

Water Committee Meeting
Wednesday, August 2, 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 August 2, 2017 Water Committee Meeting it was moved by McDermott and seconded by Feala to take the above motion from the table for committee consideration. Motion passed.

After considerable discussion the committee motion failed and will not be advanced to the board and will be removed from the Water Committee's "Unfinished Business Agenda".

2. REGULATORY

2.A. ITEMS FOR WATER COMMITTEE

2.B. GROUND WATER MANAGEMENT AREA

2.B.1. Irrigated Acres for 2017 in the HCA and NHCA

Deadlines are approaching.

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

The District has seen an increase in requests for information regarding new irrigated acres. As of 8/2/2017 there are 4584.2 acres applied for. The deadline for variances to expand irrigated acres is September 15.

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

No new applications have been received since the last Water Committee meeting. The deadline for variances to expand irrigated acres in the Non-Hydrologically Connected Area is August 15. Unofficial number of variances for the area is 8 applications for 678 acres.

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

Normal deadline for variances to expand irrigated acres is August 15.

2.B.5. Variance Requests in the Special Quantity Subareas

The District has received one new application for 14 acres in the Platte-Colfax Special Quantity Subarea. Per LPNNRD policy, the variance was not charged a filing fee and will be held in case a change is made to the LPNNRD Rules and Regulations regarding adding new irrigated acres in the Special Quantity Subarea.

2.B.6. Well Permit Program

2.B.6.a. Well Permits Approved

Wells Permits Approved: 0

The total number of approved permits for 2017 is 15

Location of Approved Well Permits for 2017: Correct as of 8/2/2017

County	Irrigation - New	Irrigation - Replacement	Stock	Commercial	Municipal	Other	Total
Butler	2	3	0	0	0	0	5
Colfax	0	1	0	0	0	0	1
Dodge	0	0	0	0	0	1	1
Boone	0	0	0	0	0	0	0
Madison	0	0	0	0	0	0	0
Platte	2	0	0	0	1	0	3
Saunders	5	0	0	0	0	0	5
Total	9	1	0	0	0	1	15

2.B.6.b. Martin Erickson Well Permit Update

Martin Erickson drilled the required monitoring well on July 18, 2017. Attached is map and graph showing information on draw-down in the Brazda Monitoring Well. The pivot ran for 33 hours with a draw-down of 11.69 feet. Last month it was reported that the 4-hour pump test showed 3.44 feet. Recovery time was about 60 hours but didn't reach the original water level. Most of the domestic wells in the area have their pumps set at 120

feet or deeper. The second attachment is a graph showing the monitoring well west of the irrigation well. It had similar draw down and recovery time at the Brazda Well. It appears that our boundary line for separation of the sub-areas is correct and that for the Erickson well the primary aquifer thins to the point of potentially interfering with neighboring domestic wells especially in water short years. Other high capacity wells should not be allowed if their cone of influence touches the cone of influence for the Erickson well.

Staff will continue monitoring wells in this area and keep the board informed of the results.

2.B.7. Irrigation Runoff Complaint

Nothing to report.

2.B.8. Well Interference Complaints

Nothing to report.

2.B.9. Potential Violation of Expanded Irrigation

2.B.10. Special Quantity Subareas

A livestock producer asked a staff member, if he uses groundwater to dilute his manure from his lagoons, will this count towards his allocation? Livestock waste can be very high in nitrates and can burn a corn crop, if not diluted. Should there be exceptions in these situations?

Another producer commented that he feels that livestock facilities should have an allocation also. Should the District consider no new livestock facilities and/or industries in the SQS areas, no matter the capacity of the wells?

A producer called and has an opportunity to purchase 40 acres in the SQS #2 area, which would allow his pivot to complete the circle. Right now he owns the other 120 acres and uses a wiper pivot. Do we want to consider these variances in September with the other variances? If a producer can show more efficiency can he/she add the extra acres? Allow the additional acres, but leave the water use as reported on original certified acres?

The committee requested that the producer be invited to attend a future Water Committee meeting.

2.B.11. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

Meeting will be held September 5 at Lower Platte North.

2.B.12. Voluntary Integrated Water Management Plan - LENRD and LPNDRD

No recent activity to report.

2.B.13. Cost Share Programs

2.B.13.a. Irrigation Well Sample Kits

Sample kits have been going out and water samples coming in for the Phase areas.

2.B.13.e. Flow Meter Cost Share in SQS #2

2.B.13.e.2. Flow Meter Cost Share in SQS #2

No new Flow meter cost-share applications to be approved. A mailing will be going out soon to promote the expanded 2-mile area around SQS #2.

At the November 30, 2016 Water Committee, 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)

Water Sustainability Fund (WSF)	
8 inch meters	0 x 8" meters or 10 x \$770 = \$0
6 inch meters	0 x 6" meters or 3 x \$577 = \$0
WSF Total	\$0
	So Running Total WSF Grant = \$79,459 of \$200,000 grant
	So Remaining Total of WSF Grant = \$120,541

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	\$230

Total For Flow Meter Cost Share Program	
WSF & LPNNRD	No new meter cost-share to approve

2.B.14. 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 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.]*

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.

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2017 is the fifteenth 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)
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2.B.15. Richland - Schuyler Phase 2 Area

2017 is the second 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)

2.B.16. Richland - Schuyler Phase 3 Area

2016 is the second 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 49.5 ppm	25% (52 of 207)	10% (20 of 207)	65% (135 of 207)

2.B.17. LPNNRD Operator Certification

2.B.17.a. LPNNRD Operator Certification Classes

Cert. Number	Cert. Date	Name	Re-Cert.	Comments
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2.C. CHEMIGATION

For 2017 we have 537 renewals and 109 new permit applications for a current total of 646. Inspections for 143 renewal permits have been completed. We have 3 more inspections for complete on renewals. 1 Emergency Permit for Dodge County.

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

County	Number of Renewals
Boone	49
Butler	67
Colfax	34
Dodge	87
Madison	6
Platte	87
Saunders	207

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

County	Number of Renewal Inspections Completed
Boone	21
Butler	21
Colfax	4
Dodge	16
Madison	0
Platte	13
Saunders	69

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

County	New Chemigation Applications
Boone	7
Butler	27
Colfax	9
Dodge	10
Madison	1
Platte	18
Saunders	37

Discussion took place concerning permit fees. Currently our fee for a new permit is \$60 and permit renewals \$30 with inspections occurring once every three years. Producers on a corn/bean rotation are not renewing on the bean year that makes it necessary for us to inspect these wells every two years instead of every three. It is suggested to make the new permit three times the cost of of a renewal.

Cost for an LPNNRD emergency permit is \$120. Emergency permits are rare as they are only required if the producer cannot wait up to three days for the inspection. Raising the fee to its maximum \$500 for emergency permits has been used by many NRDs to avoid having to do inspections within 24 hours (even on weekends).

2.C.1. Chemigation Violation

On Saturday July 8, 2017 staff investigated a complaint on potential illegal chemigation. The violation occurred in the SW 1/4 of Section 35 Township 18N Range 5E. After initial investigation the producer Francis Emanuel was contacted and was informed to shut down immediately and he cooperated by doing so. After his cooperation a proper inspection of the site occurred and the site passed inspection so he was issued an emergency permit at the price of \$120. It was reported to the LPN Board on Monday, July 10 which it was recommended that the Water Committee discuss this incident further. A certified letter was sent out to Mr. Emanuel on July 17, 2017 and is attached explaining what was discovered and potential further actions.

46-1138.

Violation of act; procedures for compliance; prosecuting attorney; duties.

- (1) Any person found by the district to be in violation of the Nebraska Chemigation Act or any rules and regulations issued pursuant to the act shall be notified by the district of such violation. Each person so notified by the district shall have ten days in which to comply. The district shall make every reasonable effort to obtain voluntary compliance. Voluntary compliance shall not preclude the district, department, Attorney General, or county attorney from pursuing penalties in the proper court of law based on violations of the act or the rules and regulations. If after such ten-day period the violation has not been corrected, the district shall notify the department of the violation. The department shall make a preliminary investigation. If after such investigation the department determines that there is a violation of the act or rules and regulations, the district or the department shall either revoke the person's chemigation permit until such time as there is satisfactory compliance or issue an order suspending operation of the chemigation system until the required permit is obtained.
- (2) The district or department may apply for a restraining order, a temporary or permanent injunction, or a mandatory injunction against the person or persons violating or threatening to violate the Nebraska Chemigation Act or the rules and regulations adopted and promulgated under such act to the district court of the county where the violation is occurring or is about to occur. The court shall have jurisdiction to grant such relief upon good cause shown. Relief may be granted notwithstanding the existence of any other remedy at law and shall be granted without bond.
- (3) If the violation of the Nebraska Chemigation Act occurs with respect to a permitted system, a schedule for compliance may be established by the district in lieu of the ten-day compliance requirement.

(4) It shall be the duty of the Attorney General or the county attorney of the county in which such violation occurs or is about to occur, when notified of such violation or threatened violation, to cause appropriate proceedings under this section to be instituted and pursued without delay.

Source

- Laws 1986, LB 284, § 38;
- Laws 1989, LB 619, § 3.

46-1139.

Engaging in chemigation without a permit; penalty; recovery of costs.

Any person who engages in chemigation without first obtaining a chemigation permit shall be (1) subject to a civil penalty of one thousand dollars for each day at each site where a violation occurs for the first violation and not less than one thousand dollars and not more than five thousand dollars for each day at each site where a violation occurs for each subsequent violation or (2) guilty of a Class II misdemeanor. Each day of continued violation shall constitute a separate offense. The court may issue such injunctive orders as may be necessary to prohibit continued violations of the Nebraska Chemigation Act. When the Attorney General, a county attorney, or a private attorney brings an action on behalf of a district to recover a civil penalty under this section, the district shall recover the costs of the action if a civil penalty is awarded.

Source

- Laws 1986, LB 284, § 39;
- [Laws 2015, LB207, § 1.](#)

2.D. LIVESTOCK WASTE PERMITS

The LPNNRD has not received a livestock permit application from DEQ since the last Water Committee meeting.

Name	Livestock	Type of Permit	Legal Description	County

3. GROUND WATER PROGRAMS

3.A. DECOMMISSIONED WELL PROGRAM

3.A.1. Well Estimates

No 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

3.A.2. Plugged Wells

No 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)

No recent activity to report.

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

The WSF grant was submitted on behalf of the 6 NRDs involved with ENWRA.

Tentative Timetable if grant is approved:

- March 2018 - Consultant working with ENWRA will develop flight lines
- July - December 2018 - Data Collection and Data Processing
- December 2019 - Final report and presentation to all NRDs and ENWRA

Below shows the commitment by each NRD for the next 3 fiscal years.

Funding Sources	FY18 (30% by March 1, 2018)	FY19 (Next 50% after July 1, 2018)	FY19 or FY20 (Last 20% around one year after flights)	Total
Papio-Missouri R. NRD (\$230k)	\$27,600.00	\$46,000.00	\$18,400.00	\$92,000.00
Nemaha NRD (\$300k)	\$36,000.00	\$60,000.00	\$24,000.00	\$120,000.00
Lewis and Clark NRD (\$500k)	\$60,000.00	\$100,000.00	\$40,000.00	\$200,000.00
Lower Elkhorn NRD (\$650k)	\$78,000.00	\$130,000.00	\$52,000.00	\$260,000.00
Lower Platte North NRD (\$750k)	\$90,000.00	\$150,000.00	\$60,000.00	\$300,000.00
Lower Platte South NRD (\$850k)	\$102,000.00	\$170,000.00	\$68,000.00	\$340,000.00
Local Match Subtotal	\$393,600.00	\$656,000.00	\$262,400.00	\$1,312,000.00
WSF reimbursements (60%)	\$590,400.00	\$984,000.00	\$393,600.00	\$1,968,000.00
Total Project Cost	\$984,000.00	\$1,640,000.00	\$656,000.00	\$3,280,000.00

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

No new information to report.

3.B.4. Lower Platte River Consortium

Next meeting will be August 22 at Lower Platte South.

3.C. MONITORING WELLS EQUIPMENT

A proposal from Phoenix WebGroup on providing remote access to monitoring wells in the SQS #2 areas is attached. The total cost for 6 sites will be \$10,000, which was discussed at previous Water Committee meetings and has been included in the Water Budget. Neil from the Phoenix Group was hoping to begin working on this project in August.

Due to the project requiring a large quantity of hardware, an initial deposit of 75% (\$7500) of the cost will be due at signing.

3.D. GROUND WATER ENERGY LEVELS

Water Department has been measuring water levels in the SQS areas along with gathering information from GWEL wells. More information will be available at next Water Committee meeting.

3.E. GROUND WATER QUALITY SAMPLING

Staff has been collecting water samples for the Statewide Network. Attached is a map showing results of the wells that have been sampled.

4. SURFACE WATER PROGRAMS

4.A. STATE LAKES, FOR THE WEEK OF

No lakes in Lower Platte North are on the list.

Week of July 24th, 2017

This week's beach Bacteria and Harmful Algal Bloom results are now posted on the NDEQ web page (<http://deq.ne.gov>).

Please remember that we are here to help answer any questions that you may have regarding our beach sampling program. We want the public to be well informed regarding HABs, *E.coli*, and the safety of our public beaches. Do not hesitate to contact us with any questions that may arise.

Harmful Algal Blooms

TWO Lakes will be on "Health Alert" this week. NDEQ in conjunction with numerous collaborators monitor public beaches and sample for microcystin, a toxin produced as a result of a Harmful Algal Bloom. A lake that exceeds 20 ppb of microcystin will be placed on "Health Alert". That lake will remain under "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.

Lake Name	County	Current algae
Kirkman's Cove Lake	Richardson	5.39
Swan Creek Lake (5A)	Saline	>35

Bacteria

One lake tested high for *E. coli* bacteria this week are listed below. *E. coli* bacteria 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 we want people to be aware and use their own judgment on their use.

Lakes with High E. coli Bacteria Levels

Lake Name	County	E.coli Bacteria (# per 100 mL)
Big Indian Lake (11A)	Gage	488

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

No new activity to report.

4.C. USGS STREAM FLOW GAUGING SITES

An invoice is attached from USGS for the amount of \$16,725, which a motion is not necessary, as this was agreed upon in the Joint Funding Agreement.

5. OTHER

5.A. LPNNRD WATER PROGRAMS BUDGET FY17-18

Does the Committee has any changes, comments or additions to the Water Budget? Since last Water Committee some numbers have been adjusted to reflect actual cost and a new ATV(UTV) and trailer have been added to the budget. The last 2 weeks staff has been measuring static water levels in SQS areas and collecting water samples. Staff is finding more and more of these sites only 4-wheeler accessible, so are going back to sites again when ATV is available. Water department is putting 3-4 crews out in a day. The side-by-side is too wide in some cases and the current ATV is sometime hard to shift into gear. The plan would be to keep the current ATV and add an additional ATV(UTV).

5.B. Phoenix WebGroup

At the July Board Meeting, the Board approved the proposal from the Phoenix WebGroup to develop field apps for LPN staff for \$36,000. The proposal asked for \$18,000 at the signing of the agreement with the remaining half invoiced at the time of completion of the project.

5.C. 2017 DROUGHT MAP

Attached is Drought Map from week of 7/25/2017. The good news the NRD got some welcome rains throughout most of the District. A new drought map will be out on 8/3/2017, which will take in account the rainfall amounts.

5.D. Project Sense Field Day

Project Sense Field Day August 7 at Bailey's Ag Supply, 548 Road 14, Schuyler from 11 to 1.

5.E. COMMENTS FROM THE PUBLIC