

Water Committee Meeting  
Wednesday, August 31, 2016 5:00 PM  
Lower Platte North NRD Office  
P.O. Box 126  
Wahoo, NE 68066

## 1. REGULATORY

### 1.A. GROUND WATER MANAGEMENT AREA

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

At a recent meeting with DNR it was reported that instead of issuing irrigation surface water permits as a percent of ground water irrigation acres issued by the NRD, DNR may go to a 1 for 1 basis.

This would apply to every area the LPNNRD is restricting further ground water development, such as our Hydrologically Connected, Restricted Development, and SQS areas.

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The District received 5 applications for 187.67 acres bringing the total to 6,406.78 acres. Applications are due by September 15th and will be reviewed at the September 28, 2016 Water Committee meeting with potential approval at the October Board Meeting.

#### 1.A.1.a. Thomas Fichtl Variance Application

Thomas Fichtl and Robert Kluck addressed the Committee regarding Mr. Fichtl's variance application for 21 acres in the NW 1/4 of Section 12-17-2E Colfax county. This application has been held back from the time of submittal due to land class issues. Mr. Fichtl would now like to complete an in field transfer of his 96 certified irrigated acres to the areas most affected by poor land class and modify his variance to reflect the changes made. The committee was in agreeance with the proposed plan however no motion was necessary.

Attached is an aerial photo of the field. The current certified irrigated acre boundary is the blue line. The original variance application is the orange line, and the Class 6+ ground that is holding the application back is the red filled portion of the map.

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

##### **Schmit Land Company Variance Request**

As directed by the Board the motion read: "To allow this variance application by Schmit Land Company in Section 11, T15N, R1E to be added into the ranking criteria for the non-hydrologically connected area subject to a reclassification of land by NRCS reducing the amount of class 6, 7, or 8 due to slope to less than 20% of the total 120 acres and the filing

and approval of an NRCS farm plan that goes over and above normal conservation practices required by NRCS"

NRCS does not reclassify the land due to land leveling.

In a previous variance application by Steven Osantowski the Board allowed only 20% of the land under the wetted area of the pivot to be up to 20% class 6,7, or 8 highly erodible ground due to slope (see attached map and letter listing the conditions of this variance).

Applications were due by August 15 in order to be considered for new irrigated acres in 2017. The District has 24 applications for a total of 2073.54 acres. However, 1220.54 of these acres are within the two Special Quantity Subareas, and 175 acres have been excluded from the list due to land class issues leaving 678 acres available for approval. The Board can approve up to 1000 acres in the Non-Hydrologically Connected Area although, since the creation of the SQS areas the board has approved 358.68 and 415.2 acres in 2015 and 2014 respectively.

Attached is the spread sheet of all applications on file.

### 1.A.3. Variance Requests in the Restricted Development Areas

No updates

### 1.A.4. Well Permit Program

#### 1.A.4.a. Well Permits Approved

 2 new permits were approved since the last Committee meeting.

Landowner	Number Of Wells	Number Of New Irrigated Acres	Type Of Well	County	Subarea
Fremont Family YMCA	1	0	Dewatering (Permanent)	Dodge	Fremont
Fremont Family YMCA	1	0	Dewatering (Permanent)	Dodge	Fremont

The total number of approved permits for 2016 is 12.

The Fremont YMCA has requested a total of 4 de-watering well permits.

Location of Approved Well Permits for 2016: Correct as of 8/31/2016

County	Irrigation - New	Irrigation - Replacement	Stock	Commercial	Municipal	Other	Total
Butler	0	0	0	0	0	0	0
Colfax	0	1	0	0	0	0	1
Dodge	0	3	0	0	0	4	7

Boone	1	1	0	0	0	0	2
Madison	0	0	0	0	0	0	0
Platte	0	0	0	0	0	0	0
Saunders	1	0	0	0	0	1	2
Total	2	5	0	0	0	5	12

#### 1.A.5. Potential Violation of Expanded Irrigation

It has been brought to the Staff's attention that a field in the SW 1/4 of Section 25-18-4E Colfax County, North Bend Subarea, has 37.91 irrigated acres more than what is currently certified. Parcel data indicates the field is owned by Ralph Snover, but a variance application has been submitted under John Snover for 81.15 acres. Attached are aerial photos showing the currently certified acres, the total swing of the pivot, and the unauthorized portion of the pivot swing.

Staff is recommending one or more of the following options concerning the unauthorized irrigation.

- 1) Invite the Snover's to the next Water Committee Meeting. This allows them the opportunity to provide testimony on their side of the case before action is taken.
- 2) Immediately issue a notice of a cease and desist order against further irrigation until approved by LPNRRD.
- 3) That the variance application not be considered for new acres for one or more years at the upcoming 2017 allocation.

#### 1.A.6. Special Quantity Subareas

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

Staff has continued checking flow meters and measuring water levels. Good precipitation this summer has allowed for some producers to irrigate very little and in a few instances, not at all.

#### 1.A.7. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

At a recent Managers Meeting of the LPRBC (August 22nd) it was discussed that in the future, new groundwater irrigation development may be based on affects to Platte River

flow and look at net irrigation requirement and stream depletion factor rather than the number of acres.

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The next Lower Platte River Basin Coalition Board of Directors meeting is scheduled for October 17, 2016 from 11:00 a.m. to 2:00 p.m. at the Lower Loup NRD in Ord. Hilger and McDermott should plan to attend along with Miyoshi and Angle. Hilger is the Chairperson of the LPRBC Board.

1.A.8. Voluntary Integrated Water Management Plan - LENRD and LPNNRD

Angle met with Amy Zoller of DNR on August 10, 2016 to discuss changes to the goals and objectives that expanded DNR role in several of the V-IMP action items. She said DNR would discuss these changes and get back with us. Those changes are attached. Angle is hoping to have the next Stakeholders meeting in mid to late September. The Water Committee reviewed the latest Goals and Objectives approved by DNR. These should be reviewed by the Board before we move to the Stakeholders meeting. Steps for approval of LPNNRD V-IMP

Water Comm. and Board approval of Goals, Objectives, and Action Items (G,O,AI of V-IMP)	Done
Submit to Olsson Assoc. and DNR of revised G,O,AI of V-IMP as well as edited Plan.	Done
Review and final comments by Stakeholders Comm.	Pending
Review and approval of Water Comm. and Board of entire V-IMP	
Submit to DNR for their final review	
Hold public hearings	
Final approval of V-IMP	

1.A.9. Cost Share Programs

1.A.9.a. Irrigation Well Sample Kits

Requests for 306 irrigation kits have been received (24 during this week of August) and 252 water samples have been returned to the NRD. So far for the last week of August, 58 water samples have been returned, including 19 on the day of the Water Committee (Wednesday August 31st).

1.A.9.b. Domestic Well Sample Kits

No new update.

1.A.9.c. Nebraska Agricultural Water Management Network (NAWMN)

Equipment has been delivered to 18 producers, invoices sent to them and payment has been received.

1.A.9.d. Flow Meter Cost Share in SQS#2

The flow meter cost share application has been finished and will be mailed to tenants and landowners in the SQS #2 area later this week (see attached). The deadline to return the applications is March 1, 2017.

With the \$200,000 in WSF grant funds we should be able to cost share on approximately 260 meters at \$770 per 8 inch meter. If funds should become limiting, cost share will be awarded on a ‘first come – first serve’ basis with priority awarded to meters purchased between October 1, 2015 to May 1, 2016.

If we have funds available and want to extend this to landowners in the Butler - Saunders SQS we will need to go to the Natural Resources Commission for their approval to modify the grant.

1.A.10. 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	0.55 to 93.6 ppm	39% (16 of 41)	12% (5 of 41)	49% (20 of 41)

Oaklund contacted Tommy Hough of Hough Farms after receiving the **93.6 ppm** result for G-065461. Tommy Hough related that hired hand collected sample from small (west) pivot when they were chemigating. After installing a faucet at the well Oaklund collected a sample last week. Results of this sample haven’t yet been received. History of G-065461 irrigation sample results – Hough Farms, is attached.

1.A.11. 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	3.78 to 15.3 ppm	40% (2 of 5)	- - -	60% (3 of 5)

1.A.12. 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	0.14 to 75.1 ppm	15% (11 of 73)	11% (8 of 73)	74% (54 of 73)

Oaklund contacted Larry Ruzicka [RBS Farms] after receiving the **75.1 ppm** result for G-026330. The history for the irrigation sample results of this well is attached. This well has a history of high nitrates and seems to be increasing.

1.A.13. LPNNRD Operator Certification

1.A.13.a. LPNNRD Operator Certification Classes

One

online test request was made in August 2016.

Cert. #	Cert. Date	Name	Re-Cert.	Comments
6724	8/30/2016	Kevin Rasmussen	Yes	Needed for Variance

1.A.14. Certifying Acres in Saunders and Dodge Counties

Chris Poole is currently focusing on Dodge County. It appears one producer may have added acres to his operation in the last couple of years, without LPNNRD approval. This is the same producer mentioned above in Bret Schomer's report, however this field is still under review since it is in Dodge County.

1.B. CHEMIGATION

For 2016 we have 478 renewals and 98 new permit applications for a current total of 576. Inspections for 134 renewal permits and 95 new permit applications have been completed.

The breakdown by County of the 478 renewal inspections:

County	Number of Renewals
Boone	50

Butler	64
Colfax	23
Dodge	86
Madison	6
Platte	81
Saunders	168

The breakdown by County of the 134 renewal inspections:

County	Number of Renewals Inspected
Boone	15
Butler	19
Colfax	5
Dodge	21
Madison	1
Platte	28
Saunders	45

Of the initial 98 new chemigation permit applications for 2016, 95 have been completed and the other three have cancelled. The breakdown, by county for the 95 new chemigation permit applications, are listed below:

County	New Chemigation Applications
Boone	5
Butler	14
Colfax	11
Dodge	13
Madison	0
Platte	12
Saunders	40

County	Number Of Renewals
Boone	
Butler	
Colfax	
Dodge	
Madison	
Platte	
Saunders	

County	Number Of Renewals
Boone	
Butler	
Colfax	
Dodge	
Madison	
Platte	
Saunders	

County	Number Of Renewals
Boone	
Butler	
Colfax	
Dodge	
Madison	
Pla	

Of the scheduled 138 renewal inspections for 2016, a total of 134 have been completed.

County	Number Of Renewals
Boone	
Butler	
Colfax	
Dodge	
Madison	
Platte	
Saunders	

Of the scheduled 138 renewal inspections for 2016, a total of 134 have been completed.

County	Number Of Renewals
Boone	
Butler	
Colfax	
Dodge	
Madison	
Platte	
Saunders	

Of the scheduled 138 renewal inspections for 2016, a total of 134 have been completed.

County	Number Of Renewals
Boone	
Butler	
Colfax	
Dodge	
Madison	
Platte	
Saunders	

### 1.C. LIVESTOCK WASTE PERMITS

No new livestock permit applications from DEQ since the last Water Committee meeting.

## 2. GROUND WATER PROGRAMS

### 2.A. DECOMMISSIONED WELL PROGRAM

#### 2.A.1. Well Estimates

No new wells has been reviewed and approved by Gottschalk for decommissioning since the last Committee meeting.

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

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

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

#### 2.B.1. AEM Flights in SQS Areas

AEM flights were completed in July and we have received the second invoice from AGF for \$208,333.00 (see attached invoice). This invoice is for the data inversion work, which correlates (or ground truths) the airborne data with the test hole information.

We recently received the new reimbursement request from DNR for the Water Sustainability Fund (WSF) grants. Once this invoice is paid by the LPNNRD, we can send in the reimbursement request to the WSF.

Total Contract	\$416,667
Total work to date	125,000
This Invoice	208,333
Remaining Contract Amount	83,334

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

Attached is the draft Cooperative Agreement for the Lower Platte River Consortium (formerly called the Drought Contingency Study).

## 2.C. NEW MONITORING WELLS

Of the eight (older) loggers from 2006 and 2007, four have been replaced. These loggers were expected to function for 7-8 years and have exceeded this time. The old loggers still in the field are in wells near the office.

## 2.D. GROUND WATER ENERGY LEVELS

August has been a busy month for measuring ground water energy levels. Early August staff focused on the SQS areas and GWEL network wells just outside of both SQS areas. On August 25, 2016 staff measured the monitoring wells that are part of the Multi-Agency network of the area north of Ashland and the Former Ordnance Plant near Mead. Results will be presented at the next Water Committee.

## 2.E. AURORA COOPERATIVE FERTILIZER/HERBICIDE SPILL

Oaklund coordinated with the two landowners, Galen Jambor and Jim Kubik, to collect follow-up water samples from their wells in August. The nitrate-nitrogen level in this second set of samples were also low:

Jambor's domestic well (house) 0.17 ppm;

Jambor stock well 0.38 ppm;

Kubik domestic well (G-175517) 0.38 ppm.

Of these follow-up samples, only Kubik's was higher (0.28 to 0.38 ppm).

## 2.F. FORMER ORDNANCE PLANT NEAR MEAD

The Army Corps of Engineers has started drilling deeper into the Dakota aquifer to further locate possible contamination from TCE or RDX. Last year at three pilot sites these contaminants were detected in the bedrock. ENWRA was allowed to split samples with the COE and general water quality parameters such as pH, conductivity, chloride, and other ions looked favorable at that time.

This time the COE is sampling 13 sites and ENWRA will split samples at 3 of those locations.

## 3. SURFACE WATER PROGRAMS

### 3.A. STATE LAKES, FOR THE WEEK OF AUGUST 22ND

#### 3.A.1. Bacteria Sampling

#### Week of August 22nd, 2016

**Lakes that tested high for *E. coli* bacteria** this week. *E. coli* levels measured above 235 colonies/100 ml of sample are considered a higher risk for illness when

swimming. Considering the more rapid changes in bacteria conditions, signs are not posted with these higher levels although DEQ wants people to be aware and use their own judgment on their use.

#### Lakes with High E. coli Bacteria Levels

- Maple Creek Rec Area Lake in Colfax County

This information is updated weekly on the DEQ web site,

#### 3.A.2. Toxic Algae

#### Week of August 22nd, 2016

**Lakes that will be on “Health Alert”** this week. While no lakes tested above 20 ppb this week, it is DEQ policy that any lake that has microcystin levels over the established criterion of 20 ppb will be placed on “Health Alert” Status until such time that it has tested below 20 ppb for two continuous weeks. If a lake is under a Health Alert, signs will be posted recommending people avoid full body contact activities such as swimming, wading, skiing, jet skiing, etc. Non-contact activities such as boating, fishing, and camping are OK.

#### Lakes with High Microcystin Levels

- Iron Horse Trail Lake in Pawnee County
- Pawnee Lake in Lancaster County
- Willow Creek Lake in Pierce County

This information is updated weekly on the DEQ web site,

#### 4. OTHER

##### 4.A. TEST YOUR WELL NIGHT

The first 'Test Your Well Night' has been scheduled for September 29th from 6-8 pm at David City High School. Students from the natural resources class will use colorimeters to test the nitrate levels of well samples from the public.

##### 4.B. GMDA ANNUAL CONFERENCE

The Annual Conference for GMDA has been scheduled for January 9-11, 2017 in Fort Worth, Texas (see attached brochure).

##### 4.C. 2016 SUMMER INTERNS

The three summer interns are now back at school for the fall semester of classes: two at UNL; the other at Doane University.

##### 4.D. COMMENTS FROM THE PUBLIC

Three members of the general public attended the Water Committee meeting.

Tom Lichtl and Robert Kluck Jr. attended and discussed about transferring certified acres (gravity to pivot) within the same parcel.  
Mary Wotipka attended about increasing irrigated acres in the restricted development area.