

Water Committee Meeting
Wednesday, April 27, 2022 6:00 PM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. REGULATORY

2.A. GROUND WATER MANAGEMENT AREA

2.A.1. Certified Irrigated Acre Transfer Policy

The draft transfer policy is attached with corrections on page 2, number 13, changing parcels to acres. The Board passed the draft transfer policy at the April Board Meeting with final approval to be considered at the Water Committee and May Board Meeting.

2.A.2. Irrigation Transfer Request

The committee and staff discussed the request and commented as Jamie Yinkrick requested the transfer on December 29, 2021, that the deadline of March 1st had been met. Jamie will still need to complete all the paperwork necessary for approval.

Jamie Yindrick requested to transfer irrigated acres at the December 29, 2021 Water Committee. His request is transferring irrigated acres to Section 2-16N-3E from Section 9-15N-4E (located just west of Bruno in SQS #1), which currently has 73.43 certified irrigated acres. The land receiving the acres does have 2 active irrigation wells but the acres were never certified with the NRD. Jamie has submitted and drilled a replacement well for G-136646. The originally well hit rock and never got to full depth.

Jamie assumed that this property had certified irrigated acres because of the existing wells. He also commented that the owners were confused about what they needed to do to certify the acres.

Information is attached with a scoring sheet. The tract of land in Section 2 scored 295 points using LPN scoring system. The two areas that scored low on the sheet were Saturated Thickness and Specific Yield. Staff re-evaluated the saturated thickness utilizing the AEM data and found areas that were over 25 feet, which would give an extra 10 points or a 305 score.

Section 2 is located in Octavia Groundwater Aquifer Subarea, with Section 9 located in Prague Aquifer Subarea. The Prague Aquifer Region is more restrictive than the Octavia Aquifer Region.

Optional conditions could be utilizing this as an LPN monitoring well and, if PVC tube is available, installing a datalogger. At the Committee meeting, it was discovered that, as this is submersible well, the conditions could not be adopted.

2.A.3. Well Permit Program

2.A.3.a. Well Permits Approved

Wells Permits Approved: #

Landowner	Number of Wells	Number of New Irrigated Acres	Type of Well
Terry Papa	1	0	

The total number of approved permits for 2022 is #

Location of Approved Well Permits for 2022: Correct as of #####

County	Irrigation - New	Irrigation - Replacement	Stock
Butler			
Colfax			
Dodge			
Boone			
Madison			
Platte			
Saunders			
Total			

2.A.4. Special Quantity Subareas

Myron (Brent) Behlen's well permit is attached for a new well in SQS#2. The well permit is for the NW SW S19-19N-1E in Platte County.

Attached is the well permit and letter from the producer on why they are asking for a new well. Water use was 13.03 total inches for 3 years or 4.34 inches/year on 256.39 acres. (2019-2021)

Information from AEM data, Water Use and Hydrogeologic Boundaries attached.

Optional conditions on the permit could include a PVC tube being installed so LPN could install a datalogger for remote reads. If the pumping level drops below a certain level, the well will then have pumping restrictions.

Staff showed the Committee the AEM data and explained the location of potentially more plentiful water. From AEM flight information, it showed better water on the east side of the property. Staff will contact the Behlen's and discuss the data presented. It is recommended that a test hole is dug before installing the well to verify water availability.

Discussion about conditions for this well was a datalogger, potential drawdown triggers and pumping restrictions. Staff will discuss these issues with the Behlen's before approving the well permit.

2.A.5. Cost Share Programs

2.A.6. LPNNRD Operator Certification

Staff is continuing to compile names and options for producers whose Nitrogen/Irrigation Certification has expired. The options that will be sent to these producers are:

- Online testing
- Take home tests
- An in-person class on July 19 with UNL called the 4Rs.

All of the letters will point out if compliance can't be met, the Board will potentially issue a Cease and Desist Order.

In the last month, an additional 9 people have taken the online test and passed.

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

The annual meeting was held on April 19 to approve partner's IMP reports, allowable depletions for the next 5 years and the budget. The directors of the coalition approved all of these items, which include \$10,000 membership

dues. An interlocal agreement will be distributed to each participating partner's Board for approval, to continue with the Coalition.

The group discussed below normal precipitation and how each NRD is handling land development, if it occurs. NeDNR made a presentation on the Lower Platte dashboard and was asked about the news release from the Consortium. NeDNR also updated the group on the Perkin Canal project.

To view the dashboard, visit the Department of Natural Resources' site at dnr.nebraska.gov/water-planning/lower-platte-river-basin

Information is attached on the depletions, plan updates and budget.

2.B. CHEMIGATION

For 2022, we have 320 renewals and 9 new permit applications for a current total of 329. No Inspections have been completed. The renewal deadline is June 1st and must be postmarked or turned in on that day. If the active permit lapses, a new permit must be applied for, purchased, and inspected prior to use this season.

2.C. GROUND WATER ENERGY LEVELS

Maps were created from Spring 2022 water levels with a summary from Spring 2021 to 2022.

59% of wells measured have decreased from 2021 water levels with 22% increasing. (19% unchanged)

3. GROUND WATER PROGRAMS

3.A. DECOMMISSIONED WELL PROGRAM

Staff went through a couple of examples for the Committee and discussed the recommended reasonable rates and cap limits.

Reasonable rates:

Pump and Obstruction removal: Currently **\$125.00**; Suggested Rate **\$145.00**

Chlorine/per lb: Currently **\$13.90**; Suggested Rate **\$15.00**

Chlorine/per gallon: Currently **\$4.25**; Suggested Rate **\$5.00**

Bentonite/per 50 lb bag: Currently **\$13.00**; Suggested Rate **\$16.00**

Gravel/per ton: Currently **\$31.50**; Suggested Rate **\$36.00**

Concrete cap/prefab cap: Currently **\$40.00**; Suggested Rate **\$45.00**

Backhoe/per hour: Currently **\$95.00**; Suggested Rate **\$110.00**

Labor per hour: Currently **\$60.00**; Suggested Rate **\$75.00**

Mileage: Currently **\$2.25**; Suggested Rate **\$2.45**
or stay at \$2.25

Sales tax: up to 7.5%

Miscellaneous- Mobilization etc. - 75% of that cost with a cap of \$250

3.A.1. Well Estimates

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

Well Owner	Type of Well	Cost Share Estimate	County
Meadowbrook MHC	Domestic	\$909.32	Dodge

3.A.2. Plugged Wells

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

Well Owner	Type of Well	Cost Share Estimate	County
Walter Bohaty	Irrigation	\$1,000.00	Butler
Barbara Vanek	Irrigation	\$965.75	Saunders

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

3.B.1. Groundwater Department Projects Update

Potential Projects with other partners:

- Age Dating of Groundwater with Lower Loup NRD and USGS from Columbus to Fremont.
- Groundwater Modeling with Papio and Lower Platte South
 - A meeting was held with NeDNR and other NRDs on this project. Suggested cost could be between \$600,000 to \$1,000,000.
 - The project could start within 1 year.
 - Plan to meet with the other NRDs about submitting a grant to WSF (60-40).
 - NeDNR will contribute to this effort.
 - If the grant is unsuccessful, this model will still need to be completed to determine 10/50 lines and stream depletion factors.
- Missouri River Trib Model with NeDNR
 - The model completed above would be a regional model that would be put into the larger model.

Projects that are currently being conducted within LPN

- Recharge project with ENWRA
- Updating 1995 Groundwater Level Map with UNL/CSD and ENWRA
- Modeling SQS#2 area with UNL/CSD, NeDNR and ENWRA
- Denitrification Study with UNL Water Center
- Stream Sampling of Wahoo and Shell Creek
- Water Sampling around Platte Center and further west with analysis of the extent of nitrate contamination.

3.B.2. Phase Area Update

Potential Best Management Practices for a grant.

- Buffer Strips - eligible for the Nebraska Buffer Strip Program
- Iron Chlorosis products for high Ph soil to encourage crop rotations. Cost-share \$15/acre (Total \$36,000)
 - 1200 acres a year over a 2-year period
- Cover crops - Add an additional \$5/acre with NRCS contract (Total \$24,000)
 - 2400 acres a year over a 2-year period
- Fertigation - \$500 per site (Total \$5,000)
 - 10 new sites
- Variable rate Nitrogen - additional \$10/acre over NRCS contract (Total \$20,000)
 - 1000 acres per year over a 2-year period
- RO units for households - \$500 per household (Total \$20,000)
 - 40 households.
- Gravity to pivot or SDI - additional \$10,000 per conversion over NRCS contract (Total \$50,000)

- 5 conversions over a 2-year period
- Soil Sampling - \$10/acre over a NRCS contract (\$20,000)
 - 1000 acres per year over a 2-year period.
- Soil Moisture Sensors with advanced technology - \$750 per site (\$7,500)
 - 10 sites
- Water Flow Meters \$1,000 per meter (\$170,000)
 - 170 meters with one per site.
 - 130 total wells in Bellwood Area with 15 with installed meters.
 - 436 total wells in Richland-Schuyler Area with 56 with installed meters.
 - Voluntary installation
 - Coordinate with NRCS flow meter cost-share (irrigation management)

The total cost for the Best Management Grant would be \$352,500 and with a 60-40 split, LPN match would be \$141,000.

WSF - July 31

NET - September 6

3.B.3. Hydrogeologic Assessment

LRE is providing a proposal to complete a Hydrogeologic Assessment with an option for an electronic, or GIS-based deliverable (rather than a hard-copy map book). This project would create consistency with both the 3D AEM Framework and Hydrogeologic Assessments that have been completed for LENRD and PMRNRD, and what LPSNRD will have completed by mid-2023. The proposal assumes that LPNDRD would incorporate this effort into a Water Sustainability Fund (WSF) application.

3.B.4. Eastern Nebraska Water Resources Assessment (ENWRA)

Attached is a couple of documents from UNL/CSD. This agreement was originally signed in 2015. The amended agreement would go to June 30, 2025. The purpose of this agreement is to allow CSD to assist LPN in drilling test holes. This allows LPN and UNL/CSD to continue the cooperative agreement without developing a new agreement as projects arise in the next few years. There is no cost in extending this agreement.

3.B.5. Lower Platte River Consortium

The Consortium released a news release describing the purpose of the group and to make the public aware of water use. This group meets monthly and more frequently, if needed, to discuss the situation on the flow of the Platte River and any other drought-related concerns.

A News Release and Drought Map are attached.

3.C. NEW MONITORING WELLS

Staff sent letters out to well drillers to determine their interest in drilling a new monitoring well north of Richland. Staff is planning on sending out full packets to drillers who are interested in submitting a quote for this project the week of April 25.

3.D. Phoenix Database

A quote from Phoenix Webgroup for \$12,050 +/-10% is attached for converting the current spreadsheet to a required spreadsheet for UNL clearinghouse, which NeDEE then makes an annual report to the Legislature. If the contract is approved, a 50% deposit is required (\$6,025). The 2021-22 budget had \$15,000 with \$5612.48 remaining.

This quote will also allow some changes to online reporting. The changes will be sorting the reports and calculation of organic matter.

As NDEE is involved in the clearinghouse, it appears they are willing to fund \$5,000 for this project.

4. SURFACE WATER PROGRAMS

5. OTHER

5.A. COMMENTS FROM THE PUBLIC

I. Draft Policy to transfer certified irrigated acres

- A. All transfer applications require a non-refundable application fee of three hundred dollars (\$300.00).
- B. Approved transfer applications received prior to March 1st, if approved, will be effective that year. Applications received after March 1st, if approved, will not be effective until the following year.
- C. Transfers within the Lower Platte North Natural Resources District (District) must satisfy the following criteria:
1. The originating certified irrigated parcel, as well as the gaining parcel, must be within LPNNRD.
 2. Relevant landowner, or their tenant, must have current Nitrogen and Water Certification.
 3. The submission of a completed application is required prior to any consideration of the transfer of irrigated acres. Applications will be provided by the District.
 4. Application must include:
 - a. Explanation of the proposed activities;
 - b. Aerial photo with the proposed field(s), well(s), pipeline(s);
 - c. Legal description and parcel IDs of affected properties;
 - d. Landowner(s) signature(s);
 - e. Irrigation plan for gaining property, if pivot model is available, it must be submitted with the application;
 - e. Copies of all trust documents and/or corporate records should title to either affected property be owned in trust, by a partnership or by a closely held business;
 - f. Notarization by Notary Public.
 5. Parcel is currently listed with the District and County Assessor as certified irrigated acres
 6. Transfers of irrigated acres from a parcel require a title search. All applicable lien holders of the property from which the acres are being transferred from, must agree to the transfer. Fees associated with these actions will be billed to the landowner(s).
 7. Consideration will not be given to incomplete or incorrect applications until such time as the deficiencies are rectified.
 8. Review of the transfer application will be performed by staff and LPN Water Committee. Final approval will be conferred by approved board motion by the LPN Board of Directors.
 9. Transfers will not be granted in areas with a greater restricted development area than the parcel upon which the transfer originates.
 10. The gaining parcel must meet the minimum threshold of the variance process for the transfer to be approved.
 11. Transfers will be based, in part, on NeDNR Stream Depletion Factors, which will be reviewed on all applications.

12. At District's request, applicant(s) will allow access to their property for the purposes of inspection by District personnel.

13. Once transferred, the irrigated acres become the property of the gaining parcel(s). The originating parcel(s) will be certified as dryland acres by the District. After 10 years, the original parcel will be eligible for a variance consideration to allow irrigation except in restricted development areas or as otherwise provided by District regulations.

14. The gaining parcel may not increase irrigated acres by more than the transferred amount.

15. Acres may only be transferred to or from a property once every 10 years.

16. A transfer will not be allowed to increase the number of irrigated acres within a designated wellhead protection area, without approval from the wellhead management area designated by the community and as approved by the District.

17. Management Area Rules and Regulations are subject to change. As per the Groundwater Management Area Rules & Regulations, any new irrigated acres or irrigation well developed after June 15, 2018, may be subject to additional restrictions as the Board of Directors deems appropriate.

18. Both landowners transfer paperwork will be sent to the Register of Deeds to reflect the transfer.

19. If the land in question is Highly Erodible Land (HEL) and has to follow an NRCS Conservation Plan in order for this transfer to occur, this will be noted on the form.

20. Once transferred the new irrigated parcel must be Acre Certified by LPNNRD.

21. The District retains the right to request an applicant provide any additional information and/or documentation deemed relevant by the District prior to its decision on a pending application.

D. The application for a transfer will be denied or conditioned to:

1. Ensure the consistency of the transfer with the purpose or purposes for which the management area was designated.
2. Prevent possible adverse effects on existing groundwater users or surface water appropriators.
3. Prevent possible conflict with any regulations or controls adopted by the District;
4. Ensure the proposed transfer to be a reasonable and beneficial use; or
5. For all other reasons needed reasonably necessary and appropriate by the District.

E. An approved transfer will not vest in any person the right to violate a District rule, regulation, or control in effect on the date of issuance, or to violate any rule, regulation, or control properly adopted after such date. It is the responsibility of the applicant to ensure compliance with other rules and regulations. Such violation could result in loss of an approved transfer.

F. An approved transfer will not vest in any person the right to violate any statute, state agency or other jurisdictional agency's rule, regulation, or control in effect on the date of issuance of the transfer or to violate any rule, regulation, or control properly adopted after such date. It is the responsibility of the applicant to ensure compliance with other rules and regulations. Such violation could result in loss of an approved transfer.

Application for the Transfer of Irrigated Acres between Parcels

This application is for the transfer of irrigated acres between two parcels belonging to the same landowner in the Lower Platte North Natural Resources District (LPNNRD). For acres to be transferred, the following conditions must be met (in addition to all others as requested by either District staff of the board of directors): The land must be Acre Certified; the relevant landowner must have current Nitrogen and Water Certification or have a tenant with such certification; The originating certified irrigated parcel, as well as the gaining parcel, must be in LPNNRD. The landowner must provide proof, in the form of legible FSA maps and Form 578s, that the ground to be transferred was irrigated crop prior to the initiation of the request; The land to which the transfer will occur must pass LPNNRD inspection as quality irrigable ground; Once transferred the new irrigated parcel must be Acre Certified by LPNNRD; A fee, in the amount of \$300.00 to initiate the transfer request. Any deviations from these conditions are at the discretion of the Lower Platte North NRD’s Board of Directors. Management Area rules and regulations and policies are subject to change. Once these conditions are met, a title search, conducted by a title company selected by LPNNRD and billed to the landowner(s) of record as an additional fee will be performed. When all relevant information relating to this transfer is complete a separate form will be generated authorizing the transfer of acres. Such form will be notarized; and filed, by LPNNRD, with the Register of Deeds of the relevant county.

Originating Parcel:

I, _____ do request the transfer of _____ Certified Irrigated Acres from
Landowner Name as it appears on the title Certified Acres
_____, a parcel I own, located in _____ consisting of _____
Parcel I.D. Legal Description Certified Acres
Certified Irrigated Acres, leaving a balance of _____ Certified Irrigated Acres in this parcel.
Certified Acres

Gaining Parcel:

I, _____ request LPNNRD to apply _____ irrigated acres,
Landowner Name Number of Acres
to _____, a parcel I own, located in _____.
Parcel I.D. Legal Description

I acknowledge, if the transfer is approved, these irrigated acres may only be applied to the gaining field and that I may no longer irrigate the acres transferred from the originating field. I further acknowledge that, if approved, should I not comply with all LPNNRD conditions relating to this transfer, I may suffer the relinquishment of these transferred acres to LPNNRD. Signature authorizes LPNNRD to access any federal records required to satisfy the transfer requirements. Signatory acknowledges that all titleholders of record understand and agree to the terms of the Irrigated Acre Transfer referred to herein.

Landowner Signature Date

Notary Signature and Stamp

TRANSFER APPLICATION INFORMATION

Lower Platte North Natural Resources District
PO Box 126, 511 Commercial Park Road
Wahoo, Nebraska 68066-0126
Phone (402) 443-4675
www.lpnnrd.org

Landowner Receiving Irrigated Acres from Transfer: Please list name as it appears on the Title.

Landowner: _____ Phone#: _____

Address: _____ Email: _____

Contact if other than listed above: _____

Field Information: _____

_____ Section _____ Township _____ Range ____ County _____

Do you intend to drill a well for these acres? Yes No

Landowner Providing Irrigated Acres for Transfer: Please list name as it appears on the Title.

Landowner: _____ Phone#: _____

Address: _____ Email: _____

Contact if other than listed above: _____

Field Information: _____

_____ Section _____ Township _____ Range ____ County _____

Explanation of Transfer Request: Include number of acres. Use additional pages if needed.

Please include

- Aerial photo with the proposed field(s), well(s), pipeline(s).
- Irrigation plan for gaining property, if pivot model is available it must be submitted with the application.
- Copies of your trust, partnership and/or closely held business records should ownership be in any such form.



Road 45

12A

Road 45

Road 45

12A

Road 45

NE 15

O Rd

15

15

Road 44 1/2

Road 44 1/2

R Rd

R Rd

R Rd

R Rd

O Rd

15



P.R.I.I.

V.P.I.

30th Rd

38

30th Rd

38

30th Rd

38

30th Rd

V.P.I.

V.P.I.

Road V-W

NE-12B

P.R.I.I.

V.P.I.

1st St

2nd St

3rd St

Bruno

4th St

5th St

37th Rd

37th Rd

128

37th Rd

37th Rd

Draft Changes				
Application Number	Applicant Name	Date:	4/20/22 11:30 AM	
LPN-V-022-	Jamie Yindrik		Total Score->	295
Category	Divisions	Points Available	Percent of Application	Points Received

Expansion of acres on existing well	WF= 1.0			
	Expand 1 to 20 acres	100	0	0
	Expand 21 to 40 acres	80	0	0
	Expand 41 to 80 acres	60	100	60
One continuous tract	Expand 81 to 120 acres	40	0	0
One continuous tract	Expand 121 to 160 acres	20	0	0
Non-continuous tract	Expand 41 to 160 acres	0	0	0
			Total ->	60

Expansion of acres on new well	WF= 0.75			
	Expand 1 to 34 acres	20	0	0
One continuous tract (wiper pivot)	Expand 35 to 160 acres	40	0	0
One continuous tract (full circle)	Expand 35 to 110 acres	80	0	0
One continuous tract (full circle)	Expand 111 to 160 acres	100	0	0
Non-continuous tract	Expand 41 to 160 acres	0	0	0
			Total ->	0

Irrigation System	WF= 1.0	New Numbers		
	Subsurface Drip	100	0	0
	Surface Drip	80	0	0
	Pivot	60	100	60
	Gravity, Gun, Other	10	0	0
			0	0
			Total ->	60

Land Class of field	WF= 1.0			
	Class 1	100	0	0
	Class 2	80	100	80
	Class 3	60	0	0
	Class 4	40	0	0
	Class 5	10	0	0
	Class 6-8/ not more than 20%	0	0	0
			Total ->	80

Stream Depletion Factor From DNR	WF= 1.25			
	10 to 20%	100	0	0
	21 to 30%	90	0	0
	31 to 40%	80	0	0
	41 to 50%	70	0	0
	51 to 60%	60	0	0
	61 to 70%	50	0	0
	71 to 80%	40	0	0
	81 to 90%	20	100	25
	>90%	10	0	0
			Total ->	25

Saturated Thickness	WF= 1.0			
	176 to 200 ft.	100	0	0
	151 to 175 ft.	90	0	0
	126 to 150 ft.	80	0	0
	101 to 125 ft.	70	0	0
	76 to 100 ft.	40	0	0

51 to 75 ft.	20	0	0
26 to 50 ft.	10	0	0
0 to 25 ft.	0	100	0
Total ->			0

Specific Yield **WF= 1.0**

18.1 to 22 %	100	0	0
14.1 to 18 %	60	0	0
10.1 to 14 %	30	0	0
6.1 to 10 %	10	100	10
2 to 6%	0	0	0
Total ->			10

Transmissivity **WF= 1.0**

21331 to 23700	100	0	0
18961 to 21330	90	0	0
16591 to 18960	80	0	0
14221 to 16590	70	0	0
11851 to 14220	60	100	60
9481 to 11850	50	0	0
7111 to 9480	40	0	0
4741 to 7110	30	0	0
2371 to 4740	20	0	0
0 to 2370	10	0	0
Total ->			60

Minimum Score of 300 is needed to be considered for variance approval
Once a variance is submitted and not approved, it will be carried over for 3 years
Land Classes 6-8, with slopes, greater than 20% of the parcel not eligible for a variance

Total Score-> 295

April 18, 2022

Lower Platte North Natural Resources District

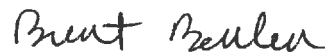
I'm submitting this application for another well to reduce our usage of our current well. We will not be adding any acres to irrigate. The current well (G-088371) is irrigating 256 acres. These acres will be split up between the two wells so we don't have to work our current well so hard and allowing time for the current well to recharge.

Another concern is if the current well, which is 30 years old, were to go down we could have a significant crop loss while the repairs were being made or waiting for parts. There is underground pipe connecting the pivots which would give us the ability to run a pivot from either well.

Finally in the Estate my brother is going to inherit the East 80 that the current well is on. I will inherit the West Quarter and would have no well.

Please call me with any questions.

Thank you,



Brent Behlen

402-564-3767

Rec. 4/13/22 Brent Behlen
 18713 355th St.
 Columbus, Ia. 68601

APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL
 IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

DNR & NRD USE ONLY

Permit No. _____ Date Approved/Denied _____ NRD Representative _____
 Permit Type: New, Replacement or Late Date Received _____ Paid: Cash or Check
 Date Post-inspected _____ Registration No. _____ Updated Form: May 2005 # 3348 \$50.00

ALL APPLICANTS SEEKING A WATER WELL PERMIT MUST COMPLETE PAGES 1 AND 2, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 1 - 4 WELL PERMIT)
 WATER WELL PERMITS FOR IRRIGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR MUST COMPLETE PAGES 1, 2, AND 3, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 3 WELL PERMIT)
 WATER WELL PERMITS FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATION ACRES, MUST COMPLETE PAGES 1, 2, AND 4, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 4 WELL PERMIT)

1. NAME AND ADDRESS OF LAND OWNER: Myron Behlen
18273 370th Street
Columbus NE 68601
 Phone: (402) 910-2468

NAME AND ADDRESS OF CONTACT: Brent Behlen
18713 355th Street
Columbus NE 68601
 Phone: (402) 564-3767

2. PURPOSE OF NEW WATER WELL (indicate one):

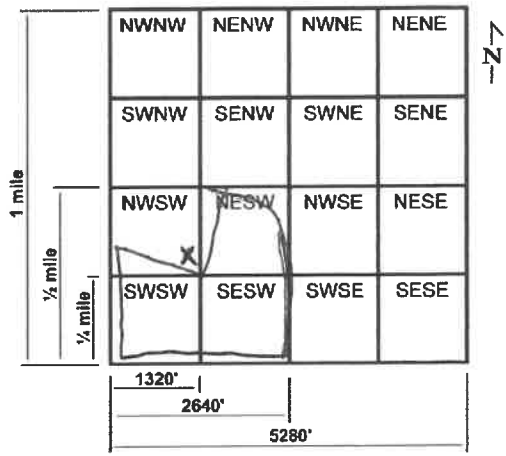
Irrigation (Complete section A) Dewatering (Over 30 days, Complete section B)
 Livestock (Complete section C) Domestic (Irr. on one acre or larger, Complete section D)
 Industrial (Complete section E) Public Water Supply (Complete section F)
 Recovery or Remediation (Complete section G)
 Other (specify) _____ (Complete section H)

3. IDENTIFY LOCATION OF PROPOSED WELL:

A. Platte County, NW of the SW 1/4 of Section 1A, Township 19 North, Range 1 East/West. (circle one)

B. The box at the right represents one square mile, (section). Indicate with an "X", the proposed location of the well. Outline the proposed water use area. If the water is to be used outside the above written legal description, give legal description of water use area, _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West.

C. The well will be located 1600 feet from the North South section line, and will be 1020 feet from the East West section line. Or enter Lat. / Long.
 Latitude Degree _____ Minute _____ Second _____
 Longitude Degree _____ Minute _____ Second _____



4. REPLACEMENT AND ABANDONED WELL INFORMATION:

A. Is this a replacement well? Yes, No If yes, fill out the rest of this section.
 B. Registration number of well to be replaced: _____
 C. Well to be replaced was last operated (month/year): _____
 D. Replacement well is _____ feet from original well.
 E. Decommissioning of Original well on (month/day/year): _____
 F. If water use is for irrigation, list the number of acres watered by the original well: _____
 G. If water use is for irrigation, will replacement well, water the same tract of land as the decommissioned well?
 Yes, No: If No, list the number of additional acres _____ and legal description _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West. (circle one)

- A replacement water well must deliver water to the same tract of land as the original water well, pump from a comparable aquifer, and yield approximately the same gallons per minute and total annual water use as the original water well.

5. SPECIFICATIONS OF INTENDED WELL AND PUMP:

- A. Approximate date when construction will begin (month/day/year): ASAP
- B. Expected total well depth: 340 feet.
- C. Well Casing Diameter: 16 inches.
- D. Pump Column Diameter: 8 inches.
- E. Estimated pumping capacity: 400 GPM.
- F. Expected total annual water use in Acre Inches / Year 5-6 or Total Gallons / Year _____
- G. The system is to be powered by Electric Fuel
- H. Will the well be used in a system with other wells? Yes, No. If Yes, How many _____
List well registration number and legal description of each well in Section 6 below.
- I. Name of Well Driller: Grosch Silver Creek (Please attach test hole log, if available.)

6. List additional information requested in this Section or attached additional sheet.

see attached letter

7. Addition information and requirements for Lower Platte North NRD review.

- Attach current tax assessor records including map, parcel number, and current land use such as irrigated acres.
- Attach aerial photo showing location of water source(s) and area water or reuse water is to be used.
- All new and replacement water wells must install a District approved flow meter and report water pumped annually to the LPNNRD by January 31st of the following year.
- Water well permit conditions maybe required for approval by the Lower Platte North NRD for each individual well.

8. I certify that I am familiar with the information contained in this application, and it's restrictions, rules and regulations and that to the best of my knowledge and belief such information is true, complete and accurate.

Date 4-19-2022 Signature of Applicant M. Egan Bechler

Signature of Well System Operator, if different than Applicant Brent Muelter

NRD Certification Number of Landowner or Operator 6906 (Required for irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells.)

9. Lower Platte North NRD Use Only. Comments by District Representative.

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

PURPOSE OF WELL

IRRIGATION WELLS (SECTION A)

- A. How many acres will be irrigated? 120 acres
B. Crops to be planted: Corn / soybeans Crop rotation schedule every other year
C. Type of irrigation system. Center Pivot, Gravity, Other (specify) _____
D. The irrigation system is to be powered by Electric Fuel
E. Expected total annual consumptive water use in Acre Inches / Year 5-6 or
Total Gallons / Year _____
F. Will Fertilizer, Chemicals or Animal waste be applied through the system? Yes, No

DEWATERING WELLS OVER 30 DAYS (SECTION B)

- A. Purpose of dewatering well, such as installation of building foundation, etc. _____
B. Expected total number of days the dewatering well will be in use _____
C. Approximate dates (month/day/year) in operation: Start _____ End _____
D. Legal description of water discharge location: _____ ¼ of the _____ ¼ of Section _____, Township _____ North, Range _____ East/West and name of river, stream or water body _____
E. Will discharge water be used for another purpose, such as livestock, irrigation, etc.? Yes, No
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.

LIVESTOCK WELLS (SECTION C)

- A. Name of facility _____
B. Type of Livestock: Feeder Cattle, Dairy Cattle, Swine over 55 lbs., Swine under 55 lbs.,
 Sheep, Poultry, Horses
C. Average number of livestock per year _____ and average weight per animal _____ lbs.
D. Peak number of livestock _____ and time of year _____
E. Is facility approved by Nebraska Department of Environmental Quality? Yes, No. If Yes, list NDEQ certification IIS number _____ If No, complete the rest of this section.
F. Type of facility: Open lot, Covered Building
G. If facility is Open lot, list soil type _____
H. Estimated depth to ground water under feedlot _____ ft.
I. Describe manure collection system of feedlot _____

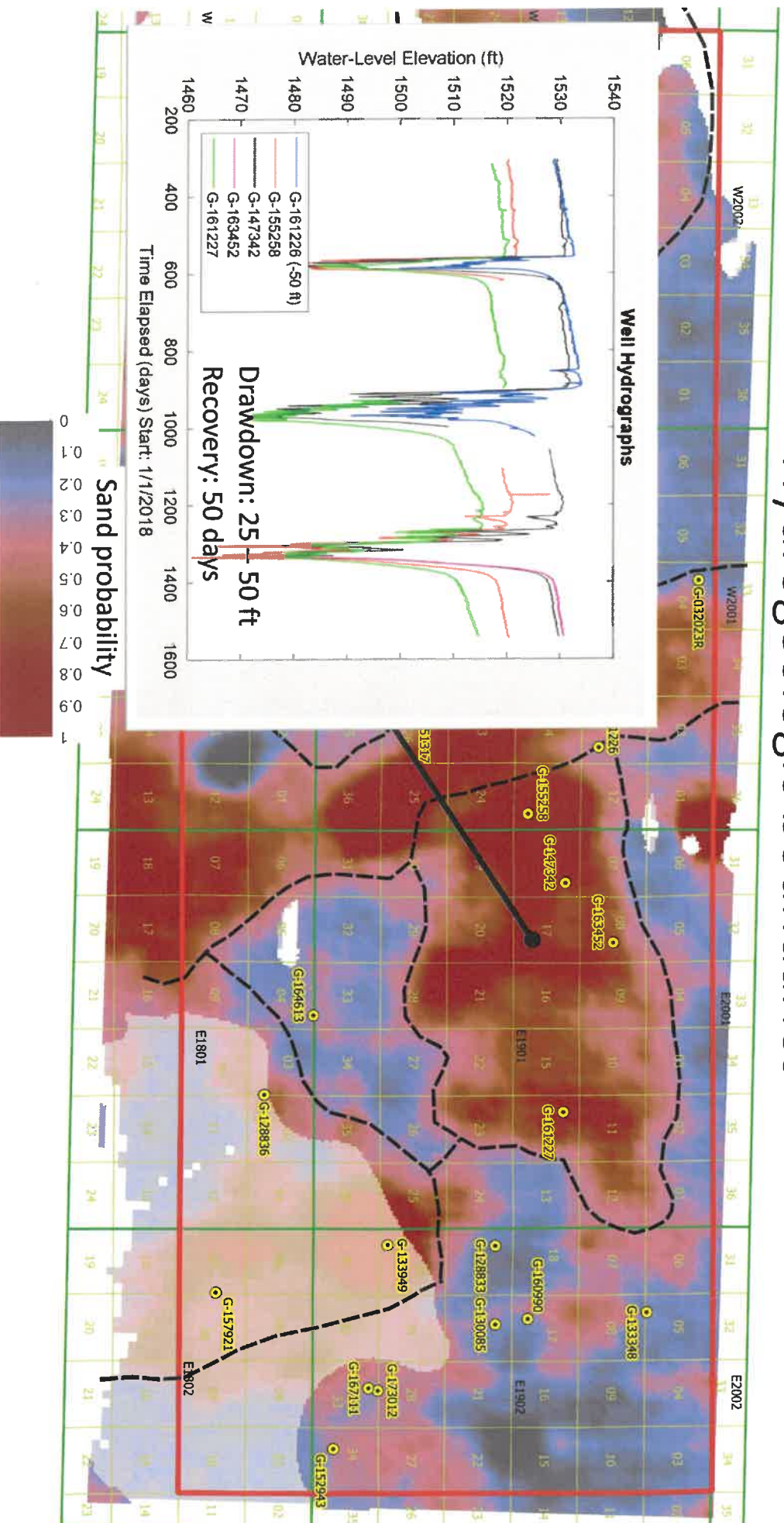
J. Name and distance of nearest surface watercourse from feedlot _____
K. For each manure land application site, list legal description and size in acres, method of application, and distance from feedlot operation. _____

DOMESTIC WELLS WITH IRRIGATION ON ONE ACRE OR MORE (SECTION D)

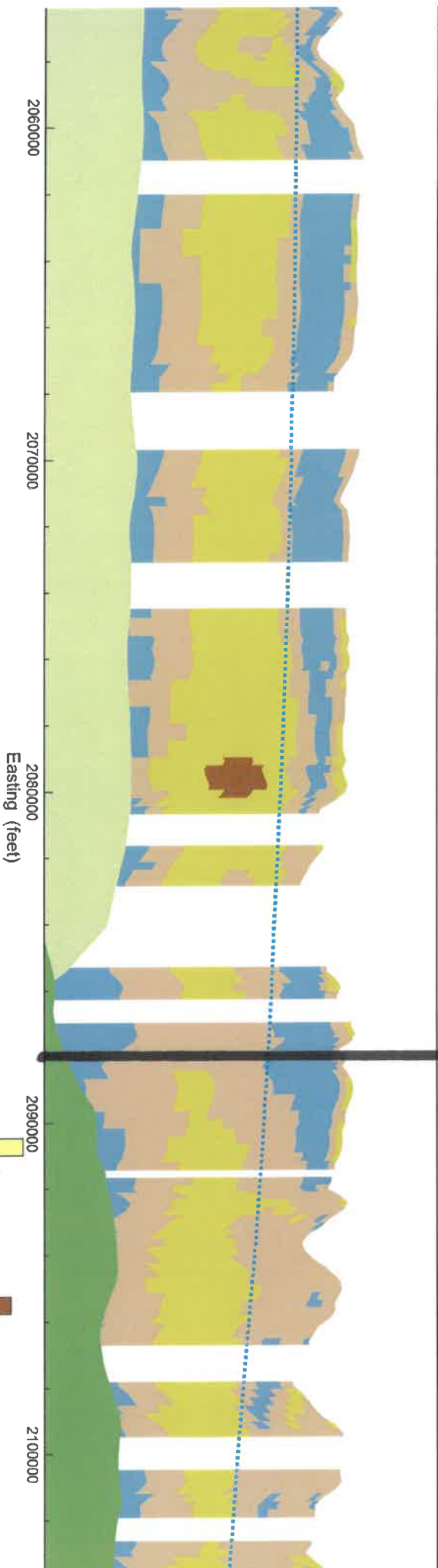
- A. Check all that apply:
a. Water use: Lawn and number of acres to be irrigated _____ acres.
b. Water use: Commercial garden and number of acres to be irrigated _____ acres.
c. Water use: Tree Farm and number of acres to be irrigated _____ acres.
d. Water use: Type of livestock _____ and number _____
B. Type of irrigation system. Sprinkler, Drip Tape, Other (specify) _____
C. If applicable, give Street address and town _____

* One acre equals 43,560 square feet.

Hydrogeologic boundaries



S18	S17	S16	S15	S14	S13	S18	S17	S16
9R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1E	T19R1E	T19R1E
S19	S20	S21	S22	S23	S24	S19	S20	S21
9R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1E	T19R1E	T19R1E
S30	S29	S28	S27	S26	S25	S30	S29	S28



ated geological sections from AEM data and flight path location map provided in conjunction with Google Earth kmz file. The projected downline distance is equal flight path (top image) and the AEM data interpretation (bottom image). The flight path is displayed as a red line on the flight path map. The 1995 Conservation (CSD) water table is shown as a dashed blue line on the AEM data interpretation profile. The Quaternary (Q) section is divided into aquifer material as indicated by the aquifer materials legend. The gaps in the Quaternary section represent areas of electromagnetic coupling that was removed from the AEM the Cretaceous Niobrara (Kn), Cretaceous Carlile Shale (Kc), Cretaceous Greenhorn Limestone / Graneros Shale (Kgd), and Cretaceous Dakota (Kd) are and were present in the sections by the CSD stratigraphy legend. Additional information regarding the use of this figure and the AEM data may be found in the titled "Hydrogeologic Framework of Selected Areas of the Lower Plate North Natural Resources District."

CSD Stratigraphy

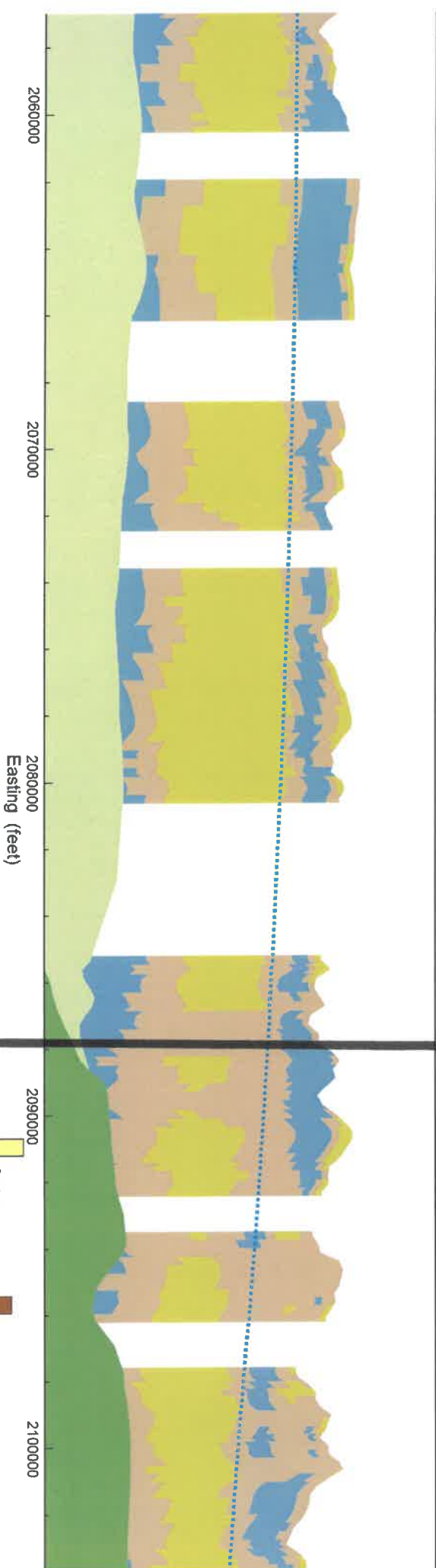
- Quaternary
- Cretaceous Niobrara
- Cretaceous Carlile
- Cretaceous Greenhorn/Graneros
- Cretaceous Dakota

Aquifer Materials

- Coarse Aquifer Material
- Aquifer Material
- Marginal Aquifer Material
- Non-Aquifer Material



R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1E	T19R1E	T19R1E	T
18	S17	S16	S15	S14	S13	S18	S17	S16			
R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1E	T19R1E	T19R1E	T19R1E	T	
19	S20	S21	S22	S23	S24	S19	S20	S21			
R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1W	T19R1E	T19R1E	T19R1E	T		



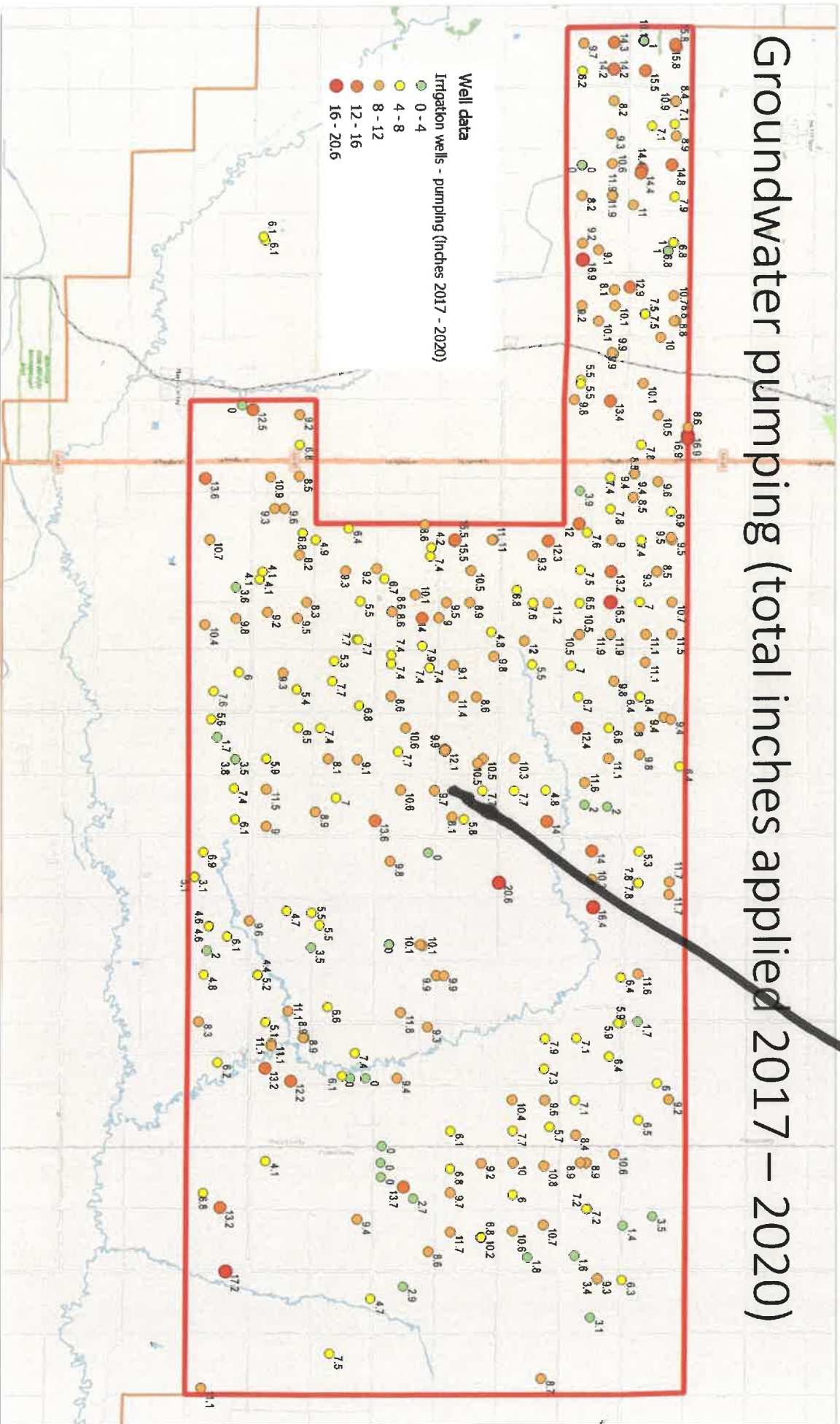
ated geological sections from AEM data and flight path location map provided in conjunction with Google Earth kmz file. The projected downline distance is equal to the flight path (top image) and the AEM data interpretation (bottom image). The flight path is displayed as a red line on the flight path map. The 1995 Conservation and Recovery Division (CSD) water table is shown as a dashed blue line on the AEM data interpretation profile. The Quaternary (Q) section is divided into aquifer materials as indicated by the aquifer materials legend. The gaps in the Quaternary section represent areas of electromagnetic coupling that was removed from the AEM data. The Cretaceous Niobrara (Kn), Cretaceous Carille (Kc), Cretaceous Greenhorn/Graneros (Kg), and Cretaceous Dakota (Kd) are present in the sections by the CSD stratigraphy legend. Additional information regarding the use of this figure and the AEM data may be found in the titled "Hydrogeologic Framework of Selected Areas of the Lower Plate North Natural Resources District."

- CSD Stratigraphy**
- Quaternary
 - Cretaceous Niobrara
 - Cretaceous Carille
 - Cretaceous Greenhorn/Graneros
 - Cretaceous Dakota
- Aquifer Materials**
- Coarse Aquifer Material
 - Aquifer Material
 - Marginal Aquifer Material
 - Non-Aquifer Material



Section 19

Groundwater pumping (total inches applied 2017 - 2020)



LOWER PLATTE BASIN WATER MANAGEMENT COALITION
FIFTH REPORTING PERIOD: JAN 1, 2021 TO DECEMBER 31, 2021

TABLE 1 - PEAK SEASON DEPLETIONS

NRD	PEAK SEASON 5-YR ALLOWABLE DEPLETION (AF)	Peak Season						Combined Percent of Allowable		
		NRD Prior Years Reported Depletion (AF)	2021 NRD Reported NET Depletion (AF)	NRD Total Reported Depletion (AF)	NRD - Percent of Allowable	Prior Years NeDNR Reported Depletion (AF)	2021 NeDNR Reported Depletion (AF)		Total NeDNR Reported Depletion (AF)	NeDNR - Percent of Allowable
Upper Loup NRD	2768	417.9	-84.9	333.0	12.0%	369.6	0.0	369.6	13.4%	25.4%
Lower Loup NRD	5883	360.1	255.7	615.8	10.5%	481.0	35.9	516.9	8.8%	19.3%
Upper Elkhorn NRD	1504	220.0	64.4	284.4	18.9%	85.0	0.4	85.4	5.7%	24.6%
Lower Elkhorn NRD	4514	1093.7	292.0	1385.7	30.7%	180.4	94.7	275.1	6.1%	36.8%
Papio-Missouri River NRD	869	30.0	4.0	34.0	3.9%	67.0	0.0	67.0	7.7%	11.6%
Lower Platte South NRD	993	23.6	0.0	23.6	2.4%	67.0	12.9	79.9	8.0%	10.4%
Lower Platte North NRD	2276	1093.8	208.5	1302.2	57.2%	0.0	7.5	7.5	0.3%	57.5%
TOTALS	18,807	3,239	740	3,979	21.2%	1250	151.33	1,401	7.5%	28.6%

TABLE 2 - PEAK SEASON DEPLETIONS AND CONSUMPTIVE USE

NRD	PEAK SEASON 5-YR ALLOWABLE DEPLETION (AF)	NRD - Peak Season Depletion (AF)	NeDNR Reported Depletion (AF)	NRD Prior Years Peak Season Consumptive Use (AF)	2021 NRD Peak Season Consumptive Use (AF)	NRD Total Peak Season Consumptive Use (AF)	NeDNR Total Peak Season Consumptive Use (AF)	Total New Peak Season Depletions	Total New Peak Season Consumptive Use	Remaining 5-YR Allowable Depletion (AF)	Percent of Remaining 5-YR Allowable Depletion
Lower Loup NRD	5883	615.8	516.9	1550.5	Pending	Pending	516.9	1132.7	Pending	4750.3	80.7%
Upper Elkhorn NRD	1504	284.4	85.4	509.8	Pending	Pending	85.4	369.8	Pending	1134.2	75.4%
Lower Elkhorn NRD	4514	1385.7	275.1	2216.2	Pending	Pending	275.1	1660.7	Pending	2853.3	63.2%
Papio-Missouri River NRD	869	34.0	67.0	53.6	Pending	Pending	67.0	101.0	Pending	768.0	88.4%
Lower Platte South NRD	993	23.6	79.9	30.2	Pending	Pending	79.9	103.5	Pending	889.5	89.6%
Lower Platte North NRD	2276	1302.2	7.5	1620.2	Pending	Pending	7.5	1309.7	Pending	966.3	42.5%
TOTALS	18,807	3,979	1,401	7,050	-	-	1,401	5,380	-	13,427	71%

DRAFT Lower Platte River Basin Coalition FY 23 Budget

DRAFT FY 22-23 Budget				
INCOME	Account	Sub Account	Actual	Difference
Beginning Cash Balance	\$ 122,700.00			\$ (122,700.00)
Member Dues	\$ 80,000.00			\$ (80,000.00)
Affiliate Dues	\$ -		\$ -	\$ -
Coalition Programs	\$ -		\$ -	\$ -
Grants	\$ -		\$ -	\$ -
Total:	\$ 202,700.00		\$ -	\$ (202,700.00)

DRAFT FY 22-23 Budget				
EXPENSES	Account	Sub Account	Actual	Difference
Professional Services	\$ -		\$ -	\$ -
Consultant		\$ -	\$ -	\$ -
Meetings	\$ 100.00		\$ -	\$ (100.00)
Advertisement		\$ 100.00	\$ -	\$ (100.00)
Plan Implemntation	\$ 100,000.00		\$ -	\$ (100,000.00)
Technical Action Items		\$ 100,000.00	\$ -	\$ (100,000.00)
Total: Expenses	\$ 100,100.00		\$ -	\$ (100,100.00)

Ending Cash Balance	\$ 102,600.00		\$ -	\$ (102,600.00)
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2.0 Goals and Objectives

The Coalition Board initially developed draft Goals and Objectives for the Plan in April, 2013. These goals and objectives were refined and finalized through the collaborative planning process. The three final goals that were developed include:

1. Develop and maintain a water supply and use inventory based on the best available data and analysis.
2. Implement a water management plan for the Basin that maintains a balance between current and future water supplies and demands.
3. Develop and implement water use policies and practices that contribute to the protection of existing surface and groundwater uses while allowing for future water development.

These goals, as well as objectives for each, are presented in detail in Table 2.1. Specific action items to support these goals and objectives are presented in Section 3.0.

TABLE 2.1. GOALS AND OBJECTIVES

Goal 1. Develop and maintain a water supply and use inventory based on the best available data and analysis.	
OBJECTIVES OF GOAL 1	1. Develop a comprehensive inventory of the location and source of the Basin’s current and future water supplies, water uses and outflows. Maintain and update on a schedule that is coincident with the 5-year update of the INSIGHT database.
	1.1 Develop a better understanding of basinwide inflows/outflows to enable development of a more comprehensive water inventory.
	1.2 Project changes to water inventory due to changes in urban and rural population and land use.
	1.3 Evaluate potential effects on water inventory of coordination, innovation and technology.
	1.4 Refine the extent of hydrologically connected ground and surface waters in the Lower Platte River Basin.
	1.5 Evaluate variations in water inventory due to climate cycles.
	2. Monitor current and future water demands in the Basin. Provide report at the annual Basin meeting that will be used for NeDNR’s FAB analysis.
Goal 2. Implement a water management plan for the Lower Platte River Basin that maintains a balance between current and future water supplies and demands.	
OBJECTIVES OF GOAL 2	1. Collaborate with state and local governments to identify a minimum of three (3) opportunities to augment water supplies within the Lower Platte River Basin and, if necessary, identify opportunities to supplement with imported water from outside the Lower Platte River Basin.
	2. Monitor the instream flow needs in the Lower Platte River Basin to foster an understanding of the existing appropriation priorities and locations, and provide a basis for evaluating impacts of existing and future uses. Provide report at the annual Basin meeting that will be used for NeDNR’s FAB analysis.
	3. Evaluate options for Basin water banking methodologies.
	4. Evaluate impacts of new development during drought conditions.
Goal 3. Develop and implement water use policies and practices that contribute to the protection of existing surface and groundwater uses while allowing for future water development.	
OBJECTIVES OF GOAL 3	1. Identify available water storage opportunities throughout the Lower Platte River Basin.
	2. Evaluate, understand, and develop policies to address impacts on stream flows of uses outside of management control.
	3. Expand public education programs on general awareness of water supplies and to encourage water conservation measures. Provide annual reporting and press release that includes, at a minimum, activities from previous year, supporting data, education statements and on-going work.



3.0 Action Items

Action items to support implementation of the plan were developed through collaboration with Coalition members. The action items are tasks directly linked to the specific objectives, and ultimately the overarching goals they help to accomplish.

GOAL 1: Develop and maintain a water supply and use inventory based on the best available data and analysis.

OBJECTIVES

1. Develop and maintain a comprehensive inventory of the location and source of the Basin's current and future water supplies, water uses and outflows.

- 1.1** Develop a better understanding of basinwide inflows/outflows to enable development of a more comprehensive water inventory.
- 1.2** Project changes to water inventory due to changes in urban and rural population and land use.
- 1.3** Evaluate potential effects on water inventory of coordination, innovation and technology.
- 1.4** Refine the extent of hydrologically connected ground and surface waters in the Lower Platte River Basin.
- 1.5** Evaluate variations in water inventory due to climate cycles.

ACTION ITEMS

- A. Compile a tabular summary of basinwide inflows and outflows using existing gage measurements where available, and estimates or calculated components where unavailable.
- B. Evaluate and prioritize estimated components based on uncertainty and relative impact of water inventory.
- C. Identify locations where additional gaging data or further study/modeling would reduce uncertainty in the basinwide water inventory.

- A. Develop projected municipal and industrial growth estimates, incorporating current city growth plans if available.
- B. Develop projected agricultural land use trends to estimate future change in inventory.
- C. Utilize existing tools to evaluate the impacts on water inventory due to changes in both urban and rural land use scenarios.

- A. Evaluate impacts of soil and water conservation practices on the water inventory.
- B. Review scientific studies that quantify consumptive water use reductions that result from applying water saving conservation practices.
- C. Evaluate potential new supply due to new or improved technology (deep aquifer recover, horizontal wells, etc.).

- A. Utilize best available data and tools to develop refined extents of the hydrologically connected ground and surface waters in the Lower Platte River Basin.

- A. Work with other state and federal agencies to develop a baseline climate scenario as well as a set of projected climate scenarios.
- B. Utilize available tools to test and evaluate resiliency of water inventory under baseline and projected climate scenarios. Evaluation to consider delta between baseline and projected climate scenarios and consider both elements of use and supply.

2. Monitor current and future water demands in the Basin.

ACTION ITEMS

- A. Develop a standard data collection and reporting system for all NRDs in Lower Platte River Basin for documenting water uses in Basin.

- B. Identify significant unmeasured demands and develop and maintain a standard methodology for estimating. Unmeasured demands may include unmetered groundwater irrigation pumping, livestock use, riparian ET, unmeasured municipal and industrial use, environmental remediation.

GOAL 2: Implement a water management plan for the Lower Platte River Basin that maintains a balance between current and future water supplies and demands.

OBJECTIVES

1. Collaborate with state and local governments to identify opportunities to augment water supplies within the Lower Platte River Basin and, if necessary, identify opportunities to supplement with imported water from outside the Lower Platte River Basin.

ACTION
ITEMS

A. Utilize information from the water inventory to determine need, quantities, and locations of water shortages to define water augmentation needs and goals of augmentation projects.

B. Identify potential excess surface water sources within the basin and determine locations, timing, quantities, and reliability of excess surface water sources.

C. Identify potential groundwater sources within the basin and determine locations, timing, quantities, and reliability of groundwater sources.

D. Based on potential supplies and goals, identify potential partners, develop and prioritize augmentation plans.

E. Identify potential partners and collaborate to develop opportunities for imported water supplies, as necessary.

2. Monitor the instream flow needs in the Lower Platte River Basin to foster an understanding of the existing appropriation priorities and locations, and provide a basis for evaluating impacts of existing and future uses.

ACTION
ITEMS

A. Assess USGS and NeDNR gage flows as well as NeDNR administrative records and actions to identify change of use or location of existing appropriations, new appropriation applications, and priority calls within the basin.

3. Evaluate options for Basin water banking methodologies.

ACTION
ITEMS

A. Identify potential water banking methods that have applicability in the Lower Platte River Basin relative to current physical, administrative, legal and legislative framework.

B. Establish uniform and consistent accounting methodology (depletions, offsets, etc.) for use in developing and maintaining a water bank.

C. Develop an administrative framework (agreements, rules, etc.) for establishing a water bank in the Lower Platte River Basin.

4. Evaluate impacts of new development during drought condition.

ACTION
ITEMS

A. Evaluate the balance of water supplies and uses during droughts and the potential impacts of new uses on this balance.

B. Evaluate the hydrologic impacts of drought planning activities in the basin (NRD drought plans and mitigation strategies and other plans).

C. Evaluate the hydrologic impacts of surface water administration activities through examination of closing notices issued by NeDNR.

D. Evaluate other management tools that may be available to mitigate impacts from new water uses during droughts.

GOAL 3: Develop and implement water use policies and practices that contribute to the protection of existing surface and groundwater uses while allowing for future water development.

OBJECTIVES

1. Identify available water storage opportunities throughout the Lower Platte River Basin.

ACTION
ITEMS

A. Inventory past project studies (US Bureau of Reclamation, US Army Corps of Engineers, Natural Resource Conservation Service, individual NRDs) to assess if any opportunities exist to utilize those analyses, whole or in part, as potential projects for purposes of this Plan.

B. Inventory existing infrastructure to assess potential for rehabilitation/expanding/modifying physical or operational components for purposes identified in this Plan.

C. Identify potential new opportunities for water storage in consideration of proximity to available water, return flow options, physical site characteristics, etc.

2. Evaluate, understand, and develop policies to address impacts on stream flows of uses outside of management control.

ACTION
ITEMS

A. Inventory and review existing studies/reports on uses outside management control (conservation measures, riparian uses, etc.) and determine impacts on water inventory.

3. Expand public education programs on general awareness of water supplies and to encourage water conservation measures.

ACTION
ITEMS

A. Support and coordinate research, training, and incentive programs concerning invasive plant species in the Platte River system, and assist with information and education efforts to distribute research results.

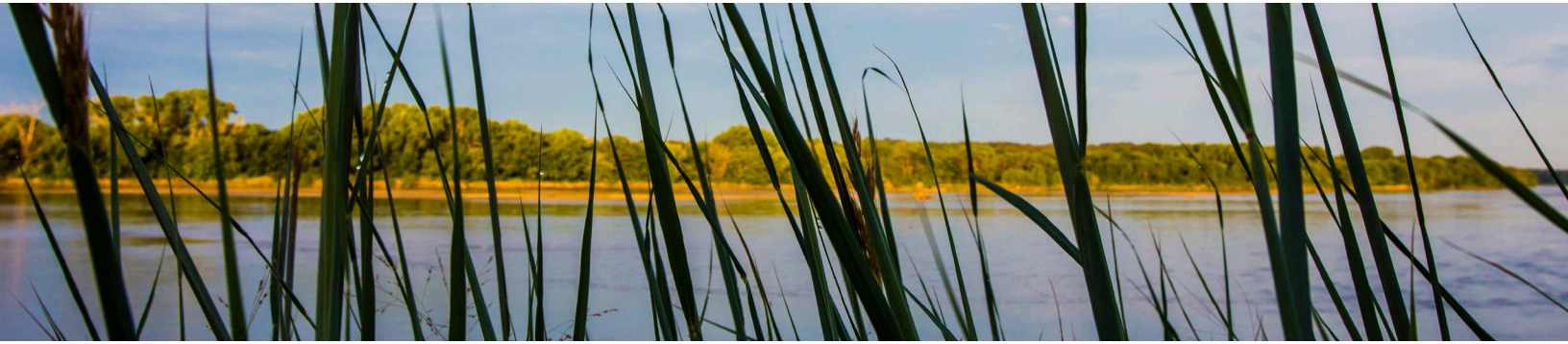
B. Coordinate with public water systems to develop or expand educational materials and programs on water supplies, water quality, and best conservation practices.

C. Coordinate with cities, counties, and others to encourage water education and conservation.

D. Promote water use education that addresses both rural and urban water conservation efforts.

E. Support school environmental education programs focused on water.

F. Impose mandatory educational requirements designed to stabilize or reduce the incidence of groundwater depletion, or conflict between users and appropriators.



3.1 Action Items Completed During Plan Development

Several action items in support of objectives have been completed, wholly or in part, as part of the Plan development and are summarized below. Supporting documentation of these efforts can be found in the Plan appendices, as noted.

Evaluation and Application of NeDNR INSIGHT Methodology (Appendix C). Data and methodology used in the NeDNR's INSIGHT database was evaluated, modified as noted in Section 1.2, and applied to the Lower Platte River Basin as a whole, and to sub-basins where applicable. The sensitivity of water supply and use terms on the overall balance was evaluated. – Action items 1.1.11 (A) & 2.3 (B)

Development of a Basinwide Accounting Methodology (Appendix C). The NeDNR INSIGHT databases and methodology were also evaluated for appropriateness as a basin-wide accounting tool.

During the course of the project, the technical committee requested that alternative demand scenarios be investigated that are more conservative than the demands considered by the draft NeDNR methodology.¹ After considering the various demand scenarios and assessing the benefits and constraints on the individual subbasins, the management committee agreed to utilize the demand scenario that would maintain 40% of the 25-year average streamflow at Louisville (without hydropower considered) to calculate the volume of water within the Lower Platte River Basin that exceeds the long term demand.²

An additional variance between the INSIGHT methodology and the basin-wide accounting methodology, is the Above North Bend sub-basin was divided above and below Columbus to break out the Beaver Creek basin for inclusion in the Loup River Basin, consistent with basin topography.– Action items 1.1.1 (A) & 2.3 (B)

Summary of Existing Surface and Groundwater Controls (Appendix D). Existing ground and surface water control measures currently employed by each Coalition member, as well as control measures used in other portions of Nebraska and other states were summarized. – Supports Action Item 2.3 (C).

Data Collection Efforts (Appendix E). Existing available datasets for relevant water budget terms and on-going data collection efforts were summarized. On-going and completed study efforts within the basin were also compiled. Recommendations for additional data collection efforts were included. – Supports Action Item 1.1.1 (C).

¹ Section 2.4.5 and 3.0 of Appendix C describe these alternative demand scenarios in more detail.

² For reference, the draft NeDNR INSIGHT methodology considers the maximum of either the induced groundwater recharge demand or the adjusted instream flow demand in the North Bend to Louisville sub-basin. This adjusted instream flow demand corresponds to maintaining approximately 20% of the 25-year average streamflow in the Platte River at Louisville.

Evaluation of Potential Conjunctive Management and Water Banking Opportunities (Appendix F). A

sampling of potential conjunctive management and water banking opportunities in the Basin were evaluated. Fundamental to this effort was development of a consistent water accounting methodology (Appendix C) for assessment, tracking, and accounting of accretions and depletions to the hydrologically connected streams and rivers within the Basin. – Supports Action Items 2.3 (A) and 3.1 (B) and 3.1 (C)

- **Conjunctive Management Opportunities.** Conceptual examples of several types of conjunctive management projects within the Basin were developed. These examples identified water sources, necessary infrastructure, functional operations and potential benefits of each conceptual example.
- **Water Banking.** Existing water banking systems and pertinent statutory and regulatory authorities available to establish a water banking system were summarized. Example water banking instruments from Nebraska and other states were identified and administrative and operational function summarized.

3.2 Plan Implementation Activities

The first increment implementation of the Plan will occur over a 5-year period. The Plan activities consist of identifying goals and objectives for implementation over the first 5-yr planning increment and include the following:

GOAL 1: DEVELOP AND MAINTAIN A WATER SUPPLY AND USE INVENTORY BASED ON THE BEST AVAILABLE DATA AND ANALYSIS.

OBJECTIVE 1: DEVELOP AND MAINTAIN A COMPREHENSIVE INVENTORY OF THE LOCATION AND SOURCE OF THE BASIN'S CURRENT AND FUTURE WATER SUPPLIES, WATER USES, AND OUTFLOWS.

During the planning effort, the NeDNR INSIGHT database was evaluated and verified at the basin and sub-basin level as an appropriate tool to quantify basin water supplies and uses. The Coalition has approved the use of the INSIGHT database and methodologies, as modified for development of this Plan, for inventorying of water supplies and uses in the basin and for basin- wide tracking and accounting of supplies and uses.

During the first planning increment, Coalition members will update the uses within the Basin as part of their annual reporting. Basinwide supplies will be updated approximately every 5 years, with the first update coincident with the end of the first planning increment.

Action items to enhance or supplement the basin-wide inventory of supplies and uses are planned during the first increment. These action items can loosely be grouped into three categories: 1) Supplemental information or refinements; 2) Forecasts and projections; and 3) Data collection efforts to fill data gaps. The individual Coalition members will implement action items.

1. Supplemental information and refinements

- a. Update basin-wide accounting with updated numerical modeling tools (ELM Phase III, CENEB, and Lower Platte and Missouri River Tributaries groundwater models) as they become available to refine the extent of the hydrologically connected ground and surface water in the Basin.

- b. Develop and incorporate supplemental information to INSIGHT database as they become available. These include unmeasured uses such as riparian ET, unmeasured M&I use, livestock use, and environmental remediation.
- c. Refine the spatial extent of supplies and uses to better correspond to NRD boundaries.

2. Forecasts and projections

- a. Project future municipal and industrial demands.
- b. Project future land use and irrigation requirements, including innovations in technology.
- c. Project variations in water supply and demand due to climate variability.
- d. Project uses using both current depletive levels and the ultimate full consumptive use of current uses.

3. Data collection

To better align with NRD boundaries (and thus refine the estimate of demands and supplies within each NRD), it may be beneficial to include additional stream gage locations in the basin accounting to break the current INSIGHT sub-basins along NRD boundaries. Currently, approximations have been utilized to assign supplies and demands between multiple NRDs within a single sub-basin.

Suggestions for utilizing additional stream gage locations in the inventory and analyses or potential new stream gage locations include:

- a. Existing USGS Station 0677500: Middle Loup River at Dunning, Nebraska or an additional gage on the mainstem Middle Loup above the Sargent

Canal diversion to divide the Middle Loup sub-basin between the Upper Loup NRD and the Lower Loup NRD.

- b. Existing USGS Station 06781600: South Loup River at Arnold, Nebraska to divide the South Loup sub-basin between the Upper Loup NRD and the Lower Loup NRD.
- c. Existing USGS Station 06785500: North Loup River at Brewster, Nebraska or an additional gage on the mainstem North Loup River below this gage on the NRD boundary to divide the North Loup sub-basin between the Upper Loup NRD and the Lower Loup NRD.
- d. A new gage on the Calamus River at the Upper Loup NRD/Lower Loup NRD boundary.
- e. NeDNR gage Elkhorn River near Tilden better aligns with Upper Elkhorn NRD/Lower Elkhorn NRD boundary.
- f. New gage at the confluence of the Platte River and Clear Creek to better match the divide between the Lower Loup NRD and the Lower Platte North NRD.
- g. A new gage at the confluence of Wahoo Creek and the Platte River to better match the boundary between the Lower Platte South NRD and the Lower Platte North NRD.
- h. A new gage at the confluence of the Elkhorn River and Maple Creek to better match the boundary of the Lower Elkhorn NRD and the Papio-Missouri River NRD.
- i. A new gage at the confluence of the Elkhorn River and the Platte River to better isolate the reach of Elkhorn River in the Papio-Missouri River NRD.

OBJECTIVE 2: MONITOR CURRENT AND FUTURE WATER DEMANDS IN THE BASIN.

Coalition members will collaborate on consistent methods to be used in reporting annual uses. Estimates of uses will utilize the best available information and tools. Standard methodologies for estimating unmeasured uses of significance (unmetered pumping, riparian ET, livestock use, etc.) will be developed by the Coalition. This coordination of collecting and reporting uses will provide consistency within the basin as well as with INSIGHT database.

GOAL 2: IMPLEMENT A WATER MANAGEMENT PLAN FOR THE LOWER PLATTE RIVER BASIN THAT MAINTAINS A BALANCE BETWEEN CURRENT AND FUTURE WATER SUPPLIES AND DEMANDS.

OBJECTIVE 1: COLLABORATE WITH STATE AND LOCAL GOVERNMENTS TO IDENTIFY OPPORTUNITIES TO AUGMENT WATER SUPPLIES WITHIN THE LOWER PLATTE RIVER BASIN AND, IF NECESSARY, IDENTIFY OPPORTUNITIES TO SUPPLEMENT WITH IMPORTED WATER FROM OUTSIDE THE LOWER PLATTE RIVER BASIN.

During the planning effort, extensive evaluation of the balance of supplies and uses at the basin and sub-basin level were completed, primarily focused on surface water supplies. These evaluations identified timing, location, and relative frequency of surpluses and deficits in streamflow. The results generally indicate that shortages are likely to occur during the peak season (June, July, and August) and are amplified during drought conditions within the basin. Surpluses are likely to occur during the non-peak season and occasionally during the peak season during normal or wetter than normal conditions. Several types of conjunctive management projects aimed at retiming flows (from times of surplus to times of deficit) were identified throughout the basin and potential water supply benefits of each identified.

During the first increment, Coalition members will continue to investigate and pursue conjunctive management opportunities and potential partners to augment streamflows during times of shortage, with the intent of implementing at least one conjunctive management project in each of the three primary river basins.



OBJECTIVE 2: MONITOR THE INSTREAM FLOW NEEDS IN THE LOWER PLATTE RIVER BASIN TO FOSTER AN UNDERSTANDING OF THE EXISTING APPROPRIATION PRIORITIES AND LOCATIONS, AND PROVIDE A BASIS FOR EVALUATING IMPACTS OF EXISTING AND FUTURE USES.

As part of the annual meeting reporting, NeDNR will report changes to existing surface water appropriations or new appropriation applications. In addition, NeDNR will summarize a report on the streamflow conditions throughout the basin, shortages, and administrative calls during the previous year.

OBJECTIVE 3: EVALUATE OPTIONS FOR BASINWIDE WATER BANKING METHODOLOGIES.

During the planning effort, several examples of water banking instruments currently in operation in Nebraska and throughout the western United States were summarized with respect to administration, operation, and function. In addition, pertinent legislation and authorities from State statutes related to the formation of water banks in Nebraska were summarized. Finally, a basinwide accounting tool based on the NeDNR INSIGHT database was developed. This accounting system is needed to be able to fairly and consistently track water supplies and uses within the Coalition area, and to allow for water banking or transfer actions between different NRDs. The basinwide accounting system is designed to serve as the administrative backbone for future water management actions by the Coalition, and can be adapted to account for any form of water banking and conjunctive management projects that may be chosen by individual NRDs, or groups of NRDs.

As work on the water banking efforts commenced, it quickly became apparent that Coalition managers, and other stakeholders in the basin, were strongly against a “one-size-fits-all” approach, and that the goals and priorities of individual NRDs should be respected, and emphasized, as part of the water banking efforts. The geography, hydrology, and infrastructure within each NRD are clearly different, and suggest that multiple types of water banking projects would be more effective than attempting to force a single implementation strategy on all Coalition members. In addition, areas such as the Lower Loup NRD already have water-banking operations in place, and the need in that area appears to be not for a new implementation strategy, but instead for a way to ensure that banking operations conducted by the NRD are acknowledged, and protected, into the future.

As the Coalition moves forward and begins to consider setting up a collaborative or individual water bank, two useful sources should be consulted: a water banking “guidebook”¹ developed by Dr. Bonnie Colby at the University of Arizona in 2010, and an “Analysis of Water Banks in the Western States”² prepared by the Washington Department of Ecology and WestWater Research in 2004. In addition, Appendix F provides “checklist” summaries of several existing water banks and the administrative, operational, and financial characteristics of each.

¹ <http://ag.arizona.edu/arec/sites/cals.arizona.edu.arec/files/publications/ewsr-Banks-final-5-12-10.pdf>

² <https://fortress.wa.gov/ecy/publications/publications/0411011.pdf>

OBJECTIVE 4: EVALUATE IMPACTS OF NEW DEVELOPMENT DURING DROUGHT CONDITIONS

During the planning effort, evaluations of the balance of supplies and uses have been used to establish allowable levels of development. This allowable level of development has been based on limiting the total depletive effect of new surface water and groundwater uses to 10% of the average annual basinwide excess during the peak season (June, July, August). While this approach places limits on new depletions it also allows the Coalition to manage the growth of new uses while still providing a level of protection to current uses.

The Coalition also recognizes that these protections may become limited in times of drought when water supplies may not be in balance. Therefore, the Coalition members will continue to investigate the impacts of drought and use this information to inform future planning increments. The activities that will be evaluated during the second increment include:

- The balance of water supplies and uses during droughts and the potential impacts of new uses on this balance
- The hydrologic impacts of NRD drought plans and mitigation strategies
- The hydrologic impacts of surface water administration activities through examination of closing notices issued by NeDNR
- The hydrologic impacts of other drought planning activities in the basin
- Other management tools that may be available to mitigate impacts from new water uses during droughts

Evaluation of these activities will be used to inform subsequent increments of the plan and establish allowable depletion limits that work in conjunction with other mitigation strategies to protect existing users and mitigate the effects of drought.

GOAL 3: DEVELOP AND IMPLEMENT WATER USE POLICIES AND PRACTICES THAT CONTRIBUTE TO THE PROTECTION OF EXISTING SURFACE AND GROUNDWATER USES WHILE ALLOWING FOR FUTURE WATER DEVELOPMENT.

OBJECTIVE 1: IDENTIFY AVAILABLE WATER STORAGE OPPORTUNITIES THROUGHOUT THE LOWER PLATTE RIVER BASIN.

Previous planning efforts undertaken by the member NRDs, USACE, USBR, and NRCS had identified sites throughout the basin including Sherman Reservoir in the Loup Basin, Battle Creek in the Elkhorn Basin, and Skull Creek Reservoir in the Lower Platte Sub-basin. During the planning effort, water storage opportunities in each of the three primary basins were investigated and the most feasible opportunities identified. These opportunities include new structures as well as the re-purposing of storage within existing structures. Available water for storage and operational characteristics were identified, and ultimately the impacts on streamflows were estimated. During the first increment, Coalition members will continue to investigate and pursue new storage as a conjunctive management opportunity to augment (both active and passive management) water supplies during times of shortage.

OBJECTIVE 2: EVALUATE, UNDERSTAND, AND DEVELOP POLICIES TO ADDRESS IMPACTS ON STREAM FLOW OUTSIDE OF MANAGEMENT CONTROL.

During the first increment, Coalition members will conduct a literature review of previous studies that estimate or quantify the impacts of significant uses outside of Coalition member jurisdictional control, including riparian uses and the effects of conservation measures. Using the findings of this literature review, Coalition members will apply the results in a consistent manner across the Basin to estimate impacts on the basin water inventory.

OBJECTIVE 3: EXPAND PUBLIC EDUCATION PROGRAMS ON GENERAL AWARENESS OF WATER SUPPLIES AND TO ENCOURAGE WATER CONSERVATION MEASURES.

During the first increment, the individual Coalition members will coordinate with public water systems, cities, counties, and others as appropriate to develop outreach and education materials that focus on water supply, water quality, and water conservation practices. The Coalition members will also coordinate with others, such as the Invasive Species Task Force, to support and coordinate research and incorporate results of the research into the outreach and education materials.

Second 5-year Increment Allowable New Development (Depletions)

Table 4.1 - Second 5-Year Increment Allowable New Development (Depletions) by Basin

Basin	Average Peak Season Excess Supply (acre-feet)	Second 5-year Increment Allowable Development (acre-feet)
Full Lower Platte Basin	228,894	22,889
Loup Basin (46% BWS)	105,291	10,529
Elkhorn Basin (32% BWS)	73,246	7,325
Lower Platte Subbasins (22% BWS)	50,357	5,036

Table 4.2 - Second 5-Year Increment Allowable New Development (Depletions) by NRD

NRD	Allowable Depletions by NRD		
	New 2 nd Increment	Carryover from 1 st Increment	Total
Upper Loup NRD	3,369	2,065	5,435
Lower Loup NRD	7,160	4,749	11,908
Upper Elkhorn NRD	1,831	1,134	2,965
Lower Elkhorn NRD	5,493	2,853	8,347
Papio-Missouri River NRD	1,057	768	1,825
Lower Platte South NRD	1,209	890	2,098
Lower Platte North NRD	2,770	966	3,736
TOTAL	22,889	13,425	36,315



Appendices



Appendix A - Second 5-Year Increment Allowable Development Analysis

LOWER PLATTE BASIN WATER MANAGEMENT COALITION
FIFTH REPORTING PERIOD: JAN 1, 2021 TO DECEMBER 31, 2021

TABLE 1 - PEAK SEASON DEPLETIONS

NRD	PEAK SEASON 5-YR ALLOWABLE DEPLETION (AF)	Peak Season								
		NRD Prior Years Reported Depletion (AF)	2021 NRD Reported Depletion (AF)	NRD Total Reported Depletion (AF)	NRD - Percent of Allowable	Prior Years NeDNR Reported Depletion (AF)	2021 NeDNR Reported Depletion (AF)	Total NeDNR Reported Depletion (AF)	NeDNR - Percent of Allowable	Combined Percent of Allowable
Upper Loup NRD	2768	417.9	-84.9	333.0	12.0%	369.6	0.0	369.6	13.4%	25.4%
Lower Loup NRD	5883	360.1	255.7	615.8	10.5%	481.0	35.9	516.9	8.8%	19.3%
Upper Elkhorn NRD	1504	220.0	64.4	284.4	18.9%	85.0	0.4	85.4	5.7%	24.6%
Lower Elkhorn NRD	4514	1093.7	292.0	1385.7	30.7%	180.4	94.7	275.1	6.1%	36.8%
Papio-Missouri River NRD	869	30.0	4.0	34.0	3.9%	67.0	0.0	67.0	7.7%	11.6%
Lower Platte South NRD	993	23.6	0.0	23.6	2.4%	67.0	12.9	79.9	8.0%	10.4%
Lower Platte North NRD	2276	1093.8	208.5	1302.2	57.2%	0.0	7.5	7.5	0.3%	57.5%
TOTALS	18,807	3,239	740	3,979	21.2%	1250	151.33	1,401	7.5%	28.6%

TABLE 2 - PEAK SEASON DEPLETIONS AND CONSUMPTIVE USE

NRD	PEAK SEASON 5-YR ALLOWABLE DEPLETION (AF)	NRD - Peak Season Depletion (AF)	NeDNR Reported Depletion (AF)	NRD Prior Years Peak Season Consumptive Use (AF)	2021 NRD Peak Season Consumptive Use (AF)	NRD Total Peak Season Consumptive Use (AF)	NeDNR Total Peak Season Consumptive Use (AF)	Total New Peak Season Depletions	Total New Peak Season Consumptive Use	Remaining 5-YR Allowable Depletion (AF)	Percent of Remaining 5-YR Allowable Depletion
Upper Loup NRD	2768	333.0	369.6	1069.5	Pending	Pending	369.6	702.6	Pending	2065.4	74.6%
Lower Loup NRD	5883	615.8	516.9	1550.5	Pending	Pending	516.9	1132.7	Pending	4750.3	80.7%
Upper Elkhorn NRD	1504	284.4	85.4	509.8	Pending	Pending	85.4	369.8	Pending	1134.2	75.4%
Lower Elkhorn NRD	4514	1385.7	275.1	2216.2	Pending	Pending	275.1	1660.7	Pending	2853.3	63.2%
Papio-Missouri River NRD	869	34.0	67.0	53.6	Pending	Pending	67.0	101.0	Pending	768.0	88.4%
Lower Platte South NRD	993	23.6	79.9	30.2	Pending	Pending	79.9	103.5	Pending	889.5	89.6%
Lower Platte North NRD	2276	1302.2	7.5	1620.2	Pending	Pending	7.5	1309.7	Pending	966.3	42.5%
TOTALS	18,807	3,979	1,401	7,050	-	-	1,401	5,380	-	13,427	71%

25-Year New	PeakBalance(PB)	CarryoverAF	PBAAdj	Loup+Beaver(4)	Elkhorn(32%)	LowerPlatte(22%)
	242,319	14,328	227,991	104,876	72,957	50,158

NRD	Sub-Basin	Sub-Basin PB 1	% Sub-Basin	NewAF	CarryoverAF	NewAF+Carryover
UL	Loup+Beaver	10,488	32%	3,356	2065.4	5,421
LL	Loup+Beaver	10,488	68%	7,132	4750.3	11,882
UE	Elkhorn	7,296	25%	1,824	1134.2	2,958
LE	Elkhorn	7,296	75%	5,472	2853.3	8,325
PMR	LowerPlatte	5,016	21%	1,053	768.0	1,821
LPS	LowerPlatte	5,016	24%	1,204	889.5	2,093
LPN	LowerPlatte	5,016	55%	2,759	966.3	3,725

CHEMIGATION - April 2022

TOTAL CHEMIGATION APPLICATIONS IN 2021 (710)

NEW CHEMIGATION APPLICATIONS - 9

(1) Boone (1) Butler (0) Colfax (0) Dodge (0) Madison (3) Platte (4) Saunders

RENEWALS: 316

BOONE COUNTY - 29
BUTLER COUNTY - 18
COLFAX COUNTY - 30
DODGE COUNTY - 73
MADISON COUNTY - 6
PLATTE COUNTY - 55
SAUNDERS COUNTY - 105

RENEWAL INSPECTIONS: 0

(0) Boone (0) Butler (0) Colfax (0) Dodge (0) Madison (0) Platte (0) Saunders

NEW INSPECTIONS: 0

(0) Boone (0) Butler (0) Colfax (0) Dodge (0) Madison (0) Platte (0) Saunders

NEW CANCELLATIONS: 6

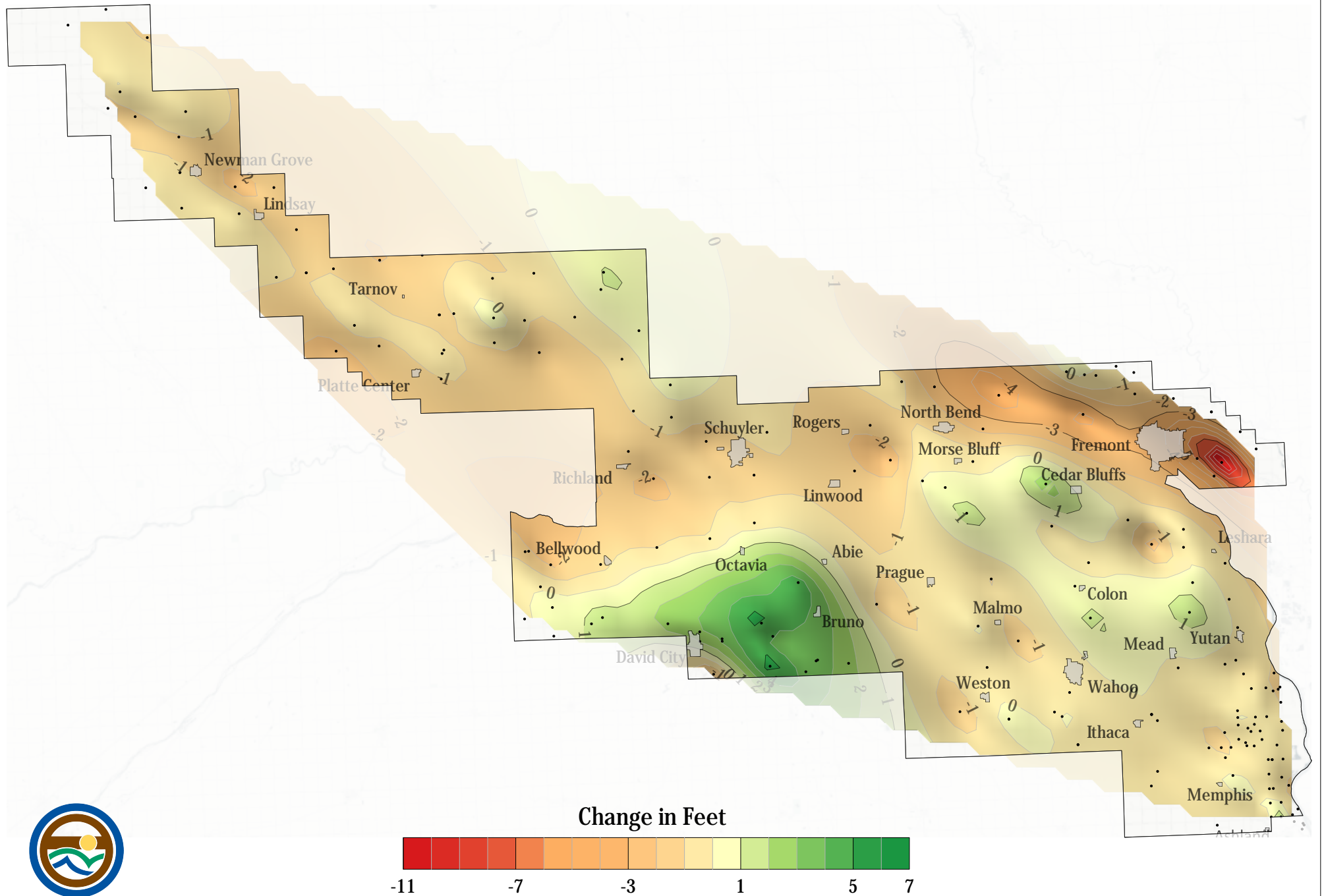
(0) Boone (0) Butler (6) Colfax (0) Dodge (0) Madison (0) Platte (0) Saunders

EMERGENCY: 0

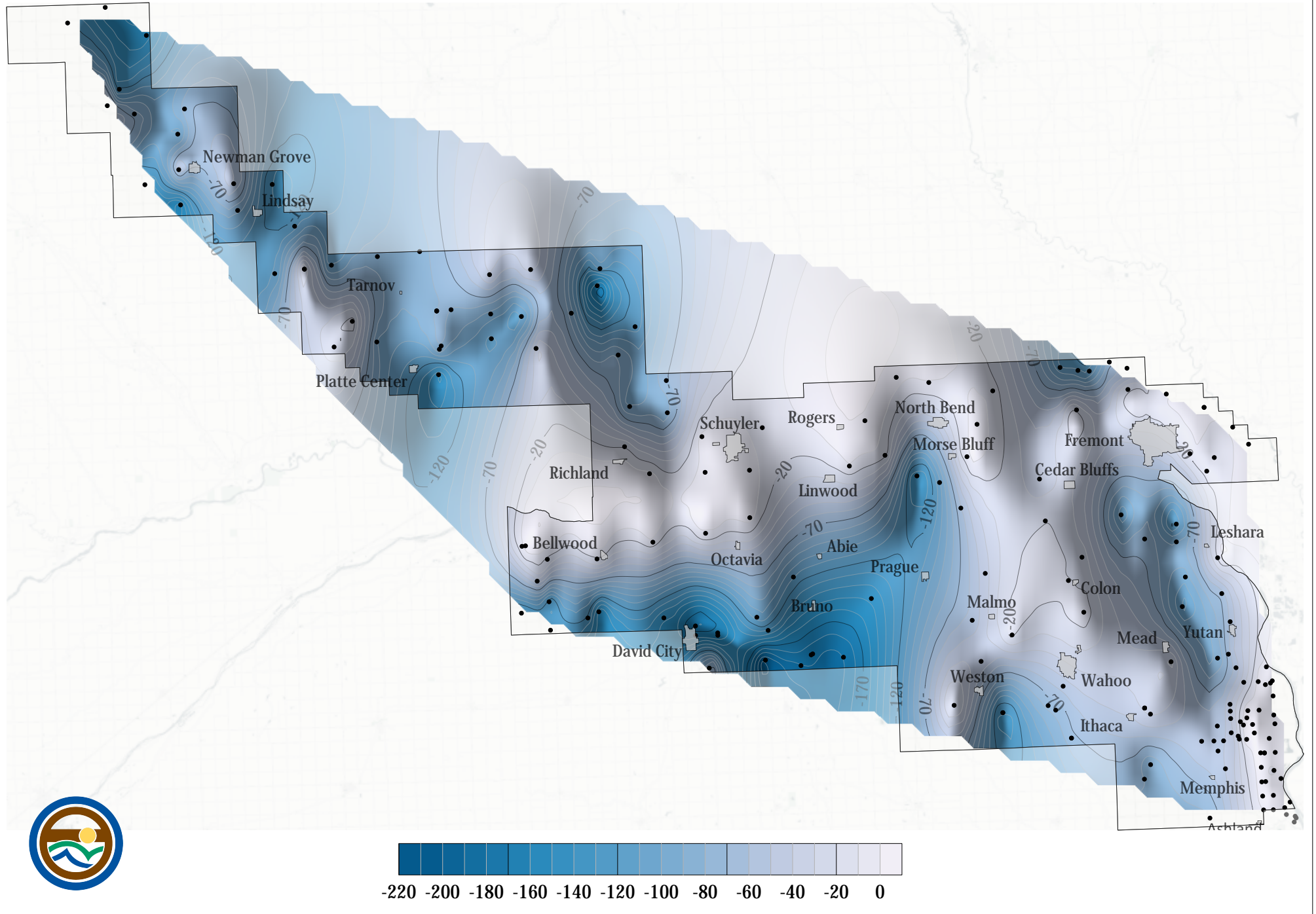
Ground Water Level Summary Comparison of Spring 2021 to Spring 2022

Aquifer Subarea	Number of Wells Measured	Median Change (Feet)	Mean Change (Feet)	Number of Wells Increased	Number of Wells	
					Unchanged (+ or - 0.3 Feet)	Number of Wells Decreased
Platte Valley	58	-1.03	-1.27	5	11	42
Bellwood	5	-1.40	-1.45	0	1	4
Fremont	7	-1.37	-2.79	2	0	5
Fremont East	3	-1.37	-1.45	0	0	3
Leshara Platte Valley	1	-0.65	-0.65	0	0	1
North Bend	9	-2.35	-2.35	0	0	9
Octavia	5	-1.04	-1.03	0	1	4
Platte River Uplands	4	-0.23	0.05	2	1	1
Schuyler	6	-1.44	-1.55	0	0	6
Wann	18	-0.28	-0.38	1	9	8
Shell Creek	46	-0.95	-0.97	5	5	36
Lower Newman Grove	2	[-1.75, -0.07]	-0.91	0	1	1
Lower Shell Creek	6	-1.01	-0.99	1	0	5
Middle Shell Creek	17	-0.95	-0.96	3	0	14
Newman Grove	3	-1.70	-1.81	0	0	3
Platte Center	6	-1.24	-1.35	0	0	6
Shell Creek Uplands	2	[-0.77, +0.57]	-0.10	1	0	1
Upper Newman Grove	9	-0.75	-0.77	0	3	6
Upper Shell Creek	1	0.13	0.13	0	1	0
Todd Valley	19	-0.28	-0.18	3	7	9
(north of Hwy 92)	7	0.01	0.36	2	3	2
(south of Hwy 92)	12	-0.48	-0.50	1	4	7
Uplands	56	0.28	0.73	26	11	19
David City	19	2.84	2.41	17	0	2
Leshara Uplands	4	-0.18	-0.12	0	3	1
Morse Bluff	3	0.50	0.80	3	0	0
Prague	5	-1.04	0.25	1	1	3
Swedeburg	9	-0.25	-0.19	1	4	4
Weston	7	-0.70	-0.42	2	0	5
Yutan	5	-0.21	-0.16	2	2	1
Yutan South	4	-0.59	-0.62	0	1	3
				22%	19%	59%

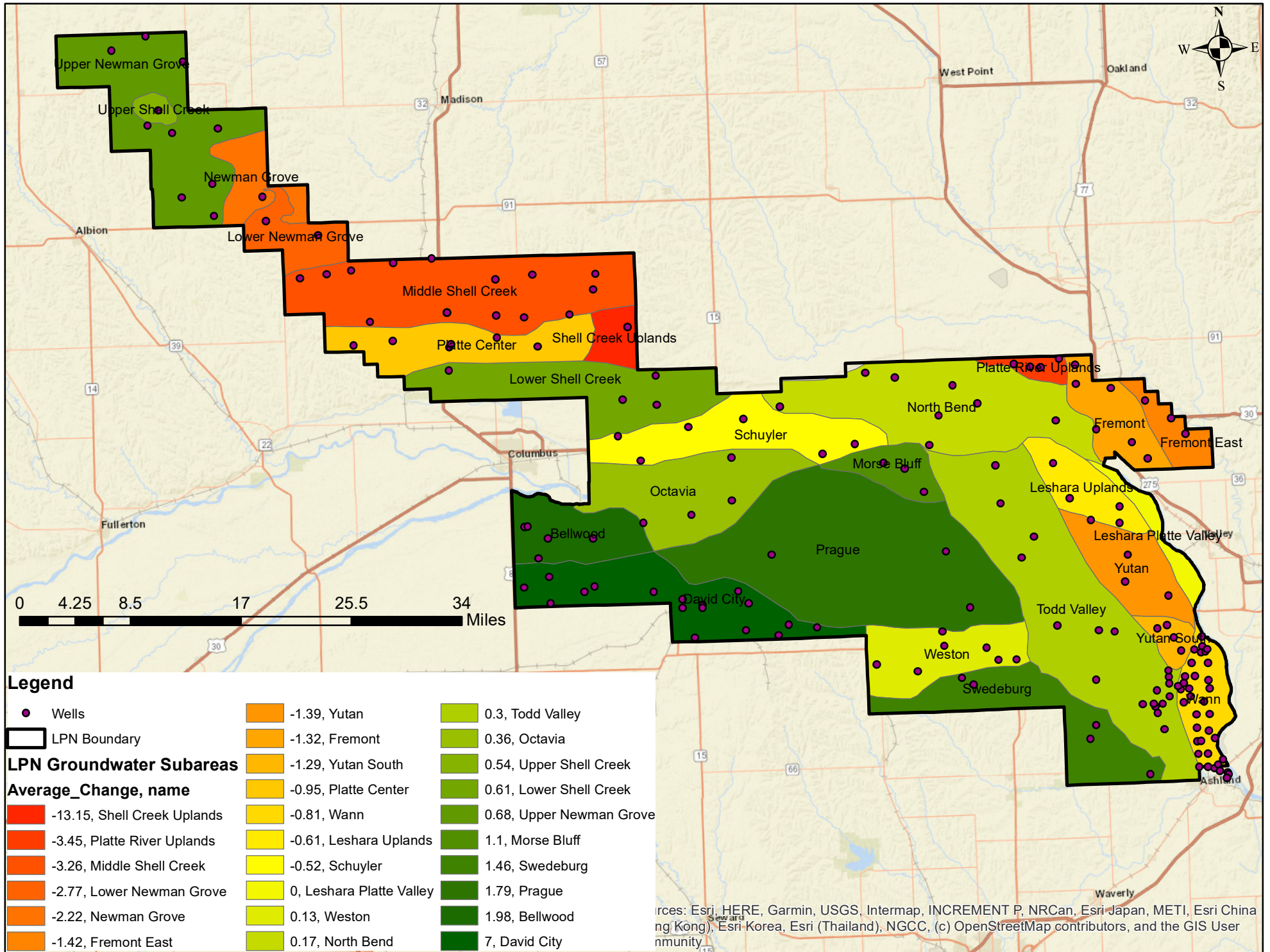
LPNNRD Spring Water Level Change: 2022 v 2021



LPNNRD Spring 2022 Water Levels



Spring 2012 to Spring 2022 Water Level Change Average





April 25, 2022

Daryl Andersen
Water Department Manager
Lower Platte North Natural Resources District
PO Box 126
Wahoo, NE 68066

RE: Proposal - Scope of Work, Cost Estimate, and Schedule
Hydrogeologic Assessment GIS Geodatabase
Lower Platte North Natural Resources District, Nebraska

Dear Mr. Andersen,

LRE Water (LRE) is pleased to provide Lower Platte North Natural Resources District (LPNNRD) with the following scope of work, fee, and schedule (Proposal) to complete the Hydrogeologic Assessment GIS Geodatabase (Assessment).

The Proposal is based on the following: previous discussions with you; LRE's previous work on the LPNNRD 3D AEM Framework; and work with neighboring NRDs that have completed similar Assessment projects, including Lower Elkhorn Natural Resources District (LENRD) and Papio-Missouri River Natural Resources District (PMRNRD).

ASSESSMENT OBJECTIVE AND APPROACH

The Assessment will utilize all available geologic data, including well logs and University of Nebraska Conservation Survey Division (UNL-CSD) test holes. The data collection, review, assessment, and interpolation process differs from the recently completed work using Airborne Electromagnetic (AEM) data. LRE has constructed a number of hydrogeologic cross sections through LPNNRD showing the lithology from well logs for a visual comparison to the AEM profiles; however, the hydrogeologic assessment work, similar to what was completed for LENRD and PMRNRD, has yet to be completed. LRE will utilize existing information on hand and follow a consistent and proven approach.

With the completion of LPNNRD's Assessment, all Lower Platte River Basin NRDs will have consistently constructed AEM and geologic frameworks. This will enable Districts to collaborate on water management issues across political boundaries including the ability to build one uniform flow model (MODFLOW). The Assessment will also include GIS deliverables, including a NRD-wide vulnerability assessment and irrigation well development risk raster layer, which will enable LPNNRD staff to produce customized maps.

SCOPE OF WORK

To complete the Assessment, the LRE team will complete the following scope of work based upon three primary Tasks. This effort will utilize the available geologic database and work already completed during the previous NRD-wide 3D-Framework project with LPNNRD, and apply the same proven and consistent approach and techniques used for neighboring NRD's Hydrogeologic Assessments. The scope includes two meetings: one kickoff meeting to go over the data products that will be delivered, and one final project meeting to go over the electronic GIS deliverable.

Task 1: Project Management and Meetings

- Coordinate and communicate with LPNNRD staff.
- Schedule and attend two meetings with LPNNRD staff; one kickoff meeting and one final project deliverable meeting.

Task 2: Hydrogeologic Assessment Framework

- Complete the hydrogeologic evaluation, and create raster surfaces of the unconsolidated material (combined with the Ogallala in the northwest portion of the NRD forming the Principal Aquifer) using ArcGIS Spatial Analyst for a detailed Assessment deliverable.

Task 3: Deliverables

- The LPNNRD will be provided electronic GIS layers which further evaluate the hydrogeology only using the geologic descriptions on well logs and test hole logs (sand, gravel, clay). The Assessment deliverable will include:
 - 1) A robust evaluation of the entire NRD that includes a summary of the GIS files, and key hydrostratigraphic surfaces;
 - 2) A District-wide vulnerability and irrigation development risk raster layer; and,
 - 3) A final ESRI geodatabase and other mapping files delivered in an electronic Assessment deliverable format. The Assessment deliverable can be used in conjunction with the 3D AEM Framework and Leapfrog Viewer provided to LPNNRD in 2022 to have the most up to date robust format to assist the LPNNRD with water management decisions.

COST ESTIMATE

The estimated time and materials fee to complete the Assessment outlined above is \$56,000, and the estimated distribution of compensation is outlined in Table 1. LRE may alter the distribution of compensation between individual phases noted herein to be consistent with services actually rendered, but shall not exceed the total fee amount unless approved in writing by LPNNRD. It is anticipated that the Assessment could be included as part of a Water Sustainability Fund (WSF) grant, which is due annually on July 31. Assuming WSF is pursued in 2022, the estimated cost to LPNNRD (a 40% share) would be approximately \$22,400.

This proposal is for cost estimating purposes for the potential WSF grant application. The final scope and LRE contract will be dependent and executed upon WSF approval. If WSF funding is approved and LPNNRD moves forward with the Assessment, LRE will provide LPNNRD a contract for these services.

Table 1 – Cost Breakdown

Phase No.	Phase Name	Cost
1	Project Management and Coordination	\$3,900
2	Hydrogeologic Assessment Framework	\$29,700
3	Deliverables	\$22,400
	Project Totals	\$56,000

SCHEDULE

LRE can begin the Assessment immediately upon authorization, which assuming WSF is pursued, would be December 2022. It is estimated that the Assessment will take approximately six months to complete, with a deliverable date of summer of 2023.

We look forward to discussing this proposal with you and completing the Assessment for the LPNNRD. If you have any questions about the services offered in the proposal please contact Jon Mohr at 402-416-4667 or Jon.Mohr@LREWater.com in our Lincoln, NE Office. Thank you for the opportunity to present this proposal to LPNNRD.

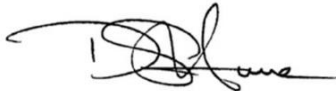
Sincerely,

LRE WATER



Jonathan Mohr
Project Manager and Environmental Scientist

Reviewed by:



Dave Hume, PG
VP of Midwest Operations



William H. Fronczak, P.E., Esq
Vice President – Risk Management

Date: 4/25/2022

JDM/rfs,mcp

Hydrogeologic Assessment – Proposal Summary Lower Platte North NRD – 4/27/2022

What is a ‘hydrogeologic assessment’?

- A hydrogeologic assessment (Assessment) uses physically collected data, such as well logs and test holes (i.e. sand, gravel, clay, etc.) to create a wide range of hydrogeologic maps to aid water resource management decisions.
- The well log data is interpreted by an experienced hydrogeologist for consistency, then added to a Geographic Information System (GIS).

LRE made 29 cross sections in 2022, what is the difference?

- The 29 cross sections are complete, however, only 905 of the approximately 12,000 wells (8%) along those cross sections are part of the work thus far.
- The other 11,000 wells would be introduced to the Assessment to ‘fill the gaps’ as part of this proposal.

What is the difference between the 3D AEM Framework and Hydrogeologic Assessment?

- The datasets are completely different and are not interchangeable.
- AEM uses electrical resistivity to map aquifer materials; whereas, the Assessment uses physical geologic data from well and test hole boring logs.
- Your AEM 3D Framework is complete and ready to go as of January 2022.

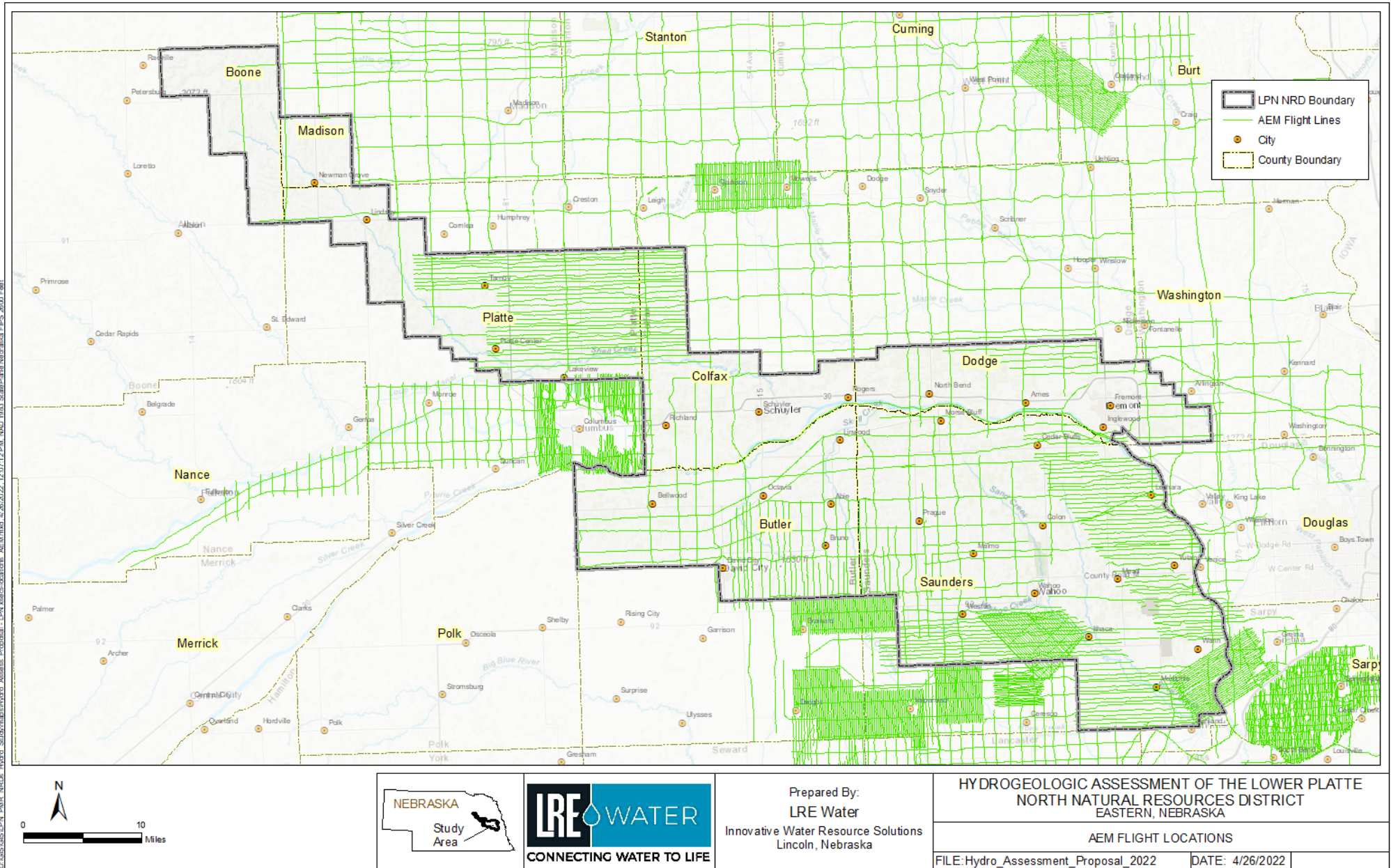
What are the benefits to LPNNRD when the Assessment is complete?

- The Assessment will include a vulnerability assessment for the entire NRD which will aid the staff and board in helping address nitrate contamination.
- The Assessment will also include a map showing risk for future irrigation well development.
- All the map layers will be provided to LPNNRD so staff can use them in GIS.
- The Assessment will also aid future groundwater modeling and public water supply well siting.

Will the Water Sustainability Fund (WSF) help cover the cost?

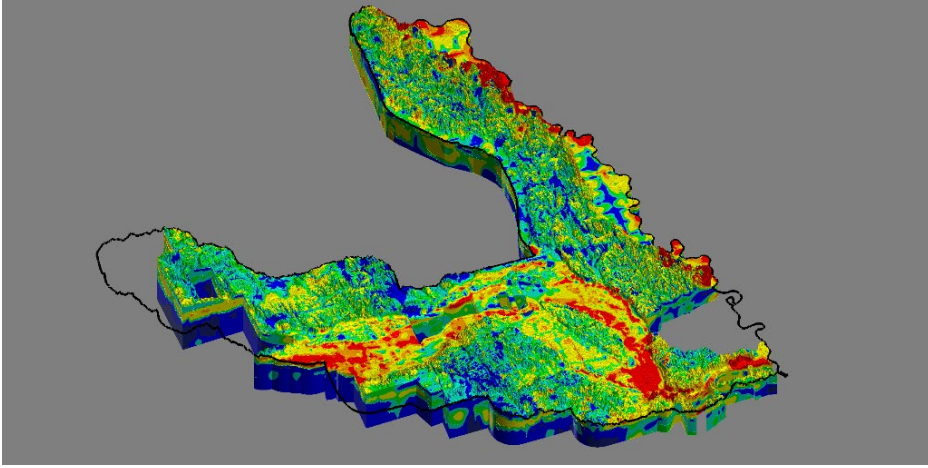
- Most likely, WSF has funded similar projects in the past.
- As proposed, the project would cost \$56,000. WSF would cover \$33,600 (60%), leaving \$22,400 (40%) as the local match.
- It would be possible to combine the Assessment into any other WSF grants the LPNNRD may pursue in July 2022.

After being flow, AEM data was originally only available along flight lines.

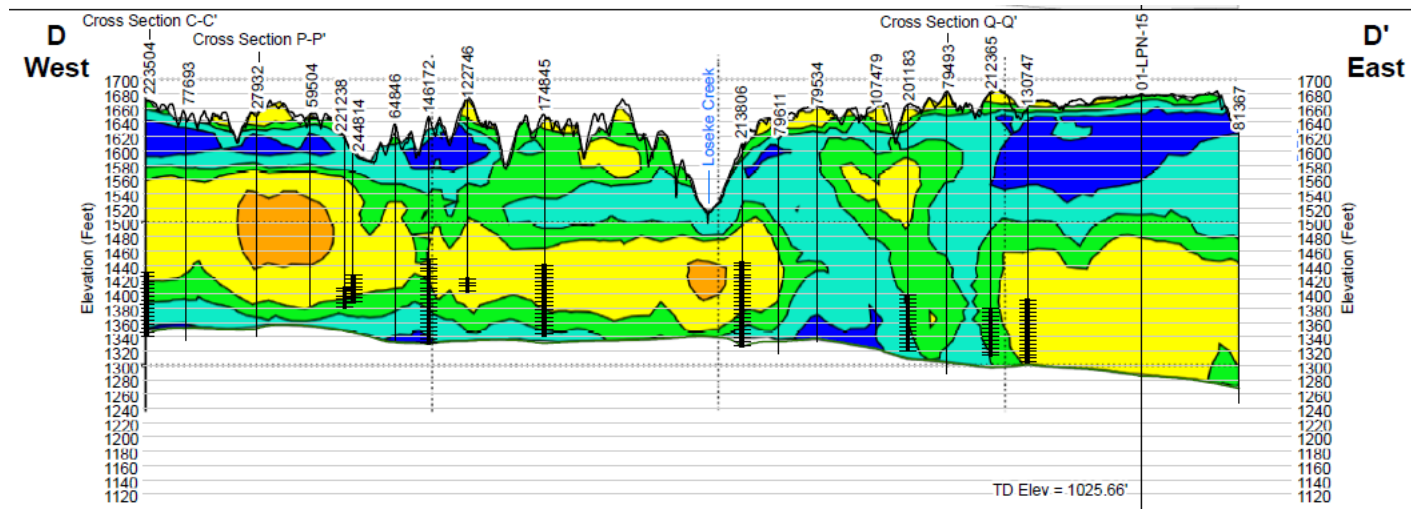


D:\GIS\GISE\LPN_NRDs_Hydro_Shaft\Map\Hydro_Assessment_LP_NRDs\Locations_AEM\Map_4/26/2022_12:07:12 PM_NAD_1983_StatePlane_Nebraska_FIPS_26001.prct

Now, LPNNRD has a full 3D AEM Framework available.

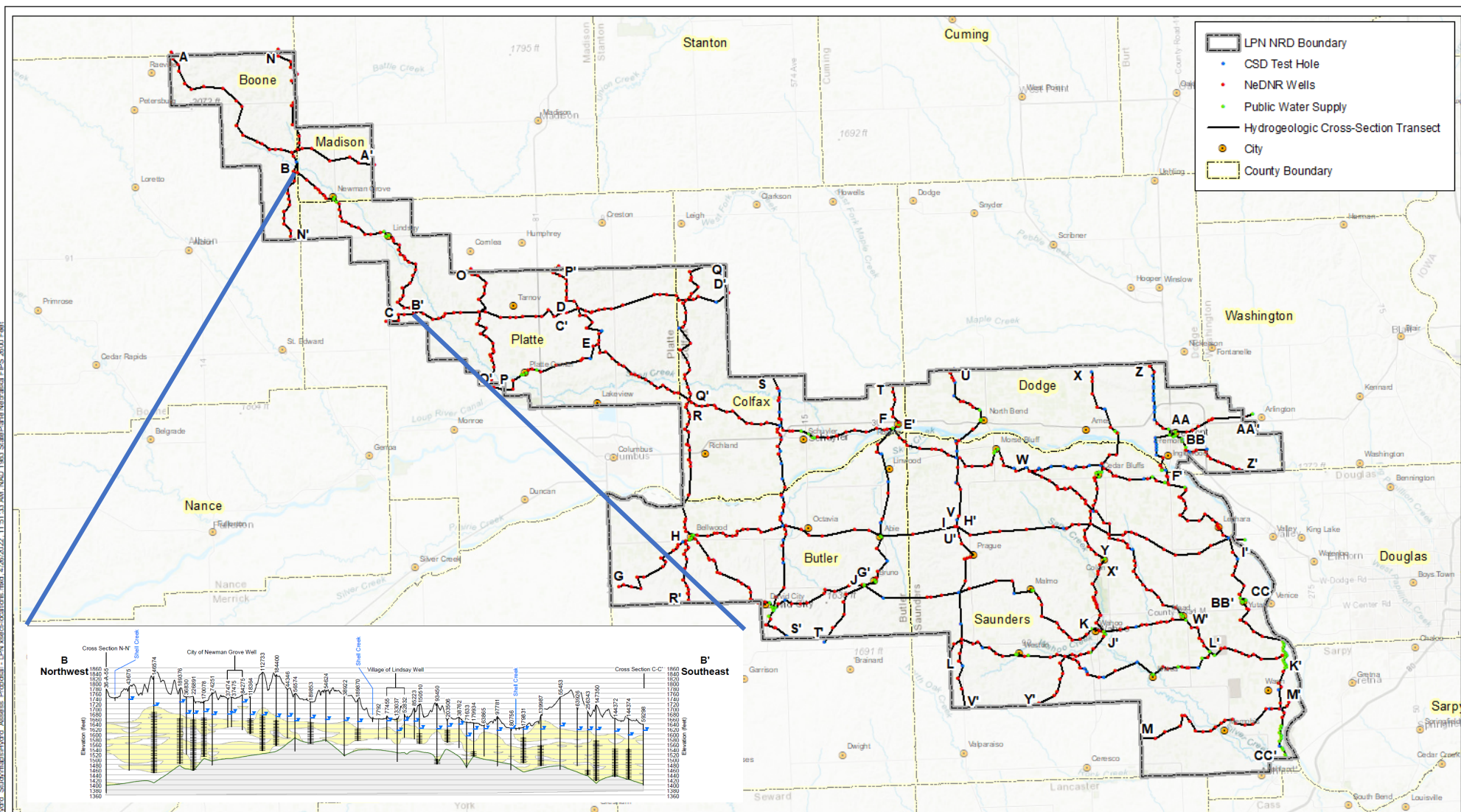


Combined LPNNRD and PMRNRD 3D AEM Framework



Leapfrog software 'filled the gaps' between AEM flight lines

Today, LPNNRD has 29 hydrogeologic cross sections using data from approximately 900 wells.



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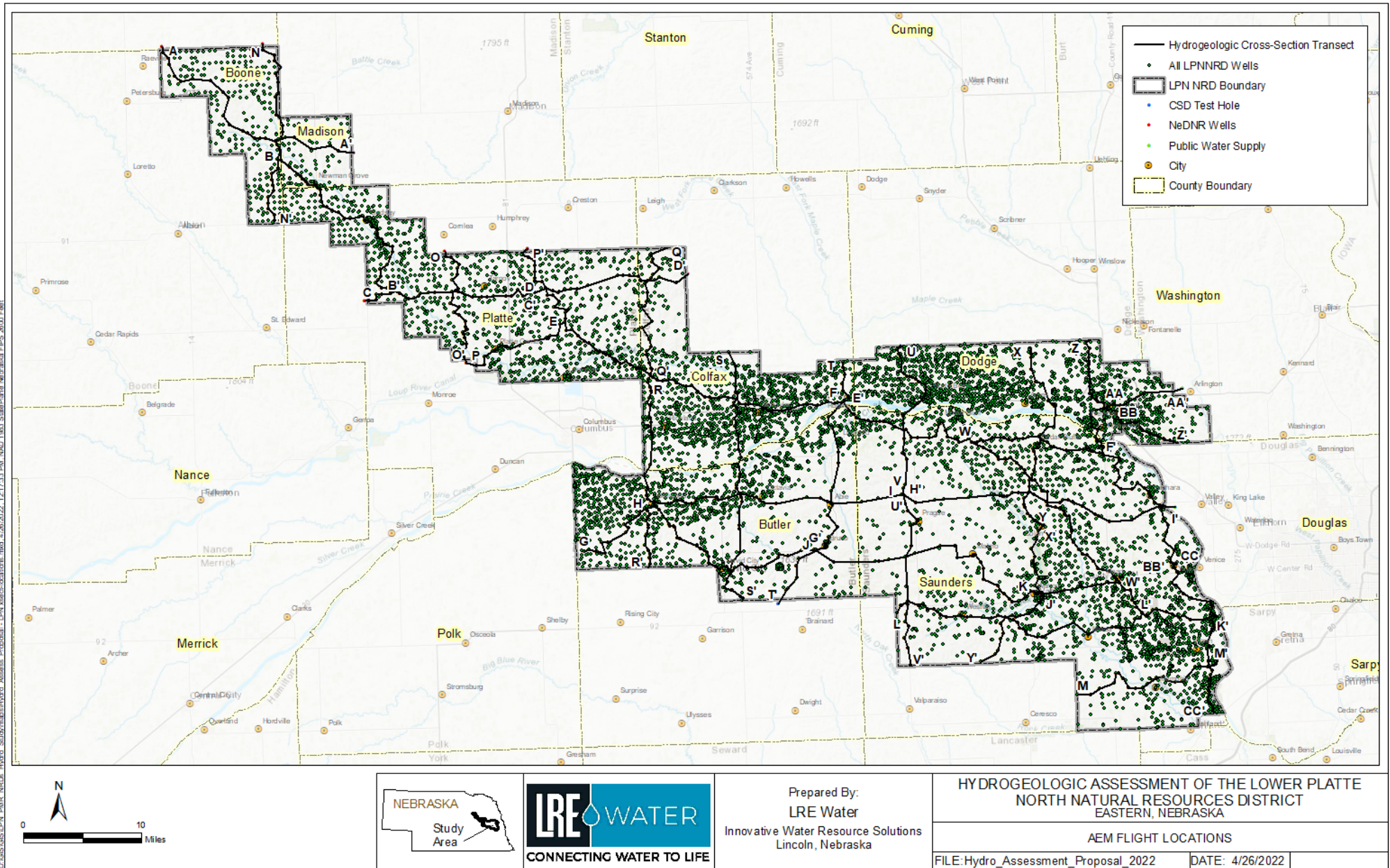
Prepared By:
LRE Water
 Innovative Water Resource Solutions
 Lincoln, Nebraska

**HYDROGEOLOGIC ASSESSMENT OF THE LOWER PLATTE
 NORTH NATURAL RESOURCES DISTRICT
 EASTERN, NEBRASKA**

AEM FLIGHT LOCATIONS










FILE:Hydro_Assessment_Proposal_2022 DATE: 4/26/2022

The proposed Assessment project will 'fill the data gap' between the hydrogeologic cross sections using approximately 11,000 wells.



D:\GIS\GISE\LPN_NRDs_Hydro_Assessment\Hydro_Assessment_Proposal_LP_NaturalResources.mxd 4/26/2022 12:17:33 PM NAD 1983 StatePlane Nebraska FIPS 5000 Feet

C:\GIS\GIS\JEO_Wahoo_01r - L-score.mxd, 8/31/2021, 7:04:39 PM, NAD, 1983 StatePlane Nebraska FIPS, 2600 Feet

-  City Well
 -  Perennial Stream/River
 -  Lake Wanahoo
 -  20-Year Time-of-Travel Composite Capture Zone
- Vulnerability**
-  Very Low (>20)
 -  Low (10 to 20)
 -  Low-Moderate (6 to 10)
 -  Moderate (1 to 5)
 -  High (0 to 1)



Notes:

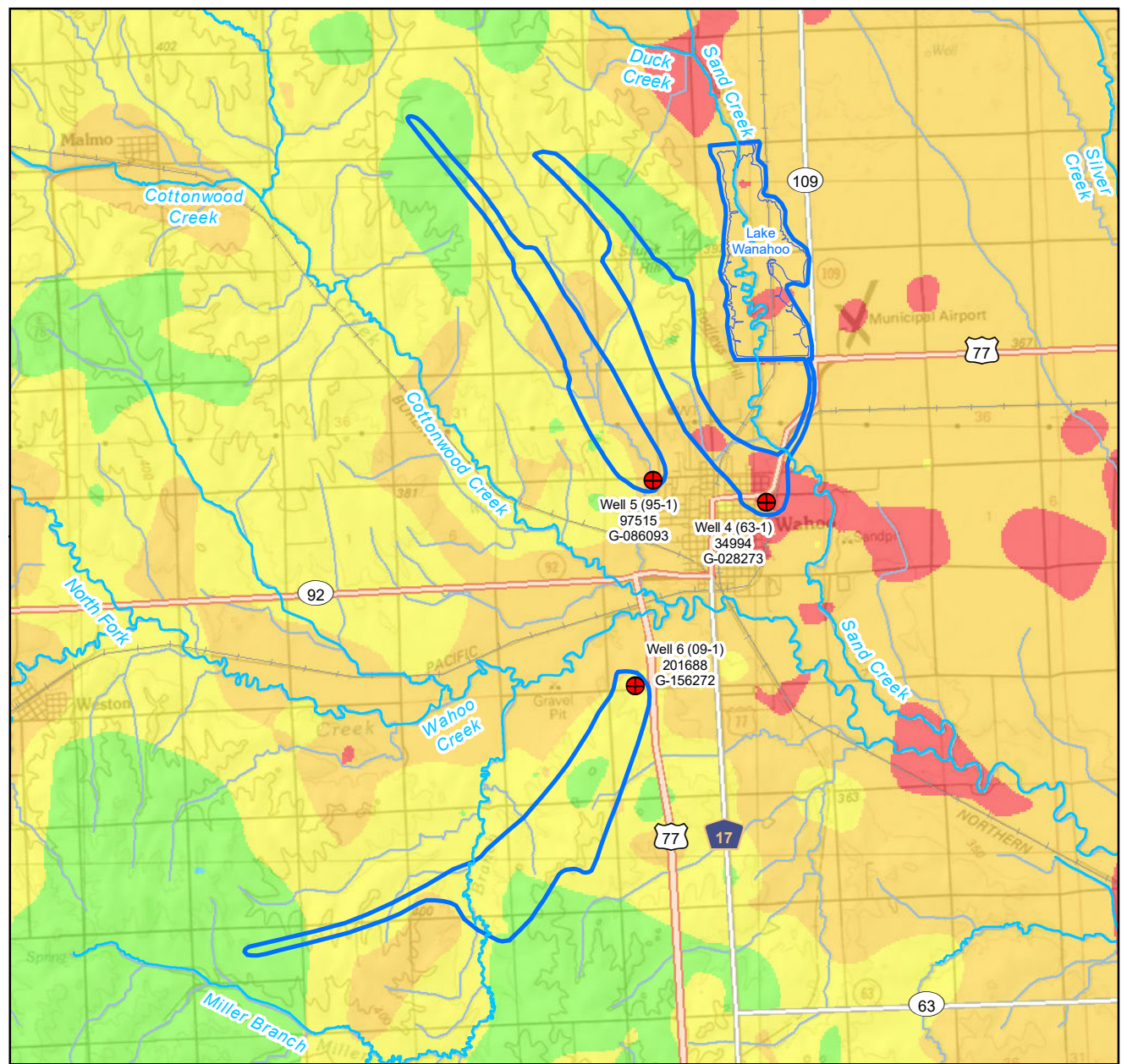
This figure shows the vulnerability of the Principal Aquifer to the potential downward migration of contaminants from the ground surface. The vulnerability categories are calculated by dividing the clay thickness above the Principal Aquifer by 10 ft; therefore, for example, a vulnerability rating of 8 (low-moderate) is equivalent to 80 feet of protective clay.

Sources:

Wells and Test Holes: Nebraska Department of Natural Resources All Wells Database and University of Nebraska-Lincoln Conservation Survey Division Test Hole Database.

National Hydrography Dataset (NHD) perennial stream data was obtained from the Nebraska DNR. Stream data represents the P_streams2 feature class from the NHD Derivatives geodatabase of perennial streams and canals. This dataset was selected instead of the NHD Major Streams feature class because the latter extends farther upstream in areas that are likely intermittent.

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed





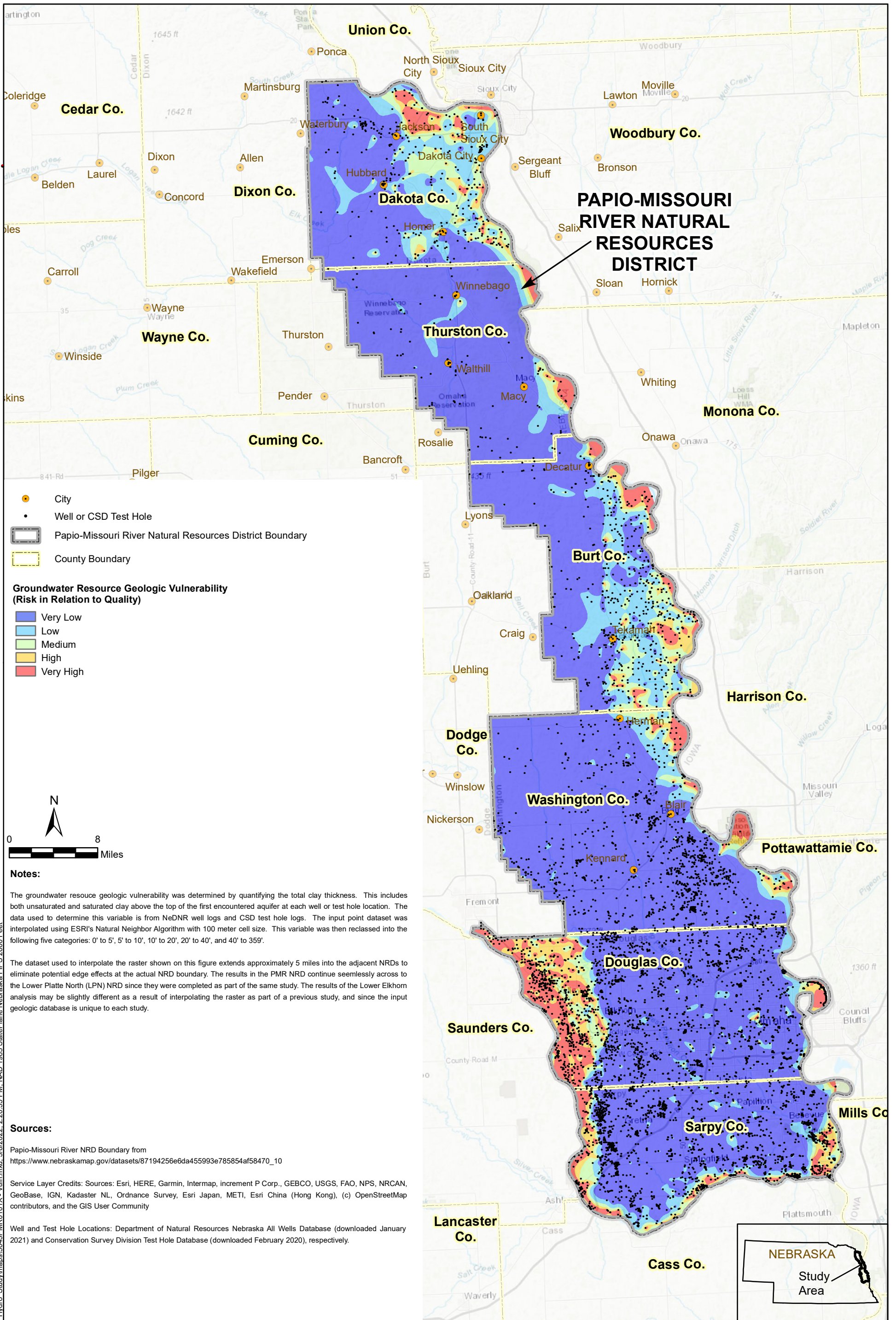
CONNECTING WATER TO LIFE

Prepared By:
LRE Water
 Innovative Water Resource Solutions
 Minneapolis / St. Paul
 (612) 805-0919

JEO CONSULTING GROUP
 DELINEATION OF WELLHEAD PROTECTION AREA
 WAHOO, NEBRASKA

PRINCIPAL AQUIFER VULNERABILITY

FILE: JEO_Wahoo_01r - L-score.MXD	DATE: 8/31/2021	FIGURE: 20
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C:\GIS\GIS\LPN_PMR_NRDs_Hydro_Study\maps\5043PMR0101X - Vuln.mxd, 3/8/2022, 2:20:55 PM, NAD_1983_StatePlane_Nebraska_FIPS_2600_Feet

Notes:

The groundwater resource geologic vulnerability was determined by quantifying the total clay thickness. This includes both unsaturated and saturated clay above the top of the first encountered aquifer at each well or test hole location. The data used to determine this variable is from NeDNR well logs and CSD test hole logs. The input point dataset was interpolated using ESRI's Natural Neighbor Algorithm with 100 meter cell size. This variable was then reclassified into the following five categories: 0' to 5', 5' to 10', 10' to 20', 20' to 40', and 40' to 359'.

The dataset used to interpolate the raster shown on this figure extends approximately 5 miles into the adjacent NRDs to eliminate potential edge effects at the actual NRD boundary. The results in the PMR NRD continue seamlessly across to the Lower Platte North (LPN) NRD since they were completed as part of the same study. The results of the Lower Elkhorn analysis may be slightly different as a result of interpolating the raster as part of a previous study, and since the input geologic database is unique to each study.

Sources:

Papio-Missouri River NRD Boundary from https://www.nebraskamap.gov/datasets/87194256e6da455993e785854af58470_10

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Well and Test Hole Locations: Department of Natural Resources Nebraska All Wells Database (downloaded January 2021) and Conservation Survey Division Test Hole Database (downloaded February 2020), respectively.



Prepared By:
LRE Water
 Innovative Water Resource Solutions
 Minneapolis - Saint Paul, Minnesota

HYDROGEOLOGIC ASSESSMENT OF THE PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT OMAHA, NEBRASKA	
GIS MODELED QUALITATIVE GROUNDWATER RESOURCE GEOLOGIC VULNERABILITY (QUALITY)	
FILE:5043PMR0101X - Vuln.MXD	DATE: 3/8/2022
FIGURE: 51	

AMENDMENT #5 TO COOPERATIVE AGREEMENT SIGNED June 24, 2015
between the
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
and
THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA ON BEHALF OF
THE UNIVERSITY OF NEBRASKA-LINCOLN THROUGH ITS
CONSERVATION AND SURVEY DIVISION,
SCHOOL OF NATURAL RESOURCES

THIS AMENDMENT is made and entered into this _____ day of _____, 2022, to modify the original AGREEMENT signed on the 24th day of June, 2015 by the Lower Platte North Natural Resources District (hereinafter referred to as the LPNNRD) and the Conservation and Survey Division, School of Natural Resources of the University of Nebraska-Lincoln (hereinafter referred to as the CSD).

THEREFORE, IT IS MUTUALLY AMENDED THAT:

- (1) **PERIOD:** This AMENDMENT shall be in effect from May 30, 2018 to June 30, 2025 unless terminated or amended by the terms of the AGREEMENT.

- (2) All portions of the original AGREEMENT remain in effect.

LOWER PLATTE NORTH
NATURAL RESOURCES DISTRICT

By _____ Date _____

CONSERVATION & SURVEY DIVISION
OF THE UNIVERSITY OF NEBRASKA

By _____ Date _____

THE BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA

By _____ Date _____

COOPERATIVE AGREEMENT
between the
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
and
THE CONSERVATION AND SURVEY DIVISION,
SCHOOL OF NATURAL RESOURCES, UNIVERSITY OF NEBRASKA

THIS AGREEMENT, is entered into the 24th day of June, 2015, by the Lower Platte North Natural Resources District (hereinafter referred to as the LPNNRD) and the Conservation and Survey Division, School of Natural Resources of the University of Nebraska-Lincoln (hereinafter referred to as the CSD).

The LPNNRD and the CSD, in accord with their ongoing program responsibilities, desire to participate in a CSD test hole drilling and monitoring well installation program to (1) Provide test hole drilling equipment, supplies and expertise for obtaining subsurface geologic and hydrogeologic information within the LPNNRD boundaries; (2) Provide bore-hole geophysical logging equipment, supplies and expertise for obtaining measurements of physical, chemical and electrical properties within test holes drilled at each site; (3) Provide well designs and administration services of the contract associated with the installation of monitoring wells (if applicable); and (4) Provide on-site training for LPNNRD staff during the well construction phase (if applicable).

THEREFORE, IT IS MUTUALLY AGREED THAT:

- (1) **COOPERATION**: The LPNNRD and the CSD desire to cooperate and collaborate to accomplish the study objectives mutually agreed upon.
- (2) **PERIOD**: This agreement shall begin upon approval by LPNNRD and will continue for a period of one year or as may be altered pursuant to the provisions of Section 9.
- (3) **STATEMENT OF WORK**: Certain portions of the study require a significant level of technical expertise and interpretation from the CSD. These include specific elements as listed in the attached proposal, herein referred to as Attachment #1.
- (4) **LPNNRD CONTRIBUTIONS**: As hereinafter limited, the LPNNRD shall contribute such of its funds, facilities, equipment, materials and personnel as it deems suitable and appropriate to accomplish the objectives of the study. The LPNNRD shall provide funds to the CSD to support costs directly related to test hole drilling activities, monitoring well installations (if applicable), and field completion report expenditures. The costs include approximately five test hole drilling locations, each up to approximately 700 feet deep, and will not exceed the amount of thirty-two thousand dollars (\$32,000).
- (5) **CSD CONTRIBUTION**: The CSD shall utilize funds provided by the LPNNRD and such of its own funds for facilities, equipment, materials and personnel as it deems suitable to conduct the investigation and analysis called for in this Agreement and to prepare final drafted products.
- (6) **PRINCIPAL INVESTIVATORS**: Kathleen Cameron, Eastern Nebraska Water Resources Assessment (ENWRA) Coordinator/CSD Hydrogeologist, shall be the principal investigator for the project (50%). Susan Lackey and Dana Divine of CSD will be the

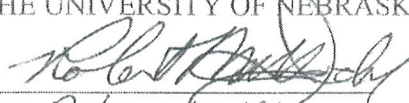
co-principal investigators for the project (25% each).

- (7) **PUBLICATION:** Both parties shall have the right to announce and publish the results, facts, or conclusions of cooperative work under the terms of the Agreement, provided such announcement or publication shall expressly recognize the cooperation of the other party and provided such publication shall not indicate approval of the results, facts or conclusions by the other party. It is recognized that the CSD is obligated to maintain public access to data obtained in this study.
- (8) **LIABILITY:** Each party agrees that it will be responsible for its own acts and the results thereof and shall not be responsible for the acts of the other parties and the results thereof. Each party therefore agrees that it will assume all risk and liability to itself, its agents or employees, for any injury to persons or property resulting in any manner from the conduct of its own operations, and the operations of its agents or employees, under this Agreement, and for any loss, cost, damage, or expense resulting at any time from any and all causes due to any act or acts, negligence, or the failure to exercise proper precaution of or by itself or its own agents or its own employees while occupying or visiting the premises under and pursuant to this Agreement.
- (9) This Agreement may be modified and/or extended provided that such modifications and extensions are executed by authorized officials of the LPNNRD and the CSD.
- (10) Attachment #1 is hereby incorporated in and made a part of this Agreement the same as if it had been specified herein verbatim.

LOWER PLATTE NORTH
NATURAL RESOURCES DISTRICT

By  Date 6-24-15
John R. Miyoshi

CONSERVATION & SURVEY DIVISION
OF THE UNIVERSITY OF NEBRASKA

By  Date 07/31/15
Robert Matthew Joekel

THE BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA

By  Date 8/3/15

Jeanne Wicks, Director
Office of Sponsored Programs

ATTACHMENT #1

Test Hole Drilling and Monitoring Well Installation Program for the Lower Platte North Natural Resources District

The Lower Platte North Natural Resources District (LPNNRD) has a complex assemblage of aquifers which supply most of the water used for irrigation and drinking. The LPNNRD has future plans to drill test holes, record down-hole data, and construct monitoring wells to establish baseline information about groundwater quality, quantity, and aquifer composition.

Conservation and Survey Division (CSD) scientists will perform preliminary hydrogeologic analyses to determine the most appropriate drilling sites. These will be reviewed with the LPNNRD staff that will be responsible for obtaining landowner permission for site access for test hole drilling and monitoring well installation (if applicable).

CSD will drill or will hire a licensed water well contractor to drill the test holes. At the time of drilling, samples will be collected to adequately represent the types of material encountered during the drilling operation. These samples will be described both in the field and in the laboratory to determine the lithologic composition and stratigraphic nomenclature of the test hole. Once the interpretation phase is complete, the samples will be placed in CSD's test hole repository for future use and the information obtained will be entered into the statewide test hole database maintained by the CSD.

At the completion of drilling operation for each test hole, a geophysical log suite will be obtained using CSD's equipment and personnel. Measurements will include natural gamma, single-point resistance, spontaneous potential, 16- and 64-inch normal resistivity, lateral resistivity, fluid resistivity and fluid temperature. The geophysical log suite will aid in the interpretation of lithology and, in some instances, provide information on hydraulic properties of various units encountered within the test hole. CSD scientists will utilize the test hole logs to design the monitoring wells and define pumping and water level monitoring equipment specifications (if applicable).

An additional CSD responsibility to the project will be the preparation and administration of the test hole drilling and/or monitoring well installation contract. The process will include the preparation of a subcontractor contract to be released for bid and the subsequent administration of the contract to ensure that the specified work has been completed. CSD will also train LPNNRD staff to obtain accurate well construction data and to complete well completion logs for each monitoring well (as applicable).

Budget

Year	Budget Category	Estimated Quantity	Cost
One (2014-2015)	Test Hole Drilling & Sampling (approx. 3,000 feet of drilling – individual test hole depths not to exceed 700 feet)	5	\$ 26,000
	Geophysical Logging	5	\$ 4,000
	Report Development		\$ 2,000
	Year One Annual Total		\$ 32,000

Potential Site Locations by the Lower Platte North NRD
 Test Holes and Monitoring Wells

Test Hole	Test Hole Priority	Also Monitoring Well and Priority	Subarea	Comments
Sec. 3, T17N, R7E, SE of NE / half mile line	High	Yes, high	North Bend	East of Fremont Cutoff Ditch / ND71
Sec. 22, T19N, R2E, NW	High-medium	No	Middle Shell Creek	Sec. 23 no registered wells, LENRD Sec. 14 one irrigation well in NW1/4, LENRD / MS27
Sec. 9, T18N, R2E	High if no log	Yes, Existing, old domestic well	Shell Creek Uplands	Clint Johannes site, old domestic well, well log?
Sec. 5, T18N, R2E NE of NW	High	No	Shell Creek Uplands	Prefer TH along north county road in the middle / SCU#2
Sec. 21, T16N, R6E NW	High	?	Prague	P#1
Sec. 33, T16N, R6E SE of SW	High	?	Prague	P#2
Sec. 21, T15N, R6E NE of NW	High	?	Prague	P#3
Sec. 8, T15N, R5E SE of NW UP-22	High	Existing stock well	Prague	UP-22 Galen Jambor well, no log, nearest well 0.65 miles east G-150701
Sec. 5, T16N, R5E NE of NW	High	?	Prague	P#5
Sec. 20, T16N, R5E NW of NE	High	?	Prague	P#6 (or P#7)
Sec. 32, T16N, R5E SE of SW	High	?	Prague	P#7 (or P#6)
Sec. 20, T15N, R5E NW of NW	High	?	Prague	P#8

AMENDMENT #1 TO COOPERATIVE AGREEMENT SIGNED June 24, 2015
between the
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
and
THE CONSERVATION AND SURVEY DIVISION,
SCHOOL OF NATURAL RESOURCES, UNIVERSITY OF NEBRASKA

THIS AMENDMENT is made and entered into this 11th day of April, 2016, to modify the original AGREEMENT signed on the 24th day of June, 2015 by the Lower Platte North Natural Resources District (hereinafter referred to as the LPNNRD) and the Conservation and Survey Division, School of Natural Resources of the University of Nebraska-Lincoln (hereinafter referred to as the CSD).

THEREFORE, IT IS MUTUALLY AMENDED THAT:

- (1) **PERIOD:** This AMENDMENT shall be in effect from March 18, 2016 to June 30, 2017 unless terminated or amended by the terms of the AGREEMENT.
- (2) **BUDGET:** Specific budget items as listed in the attached table, herein referred to as Budget.

Amendment No. 1 Well Installation Budget: \$44,600.00

- (3) All portions of the original AGREEMENT remain in effect.

LOWER PLATTE NORTH
NATURAL RESOURCES DISTRICT

By [Signature] Date 4-11-16

CONSERVATION & SURVEY DIVISION
OF THE UNIVERSITY OF NEBRASKA

By [Signature] Date 04/25/2016

THE BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA

By [Signature] Date 5/13/16

Jeanne M. Wicks, Director
Office of Sponsored Programs

BUDGET

	Year	Budget Category	Estimated Quantity	Cost
One Deep Well at Prague Uplands (P-3 location)	FY 2016	One Deep Dakota Monitoring Well Installation (larger diameter hole to accommodate well install and additional reaming), Setting Surface Casing (60 feet), Well Development, Cover & Pad (up to approx. 500 feet)	1	\$ 32,100
		P-3 Subtotal		\$ 32,100
	Year	Budget Category	Estimated Quantity	Cost
Two Wells at North Bend (NB-1 location)	FY 2016	One Dakota Monitoring Well Installation (larger diameter hole to accommodate well install and additional reaming), Setting Surface Casing (20 feet), Well Development, Cover & Pad (up to approx. 300 feet)	1	\$ 10,750
		One Shallow Monitoring Well Installation (up to 25 feet deep)	1	\$ 1,750
		NB-1 Subtotal		\$12,500
TOTAL				\$44,600

Notes: Estimated costs are not to exceed and actual billing amounts will be based on invoices received by the selected subcontractor for actual footages drilled. A Request For Proposal (RFP) is planned for release by CSD in spring 2016. CSD will coordinate e-logging NB-1 and designing screen intervals during the well installation work.

Additionally, ENWRA has budgeted funds to credit back each of the ENWRA NRDs, including the LPNNRD on this project, **\$9,150** on the FY17 ENWRA dues for test hole work done along ENWRA Airborne Electromagnetic (AEM) Survey reconnaissance lines.

Potential Site Locations by the Lower Platte North NRD
 Test Holes and Monitoring Wells

Test Hole	Test Hole Priority	Also Monitoring Well and Priority	Subarea	Comments
Sec. 3, T17N, R7E, SE of NE / half mile line	Completed	Yes, high	North Bend	East of Fremont Cutoff Ditch / NB#1
Sec. 22, T19N, R2E, NW	Completed	No	Middle Shell Creek	Sec. 23 no registered wells, LENRD Sec. 14 one irrigation well in NW1/4, LENRD / MSC#1
Sec. 9, T18N, R2E	High if no log	Yes, Existing, old domestic well	Shell Creek Uplands	Clint Johannes site, old domestic well, well log?
Sec. 5, T18N, R2E NE of NW	High	?	Shell Creek Uplands	Prefer TH along north county road in the middle / SCU#2
Sec. 21, T16N, R6E NW	Completed	?	Prague	P#1
Sec. 33, T16N, R6E SE of SW	High	?	Prague	P#2
Sec. 21, T15N, R6E NE of NW	Completed	?	Prague	P#3
Sec. 8, T15N, R5E SE of NW UP-22	High	Existing stock well	Prague	UP-22 Galen Jambor well, no log, nearest well 0.65 miles east G-150701 P#4
Sec. 5, T16N, R5E NE of NW	High	?	Prague	P#5
Sec. 20, T16N, R5E NW of NE	High	?	Prague	P#6
Sec. 32, T16N, R5E SE of SW	Completed	?	Prague	P#7
Sec. 20, T15N, R5E NW of NW	High	?	Prague	P#8

NOTE: Green highlights are potential locations for Options A through D

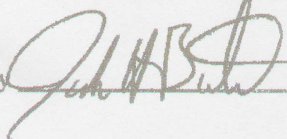
AMENDMENT #2 TO COOPERATIVE AGREEMENT SIGNED June 24, 2015
between the
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
and
THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA ON BEHALF OF
THE UNIVERSITY OF NEBRASKA-LINCOLN THROUGH ITS
CONSERVATION AND SURVEY DIVISION,
SCHOOL OF NATURAL RESOURCES

THIS AMENDMENT is made and entered into this 9 day of October, 2017, to modify the original AGREEMENT signed on the 24th day of June, 2015 by the Lower Platte North Natural Resources District (hereinafter referred to as the LPNNRD) and the Conservation and Survey Division, School of Natural Resources of the University of Nebraska-Lincoln (hereinafter referred to as the CSD).

THEREFORE, IT IS MUTUALLY AMENDED THAT:

- (1) **PERIOD:** This AMENDMENT shall be in effect from September 7, 2017 to June 30, 2020 unless terminated or amended by the terms of the AGREEMENT.
- (2) **BUDGET:** Specific budget items as listed in the attached table, herein referred to as Budget.
- Amendment No. 2 Test Hole and Well Installation Budget (FY18): \$136,700.00**
- (3) All portions of the original AGREEMENT remain in effect.

LOWER PLATTE NORTH
NATURAL RESOURCES DISTRICT

By  Chairman, Date 10-9-17

CONSERVATION & SURVEY DIVISION
OF THE UNIVERSITY OF NEBRASKA

By  Date 11/07/17

THE BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA

By Jeanne Wicks Digitally signed by Jeanne Wicks
DN: cn=Jeanne Wicks, o=University
of Nebraska-Lincoln, ou=CSSP
Director, email=jwicks2@unl.edu,
c=US
Date: 2017.11.01 10:31:52 -0500 Date 11/1/2017

AMENDMENT #2 Budget

Year	Budget Category	Estimated Quantity	Cost
One (FY18) SQS 2	CSD test-hole logging (2 geologists travel, geophysical logging unit charges)	2 test holes & 1-3 monitoring wells	\$5,670
	Test-hole drilling and well installation contractor bids (depends on bid letting results)		\$131,030
	Subtotal		\$136,700

Note: A Request For Proposal (RFP) is planned for release by CSD in January or February 2018 for May 2018 field services. Year one costs for two deep test-holes and one to three deep monitoring wells (depends on bid results and geological evaluations) will not exceed the amount of one hundred thirty six thousand, seven hundred dollars (\$136,700).

Additionally, the Eastern Nebraska Water Resources Assessment (ENWRA) has budgeted ongoing funds to credit back each of the ENWRA NRDs, including the LPNNRD, for test-hole work done along Airborne Electromagnetic (AEM) Survey reconnaissance lines. LPNNRD was awarded \$9,150 in a dues credit from ENWRA in fiscal year (FY) 2017 and is anticipated for another dues credit in fiscal year 2019 or 2020.

AMENDMENT #3 TO COOPERATIVE AGREEMENT SIGNED June 24, 2015

between the

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

and

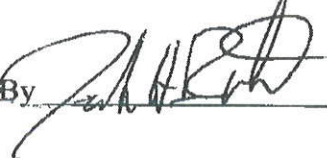
THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA ON BEHALF OF
THE UNIVERSITY OF NEBRASKA-LINCOLN THROUGH ITS
CONSERVATION AND SURVEY DIVISION,
SCHOOL OF NATURAL RESOURCES

THIS AMENDMENT is made and entered into this 9th day of July, 2018, to modify the original AGREEMENT signed on the 24th day of June, 2015 by the Lower Platte North Natural Resources District (hereinafter referred to as the LPNNRD) and the Conservation and Survey Division, School of Natural Resources of the University of Nebraska-Lincoln (hereinafter referred to as the CSD).

THEREFORE, IT IS MUTUALLY AMENDED THAT:

- (1) **STATEMENT OF WORK:** The LPNNRD has requested an additional Dakota drilling site. The goal of this exploration is to obtain and describe geologic samples and complete a borehole log of the test hole. If the appropriate material is penetrated by the test hole, a well will be designed and constructed to obtain water level and water quality samples from the Dakota aquifer. Aquifer monitoring equipment may also be included if funds are available. CSD will work with the LPNNRD staff to design a monitoring program for the Dakota aquifer within the District. (Refer to CSD Interim Progress Report dated June 27, 2018.)
- (2) **BUDGET:** The estimated additional costs will not exceed fifty thousand dollars (\$50,000). The NRD will be invoiced based on the actual costs.
- (3) All portions of the original AGREEMENT remain in effect.

LOWER PLATTE NORTH
NATURAL RESOURCES DISTRICT

By  Chair Date 7-9-18

CONSERVATION & SURVEY DIVISION
OF THE UNIVERSITY OF NEBRASKA

By  Date 07/10/2018

THE BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA

By Suzan J. Lund Date 8/6/2018

AMENDMENT #4 TO COOPERATIVE AGREEMENT SIGNED June 24, 2015
between the
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
and
THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA ON BEHALF OF
THE UNIVERSITY OF NEBRASKA-LINCOLN THROUGH ITS
CONSERVATION AND SURVEY DIVISION,
SCHOOL OF NATURAL RESOURCES

THIS AMENDMENT is made and entered into this 8th day of June, 2020, to modify the original AGREEMENT signed on the 24th day of June, 2015 by the Lower Platte North Natural Resources District (hereinafter referred to as the LPNNRD) and the Conservation and Survey Division, School of Natural Resources of the University of Nebraska-Lincoln (hereinafter referred to as the CSD).

THEREFORE, IT IS MUTUALLY AMENDED THAT:

- (1) **PERIOD:** This AMENDMENT shall be in effect from May 30, 2018 to June 30, 2022 unless terminated or amended by the terms of the AGREEMENT.

- (2) All portions of the original AGREEMENT remain in effect.

LOWER PLATTE NORTH
NATURAL RESOURCES DISTRICT

By *Gene Ryzuka* Date 6-8-2020

CONSERVATION & SURVEY DIVISION
OF THE UNIVERSITY OF NEBRASKA

By *R.M. Jell* Date 06/10/2020

THE BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA

By *Suzan G. Lund* Digitally signed
by Suzan G. Lund
Date: 2020.06.12
~~11:12:27 -05'00'~~ Date 6/12/2020
Suzan Lund, Associate Director
Sponsored Programs

DROUGHT MONITOR - THIS WEEK

DRY

MODERATE

SEVERE

EXTREME

EXCEPTIONAL



PRESS RELEASE

FOR IMMEDIATE RELEASE

April 15, 2022

Contact:

Lacey Sabatka, Information Coordinator
Lower Platte North Natural Resources District
Office: 402-443-4675
Email: lsabatka@lpnrd.org

Below Normal Precipitation and Warmer Temperatures will Impact the Platte River

An Eastern Nebraska group, the Lower Platte River Consortium, is encouraging the public to start now and be proactive in conserving water. Projections show that warmer temperatures and below normal precipitation are expected to continue through at least May and June.

The Lower Platte River Consortium was formed in 2016, consisting of six different entities (agencies) that monitor and rely on the Lower Platte River for their water supply. These agencies include: Lower Platte North Natural Resources District, Lower Platte South Natural Resources District, Papio-Missouri River Natural Resources District, Nebraska Department of Natural Resources, City of Lincoln Water System, and Metropolitan Utilities District.

We all rely on Platte River flows! The Platte River is the lifeline for the state of Nebraska. A majority of the population relies on groundwater from wells, which are replenished by the Lower Platte River, including the communities of Omaha, Lincoln, and Fremont. The Platte River also provides habitat for fish and wildlife, recreation, and recharges wells for irrigation in the Platte River valley.

Weather has a big impact on Platte River flows. Contributing factors include runoff from rainfall within the basin and snowpack in the Rocky Mountains near Denver, Colorado, and Laramie and Casper, Wyoming. Nebraska has experienced an unusually dry fall and very mild winter, with little snow and rainfall. Current conditions in the state are dry, including lower levels of moisture in the soil.

River flows can decrease to the point where the river will not adequately replenish the wells. Flows in the Platte River are currently adequate to recharge our wells; what those flows will be like later if dry conditions continue is unknown.



Current long-range predictions through May and June indicate above normal temperatures, and below normal precipitation for the state. Dry and warm conditions will have an impact on the amount of water in the Platte River that is available for its various needs and uses.

Given the current dryness, the group asks for the public's assistance now, knowing it is dry, to use only what you need. If dry conditions persist, the group will communicate this and ask additional assistance from the public to conserve water.

"If the below normal precipitation continues, people need to make sure they are watering efficiently. The Consortium will continue working together to monitor the situation and share information," states Daryl Andersen, Water Resources Manager of the Lower Platte North NRD. "We need to start conserving water now, knowing that current long-term forecasts are telling us it's going to get warmer, and we won't have much rain."

The Nebraska Department of Natural Resources has launched an online dashboard available to the public that displays real-time information that the department monitors and collects throughout the state. The dashboard includes current up-to-date drought conditions, common drought indicators, and the streamflow projection for Platte River at Ashland. The data reflects the conditions throughout the Lower Platte basin and the entire state. The dashboard also provides important links to other local and national climate-related resources. The department will continue to closely monitor streamflow conditions throughout the summer.

To view the dashboard, visit the Department of Natural Resources' site at dnr.nebraska.gov/water-planning/lower-platte-river-basin.

The Lower Platte River Consortium will continue to monitor the conditions and its entities will work with individuals and communities to conserve water as necessary.

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Lower Platte North NRD

Nebraska Clearinghouse EDD Export (Adjusted)

April 14, 2022

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Overview & Purpose

The Lower Platte North NRD has requested the addition of an export to its existing groundwater data management site to facilitate reporting to the recently-introduced Nebraska Clearinghouse Electronic Data Delivery service.

The challenges in reporting mainly lie in the disparity between the format expected by the clearinghouse and the format of the data exported by the lab. This solution is to act as a mediator between the two, allowing lab-exported data to be easily converted to the EDD's expected format.

This document provides pricing for PWG to work with the LPNNRD to accomplish these goals.

This quote has been adjusted to account for shared effort and only applies if multiple customers approve similar projects.

Agreement Terms

By accepting this agreement, the customer will receive the following benefits in addition to deliverables enumerated within the Project Modules section.

Bug-Free Guarantee

Software bugs, discovered within 30 days following completion of the project, as confirmed by PWG, will be covered in full by this quote and fixed or corrected.

You Own the Code

PWG does not retain ownership of the solution developed for the customer. The customer is free to request a current copy of the source code at any time, and free to use it as they see fit. This is covered in greater detail in the Software Development Agreement.

Continuing Support

When the solution has been deployed, the customer will be presented with options for continuing support of the product. In addition to continuing bug fixes, support plan options may include small changes, technical support, server monitoring/maintenance, and periodic reporting on key activities.

Change Requests

Changes to the scope, value, or deliverables in this agreement will be managed with a formal change request, to be signed off by both the customer and PWG. Either party may initiate a request.

Major Project Components

Lab-to-Clearinghouse Mapping Pages

Three data-entry pages are to be implemented with new database tables behind them. These pages will allow NRD personnel to manage which lab names correlate with relevant clearinghouse codes and IDs. The specific functions of these three pages are:

- Mapping lab analyte names to their respective clearinghouse codes
- Mapping lab method names to their respective clearinghouse codes
- Mapping unit labels (as exported by labs) to unit labels (expected by the clearinghouse import)

On project deployment, the database tables for these are to be pre-filled with data supplied by the Lower Platte North NRD.

Clearinghouse Export

A new CSV export is to be added to the site to allow quick extraction of sample data for a selected year. This will allow the LPNNRD to directly upload sample data to the Nebraska Clearinghouse database. The following details outline the specifics of this report and its generation:

- The export will utilize the sample Result to determine the Result Detection Condition
- The export will use the sample ID to identify and report field duplicates
- The export will use the three added tables to populate fields for:
 - Analyte/CAS #
 - Units
 - Analytical Method ID System
- The export will populate the following fields from wells:
 - Clearinghouse # from a new field added to the Well Edit page
 - DNR Well ID from Well ID
- The export will populate the following fields using sample data without alteration
 - Sample Date from existing Sample Date field
 - Sample Time from adjusted Sample Date field
 - Sample Name from Sample ID
 - Concentration from Result

In the event that an alias does not exist for an analyte, method, or unit, the user will be alerted as to which records were excluded so that one can be added if desired.

The existing Quality Sample Data import is to be adjusted to accommodate for the addition of sample time

Additional Changes (Producer Entry Modifications)

- The following are to be modified to reflect completion for a given year if submitted within 60 days of the due date:
 - Phase Reports
 - Water Use Reports
- When calculating Organic Matter under Fertilizer Data, values of 0% are to be omitted
- The current year's Annual Fertilizer Reports are to be sorted by the Last Edited date

Project Timeline

The Project Manager will work with the customer to establish realistic expectations of project deadlines that meet customer needs. The estimated time to completion for this project is two to three weeks from initial payment.

Pricing

Total for Project – \$12,050 +/- 10%

Payment Terms

An initial deposit of 50% will be due at signing. 50% of the amount will be invoiced upon code completion, when the project is turned over for final review. Following a review of the project upon completion, the amount invoiced may be adjusted +/- 10% of the project's base price.

Sample Fee Schedule

Beginning of Project – \$6,025

Code Completion – \$6,025

Phoenix Web Group

We're a group of engineering-minded individuals from all walks of life, brought together by our passion for creative problem solving. The inner math-and-puzzle-loving geek within each of us thrives on developing innovative solutions to tackle your toughest challenges. We feel fortunate that we can honestly say we love what we do, and it's what we'd be doing for fun anyway.

Beginning in 1987, when we made our start in the Equities and Agriculture verticals, we've expanded PWG to broad-range of industries including Commodities, Finance, Transportation, Telecommunications, Retail, Education, and more. Clients from the smallest start-ups to the largest Fortune 500 companies rely on our solutions to simplify their tasks and give them an edge on igniting their potential.

Notes

Work will begin upon receipt of first payment. Payment is due upon receipt of invoice; past due invoices will trigger the halt of work and are subject to interest.

The customer is responsible for paying applicable taxes in addition to the prices above.

This quote will expire after a time period of 30 days from the date printed on the cover sheet.

**Clearinghouse
Number**

DNR Well ID

Alias

Sample Date

Sample Time

Sample Name

Field Duplicate?	Analyte/ CAS #	Result Detection Condition	Concentration	Reporting Limit
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<u>Units</u>	<u>Fraction Type</u>	<u>Analytical Method ID- System</u>
--------------	----------------------	---

1
2
3

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11
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15
16

Nebraska Clearinghouse Electronic Data Deliverable (EDD)

Last Updated: 8/17/21

Overview

This template allows a user to upload information about samples and results to the Clearinghouse database. Only information for wells that already exist in the Clearinghouse can be submitted using this template. The Dictionary tab describes each of the fields in detail and provides examples of accepted formats. Some fields in the template require that codes be entered rather than full text descriptions (e.g. analyte). The LOV tab contains tables pairing codes with descriptions.

Instructions

Please keep the following instructions in mind when filling out the EDD:

Wells may be identified using ONE of three possible identifiers: **Clearinghouse Number**, **DNR Well ID**, or **Alias**.

All other cells are required.

Enter '0' (zero) for the **Concentration** if the **Result Detection Condition** is 'Not Detected'.

Enter '0' as the **Reporting Limit** for field parameters. Accepted field parameters are:

Conductivity (Code = 10600)

Dissolved Oxygen (Code = 10755)

pH (Code = 10818)

Temperature (Code = 10819)

Turbidity (Code = 11567)

Enter numeric values for Data Types that are identified as int or float (see Dictionary tab).

Fields whose acceptable values are limited to a specific list of values are identified with a hyperlink to the detailed LOV tab. Ensure you **enter the CODE and NOT the description**.

Do not enter values that exceed the acceptable length for the field. For example, **Sample Name** is limited to 100 characters (see Dictionary tab).

You can sort the SampleResults sheet and add filters. Sorting and filters will be ignored when the EDD is uploaded, as will worksheets not named 'SampleResult'.

Submitters may upload their own spreadsheet as long as it contains a tab titled "SampleResult" and the column names and data format match the EDD requirements. The spreadsheet must be uploaded in .xlsx format.

Time must be formatted as Custom and h:mm. Any values greater than 24:00 will be converted to a value between 0:00 and 24:00.

Analytes with MCL values must be entered in the units specified in the Analytes LOV.

The **Analyte Code** for Nitrate-N is 22

Codes are CASE SENSITIVE, **including the Units codes**

The **Sample Name** for a field duplicate must be exactly the same as the Sample Name of the primary sa

Use one of the following **Analytical Method ID-System Codes** for **ELISA** results:

500001 Atrazine by Immunoassay, Magnetic Particle (Code = 885)

500021 Acetochlor by Immunoassay, Magnetic Particle (Code = 887)

500061 Metolachlor by Immunoassay, Magnetic Particle (Code = 888)

500071 Alachlor by Immunoassay, Magnetic Particle (Code = 890)

If **Analytical Method ID-System Code** 1243 is selected, assign **Analyte Code** 22 for Nitrate-N

imple

	Clearinghouse Number	DNR Well ID
ReadOnly/Editable	Editable	Editable
Is Required?	Required*	Required*
Primary Key?	Yes	Yes
Data Type	int	int
Field Length	N/A	N/A
Description	Unique identifier (PK) for the well in the <u>Clearinghouse</u> database	Unique identifier (PK) for the well in the <u>DNR Registered Well</u> database
List of Values (if applicable)	N/A	N/A
Conditional Requirements	Required if DNR Well ID and Alias are blank; must be blank if DNR Well ID or Alias is entered Value must exist in Clearinghouse database prior to EDD submittal	Required if Clearinghouse Number and Alias are blank; must be blank if Clearinghouse Number or Alias is entered Value must exist in Clearinghouse database prior to EDD submittal
Field Validation		
Sample Data	3 411 250236	89196 11277 244065

<i>Alias</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Sample Name</i>
Editable	Editable	Editable	Editable
Required*	Yes	Yes	Yes
Yes	No	No	No
varchar	datetime	datetime	varchar
200	N/A	N/A	100

Well identifier assigned by the submitter that is unique to the submitter

Date the sample was collected

Time the sample was collected

Sample identifier

N/A

N/A

N/A

N/A

Required if **Clearinghouse Number** and **DNR Well ID** and are blank; must be blank if **Clearinghouse Number** or **DNR Well ID** is entered

N/A

N/A

N/A

1. Value must exist in Clearinghouse database prior to EDD submittal
2. Value cannot be assigned to more than one well within the sampling entity

1. Cannot be in the future
2. Cannot be before well completion date
3. Cannot be after well decommission date (if applicable)

1. Must be between 0:00 and 24:00

N/A

24N 58W 10CAAB1
Firth MW-1

258

7/6/2020
8/15/2000
12/31/2015

0:00
9:00 Firth MW-1 3Q FD
14:00 Kalenda_2015

123

<i>Field Duplicate?</i>	<i>Analyte/CAS #</i>	<i>Result Detection Condition</i>	<i>Concentration</i>
Editable	Editable	Editable	Editable
Yes	Yes	Yes	Required*
No	No	No	No
Yes/No	int	varchar	float
N/A	5	25	3 decimal places

Indicates whether the sample is a QA sample collected at the same well and same time as another sample

The code used to identify the Analyte/CAS# applicable to the result

Indicates if the analyte was detected, and if so whether it was above or below the reporting limit

The actual measurement of analyte amount

	Analyte Code and Description	Result Detection Condition Code and Description	
N/A			N/A

N/A
There must be another record with the same **Clearinghouse #, DNR Well ID, or Alias; Analyte/CAS #; Sample Name; Sample Date;** and **Sample Time**

N/A
Do not allow multiple records with the same **Sample Name, Analyte/CAS #, Sample Date, Sample Time,** and **Field Duplicate**

N/A
N/A

N/A
1. Should be 0 (zero) if **Result Detection Limit** field equals 'Not Detected'.
2. **Concentration** cannot be less than the **Reporting Limit** when 'PAQL' is selected for **Result Detection Condition**

No	22 PAQL	9.75
Yes	10304 ND	0
No	10819 PAQL	14.4

Reporting Limit	Units	Fraction Type	Analytical Method ID-System
Editable	Editable	Editable	Editable
Yes	Yes	Yes	Yes
No	No	No	No
float	varchar	varchar	int
3 decimal places	7	20	4
The lowest concentration at which the lab can accurately report results	Units of measure for the analyte being reported	Indicates whether the water was filtered before analysis	Analytical method used by the laboratory to determine the concentration of the analyte
	<u>Units Code and Description</u>	<u>Fraction Type Code and Description</u>	<u>Analytical Method Code and Description</u>
N/A			
N/A	N/A	N/A	N/A
1. Any number (3 decimal places or less) will be accepted. Because field parameters do not have conventional reporting limits, users are encouraged to enter '0' (zero) in this column for field temp, field pH, field conductivity, field DO, and field turbidity.	If a unit is specified next to the Analyte/CAS # in the LOV tab, results for those analytes must be entered in the units shown.	N/A	N/A
	0.2 MG/L	UNK	205
	0.05 UG/L	FIL	885
	0 DegC	UNFIL	82

Analyte Code

Code	Description	CAS #	Unit
10002	1,1,1-Trichloroethane	71-55-6	UG/L
10007	1,1,2-Trichloroethane	79-00-5	UG/L
10013	1,1-Dichloroethene	75-35-4	UG/L
10026	1,2,4-Trichlorobenzene	120-82-1	UG/L
10031	1,2-Dibromo-3-chloropropane	96-12-8	UG/L
10035	1,2-Dibromoethane (Ethylene dibromide)	106-93-4	UG/L
10039	1,2-Dichlorobenzene	95-50-1	UG/L
10041	1,2-Dichloroethane	107-06-2	UG/L
10046	1,2-Dichloropropane	78-87-5	UG/L
10054	1,3-Dichloropropane	142-28-9	any
12015	1,4-Dichlorobenzene	106-46-7	UG/L
11938	1-Naphthol	90-15-3	any
12073	2,3,7,8-TCDD	1746-01-6	UG/L
11942	2,4,5-T	93-76-5	any
10082	2,4,6-Trichlorophenol	88-06-2	any
11805	2,4-D Methyl ester	1928-38-7	UG/L
11946	2,4-DB	94-82-6	any
10085	2,4-D	94-75-7	UG/L
10090	2,4-Dinitrophenol	51-28-5	any
11872	2,6-Diethylaniline	579-66-8	any
12016	2-[(2-Ethyl-6-methylphenyl),-amino]-1-propanol	61520-53-4	any
12017	2-[(2-Ethyl-6-methylphenyl),amino]-2-oxoethane sulfonic acid	171118-09-5	any
11289	226Radium	13982-63-3	any
11292	228Radium	15262-20-1	any
12018	2-Chloro-2,6-diethylacetanilide	6967-29-9	any
11885	Deethylatrazine	6190-65-4	any
11746	Deisopropylatrazine	1007-28-9	any
11824	2-Ethyl-6-methylaniline	24549-06-2	any
11812	Hydroxyatrazine	2163-68-0	any
11948	3,4-Dichloroaniline	95-76-1	any
11888	3,5-Dichloroaniline	626-43-7	any
10148	3-Hydroxycarbofuran	16655-82-6	any
10155	DDD	72-54-8	any
11639	P,P-DDE	72-55-9	any
10652	DDT	50-29-3	any
10122	4,6-Dinitro-o-cresol	534-52-1	any
11793	4-Chloro-2-methylphenol	1570-64-5	any
10168	4-Chloro-3-methylphenol	59-50-7	any
10190	4-Nitrophenol	100-02-7	any
10200	Acenaphthene	83-32-9	any
11842	Acetochlor	34256-82-1	any
12019	Acetochlor ethane sulfonic acid	187022-11-3	any
12020	Acetochlor oxanilic acid	194992-44-4	any

12021	Acetochlor sulfynilacetic acid	618113-86-3	<i>any</i>
11853	Acifluorfen	50594-66-6	<i>any</i>
12075	Acrylamide	79-06-1	UG/L
10214	Acrylonitrile	107-13-1	<i>any</i>
10229	Alachlor	15972-60-8	UG/L
12022	Alachlor ethane sulfonic acid	142363-53-9	UG/L
12023	Alachlor ethane sulfonic acid secondary amide	140939-15-7	<i>any</i>
12024	Alachlor oxanilic acid	171262-17-2	<i>any</i>
12025	Alachlor sulfynilacetic acid	494847-39-1	<i>any</i>
10231	Aldicarb	116-06-3	<i>any</i>
10232	Aldicarb sulfone	1646-88-4	<i>any</i>
10233	Aldicarb sulfoxide	1646-87-3	<i>any</i>
10235	Aldrin	309-00-2	<i>any</i>
11709	Alpha-HCH	319-84-6	<i>any</i>
11934	Ametryn	834-12-8	<i>any</i>
7	Antimony	7440-36-0	UG/L
8	Arsenic	7440-38-2	UG/L
12072	Asbestos	1332-21-4	MFL
10304	Atrazine	1912-24-9	UG/L
12026	Azinphos-methyl oxon	961-22-8	<i>any</i>
9	Barium	7440-39-3	UG/L
11816	Bendiocarb	22781-23-3	<i>any</i>
10352	Benfluralin	1861-40-1	<i>any</i>
11800	Benomyl	17804-35-2	<i>any</i>
11932	Bensulfuron-methyl	83055-99-6	<i>any</i>
11825	Bentazon	25057-89-0	<i>any</i>
10355	Benzene	71-43-2	UG/L
10360	Benzo(A)pyrene	50-32-8	UG/L
10	Beryllium	7440-41-7	UG/L
11710	Beta-HCH	319-85-7	<i>any</i>
10426	Di(2-ethylhexyl)adipate	103-23-1	UG/L
10424	Di(2-ethylhexyl)phthalate	117-81-7	UG/L
11835	Bromacil	314-40-9	<i>any</i>
10454	Bromomethane	74-83-9	<i>any</i>
11796	Bromoxynil	1689-84-5	<i>any</i>
10458	Butachlor	23184-66-9	<i>any</i>
11809	Butylate	2008-41-5	<i>any</i>
11	Cadmium	7440-43-9	UG/L
10495	Carbaryl	63-25-2	<i>any</i>
10498	Carbofuran	1563-66-2	UG/L
10501	Carbon disulfide	75-15-0	<i>any</i>

10504	Carbon tetrachloride	56-23-5	UG/L
11858	Carboxin	5234-68-4	any
11897	Chloramben methyl ester	7286-84-2	any
11867	Chlordane	57-74-9	UG/L
11939	Chlorimuron-ethyl	90982-32-4	any
10535	Chlorobenzene	108-90-7	UG/L
11839	Didealkylatrazine	3397-62-4	any
27	Chloroform	67-66-3	any
10647	Chlorothalonil	1897-45-6	any
10550	Chlorpyrifos	2921-88-2	any
12027	Chlorpyrifos Oxon	5598-15-2	any
12	Chromium	7440-47-3	UG/L
10554	Chromium VI	18540-29-9	any
10561	Cis-1,2-dichloroethene	156-59-2	UG/L
10564	Cis-1,3-dichloropropene	10061-01-5	any
11886	Cis-permethrin	61949-76-6	any
11797	Clopyralid	1702-17-6	any
12076	Combined Radium (-226 & -228)	NULL	pCi/L
21	Copper	7440-50-8	UG/L
10641	Cyanazine	21725-46-2	any
12028	Cyanazine acid	36576-43-9	any
12029	Cyanazine amide	36576-42-8	any
11866	Cyanide	57-12-5	UG/L
11757	Cycloate	1134-23-2	any
11891	Cyfluthrin	68359-37-5	any
11857	Cypermethrin	52315-07-8	any
12030	Cyprazine	22936-86-3	any
10648	Dalapon	75-99-0	UG/L
10650	DCPA	1861-32-1	any
11937	DCPA Monoacid	887-54-7	any
12031	Dechloroacetochlor	162102-65-0	any
12032	Dechloroalachlor	74886-79-6	any
12033	Dechlorodimethenamid	864182-54-7	any
12034	Dechlorometolachlor	126605-22-9	any
12035	Deethylcyanazine	21725-40-6	any
12036	Deethylcyanazine acid	36749-35-6	any
12037	Deethylcyanazine amide	36556-77-1	any
12038	Deethylhydroxyatrazine	19988-24-0	any
12039	Deisopropylhydroxyatrazine	7313-54-4	any
11711	Delta-HCH	319-86-8	any
12040	Demethylfluometuron	3032-40-4	any
12041	Desulfinylfipronil	205650-65-3	any
12042	Desulfinylfipronil amide	1115248-09-3	any
10702	Diazinon	333-41-5	any
11954	Diazoxon	962-58-3	any
10717	Dicamba	1918-00-9	any
11763	Dichlobenil	1194-65-6	any

10723	Methylene chloride	75-09-2	UG/L
11764	Dichlorprop	120-36-5	any
11704	Dichlorvos	62-73-7	any
11787	Dicrotophos	141-66-2	any
10727	Dieldrin	60-57-1	any
12043	Dimethenamid	87674-68-8	any
12044	Dimethenamid ethane sulfonic acid	1418095-09-6	any
12045	Dimethenamid oxalic acid	380412-59-9	any
10742	Dimethoate	60-51-5	any
10750	Dinoseb	88-85-7	UG/L
11952	Diphenamid	957-51-7	any
12077	Diquat	2764-72-9	UG/L
10756	Disulfoton	298-04-4	any
12046	Disulfoton sulfone	2497-06-5	any
11836	Diuron	330-54-1	any
10771	Endosulfan I	959-98-8	any
10772	Endosulfan li	33213-65-9	any
11713	Endosulfan sulfate	1031-07-8	any
10773	Endothal	145-73-3	UG/L
10774	Endrin	72-20-8	UG/L
11714	Endrin aldehyde	7421-93-4	any
12074	Epichlorohydrin	106-89-8	UG/L
10776	Eptc	759-94-4	any
11889	Esfenvalerate	66230-04-4	any
11862	Ethalfuralin	55283-68-6	any
11865	Ethion	563-12-2	any
11799	Ethion monoxon	17356-42-2	any
11776	Ethoprop	13194-48-4	any
10787	Ethylbenzene	100-41-4	UG/L
11815	Fenamiphos	22224-92-6	any
12047	Fenamiphos sulfone	31972-44-8	any
12048	Fenamiphos sulfoxide	31972-43-7	any
11748	Fenuron	101-42-8	any
11767	Fipronil	120068-37-3	any
11766	Fipronil sulfide	120067-83-6	any
12049	Fipronil sulfone	120068-36-2	any
12050	Flufenacet	142459-58-3	any
12051	Flufenacet ethane sulfonic acid	947601-87-8	any
12052	Flufenacet oxanilic acid	201668-31-7	any
11955	Flumetsulam	98967-40-9	any
11813	Fluometuron	2164-17-2	any
169	Fluoride	16984-48-8	UG/L
12053	Fonofos oxon	944-21-8	any
11947	Fonofos	944-22-9	any
10835	Lindane	58-89-9	UG/L

10837	Glyphosate	1071-83-6	UG/L
10261	Gross alpha	12587-46-1	pCi/L
10397	Gross beta	12587-47-2	mrem/yr
10881	Heptachlor	76-44-8	UG/L
10882	Heptachlor epoxide	1024-57-3	UG/L
10888	Hexachlorobenzene	118-74-1	UG/L
10864	Hexachlorocyclopentadiene	77-47-4	UG/L
10899	Hexazinone	51235-04-2	any
12054	Hydroxyacetochlor	60090-47-3	any
12055	Hydroxylachlor	56681-55-1	any
12056	Hydroxydimethenamid	NULL	any
12057	Hydroxymetolachlor	131068-72-9	any
12058	Hydroxysimazine	2599-11-3	any
11927	Imazaquin	81335-37-7	any
11928	Imazethapyr	81335-77-5	any
11783	Imidacloprid	138261-41-3	any
10929	Iodomethane	74-88-4	any
11844	Iprodione	36734-19-7	any
11826	Isofenphos	25311-71-1	any
12059	Isoxaflutole	141112-29-0	any
12060	2-(Methylsulfonyl),-4-(Trifluoromethyl benzoic acid	142994-06-7	any
12061	Isoxaflutole diketonitrile	143701-75-1	any
20	Lead	7439-92-1	UG/L
11837	Linuron	330-55-2	any
11705	Malathion	121-75-5	any
12062	Malathion oxon	NULL	any
11944	MCPA	94-74-6	any
11945	MCPB	94-81-5	any
15	Mercury	7439-97-6	UG/L
11871	Metalaxyl	57837-19-1	any
11950	Methidathion	950-37-8	any
11017	Methiocarb	2032-65-7	any
11018	Methomyl	16752-77-5	any
11019	Methoxychlor	72-43-5	UG/L
10307	Azinphos-methyl	86-50-0	any
11949	Methyl paraoxon	950-35-6	any
11028	Methyl parathion	298-00-0	any
11043	Metolachlor	51218-45-2	any
12063	Metolachlor ethane sulfonic acid	947601-85-6	any
12064	Metolachlor oxanilic acid	152019-73-3	any
11044	Metribuzin	21087-64-9	any
11901	Metsulfuron-methyl	74223-64-6	any
11814	Molinate	2212-67-1	any
11936	Myclobutanil	88671-89-0	any
11100	Naphthalene	91-20-3	any

11791	Napropamide	15299-99-7	<i>any</i>
11864	Neburon	555-37-3	<i>any</i>
11756	Nicosulfuron	111991-09-4	<i>any</i>
22	Nitrate-N	14797-55-8	MG/L
11688	Nitrite as NO ₂	14797-65-0	MG/L
11831	Norflurazon	27314-13-2	<i>any</i>
11804	Oryzalin	19044-88-3	<i>any</i>
12065	Oxadiazon	19666-30-9	<i>any</i>
11197	Oxamyl	23135-22-0	UG/L
11849	Oxyfluorfen	42874-03-3	<i>any</i>
11210	Ethyl parathion	56-38-2	<i>any</i>
11755	Pebulate	1114-71-2	<i>any</i>
11235	Permethrin	52645-53-1	<i>any</i>
11848	Pendimethalin	40487-42-1	<i>any</i>
11227	Pentachlorophenol	87-86-5	UG/L
11255	Phorate	298-02-2	<i>any</i>
12066	Phorate oxon	2600-69-3	<i>any</i>
11899	Phosmet	732-11-6	<i>any</i>
11845	Phosmet oxon	3735-33-9	<i>any</i>
12067	Picloram	1918-02-1	UG/L
11222	Polychlorinated biphenyls	1336-36-3	UG/L
11794	Prometon	1610-18-0	<i>any</i>
11898	Prometryn	7287-19-6	<i>any</i>
11274	Propyzamide	23950-58-5	<i>any</i>
11275	Propachlor	1918-16-7	<i>any</i>
12068	Propachlor ethane sulfonic acid	947601-88-9	<i>any</i>
12069	Propachlor oxanilic acid	70628-36-3	<i>any</i>
11894	Propanil	709-98-8	<i>any</i>
11821	Propargite	2312-35-8	<i>any</i>
11784	Propazine	139-40-2	<i>any</i>
11769	Propham	122-42-9	<i>any</i>
11880	Propiconazole	60207-90-1	<i>any</i>
11280	Propoxur	114-26-1	<i>any</i>
17	Selenium	7782-49-2	UG/L
11808	Siduron	1982-49-6	<i>any</i>
10078	Silvex	93-72-1	UG/L
11352	Simazine	122-34-9	UG/L
11750	Simetryn	1014-70-6	<i>any</i>
11404	Styrene	100-42-5	UG/L
11900	Sulfometuron-methyl	74222-97-2	<i>any</i>
11840	Tebuthiuron	34014-18-1	<i>any</i>
11875	Terbacil	5902-51-2	<i>any</i>
11775	Terbufos	13071-79-9	<i>any</i>
12070	Terbufos oxon sulfone	56070-15-6	<i>any</i>
11876	Terbuthylazine	5915-41-3	<i>any</i>
12071	Terbutryn	886-50-0	<i>any</i>
11471	Tetrachloroethene	127-18-4	UG/L

19	Thallium	7440-28-0	UG/L
11832	Thiobencarb	28249-77-6	<i>any</i>
11497	Toluene	108-88-3	UG/L
11525	Total Xylenes	1330-20-7	UG/L
11528	Toxaphene	8001-35-2	UG/L
11543	Trans-1,2-dichloroethene	156-60-5	UG/L
11547	Trans-1,3-dichloropropene	10061-02-6	<i>any</i>
11820	Triallate	2303-17-5	<i>any</i>
11550	Trichloroethene	79-01-6	UG/L
11863	Triclopyr	55335-06-3	<i>any</i>
11557	Trifluralin	1582-09-8	<i>any</i>
11575	Uranium	7440-61-1	UG/L
11806	Vernolate	1929-77-7	<i>any</i>
11591	Vinyl chloride	75-01-4	UG/L
10600	Conductivity, field	NULL	<i>any</i>
10755	Dissolved Oxygen, field	NULL	<i>any</i>
10818	pH, field	NULL	<i>any</i>
10819	Temperature, field	NULL	<i>any</i>
11567	Turbidity, field	NULL	<i>any</i>

Result Detection Condition

Code	Description
ND	Not Detected
PAQL	Present to the Quantification Limit and Above
PBQL	Present Below Quantification Limit
DNQ	Detected Not Quantified

Units

Code	Description
MG/L	mg/l
UG/L	ug/l
DegC	Degrees C
DegF	Degrees F
SU	SU
pCi/L	pCi/L
MFL	MFL
NTU	NTU
UMHO/CM	umho/cm
mrem/yr	mrem/yr

Fraction Type

Code	Description
FIL	Filtered
UNFIL	Unfiltered
UNK	Unknown

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Analytical Method ID System

Description
600-R-00-013 (Membrane filtration plating of coliform bacteria on MI agar) ~ Category: Microbiological
1103.1 (modified) (Membrane filtration plating of E. coli on modified mTEC agar) ~ Category: Microbiological
1106.1 (Enterococci in water by MF using mE-EI Agar) ~ Category: Microbiological
1600 (Enterococci in water by membrane filtration using mEI Agar) ~ Category: Microbiological
1601 (Coliphage in water by two-step enrichment procedure) ~ Category: Microbiological
1602 (Coliphage in water by single agar layer (SAL)) ~ Category: Microbiological
1604 (Total Coliforms and E. coli in Drinking Water by Membrane Filtration) ~ Category: Microbiological
1605 (Aeromonas in Finished Water by Membrane Filtration) ~ Category: Microbiological
1622 (Cryptosporidium by filtration/IMS/FA microscopy) ~ Category: Microbiological
1623 (Cryptosporidium and giardia by filtration/IMS/FA microscopy) ~ Category: Microbiological
1682 (Salmonella in Sewage Sludge (Biosolids) by MSRV Medium) ~ Category: Microbiological
9213B (Staphylococcus aureus in water by Tube Culture) ~ Category: Microbiological
9213D (E. coli by Membrane filtration plating on mTEC agar) ~ Category: Microbiological
9221A,B,C,F (Coliform bacteria by Multiple-tube test using lauryl-tryptose and EC-MUG broth) ~ Category:
9221E (Fecal coliforms by Multiple tube fermentation) ~ Category: Microbiological
9222A,B,C (Coliforms, total, by Membrane Filtration (MF) Plating) ~ Category: Microbiological
9222B,G (Membrane filtration plating of E. coli with MUG-fluorescent detection) ~ Category: Microbiological
9222D (Membrane filtration test for fecal coliforms) ~ Category: Microbiological
9223B (Enzyme substrate assay for measuring total coliforms and E. coli (ONPG-MUG test or CPRG-MUG test)) ~ Category: Microbiological
9260 I (Leptospira spp. in water by Tube Culture) ~ Category: Microbiological
10029 (E. coli by m-ColiBlue24 Broth Procedure for Membrane Filtration) ~ Category: Microbiological
AstroRT-PCR (Astrovirus serotypes by real-time reverse transcription-PCR) ~ Category: Microbiological
BacantR-SG (Bacillus anthracis - Sentinel Procedure) ~ Category: Microbiological
CDC - E. coli and Shigella (E. coli and Shigella in Isolates by Real-time Polymerase Chain Reaction) ~ Category:
CDC - S. Typhi (Salmonella Typhi in Isolates by Real-time Polymerase Chain Reaction.) ~ Category:
CDC - V. cholerae (V. cholerae in Isolates by Real-time Polymerase Chain Reaction) ~ Category: Microbiological
Colilert (Coliform/E. coli Enzyme substrate test; ONPG-MUG test) ~ Category: Microbiological
Colilert-18 (Coliform/E. coli Enzyme substrate test; ONPG-MUG test) ~ Category: Microbiological
Coliscan (E. coli and other coliform bacteria by Coliscan MF) ~ Category: Microbiological
Colisure (Coliform/E. coli Enzyme substrate test; CPRG-MUG test) ~ Category: Microbiological
D4412 (Sulfate-reducing Bacteria in Water) ~ Category: Microbiological
D4454 (Respiring Bacteria in Water) ~ Category: Microbiological
D4455 (Aquatic Bacteria by Epifluorescence Microscopy) ~ Category: Microbiological
D5246 (Pseudomonas aeruginosa in Water) ~ Category: Microbiological
D5392 (E. Coli in Water) ~ Category: Microbiological
D5916 (Clostridium perfringens from Water and Extracted Sediments) ~ Category: Microbiological
D6503 (Enterococci in Water) ~ Category: Microbiological
Easygel (E. coli and other coliform bacteria by Coliscan Easygel method) ~ Category: Microbiological
Enterolert (Enterolert) ~ Category: Microbiological
Ft-SG (Francisella tularensis plate count method) ~ Category: Microbiological
SimPlate (SimPlate for HPC) ~ Category: Microbiological
T2 Myco (Mycotoxin (T-2) by LC/APCI-MS) ~ Category: Microbiological
Price and Peterson 2010 (Fishes in Wadeable Warmwater Streams by Electrofishing) ~ Category:

AFS Coldwater Fish (Fishes, Coldwater, in wadeable streams by electrofishing, snorkeling, and nest counts) ~ Category: Population_Community
AFS Warmwater Fish (Fishes, Warmwater, in wadeable streams by electrofishing and seining) ~ Category: Population_Community
WI DNR BMI Kick (Guidelines for Collecting Macroinvertebrate Samples from Wadeable Streams in Wisconsin) ~ Category: Population_Community
MI DEQ #51 Invert collection (Invertebrate Qualitative Survey Protocols for Wadeable Streams and Rivers in Michigan) ~ Category: Population_Community
NAWQA Invert QMH (Invertebrate Sample Collection at Qualitative Multiple Habitat (QMH) in wadeable streams by D-net) ~ Category: Population_Community
NAWQA Invert RTH (Invertebrate Sample Collection at Richest Targeted Habitat (RTH) in wadeable streams by Slack sampler) ~ Category: Population_Community
AFS SD Trout (Trout collection in wadeable trout streams by backpack electrofishing) ~ Category:
445 (Chlorophyll and Pheophytin in Algae by Fluorescence) ~ Category: Biochemical
446 (Chlorophylls and Pheopigments in Phytoplankton by Spectrophotometry) ~ Category: Biochemical
447 (Chlorophyll a and b in phytoplankton by HPLC/UV) ~ Category: Biochemical
B-3520-85 (Periphyton, Biomass, Dry Weight, total and Ash Weight) ~ Category: Biochemical
ToxG (Toxoplasma gondii (ToxG) by Real-Time-PCR) ~ Category: Biochemical
D3856 (Good Laboratory Practices) ~ Category: General
USDA HWQ4 (Estimating Uncertainty in Measured Discharge and Water Quality Data) ~ Category: General
100.1 (Asbestos in Water by TEM) ~ Category: Inorganic
100.2 (Asbestos in Water by TEM) ~ Category: Inorganic
110.1 (Color by Spectrophotometry) ~ Category: Inorganic
110.2 (Color by Spectrophotometry) ~ Category: Inorganic
110.3 (Color by Spectrophotometry) ~ Category: Inorganic
120.1 (Conductance by Conductivity Meter) ~ Category: Inorganic
130.1 (Total Hardness by Spectrophotometer) ~ Category: Inorganic
130.2 (Total Hardness of Water by Titrimetry) ~ Category: Inorganic
131 (Trace mercury in marine sediments by CVAA) ~ Category: Inorganic
131.01 (Trace mercury in marine animal tissues by CVAA) ~ Category: Inorganic
132 (Trace metals in marine sediment by neutron activation) ~ Category: Inorganic
132.1 (Trace metals in marine animal tissue by neutron activation) ~ Category: Inorganic
140 (Trace metals in marine sediment by GFAA) ~ Category: Inorganic
140.1 (Trace metals in marine animal tissues by GFAA) ~ Category: Inorganic
150.1 (pH in Water by Electrometric Method) ~ Category: Inorganic
150.2 (pH in Water) ~ Category: Inorganic
151 (Trace metals in marine sediment by FAA) ~ Category: Inorganic
151.1 (Trace metals in marine animal tissue by FAA) ~ Category: Inorganic
155.1 (Trace metals in marine animal tissues by X-ray fluorescence) ~ Category: Inorganic
160 (Trace metals in marine sediments by X-ray fluorescence) ~ Category: Inorganic
160.1 (Filterable Residue by Drying Oven) ~ Category: Inorganic
160.2 (Non-filterable Residue by Drying Oven) ~ Category: Inorganic
160.3 (Total Residue by Drying Oven) ~ Category: Inorganic
160.4 (Volatile Residue by Muffle Furnace) ~ Category: Inorganic
170.1 (Temperature by Thermometer) ~ Category: Inorganic
172 (Trace metals in marine sediments by ICP/MS) ~ Category: Inorganic
172.1 (Trace metals in marine animal tissues by ICP/MS) ~ Category: Inorganic

180.1 (Turbidity by Turbidimeter) ~ Category: Inorganic
200.1 (Trace Elements in Marine Waters by ICPMS) ~ Category: Inorganic
200.12 (Trace Elements in Marine Waters by GFAA) ~ Category: Inorganic
200.13 (Trace Elements by GFAA (w/ Preconcentration)) ~ Category: Inorganic
200.5 (Trace elements in water by AVICP-AES) ~ Category: Inorganic
200.7 (Metals in Water by ICP-AES) ~ Category: Inorganic
200.8 (Metals in Waters by ICP/MS) ~ Category: Inorganic
200.9 (Trace Elements in Water by GFAA) ~ Category: Inorganic
202.1 (Aluminum by Flame AA) ~ Category: Inorganic
202.2 (Aluminum by Graphite Furnace AA) ~ Category: Inorganic
204.1 (Antimony by Flame AA) ~ Category: Inorganic
204.2 (Antimony by Graphite Furnace AA) ~ Category: Inorganic
206.2 (Arsenic by Graphite Furnace AA) ~ Category: Inorganic
206.3 (Arsenic by Gaseous Hydride Generation and AA) ~ Category: Inorganic
206.4 (Arsenic by Spectrophotometry) ~ Category: Inorganic
206.5 (Sample Digestion for Arsenic) ~ Category: Inorganic
208.1 (Barium by Flame AA) ~ Category: Inorganic
208.2 (Barium by Graphite Furnace AA) ~ Category: Inorganic
210.1 (Beryllium by Flame AA) ~ Category: Inorganic
210.2 (Beryllium by Graphite Furnace AA) ~ Category: Inorganic
212.3 (Boron by Colorimetry) ~ Category: Inorganic
213.1 (Cadmium by Flame AA) ~ Category: Inorganic
213.2 (Cadmium by GFAA) ~ Category: Inorganic
215.1 (Calcium by Flame AA) ~ Category: Inorganic
215.2 (Calcium by Titrimetry) ~ Category: Inorganic
218.1 (Chromium by Flame AA) ~ Category: Inorganic
218.2 (Chromium by Graphite Furnace AA) ~ Category: Inorganic
218.3 (Chromium by Chelation Extraction and Flame AA) ~ Category: Inorganic
218.4 (Hexavalent Chromium Using Chelation Extraction and AA) ~ Category: Inorganic
218.6 (Hexavalent Chromium in Water by Ion Chromatography) ~ Category: Inorganic
219.1 (Cobalt by Flame AA) ~ Category: Inorganic
219.2 (Cobalt by Graphite Furnace AA) ~ Category: Inorganic
220.1 (Copper by Flame AA) ~ Category: Inorganic
220.2 (Copper by Graphite Furnace AA) ~ Category: Inorganic
231.1 (Gold by Flame AA) ~ Category: Inorganic
231.2 (Gold by Graphite Furnace AA) ~ Category: Inorganic
235.1 (Iridium by Flame AA) ~ Category: Inorganic
235.2 (Iridium by Graphite Furnace AA) ~ Category: Inorganic
236.1 (Iron by Flame AA) ~ Category: Inorganic
236.2 (Iron by Graphite Furnace AA) ~ Category: Inorganic
239.1 (Lead by Flame AA) ~ Category: Inorganic
239.2 (Lead by Graphite Furnace AA) ~ Category: Inorganic
242.1 (Magnesium by Flame AA) ~ Category: Inorganic
243.1 (Manganese by Flame AA) ~ Category: Inorganic
243.2 (Manganese by Graphite Furnace AA) ~ Category: Inorganic
245.1 (Mercury by CVAA) ~ Category: Inorganic
245.2 (Mercury by CVAA (Automated)) ~ Category: Inorganic

245.7 (Mercury in water by cold-vapor atomic fluorescence spectrometry) ~ Category: Inorganic
246.1 (Molybdenum by Flame AA) ~ Category: Inorganic
246.2 (Molybdenum by Graphite Furnace AA) ~ Category: Inorganic
249.1 (Nickel by Flame AA) ~ Category: Inorganic
249.2 (Nickel by Graphite Furnace AA) ~ Category: Inorganic
252.1 (Osmium by Flame AA) ~ Category: Inorganic
252.2 (Osmium by Graphite Furnace AA) ~ Category: Inorganic
253.1 (Palladium by Flame AA) ~ Category: Inorganic
253.2 (Palladium by Graphite Furnace AA) ~ Category: Inorganic
255.1 (Platinum by Flame AA) ~ Category: Inorganic
255.2 (Platinum by Graphite Furnace AA) ~ Category: Inorganic
258.1 (Potassium by Flame AA) ~ Category: Inorganic
265.1 (Rhodium by Flame AA) ~ Category: Inorganic
265.2 (Rhodium by Graphite Furnace AA) ~ Category: Inorganic
267.1 (Ruthenium by Flame AA) ~ Category: Inorganic
267.2 (Ruthenium by Graphite Furnace AA) ~ Category: Inorganic
270.2 (Selenium by Graphite Furnace AA) ~ Category: Inorganic
272.1 (Silver by Flame AA) ~ Category: Inorganic
272.2 (Silver by Graphite Furnace AA) ~ Category: Inorganic
273.1 (Sodium by Flame AA) ~ Category: Inorganic
279.1 (Thallium by Flame AA) ~ Category: Inorganic
279.2 (Thallium by GF-AA) ~ Category: Inorganic
282.1 (Tin by Flame AA) ~ Category: Inorganic
282.2 (Tin by Graphite Furnace AA) ~ Category: Inorganic
283.1 (Titanium by Flame AA) ~ Category: Inorganic
283.2 (Titanium by Graphite Furnace AA) ~ Category: Inorganic
286.1 (Vanadium by Flame AA) ~ Category: Inorganic
286.2 (Vanadium by Graphite Furnace AA) ~ Category: Inorganic
289.1 (Zinc by Flame AA) ~ Category: Inorganic
289.2 (Zinc by Graphite Furnace AA) ~ Category: Inorganic
300 (Inorganic Anions by Ion Chromatography) ~ Category: Inorganic
300.1 (Anions in Water by IC) ~ Category: Inorganic
302 (Bromate in Drinking Water Using 2-D IC With Suppressed Conductivity Detection) ~ Category: Inorganic
305.1 (Acidity by Titration) ~ Category: Inorganic
310.1 (Alkalinity by Titration) ~ Category: Inorganic
310.2 (Alkalinity by Autoanalyzer) ~ Category: Inorganic
314 (Perchlorate in Drinking Water by Ion Chromatography) ~ Category: Inorganic
314.1 (Perchlorate in water using inline column IC) ~ Category: Inorganic
317 (Oxyhalide DPBs and Bromide by IC) ~ Category: Inorganic
317.0rev2.0 (Inorganic Oxyhalide DBPs in Drinking Water By Ion Chromatography With Conductivity Detection and Trace Bromate Using Post Column Reagent Colorimetry) ~ Category: Inorganic
320.1 (Bromide by Titration) ~ Category: Inorganic
321.8 (Bromate by IC/ICP-MS) ~ Category: Inorganic
325.1 (Chloride by Automated Colorimetry) ~ Category: Inorganic
325.2 (Chloride by Automated Colorimetry) ~ Category: Inorganic
325.3 (Chloride by Titrimetry) ~ Category: Inorganic

326 (Inorganic Oxyhalide Disinfection By-products in Drinking Water by Ion Chromatography with Postcolumn Reagent for Trace Bromate Analysis) ~ Category: Inorganic
327.0 rev1.1 (Chlorine Dioxide and Chlorite in Drinking Water by Visible Spectrophotometry) ~ Category:
330.1 (Total Residual Chlorine by Titration) ~ Category: Inorganic
330.2 (Total Residual Chlorine by Titration) ~ Category: Inorganic
330.3 (Total Residual Chlorine by Titration) ~ Category: Inorganic
330.4 (Total Residual Chlorine by Titration) ~ Category: Inorganic
330.5 (Total Residual Chlorine by Spectrophotometer) ~ Category: Inorganic
331 (Perchlorate in water by LC/EMI/MS) ~ Category: Inorganic
332 (Perchlorate in drinking water by IC-ESI/MS) ~ Category: Inorganic
334 (Residual Chlorine in Drinking Water Using an On-Line Chlorine Analyzer) ~ Category: Inorganic
335.1 (Cyanides, amenable to chlorination) ~ Category: Inorganic
335.2 (Cyanide, total, in Water) ~ Category: Inorganic
335.3 (Cyanide by Automated Colorimetry) ~ Category: Inorganic
335.4 (Cyanide, total, by Colorimetry) ~ Category: Inorganic
340.1 (Fluoride by Colorimetry) ~ Category: Inorganic
340.2 (Fluoride by ISE) ~ Category: Inorganic
340.3 (Fluoride by Colorimetry) ~ Category: Inorganic
349 (Ammonia in Estuarine and Coastal Waters by Colorimetry) ~ Category: Inorganic
350.2 (Nesslerization) (Ammonia by Colorimetry (Nesslerization)) ~ Category: Inorganic
350.2 (Titration) (Ammonia by Titrimetry) ~ Category: Inorganic
350.1 (Ammonia by Automated Colorimetry) ~ Category: Inorganic
350.3 (Ammonia by Potentiometry) ~ Category: Inorganic
351.3 (Electrode) (Total Kjeldahl Nitrogen by Potentiometry) ~ Category: Inorganic
351.3 (Nesslerization) (Total Kjeldahl Nitrogen by Colorimetry) ~ Category: Inorganic
351.3 (Titration) (Total Kjeldahl Nitrogen by Titrimetry) ~ Category: Inorganic
351.1 (TKN by Automated Colorimetry) ~ Category: Inorganic
351.2 (Total Kjeldahl nitrogen in water by semiautomated colorimetry) ~ Category: Inorganic
351.4 (TKN by ISE) ~ Category: Inorganic
352.1 (Nitrate by Colorimetry) ~ Category: Inorganic
353.1 (Nitrate-Nitrite by Colorimetry) ~ Category: Inorganic
353.2 (Nitrate-Nitrite Nitrogen by Colorimetry) ~ Category: Inorganic
353.3 (Nitrate-Nitrite by Cadmium Reduction and Colorimetry) ~ Category: Inorganic
353.4 (Nitrate and Nitrite in Estuarine and Coastal Waters by Automated Colorimetry) ~ Category: Inorganic
354.1 (Nitrite by Spectrophotometry) ~ Category: Inorganic
360.1 (Dissolve Oxygen by Membrane Electrode) ~ Category: Inorganic
360.2 (Dissolved Oxygen Using a Modified Winkler Method) ~ Category: Inorganic
365.1 (Phosphorus (all forms) by Semi-Automated Colorimetry) ~ Category: Inorganic
365.2 (Phosphorus by Colorimetry) ~ Category: Inorganic
365.3 (Phosphorus by Colorimetry) ~ Category: Inorganic
365.4 (Phosphorus by Automated Colorimetry) ~ Category: Inorganic
365.5 (Orthophosphate in Estuarine and Coastal Waters by Colorimetry) ~ Category: Inorganic
366 (Silicate by Colorimetry) ~ Category: Inorganic
370.1 (Silica by Colorimetry) ~ Category: Inorganic
375.1 (Sulfate by Colorimetry) ~ Category: Inorganic
375.2 (Sulfate by Colorimetry) ~ Category: Inorganic

375.3 (Sulfate by Gravimetric Determination) ~ Category: Inorganic
375.4 (Sulfate by Turbidity) ~ Category: Inorganic
376.1 (Sulfide by Titrimetry) ~ Category: Inorganic
376.2 (Sulfide by Colorimetry) ~ Category: Inorganic
376.3 (Acid Volatile Sulfide (AVS) in Sediment by Acidification and Gravimetry.) ~ Category: Inorganic
377.1 (Sulfite by Titrimetry) ~ Category: Inorganic
410.4 (Chemical oxygen demand in water by colorimetry) ~ Category: Inorganic
420.4 (Total recoverable phenolics in water by semi-automated colorimetry) ~ Category: Inorganic
440 (Elemental C and N by Combustion and Thermal Conductivity) ~ Category: Inorganic
557 (Haloacetic Acids, Bromate, and Dalapon in Drinking Water by IC-ESI-MS/MS) ~ Category: Inorganic
920.203 (Manganese in Water) ~ Category: Inorganic
925.54 (Sulfate in Water) ~ Category: Inorganic
973.52B (Hardness of Water) ~ Category: Inorganic
973.41 (pH of Water) ~ Category: Inorganic
990.08 (Metals in Solid Wastes by ICP) ~ Category: Inorganic
993.3 (Inorganic Anions in Water) ~ Category: Inorganic
1630 (Methyl Mercury in Water) ~ Category: Inorganic
1631 (Mercury in Water Using CVAFS) ~ Category: Inorganic
1632 (Chemical Speciation of Arsenic in Water and Tissue) ~ Category: Inorganic
1636 (Hexavalent Chromium by Ion Chromatography) ~ Category: Inorganic
1637 (Determination of Trace Elements in Ambient Waters by Chelation and GFAA) ~ Category: Inorganic
1638 (Determination of Trace Elements in Ambient Waters by ICPMS) ~ Category: Inorganic
1639 (Trace Elements in Water by GFAA) ~ Category: Inorganic
1640 (Trace Elements in Ambient Waters by On-Line Chelation) ~ Category: Inorganic
2120 B (Color in Water by Visual Comparison Method) ~ Category: Inorganic
2120 C (Color in Water by Spectrophotometry) ~ Category: Inorganic
2120 E (Color in Water by ADMI Tristimulus Method) ~ Category: Inorganic
2340B (Hardness in Water by EDTA Titration) ~ Category: Inorganic
2340C (EDTA Titrimetric Method (Hardness)) ~ Category: Inorganic
2510B (Conductivity - Laboratory Method) ~ Category: Inorganic
2540 B (Total Solids Dried at 103-105oC) ~ Category: Inorganic
2540 C (Total Dissolved Solids Dried at 180oC) ~ Category: Inorganic
2540 D (Total Suspended Solids Dried at 103-105oC) ~ Category: Inorganic
2540 F (Settleable Solids) ~ Category: Inorganic
2550 B (Temperature of Water, Laboratory and Field Methods) ~ Category: Inorganic
3030 E (Nitric Acid Digestion of Metals) ~ Category: Inorganic
3030B (Preliminary Filtration of Metals Samples) ~ Category: Inorganic
3030C (Treatment for Acid-Extractable Metals) ~ Category: Inorganic
3030D (Preliminary Digestion for Metals) ~ Category: Inorganic
3111 C (Metals by Flame Atomic Absorption Spectrometry, Extraction/Air-Acetylene Flame Method) ~ Category:
3111 D (Metals in water by FLAA) ~ Category: Inorganic
3111B (Metals in water by FLAA) ~ Category: Inorganic
3112 B (Metals in Water by CV-AAS) ~ Category: Inorganic
3113 B (Metals in Water by GFAA) ~ Category: Inorganic
3114 B (Arsenic and Selenium by Hydride Generation/AAS) ~ Category: Inorganic
3120 B (total) (Metals (total recoverable) in Water by ICP) ~ Category: Inorganic
3125 (Metals in Water by ICP/MS) ~ Category: Inorganic

3135.2I (Cyanide in Water and Soil by Colorimetry) ~ Category: Inorganic
3500-Al B (Aluminum by Eriochrome Cyanine R Method) ~ Category: Inorganic
3500-As B (Arsenic by Silver Diethyldithiocarbamate) ~ Category: Inorganic
3500-Ca B (Calcium by EDTA) ~ Category: Inorganic
3500-Cr B (Chromium by Colorimetry) ~ Category: Inorganic
3500-Cr C (Chromium by Ion Chromatographic Method) ~ Category: Inorganic
3500-Cu B (Copper by Neocuproine) ~ Category: Inorganic
3500-Cu C (Copper by Bathocuproine) ~ Category: Inorganic
3500-Fe B (Iron by Phenanthroline) ~ Category: Inorganic
3500-K B (Potassium by Flame Photometry) ~ Category: Inorganic
3500-Mg B (Magnesium in Water, Calculation Method) ~ Category: Inorganic
3500-MN B (Manganese in Water by Spectrophotometry) ~ Category: Inorganic
3500-Na B (Sodium by Flame Emission Photometry) ~ Category: Inorganic
3500-Ni B (Nickel in Water) ~ Category: Inorganic
3500-Pb B (Lead by Dithizone) ~ Category: Inorganic
3500-V B (Vanadium by Gallic Acid Method) ~ Category: Inorganic
3500-Zn B (Zinc by Zincon Method) ~ Category: Inorganic
3500-Zn E (Zinc in Water by Colorimetry) ~ Category: Inorganic
4110B (Anions in Water by Ion Chromatography) ~ Category: Inorganic
4110C (Anions in Water by Ion Chromatography) ~ Category: Inorganic
4110D (Anions in Water by Ion Chromatography) ~ Category: Inorganic
4500-B B (Boron by Curcumin Method) ~ Category: Inorganic
4500-Cl B (Chlorine by Iodometry) ~ Category: Inorganic
4500-Cl C (Chlorine by Iodometric Method II) ~ Category: Inorganic
4500-Cl D (Chlorine by Amperometry) ~ Category: Inorganic
4500-Cl E (Chlorine by Low-Level Amperometric Titration Method) ~ Category: Inorganic
4500-Cl F (Chlorine by DPD Ferrous Titrimetric Method) ~ Category: Inorganic
4500-Cl G (Chlorine by DPD) ~ Category: Inorganic
4500-Cl H (Chlorine by Syringaldazine) ~ Category: Inorganic
4500-Cl I (Chlorine by Iodometric Electrode) ~ Category: Inorganic
4500-Cl- B (Chloride by Argentometric Method) ~ Category: Inorganic
4500-Cl- C (Chloride by Mercuric Nitrate Method) ~ Category: Inorganic
4500-Cl- D (Chloride by Potentiometric Method) ~ Category: Inorganic
4500-Cl- E (Chloride by Automated Ferricyanide Method) ~ Category: Inorganic
4500-ClO ₂ C (Chlorine Dioxide by Amperometry) ~ Category: Inorganic
4500-ClO ₂ E (Chlorine by Amperometry) ~ Category: Inorganic
4500-CN C (Total Cyanide in Water after Distillation) ~ Category: Inorganic
4500-CN-D (Cyanide by Titration) ~ Category: Inorganic
4500-CN-E (Colorimetric Method for Cyanide in Distillate) ~ Category: Inorganic
4500-CN-F (Cyanide in Water by Ion Selective Electrode) ~ Category: Inorganic
4500-CN-G (Cyanides Amenable to Chlorination) ~ Category: Inorganic
4500-F- B (Fluoride in Water, Preliminary Distillation Step) ~ Category: Inorganic
4500-F- E (Fluoride by Complexone) ~ Category: Inorganic
4500-F-C (Ion-Selective Electrode Method) ~ Category: Inorganic
4500-F-D (Fluoride in Water by Spectroscopy) ~ Category: Inorganic
4500-H+B (pH in Water by Potentiometry) ~ Category: Inorganic
4500-KMnO ₄ (Potassium Permanganate in Water by Spectrophotometry) ~ Category: Inorganic

4500-N(Org) C (Organic Nitrogen/Semi-Micro-Kjeldahl) ~ Category: Inorganic
4500-NH3 B (Ammonia by Titration) ~ Category: Inorganic
4500-NH3 C (Ammonia by Titration) ~ Category: Inorganic
4500-NH3 D (Ammonia by Selective Electrode) ~ Category: Inorganic
4500-NH3 E (Ammonia by Selective Electrode Methods Using Known Addition) ~ Category: Inorganic
4500-NH3 G (Ammonia by Automated Phenate) ~ Category: Inorganic
4500-NH3 H (Ammonia by Flow Injection Analysis) ~ Category: Inorganic
4500-NO2- B (Nitrite by Colorimetry) ~ Category: Inorganic
4500-NO3 D (Nitrogen (Nitrate) in Water by Nitrate Electrode Method) ~ Category: Inorganic
4500-NO3- D (Nitrate Electrode Method) ~ Category: Inorganic
4500-NO3- E (Nitrate in Water After Cadmium Reduction) ~ Category: Inorganic
4500-NO3- F (Nitrate by Automated Cadmium Reduction Method) ~ Category: Inorganic
4500-NO3- H (Nitrate by Automated Hydrazine Reduction) ~ Category: Inorganic
4500-Norg C (Nitrogen, organic, in Water by Semi-Micro-Kjeldahl Method) ~ Category: Inorganic
4500-NorgB (Nitrogen, organic, in Water by Macro-Kjeldahl) ~ Category: Inorganic
4500-O3 B (Ozone by Indigo Colorimetric Method) ~ Category: Inorganic
4500-O C (Oxygen by Azide Modification) ~ Category: Inorganic
4500-O G (Oxygen by Membrane Electrode Method) ~ Category: Inorganic
4500-P B (Phosphorus, sample preparation method) ~ Category: Inorganic
4500-P E (Phosphorus by Ascorbic Acid) ~ Category: Inorganic
4500-P F (Phosphorus by Automated Ascorbic Acid Reduction) ~ Category: Inorganic
4500-S2- D (Sulfide by Methylene Blue) ~ Category: Inorganic
4500-S2- F (Sulfide by Iodometry) ~ Category: Inorganic
4500-S2- G (Sulfide by Ion-Selective Electrode) ~ Category: Inorganic
4500-S-2 E (Sulfide in Water Gas Dialysis, Automated Methylene Blue Method) ~ Category: Inorganic
4500-S-2 F (Sulfide in Water by Iodometric Method) ~ Category: Inorganic
4500-SiO2 C (Silica by Molybdosilicate Method) ~ Category: Inorganic
4500-SiO2 D (Silica by Heteropoly Blue Method) ~ Category: Inorganic
4500-SiO2 E (Silica, Automated Method for Molybdate-Reactive Silica) ~ Category: Inorganic
4500-SiO2 F (Silicate, Flow Injection Analysis for Molybdate-Reactive Silicate) ~ Category: Inorganic
4500-SO32- B (Sulfite by Iodometry) ~ Category: Inorganic
4500-SO42- C (Sulfate by Gravimetric Analysis with Ignition of Residue) ~ Category: Inorganic
4500-SO42- D (Sulfate in Water by Gravimetry with Drying of Residue) ~ Category: Inorganic
6010 C (Trace elements in solution by ICP AES) ~ Category: Inorganic
6020A (ICP-MS) ~ Category: Inorganic
7060A (Arsenic by GFAA) ~ Category: Inorganic
7131 A (Cadmium by GFAA) ~ Category: Inorganic
7199 (Chromium in Water by Ion Chromatography) ~ Category: Inorganic
7470A (Mercury by Manual Cold-Vapor Technique) ~ Category: Inorganic
7473 (Mercury in Solids and Solutions by Thermal Decomposition and AA) ~ Category: Inorganic
7580 (White Phosphorus in water, soil, and sediment by GC/NPD) ~ Category: Inorganic
7740 (Selenium by GFAA) ~ Category: Inorganic
8010 (Acidity of Water by Buret Titration) ~ Category: Inorganic
8012 (Aluminum in water by Aluminon Indicator) ~ Category: Inorganic
8048 (Orthophosphate by Colorimetry) ~ Category: Inorganic
8156 (pH in Water) ~ Category: Inorganic
8201 (Acidity of Water) ~ Category: Inorganic

8202 (Phenolphthalein (Total) Acidity of Water) ~ Category: Inorganic
8203 (Alkalinity of Water By Digital Titration) ~ Category: Inorganic
8219 (Acidity, Methyl Orange, of Water by Buret Titration) ~ Category: Inorganic
8221 (Alkalinity by Buret Titration) ~ Category: Inorganic
8226 (Total Hardness in Water) ~ Category: Inorganic
8229 (Dissolved Oxygen - Winkler Method) ~ Category: Inorganic
8288 (Acid/Base Milliequivalent Determination Using Sodium Hydroxide) ~ Category: Inorganic
8289 (Acid/Base Milliequivalent Determination Using Sulfuric Acid) ~ Category: Inorganic
9012A (Cyanides, Total and Amenable (CN- Amenable) by Colorimetry) ~ Category: Inorganic
9040 B (pH in Water by Electrometric Measurement) ~ Category: Inorganic
9056A (Anion Chromatography Method) ~ Category: Inorganic
28000-88 (Arsenic Test Strip) ~ Category: Inorganic
A00243 (Nitrate in water by colorimetric assay) ~ Category: Inorganic
ATP D05-0035 (E. coli and other Total Coliforms in Water using Modified Colitag Medium) ~ Category: Inorganic
B100-1018 (Malachite Green Water Test - column-based) ~ Category: Inorganic
D511 A (Calcium and Magnesium In Water by Complexometric Titration) ~ Category: Inorganic
D511 B (Calcium and Magnesium In Water by AAS) ~ Category: Inorganic
D512 A (Chloride Ion In Water by Mercurimetric Titration) ~ Category: Inorganic
D512 B (Chloride Ion In Water by Silver Nitrate Titration) ~ Category: Inorganic
D512 D (Chloride Ion In Water by Ion-Selective Electrode Method) ~ Category: Inorganic
D515 (Phosphorus in Water by manual single reagent) ~ Category: Inorganic
D516 (Sulfate in Water by Turbidity) ~ Category: Inorganic
D857 (Aluminum by FLAA) ~ Category: Inorganic
D858 A (Manganese in Water by Direct AA) ~ Category: Inorganic
D858 B (Manganese in Water by Chelation-Extraction /AA) ~ Category: Inorganic
D858 C (Manganese in Water by GF-AAS) ~ Category: Inorganic
D859 (Silica in Water by) ~ Category: Inorganic
D888 A (Dissolved Oxygen in Water by Titrimetric Procedure-High Level) ~ Category: Inorganic
D888 B (Dissolved Oxygen in Water by Instrumental Probe Procedure) ~ Category: Inorganic
D1067 (Acidity or Alkalinity of water by electrometric titration) ~ Category: Inorganic
D1068 B (Iron in Water by GF-AAS) ~ Category: Inorganic
D1068A (Iron by Atomic Absorption, Direct) ~ Category: Inorganic
D1068C (Iron by Atomic Absorption, Graphite Furnace) ~ Category: Inorganic
D1068D (Iron by Photometric Bathophenanthroline) ~ Category: Inorganic
D1126 (Hardness in Water) ~ Category: Inorganic
D1179 A (Fluoride Ion in Water by Distillation) ~ Category: Inorganic
D1179 B (Fluoride Ion in Water by Ion Selective Electrode) ~ Category: Inorganic
D1246 C (Bromide Ion in Water by Ion Selective Electrode) ~ Category: Inorganic
D1252 A (COD, Macro, by Reflux Digestion and Titration (Test Method A)) ~ Category: Inorganic
D1252B (COD, Micro, by Sealed Digestion and Spectrometry (Test Method B)) ~ Category: Inorganic
D1253 (Residual Chlorine in Water by Direct Amperometric Titration) ~ Category: Inorganic
D1293 B (pH: Method A: Routine or Continuous Measurement of pH) ~ Category: Inorganic
D1426 A (Ammonia Nitrogen In Water by Direct Nesslerization) ~ Category: Inorganic
D1426 B (Ammonia Nitrogen In Water by Select Ion Electrode) ~ Category: Inorganic
D1687 A (Chromium in Water by Photometric Diphenyl- carbohydrazide) ~ Category: Inorganic
D1687 B (Chromium in Water by Direct Atomic Absorption) ~ Category: Inorganic
D1687 C (Chromium in Water by GF-AAS) ~ Category: Inorganic

D1688 A (Copper in Water by Direct Atomic Absorption) ~ Category: Inorganic
D1688 B (Copper in Water by Chelation-Extraction/Atomic Absorption) ~ Category: Inorganic
D1688 C (Copper in Water by GF-AAS) ~ Category: Inorganic
D1691 A (Zinc in Water by Direct Atomic Absorption) ~ Category: Inorganic
D1691 B (Zinc in Water by Chelation-Extraction/AA) ~ Category: Inorganic
D1886 A (Nickel in Water by Direct AA) ~ Category: Inorganic
D1886 B (Nickel in Water by Chelation-Extraction AA) ~ Category: Inorganic
D1886 C (Nickel in Water by GF-AAS) ~ Category: Inorganic
D1976 (Elements in Water by ICP-AES) ~ Category: Inorganic
D2036 B (Cyanides Amenable to Chlorination) ~ Category: Inorganic
D2036A (Cyanides, Total, after Distillation (Test Method A)) ~ Category: Inorganic
D2330 (Methylene Blue Active Substances in Water by) ~ Category: Inorganic
D2579 (Total Organic Carbon in Water by TOC analyzer) ~ Category: Inorganic
D2972 (Total Arsenic in Water by AA gaseous hydride) ~ Category: Inorganic
D3223 (Total Mercury in Water by CV-AAS) ~ Category: Inorganic
D3373 (Vanadium in Water by GF-AAS) ~ Category: Inorganic
D3557 B (Cadmium in Water by AA, Chelation-Extraction) ~ Category: Inorganic
D3557 C (Cadmium in Water by Differential Pulse/Anodic Stripping Voltammetry) ~ Category: Inorganic
D3557 D (Cadmium in Water by GF-AAS) ~ Category: Inorganic
D3557A (Cadmium, Method A: Atomic Absorption, Direct) ~ Category: Inorganic
D3558 A (Cobalt in Water by Direct AA) ~ Category: Inorganic
D3558 B (Cobalt in Water by Chelation-Extraction/AA) ~ Category: Inorganic
D3558 C (Cobalt in Water by GF-AAS) ~ Category: Inorganic
D3559 A (Lead in Water by Direct AA) ~ Category: Inorganic
D3559 B (Lead in Water by Chelation-Extraction/AA) ~ Category: Inorganic
D3559 C (Lead in Water by Differential Pulse Anodic Stripping Voltammetry) ~ Category: Inorganic
D3559 D (Lead in Water by GF-AAS) ~ Category: Inorganic
D3590 A (Total Kjeldahl Nitrogen in Water by Manual Digestion/Distillation) ~ Category: Inorganic
D3590 B (Total Kjeldahl Nitrogen in Water by Semiautomated Colorimetric Bertholt) ~ Category: Inorganic
D3645 (Beryllium in Water by AAS) ~ Category: Inorganic
D3859 A (Selenium in Water by Gaseous Hydride AAS) ~ Category: Inorganic
D3859 B (Selenium in Water by GF-AAS) ~ Category: Inorganic
D3867 (Nitrate-Nitrite in Water by Automated Cadmium Reduction) ~ Category: Inorganic
D3867 B (Nitrite-Nitrate in Water by Manual Cadmium Reduction) ~ Category: Inorganic
D4190 (Elements in Water by Direct-Current Argon Plasma Atomic Emission Spectroscopy) ~ Category: Inorganic
D4327 (Anions in Water by Ion Chromatography) ~ Category: Inorganic
D4382 (Barium in Water by GF-AAS) ~ Category: Inorganic
D4458 (Chloride in Water) ~ Category: Inorganic
D4658 (Sulfide in Water) ~ Category: Inorganic
D5257 (Chromium, Hexavalent, in Water by Ion Chromatography) ~ Category: Inorganic
D5543A (Color Comparator Test Method Using Self-Filling Glass Ampoules (Test Method A)) ~ Category:
D5543B (Instrument Test Method Using Self-Filling Glass Ampoules (Test Method B)) ~ Category: Inorganic
D5544 (Residue in Water) ~ Category: Inorganic
D5673 (Elements in Water by ICP-MS) ~ Category: Inorganic
D5996 (Anionic Contaminants in High-Purity Water by On-Line Ion Chromatography) ~ Category: Inorganic
D6071 (Sodium by GFAA) ~ Category: Inorganic
D6238 (Oxygen Demand in Water) ~ Category: Inorganic

D6501 (Phosphonates in Brines) ~ Category: Inorganic
D6502 (Particulate and Dissolved Matter by XRF) ~ Category: Inorganic
D6508 (Anions in Water by CIE-UV) ~ Category: Inorganic
D6581 (Oxyhalides in Water) ~ Category: Inorganic
D6888 (Available Cyanide in water with Ligand Displacement and FIA Utilizing Gas Diffusion Separation and Amperometric Detection) ~ Category: Inorganic
D6919 (Dissolved Alkali and Alkaline Earth Cations and Ammonium in Water and Wastewater by IC) ~ Category:
I-1020 (Acidity, water, titrimetric) ~ Category: Inorganic
I-1030-85 (Alkalinity in water by electrometric titration) ~ Category: Inorganic
I-1054 (Aluminum, dissolved, water, DCP) ~ Category: Inorganic
I-1055 (Antimony, dissolved, water, hydride_AA) ~ Category: Inorganic
I-1084 (Barium, dissolved, water, FLAA) ~ Category: Inorganic
I-1095 (Beryllium, dissolved, water, FLAA) ~ Category: Inorganic
I-1114 (Boron, dissolved, water, DCP) ~ Category: Inorganic
I-1125-85 (Bromide, dissolved, in water by titrimetric, hypochlorite oxidation) ~ Category: Inorganic
I-1135 (Cadmium, dissolved, water, FLAA) ~ Category: Inorganic
I-1137 (Cadmium dissolved in Water by GFAA) ~ Category: Inorganic
I-1152 (Calcium, dissolved, water, FLAA) ~ Category: Inorganic
I-1183-85 (Chloride, dissolved, in water by titrimetric, Mohr method) ~ Category: Inorganic
I-1184-85 (Chloride, dissolved, in water by titrimetric, mercurimetric) ~ Category: Inorganic
I-1187-85 (Chloride, dissolved, in water by colorimetric, ferric thiocyanate) ~ Category: Inorganic
I-1190-02 (Arsenic, dissolved, field speciation, solid-phase extraction, ICP-MS) ~ Category: Inorganic
I-1229-87 (Chromium, dissolved, in water by atomic emission) ~ Category: Inorganic
I-1230-85 (Chromium, hexavalent, dissolved, in water by colorimetric, diphenylcarbazide) ~ Category: Inorganic
I-1232 (Chromium, hexavalent, dissolved, water, FLAA) ~ Category: Inorganic
I-1233 (Chromium, dissolved, water, GFAA) ~ Category: Inorganic
I-1235 (Chromium, dissolved, water, GFAA) ~ Category: Inorganic
I-1239 (Cobalt, dissolved, water, FLAA) ~ Category: Inorganic
I-1241 (Cobalt, dissolved, water, GFAA) ~ Category: Inorganic
I-1250 (Color, water, VIS_COMP) ~ Category: Inorganic
I-1270 (Copper, dissolved in water by FLAA) ~ Category: Inorganic
I-1272 (Copper, dissolved in water by GFAA) ~ Category: Inorganic
I-1300-85 (Cyanide, Colorimetric, Pyridine-Pyrazolone, Dissolved) ~ Category: Inorganic
I-1312 (Density, dissolved, water by gravimetry) ~ Category: Inorganic
I-1338 (Hardness in water by colorimetric titration) ~ Category: Inorganic
I-1381 (Iron, dissolved in water by FLAA) ~ Category: Inorganic
I-1399 (Lead, dissolved, FLAA) ~ Category: Inorganic
I-1401 (Lead, dissolved in water by GFAA) ~ Category: Inorganic
I-1425 (Lithium, dissolved, FLAA) ~ Category: Inorganic
I-1447 (Magnesium, dissolved, FLAA) ~ Category: Inorganic
I-1454 (Manganese, dissolved, FLAA) ~ Category: Inorganic
I-1455 (Manganese, dissolved, GFAA) ~ Category: Inorganic
I-1456 (Manganese, dissolved, chelation extraction, FLAA) ~ Category: Inorganic
I-1462 (Mercury, dissolved, CVFAA) ~ Category: Inorganic
I-1472-85 (Metals, dissolved, water, ICP-AES (Archive method)) ~ Category: Inorganic
I-1472-87 (Metals in Water by ICP) ~ Category: Inorganic
I-1472-95 (Aluminum and Boron, dissolved, in water by ICP-AES) ~ Category: Inorganic

I-1492-96 (Molybdenum in Water by Graphite Furnace Atomic Absorption Spectrophotometry, Filtered) ~
I-1499 (Nickel, dissolved, direct FLAA) ~ Category: Inorganic
I-1501 (Nickel, dissolved, low ionic-strength, GFAA) ~ Category: Inorganic
I-1575-78 (Oxygen, dissolved, in water by Winkler titrimetric methods) ~ Category: Inorganic
I-1576-78 (Oxygen, dissolved, in water by electrometric, polarographic probe) ~ Category: Inorganic
I-1578-78 (Oxygen demand, biochemical, in water by 5-day titrimetric methods at 20oC) ~ Category: Inorganic
I-1586 (pH in Water by Electrometry Using a Glass-Electrode) ~ Category: Inorganic
I-1586-85 (pH of Water Samples by Ion Selective Electrode) ~ Category: Inorganic
I-1601-85 (Phosphorus, orthophosphate, dissolved in water by colorimetry, phosphomolybdate) ~ Category:
I-1630-85 (Potassium, dissolved, in Water by Atomic Absorption Spectrometry) ~ Category: Inorganic
I-1700-85 (Silica, dissolved, in water by colorimetric, molybdate blue) ~ Category: Inorganic
I-1735 (Sodium, dissolved, atomic absorption spectrometric) ~ Category: Inorganic
I-1749 (Solids, residue at 105 degrees C, dissolved, gravimetric) ~ Category: Inorganic
I-1750-85 (Solids, dissolved, residue on evaporation at 180 degrees C, gravimetric) ~ Category: Inorganic
I-1753 (Solids, dissolved, volatile-on-ignition, gravimetric) ~ Category: Inorganic
I-1780-85 (Specific Conductance of Water, Manual) ~ Category: Inorganic
I-1800 (Strontium, dissolved, atomic absorption spectrometric) ~ Category: Inorganic
I-1866 (Thallium, dissolved, graphite furnace) ~ Category: Inorganic
I-1900 (Zinc, dissolved, atomic absorption spectrometric) ~ Category: Inorganic
I-1901 (Zinc, dissolved, graphite furnace) ~ Category: Inorganic
I-2020-05 (Elements (filtered) in water by cICP-MS) ~ Category: Inorganic
I-2030-85 (Alkalinity of water samples) ~ Category: Inorganic
I-2030-89 (Alkalinity of water samples) ~ Category: Inorganic
I-2057 (Anions, dissolved, water, IONCHR) ~ Category: Inorganic
I-2058 (Anions, dissolved, water, IONCHR) ~ Category: Inorganic
I-2062 (Arsenic, dissolved, water, hydride_AA.) ~ Category: Inorganic
I-2063-98 (Arsenic in water by graphite furnace-atomic absorption spectrometry, dissolved) ~ Category:
I-2129-85 (Bromide in Water by Colorimetry) ~ Category: Inorganic
I-2138-89 (Cadmium in Water by GFAA, Dissolved) ~ Category: Inorganic
I-2187-85 (Chloride, dissolved, in water by colorimetric, ferric thiocyanate, automated-segmented flow) ~ Category: Inorganic
I-2191-02 (Laboratory arsenic speciation, phosphate mobile phase, arsine generation, ICP-MS detection, dissolved) ~ Category: Inorganic
I-2192-02 (Laboratory arsenic speciation, malonate/acetate mobile phase, ICP-MS detection, dissolved) ~
I-2193-02 (Laboratory arsenic speciation, nitric acid mobile phase, ICP-MS detection, dissolved) ~ Category:
I-2243 (Cobalt, dissolved, water, GFAA) ~ Category: Inorganic
I-2274 (Copper, dissolved in water by GFAA) ~ Category: Inorganic
I-2302 (Cyanide, whole water recoverable; colorimetric) ~ Category: Inorganic
I-2327-85 (Fluoride Ion in Water by Ion-Selective Electrode, Dissolved) ~ Category: Inorganic
I-2371 (Iodide, dissolved in water by colorimetry) ~ Category: Inorganic
I-2403 (Lead, dissolved in water by GFAA) ~ Category: Inorganic
I-2462 (Mercury, dissolved, CVFAA) ~ Category: Inorganic
I-2464-01 (Organic plus Inorganic Mercury in Filtered Natural Water by Cold-Vapor AFS) ~ Category: Inorganic
I-2477-92 (Determination of metals in Water by ICP-MS) ~ Category: Inorganic
I-2503 (Nickel, dissolved, GFAA) ~ Category: Inorganic
I-2515-91 (Ammonium plus organic nitrogen, dissolved) ~ Category: Inorganic
I-2522-90 (Ammonia in Water by Colorimetry) ~ Category: Inorganic

I-2525 (Nitrogen, ammonia, dissolved, low ionic-strength, colorimetric, ASF) ~ Category: Inorganic
I-2540-90 (Nitrite in Water by Colorimetry) ~ Category: Inorganic
I-2542 (Nitrogen, nitrite, dissolved, colorimetric, ASF, low ionic-strength) ~ Category: Inorganic
I-2545 (Nitrogen, nitrite plus nitrate, dissolved, colorimetric, ASF) ~ Category: Inorganic
I-2546-91 (Nitrate and Nitrite in Low Ionic-Strength Water by Colorimetry) ~ Category: Inorganic
I-2547-11 (Nitrate Plus Nitrite in Water by Enzymatic Reduction, Standard Level, Auto Analyzer) ~ Category:
I-2548-11 (Nitrate Plus Nitrite in Water by Enzymatic Reduction, Low Level, Auto Analyzer) ~ Category: Inorganic
I-2587-85 (pH of Water Samples, Automated) ~ Category: Inorganic
I-2598-85 (Phosphorus, orthophosphate in water by automated discrete colorimetry, phosphomolybdate) ~ Category: Inorganic
I-2601-90 (Phosphorus, Orthophosphate in Water by Colorimetry) ~ Category: Inorganic
I-2602 (Phosphorus, orthophosphate plus hydrolyzable, dissolved, colorimetric, ASF) ~ Category: Inorganic
I-2606 (Phosphorus, orthophosphate plus hydrolyzable, dissolved, colorimetric, ASF) ~ Category: Inorganic
I-2607 (Phosphorus, dissolved, low ionic-strength, colorimetric, ASF) ~ Category: Inorganic
I-2610-91 (Phosphorus in Water by Kjeldahl Digestion and Colorimetric Finish, Filtered) ~ Category: Inorganic
I-2650-03 (Nitrogen and Phosphorus, Dissolved, in water by Alkaline Persulfate Digestion) ~ Category: Inorganic
I-2667-85 (Selenium in water by atomic absorption, hydride, dissolved) ~ Category: Inorganic
I-2668-98 (Selenium in water by graphite furnace-atomic absorption spectrometry, dissolved) ~ Category:
I-2700-85 (Silica, Colorimetric, Dissolved) ~ Category: Inorganic
I-2724 (Silver, dissolved, GFAA) ~ Category: Inorganic
I-2725 (Silver, atomic absorption spectrophotometry, graphite furnace, LIS) ~ Category: Inorganic
I-2725-93 (HGA) (Silver in Water by Atomic Absorption Spectrophotometry, Graphite Furnace, Low Ionic Strength) ~ Category: Inorganic
I-2725-93 (THGA) (Silver in Water by Atomic Absorption Spectrophotometry, Graphite Furnace, Low Ionic Strength) ~ Category: Inorganic
I-2781-85 (Specific Conductance of Water, Automated) ~ Category: Inorganic
I-2880 (Vanadium, dissolved, colorimetry) ~ Category: Inorganic
I-3051-85 (Aluminum in water by atomic absorption spectrometric, direct aspiration) ~ Category: Inorganic
I-3054 (Aluminum, total recoverable, water, DCP) ~ Category: Inorganic
I-3055 (Antimony, total, water, hydride_AA) ~ Category: Inorganic
I-3060-85 (Arsenic, total, in water by colorimetric, silver diethyldithiocarbamate) ~ Category: Inorganic
I-3062-85 (Arsenic, total, in water by atomic absorption spectrometric, hydride) ~ Category: Inorganic
I-3084 (Barium, total-recoverable, water, FLAA) ~ Category: Inorganic
I-3095 (Beryllium, total-recoverable, water, FLAA) ~ Category: Inorganic
I-3112-85 (Boron in water by colorimetric, curcumin) ~ Category: Inorganic
I-3135 (Cadmium, total-recoverable, water, FLAA) ~ Category: Inorganic
I-3136-85 (Cadmium in water by AAS, chelation-extraction) ~ Category: Inorganic
I-3152 (Calcium, total-recoverable, water, FLAA) ~ Category: Inorganic
I-3153 (Calcium, total-recoverable, water, FLAA) ~ Category: Inorganic
I-3229-87 (Chromium in Water by Atomic Emission, Whole Water Recoverable) ~ Category: Inorganic
I-3233 (Chromium, whole-water-recoverable, water, GFAA) ~ Category: Inorganic
I-3236-85 (Chromium, total recoverable, in water by atomic absorption spectrometric, direct aspiration) ~ Category: Inorganic
I-3239 (Cobalt, total-recoverable, water, FLAA) ~ Category: Inorganic
I-3270 (Copper, whole water recoverable by FLAA) ~ Category: Inorganic
I-3271-85 (Copper, total recoverable, in water by atomic absorption spectrometric, chelation-extraction) ~ Category: Inorganic

I-3300 (Cyanide in Water by Colorimetry) ~ Category: Inorganic
I-3300-85 (Cyanide, Colorimetric, Pyridine-Pyrazolone, Total) ~ Category: Inorganic
I-3381 (Iron, water, whole water recoverable; FLAA) ~ Category: Inorganic
I-3399 (Lead, total recoverable, FLAA) ~ Category: Inorganic
I-3425 (Lithium, total recoverable, FLAA) ~ Category: Inorganic
I-3447 (Magnesium, total recoverable, FLAA) ~ Category: Inorganic
I-3448 (Magnesium, total recoverable, FLAA) ~ Category: Inorganic
I-3454 (Manganese, total recoverable, FLAA) ~ Category: Inorganic
I-3462 (Mercury, total recoverable, CVFAA) ~ Category: Inorganic
I-3486-95 (Extraction Procedure for Metals in Water by In-Bottle Acid Digestion) ~ Category: Inorganic
I-3487-98 (Comparison of In-Bottle and Other Whole-Water Digestion Procedures) ~ Category: Inorganic
I-3490-85 (Molybdenum , total recoverable, in water by atomic absorption spectrometric, chelation-extraction) ~ Category: Inorganic
I-3492-96 (Molybdenum in Water by Graphite Furnace Atomic Absorption Spectrophotometry, unfiltered) ~ Category: Inorganic
I-3499 (Nickel, total recoverable FLAA) ~ Category: Inorganic
I-3520-85 (Nitrogen, ammonia in water by colorimetric, distillation-nesslerization) ~ Category: Inorganic
I-3560-85 (Chemical oxygen demand (COD), total, in water by titrimetric, dichromate oxidation) ~ Category:
I-3630-85 (Potassium in Water by Atomic Absorption Spectrometry, Total Recoverable) ~ Category: Inorganic
I-3631 (Potassium, total recoverable, FLAA) ~ Category: Inorganic
I-3667-85 (Selenium, total, in water by atomic absorption spectrometric, hydride) ~ Category: Inorganic
I-3720-85 (Silver in water by AAS, chelation-extraction) ~ Category: Inorganic
I-3735 (Sodium, total recoverable, atomic absorption spectrometric) ~ Category: Inorganic
I-3736 (Sodium, total recoverable, atomic absorption spectrometric) ~ Category: Inorganic
I-3750 (Solids, residue on evaporation at 105 degrees C, total, gravimetric) ~ Category: Inorganic
I-3753 (Solids, volatile-on-ignition, total, gravimetric) ~ Category: Inorganic
I-3765 (Solids, residue at 105 degrees C, suspended, gravimetric) ~ Category: Inorganic
I-3767 (Solids, volatile-on-ignition, suspended, gravimetric) ~ Category: Inorganic
I-3800 (Strontium, total recoverable, atomic absorption spectrometric) ~ Category: Inorganic
I-3840 (Sulfide, total, iodometric) ~ Category: Inorganic
I-3850-78 (Tin, total recoverable, in water by direct atomic absorption spectrometric) ~ Category: Inorganic
I-3860 (Turbidity, nephelometric) ~ Category: Inorganic
I-3900 (Zinc, total recoverable, atomic absorption spectrometric) ~ Category: Inorganic
I-4020-05 (Elements (unfiltered) in water by cICP-MS) ~ Category: Inorganic
I-4062 (Arsenic, total, water, hydride_AA) ~ Category: Inorganic
I-4063-98 (Arsenic in water by graphite furnace-atomic absorption spectrometry, whole-water recoverable) ~ Category: Inorganic
I-4138-89 (Cadmium in Water by GFAA, Whole Water Recoverable) ~ Category: Inorganic
I-4243 (Cobalt, whole-water-recoverable, water, GFAA) ~ Category: Inorganic
I-4274 (Copper, whole water recoverable by GFAA) ~ Category: Inorganic
I-4302 (Cyanide, whole water recoverable; colorimetric) ~ Category: Inorganic
I-4327-85 (Fluoride Ion in Water by Ion-Selective Electrode, Total) ~ Category: Inorganic
I-4403 (Lead, whole water recoverable, GFAA) ~ Category: Inorganic
I-4471-97 (Metals in Water by Inductively Coupled Plasma/Optical Emission Spectrometry, Whole-Water Recoverable) ~ Category: Inorganic
I-4472-97 (Metals in Water by Inductively Coupled Plasma/Mass Spectrometer, Whole-Water Recoverable) ~ Category: Inorganic

I-4503 (Nickel, whole water recoverable, GFAA) ~ Category: Inorganic
I-4515-91 (Ammonium plus organic nitrogen, total) ~ Category: Inorganic
I-4523-85 (Nitrogen, ammonia, total, in water by colorimetric, indophenol, automated-segmented flow) ~ Category: Inorganic
I-4540-85 (Nitrogen, nitrite, total, in water by colorimetric, diazotization, automated-segmented flow) ~
I-4545-85 (Nitrogen, nitrite plus nitrate, total, in water by colorimetric, cadmium reduction-diazotization, automated-segmented flow) ~ Category: Inorganic
I-4551-78 (Nitrogen, ammonia plus organic, total, in water by automated, colorimetric, digestion-distillation-indophenol) ~ Category: Inorganic
I-4600-85 (Phosphorus, total, in water by colorimetric, phosphomolybdate, automated-segmented flow) ~ Category: Inorganic
I-4601-85 (Phosphorus, orthophosphate, total, in water by colorimetric, phosphomolybdate, automated-segmented flow) ~ Category: Inorganic
I-4602 (Phosphorus, orthophosphate plus hydrolyzable, total, colorimetric, ASF) ~ Category: Inorganic
I-4607 (Phosphorus, total, colorimetric, ASF) ~ Category: Inorganic
I-4610-91 (Phosphorus in Water by Kjeldahl Digestion and Colorimetric Finish, Unfiltered) ~ Category: Inorganic
I-4650-03 (Nitrogen and Phosphorus, Total, in whole-water by Alkaline Persulfate Digestion) ~ Category:
I-4667-85 (Selenium in water by atomic absorption, hydride, total) ~ Category: Inorganic
I-4668-98 (Selenium in water by graphite furnace-atomic absorption spectrometry, whole-water recoverable) ~ Category: Inorganic
I-4724 (Silver, whole water recoverable, GFAA) ~ Category: Inorganic
I-5020-05 (Elements in sediment or soil (recoverable) by cICP-MS) ~ Category: Inorganic
I-5055 (Antimony, total in bottom material, various, hydride_AA) ~ Category: Inorganic
I-5084 (Barium, recoverable-from-bottom-material, dry wt) ~ Category: Inorganic
I-5095 (Beryllium, recoverable- from -bottom-material, various, FLAA) ~ Category: Inorganic
I-5135 (Cadmium, recoverable-from-bottom-material, various, FLAA) ~ Category: Inorganic
I-5152 (Calcium, recoverable-from-bottom-material, various, FLAA) ~ Category: Inorganic
I-5239 (Cobalt, recoverable-from-bottom-material, various, FLAA) ~ Category: Inorganic
I-5270 (Copper, recoverable-from-bottom-material, dry wt, FLAA) ~ Category: Inorganic
I-5300-85 (Cyanide, Colorimetric, Pyridine-Pyrazolone, Bottom material) ~ Category: Inorganic
I-5381 (Iron, recoverable-from-bottom-material, dry wt, FLAA) ~ Category: Inorganic
I-5399 (Lead, recoverable-from-bottom-material, FLAA) ~ Category: Inorganic
I-5425 (Lithium, recoverable-from-bottom-material, dry wt, FLAA) ~ Category: Inorganic
I-5447 (Magnesium, recoverable-from-bottom-material, dry wt, FLAA) ~ Category: Inorganic
I-5454 (Manganese, recoverable-from-bottom-material, dry wt, FLAA) ~ Category: Inorganic
I-5462 (Mercury, recoverable-from-bottom-material, CVFAA) ~ Category: Inorganic
I-5499 (Nickel, recoverable-from-bottom-material, dry wt, FLAA) ~ Category: Inorganic
I-5553 (Nitrogen, ammonia plus organic, total-in-bottom-material, dry wt, titration) ~ Category: Inorganic
I-5735 (Sodium, recoverable-from-bottom-material, dry wt, atomic absorption spectrometric) ~ Category:
I-5753 (Solids, volatile-on-ignition, total-in-bottom-material, dry wt, gravimetric) ~ Category: Inorganic
I-5800 (Strontium, recoverable-from-bottom-material, dry wt, atomic absorption spectrometric) ~ Category:
I-5830-85 (Potassium in Bottom Materials by Atomic Absorption Spectrometry, Total Recoverable, Bottom Material) ~ Category: Inorganic
I-5900 (Zinc, recoverable-from-bottom-material, dry wt, atomic absorption spectrometric) ~ Category: Inorganic
I-6062 (Arsenic, total in bottom material, various, hydride_AA) ~ Category: Inorganic
I-6063-98 (Arsenic, total-recoverable in bed-sediment, dry weight, by graphite furnace-atomic absorption spectrometry) ~ Category: Inorganic

I-6302 (Cyanide, recoverable-from-bottom-material, dry wt, colorimetric) ~ Category: Inorganic
I-6463-86 (Mercury, Total-in-Sediment, Atomic Absorption, Spectrophotometry, Flameless, Direct) ~ Category:
I-6522-90 (Ammonia in Sediment by Colorimetry) ~ Category: Inorganic
I-6545 (Nitrogen, nitrite plus nitrate, total-in-bottom-material, dry weight, colorimetric, ASF) ~ Category:
I-6600-88 (Phosphorus, Total-in-Bottom Material, by Colorimetry) ~ Category: Inorganic
I-6667-85 (Selenium in bottom materials by atomic absorption spectrometric, hydride, bottom materials) ~ Category: Inorganic
I-6668-98 (Selenium, total-recoverable in bed-sediment, dry weight, by graphite furnace-atomic absorption spectrometry) ~ Category: Inorganic
I-7054 (Aluminum, suspended recoverable, water, DCP) ~ Category: Inorganic
I-7055 (Antimony, suspended total, water, hydride_AA) ~ Category: Inorganic
I-7062 (Arsenic, suspended-total, water, hydride_AA) ~ Category: Inorganic
I-7084 (Barium, suspended-recoverable, water, FLAA) ~ Category: Inorganic
I-7095 (Beryllium, suspended-recoverable, water, FLAA) ~ Category: Inorganic
I-7135 (Cadmium, suspended-recoverable, water, FLAA) ~ Category: Inorganic
I-7152 (Calcium, suspended-recoverable, water, FLAA) ~ Category: Inorganic
I-7229-87 (Chromium in Suspend Sediment by Atomic Emission (Calculation)) ~ Category: Inorganic
I-7239 (Cobalt, suspended-recoverable, water, FLAA) ~ Category: Inorganic
I-7270 (Copper, suspended recoverable from water; by FLAA.) ~ Category: Inorganic
I-7327-85 (Fluoride Ion in Sediment by Ion-Selective Electrode, Suspended Total (Calculation)) ~ Category:
I-7381 (Iron, water, suspended recoverable by FLAA) ~ Category: Inorganic
I-7399 (Lead, suspended recoverable, FLAA) ~ Category: Inorganic
I-7425 (Lithium, suspended recoverable, FLAA) ~ Category: Inorganic
I-7447 (Magnesium, suspended recoverable, FLAA) ~ Category: Inorganic
I-7454 (Manganese, suspended recoverable, FLAA) ~ Category: Inorganic
I-7462 (Mercury, suspended recoverable, CVFAA) ~ Category: Inorganic
I-7499 (Nickel, suspended recoverable, calculation from FLAA) ~ Category: Inorganic
I-7667-85 (Selenium in Water by Atomic Absorption, Hydride, Suspended, Total (Calculation)) ~ Category:
I-7800 (Strontium, suspended recoverable, atomic absorption spectrometric) ~ Category: Inorganic
I-7900 (Zinc, suspended recoverable, atomic absorption spectrometric) ~ Category: Inorganic
I-9020-05 (Elements in biota by cICP-MS) ~ Category: Inorganic
IO-3.3 (Metals in Ambient Particulate Matter Using X-Ray Fluorescence (XRF) Spectroscopy) ~ Category:
ME355.01 (Cyanide in Drinking Water by GC/MS) ~ Category: Inorganic
MS310 (Nitrate in Water by Colorimetric Test) ~ Category: Inorganic
MU012R (Cyanide by Microdistillation and Argento) ~ Category: Inorganic
NFM 6.2.1-Amp (Dissolved-oxygen concentration, field measurement by amperometric method) ~ Category:
NFM 6.2.1-Lum (Dissolved-oxygen concentration, field measurement by luminescent sensor) ~ Category:
NFM 6.2.2-Spec (Dissolved-oxygen concentrations, field measurement by spectrophotometry) ~ Category:
NFM 6.2.3-Iodo (Dissolved-oxygen concentrations in water by iodometric (Winkler) method) ~ Category:
NFM 6.4.3.A-SW (pH (hydronium-ion activity) of surface water, in-situ electrometric method) ~ Category:
NFM 6.4.3.B-GW (pH (hydronium-ion activity) of ground water, in-situ electrometric method) ~ Category:
NFM 6.4.3.C (pH (hydronium-ion activity) of environmental water subsamples, on-site electrometric method) ~ Category: Inorganic
NFM 6.5 (Reduction-oxidation potential, electrometric field measurement by platinum electrode) ~ Category:
NFM 6.6.4.B (Alkalinity and ANC field determination by Inflection Point Titration) ~ Category: Inorganic
NFM 6.6.4.C (Alkalinity and ANC field determination by Gran Function Plot) ~ Category: Inorganic
Nitrate via V(III) reduction (Nitrate via manual vanadium(III) reduction) ~ Category: Inorganic

NO3 EasyChem (Nitrate in Water by Colorimetry) ~ Category: Inorganic
OAQPS-12 (Lead in Air Emissions by Flame Atomic Absorption) ~ Category: Inorganic
OAQPS-26 (Hydrogen Halides in Air Emissions by Ion Chromatography) ~ Category: Inorganic
OAQPS-101 (Mercury in Air Emissions by Atomic Absorption) ~ Category: Inorganic
OFR_01-445 (Methyl Mercury in Water) ~ Category: Inorganic
OIA-1677 (Cyanide by Amperometry) ~ Category: Inorganic
Palintest ChloroSense (Chlorine, free and total, in drinking water by Amperometry) ~ Category: Inorganic
SIR-2005-5077 (Susp Sed Coll) (Introduction to Suspended-Sediment Sampling) ~ Category: Inorganic
TM1-D3 Field Meter Calibration (Use and Calibration of Field Meters) ~ Category: Inorganic
TM1-D3 Monitor Operation (Operation and Maintenance Procedures for Continuous Water-Quality Monitors) ~ Category: Inorganic
TM1-D3 Monitor Selection (Monitor selection, configurations and sensors) ~ Category: Inorganic
TM1-D3 Site Selection (Site Selection for Continuous Water-Quality Monitors) ~ Category: Inorganic
TWRI BK 5 CH1 (Susp Sed Conc) (Suspended-sediment concentration in water by filtration or evaporation) ~ Category: Inorganic
TWRI BK 5 CH1 (Susp Sed Fine) (Suspended sediment particle size distribution in water by pipet and BW tube) ~ Category: Inorganic
TWRI BK 5 CH1 (Susp Sed Sand) (Suspended sediment particle size distribution in water by sieve and VA tube analysis) ~ Category: Inorganic
130 (Capillary gas chromatography analysis for organic contaminants in marine sediments.) ~ Category: Organic
130.01 (Organic contaminants in marine animal tissues by GC-FPD) ~ Category: Organic
130.11 (Organic contaminants in marine animal tissues by GC-ECD) ~ Category: Organic
130.21 (Dioxins and Furans in marine bivalve tissues by GC-MS) ~ Category: Organic
130.3 (Organic contaminants in marine sediments by GC-MS) ~ Category: Organic
130.31 (Organic contaminants in marine animal tissues by GC-MS) ~ Category: Organic
405.1 (Biochemical Oxygen Demand) ~ Category: Organic
410.1 (Chemical Oxygen Demand by Titrimetry) ~ Category: Organic
410.2 (Chemical Oxygen Demand by Titrimetry) ~ Category: Organic
410.3 (Chemical Oxygen Demand in Saline Waters by Titrimetry) ~ Category: Organic
415.1 (Total Organic Carbon) ~ Category: Organic
415.3 (Dissolved and Total Organic Carbon and UV Absorbance at 254 nm in Source Water and Drinking Water) ~ Category: Organic
420.1 (Phenols by Spectrophotometry) ~ Category: Organic
420.2 (Phenolics by Automated Colorimetry) ~ Category: Organic
425.1 (Surfactants by Colorimetry) ~ Category: Organic
502.2 (by ELCD) (VOCs in Water by GC/PID/ELCD) ~ Category: Organic
502.2 (by PID) (VOCs in Water by GC/PID/ELCD) ~ Category: Organic
504.1 (EDB,DCBP, and 123TCP in Water Using GCECD) ~ Category: Organic
505 (Pesticides and PCBs in Water GC-ECD) ~ Category: Organic
506 (Phthalate and Adipate Esters in Water by GCPID) ~ Category: Organic
507 (Pesticides in Water Using GCNPD) ~ Category: Organic
508 (Chlorinated Pesticides in Water Using GCECD) ~ Category: Organic
508A (PCBs by GCECD) ~ Category: Organic
508.1 (Chlorinated Pesticides, Herbicides, and Organohalides in Water by GCECD) ~ Category: Organic
509 (Ethylene thiourea in water using GC with a N-P detector) ~ Category: Organic
515.1 (Chlorinated Acids in Water by GC/ECD) ~ Category: Organic
515.2 (Chlorinated Acids in Water by GCECD) ~ Category: Organic

515.3 (Chlorinated Acids by GC/ECD) ~ Category: Organic
515.4 (Chlorinated Acids by GCECD) ~ Category: Organic
521 (Nitrosamines in water by SPE and GC/MS/MS) ~ Category: Organic
522 (1,4-Dioxane in water by SPE and GC/MS with SIM) ~ Category: Organic
524.2 (VOCs in Water Using GCMS) ~ Category: Organic
524.3 (Purgeable Organic Compounds in Water by GCMS) ~ Category: Organic
525.2 (Organics in Water Using GCMS) ~ Category: Organic
526 (SVOCs in Water by GCMS) ~ Category: Organic
527 (Pesticides and flame retardants in water by SPE and capillary column GC/MS) ~ Category: Organic
528 (Phenols in Water by GC/MS) ~ Category: Organic
529 (Explosives and Related Compounds in Water by SPE and Capillary Column GC/MS) ~ Category: Organic
531.1 (Carbamates in Water Using HPLC w/ Post-Column Derivitization) ~ Category: Organic
531.2 (N-Methylcarbamoyloximes and N-Methylcarbamates in Water by HPLC with Post Column Derivitization) ~ Category: Organic
532 (Phenylurea Compounds in Water by HPLCUV) ~ Category: Organic
535 (ITMS) (Chloroacetanilide and other acetamide herbicide degradates by solid phase extraction and liquid chromatography with tandem mass spectrometry with Ion Trap MS) ~ Category: Organic
535 (TQMS) (Chloroacetanilide and other acetamide herbicide degradates by solid phase extraction and liquid chromatography with tandem mass spectrometry with Triple Quadrupole MS) ~ Category: Organic
537 (Organic contaminants in drinking water by direct aqueous injection-liquid chromatography/tandem mass spectrometry) ~ Category: Organic
538 (Organic contaminants in drinking water by direct aqueous injection-liquid chromatography/tandem mass spectrometry) ~ Category: Organic
547 (Glyphosate in Water Using HPLC w/ Post Column Derivitization) ~ Category: Organic
548.1 (by FID) (Endothall in Water Using GCMS) ~ Category: Organic
548.1 (by MS) (Endothall in Water Using GCMS) ~ Category: Organic
549.2 (Diquat and Paraquat in Water Using HPLC/UV) ~ Category: Organic
550 (PAHs in Water Using HPLC/UV/FL) ~ Category: Organic
550.1 (PAHs in Water Using HPLC/UV/FL) ~ Category: Organic
551.1 (Chlorinated Compounds in Water Using GC-ECD) ~ Category: Organic
552.3rev1.0 (Haloacetic Acids and Dalapon in Drinking Water by Microextraction, Derivitization, and GC-ECD) ~ Category: Organic
552.1 (Haloacetic Acids and Dalapon in Water Using GCECD) ~ Category: Organic
552.2 (Haloacetic Acids and Dalapon in Water Using GCECD) ~ Category: Organic
555 (Chlorinated Acids in Water Using HPLC/UV) ~ Category: Organic
556 (Carbonyls by GC/ECD) ~ Category: Organic
556.1 (Carbonyls by Fast GC/ECD) ~ Category: Organic
601 (Purgeable Halocarbons via GC with Electrolytic conductivity (ELCD) or microcoulometric detector) ~
602 (Purgeable Aromatics via GC with Photoionization Detector (PID)) ~ Category: Organic
603 (Acrolein and Acrylonitrile Purge and Trap via GC with Flame Ionization Detector (FID)) ~ Category: Organic
604 (Phenols in Water Using GCECD/FID) ~ Category: Organic
605 (Benzidenes in Water Using HPLC/ED) ~ Category: Organic
606 (Phthalate Esters in Water by GCECD) ~ Category: Organic
607 (Nitrosamines in wastewater) ~ Category: Organic
608 (Organochlorine Pesticides and PCBs via GC with Electron Capture Detector (ECD)) ~ Category: Organic
609 (Nitroaromatics and Isophorone via GC with Flame Ionization Detector (FID) and Electron Capture Detector (ECD)) ~ Category: Organic

610 (Polynuclear Aromatic Hydrocarbons by GC) ~ Category: Organic
611 (Haloethers in Water by GCELCD) ~ Category: Organic
612 (Chlorinated Hydrocarbons in Water by GCECD) ~ Category: Organic
613 (Qualitative confirmation and Quantification of 2,3,7,8-TCDD via GC/MS after a screen using Method 625) ~ Category: Organic
624 (Purgeable Organic Compounds via GC/MS) ~ Category: Organic
625 (Base/Neutral and Acid Organics in Wastewater) ~ Category: Organic
990.06 (Organochlorine Pesticide in Water by GC) ~ Category: Organic
991.08 (Glyphosate and AMPA in Environmental Water) ~ Category: Organic
1613 (Dioxins and Furans by HRGC/HRMS) ~ Category: Organic
1614 (Brominated Diphenyl Ethers in Water, Soil, Sediment, and Tissue by HRGC/HRMS) ~ Category: Organic
1624 (Volatile Organic Compounds by GC/MS) ~ Category: Organic
1625 (Semivolatiles - Base/Neutrals, Acid Extractable, GC/MS) ~ Category: Organic
1653 (Chlorinated Phenolics associated with the pulp and paper industry wastewater by GCMS) ~ Category: Organic
1664 (Oil and Grease and Non-polar Material Using Solvent Extraction and Gravimetry) ~ Category: Organic
1668a (Soil / Sediment) (Chlorinated Biphenyls in Soil, Sediment, and Mixed Samples by HRGC/HRMS) ~
1668a (Tissue) (Chlorinated Biphenyls in Tissue by HRGC/HRMS) ~ Category: Organic
1668a (Water) (Chlorinated Biphenyls in Aqueous Samples by HRGC/HRMS) ~ Category: Organic
1673 (PEG-600 by Derivatization and HPLC) ~ Category: Organic
1694 (Pharmaceuticals and personal care products in water, soil, sediment, and biosolids by HPLC/MS/MS) ~ Category: Organic
1698 (Steroids and hormones in water, soil, sediment, and biosolids by HRGC/HRMS) ~ Category: Organic
1699 (Pesticides in water, soil, sediment, biosolids, and tissue by HRGC/HRMS) ~ Category: Organic
3535A (Solid-phase extraction for organic analytes.) ~ Category: Organic
3570 (Organic Compounds from Solids by Microscale Solvent Extraction) ~ Category: Organic
5030C (Purge-and-Trap for Aqueous Samples) ~ Category: Organic
5210B (BOD: 5-Day Test) ~ Category: Organic
5220C (COD by Closed Reflux, Titration) ~ Category: Organic
5220D (Chemical Oxygen Demand) ~ Category: Organic
5310 D (TOC by Wet Oxidation) ~ Category: Organic
5310B (Total organic carbon by High-Temperature Combustion) ~ Category: Organic
5310C (Total organic carbon by Persulfate-UV or Heated-Persulfate Oxidation) ~ Category: Organic
5520 B (Oil and Grease by Partition-Gravimetric Method) ~ Category: Organic
5540 C (Anionic Surfactants as MBAS) ~ Category: Organic
5910B (UV-Absorbing organic constituents by Ultraviolet Absorption) ~ Category: Organic
6040D (Solid-Phase Microextraction (SPME)) ~ Category: Organic
6200B (Volatile organic compounds in Water by Purge and Trap Capillary-Column GC/MS Method) ~ Category: Organic
6200C (Volatile organic compounds in Water by Purge and Trap Capillary-Column GC Method) ~ Category: Organic
6251B (Haloacetic acids and trichlorophenol in Water by Micro Liquid-Liquid Extraction GC Method) ~ Category: Organic
6410 B (Extractable Semivolatile Organics by GC-MS) ~ Category: Organic
6420B (Phenols in Water by Liquid-Liquid Extraction GC) ~ Category: Organic
6440 B (PAH's in Water by HPLC) ~ Category: Organic
6610B (Pesticides in Water by HPLC) ~ Category: Organic
6630 C (Organochlorine Pesticides in Water by GC) ~ Category: Organic
8011 (EDB and DBCP by Microextraction and Gas Chromatography) ~ Category: Organic
8015C (Nonhalogenated Organics by GC-FID) ~ Category: Organic
8021B (by GC-ELCD) (Aromatic and Halogenated Volatiles by GC-ELCD) ~ Category: Organic

8021B (by GC-PID) (Aromatic and Halogenated Volatiles by GC-PID) ~ Category: Organic
8031 (Acrylonitrile in Water Using Gas Chromatography) ~ Category: Organic
8032A (Acrylamide in Aqueous Matrices Using Gas Chromatography) ~ Category: Organic
8033 (Acetonitrile in Aqueous Matrices Using Gas Chromatography with Nitrogen-Phosphorus Detection) ~
8041A (Phenols by Gas Chromatography) ~ Category: Organic
8061A (Phthalate Esters in Aqueous and Solid Matrices by GC-ECD) ~ Category: Organic
8081B (Organochlorine Pesticides by GC-ECD) ~ Category: Organic
8082A (Polychlorinated Biphenyls (PCBs) by Gas Chromatography) ~ Category: Organic
8091 (by GC-ECD) (Nitroaromatics and Cyclic Ketones in Water, Soil, and Waste by GC-ECD or GC-NPD) ~
8091 (by GC-NPD) (Nitroaromatics and Cyclic Ketones in Water, Soil, and Waste by GC-NPD) ~ Category: Organic
8100 (Polynuclear Aromatic Hydrocarbons in Water and Solid Samples by GC-FID) ~ Category: Organic
8111 (Haloethers in Water, Soil, and Waste Samples by Chromatography and Electron Capture Detection) ~
8141B (by GC-FPD) (Organophosphorus Compounds in Water, Soil, and Waste Samples by GC-FPD) ~ Category:
8141B (by GC-NPD) (Organophosphorus Compounds in Water, Soil, and Waste Samples by GC-NPD) ~ Category:
8151A (Chlorinated Herbicides and Related Compounds in Water, Soil, and Waste Samples by Capillary GC-ECD) ~ Category: Organic
8260B (Volatile Organic Compounds by GC/MS) ~ Category: Organic
8270D (Semivolatile Organic Compounds by GC/MS) ~ Category: Organic
8310 (Polynuclear Aromatic Hydrocarbons by HPLC Using Ultraviolet and Fluorescence Detectors) ~ Category:
8316 (Acrylamide, Acrylonitrile, and Acrolein by HPLC) ~ Category: Organic
8321B (Nonvolatiles by HPLC-MS) ~ Category: Organic
8330B (Explosives by HPLC) ~ Category: Organic
9060A (Total Organic Carbon in water and wastes by Carbonaceous Analyzer) ~ Category: Organic
50020B (Spinosyn in water by Immunoassay, Coated Tube) ~ Category: Organic
52250B (Fluoroquinolone by Immunoassay, Microtiter Plate) ~ Category: Organic
52255B (Saxitoxin in water by Immunoassay, Microtiter Plate) ~ Category: Organic
52256B (Tylosin by Immunoassay, Microtiter Plate) ~ Category: Organic
54002B (Benomyl and Carbendazim in water by Immunoassay, Microtiter Plate) ~ Category: Organic
54003A (2,4-D by Immunoassay, Microtiter Plate) ~ Category: Organic
54004B (2,4-D in water by Immunoassay, Coated Tube) ~ Category: Organic
70606 (PAH in soils/sediment by immunoassay) ~ Category: Organic
70620 (PAH in water by immunoassay) ~ Category: Organic
70950 (Silvex (2,4,5-TP) in soils/sediment by immunoassay) ~ Category: Organic
72920 (2,4-D in Water by Immunoassay) ~ Category: Organic
73100 (DDT in soils/sediment by immunoassay) ~ Category: Organic
73110 (Chlordane (cyclodiene) in soils/sediment by immunoassay) ~ Category: Organic
73300 (Chlordane (cyclodiene) in water by immunoassay) ~ Category: Organic
73310 (Chlordane (cyclodiene) in water by immunoassay) ~ Category: Organic
74200 (Toxaphene in soils/sediment by immunoassay) ~ Category: Organic
75900 (Endosulfan in water by immunoassay) ~ Category: Organic
76300 (Lindane in soils/sediment by immunoassay) ~ Category: Organic
78900 (Picloram in water by Immunoassay) ~ Category: Organic
500001 (Atrazine by Immunoassay, Magnetic Particle) ~ Category: Organic
500007 (Atrazine by Immunoassay, High Sensitivity, Magnetic Particle) ~ Category: Organic
500021 (Acetochlor by Immunoassay, Magnetic Particle) ~ Category: Organic
500061 (Metolachlor by Immunoassay, Magnetic Particle) ~ Category: Organic
500065 (Metolachlor by Immunoassay, Microtiter Plate) ~ Category: Organic

500071 (Alachlor by Immunoassay, Magnetic Particle) ~ Category: Organic
500076 (Alachlor by Immunoassay, Microtiter Plate) ~ Category: Organic
500081 (Glyphosate by Immunoassay, Magnetic Particle) ~ Category: Organic
500086 (Glyphosate by Immunoassay, Microtiter Plate) ~ Category: Organic
500090 (PBDEs in water by Immunoassay, Magnetic Particle) ~ Category: Organic
500201 (Pyrethroid by Immunoassay, Magnetic Particle) ~ Category: Organic
500501 (Penoxsulam by Immunoassay, Magnetic Particle) ~ Category: Organic
500511 (Fluridone by Immunoassay, Magnetic Particle) ~ Category: Organic
515001 (Sulfmethazine by Immunoassay, Magnetic Particle) ~ Category: Organic
515006 (Sulfamethazine by Immunoassay, Microtiter Plate) ~ Category: Organic
515565 (Cotinine by Immunoassay, Microtiter Plate) ~ Category: Organic
515575 (Caffeine by Immunoassay, Microtiter Plate) ~ Category: Organic
515585 (Carbamazepine by Immunoassay, Microtiter Plate) ~ Category: Organic
520001 (Diuron by Immunoassay, Microtiter Plate) ~ Category: Organic
520005 (Atrazine by Immunoassay, Microtiter Plate) ~ Category: Organic
520006 (Triazine Metabolite by Immunoassay, Microtiter Plate) ~ Category: Organic
520011 (Microcystins and Nodularins by Immunoassay, Microtiter Plate) ~ Category: Organic
520012 (Microcystins in water by Immunoassay, Coated Tube) ~ Category: Organic
522003 (Sulfamethoxazole(SMX) by Immunoassay, Microtiter Plate) ~ Category: Organic
522011 (Cylindrospermopsin in water by Immunoassay, Microtiter Plate) ~ Category: Organic
522015 (Microcystins in water by Immunoassay, Direct Monoclonal Microtiter Plate) ~ Category: Organic
530001 (PCBs by Immunoassay, Higher Chlorinated, Magnetic Particle) ~ Category: Organic
530011 (Coplanar PCBs by Immunoassay, Microtiter Plate) ~ Category: Organic
530021 (PCBs by Immunoassay, Lower Chlorinated, Magnetic Particle) ~ Category: Organic
530039 (Benzo(a)Pyrene by Immunoassay, Microtiter Plate) ~ Category: Organic
530111 (Triclosan by Immunoassay, Magnetic Particle) ~ Category: Organic
530114 (Triclosan by Immunoassay, Microtiter Plate) ~ Category: Organic
540021 (Cyclodienes by Immunoassay, Microtiter Plate) ~ Category: Organic
540041 (DDE/DDT by Immunoassay, Microtiter Plate) ~ Category: Organic
550051 (Organophosphate and Carbamate Pesticides by Cholinesterase Inhibition, Tube) ~ Category: Organic
550055 (OP/Carbamate by Immunoassay, Microtiter Plate) ~ Category: Organic
580002 (17-B Estradiol by Immunoassay, Magnetic Particle) ~ Category: Organic
7000301 (PCP (pentachlorophenol) in soils/sediment by immunoassay) ~ Category: Organic
7061301 (PAH in soils/sediment by immunoassay) ~ Category: Organic
A00070 (Aldicarb in water by Immunoassay) ~ Category: Organic
A00071 (Atrazine in water by Immunoassay) ~ Category: Organic
A00072 (Alachlor in water by Immunoassay) ~ Category: Organic
A00073 (Cyanazine in water by Immunoassay) ~ Category: Organic
A00074 (Carbofuran in water by Immunoassay) ~ Category: Organic
A00080 (Metolachlor in water by Immunoassay) ~ Category: Organic
A00081 (Captan in water by Immunoassay) ~ Category: Organic
A00082 (2,4-D in Water by Immunoassay) ~ Category: Organic
A00088 (Procymidone in water by Immunoassay) ~ Category: Organic
A00093 (Benomyl/Carbendazim in water by Immunoassay) ~ Category: Organic
A00097 (Carbaryl in water by Immunoassay) ~ Category: Organic
A00105 (Chlorothalonil in water by Immunoassay) ~ Category: Organic
A00111 (PCP (pentachlorophenol) in water by immunoassay) ~ Category: Organic

A00111/A00128 (PCP (pentachlorophenol) in soils/sediment by immunoassay) ~ Category: Organic
A00134 (PCB (polychlorinated biphenyl) in water by immunoassay) ~ Category: Organic
A00134/A00137 (PCB (polychlorinated biphenyl) in soils/sediment by immunoassay) ~ Category: Organic
A00143 (Chlorpyrifos in water by Immunoassay) ~ Category: Organic
A00147 (Paraquat in water by Immunoassay) ~ Category: Organic
A00151 (Atrazine in water by Immunoassay, High Sensitivity) ~ Category: Organic
A00157 (PAH in water by immunoassay) ~ Category: Organic
A00157/A00160 (PAH in soils/sediment by immunoassay) ~ Category: Organic
A00171 (Triclopyr in water by Immunoassay) ~ Category: Organic
A00178 (Spinosad in water by Immunoassay) ~ Category: Organic
A00196 (Methomyl in water by Immunoassay) ~ Category: Organic
A00201 (PAH in water by immunoassay) ~ Category: Organic
A00201/A00204 (PAH in soils/sediment by immunoassay) ~ Category: Organic
A00208 (TCP in water by Immunoassay) ~ Category: Organic
A00212 (Silvex (2,4,5-TP) in water by immunoassay) ~ Category: Organic
A00216 (Dieldrin (cyclodiene) in water by immunoassay) ~ Category: Organic
A00216/A00256 (Dieldrin (cyclodiene) in soils/sediment by immunoassay) ~ Category: Organic
A00224 (Metribuzin in water by Immunoassay) ~ Category: Organic
A00246 (Simazine in water by Immunoassay) ~ Category: Organic
AG-625 (Atrazine by Immunoassay) ~ Category: Organic
D5175 (Organohalide Pesticides and PCBs in Water) ~ Category: Organic
D5176 (Nitrogen, Chemically Bound, in Water) ~ Category: Organic
D5315 (Standard Test Method for Carbamates in Water) ~ Category: Organic
D5316 (1,2-Dibromoethane and 1,2-Dibromo-3-Chloropropane in Water) ~ Category: Organic
D5317 (Chlorinated Organic Acids in Water) ~ Category: Organic
D5412 (PAHs and Petroleum Oils in Water) ~ Category: Organic
D5475 (Nitrogen and Phosphorus-Containing Pesticides) ~ Category: Organic
D5790 (Purgeable Organic Compounds in Water) ~ Category: Organic
D5812 (Organochlorine Pesticides in Water by Capillary Column by GC/ECD) ~ Category: Organic
D5904 (Carbon (all forms) in Water) ~ Category: Organic
D5997 (Carbon (all forms), On-Line Measurement in Water) ~ Category: Organic
D6303 (Formaldehyde in Water) ~ Category: Organic
D6317 (Carbon (all forms) in Water) ~ Category: Organic
D6592 (Water Quality by Chemiluminescence) ~ Category: Organic
EP 010 (Chlordane (cyclodiene) immunoassay) ~ Category: Organic
EP 020 (DDT immunoassay) ~ Category: Organic
ET013 (PCB (polychlorinated biphenyl) immunoassay) ~ Category: Organic
I-3561 (Chemical-oxygen-demand, water-suspended-sediments, colorimetry) ~ Category: Organic
I-4464-01 (Organic plus Inorganic Mercury in Unfiltered Natural Water by Cold-Vapor AFS) ~ Category: Organic
O-1104 (Organochlorine and organophosphorous compounds, dissolved) ~ Category: Organic
O-1105 (Chlorophenoxy acids, total recoverable) ~ Category: Organic
O-1121-91 (Organonitrogen Herbicides in Water by Solid Phase Extraction, GC/MS) ~ Category: Organic
O-1122-92 (Dissolved Organic Carbon in Water by Persulfate Oxidation and Infrared Spectrometry) ~ Category: Organic
O-1124-94 (Nitroaromatic compounds in water by HPLC) ~ Category: Organic
O-1126-02 (Pesticides in Water by C-18 Solid-Phase Extraction and GC-MS) ~ Category: Organic
O-1126-95 (Pesticides in Water by C-18 Solid-Phase Extraction and GC-MS) ~ Category: Organic

O-1131-95 (Pesticides in Water by Solid Phase Extraction and High Performance Liquid Chromatography (HPLC)) ~ Category: Organic
O-1402-01 (Organophosphate Pesticides, Filtered Water, Gas Chromatography) ~ Category: Organic
O-1433-01 (Wastewater compounds in water by SPE and GC/MS) ~ Category: Organic
O-2002-01 (Pesticides and Selected Degradates in Water by C-18 Solid-Phase Extraction and GC/MS) ~ Category:
O-2060-01 (Pesticides in Water by SPE and HPLC-MS) ~ Category: Organic
O-2080-08 (Pharmaceuticals in Water by SPE and HPLC-MS) ~ Category: Organic
O-2136-01 (Glyphosate, Aminomethylphosphonic Acid, and Glufosinate in Water by Liquid Chromatography/Mass Spectrometry) ~ Category: Organic
O-2143-09 (Pyrethroid Insecticides in Water Using GC/MS) ~ Category: Organic
O-2434-12 (Hormones in Filtered Water by GC-MS/MS) ~ Category: Organic
O-3100 (Carbon, organic, total (mg/L as C)) ~ Category: Organic
O-3104 (Organochlorine and organophosphorous compounds, total recoverable) ~ Category: Organic
O-3105 (Chlorophenoxy acids, total recoverable) ~ Category: Organic
O-3106-93 (Triazines in Water by Gas Chromatography) ~ Category: Organic
O-3113 (Polynuclear Aromatic Hydrocarbons) ~ Category: Organic
O-3115 (Purgeable Organic Compounds in Water) ~ Category: Organic
O-3116-87 (Base/neutral and acid extractable compounds, whole water recoverable, in water by GC/MS) ~
O-3118-83 (Base/Neutral Extractable Compounds in Water by GC-MS) ~ Category: Organic
O-3120-90 (1,2-Dibromomethane (EDB) and 1,2-dibromo-3-chloropropane (DBCP) in Water by Gas Chromatography) ~ Category: Organic
O-3128-95 (Methylene Blue Active Substances in Water by Spectrophotometry, Whole Water Recoverable) ~ Category: Organic
O-3402-03 (Organophosphate pesticides, Whole water, Gas Chromatography) ~ Category: Organic
O-4024-03 (Volatile organic compounds, whole water, gas chromatography/mass spectrometry, heated purge and trap) ~ Category: Organic
O-4127-96 (Volatile Organic Compounds in Water by GC-MS) ~ Category: Organic
O-4433-06 (Wastewater Compounds in Water by CLLE and GC-MS) ~ Category: Organic
O-4434-12 (Steroid Hormones in Unfiltered Water by GC-MS/MS) ~ Category: Organic
O-5101-83 (Carbon in Bottom Material by Induction Furnace, Dry Weight) ~ Category: Organic
O-5104 (Organochlorine and organophosphorous compounds, recoverable from bottom material) ~ Category:
O-5108 (Oil and grease extractable from bottom material, gravimetric) ~ Category: Organic
O-5129-95 (Organochlorine Pesticides and Gross Polychlorinated Biphenyls in Bottom Sediment by Gas Chromatography) ~ Category: Organic
O-5130-95 (Semivolatile organic compounds in Bottom Sediment by High-performance Gel Permeation Chromatography, Capillary-column GC/MS) ~ Category: Organic
O-5404-02 (Organophosphate pesticides, bottom sediment, high-performance gel-permeation chromatography, gas chromatography) ~ Category: Organic
O-5504-03 (Organochlorine Pesticides and Polychlorinated Biphenyls in Bottom and Suspended Sediment by Gas Chromatography with Electron Capture Detection) ~ Category: Organic
O-5505-03 (Polycyclic aromatic hydrocarbons, sediment, capillary-column gas chromatography/mass spectrometry) ~ Category: Organic
O-5506-06 (PAHs in Soils, Bottom Sediment, and Solids by GC-MS) ~ Category: Organic
O-7100-83 (Suspended Organic Carbon (SOC) in Water) ~ Category: Organic
O-7104 (Organochlorine and organophosphorous compounds, recoverable from bottom material) ~ Category:
O-7504-03 (Determination of Organochlorine Pesticides and Polychlorinated Biphenyls in Bottom and Suspended Sediment by Gas Chromatography) ~ Category: Organic

OAQPS-18 (Gaseous Organic Compounds in Air Emissions by Gas Chromatography) ~ Category: Organic
OAQPS-23 (Dioxins and Furans in Air Emission Combustor Wastes by HRGC-HRMS) ~ Category: Organic
OH100R (TCLP Acidic Semivolatiles Using HPLC) ~ Category: Organic
OM100R (Semi-volatile Organic Compounds in Multi-media Samples by Capillary Column Ion Trap MS) ~
OP130R (TCLP for Semivolatiles and Pesticides) ~ Category: Organic
PV2072 (Rhodamine B by HPCL-UV-FL) ~ Category: Organic
SPMD Data Collection (Passive monitoring for organic contaminants in water using semipermeable membrane devices (SPMDs)) ~ Category: Organic
SPMDs (Passive sampling of organic compounds in water, air, and soil/sediment by SPMDs) ~ Category: Organic
TWRI BK 9 CH A5.3.2 (Spike Solutions for Organic-Analyte Samples in Water Sample Processing) ~ Category:
TWRI BK 9 CH A5.6.1.F (Wastewater, Pharmaceutical, and Antibiotic Compounds in Water Sample Processing) ~ Category: Organic
TWRI BK 9 CH A5.6.4.A (Arsenic Speciation in Water Sample Processing) ~ Category: Organic+Inorganic
TWRI BK 9 CH A5.6.4.B (Low-level Mercury in Water Sample Processing) ~ Category: Organic+Inorganic
3H-04-RC (Tritium in Water - Liquid Scintillation Counting) ~ Category: Radiochemical
900 (Gross Alpha and Beta Activity in Water) ~ Category: Radiochemical
901.1 (Gamma Emitting Radionuclides in Water by Gamma Spectroscopy) ~ Category: Radiochemical
903 (Alpha-Emitting Radium Isotopes in Drinking Water) ~ Category: Radiochemical
903.1 (Radium-226 in Drinking Water) ~ Category: Radiochemical
908 (Uranium in Drinking Water) ~ Category: Radiochemical
7110 B (Gross Alpha-Beta Evaporation Method) ~ Category: Radiochemical
7110 C (Gross Alpha Radioactivity by Coprecipitation) ~ Category: Radiochemical
7120B (Gamma-emitting isotopes by Gamma Spectroscopic Method) ~ Category: Radiochemical
7500-3H B (Tritium by Liquid Scintillation Spectrometry) ~ Category: Radiochemical
7500-Cs B (Radioactive Cesium by Precipitation) ~ Category: Radiochemical
7500-I B (Radioactive Iodine by Precipitation) ~ Category: Radiochemical
7500-I C (Radioactive Iodine by Ion-Exchange) ~ Category: Radiochemical
7500-I D (Radioactive Iodine by Distillation) ~ Category: Radiochemical
7500-Ra B (Radium by Precipitation) ~ Category: Radiochemical
7500-Ra C (Radium by Emanation) ~ Category: Radiochemical
7500-RA-D (Radium in Water by Sequential Precipitation) ~ Category: Radiochemical
7500-U B (Uranium by Radiochemical Method) ~ Category: Radiochemical
7500-U C (Uranium by the Isotopic Method) ~ Category: Radiochemical
9310 (Gross Alpha and Beta Determination) ~ Category: Radiochemical
9315 (Alpha-emitting radium isotopes in water by Alpha Scintillation or AGPC) ~ Category: Radiochemical
9320 (Radium-228 in groundwater) ~ Category: Radiochemical
Am-04-RC (Americium and Plutonium by Ion Exchange and Alpha Spectrometry) ~ Category: Radiochemical
ASTM 3972-02 (Uranium isotopes in water by chemical separations and alpha pulse-height analysis.) ~ Category: Radiochemical
CHEM-TP-A.1 (Actinides in Small Environmental Samples by Sequential Determination) ~ Category:
CHEM-TP-A.20 (Actinide Separations for Alpha Spectrometry Using Neodymium Fluoride Coprecipitation) ~ Category: Radiochemical
CHEM-TP-FE.1 (Fe-55 in Water by Liquid Scintillation Counting) ~ Category: Radiochemical
CHEM-TP-GA/B.1 (Gross Alpha and Beta in Water) ~ Category: Radiochemical
CHEM-TP-GA/B.2 (Gross Alpha and Beta in Water and Waste Water) ~ Category: Radiochemical
CHEM-TP-H3.1 (Tritium in Water, Wastewater, Milk, and Urine by Liquid Scintillation Counting) ~ Category:
CHEM-TP-Ni.1 (Ni-63 in Water by Liquid Scintillation Counting) ~ Category: Radiochemical

CHEM-TP-SR.1 (Strontium-90 in Soil, Water, and Filter Samples) ~ Category: Radiochemical
CHEM-TP-SR.06 (Sr-89 and Sr-90 in Liquid Radioactive Wastes or Waters by Beta Counting) ~ Category:
CHEM-TP-SR.7 (Sr-90 Carbonate Method) ~ Category: Radiochemical
D1890 (Beta Activity in Water) ~ Category: Radiochemical
D1943 (Alpha Particle Radioactivity of Water) ~ Category: Radiochemical
D3454 (Radium-226 in Water) ~ Category: Radiochemical
D4107 (Tritium in Water) ~ Category: Radiochemical
D4785 (Low-Level Iodine-131 in Water) ~ Category: Radiochemical
D5072 (Radon in Drinking Water) ~ Category: Radiochemical
D5174 (Uranium, Trace, in Water by Pulsed-Laser Phosphorimetry) ~ Category: Radiochemical
D5811 (Strontium-90 in Water) ~ Category: Radiochemical
D6239 (Uranium in Drinking Water) ~ Category: Radiochemical
G-03 (Microprecipitation Source Preparation for Alpha Spectrometry) ~ Category: Radiochemical
MM100 (ICP/MS Radionuclide Analyses) ~ Category: Radiochemical
MM800 (ICP/MS of Uranium in Water) ~ Category: Radiochemical
Pb-01-RC (Lead-210 in Bone, Food, Urine, Feces, Blood, Air, and Water) ~ Category: Radiochemical
Po-01-RC (Polonium in Water and Urine) ~ Category: Radiochemical
Po-02-RC (Polonium in Water, Vegetation, Soil, and Air Filters) ~ Category: Radiochemical
R1141 (Radium-226) ~ Category: Radiochemical
Ra-02-RC (Radium-226 - Emanation Procedure) ~ Category: Radiochemical
Ra-04-RC (Radium-226 in Tap Water, Urine, and Feces) ~ Category: Radiochemical
Ra-06-RC (Radium-226 in Urine and Water) ~ Category: Radiochemical
RP450 (Radium-226 in Aqueous Samples) ~ Category: Radiochemical
RP530 (Selenium-79 in Aqueous Samples) ~ Category: Radiochemical
RP710 (Gross Alpha and Beta Activity) ~ Category: Radiochemical
Samp-U,Ra (Uranium and Radium in Water) ~ Category: Radiochemical
Se-03 (Americium, Plutonium and Uranium in Water) ~ Category: Radiochemical
Sr-03-RC (Strontium-90 in Environmental Matrices) ~ Category: Radiochemical
Sr-04-RC (Strontium-90 in Water Containing Other Radioisotopes by Cerenkov Counting) ~ Category:
Tc-02-RC (Technetium-99 in Water - TEVA Resin) ~ Category: Radiochemical
U-02-RC (Isotopic Uranium in Biological and Environmental Materials) ~ Category: Radiochemical
200.2 (Sample preparation procedure for spectrochemical determination of total recoverable elements) ~ Category: Sample_Preparation
3030 F (Nitric and Hydrochloric Acid Digestion) ~ Category: Sample_Preparation
3030 G (Nitric and Sulfuric Acid Digestion) ~ Category: Sample_Preparation
3030 H (Nitric and Perchloric Acid Digestion) ~ Category: Sample_Preparation
3030 I (Nitric, Perchloric and Hydrofluoric Acid) ~ Category: Sample_Preparation
3030 J (Dry Ashing of Metals Samples) ~ Category: Sample_Preparation
3030 K (Microwave Assisted Digestion of Metals) ~ Category: Sample_Preparation
3520C (Continuous Liquid-Liquid Extraction of Organics) ~ Category: Sample_Preparation
4500-CN- B (Cyanide: Preliminary Treatment of samples) ~ Category: Sample_Preparation
B-9001-95 (CV-AAS) (Trace Metals in Aquatic Biological Material by CV-AAS) ~ Category: Sample_Preparation
B-9001-95 (ICP-AES) (Trace Metals in Aquatic Biological Material by ICP-AES) ~ Category: Sample_Preparation
B-9001-95 (ICP-MS) (Trace Metals in Aquatic Biological Material by ICP-MS) ~ Category: Sample_Preparation
CHEM-TP-SP.2 (Sample Reconstitution) ~ Category: Sample_Preparation
NFM 4.1.1.A EWI (Collection of stream samples using the equal-width-increment (EWI) method) ~ Category: Sample_Preparation

NFM 4.1.3.A EDI (Collection of isokinetic, depth-integrated stream samples using the equal-discharge-increment (EDI) method) ~ Category: Sample_Preparation
NFM 4.1.3.A EWI (Collection of isokinetic, depth-integrated stream samples using equal-width-increments (EWI)) ~ Category: Sample_Preparation
NFM 4.1.3.A VCF (Collection of stream samples using the single vertical at centroid-of-flow (VCF) method) ~ Category: Sample_Preparation
NFM 4.2 Ground-Water Sampling (Collection of ground-water samples at supply and monitoring wells) ~ Category: Sample_Preparation
POCIS (Polar Organic Chemical Integrative Sampler (POCIS)) ~ Category: Sample_Preparation
USDA HWQ2 (Discharge and Water Quality Data Collection on Small Watersheds) ~ Category:
USDA HWQ3 (Automated Storm Water Sampling) ~ Category: Sample_Preparation
160.5 (Determination Settleable Matter in Water Using an Imhoff Cone) ~ Category: Physical
2130 B (Turbidity by Nephelometry) ~ Category: Physical
2150 B (Threshold Odor Test) ~ Category: Physical
2310 B (Acidity by Titration) ~ Category: Physical
2320 B (Alkalinity by Titration) ~ Category: Physical
AQ4500 (Turbidity of Water by LED Nephelometry) ~ Category: Physical
D1125A (Electrical Conductivity of Non-Flowing Water Samples) ~ Category: Physical
D1293A (pH: Method A: Precise Laboratory Measurement of pH) ~ Category: Physical
D1452-07a (Standard Practice for Soil Investigation and Sampling by Auger Borings) ~ Category: Physical
D1498 (Redox Potential of Water) ~ Category: Physical
D1889 (Turbidity of Water) ~ Category: Physical
D5388 (Discharge, Indirect, by Step-Backwater) ~ Category: Physical
D5389 (Flow Measurements by Acoustic Velocity Meter (AVM)) ~ Category: Physical
D5390 (Flow Measurement with Palmer-Bowlus Flume) ~ Category: Physical
D5413A (Nonrecording water-level measurement devices (Test Method A)) ~ Category: Physical
D5413B (Recording water-level measurement devices (Test Method B)) ~ Category: Physical
D5413C (Remote-interrogation water-level measurement devices (Test Method C)) ~ Category: Physical
D5613 (Travel Time) ~ Category: Physical
D5614 (Open Channel Flow Measurement of Water) ~ Category: Physical
D5907 (Matter, Filterable and Nonfilterable, in Water) ~ Category: Physical
D6569 (pH, On-Line Measurement) ~ Category: Physical
Mitchell Method M5271 (Turbidity of Water by Laser Nephelometry) ~ Category: Physical
Mitchell Method M5331 (Turbidity of Water by LED Nephelometry) ~ Category: Physical
NAWQA Light Intensity (LINT) (Water column light intensity of wadeable streams by light meter) ~ Category:
NFM 6.1.3.B (Temperature measurement of surface water) ~ Category: Physical
NFM 6.1.3.C (Temperature measurement of ground water) ~ Category: Physical
NFM 6.3.3.A-SW (Specific conductance of surface water, electrometric measurement) ~ Category: Physical
NFM 6.3.3.B-GW (Specific conductance of ground water, electrometric measurement) ~ Category: Physical
SWAN AMI Turbiwell (Turbidity of water by Turbidimeter) ~ Category: Physical
USDA HWQ1 (Cumulative Uncertainty in Discharge and Water Quality Data) ~ Category: Physical
WRIR 98-4052 RHAB (Stream habitat evaluation of wadeable streams) ~ Category: Physical
Data Quality Assessment: A Reviewer's Guide (U.S. Environmental Protection Agency) ~ Category: Stat-Data
Ecological Methodology (Krebs, C.J.) ~ Category: Stat-Data Analysis
Environmental Statistics: Methods and Applications (Barnett, Vic) ~ Category: Stat-Data Analysis
Health Based Screening Levels (HBSLs) (Toccalino, P., Nowell, L., Wilber, W., Zogorski, J., Donohue, J., E., C., Krietzman, S., and Post, G.) ~ Category: Stat-Data Analysis

Mean Similarity Analysis (Van Sickle, J.) ~ Category: Stat-Data Analysis
NAWQA Groundwater-Quality Trends (US Geological Survey) ~ Category: Stat-Data Analysis
Optimising the sampling effort in riparian surveys (Melissa Dobbie, You-Gan Wang, Rebecca Zammit, Alan Offer, Peter Negus, Joanna Blessing) ~ Category: Stat-Data Analysis
Ordination Methods for Ecologists (Palmer, M.) ~ Category: Stat-Data Analysis
RIVPACS-type predictive modeling (Van Sickle, J.) ~ Category: Stat-Data Analysis
spsurvey: Spatial Survey Design and Analysis (Kincaid, T. and Olsen, A.R.) ~ Category: Stat-Data Analysis
Statistical Methods in Water Resources (Helsel, D.R. and Hirsch, R.M.) ~ Category: Stat-Data Analysis
Statistical Primer (U.S. Environmental Protection and Leska Fore) ~ Category: Stat-Data Analysis
Stream Metabolism Program (Bales, J.D., and Nardi, M.R.) ~ Category: Stat-Data Analysis
Urban Intensity Index (UII) (McMahon, G. and Cuffney, T.F) ~ Category: Stat-Data Analysis
Watershed Regressions for Pesticides (WARP) (US Geological Survey) ~ Category: Stat-Data Analysis
E1367-99 (Sediment Toxicity Test Using Marine and Estuarine Amphipods) ~ Category: Acute Toxicity
E-1192-97 (Acute Toxicity Tests for Water with Fishes, Macroinvertebrates, and Amphibians) ~ Category: Acute
ORNL-01 (Toxins in Water by Chlorophyll Fluorescence) ~ Category: Acute Toxicity
Test Method 100.1 (10-d Survival and Growth Test for Sediments using <i>Hyallorella azteca</i>) ~ Category: Acute
Test Method 2000.0 (Acute Toxicity Test for Waters Using Fathead Minnow) ~ Category: Acute Toxicity
Test Method 2002.0 (Acute Toxicity Tests with Effluents and Receiving Waters using <i>Ceriodaphnia dubia</i>) ~ Category: Acute Toxicity
Test Method 2004.0 (Acute Toxicity Tests with Effluents and Receiving Waters using Sheepshead minnow) ~ Category: Acute Toxicity
Test Method 2006.0 (Acute Toxicity Tests with Effluents and Receiving Waters using the Silverside) ~ Category: Acute Toxicity
Test Method 2019.0 (Acute Toxicity Tests for Waters Using Rainbow Trout and Brook Trout) ~ Category: Acute
Test Method 2021.0 (Acute Toxicity Tests with Effluents and Receiving Waters using <i>Daphnia</i>) ~ Category: Acute
993.06 (Staphylococcal Enterotoxins by Enzyme Immunoassay) ~ Category: BioToxin
BreveLCMS (Brevetoxin in water by LCMS) ~ Category: BioToxin
1367-99 (Sediment Toxicity Test Using <i>Leptocheirus plumulosus</i>) ~ Category: Chronic Toxicity
Test Method 100.3 (Bioaccumulation Test for Sediments Using <i>Lumbriculus variegatus</i>) ~ Category: Chronic
Test Method 100.5 (Life Cycle Test for Measuring the Effects of Sediment-associated Contaminants on Midge (<i>Chironomus tentans</i>)) ~ Category: Chronic Toxicity
Test Method 1000.0 (Larval Survival and Growth Test using Fathead Minnow) ~ Category: Chronic Toxicity
Test Method 1001.0 (Embryo-larval survival and teratogenicity test using Fathead minnow <i>Pimephales promelas</i>) ~ Category: Chronic Toxicity
Test Method 1002.0 (Survival and Reproduction Test using Daphnids) ~ Category: Chronic Toxicity
Test Method 1003.0 (Green Algae, <i>Selenastrum capricornutum</i> , Growth Test.) ~ Category: Chronic Toxicity
Test Method 1004.0 (Larval Survival and Growth Test using Sheepshead Minnow) ~ Category: Chronic Toxicity
Test Method 1006.0 (Larval Survival and Growth Test for Waters Using Inland Silverside) ~ Category: Chronic
Unknown (Unknown Method) ~ Category:
General (General Method) ~ Category:
zzz (zzz Description) ~ Category:
504 (GC-MICROEXTRACTION-ECD) ~ Category: Organic
524.1 (VOCs in Water Using GCMS) ~ Category: Organic
525.1 (Organics in Water Using GCMS) ~ Category: Organic
549 (Diquat and Paraquat in Water Using HPLC/UV) ~ Category: Organic
549.1 (Diquat and Paraquat in Water Using HPLC/UV) ~ Category: Organic
904.0 (Radium-228 in Drinking Water) ~ Category: Radiochemical

907.0 (Actinide Elements, Isotopic Method) ~ Category: Radiochemical
980.1 (Uranium - Fluorometric Method) ~ Category: Radiochemical
9214 (Potentiometric Determination of Fluoride in Aqueous Samples with Ion-Selective Electrode) ~ Category:
300.0A (Inorganic anion analysis using ion chromatography) ~ Category: Inorganic
600/4-75-008 (EVAPORATION METHOD FOR GROSS ALPHA-BETA) ~ Category: Radiochemical
600/4-83-043 (ASBESTOS FIBERS IN WATER Using TRANSMISSION ELECTRON MICROSCOPY) ~ Category: General
HASL (300 U 02 uranium-234, uranium-235 and uranium-238 in vegetation) ~ Category: Radiochemical
HASL-300M (used to collect uranium and radium from fresh water) ~ Category: Sample_Preparation
MANUALRAD (RADIOCHEMICAL METHOD) ~ Category: Radiochemical
RA-05 (SEQUENTIAL PRECIPITATION METHOD FOR RADIUM-226) ~ Category: Radiochemical
SM4500-SO4-E (Turbidimetric method for sulfate) ~ Category: Inorganic
SM5310C (Total Organic Carbon by Persulfate-UV or Heated-Persulfate Oxidation Method) ~ Category: General
SM9215B (Heterotrophic Plate Count (Pour Plate Method)) ~ Category: Microbiological
10-107-04-1-A (Nitrite + Nitrate as Nitrogen by Lachat method) ~ Category: Inorganic
10-117-07-1-A (Chloride by Lachat method) ~ Category: Inorganic

SampleId	SampleDate	Lab	AppendDate	Well	WellId	Owner	OwnerAlias	OwnerAddress
SW2136AW	7/6/2021	Health Lab		G-004497	8374	Allen H Grotelueschen		320 Rd. J
G-105802	7/28/2021	Health Lab		G-105802	125878	University of Nebraska		1071 Count
G-189724	8/17/2021	Health Lab		G-189724	259505	Bruce Williams		2350 Count
G096584	7/28/2021	Health Lab		G-096584	113185	University of Nebraska		1071 Count
SW2122W	7/28/2021	Health Lab		G-071608	79770	Terri StorerErnest O Ba		2307 Parkvi
SW2621W	6/23/2021	Health Lab		G-059892	67653	Schuyler Cemetery Ass		PO Box 107
G-039683	7/23/2021	Health Lab		G-039683	46899	Maxine Krir Kelli Went		6555 Shallo
SWN2106	8/6/2021	Midwest		G-127321	151643	Duane E Johnson		1388 Count
SW32A21W	7/6/2021	Health Lab		G-105622	114424	Ron BauerrBauermeist		1333 S 97th
SW0321W	7/6/2021	Health Lab		G-067620	75689	Lyman-Ritc Real Estate		4315 Cumir
G-135522	8/6/2021	Health Lab		G-135522	169687	University of Nebraska		1071 Count
G-065492	7/23/2021	Health Lab		G-065492	73482	Gary D. & Diane Harms		33335 â€œ€ :
SWN2128	7/23/2021	Midwest		G-070048	111980	Michael D Arps		1210 Timbe
SW2147W	7/23/2021	Health Lab		G-066765	74792	William Kendall Becker		3215 220 St
SW2152W	7/27/2021	Health Lab		G-087266	99049	David Remmereid Etal,C/O David F		
G-072684	7/27/2021	Health Lab		G-072684	80872	Luther L. Bakenhus		21269 310t
SW2141W	7/29/2021	Health Lab		G-072109	80272	Duane O Brand - Duan		1024 Skylin
SWN-13 (G-	7/26/2021	Health Lab		G-090028	105116	Four K Farms LTD		1530 Count
SW2153W	7/8/2021	Midwest		G-066693	74718	Constance M Flood *T		1329 330th
SW4921W	7/23/2021	Health Lab		G-067556	75621	George E Pfeifer		2703 Prosp
SWN2130	7/21/2021	Midwest		G-072435	80621	Max A Smith Etal		PO Box 537
G-050603	7/27/2021	Health Lab		G-050603	58120	Roger GoecGoedeken		128423 - 205
SW2125W	7/16/2021	Health Lab		G-031236	38189	Emily M Kohler etal		418 E 18th
SW2143W	8/6/2021	Health Lab		G-066065	74068	Bernard E. Schmidt		35715 370t
G-149373T	8/12/2021	Health Lab		G-149373	189855	Leonard & Judith Muhl		134 N. Park
SWN2112	7/30/2021	Midwest		G-056009	96616	Laverne M Kadavy		2863 Count
G-096582	7/28/2021	Health Lab		G-096582	113183	University of Nebraska		1071 Count
G087929	7/28/2021	Health Lab		G-087929	99912	University of Nebraska		1071 Count
SW2130W	8/19/2021	Health Lab		G-072435	80621	Max A Smith Etal		PO Box 537
G-119093	8/12/2021	Health Lab		G-119093	145250	Mary Ann Reif Marxser		542 Road E
G-148614	7/23/2021	Health Lab		G-148614	191225	Robert L Sprunk etal		33949 280
SW2109W	7/29/2021	Health Lab		G-090207	230684	Gary Juranek		24065 McP
G-116920	8/16/2021	Health Lab		G-116920	140084	Jerel D. Engel		390 Tilden !
G-063317	7/27/2021	Health Lab		G-063317	71219	Lyle Mohlman		23091 370t
G-094199	8/12/2021	Health Lab		G-094199	108194	Tom SvatorTom Svator		657 Road 4
SW1021W	7/26/2021	Health Lab		G-065805	73797	James M V&JMV Farms		1460 35th F
SW2821W	7/26/2021	Health Lab		G-070048	111980	Michael D Arps		1210 Timbe
SW2119AW	7/9/2021	Midwest		A-006732	1807	Terry Papa Papa Farms		4494 Road
SW2421W	7/6/2021	Health Lab		G-127390	154859	Jack Wollen		2001 Count
SW2135W	8/10/2021	Health Lab		G-082707	92382	Ronald K KlRobert C La		13373 280 :
G159854	7/28/2021	Health Lab		G-159854	206757	University of Nebraska		1071 Count
Well Sectio	7/28/2021	Health Lab		G-096592	113201	University of Nebraska		1071 Count
G-015345	7/27/2021	Health Lab		G-015345	20941	Diann F Svatora		1119 Road
G-126542	7/23/2021	Health Lab		G-126542	156621	Mark Luchsinger		35237 - 160
G-058895	7/23/2021	Health Lab		G-058895	66599	Tim Gronenthal		30071 325 .
G-035047	7/27/2021	Health Lab		G-035047	42118	Jody Dreifurst		87 Cottonw

SW2141WF	7/29/2021	Health Lab	G-072109	80272 Duane O Brand - Duane	1024 Skylin
Bellwood -	8/5/2021	Health Lab	G-089543	101792 Catherine M Jarecki Tr	102 44th R
SWN2139	7/27/2021	Midwest	G-015367	20966 Larry Feala Feala Farm:	1711 Count
G-121564	8/11/2021	Health Lab	G-121564	149969 MFS TRUST	Susan G Sci 16240 Burt
Sw-17 (G-0	7/26/2021	Health Lab	G-065461	73451 Hough Farn	Thomas Ho 810 Montgr
SW2121W	7/28/2021	Health Lab	G-090204	105315 Daniel R W	Wesely Far 2677 Count
UNL Well 9	7/28/2021	Health Lab	G-096588	113196 University of Nebraska	1071 Count
Bellwood -	8/5/2021	Health Lab	G-052136	59689 Dwaine Schmit	3930 B Ro
Bellwood -	8/5/2021	Health Lab	G-029780	36614 Thomas L Schmid	1914 Hwy .
SW2102W	8/20/2021	Health Lab	G-078376	87039 Virgil E Fra	Virgil E Fra 219 West 6
SW1021W	7/26/2021	Health Lab	G-065805	73797 James M V	JMV Farms 1460 35th f
SW2108WF	8/11/2021	Health Lab	G-057948	65639 Jon R Eller	13552 W R
G-148208T	7/27/2021	Health Lab	G-148208	190462 June Loseke	34532 130t
G105802	7/28/2021	Health Lab	G-105802	125878 University of Nebraska	1071 Count
SW2102W	8/19/2021	Health Lab	G-078376	87039 Virgil E Fra	Virgil E Fra 219 West 6
Well Sectio	7/28/2021	Health Lab	G-096591	113199 University of Nebraska	1071 Count
SW2114W	7/23/2021	Health Lab	G-085460	96701 James F Mc	McDermot 1670 Colon
SW2143W	8/6/2021	Health Lab	G-066065	74068 Bernard E. Schmidt	35715 370t
SW2146W	8/16/2021	Health Lab	G-109145	130747 Wallace L Wendt	46735 130 .
G-042825	8/11/2021	Health Lab	G-042825	50126 Philip J & Marcella C Gi	29072 Cent
SW2106W	8/6/2021	Health Lab	G-127321	151643 Duane E Johnson	1388 Count
G-059892	8/16/2021	Health Lab	G-059892	67653 Schuyler Cemetery Ass	PO Box 107
SW2151W	7/8/2021	Health Lab	G-072900	81088 Carlene M Beller Tr	Irr 1605 Golde
SW2134W	7/27/2021	Health Lab	G-067069	75111 Arnold E & Nancy L Stu	24160 310 .
G-174784T	8/12/2021	Health Lab	G-174784	235848 James & Irene Fichtl Jr	2207 D Stre
SW2120W	8/19/2021	Health Lab	G-064907	218174 Terry Vavri	Vavrina anc 4061 W Ro
SW2137W	7/23/2021	Health Lab	G-106646	125867 Josh Faltys Clint	1635 Road
G-054654T	8/6/2021	Health Lab	G-054654	62244 University of Nebraska	1071 Count
G-064132	7/23/2021	Health Lab	G-064132	72056 Tim Gronenthal	30071 325 .
SW2128W	7/26/2021	Health Lab	G-070048	111980 Michael D Arps	1210 Timbe
SW2133A	7/27/2021	Health Lab	G-015552	21180 MFS TRUST, CARL SCHI	16240 BUR
Section 29	7/28/2021	Health Lab	G-096590	113198 University of Nebraska	1071 Count
SW2148WF	7/27/2021	Health Lab	G-094103	104849 Jeffrey J & Ann M Preis	46338 - 535
Bellwood -	8/5/2021	Health Lab	G-059702	67459 Francis & Donna Osant	663 9th Av
G-116396	8/11/2021	Health Lab	G-116396	140113 Ruth E Rickert Trust	2860 17 Av
G-105800	7/28/2021	Health Lab	G-105800	125876 University of Nebraska	1071 Count
Well 10	7/28/2021	Health Lab	G-054656	62246 University of Nebraska	1071 Count
SW2131W	7/26/2021	Health Lab	G-069346	77493 Evelyn M W	Frank G Wil 1978 Count
SW2112W	7/30/2021	Health Lab	G-056009	96616 Laverne M Kadavy	2863 Count
G-074608	7/23/2021	Health Lab	G-074608	82957 Patricia A Schmidt etal	2221 St. An
G-055654T	8/11/2021	Health Lab	G-055654	63262	
G-021848	8/11/2021	Health Lab	G-021848	28176 Timothy R Sprunk	34445 280 .
G105801	7/28/2021	Health Lab	G-105801	125877 University of Nebraska	1071 Count
G-160961	8/11/2021	Health Lab	G-160961	212077 Megan M & Ryan D Pre	7360 S 32 S
SW2111W	7/29/2021	Health Lab	G-064385	72331 Duane Ratk	Duane and 3150 Coun
SWN-04 (G	7/26/2021	Health Lab	G-073510	81844 Larry Cuda	112 W 15Th
Well 9	7/28/2021	Health Lab	G-096588	113196 University of Nebraska	1071 Count

SW2119AM	7/9/2021	Health Lab	A-006732	1807 Terry Papa Papa Farms	4494 Road
SW2129AM	7/27/2021	Health Lab	G-015785	21450 Sandra Ped	Sandra Ped 101 East Fa
g-031259	7/27/2021	Health Lab	G-031529	38488 Carney L Lutjens	208 S Imig I
SW2118W	7/28/2021	Health Lab	G-071791	79953 Patricia A D	Kenneth G 2033 37th S
G-068345	8/11/2021	Health Lab	G-068345	76428 Mark L Fittje	24427 - 385
G-035610	8/11/2021	Health Lab	G-035610	42709 Dorrene E Johnson	Tru 16006 Mori
G-074115	7/23/2021	Health Lab	G-074115	82455 Richard T Sprunk	etal 25624 265t
Bellwood -	8/5/2021	Health Lab	G-032752	39754 Shirley Anne McDona	lc 118 Esplana
G-054655	7/28/2021	Health Lab	G-054655	132304 University of Nebraska	1071 Count
G-027199	8/11/2021	Health Lab	G-027199	33865 Gary A Mu Mueller	So 31352 Sanc
SWN2141	7/29/2021	Midwest	G-072109	80272 Duane O Brand - Duan	1024 Skylin
G-082273T	7/27/2021	Health Lab	G-082273	91607 Katherine Rodehorst	-D6161 18 Av
Well 27	7/28/2021	Health Lab	G-091546	106430 University of Nebraska	1071 Count
SW2153W	7/12/2021	Health Lab	G-066693	74718 Constance M Flood	*T 1329 330th
G-068060	7/28/2021	Health Lab	G-068060	76137 University of Nebraska	1071 Count
SWN-50 (G	7/26/2021	Health Lab	G-067018	75050 Donavon Benson	3329 180th
G-125969	7/23/2021	Health Lab	G-125969	156624 Darrell L Janssen	etal 2756 46 AV
SW2140W	8/16/2021	Health Lab	G-067222B	75279 Karen A Domina	321 West 2
SW2130W	8/19/2021	Health Lab	G-072435	80621 Max A Smith	Etal PO Box 537
G-009501	7/23/2021	Health Lab	G-009501	14209 Lyle G Moh	Eugene R G 24266 370 :
G-181427	7/27/2021	Health Lab	G-181427	246036 Matthew R Harry	Roscl 3283 Persh
Bellwood -	8/5/2021	Health Lab	G-066578	74599 Catherine M Jarecki	Tri 102 44th R
UNL Well 2	7/28/2021	Health Lab	G-096587	113191 University of Nebraska	1071 Count
G-116920	8/16/2021	Midwest	G-116920	140084 Jerel D. Engel	390 Tilden :
G-033749	7/28/2021	Health Lab	G-033749	40780 University of Nebraska	1071 Count
SW2123W	7/23/2021	Health Lab	G-071763	79925 M & J Frick	Milton H Fr 8620 S 48th
Unl well12	7/28/2021	Health Lab	G-036212	43335 University of Nebraska	1071 Count
G-002242	7/23/2021	Health Lab	G-002242	5804 Scott Loseke	33013 325 .
SW2138W	7/27/2021	Health Lab	G-015964	21650 Leroy C Kracl	602 E 22nd
SW2114W	7/21/2021	Health Lab	G-085460	96701 James F McMcDermot	l 1670 Colon
SW2121W	7/28/2021	Health Lab	G-090204	105315 Daniel R W	Wesely Far 2677 Count
SW2145W	7/28/2021	Health Lab	G-015157	20724 Galyn L. McVerona	F M 37334 - 145
SW2153W	7/8/2021	Health Lab	G-066693	74718 Constance M Flood	*T 1329 330th
SW2139W	7/27/2021	Health Lab	G-015367	20966 Larry Feala	Feala Farm: 1711 Count
G-126483	7/27/2021	Health Lab	G-126483	147351 James A Be	Ruth A Beie 32566 257 .
Cow calve €	7/28/2021	Health Lab	G-096593	113203 University of Nebraska	1071 Count
Bellwood -	8/5/2021	Health Lab	G-127214	154664 Dwaine Schmit	3930 B Roa
SWN2147	7/19/2021	Midwest	G-066765	74792 William Kendall Becker	3215 220 Sl
SWN2118	7/28/2021	Midwest	G-071791	79953 Patricia A D	Kenneth G 2033 37th S
G -069635	7/27/2021	Health Lab	G-069635	77791 Paul H & Ar	Thrivant Fir PO Box 281
SW2125W	7/16/2021	Health Lab	G-031236	38189 Emily M Kohler	etal 418 E 18th
SW2109W	7/29/2021	Health Lab	G-090207	230684 Gary Juranek	24065 McP
SW2135W	8/10/2021	Health Lab	G-082707	92382 Ronald K Kl	Robert C La 13373 280 :
SW3121W	7/26/2021	Health Lab	G-069346	77493 Evelyn M W	Frank G Wil 1978 Count
g-105800d	7/28/2021	Health Lab	G-105800	125876 University of Nebraska	1071 Count
Bellwood -	8/6/2021	Health Lab	G-028997	35785 Dwaine Schmit	3930 B Roa
G-062877	7/23/2021	Health Lab	G-062877	70754 Double D F	Progressive 3214 25 ST

SW2148W	7/27/2021	Health Lab	G-094103	104849 Jeffrey J & Ann M Preis	46338 - 535
G-065812	8/11/2021	Health Lab	G-065812	73804 Robert G Wilke	8552 36th /
UNL Well 2	7/28/2021	Health Lab	G-096587	113191 University of Nebraska	1071 Count
G-031670	8/11/2021	Health Lab	G-031670	38633 Melissa Mejstrik	33254 235 .
SW2122WF	7/28/2021	Health Lab	G-071608	79770 Terri Storer Ernest O Ba	2307 Parkvi
SW2101W	7/23/2021	Health Lab	G-072863	81051 Leslie S Chr Joseph F an	2260 Count
sw0321WX	7/9/2021	Health Lab	G-067620	75689 Lyman-Ritc Real Estate	4315 Cumir
g-033750	7/28/2021	Health Lab	G-033750	40781 University of Nebraska	1071 Count
G-026572	8/12/2021	Health Lab	G-026572	33181 Joan B Wachal Trustee	407 E 23rd
G-081742	8/12/2021	Health Lab	G-081742	90777 Gregg Melliger	1980 E. Call
SW2108W	8/11/2021	Health Lab	G-057948	65639 Jon R Eller	13552 W Rr
G105801d	7/28/2021	Health Lab	G-105801	125877 University of Nebraska	1071 Count
G-004966	8/12/2021	Health Lab	G-004966	8907 Christenser Pathfinder	1416 East 2
SW2115AV	7/23/2021	Health Lab	G-092115	106904 Pamela K GPamela K G	324 N 1st S
SW2116W	7/27/2021	Health Lab	G-092480	102750 Willard L WCVW Farms	1809 Count
SW2142W	7/8/2021	Health Lab	G-022737	29123 Richard J. Bender	40181 - 415
SW2130W	7/23/2021	Health Lab	G-072435	80621 Max A Smith Etal	PO Box 537
SWN3421V	7/27/2021	Health Lab	G-067069	75111 Arnold E & Nancy L Stu	24160 310 :
G-057941	7/27/2021	Health Lab	G-057941	65632 Phil & Jeana Buhman	33359 126
G-016304	7/27/2021	Health Lab	G-016304	22042 Daniel L Lutjens	7282 83rd :

OwnerCity	OwnerStat	OwnerZip	Operator	OperatorAl	OperatorAc	OperatorCi	OperatorSt	OperatorZi
Richland	NE	68601	Allen H Grotelueschen	320 Rd. J	Richland	NE	68601	
Ithaca	NE	68033	Mark Schroeder	1071 Count	Ithaca	NE	68033	
Morse Bluff	NE	68648-485	Bruce Williams	2350 Count	Morse Bluff	NE	68648-485	
Ithaca	NE	68033	Mark Schroeder	1071 Count	Ithaca	NE	68033	
Fremont	NE	68025-451	Jason Thies	Sand Creek 2618 Count	Fremont	NE	68025	
Schuyler	NE	68661	Eldon Theil	Jeremy The 626 Road 1	Schuyler	NE	68661	
Columbus	NE	68601	Rory Went	6555 Shad	Columbus	NE	68601	
Mead	NE	68041-404	Duane E Johnson	1388 Count	Mead	NE	68041-404	
Omaha	NE	68124	Austin Vermeline	2381 Count	Malmo	NE	68040	
Omaha	NE	68131-101	DRB FARMS INC	16906 S 25	GRETNA	NE	68028	
Ithaca	NE	68033	Mark Schroeder	1071 Count	Ithaca	NE	68033	
Monroe	NE	68647	Ryan Tessor	2362 26 Av	Columbus	NE	68602	
Ames	NE	68621-218	Michael D Arps	1210 Timbe	Ames	NE	68621-218	
Albion	NE	68620-580	Becker & Becker LLC	3215 220th	Albion	NE	68620-580	
Petersburg	NE	68652	John Larson	2774 State	Petersburg	NE	68652	
Columbus	NE	68601	Luther L. Bakenhus	21269 310t	Columbus	NE	68601	
Fremont	NE	68025-785	Ronald Tank	1645 Count	Fremont	NE	68025	
Wahoo	NE	68066	Four K Farms LTD	1530 Count	Wahoo	NE	68066	
Newman G	NE	68758	Charles M. Flood	*Trus 1591 340th	Newman G	NE	68758	
Norfolk	NE	68701-3233						
Belle Fourc	SD	57717-053	James L Poulas	1748 Count	Fremont	NE	68025-734	
Columbus	NE	68601	Roger Goec	Goedeken I 28423 - 20	Columbus	NE	68601	
Schuyler	NE	68661	Eldon Theil	Jeremy The 626 Road 1	Schuyler	NE	68661	
Monroe	NE	68647	Bernard E. Schmidt	35715 370t	Monroe	NE	68647	
Columbus	NE	68601	Nathan Oehlrich	234 Rd C	Richland	NE	68601	
Weston	NE	68070-403	Daniel Kadavy	2863 Count	Weston	NE	68070	
Ithaca	NE	68033	Mark Schroeder	1071 Count	Ithaca	NE	68033	
Ithaca	NE	68033	Mark Schroeder	1071 Count	Ithaca	NE	68033	
Belle Fourc	SD	57717-053	James L Poulas	1748 Count	Fremont	NE	68025-734	
Schuyler	NE	68661	Robert C Kluck, Jr	396 County	Richland	NE	68601-863	
Platte Cent	NE	68653-512	James Sprunk	25446 280	Columbus	NE	68601-857	
Council Blu	IA	51503-597	William R Juranek	3641 L Roa	David City	NE	68632-670	
Richland	NE	68601	Jerel D. Engel	390 Tilden	Richland	NE	68601	
Platte Cent	NE	68653-507	Lyle Mohlman	23091 370t	Platte Cent	NE	68653-507	
Richland	NE	68601	Tom Svator	Tom Svator 657 Road 4	Richland	NE	68601	
David City	NE	68632-700	James M V	JMV Farms 1460 35th F	David City	NE	68632-700	
Ames	NE	68621-218	Michael D Arps	1210 Timbe	Ames	NE	68621-218	
Linwood	NE	68036-305	Gilbert M P	Papa Farms 1581 42nd	David City	NE	68632	
Yutan	NE	68073-501	Jack Wollen	2001 Count	Yutan	NE	68073-501	
Columbus	NE	68601	Ronald K Kl	Robert C La 13373 280	Columbus	NE	68601	
Ithaca	NE	68033	University of Nebraska	1071 Count	Ithaca	NE	68033	
Ithaca	NE	68033	University of Nebraska	1071 Count	Ithaca	NE	68033	
Schuyler	NE	68661	Charles T & Vicki M Be	29618 257	Platte Cent	NE	68653	
Columbus	NE	68601	Mark Luchsinger	35237 - 16C	Columbus	NE	68601	
Platte Cent	NE	68653	William S Wemhoff	31478 Cent	Platte Cent	NE	68653	
Columbus	NE	68601	Jody Dreifurst	87 Cottonw	Columbus	NE	68601	

Fremont NE	68025-785	Ronald Tank	1645 Count	Fremont NE	68025
Columbus NE	68601-000	Steve Semin	1474 N 11t	David City NE	68632-101
North Bend NE	68649	Larry Feala Feala Farm	1711 Count	North Bend NE	68649
Omaha NE	68118	William S Wemhoff	31478 Cent	Platte Cent NE	68653
Bellwood NE	68624	Thomas Hough Jr	2683 35th /	Columbus NE	68601
Morse Bluff NE	68648-481	Daniel R W Wesely Far	2677 Count	Morse Bluff NE	68648-481
Ithaca NE	68033	University of Nebraska	1071 Count	Ithaca NE	68033
Bellwood NE	68624	Nick Schmit	390 40 Roa	Bellwood NE	68624
Waco NE	68460	John Schmi Wilson Cre	421 40th R	Bellwood NE	68624
Mead NE	68041-019	Steven Frahm	655 County	Ashland NE	68003
David City NE	68632-700	James M V JMV Farms	1460 35th F	David City NE	68632-700
Shelby NE	68662	Jon R Eller	13552 W R	Shelby NE	68662
Columbus NE	68601-871	Ryan Loseke	34532 130 .	Columbus NE	68601-871
Ithaca NE	68033	Mark Schroeder	1071 Count	Ithaca NE	68033
Mead NE	68041-019	Steven Frahm	655 County	Ashland NE	68003
Ithaca NE	68033	University of Nebraska	1071 Count	Ithaca NE	68033
Colon NE	68018-402	James F McMcDermot	1670 Colon	Colon NE	68018-402
Monroe NE	68647	Bernard E. Schmidt	35715 370t	Monroe NE	68647
Leigh NE	68643-501	Randy Wendt	10581 430 .	Leigh NE	68643
Platte Cent NE	68653-514	Philip J & Marcella C Gi	29072 Cent	Platte Cent NE	68653-514
Mead NE	68041-404	Duane E Johnson	1388 Count	Mead NE	68041-404
Schuyler NE	68661	Eldon Theil Jeremy The	626 Road 1	Schuyler NE	68661
Norfolk NE	68701-335	Michael E. Classen	51440 295t	Humphrey NE	68642
Platte Cent NE	68653	Arnold E & Nancy L Stu	24160 310 .	Platte Cent NE	68653
Schuyler NE	68661	Robert C Kluck, Jr	396 County	Richland NE	68601-863
Abie NE	68001	Randy Vavr Vavrina Far	2191 40th F	Linwood NE	68036
Clarkson NE	68629	Josh Faltys Clint	1635 Road	Clarkson NE	68629
Ithaca NE	68033	Mark Schroeder	1071 Count	Ithaca NE	68033
Platte Cent NE	68653	William S Wemhoff	31478 Cent	Platte Cent NE	68653
Ames NE	68621-218	Michael D Arps	1210 Timbe	Ames NE	68621-218
OMAHA NE	68118	William S Wemhoff	31478 Cent	Platte Cent NE	68653
Ithaca NE	68033	University of Nebraska	1071 Count	Ithaca NE	68033
Newman G NE	68758	Jeffrey J & Ann M Preis	46338 - 53	Newman G NE	68758
Columbus NE	68601	Osantowski Ernest Osar	987 43 1/2	Bellwood NE	68624
Columbus NE	68601	Samuel L Welch	1048 Count	Richland NE	68601
Ithaca NE	68033	Mark Schroeder	1071 Count	Ithaca NE	68033
Ithaca NE	68033	University of Nebraska	1071 Count	Ithaca NE	68033
Colon NE	68018-000	Norman A Kavan, Jr	2645 Count	Cedar Bluff NE	68015-325
Weston NE	68070-403	Daniel Kadavy	2863 Count	Weston NE	68070
Columbus NE	68601-819	Jeremy Janssen	31713 - 32	Platte Cent NE	68653
		Todd Stuthman	31102 Sanc	Columbus NE	68601
Platte Cent NE	68653-516	Timothy R Sprunk	34445 280 .	Platte Cent NE	68653-516
Ithaca NE	68033	Mark Schroeder	1071 Count	Ithaca NE	68033
Lincoln NE	68516	Ryan Preister	45161 370 .	Humphrey NE	68642
Weston NE	68070-000	Duane Ratk Duane and	3150 Coun	Weston NE	68070-000
Wahoo NE	68066-101	Daniel J Kel Daniel J anc	2690 Count	Weston NE	68070-402
Ithaca NE	68033	University of Nebraska	1071 Count	Ithaca NE	68033

Linwood NE	68036-305	Gilbert M P	Papa Farms	1581 42nd	David City NE	68632
Wheaton IL	60189-640	Nicholas R	Petersen	1663 Count	Fremont NE	68025-733
Seward NE	68434-811	Jason	Mejstrik	33254 235t	Platte Cent NE	68653
Columbus NE	68601	Kenneth	Ebel	1021 43 1/2	Bellwood NE	68624
Humphrey NE	68642	Mark L	Fittje	24427 - 38	Humphrey NE	68642
Bennington NE	68007	Rachel	Wilke	28459 145t	Columbus NE	68601-981
Columbus NE	68601-858	Timothy R	Sprunk	34445 280	Platte Cent NE	68653-516
Bellwood NE	68624	Frank J	Fichtl	3461 G Roa	David City NE	68632
Ithaca NE	68033	Mark	Schroeder	1071 Count	Ithaca NE	68033
Columbus NE	68601	Tyler R	Mueller	31398 Sanc	Columbus NE	68601-981
Fremont NE	68025-785	Ronald	Tank	1645 Count	Fremont NE	68025
Columbus NE	68601	Tim	Rodehorst	1501 68 Str	Columbus NE	68601
Ithaca NE	68033	University of Nebraska		1071 Count	Ithaca NE	68033
Newman G NE	68758	Charles M. Flood	*Trus	1591 340th	Newman G NE	68758
Ithaca NE	68033	Mark	Schroeder	1071 Count	Ithaca NE	68033
Newman G NE	68758	Donavon	Benson	3329 180th	Newman G NE	68758
Columbus NE	68601	Jeremy	Janssen	31713 - 32	Platte Cent NE	68653
Fremont NE	68025-251	Zachary T	Taylor Farn	1969 Count	Ames NE	68621-212
Belle Fourc SD	57717-053	James L	Poulas	1748 Count	Fremont NE	68025-734
Platte Cent NE	68653	Lyle Mohlr	WEWA Inc	23091 370t	Platte Cent NE	68653
Columbus NE	68601	Arnold E & Nancy L	Stu	24160 310	Platte Cent NE	68653
Columbus NE	68601-000	Scott	Jarecki	140 44 Roa	Columbus NE	68601
Ithaca NE	68033	University of Nebraska		1071 Count	Ithaca NE	68033
Richland NE	68601	Jerel D.	Engel	390 Tilden	Richland NE	68601
Ithaca NE	68033	Mark	Schroeder	1071 Count	Ithaca NE	68033
Omaha NE	68157-251	Scott A	Sukstorf	1126 Timbe	Fremont NE	68025
Ithaca NE	68033	University of Nebraska		1071 Count	Ithaca NE	68033
Platte Cent NE	68653-501	Scott	Loseke	33013 325	Platte Cent NE	68653-501
Schuyler NE	68661	Curt Bohac	Bohac Ente	115 E 15th	Schuyler NE	68661
Colon NE	68018-402	James F Mc	McDermott	1670 Colon	Colon NE	68018-402
Morse Bluff NE	68648-481	Daniel R W	Wesely Fari	2677 Count	Morse Bluff NE	68648-481
Columbus NE	68601	Galyn L. Mc	Verona F M	37334 - 14	Columbus NE	68601
Newman G NE	68758	Charles M. Flood	*Trus	1591 340th	Newman G NE	68758
North Bend NE	68649	Larry Feala	Feala Farm	1711 Count	North Bend NE	68649
Platte Cent NE	68653-511	Larry J	Beie Smokie Joe	4026 34th	Columbus NE	68601
Ithaca NE	68033	University of Nebraska		1071 Count	Ithaca NE	68033
Bellwood NE	68624	Nick	Schmit	390 40 Roa	Bellwood NE	68624
Albion NE	68620-580	Becker & Becker	LLC	3215 220th	Albion NE	68620-580
Columbus NE	68601	Kenneth	Ebel	1021 43 1/2	Bellwood NE	68624
Appleton WI	54912-281	Troy	Brandt	33421 325	Platte Cent NE	68653-501
Schuyler NE	68661	Eldon Theil	Jeremy The	626 Road 1	Schuyler NE	68661
Council Bluffs IA	51503-597	William R	Juranek	3641 L Roa	David City NE	68632-670
Columbus NE	68601	Ronald K Kl	Robert C La	13373 280	Columbus NE	68601
Colon NE	68018-000	Norman A	Kavan, Jr	2645 Count	Cedar Bluff NE	68015-325
Ithaca NE	68033	Mark	Schroeder	1071 Count	Ithaca NE	68033
Bellwood NE	68624	Nick	Schmit	390 40 Roa	Bellwood NE	68624
Columbus NE	68601	Double D F	Progressive	3214 25 ST	Columbus NE	68601

Newman G NE	68758 Jeffrey J & Ann M Preis	46338 - 53	Newman G NE	68758
Columbus NE	68601-801	Kari Wilke Wilke Cattl	14111 298t Columbus NE	68601-963
Ithaca NE	68033 University of Nebraska	1071 Count	Ithaca NE	68033
Platte Cent NE	68653 Jason Mejstrik	33254 235t	Platte Cent NE	68653
Fremont NE	68025-451	Jason Thies Sand Creek	2618 Count Fremont NE	68025
Cedar Bluff NE	68015-323	Leslie S Chr Joseph F an	2260 Count Cedar Bluff NE	68015-323
Omaha NE	68131-101	DRB FARMS INC	16906 S 25	GRETNA NE 68028
Ithaca NE	68033 Mark Schroeder	1071 Count	Ithaca NE	68033
Schuyler NE	68661 Jeffrey L Wachal	596 Road 1	Schuyler NE	68661
Columbus NE	68601 Brent Melliger	270 SE 5th	Columbus NE	68601
Shelby NE	68662 Jon R Eller	13552 W R	Shelby NE	68662
Ithaca NE	68033 Mark Schroeder	1071 Count	Ithaca NE	68033
Fremont NE	68025-241	Robert C Kluck, Jr	396 County Richland NE	68601-863
Elmwood NE	68349-600	Timothy J Shanahan	300 North (Cedar Bluff NE	68015-003
Yutan NE	68073-501	Craig D Witte	789 County Yutan NE	68073-500
Lindsay NE	68644 Richard J. Bender	40181 - 41	Lindsay NE	68644
Belle Fourc SD	57717-053	James L Poulas	1748 Count Fremont NE	68025-734
Platte Cent NE	68653 Arnold E & Nancy L Stu	24160 310	Platte Cent NE	68653
Columbus NE	68601 Phil & Jeana Buhman	33359 126	Columbus NE	68601
Columbus NE	68601 Jason Mejstrik	33254 235t	Platte Cent NE	68653

1,4-Dichloro1,4-Dichloro1,4-Dichloro1,4-Dichloro1,4-Dichloro1,4-Dichloro2-Fluorobip2-Fluorobip2-Fluorobip

5

4

7

8

2 njs0

1.03 NEP

ppb

1.56 njs0

2

2

2

4

7

98

4

7

8

5

6

4

8

8

4

4

2

7

9

0

0

9

2

8
0

6

9
2

3

8
6

8

2

7

9

0

9

2

9

4

2

2-Fluorobip2-Fluorobip2-FluorobipAcenaphthAcenaphthAcenaphthAcenaphthAcenaphthAcenaphthAcenaphth

1.03 NEP ug/L

2 njs0

1.03 NEP ppb

Acetochlor Acetochlor, Acetochlor, Acetochlor, Acetochlor, Acetochlor, Alachlor Alachlor, Alachlor, Alachlor, De

njs0

0.19

1.03 NEP

ug/L

njs0

0.16

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1
0 0.1

0

0.1

0

0.1

AlachlorDiluAlachlorMeAlachlorUn Aldrin AldrinAnalyAldrinDetecAldrinDilutiAldrinMeth AldrinUnits

1.03 NEP ug/L

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

Ametryn AmetrynAn AmetrynDe AmetrynDil AmetrynM AmetrynUn Arsenic ArsenicAna ArsenicDet

njs0 0.1 1.03 NEP ug/L

3.22

3.34

ArsenicDiluArsenicMetArsenicUnit Atrazine AtrazineAn AtrazineDe AtrazineDil AtrazineMe AtrazineUn

njs0 0.14 1.03 NEP ug/L

UNL 19_01 ug/l
EPA 6020A ug/l

0 0.08 EPA 525.2 ug/L

0 0.08 EPA 525.2 ug/L

0 0.08 EPA 525.2 ug/L

0 0.08 EPA 525.2 ug/L

0 0.08 EPA 525.2 ug/L

EPA 6020 A ug/l

0 0.08 EPA 525.2 ug/L

0 0.08 EPA 525.2 ug/L

0 0.08 EPA 525.2 ug/L

0 0.08 EPA 525.2 ug/L
0 0.08 EPA 525.2 ug/L

0	0.08	EPA 525.2 ug/L
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0	0.08	EPA 525.2 ug/L
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Benfluralin Benfluralin, Benfluralin|Benfluralin|Benfluralin|Benfluralin|Benfluralin|Benzo(a)py Benzo(a)py Benzo(a)py

njs0 0.22 1.03 NEP ug/L

0 0.06

0 0.06

0 0.06

0 0.06

0 0.06

0 0.06

0 0.06

0 0.06

0 0.06
0 0.06

0 0.06

0 0.06

Benzo(a)py Benzo(a)py Benzo(a)py Bromacil BromacilAn BromacilDe BromacilDil BromacilM BromacilUr

njs0 0.14 1.03 NEP ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

Butachlor ButachlorA ButachlorD ButachlorD ButachlorM ButachlorU Butylate ButylateAn ButylateDe

njs0

0.12

1.03 NEP

ug/L

njs0

0.17

0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
---	-----	----------------	---	-----

0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
0	0.1	EPA 525.2 ug/L	0	0.1

0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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ButylateDil ButylateMεButylateUn Chlorpyrifo Chlorpyrifo Chlorpyrifo Chlorpyrifo Chlorpyrifo Chlorpyrifo

1.03 NEP ug/L

njs0

0.18

1.03 NEP

ug/L

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
----------------	---	-----	----------------

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
----------------	---	-----	----------------

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
----------------	---	-----	----------------

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
----------------	---	-----	----------------

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
----------------	---	-----	----------------

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
----------------	---	-----	----------------

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
----------------	---	-----	----------------

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

Cyanazine CyanazineACyanazineECyanazineDCyanazineNCyanazineLDeisopropyDeisopropyDeisopropy

njs0

0.1

1.03 NEP

ug/L

njs0

0.12

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

0 0.15 EPA 525.2 ug/L

DeisopropyDeisopropyDeisopropyDesethylatrDesethylatrDesethylatrDesethylatrDesethylatrDesethylatr

1.03 NEP ug/L

njs0

0.14

1.03 NEP ug/L

Di(2-ethylh Di(2-ethylh Di(2-ethylh Di(2-ethylh Di(2-ethylh Di(2-ethylh Di(2-ethylh Di(2-ethylh Di(2-ethylh

0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
0	0.5	EPA 525.2 ug/L	0	2

0	0.5	EPA 525.2 ug/L	0	2
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0	0.5	EPA 525.2 ug/L	0	2
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Di(2-ethylh Di(2-ethylh Di(2-ethylh Dieldrin DieldrinAnzDieldrinDetDieldrinDiltDieldrinMe DieldrinUni

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

Dimethena Dimethena Dimethena Dimethena Dimethena Dimethena Endrin EndrinAnal EndrinDete

njs0 0.17 1.03 NEP ug/L

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1
0 0.1

0

0.1

0

0.1

EndrinDilut EndrinMetf EndrinUnit: EPTC

EPTCAnalys EPTCDetect EPTCDilutic EPTCMethc EPTCUnits

njs0

0.17

1.03 NEP

ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EthalfluraliiEthalfluraliiEthalfluraliiEthalfluraliiEthalfluraliiEthalfluralii Fonofos FonofosAn:FonofosDet

njs0

0.2

1.03 NEP

ug/L

njs0

0.17

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1
0 0.1

0

0.1

0

0.1

FonofosDilFonofosMeFonofosUni HeptachlorHeptachlor Heptachlor Heptachlor Heptachlor Heptachlor

1.03 NEP ug/L

EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
EPA 525.2 ug/L	0	0.068	0.04	EPA 525.2

EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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EPA 525.2 ug/L	0	0	0.04	EPA 525.2
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Heptachlor Heptachlor.Heptachlor Heptachlor Heptachlor Heptachlor Heptachlor HexachloroHexachloroHexachloro

ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
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ug/L	0.08	EPA 525.2 ug/L	0	0.1
ug/L	0.08	EPA 525.2 ug/L	0	0.1

ug/L	0.08	EPA 525.2 ug/L	0	0.1
ug/L	0.08	EPA 525.2 ug/L	0	0.1

HexachloroHexachloroHexachloroHexachloroHexachloroHexachloroHexachloroHexachloroHexachloro

EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L
EPA 525.2 ug/L	0	0.1	EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.1

EPA 525.2 ug/L

HexazinoneHexazinoneHexazinoneHexazinoneHexazinoneHexazinoneIsophenphcIsophenphcIsophenphc

njs0

0.1

1.03 NEP

ug/L

njs0

0.17

IsophenphcIsophenphcIsophenphc Lindane LindaneAnzLindaneDetLindaneDilLindaneMe LindaneUni

1.03 NEP ug/L

0 0.04 EPA 525.2 ug/L

0 0.04 EPA 525.2 ug/L

0 0.04 EPA 525.2 ug/L

0 0.04 EPA 525.2 ug/L

0 0.04 EPA 525.2 ug/L

0 0.04 EPA 525.2 ug/L

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0 0.04 EPA 525.2 ug/L

0 0.04 EPA 525.2 ug/L

0.051

0.04

EPA 525.2 ug/L

0

0.04

EPA 525.2 ug/L

Methoxych Methoxych Methoxych Methoxych Methoxych Methoxych MetolachloMetolachloMetolachlo

njs0

0.16

0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
0	0.1	EPA 525.2 ug/L	0	0.1

0	0.1	EPA 525.2 ug/L	0	0.1
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0	0.1	EPA 525.2 ug/L	0	0.1
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MetolachloMetolachloMetolachlo Metribuzin Metribuzin, Metribuzin|Metribuzin|Metribuzin|Metribuzin|

1.03 NEP ug/L

njs0

0.11

1.03 NEP ug/L

EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
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EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L
EPA 525.2 ug/L	0	0.5	EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.5

EPA 525.2 ug/L

EPA 525.2 ug/L

0

0.5

EPA 525.2 ug/L

23.6	0.05
0.32 JAJ4	0.13
14.8	0.05
12.2	0.05
3.56	0.05
3.92	0.05
5.24	0.05
11.4	0.05
0.92	0.05
3.43	0.05
11.3	0.05
8.61	0.05
8.32	0.05
5.03	0.05
1.16	0.05
8.55	0.05
0.08	0.05
22.3	0.05
10.8	0.05
23.1	0.05
16	0.05
0	0.05
8.44	0.05
5.71	0.05
6.01	0.05
2.42	0.05
4.93	0.05
13.4	0.05
5.07	0.05
1.26	0.05
1.48	0.05
17.8	0.05
2.33	0.05
0.87	0.05
7.2	0.05
17	0.05
4.13	0.05
9.17	0.05
0.31	0.05
0	0.05
11.8	0.05

11.3	0.05
3.52	0.05
9.54	0.05
2.55	0.05
8.92	0.05
11.2	0.05
13.6	0.05
4.52	0.05
6.72	0.05
14.3	0.05
0 JAJ4	0.13
0	0.05
22.6	0.05

11.3	0.05
4.83	0.05
2.22	0.05

5.25	0.05
0.17	0.05
11.9	0.05
4.96	0.05
0 JAJ4	0.13
34.7	0.05
2.11	0.05
17.9	0.05
13.1	0.05
0.38	0.05

3.55	0.05
6.16	0.05
6.41	0.05
0.29	0.05
0.72	0.05
12.7	0.05
6.04	0.05
7.72 JAJ4	0.13
2.68 JAJ4	0.13
1.59	0.05
12.8	0.05

2.26	0.05
1.47	0.05
6.4	0.05
6.96	0.05

12.9	0.05
4.94	0.05
4.05	0.05
3.22	0.05
4	0.05
14.3	0.05
4.55	0.05
5.15	0.05
4.14	0.05
16.8	0.05
10.2	0.05
5.2	0.05
10.8	0.05
4.13	0.05
23.7	0.05
0.57	0.05
0	0.05

Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L
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Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L
1 EPA 353.2 f mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L

6.07

0.05

Lachat 10-1 mg/L

Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L

Lachat 10-1 mg/L
Lachat 10-1 mg/L
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Lachat 10-1 mg/L
1 EPA 353.2 mg/L
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Lachat 10-1 mg/L
1 EPA 353.2 mg/L
1 EPA 353.2 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L

Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L
Lachat 10-1 mg/L

Lachat 10-1 mg/L

8.57

0.05

Lachat 10-1 mg/L

Lachat 10-1 mg/L

Lachat 10-1 mg/L

Lachat 10-1 mg/L

Lachat 10-1 mg/L

Lachat 10-1 mg/L

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Lachat 10-1 mg/L

Lachat 10-1 mg/L

Lachat 10-1 mg/L

Lachat 10-1 mg/L

Nitrobenze Nitrobenze Nitrobenze Nitrobenze Nitrobenze Nitrobenze Oxadiazon Oxadiazon/OxadiazonL

1.78 njs0

1.03 NEP

ug/L

njs0

0.07

Oxadiazon Oxadiazon Oxadiazon Pendimeth Pendimeth Pendimeth Pendimeth Pendimeth Pendimeth

1.03 NEP ug/L

njs0

0.18

1.03 NEP ug/L

Phenanthrene Phenanthrene Phenanthrene Phenanthrene Phenanthrene Phenanthrene Phorate Phorate An Phorate Det

2 njs0

1.03 NEP

ppb

njs0

0.17

PhorateDil PhorateMe PhorateUni Prometon PrometonA PrometonD PrometonDPrometonMPrometonU

1.03 NEP ug/L

njs0

0.12

1.03 NEP ug/L

Prometryn Prometryn/PrometrynI PrometrynI PrometrynI PrometrynI Propachlor Propachlor, PropachlorI

njs0

0.11

1.03 NEP

ug/L

njs0

0.17

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1
0 0.1

0

0.1

0

0.1

Propachlor|Propachlor|Propachlor|Propazine PropazineAPropazineDPropazineDPropazineMPropazineU

1.03 NEP ug/L

njs0

0.14

1.03 NEP ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

p-Terphenyp-Terphenyp-Terphenyp-Terphenyp-Terphenyp-Terpheny Simazine SimazineArSimazineDe

1.38 njs0

1.03 NEP

ug/L

njs0

0.16

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1

0 0.1
0 0.1

0

0.1

0

0.1

SimazineDilSimazineMlSimazineUr Terbufos TerbufosAnTerbufosDeTerbufosDilTerbufosMlTerbufosUr

1.03 NEP ug/L

njs0

0.19

1.03 NEP ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

EPA 525.2 ug/L

Total ChlorTotal ChlorTotal ChlorTotal ChlorTotal ChlorTotal ChlorTriallate TriallateAn:TriallateDet

njs0

0.26

0 0.3 EPA 525.2 ug/L

0 0.3 EPA 525.2 ug/L

0 0.3 EPA 525.2 ug/L

0 0.3 EPA 525.2 ug/L

0 0.3 EPA 525.2 ug/L

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0 0.3 EPA 525.2 ug/L

0 0.3 EPA 525.2 ug/L

TriallateDilTriallateMeTriallateUni Trifluralin TrifluralinA TrifluralinD TrifluralinD TrifluralinVTrifluralinU

1.03 NEP ug/L

njs0

0.23

1.03 NEP ug/L

0 0.1 EPA 525.2 ug/L

0 0.1 EPA 525.2 ug/L

0 0.1 EPA 525.2 ug/L

0 0.1 EPA 525.2 ug/L

0 0.1 EPA 525.2 ug/L

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0 0.1 EPA 525.2 ug/L

0 0.1 EPA 525.2 ug/L

0 0.1 EPA 525.2 ug/L

Uranium UraniumAnUraniumDeUraniumDilUraniumM UraniumUnits

6.92

20.6

UNL 19_01 ug-1

EPA 6020A ug/l

