500 acres per year since 2009. Is this the correct number as the quality of variance applications have dwindled. 400 acres would still allow swing arm pivots or tracts that have change hands.
5. Allowing up to 400 acres within 1 mile of a Restricted Areas?
6. Non-Hydrologically Areas?
7. Variance "conditional permit" correct? Right criteria? Minimum requirements or points?
8. Supplemental wells rules? Minimum pumping requirement like 200 - 300 GPM? Longer pump tests like 12 or 24 hours compare to 4 hours?
9. Water Banking or Transfers? IMP will be using Acre Feet as a criteria for stream depletion.
10. Add another Level or Phase rule?
11. Other items?

These are just discussion items to add, subtract or do nothing to the Rules and Regulations.

### 3. GROUND WATER PROGRAMS

#### 3.A. DECOMMISSIONED WELL PROGRAM

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

# 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

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### 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

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

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

A conference call was held with USGS on the updated model of the ELM project. The group discussed the graphics, tables and figures within the report. Feedback on the model was due May 26 so a final report can be produced.

Attached is the boundary map and an additional map showing Shell Creek added to the model.

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

Katie will be at the Committee Meeting for an update.

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

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

A meeting was held with Consortium members and followed by a workshop held with staff, which Larry Angle participated as a consultant. HDR and Flatwater group have developed a worksheet to calculate the water flow on the Platte and Elkhorn rivers. This worksheet

takes in consideration leaching, evaporation and withdraws. What the worksheet can show, if 500 CFS is added to the river at North Bend how much of the water will potentially reach Ashland. It can also be used as a predictive tools on short and long term basis for water flow. It was discussed what the benefit to river flow would occur if surface water withdraws were limited. Discussion also involved how much surface water would flow by managing groundwater wells. The spreadsheet could not answer these questions but something that will be considered. Working with groundwater might need to include a water model in conjunction with the spreadsheet.

The workshop discussed potential projects and locations on supplementing water flow when necessary in the Platte and Elkhorn Basins. Naturally the closer to Ashland the projects can be, more benefit will be seen. It was suggested to look at the cleanup water from the former Ordinance Plant near Mead as a potential water source. Other suggestions looked at potential impound structures within both Basins.

A couple more workshops are planned in the next couple of months in which Board members will be invited to participate in the process.

Attached are options on paying the invoice for the Drought Contingency Plan Funding.

This item was in FY16-17 budget for \$14,850 per year. Both grants came through, so the amount has been reduced from the original match requirement. The total is \$26,000 in which \$13,000 can be paid in each fiscal year.

### 3.C. NEW MONITORING WELLS

Katie Cameron will be making a presentation on the proposed monitoring wells that was discussed at the last Water Committee. She will explain the purpose and value of installing wells in certain locations. This will give the Committee an opportunity to ask questions and any other concerns as this is a budget item for FY17-18.

### 3.D. GROUND WATER ENERGY LEVELS

No new activity to report

### 3.E. GROUND WATER QUALITY SAMPLING

No new activity to report

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

Annual Tour is May 24 at 5 pm with information attached.

## 4. SURFACE WATER PROGRAMS

4.A. STATE LAKES, FOR THE WEEK OF

**Week of May 22<sup>th</sup>, 2017**

**No lakes from Lower Platte North are on this list.**

**Zero lakes were impaired for harmful algal blooms**, as none of the beaches sampled were beyond the limit of 20ppb for microcystin.

There are quite a few new lakes on health alert for bacteria, exceeding the limit of 235 cells/100ml of lake water.

	Lake Name	Lake #	County	Last Updated	Current algae	Algal Health Alert?	E.coli Bacteria
	<a href="#">Big Indian Lake (11A)</a>	2	Gage	5/25/17	0.19	No	1119.9
	<a href="#">Bluestem Lake</a>	3	Lancaster	5/25/17	0	No	2755
	<a href="#">Cub Creek Lake</a>	11	Jefferson	5/25/17	0	No	1986.3
	<a href="#">Iron Horse Trail Lake (WMA)</a>	47	Pawnee County	5/18/17	0	No	816
	<a href="#">Kirkman's Cove Lake</a>	21	Richardson	5/25/17	0	No	17329
	<a href="#">Lake North</a>	22	Platte	5/25/17	0	No	687
	<a href="#">Lewis and Clark Reservoir</a>	23	Knox	5/18/17	0.2	No	553
	<a href="#">Lone Star Reservoir</a>	24	Fillmore	5/25/17	0	No	1119.9
	<a href="#">Pawnee Lake</a>	34a	Lancaster	5/25/17	3.53	No	410.6
	<a href="#">Rockford Lake (SRA)</a>	36	Gage	5/25/17	0.19	No	272.3
	<a href="#">Swan Creek Lake (5A)</a>	39	Saline	5/25/17	0.22	No	547.5
	<a href="#">Wagon Train Lake</a>	44	Lancaster	5/25/17	0	No	547.5
	<a href="#">Wirth Brothers Lake (Site 27)</a>	46	Johnson	5/25/17	0	No	1553



This information is updated weekly on our web site, <http://deq.ne.gov/NDEQProg.nsf/Beaches2017.xsp>. We hope you find this interesting and useful.

4.B. USGS WATER QUALITY MONITORING ON SHELL CREEK

## 5. OTHER

### 5.A. CMAT Conjunctive Management Analysis Tool

Bob Gregalunas and Mike Sotak will be at the Committee Meeting to discuss the Analysis Tool. This will give the Committee a chance to learn how the process will function and how staff can use it to obtain potential answers on ground and surface water questions.

This will be a budget item for the Committee to consider.

### 5.B. Master Database and Monitoring Equipment

Neal Johnson from the Phoenix Group will be providing information on equipment and installation costs for monitoring irrigation wells which has PVC pipe within the well column.

This information can be used in the SQS areas on monitoring water levels throughout the year. Staff could use this information as a predictive tools during the pumping seasons to determine when the well's cone of depression seems to be concerning or potential interference. The rules at this time requires wells to be measured during the spring, summer and fall. Measuring these wells manually could be reactive and not proactive, as this takes staff time along with the travel time to these areas.

### 5.C. LPNNRD WATER PROGRAMS BUDGET FY17-18

Attached is a proposed budget for FY17-18. At the last Water Committee, the Committee agreed to participate in a WSF grant for future AEM flights. The flights and processing of the data would be in 2018 - 19. Under the GW Projects Sinking Fund a sum of \$100,000 was included to spread the cost out over 2 - 3 fiscal years. A 40 percent match on a 750,000 grant would be \$300,000.

Water Department Staff Priority List:

1. Mobile Application and Field Data Collection (Master Database)
2. AEM Flights
3. Monitoring Wells and Test Holes
4. Monitoring Equipment for Wells in SQS #2
5. CMAT plus water tools and/or Hydrological Risk Map
6. GW Elevations WANN subarea

### 5.D. GMDA SUMMER CONFERENCE

Attached is a report on the GMDA summer conference and a flyer promoting the winter conference, which will be held in Baton Rouge, LA in mid-January.

#### 5.E. COMMENTS FROM THE PUBLIC