

Water Committee Meeting  
Wednesday, July 27, 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)

The District has received one new variance request for 135 acres in the Todd Valley subarea.

The District now has 100 applications totaling 6214.11 acres. The deadline for new applications in the Hydrologically Connected Area is September 15th.

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

No new updates. New variance request applications in the Non-Hydrologically Connected Area are due August 15th.

##### 1.A.2.a. Schmit Land Co Request

Schmit Land Co has asked the Board to reconsider their variance application for 120 new irrigated acres from a new well in S11-T15N-R1E, Butler County, David City subarea. The application was originally denied due to 49.7% of the field having Class 6 soil due to slope. Since the initial review, Proskovec Earthmoving has removed all of the trees on the property and filled in the deep gullies that were originally present. Staff has provided four potential outcomes to this solution.

- 1) Not allow the application to be included in the ranking for new acres in the Non-Hydrologically Connected Area, as it is currently submitted, due to the natural Class 6 land.
- 2) Allow the application to be added into the ranking for new acres in the Non-Hydrologically Connected Area but award no points for the land alterations.
- 3) Allow the application to be added into the ranking for new acres in the Non-Hydrologically Connected Area and award an increase in points for the land alterations.
- 4) Reduce the size of the irrigated field so the total portion that was originally class 6, 7, or 8 land due to slope, is now less than 20% of the total.

Attachments:

Schmit ArcMap Aerial - Pre-alteration (2014)

Schmit ArcMap Aerial with Class 6 - Class 6 ground overlaid on 2014 aerial

Schmit ArcMap Hillshade - Lidar hillshade

Schmit Post Leveling - Surface map provided by Proskovec Earthmoving

Schmit Google Earth - Aerial photo from 4/2016 showing the trees and leveling

Much discussion followed on these different options.

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

No new updates.

1.A.4. Well Permit Program

1.A.4.a. Well Permits Approved

2 new permits were approved since the last Committee meeting.

<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>
Fremont Family YMCA	1	0	Dewatering (Permanent)	Dodge	Fremont
William K Becker	1	0	Irrigation (Replacement)	Boone	Upper Newman Grove

The total number of approved permits for 2016 is 9.

Location of Approved Well Permits for 2016: Correct as of 7/27/2016

<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>
Butler	0	0	0	0	0	0	0
Colfax	0	1	0	0	0	0	1
Dodge	0	3	0	0	0	2	5
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	0	1
<b>Total</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>9</b>

#### 1.A.5. Irrigation Runoff Complaint

##### **2016 Irrigation Complaint**

On Thursday morning, July 21, 2016, Oaklund received a complaint (phone call) regarding the end gun of one of Duane Ratkovec's pivots watering a county road in Butler County. Oaklund called Ratkovec's cell phone and left a callback number since his 'mailbox was full'. Oaklund then called the Butler County Sheriff's office and was told by the dispatcher that the Sheriff's office had also logged the complaint about Duane Ratkovec's end gun spraying on the county road. At 9:05 a.m. Oaklund, with two interns, arrived at County Road X, between County roads 33 and 34. The end gun from the pivot in the SE<sup>1</sup>/<sub>4</sub> of Section 35-T15N-R4E (G-169044) was watering County Road X south of Larry Ratkovec's house – from the "School Bus Stop Ahead" sign (north) to the top of the rise (south), a distance of more than 100 feet. The end gun was spraying all the way across County Road X to the cornfield in the SW<sup>1</sup>/<sub>4</sub> of Section 36. At 9:11 a.m. Oaklund again called Duane Ratkovec's cell phone. Ratkovec answered and said he would come to the site. Oaklund and Ratkovec discussed this situation about the water Ratkovec is pumping leaving his property, a violation of Nebraska law. Duane Ratkovec rode his 4-wheel ATV to the well and shut off the end gun at 9:21 a.m. When Ratkovec returned he and Oaklund continued the discussion regarding this incident and previous years' incidents of the end guns from Ratkovec's pivots spraying county roads. This discussion continued for approximately ½ hour. Oaklund wrote a note with the date and time of the next Water Committee meeting and gave it to Duane Ratkovec. Duane folded the note, put it in his pocket, and said that he would attend the meeting. After leaving the site Oaklund returned phone call to Larry Ratkovec. Oaklund also told Larry Ratkovec the date and time of the next Water Committee meeting and Larry Ratkovec also indicated that he would attend the meeting.

Both individuals attended the Water Committee meeting. Duane Ratkovec stated that vandalism was the cause of the pivot watering the road and this has happened several times in the past. This has been reported to the Sheriff's Office and has been investigated. Duane Ratkovec stated that both himself and the Sheriff's office have now placed remote recording devices to catch the individuals involved.

Larry Ratkovec called our office on Friday July 29, 2016 to report that this same pivot in question watered the county road again the previous night.

#### 1.A.6. Transfer of Water Rights

##### **Martensen (Cech) land irrigation in NW<sup>1</sup>/<sub>4</sub> of Section 34-T18N-R3E**

On January 15, 2016, the acres owned by Delores Cech in the NW<sup>1</sup>/<sub>4</sub> of Section 34, Township 18 North, Range 3 East (southwest of Shell Creek) were sold to three of her children who now each have ? interest in the land. The new owners are John Cech (son),

Ron Cech (son), and Nancy Martensen (daughter, whose husband is Dan Martensen). Oaklund has been working with Dan Martensen for the changes to his surface water right from Shell Creek. On June 27, 2016, Dan and Nancy Martensen, John and Julie Cech, and Ronald and Dawn Cech, on behalf of CMC Land Holdings, LLC., filed a Relinquishment of Water Appropriation, REL-5709, in the office of the Department of Natural Resources, relinquishing the right to divert water under appropriation A-6523 for the irrigation of 70 acres in the NW¼ of Section 34-T18N-R3E (see attachment). This is the final requirement for completion of the Motion Passed at the February 8, 2016 Board meeting. [Note: Dan Martensen and Ron Cech attended the January 28, 2016 Water Committee meeting to answer questions regarding this project. Section 34-T18N-R3E is the eastern most section in the new Richland-Schuyler *North* Phase 2 Area.]

**Below is summary from the February 8, 2016 Board Meeting  
Cech Irrigation in NW¼ of Section 34-T18N-R3E**

On January 15, 2016, the acres owned by Delores Cech in the NW¼ of Section 34, Township 18 North, Range 3 East, Lower Shell Creek subarea (south west of Shell Creek) were sold to three of her children who now each have interest in the land. The new owners are John Cech (son), Ron Cech (son), and Nancy Martensen (daughter, whose husband is Dan Martensen). In the week prior to the purchase of this land Dan Martensen contacted Russell Oaklund regarding the certified acres for this land and the surface water right from Shell Creek for this ground. The records of LPNDRD show that there are 67 acres certified as irrigated from irrigation well G-001817 with some additional certified irrigation acres from the surface water permit. The records of the Department of Natural Resources show that surface Water Appropriation A-6523 is a permit with a priority date of July 30, 1954, to divert water from Shell Creek for irrigation of 70 acres in the NW¼ of Section 34. Following their purchase of the land Dan Martensen made an appointment to meet with Oaklund at the LPNDRD office in Wahoo. On Wednesday, January 20<sup>th</sup>, Martensen met with Oaklund in LPNDRD office. Martensen related that the Delores Cech ground has been with gated pipe from irrigation well G-001817 and with a pump from Shell Creek. Martensen related that for more efficient use of irrigation water they would like to install a pivot and use the irrigation well as the source of water for irrigation. By removing some trees they could position the pivot to make a full circle covering 120 acres and irrigate only 17 acres outside the pivot with gated pipe. Martensen related that the additional time and expense needed to maintain the pumpsite and pump on Shell Creek are probably not worth it and they would be willing to relinquish their surface water right from Shell Creek if they could receive approval from LPNDRD to irrigate the land from irrigation well G-001817 (as indicated above). During this meeting Oaklund called the Department of Natural Resources in Lincoln and discussed surface Water Appropriation A-6523 with Susan France. The seventy acres approved for irrigation from Shell Creek under A-6523 remain “in full force and effect.”

On Thursday, January 21<sup>st</sup>, as per the appointment made with the DNR, Dan Martensen met with John Miller in Lincoln. During this meeting Miller called Oaklund regarding surface Water Appropriation A-6523. After this meeting Martensen stopped at LPNDRD. He again related that it would be more practical, economical, and a more efficient use of water to irrigate with a center pivot from the irrigation well. Dan Martensen related that he will attend the Water Committee meeting on January 28, 2016. An aerial photo showing the

NW<sup>1</sup>/<sub>4</sub> of section 34 is attached. [Note: Section 34-T18N-R3E is the eastern most section in the new Richland-Schuyler *North* Phase 2 Area.]

*Report by Russ Oaklund*

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Ron Cech and Dan Martensen attended the Water Committee meeting on January 28, 2016 in regard to this request. They are willing to retire the surface water right in exchange to irrigate the entire field.

#### 1.A.7. Special Quantity Subareas

The summer measurements of the GWEL network wells within and adjacent to the SQS areas is scheduled to start in early August.

Staff has been checking flow meters, making and receiving calls from producers in this area, and measuring water levels. The precipitation received in this area has promoted some producers to call LPNNRD asking that we wait to go into their fields to prevent tracking up their access road. Producers have also inquired about the cost-share program for their flow meters.

Question concerning irrigation before flow meter installed for Bryce Grotelueschen (see attached document).

##### 1.A.7.a. SQS AEM Flights and WSF Contract

The AEM flights have been completed in both our SQS areas. Preliminary data should be available at the end of the year and the final report is due in August 2017. We have received the WSF contract from DNR for the AEM flights (see attached contract). We will need a motion for approval.

##### 1.A.7.b. SQS Areas and WSF Flow Meter Cost Share Program

The LPNNRD has received the WSF contract from DNR for the cost-share program on flow meters (see attached contract). We will need motion for approval. Once approved we can start this cost share program with producers.

#### 1.A.8. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

The LPRBC Managers meeting was held at LPNNRD on Wednesday, July 6, 2016. The main topic of concern was: what are the target flows at Louisville? See attached agenda. Future management direction was outlined:

1. Target % of flows at Louisville
2. Distributions of excess supply among the member NRD's: evenly / a percent of the supply / number of irrigable acres

### 3. Plan implementation at the NRD level

It looks like the hydropower (Loup Power Canal water right) will be credited to the Loup Basin.

#### 1.A.9. Voluntary Integrated Water Management Plan - LENRD and LPNNRD

We have forwarded the last changes approved by the Board to DNR and Olsson Associates for their review. No new updates yet.

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.	Pending
Review and final comments by Stakeholders Comm.	
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	

We have received an invoice from Olsson Associates concerning work they have done for our V-IMP in the amount of \$530.16 (see attached invoice). This is on contract so does not need approval by the Water Committee.

#### 1.A.10. Cost Share Programs

##### 1.A.10.a. Irrigation Well Sample Kits

Requests for 132 irrigation kits have been received. One request for ten sample kits was received the day of the Water Committee (July 27, 2016), while 33 water samples from producers were also received the same day and will be sent to the lab for testing.

##### 1.A.10.b. Nebraska Agricultural Water Management Network (NAWMN)

Eight producers have ordered equipment for 2016 in our NAWMN program. Aaron Nygren (Colfax County Extension Educator) has delivered the equipment to six of them and them guided them with installation of the equipment.

#### 1.A.11. Bellwood Phase 2 Area

2016 is the fourteenth year of this Phase 2 Area. This area was reduced from 32 sections to 21 sections in 2015.

#### 1.A.12. Richland - Schuyler Phase 2 Area

Oaklund met with one producer in his yard to answer questions regarding Phase 2 requirements. Oaklund, with the interns, reviewed the locations of the tens sections of this area (the ten sections immediately north of the Phase 3): Township 18 North, Range 2 East, sections 31 to 36; Township 18 North, Range 3 East, sections 31 to 34. During this review we looked at Dan Martensen's new pivot in the east section of this area and discussed surface water rights.

#### 1.A.13. 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.

#### 1.A.14. LPNNRD Operator Certification

No new update.

#### 1.A.15. Certifying Acres in Saunders and Dodge Counties

Chris Poole was able to get all the landowners in Saunders County to fill out their acre certifications and turn them in without having to issue notice for a Cease & Desist Order. Phoenix group has provided an update of their database project for the LPNNRD and Poole will be testing it on the acre certifications remaining in Dodge County.

### 1.B. CHEMIGATION

For 2016 we have 478 renewals and 91 new permit applications for a current total of 569. The NRD is required to inspect each chemigation site at least once every three years. This means we are approaching an average of 200 inspections each summer.

Summer chemigation inspections are listed below:

	<b>Number to be inspected this summer</b>	<b>Number inspected</b>	<b>Number approved</b>
<b>Renewal</b>	~138	123	123
<b>New</b>	91	84	84

The breakdown, by county for the 91 new chemigation permit applications, are listed below:

County	New Chemigation Applications
Boone	5
Butler	14
Colfax	11
Dodge	13

Madison	0
Platte	12
Saunders	36

The breakdown by county for renewal inspections this year.

County	Number of Renewals
Boone	15
Butler	15
Colfax	5
Dodge	19
Madison	1
Platte	22
Saunders	46

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	
Platte	

### 1.C. LIVESTOCK WASTE PERMITS

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

Name	Livestock	Type of Permit	Legal Description	County
Mead Cattle Company 1344 County Road 10 Mead NE 68041	Cattle 30,000 head 30,000 A.U.	Modification of construction and operating permit Modification of NPDES permit coverage	S1/2, Section 12, T14N, R8E N1/2, Section 13, T14N, R8E	Saunders
Kevin & Lyle Herchenbach Operation 42616 505 Street Lindsay NE 68644	Finishing Swine 4,000 Head 1,600 S.U.	New Construction and Operating Permit	E1/2, NE1/4, Section 9, T20N, R3W	Platte

**Description of permit application:**

An additional application for a major modification of operating permit for Mead Cattle Company. This is for additional work they plan to do on their holding ponds and new manure handling plan (July 1, 2016).

Kevin & Lyle Herchenbach is for a new finishing swine operation located 2 miles northeast of Lindsay (July 11, 2016).

## 2. GROUND WATER PROGRAMS

### 2.A. DECOMMISSIONED WELL PROGRAM

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

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

Well Owner	Type of Well	Cost Share Estimate	County
Louis Kavan	Stock well	\$639.91	Saunders

#### 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. Eastern Nebraska Water Resources Assessment (ENWRA)

Lower Elkhorn NRD is going to apply for another WSF grant request by July 29, 2016 for more AEM flights in their District. They are proposing to fly the south-eastern portion of their district and they have asked Papio and LPNNRD if we wish to be a part of this application. Areas that the LPNNRD should focus on are the Restricted Development Areas and areas with confined (artesian) aquifers.

The area that is adjacent to LENRD would be the Platte River Uplands subarea which is north west of Fremont. If 1/3 mile spacing is done then the estimated total flight miles is ~54 miles. Using proportional amounts to our current AEM flights therefore has an estimated total cost of \$37,000 of which \$15,000 would be LPNNRD portion. This should include AEM flights, data inversion, and final report.

After much discussion the Water Committee members thought the LPNNRD should try to fund this study.

### 2.C. NEW MONITORING WELLS

Of the eight (older) loggers from 2006 and 2007, four have now been replaced. These loggers were expected to function for 7-8 years and have exceeded this time.

Downey Drilling has completed the drilling and installation of three new monitoring wells: Dodge County, east of Ames (NB-1) – shallow well 25’ depth and deeper well 240’ depth; Saunders County, west of Malmo (P-3) 495’ depth. Downey has completed the Well Registrations for these wells with the Department of Natural Resources. A data logger has been installed in the Malmo though a longer cable will still need to be ordered. The uplift water pressure in the deep Ames well continues to be evident -- when the pressure cap is removed from the top of the cased well the water begins to outflow in less than a minute.

## 2.D. GROUND WATER ENERGY LEVELS

As already mentioned NRD staff will start GWEL measurements in our SQS areas starting in early August.

Level measurements for the Wann Basin area near the former Ordnance Plant at Mead will be scheduled for the end of August.

## 2.E. GROUND WATER QUALITY SAMPLING

Staff begun annual sampling of the 53 wells in the District that make up the Statewide Network. Samples have been collected at 26 sites.

## 3. SURFACE WATER PROGRAMS

### 3.A. STATE LAKES, FOR THE WEEK OF JULY 18-22, 2016

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

**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.

No lakes were found to have high bacteria levels

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

**Lakes that will be on “Health Alert”** 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

- Big Indian Creek Lake in Gage County
- Swan Creek Lake #5A in Saline County

### 3.B. USGS WATER QUALITY MONITORING ON SHELL CREEK

Attached is an invoice from USGS for the water quality monitoring on Shell Creek for the amount of \$5,600. Since this is part of an existing contract, approval by the Water Committee is not necessary.

### 3.C. USGS STREAM FLOW GAUGING SITES

The LPNNRD has received an invoice from USGS for stream flow measurements taken on Shell Creek, Wahoo Creek, and a real time continuance groundwater level monitoring site at ARDC. The amount is \$16,490 and is part of an existing contract so approval by Water Committee is not necessary.

## 4. OTHER

### 4.A. LPNNRD WATER PROGRAMS BUDGET FY14-15

The Budget workshop is scheduled for Wednesday, August 3, 2016 starting at 5:00 pm at the LPNNRD office.

### 4.B. GMDA ANNUAL CONFERENCE

The GMDA Summer Session was held in Yakima WA from June 29 to July 1, 2016. The Yakima Water District is very progressive and well organized. All water uses in the basin from agriculture, municipal, environmental, recreation, and tribal concerns are actively working together to sustain the resource and willing to compromise. They are also addressing the effects of climate change. With the winters getting warmer more of the precipitation is falling as rain as opposed to snow. They already have 5 reservoirs in the basin and looked at snow pack as their 6th reservoir. Since snow pack is less important they are looking at more reservoirs to collect this rainfall.

The Winter Conference will be held in Fort Worth Texas in early January 2017.

### 4.C. 2016 SUMMER INTERNS

The three summer interns are now assisting Tyler with the remaining chemigation inspections and are collecting water samples now that the precipitation has slowed and producers are irrigating. They have less than a month until the fall semester begins.

### 4.D. COMMENTS FROM THE PUBLIC

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

Duane Ratkovec

Larry Ratkovec

Simone Rock of HDR

Mary Woptika