



LOWER PLATTE SOUTH natural resources district

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Memorandum

Date: November 8, 2024

To: Board of Directors

From: David Potter, Assistant General Manager 

RE: Platte River Subcommittee – November 7, 2024, Meeting Minutes.

The Platte River Subcommittee met at the NRD office on Thursday, November 7, 2024. Subcommittee members in attendance included Ken Vogel, Gary Aldridge, Seth Hawkins, Gary Hellerich, Don Jacobson, Christine Lamberty, and Susan Seacrest. Directors absent included Luke Peterson. Others in attendance included Dave Landis, David Potter, Samuel Thomas, and Isaac Thomas. The meeting was called to order by Chair Vogel at 6:06 p.m. and the agenda was reviewed.

The first action item on the agenda for consideration was the **2024-2029 Revision to the Water Quality Management Plan for the LPRCA**. Potter provided a background on the Lower Platte River Corridor Alliance (LPRCA) and the development of the Water Quality Management Plan (WQMP). The Lower Platte River Corridor is generally defined as the 110 miles of the Lower Platte River, the bluffs, and adjoining public and private lands located within the floodplain of the Lower Platte River from Columbus to the mouth of the river near Plattsmouth. The LPRCA is currently a consortium of three Natural Resources Districts (NRDs) and five state agencies dedicated to working with people to protect the long-term vitality of the Lower Platte River Corridor. The Lower Platte River had been listed by NDEQ (now NDEE) as being impaired due to the presence of *E. coli* bacteria, and in 2007 a TMDL for the pollutant was approved.

The LPRCA finalized developed the WQMP in 2019 to implement best management practices that address nitrogen, phosphorous and e-coli and additional water quality parameters. The WQMP identifies priority watersheds for the Lower Platte River Corridor. Management Initiatives identify the need within each of the priority watersheds: inventory current land treatments; identify BMPs and targeted load reductions to develop implementation plans (including implementation cost and schedule); initiate a cost-share program for upgrades to on-site wastewater systems and well decommissioning in housing areas along the Platte; and develop targeted education and outreach including educational workshops focused on on-site wastewater systems.

LPSNRD on behalf of the LPRCA hired HDR to develop and complete the WQMP for the corridor. The draft plan was finalized in October of 2014 and submitted for review. Revisions were made and the revised Plan was submitted to NDEQ (now NDEE) and then to EPA for review in July 2018. The WQMP was amended before final approval and was submitted to EPA at the end of March 2019. EPA approved the WQMP on April 9, 2019. With the plan approved by EPA, projects within priority 1 areas of the plan within the corridor became eligible for 319 funding. The WQMP was approved by the Alliance by consensus at their May 13, 2019, meeting and by the Lower Platte South NRD on behalf of the LPRCA on June 19, 2019.

The main purposes for having a WQMP is to provide a concise summary of the condition of water resources in Lower Platte River Corridor and to provide direction and a coordinated approach for addressing nonpoint source pollution. The WQMP provides one overarching plan that identifies and focuses on LPRCA and agency priorities. With the approved plan, efforts can be directed to project development and funding acquisition. WQMPs provide numerous benefits including allowing access to Section 319 funding for groundwater and surface water projects, enhancing project buy-in and grant funding potential by integrating LPRCA, agency, and community priorities, providing supporting information for project and grant application development, aiding in LPRCA and agency budget planning, and allowing for more effective leveraging of funds for projects and activities. The WQMP and the 2024-2029 Revision document a list of projects and practices aimed at improving water quality and removing impaired waters from the 303(d) list and provides specific project plans for implementation over the next 3-5 years.

The WQMP requires an update every five (5) years, therefore the format takes this into consideration, and it was designed to be dynamic rather than fixed, allowing for minimal updating effort. Future updates will include a revised assessment of water quality data as compared to WQMP criteria and a determination of whether the current strategy is on track to meet plan goals and, if needed, new nonpoint source load estimates, revision of goals and objectives, updated management strategies and priorities, and updates to the resource and budget needs. After the plan is revised within the required five years, new areas may be targeted.

The WQMP was up for review and revision this year. LPRCA members voted to update the Plan in house. PMRNRD took the lead with LPNNRD and LPSNRD assisting. The recommended revisions were not substantial. The update did not provide for any new priority areas or water quality goals due to insignificant overall change in the LPSNRD watersheds and no new BMPs were identified. A summary of the revision can be found in the copy of EPA's acceptance and checklist. The prepared update was approved by the LPRCA in May 2024 and sent to NDEE and then to the EPA for review. The 2024-2029 Revision was accepted by EPA and NDEE on September 30, 2024. With its approval, the WQMP will continue to be the guiding document for water quality management in the LPRCA. The 2024-2029 Revision is provided and the 2019 LPRCA WQMP is available on the LPSNRD website at: https://www.lowerplatte.org/news_publications/resources.html.

It was moved by Vogel, seconded by Lamberty, and unanimously approved to recommend the LPSNRD Board of Directors approve the 2024-2029 Revision to the Water Quality Management Plan for the Lower Platte River Corridor Alliance.

The next item was consideration of the **First Amendment to the Interlocal Cooperation Act Agreement for the Platte River and Elkhorn River Cameras between LPSNRD and PMRNRD**. Following the March 2019 flood event, local NRDs emergency managers, and city staff have been interested in deploying camera systems and sensors at key locations along the Platte River to directly observe what is happening during potential ice jam and flooding situations. In 2021, cameras were installed along the Platte River at Columbus, Schuyler, North Bend, Fremont and Leshara. These cameras have provided valuable information on ice breakup and movement through the Platte system. Here is a link to the cameras: <https://apps.usgs.gov/hivis/>. PMRNRD has recently worked with the USGS to install three additional cameras, two on the Elkhorn River at Winslow and West Point and one on the Platte River at Ashland.

In 2023, the Board approved an interlocal cooperation agreement with PMRNRD for the Elkhorn/Platte River Cameras project. USGS contributed to each gage and provided the equipment

and maintenance while LPSNRD and PMRNRD agreed to split the local cost-share. LPSNRD was to provide only half the local share for the camera near Ashland, with PMRNRD providing the other half. PMRNRD was also providing local cost-share on the other two cameras themselves.

Since the installation of the most recent cameras, PMRNRD and USGS now want to install another camera on the Platte River near Louisville. LPSNRD also has an interest in and has planned for this additional camera in our budget and LRIP. The First Amendment to the current Interlocal Cooperation Agreement which reflects this arrangement was provided to the subcommittee for their consideration. The LPSNRD cost for the installation of the camera at Louisville is \$5,090.00, the cost for the FY25 operation and maintenance of the camera at Louisville is \$1,587.50, and the LPSNRD cost for the FY25 operation and maintenance of the camera at Ashland is \$1,639. A copy of the existing agreement with PMRNRD was also provided to the subcommittee for reference. The goal is to get the camera at Louisville installed and operating in the next month or two just prior to ice jam season. The existing camera near Ashland can be accessed at:

[https://usgs-nims-images.s3.amazonaws.com/overlay/NE Platte River near Ashland/NE Platte River near Ashland newest.jpg](https://usgs-nims-images.s3.amazonaws.com/overlay/NE%20Platte%20River%20near%20Ashland/NE%20Platte%20River%20near%20Ashland%20newest.jpg)

The subcommittee discussed the locations of the cameras and the operation of them.

It was moved by Vogel, seconded by Hellerich, and unanimously approved to recommend the Board of Directors approve the First Amendment to the Interlocal Cooperation Act Agreement for the Platte River and Elkhorn River Cameras between LPSNRD and PMRNRD.

With no further business or discussion, Vogel declared the meeting adjourned at 6:20 p.m.

Attachment: 1

Pc: file



Lower Platte River
CORRIDOR ALLIANCE

LEAD. ORGANIZE. INSPIRE.
The voice of the Lower Platte.



2024 - 2029 REVISION TO THE WATER QUALITY MANAGEMENT PLAN
for The Lower Platte River Corridor Alliance

Approved by NDEE in September, 2024

2024 – 2029 Revision to the Water Quality Management Plan for the Lower Platte River Corridor Alliance

This document constitutes a revision and amendment to the 2019 – 2024 Water Quality Management Plan for the Lower Platte River Corridor Alliance (LPRCA), which includes the Lower Platte – Shell, Lower Platte, Salt and Lower Elkhorn Hydrologic Unit Code 8 (HUC 8) watersheds, hereinafter referred to as the “LPRCA Watersheds”. This amendment will be attached to the original LPRCA Water Quality Management Plan upon finalization. The Water Quality Management Plan, including this revision, is intended to serve as a coordination guide for the Lower Platte River Corridor Alliance, conservation organizations, communities, and educational institutions to plan and implement water quality management projects in the LPRCA Watersheds. It is expected that potential project sponsors will communicate and coordinate their activities in the LPRCA Watersheds with the key partners in the plan, including the Papio-Missouri River NRD (Papio NRD), Lower Platte North NRD (LPNNRD), Lower Platte South NRD (LPSNRD), and Nebraska Department of Environment & Energy (NDEE). Other plan stakeholders and members of the LPRCA include the Nebraska Department of Natural Resources (DNR), Nebraska National Guard and Camp Ashland, University of Nebraska-Lincoln (UNL), Nebraska Game and Parks Commission (NGPC), and the United States Geological Survey (USGS).

Highlights of Accomplishments 2019-2024

In 2023, the LPRCA began scoping monitoring well installation in Springfield, Nebraska. Monitoring well clusters will be installed upstream and downstream of the City of Springfield’s Wellhead Protection Area (WHPA) to monitor the baseline nitrate conditions in the soils and groundwater. The LPRCA will also coordinate with the City of Springfield to implement Urban Stormwater BMPs such as bioswales, rain gardens, and improved pet waste and soil health management to reduce the introduction of nitrate into the WHPA. This project is part of the Lower Platte River Water Quality and Springfield, NE Drinking Water Protection Management Implementation: Phase 1 Project.

The mission of the LPRCA is to foster the development and implementation of locally drawn strategies, actions, and practices to protect, enhance, and restore the vitality of the Lower Platte River’s resources. The LPRCA continues to meet semiannually to coordinate and plan efforts to support this mission, where the Water Quality Management Plan is a key focus. Meetings involve a variety of public agencies and private consultants, who regularly give Lower Platte relevant updates from their respective organizations. Beyond the Water Quality Management Plan, the programs and projects discussed involve active studies (e.g. USGS Stream Gauges, Stream Cameras, Trend Analyses), ongoing projects (e.g. Platte River Railroad Obstruction) and future work (e.g. LPNNRD Drainage Project with Dodge County and City of Fremont, Lower Platte River Aquatic Ecosystem Restoration Comprehensive Study Update). The LPRCA also conducts outreach activities, such as an airboat tour of the Lower Platte River in 2023. The group continues to grow and complete impactful water and environmental work in the Lower Platte River area.

Amendments to the Water Quality Management Plan 2024 – 2029

1. The Water Quality Management Plan for the Lower Platte River Corridor Alliance is amended to extend from **TBD**, 2024 through **TBD**, 2029. Goals, objectives, tasks, priorities, and other actions, with the exception of those amended in this document, continue as guidance for implementing nonpoint source management projects in the

LPRCA Watersheds. Priority watershed selection, load reduction data and significant land use data remain the same due to insignificant overall change in the LPRCA Watersheds.

2. All references to the Nebraska Department of Environmental Quality (NDEQ) are amended to the Nebraska Department of Environment and Energy (NDEE) reflecting the Department's name change.
3. On Page 17 the following statement is made:
The 2016 Nebraska Water Quality Integrated Report prepared by NDEQ identified both segments of the lower Platte River as impaired. Segment LP1–10000 is identified as impaired for aquatic life due to selenium and for a fish consumption advisory. LP1–20000 is identified as impaired for recreation due to *E. coli* (NDEQ, 2016).

The statement is amended to be the following (changes in red), as revised by subsequent publications of the Nebraska Surface Water Quality Integrated Report:

The 2020 Nebraska Water Quality Integrated Report prepared by NDEE identified both segments of the lower Platte River as impaired. Segment LP1–10000 is identified as impaired for Recreation use due to *E. coli* bacteria, impaired for Aquatic Life use due to a Fish Consumption Advisory for Hazard Index Compounds and impaired for Public Drinking Water Use due to Arsenic. LP1–20000 is identified as impaired for Recreation use due to *E. coli* bacteria and impaired for Public Drinking Water Use due to Arsenic (NDEE, 2020).

Note that no further changes to these waterbodies were reported within the 2022 Nebraska Water Quality Integrated Report. The addition of arsenic impairment is due to a 2019 revision of Nebraska's water quality standards which lowered the arsenic drinking water standard from 10 µg/L to 0.18 µg/L. The removal of selenium impairment for LP-10000 is due to an update of the Selenium assessment methods for acute water quality standards reflecting EPA's priority toxic pollutants method.

The 2020 Nebraska Water Quality Report is further appended to the References section on pages 83-84 as:

NDEE 2021, 2020 Surface Water Quality Integrated Report.

4. On Page 74 the following statement is made:
 - Loup River – Impaired for Recreation—bacteria; and Aquatic Life—fish consumption. A TMDL has been approved.
 - Elkhorn River – Impaired for Recreation—bacteria. A TMDL has been approved.
 - Salt Creek – Impaired for Recreation—bacteria; Aquatic Life—Ammonia, Chloride; Fish consumption advisory; Impaired aquatic community; Agriculture Water Supply—conductivity. A TMDL has been approved.

The statement is amended to be the following (changes in red), as revised by subsequent publications of the Nebraska Surface Water Quality Integrated Report:

- Loup River – Impaired for Recreation—bacteria. A TMDL has been approved.

- Elkhorn River – Impaired for Recreation—bacteria. A TMDL has been approved.
- Salt Creek – Impaired for Recreation—bacteria; Aquatic Life—Ammonia, Copper; Impaired Aquatic Community. A TMDL has been approved.

The 2022 Nebraska Water Quality Report is further appended to the References section on pages 83-84 as:

NDEE 2023, 2022 Surface Water Quality Integrated Report.

5. Schedule and Milestones (Table 16, Page 77) is revised to reflect the new project timeline. See **Attachment 1**. The narrative schedules on Pages 76 and ES8 are adjusted to reflect the new project timeline.
6. The following impairment tables from the 2022 NE IR Report are appended as an additional series of Tables under the Management Plan Implementation section. See **Attachment 2**.
7. On Page 74 the following statement is made regarding septic tank system replacement:
 “If the homeowner wishes to upgrade to current design standards, the homeowner may request up to 60% reimbursement (not to exceed \$3,000) for the replacement of the system in addition to 60% reimbursement (not to exceed \$300) for pumping and inspection.”

Per NDEE’s current guidelines, the statement is amended as follows:

“If the homeowner wishes to upgrade to current design standards, the homeowner may request up to 60% reimbursement (not to exceed **\$15,000**) for the replacement of the system in addition to 60% reimbursement (not to exceed \$300) for pumping and inspection.”

The homeowner must still provide proof that the new system has been properly registered with NDEE.

8. On Page 64 under Management Initiative 2, a third bullet is added as follows:
 - Implement Voluntary Septic Tank Upgrade Program
 - Contributing Watershed Coordination Plan
 - **Implement Wellhead Protection Plan(s) (as applicable) within Wellhead Protection Areas (see Figure 9) as Special Priority Areas**
9. Figure 9, displaying the current Wellhead Protection Areas, is amended as shown in **Attachment 3**.

ATTACHMENT 1
REVISED TABLE 16. PLAN IMPLEMENTATION
MILESTONES

Table 16 (Amended). Plan Implementation Milestones

Milestone	1	2	3	4	5	6-10	11-20
	2024	2025	2026	2027	2028	2029-2035	2036-2046
Plan Re-Evaluation	Annually						
Implement Information and Outreach Strategies	Ongoing						
Identify funding for Priority 1 Watershed Implementation	X	X	X	X	X	X	X
Implementation of BMPs association with Priority 1 Watersheds				X	X		
Priority 1 Watersheds Composite <i>E. coli</i> load reduction					6.62E+16 CFU/ Year = 10% of Total Load Reduction Needed to meet TMDL goal at Louisville	TBD ¹	TBD ¹
Initiate Contributing Watershed Coordination Plan			X				
Identify funding for Voluntary Septic Tank Inspection Program		X	X				
Develop Details and Outreach Materials for Voluntary Septic Tank Inspection Program			X				
Perform first septic tank inspection			X				
Perform first cost-share septic tank remediation			X				
Watershed Plan Update (every 5 years)	X					X	X

¹As Priority I Watersheds are re-evaluated and assigned during Watershed Plan updates, the E. Coli load reductions will be calculated. The intent of full Watershed Plan implementation is to achieve the 1.49E+17cfu annual reduction needed at the Louisville gauge to achieve the TMDL limit.

ATTACHMENT 2
2022 NEBRASKA WATER QUALITY INTEGRATED
REPORT IMPAIRMENT TABLES

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
Lakes											
EL1-L0010	Highway 275 Bypass Lake No. 1	NA	NA		NA		NA	NA	3		
EL1-L0020	Highway 275 Bypass Lake No. 2	NA	NA		NA		NA	NA	3		
EL1-L0030	Highway 275 Bypass Lake No. 4 (Johnson Park Lake)	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL1-L0040	Highway 275 Bypass Lake No. 3	NA	NA		NA		NA	NA	3		
EL1-L0050	Hooper City Lake	NA	NA		NA		NA	NA	3		
EL1-L0060	West Point City Lake (Neligh Park Lake)	NA	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α (Total Nitrogen, Total Phosphorus)	Lake renovated 2004, Fish Consumption Assessment completed
EL1-L0070	Pilger Reservoir	NA	S		S		S	S	2		Fish Consumption Assessment completed
EL1-L0075	Red Fox Lake (WMA)	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL1-L0080	Maskenthine Reservoir	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
EL1-L0090	Leigh Tri-County Lake	NA	NA		NA		NA	NA	3		
EL1-L0095	Maple Creek Recreation Area Lake	I	I		NA		NA	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Fish Consumption Advisory (Mercury)	New Lake built in 2011, Fish Consumption Assessment completed
EL1-L0100	Wood Duck Lake (WMA)	NA	NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL1-L0110	Loes Lake (Wood Duck WMA)	NA	NA		NA		NA	NA	3		
EL1-L0120	Pillar Lake (Wood Duck WMA)	NA	NA		NA		NA	NA	3		
EL1-L0130	Wood Duck Pond (Wood Duck WMA)	NA	NA		NA		NA	NA	3		
EL1-L0140	Dead Timber Lake	NA	S		S		S	S	2		Fish Consumption Assessment completed
EL2-L0010	Lyons City Park Lake	S	NA		NA		NA	S	2		
EL2-L0020	Wayne Izaak Walton Lake	NA	NA		NA		NA	NA	3		
EL3-L0010	Willow Creek Reservoir	I	I		S		S	I	5	Recreation - Algae Toxins (Microcystin), Aquatic Life - Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
EL3-L0020	Pierce City Lake	NA	NA		NA		NA	NA	3		
EL4-L0005	Andy's Lake	NA	NA		NA		NA	NA	3		
EL4-L0010	Ta-Ha-Zouka Park Lagoon	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL4-L0020	Skyview Lake	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Unknown)	TN and TP are supporting, Fish Consumption Assessment completed
EL4-L0025	Horseshoe Bend (Tilden City Lake)	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Lake renovated 2003
EL4-L0030	Antelope County Country Club Lake	NA	NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL4-L0040	Penn Park Lake (Neligh)	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL4-L0050	Goose Lake	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
EL4-L0060	O'Neill City Lake	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL4-L0070	Atkinson Lake (SRA)	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
EL4-L0080	Swan Lake	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL4-L0090	Overton Lake	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL4-L0100	Fish Lake	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
EL4-L0110	Peterson Lake	NA	NA		NA		NA	NA	3		
EL4-L0120	Twin Lake R.C. - North Lake (WMA)	NA	NA		NA		NA	NA	3		
EL4-L0130	Twin Lake R.C. - South Lake (WMA)	NA	NA		NA		NA	NA	3		
Streams											
EL1-10000	Elkhorn River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	Se 4C justification approved 3/09†, E. coli TMDL approved 9/09, Fish Consumption Assessment completed
EL1-10100	Unnamed Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL1-10200	Big Slough		S		NA		S	S	2		Aquatic Community Assessment completed
EL1-10300	Rawhide Creek		S		S		S	S	1		Aquatic Community Assessment completed
EL1-10400	Rawhide Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL1-10500	Rawhide Creek		NA		NA		NA	NA	3		
EL1-10600	Bell Creek		S		S		S	S	1		Aquatic Community Assessment completed
EL1-10610	Brown Creek		NA		NA		NA	NA	3		
EL1-10620	Little Bell Creek		NA		NA		NA	NA	3		
EL1-10630	Unnamed Creek		NA		NA		NA	NA	3		
EL1-10700	Bell Creek		I		NA		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL1-10800	Unnamed Creek		NA		NA		NA	NA	3		
EL1-10900	Maple Creek	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Impaired Aquatic Community (Unknown)	Se 4C justification approved 3/09†, E. Coli TMDL approved 9/09, Aquatic Community Assessment completed, Fish Consumption Assessment completed
EL1-10910	Crystal Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL1-10920	East Fork Maple Creek		S		S		S	S	1		Aquatic Community Assessment completed
EL1-10930	West Fork Maple Creek		S		S		NA	S	2		
EL1-10931	Dry Creek		NA		NA		NA	NA	3		
EL1-10931.1	South Fork Dry Creek		NA		NA		NA	NA	3		
EL1-10932	Dry Creek		I		NA		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL1-10933	Unnamed Creek		NA		NA		NA	NA	3		
EL1-10934	Unnamed Creek		NA		NA		NA	NA	3		
EL1-10940	West Fork Maple Creek		I		NA		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL1-11000	Clark Creek		NA		NA		NA	NA	3		
EL1-20000	Elkhorn River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	Se 4C justification approved 3/09†, E. coli TMDL approved 9/09, Aquatic Community Assessment completed, Fish Consumption Assessment completed
EL1-20100	Pebble Creek	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	Se 4C justification approved 3/09†, E. Coli TMDL approved 9/09, Aquatic Community Assessment completed, Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL1-20110	Silver Creek		NA		NA		NA	NA	3		
EL1-20120	Unnamed Creek		NA		NA		NA	NA	3		
EL1-20121	Unnamed Creek		I		NA		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL1-20130	Unnamed Creek		S		NA		NA	S	2		Aquatic Community Assessment completed
EL1-20200	Pebble Creek		NA		NA		NA	NA	3		
EL1-20210	South Branch Pebble Creek		NA		NA		NA	NA	3		
EL1-20220	North Branch Pebble Creek		NA		NA		NA	NA	3		
EL1-20300	Pebble Creek		NA		NA		NA	NA	3		
EL1-20400	Cuming Creek		S		S		NA	S	2		
EL1-20410	Willow Creek		NA		NA		NA	NA	3		
EL1-20500	Cuming Creek		NA		NA		NA	NA	3		
EL1-20600	Fisher Creek		NA		NA		NA	NA	3		
EL1-20700	Plum Creek		S		S		NA	S	2		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL1-20800	Plum Creek		NA		NA		NA	NA	3		
EL1-20810	Dry Creek		NA		NA		NA	NA	3		
EL1-20820	Kane Creek		NA		NA		NA	NA	3		
EL1-20900	Plum Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL1-21000	Rock Creek	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL1-21100	Leisy Creek		NA		NA		NA	NA	3		
EL1-21200	Sand Creek		NA		NA		NA	NA	3		
EL1-21300	Humbug Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL1-21310	South Humbug Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL1-21400	Humbug Creek		NA		NA		NA	NA	3		
EL1-21500	Payne Creek		NA		NA		NA	NA	3		
EL1-21600	Cedar Creek		NA		NA		NA	NA	3		
EL1-21700	Indian Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL1-21800	Butterfly Creek		NA		NA		NA	NA	3		
EL1-21900	Union Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Fish Consumption Assessment completed, Aquatic Community Assessment completed
EL1-21910	Sand Creek		NA		NA		NA	NA	3		
EL1-21920	Meridian Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL1-21921	Tracy Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL1-21930	Meridian Creek		NA		NA		NA	NA	3		
EL1-22000	Union Creek	I	S		S		NA	I	5	Recreation (<i>E. coli</i>)	
EL1-22010	Taylor Creek		NA		NA		NA	NA	3		
EL1-22100	Union Creek		I		NA		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL1-22200	Unnamed Creek		NA		NA		NA	NA	3		
EL1-22300	Unnamed Creek		NA		NA		NA	NA	3		
EL2-10000	Logan Creek	I	I		I		S	I	5	Recreation (<i>E.coli</i>), Aquatic Life (Natural Selenium), Agricultural Water Supply (Selenium)	Se 4C justification approved 3/09†, Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply				Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial	Aesthetics				
EL2-10100	Unnamed Creek		NA		NA		NA	NA	3		
EL2-10200	Little Logan Creek		S		S		S	S	1		Aquatic Community Assessment completed
EL2-10210	Unnamed Creek		NA		NA		NA	NA	3		
EL2-10300	Little Logan Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL2-10400	Big Slough Creek		NA		NA		NA	NA	3		
EL2-20000	Logan Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	
EL2-20100	Rattlesnake Creek		NA		NA		NA	NA	3		
EL2-20200	Unnamed Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL2-20300	Middle Creek		S		S		S	S	1		
EL2-20400	Rattlesnake Creek		I		NA		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL2-20500	Unnamed Creek		NA		NA		NA	NA	3		
EL2-20600	Unnamed Creek		NA		NA		NA	NA	3		
EL2-20700	Coon Creek		I		NA		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL2-20800	South Logan Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL2-20810	Dog Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL2-20900	South Logan Creek		S		S		NA	S	2		
EL2-20910	Deer Creek		NA		NA		NA	NA	3		
EL2-20911	Unnamed Creek		NA		NA		NA	NA	3		
EL2-20920	Deer Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL2-21000	South Logan Creek		NA		NA		NA	NA	3		
EL2-30000	Logan Creek		S		S		NA	S	2		
EL2-30100	North Logan Creek		S		S		NA	S	2		
EL2-40000	Logan Creek		S		S		NA	S	2		
EL2-40100	Baker Creek		I		NA		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL2-40200	Middle Logan Creek		I		S		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
EL2-40300	Perrin Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL3-10000	North Fork Elkhorn River	I	S		NA		NA	I	5	Recreation (<i>E. coli</i>)	Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL3-10100	Spring Creek		NA		NA		NA	NA	3		
EL3-20000	North Fork Elkhorn River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	Se 4C justification approved 3/09†, <i>E. coli</i> TMDL approved 3/09, Aquatic Community Assessment completed, Fish Consumption Assessment completed
EL3-20100	Hadar Creek		NA		NA		NA	NA	3		
EL3-20200	Willow Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed, Fish Consumption Assessment completed
EL3-20300	Willow Creek	NA	NA		NA		NA	NA	3		
EL3-20400	Dry Creek	I	S		NA		NA	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
EL3-20500	Dry Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL3-30000	North Fork Elkhorn River		S		S		S	S	1		Aquatic Community Assessment completed
EL3-30100	West Branch North Fork Elkhorn River		NA		NA		NA	NA	3		
EL3-30110	Breslau Creek		NA		NA		NA	NA	3		
EL3-40000	North Fork Elkhorn River		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL4-10000	Elkhorn River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 9/09, Aquatic Community Assessment completed, Fish Consumption Assessment completed
EL4-10100	Unnamed Creek		NA		NA		NA	NA	3		
EL4-10200	Unnamed Creek		NA		NA		NA	NA	3		
EL4-10300	Unnamed Creek		NA		NA		NA	NA	3		
EL4-10400	Battle Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed, Fish Consumption Assessment completed
EL4-10500	Battle Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL4-10600	Deer Creek		NA		NA		NA	NA	3		
EL4-10700	Buffalo Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL4-10800	Dry Creek		NA		NA		NA	NA	3		
EL4-10900	Al Hopkins Creek		NA		NA		NA	NA	3		
EL4-11000	Giles Creek		NA		NA		NA	NA	3		
EL4-11100	Ives Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL4-11200	Trueblood Creek		NA		NA		NA	NA	3		
EL4-11300	Cedar Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	
EL4-11310	Blacksnake Creek		NA		NA		NA	NA	3		
EL4-11400	Cedar Creek		NA		NA		NA	NA	3		
EL4-20000	Elkhorn River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 9/09, Fish Consumption Assessment completed
EL4-20100	Belmer Creek		NA		NA		NA	NA	3		
EL4-20200	Antelope Creek		NA		NA		NA	NA	3		
EL4-20300	Clearwater Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
EL4-20400	Clearwater Creek		NA		NA		NA	NA	3		
EL4-20500	Cache Creek		S		S		NA	S	2		
EL4-20600	Cache Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL4-20700	South Fork Elkhorn River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
EL4-20800	South Fork Elkhorn River		S		NA		S	S	2		Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
EL4-30000	Elkhorn River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 9/09, Fish Consumption Assessment completed, Aquatic Community Assessment completed
EL4-30100	Willow Swamp Creek		NA		NA		NA	NA	3		
EL4-30200	Dry Creek		S		S		S	S	1		Aquatic Community Assessment completed
EL4-30300	Dry Creek		NA		NA		NA	NA	3		
EL4-30400	Holt Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL4-30500	Holt Creek		S		NA		S	S	2		Aquatic Community Assessment completed
EL4-40000	Elkhorn River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
EL4-40100	South Fork Elkhorn River		NA		NA		NA	NA	3		
EL4-40200	North Fork Elkhorn River		NA		NA		NA	NA	3		

***Cancer risk compounds** -Aroclor-1248 (PCB-1248), Aroclor-1254 (PCB-1254), Aroclor-1260 (PCB-1260), cis-chlordane, Chlordane, trans-chlordane, DDD, DDE, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin

***Hazard index compounds**- Aroclor-1254 (PCB-1254), Lindane (g-BHC), cis-chlordane, Chlordane, trans-chlordane, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin, Mercury, Cadmium, Selenium

¹ XXX# designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
Lakes											
LO1-L0010	Columbus City Park Pond	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LO1-L0020	Columbus Izaak Walton Lake	NA	NA		NA		NA	NA	3		
LO1-L0030	Pawnee Park Lake (Columbus)	NA	NA		NA		NA	NA	3		
LO1-L0040	Stires Lake	NA	NA		NA		NA	NA	3		
LO1-L0050	Wagner's Lake	NA	NA		NA		NA	NA	3		
LO1-L0060	Loup Power District Headgate Pond No. 1	NA	NA		NA		NA	NA	3		
LO1-L0070	Loup Power District Headgate Pond No. 2	NA	NA		NA		NA	NA	3		
LO1-L0080	Loup Power District Headgate Pond No. 3	NA	NA		NA		NA	NA	3		
LO1-L0090	Loup Power District Headgate Pond No. 4	NA	NA		NA		NA	NA	3		
LO1-L0100	Loup Power District Headgate Pond No. 5	NA	NA		NA		NA	NA	3		
LO1-L0110	Stevenson's Lake	NA	NA		NA		NA	NA	3		
LO1-L0120	Wolbach City Lake	NA	NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO1-L0125	Spalding Lake	NA	NA		NA		NA	NA	3		
LO1-L0130	Pibel Lake	NA	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α (Total Nitrogen, Total Phosphorus)	Lake renovated 2018, Fish Consumption Assessment completed
LO1-L0140	Lake Ericson	NA	S		S		S	S	2		Fish Consumption Assessment completed
LO2-L0010	North Loup Lake (SRA)	NA	I		NA		S	S	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LO2-L0015	Davis Creek Reservoir	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LO2-L0020	Ord City Lake	NA	S		NA		S	S	2		Fish Consumption Assessment completed
LO2-L0030	Burwell Lake	NA	NA		NA		NA	NA	3		
LO2-L0040	Burwell Park Lake	NA	NA		NA		NA	NA	3		
LO2-L0050	Calamus Reservoir	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), pH, Chlorophyll a (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
LO2-L0055	Willow Lake B.C.	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
LO2-L0060	Clear Lake	NA	S		S		S	S	2		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO2-L0070	Enders Overflow Lake	NA	NA		NA		NA	NA	3		
LO2-L0080	Long Lake (SRA)	NA	S		S		S	S	2		
LO2-L0090	South Twin Lake (WMA)	NA	NA		NA		NA	NA	3		
LO2-L0100	Dew Lake (Valentine NWR)	NA	NA		NA		NA	NA	3		
LO2-L0110	Crooked Lake (Valentine NWR)	NA	NA		NA		NA	NA	3		
LO2-L0120	East Long Lake (Valentine NWR)	NA	NA		NA		NA	NA	3		
LO2-L0180	Cow Lake (Valentine NWR)	NA	NA		NA		NA	NA	3		
LO2-L0250	Coleman Lake (Valentine NWR)	NA	NA		NA		NA	NA	3		
LO2-L0260	Rat and Beaver Lake (WMA)	NA	S		NA		S	S	2		Fish Consumption Assessment completed
LO2-L0270	Mule Lake (Valentine NWR)	NA	NA		NA		NA	NA	3		
LO2-L0280	Devil's Punch Bowl Lake	NA	NA		NA		NA	NA	3		
LO3-L0010	Farwell South Reservoir	NA	S		NA		S	S	2		Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO3-L0020	Sherman Reservoir	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), (Total Phosphorus)	Fish Consumption Assessment completed
LO3-L0030	Bowman Lake (SRA)	NA	NA		NA		NA	NA	3		
LO3-L0040	Victoria Springs Lake (SRA)	NA	NA		NA		NA	NA	3		
LO3-L0050	Bessey Fish Pond (Nebraska National Forest)	NA	S		NA		S	S	2		Fish Consumption Assessment completed
LO3-L0060	Spring Valley Lake	NA	NA		NA		NA	NA	3		
LO3-L0070	Frye Lake	NA	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LO3-L0090	Alkali Lake	NA	S		S		S	S	2		Naturally alkaline Sandhills lake
LO4-L0010	Ravenna Lake (SRA)	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LO4-L0020	Beaver Creek Lake (SWA)	NA	NA		NA		NA	NA	3		
LO4-L0030	Ansley City Lake	NA	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll a (Total Nitrogen)	Lake renovated 2003, Fish Consumption Assessment completed
LO4-L0040	Melham Park Lake (Broken Bow)	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LO4-L0045	Pressey Pond (WMA)	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Previously listed as LO4-LXXX1, permanent Waterbody ID assigned 6/19, Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO4-L0050	Arnold Lake (SRA)	NA	I		NA		S	S	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
Streams											
LO1-10000	Loup River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 1/06, Fish Consumption Assessment completed
LO1-10100	Barnum Creek		NA		NA		NA	NA	3		
LO1-10200	Cherry Creek		NA		NA		NA	NA	3		
LO1-10300	Unnamed Creek		NA		NA		NA	NA	3		
LO1-10400	Looking Glass Creek		S		NA		NA	S	2		Aquatic Community Assessment completed
LO1-10500	Looking Glass Creek		NA		NA		NA	NA	3		
LO1-10600	Beaver Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Fish tissue assessment completed, Aquatic Community Assessment completed
LO1-10610	Bogus Creek		NA		NA		NA	NA	3		
LO1-10700	Beaver Creek	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed, Fish Consumption Assessment completed
LO1-10800	Beaver Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LO1-10900	Beaver Creek		S		NA		S	S	2		Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO1-10910	Unnamed Tributary		NA		NA		NA	NA	3		
LO1-11000	Beaver Creek		NA		NA		NA	NA	3		
LO1-20000	Loup River	NA	NA		NA		NA	NA	3		
LO1-20100	Unnamed Creek		NA		NA		NA	NA	3		
LO1-20200	Loup River Canal	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Fish tissue assessment completed
LO1-30000	Loup River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	<i>E. coli</i> TMDL approved 1/06
LO1-30100	Council Creek		NA		NA		NA	NA	3		
LO1-30200	Plum Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LO1-30300	Cedar River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	<i>E. coli</i> TMDL approved 1/06, Fish Consumption Assessment completed
LO1-30310	Timber Creek		S		S		S	S	1		
LO1-30311	South Branch Timber Creek		I		NA		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
LO1-30312	North Branch Timber Creek		NA		NA		NA	NA	3		
LO1-30320	Clear Creek		NA		NA		NA	NA	3		
LO1-30400	Cedar River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO1-30500	Cedar River		S		NA		S	S	2		Aquatic Community Assessment completed
LO1-30510	Dry Cedar Creek		NA		NA		NA	NA	3		
LO1-30600	Cedar River		NA		NA		NA	NA	3		
LO1-30610	Little Cedar Creek		NA		NA		NA	NA	3		
LO1-30620	Big Cedar Creek		NA		NA		NA	NA	3		
LO1-30700	Spring Creek		S		S		S	S	1		
LO1-30710	West Branch Spring Creek		NA		NA		NA	NA	3		
LO1-30800	Spring Creek		NA		NA		NA	NA	3		
LO2-10000	North Loup River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	E. coli TMDL approved 1/06, Aquatic Community Assessment completed, Fish Consumption Assessment completed
LO2-10100	Auger Creek		NA		NA		NA	NA	3		
LO2-10200	Munson Creek		I		S		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
LO2-10300	Davis Creek		S		S		S	S	1		Aquatic Community Assessment completed
LO2-10400	Mira Creek		S		S		S	S	1		Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO2-10410	South Branch Mira Creek		S		S		S	S	1		
LO2-10420	North Branch Mira Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LO2-10500	Messenger Creek		NA		NA		NA	NA	3		
LO2-10600	Spring Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LO2-10700	Elm Creek		NA		NA		NA	NA	3		
LO2-10800	Unnamed Creek		NA		NA		NA	NA	3		
LO2-10900	Dane Creek		I		S		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown), (May-June Atrazine)	Aquatic community assessment completed
LO2-11000	Haskell Creek		NA		NA		NA	NA	3		
LO2-11100	Turtle Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LO2-11200	Bean Creek		NA		NA		NA	NA	3		
LO2-11300	Calamus River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	
LO2-11310	Gracie Creek		NA		NA		NA	NA	3		
LO2-11320	Bloody Creek		NA		NA		NA	NA	3		
LO2-11330	Skull Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO2-11400	Calamus River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 1/06
LO2-11500	Calamus River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	
LO2-11600	Calamus River		S		S		S	S	1		Aquatic Community Assessment completed
LO2-20000	North Loup River	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Temperature (Unknown)	Fish Consumption Assessment completed, Aquatic community assessment completed
LO2-20100	Goose Creek	S	I		S		S	I	5	Aquatic Life - Temperature (Unknown)	Aquatic Community Assessment completed
LO2-20200	Goose Creek		I		NA		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic community assessment completed
LO2-30000	North Loup River	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Temperature (Unknown)	E. coli TMDL approved 1/06
LO2-30100	Pass Creek		NA		NA		NA	NA	3		
LO2-40000	North Loup River	S	I		S		S	I	5	Aquatic Life - Temperature (Unknown)	E. coli TMDL approved 1/06, Aquatic Community Assessment completed, results were inconclusive - site will be reassessed†
LO2-40100	Brush Creek		NA		NA		NA	NA	3		
LO2-40200	Big Creek		S		NA		NA	S	2		Aquatic Community Assessment completed
LO2-50000	North Loup River		NA		NA		NA	NA	3		
LO2-60000	North Loup River		S		NA		S	S	2		Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO2-70000	North Loup River		S		NA		S	S	2		Aquatic Community Assessment completed
LO2-70100	Mud Creek		NA		NA		NA	NA	3		
LO3-10000	Middle Loup River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 1/06, Fish Consumption Assessment completed
LO3-10100	Lake Creek		NA		NA		NA	NA	3		
LO3-10200	Turkey Creek		I		S		S	S	5	Aquatic Life (May-June Atrazine)	Aquatic Community Assessment completed
LO3-10300	Oak Creek		S		S		S	S	1		
LO3-10400	Oak Creek	I	S		S		S	S	2	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
LO3-20000	Middle Loup River	S	S		S		S	S	1		
LO3-30000	Middle Loup River	S	S		S		S	S	1		Fish Consumption Assessment completed, Aquatic community assessment completed
LO3-40000	Middle Loup River	S	S		S		S	S	1		Fish Consumption Assessment completed, Aquatic Community Assessment completed
LO3-40100	Unnamed Creek		NA		NA		NA	NA	3		
LO3-40200	Wagner Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO3-40300	Lillian Creek		NA		NA		NA	NA	3		
LO3-40400	Victoria Creek		NA		NA		S	S	2		Aquatic Community Assessment completed, results were inconclusive - site will be reassessed†
LO3-50000	Middle Loup River	S	S		S		S	S	1		Aquatic Community Assessment completed
LO3-50100	Dismal River	S	I		S		S	I	5	Aquatic Life - Temperature (Unknown)	Fish Consumption Assessment completed
LO3-50200	Dismal River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
LO3-50300	Dismal River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	<i>E. coli</i> TMDL approved 1/06
LO3-50310	South Fork Dismal River	I	S		S		NA	I	5	Recreation (<i>E. coli</i>)	
LO3-50320	South Fork Dismal River		NA		NA		NA	NA	3		
LO3-50330	North Fork Dismal River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
LO3-50340	North Fork Dismal River		NA		NA		NA	NA	3		
LO3-60000	Middle Loup River	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Temperature (Unknown)	Aquatic Community Assessment completed
LO3-70000	Middle Loup River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic community assessment completed
LO3-70100	South Branch Middle Loup River		S		S		NA	S	2		
LO3-70200	North Branch Middle Loup River		S		NA		S	S	2		Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO3-70210	Middle Branch Middle Loup River		S		S		S	S	1		Aquatic Community Assessment completed
LO3-70300	North Branch Middle Loup River		S		S		NA	S	2		
LO4-10000	South Loup River	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	E. coli TMDL approved 1/06, Aquatic Community Assessment completed, Fish Consumption Assessment completed, E. coli Impairment being addressed in the South Loup WMP beginning 9/17
LO4-10100	Mud Creek	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Impaired Aquatic Community (Unknown), (May-June Atrazine)	Aquatic Community Assessment completed, E. coli & Atrazine TMDLs approved 5/12
LO4-10110	Spring Branch		NA		NA		NA	NA	3		
LO4-10120	Clear Creek		NA		NA		NA	NA	3		
LO4-10200	Mud Creek	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Impaired Aquatic Community (Unknown)	E. coli TMDL approved 5/12, Aquatic Community Assessment completed
LO4-10210	Dutchman Valley		NA		NA		NA	NA	3		
LO4-20000	South Loup River	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 1/06, Aquatic community, Fish Consumption Assessment completed, E. coli Impairment being addressed in the South Loup WMP beginning 9/17
LO4-20100	Spring Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LO4-30000	South Loup River	I	S		S		S	I	5-alt	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed, <i>E. coli</i> Impairment being addressed in the South Loup WMP beginning 9/17
LO4-30100	Sand Creek		NA		NA		NA	NA	3		
LO4-30200	Unnamed Creek		NA		NA		NA	NA	3		
LO4-40000	South Loup River	I	S		S		S	I	5-alt	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed, <i>E. coli</i> Impairment being addressed in the South Loup WMP beginning 9/17
LO4-40100	North Fork South Loup River		NA		NA		NA	NA	3		
LO4-50000	South Loup River		S		S		NA	S	2		

***Cancer risk compounds** -Aroclor-1248 (PCB-1248), Aroclor-1254 (PCB-1254), Aroclor-1260 (PCB-1260), cis-chlordane, Chlordane, trans-chlordane, DDD, DDE, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin

***Hazard index compounds**- Aroclor-1254 (PCB-1254), Lindane (g-BHC), cis-chlordane, Chlordane, trans-chlordane, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin, Mercury, Cadmium, Selenium

† See Appendix B: Ecological Justification for Excluding Specific Bio-Indicator Results When Determining Attainment Status of the Aquatic Life Beneficial Use for Nebraska's 2014 Water Quality Integrated Report

¹ XXX# designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.

Literature Cited:

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 McCarragher, D. B. 1977. Nebraska's Sandhills Lakes. Nebraska Game and Parks Commission. Lincoln, NE.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
Lakes											
LP1-L0010	Louisville Lake No. 1 (SRA)	S	S		NA		NA	S	2		Fish Consumption Assessment completed
LP1-L0020	Louisville Lake No. 1A (SRA)	NA	S		NA		NA	S	2		
LP1-L0030	Louisville Lake No. 2 (SRA)	S	S		NA		S	S	2		Fish Consumption Assessment completed
LP1-L0040	Louisville Lake No. 3 (SRA)	S	NA		NA		NA	S	2		
LP1-L0050	Louisville Lake No. 2A (SRA)	S	NA		NA		NA	S	2		
LP1-L0060	Jenny Newman Lake (Platte River State Park)	NA	I		NA		NA	I	5	Aquatic Life - Chlorophyll α (Total Phosphorus)	
LP1-L0070	Schramm Park Ponds (10 Ponds) (SRA)	NA	NA		NA		NA	NA	3		
LP1-L0080	Qwest Lake (Mahoney State Park)	S	NA		NA		NA	S	2		Name changed from U.S. West Lake to Qwest Lake in 2012
LP1-L0090	Baright Lake (Mahoney State Park)	S	NA		NA		NA	S	2		Name changed from Owen Marina Lake to Baright Lake in 2012
LP1-L0100	Two Rivers Lake No. 5 (SRA)	S	S		NA		NA	S	2		Fish Consumption Assessment completed
LP1-L0110	Two Rivers Carp Lake (SRA)	NA	NA		NA		NA	NA	3		
LP1-L0120	Two Rivers Lake No. 6 (SRA)	S	NA		NA		NA	S	2		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-L0130	Two Rivers Lake No. 1 and 2 (SRA)	S	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP1-L0140	Two Rivers Lake No. 3 (SRA)	S	NA		NA		NA	S	2		
LP1-L0150	Two Rivers Lake No. 4 (SRA)	S	NA		NA		S	S	2		
LP1-L0160	Fremont Lake No. 14 (SRA)	NA	NA		NA		NA	NA	3		
LP1-L0170	Fremont Lake No. 13 (SRA)	NA	NA		NA		NA	NA	3		
LP1-L0180	Fremont Lake No. 12 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
LP1-L0190	Fremont Lake No. 19 (SRA)	NA	NA		NA		NA	NA	3		
LP1-L0200	Fremont Lake No. 15 (Victory) (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
LP1-L0210	Fremont Lake No. 11 (SRA)	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP1-L0220	Fremont Lake No. 18E (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	
LP1-L0230	Fremont Lake No. 17 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorus TMDL to address Total Phosphorus, Chlorophyll α & pH approved 1/13
LP1-L0240	Fremont Lake No. 10 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-L0250	Fremont Lake No. 20 (SRA)	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α (Total Nitrogen, Total Phosphorus)	Phosphorous TMDL to address Algal Toxins approved 9/07, Fish Consumption Assessment completed
LP1-L0270	Fremont Lake No. 16 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorus TMDL to address Chlorophyll α & pH approved 1/13
LP1-L0280	Fremont Lake No. 9 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	
LP1-L0290	Fremont Lake No. 1 (SRA)	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorous TMDL to address Total Phosphorous, Chlorophyll α , Dissolved Oxygen and pH approved 1/13, Fish Consumption Assessment completed
LP1-L0300	Fremont Lake No. 2 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorous TMDL to address Total Phosphorous & Chlorophyll α approved 1/13, Fish Consumption Assessment completed
LP1-L0310	Fremont Lake No. 3 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α , Dissolved Oxygen (Total Nitrogen, Total Phosphorus)	Phosphorus TMDL to address Total Phosphorus, Chlorophyll α , & Dissolved Oxygen approved 1/13
LP1-L0315	Fremont Lake No. 3A (SRA)	NA	NA		NA		NA	NA	3		
LP1-L0320	Fremont Lake No. 5 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorus TMDL to address Total Phosphorus, Chlorophyll α , pH, & Dissolved Oxygen approved 1/13
LP1-L0330	Fremont Lake No. 4 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorus TMDL to address Total Phosphorus, Chlorophyll α & pH approved 1/13
LP1-L0340	Fremont Lake No. 6 (SRA)	NA	NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-L0350	Fremont Lake No. 7 and 8 (SRA)	S	I		S		S	I	5	Aquatic Life - Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorus TMDL to address Total Phosphorus, Chlorophyll α & pH approved 1/13
LP1-L0355	Homestead Lake	S	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
LP1-L0360	Schuyler East Park Pond	NA	NA		NA		NA	NA	3		
LP1-L0370	Schuyler City Lake (South Park Lake)	NA	NA		NA		I	I	4r	Aesthetics - Algae Blooms (Unknown)	TN and TP not assessed, Lake renovated in 2006 and will be targeted for reassessment
LP1-L0380	Camp Luther Pond	NA	NA		NA		NA	NA	3		
LP1-L0390	McAllister Lake	NA	NA		NA		NA	NA	3		
LP1-L0400	Christopher Cove Lake	NA	NA		NA		NA	NA	3		
LP1-L0410	Country Club Shores Lake	NA	NA		NA		NA	NA	3		
LP1-L0420	Columbus Country Club Lake	NA	NA		NA		NA	NA	3		
LP1-L0430	Oconee Siphon Pond	NA	NA		NA		NA	NA	3		
LP1-L0440	Lake North	S	I		S	S	S	I	5	Aquatic Life - Chlorophyll α , pH (Total Phosphorus)	Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-L0450	Lake Babcock	I	I		NA	S	S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP2-L0010	Memphis Lake (SRA)	S	I		S		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP2-L0015	Lake Wanahoo	NA	I		NA		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α (Total Nitrogen, Total Phosphorus)	New lake built in 2012, Fish Consumption Assessment completed
LP2-L0020	Hedgefield Lake (WMA)	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), pH	Fish Consumption Assessment completed
LP2-L0030	Wagon Train Lake	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	Phosphorous TMDL to address Total Phosphorous & Dissolved Oxygen and Sediment TMDLs approved 10/02, Lake Renovated 2001, Fish Consumption Assessment completed
LP2-L0040	Holmes Lake	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorous TMDL to address Total Phosphorous & Dissolved Oxygen and Sediment TMDLs approved 7/03, Lake renovated 2005, Fish Consumption Assessment completed
LP2-L0050	Stagecoach Lake	S	I		S		I	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus), Aesthetics (Sediment)	Fish Consumption Assessment completed
LP2-L0060	Oak Lake	NA	I		NA		S	I	5	Aquatic Life - Dissolved Oxygen (Unknown), (Natural Chlorides)	TN and TP not assessed, Salinity is natural. Fish Consumption Assessment completed
LP2-L0065	Regional Center Pond	NA	NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-L0070	Cottontail Lake (17A)	S	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP2-L0080	Killdeer Lake (WMA)	NA	S		NA		NA	S	2		Fish Consumption Assessment completed
LP2-L0090	Yankee Hill Lake	S	I		S		S	I	5	Aquatic Life - Fish Tissue Advisory (Mercury), Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Phosphorus TMDL to address Total Phosphorus and Sediment TMDLs approved 9/02, Lake Renovated in 2006 and reassessed in 2015-16, Fish Consumption Assessment completed
LP2-L0100	Bowling Lake	NA	I		NA		S	I	5	Aquatic Life - Fish Tissue Advisory (Mercury), Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Lake Renovated in 2006 and will be targeted for reassessment in 2021, Fish Consumption Assessment completed
LP2-L0110	Bluestem Lake	I	I		S		I	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus), Aesthetics (Sediment)	Fish Consumption Assessment completed
LP2-L0120	Wildwood Lake	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α , Dissolved Oxygen (Total Nitrogen, Total Phosphorus)	Lake Renovated 2004, Fish Consumption Assessment completed
LP2-L0130	Conestoga Lake	S	I		S		I	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus), Aesthetics (Sediment)	Fish Consumption Assessment completed, Lake drained for a renovation as of 2018
LP2-L0140	Olive Creek Lake	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α , pH, Dissolved Oxygen (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-L0150	Branched Oak Lake	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
LP2-L0160	Pawnee Lake	S	I		S		I	I	5	Aquatic Life - Fish Tissue Advisory (Mercury), Chlorophyll α (Total Nitrogen, Total Phosphorus), Aesthetics (Sediment)	Sediment TMDL approved 3/01, Fish Consumption Assessment completed
LP2-L0170	Merganser Lake (25A)	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP2-L0180	Teal Lake (27C)	NA	NA		NA		NA	NA	3		
LP2-L0190	Red Cedar Lake	S	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP2-L0200	Wild Plum Lake (26A)	S	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP2-L0210	Tanglewood Lake (27C)	NA	NA		NA		NA	NA	3		
LP2-L0220	Meadowlark Lake	S	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α (Total Nitrogen, Total Phosphorus)	Lake renovated 2006, Fish Consumption Assessment completed
LP2-L0230	Twin Lakes WMA Pond	NA	NA		NA		NA	NA	3		
LP2-L0240	East Twin Lake	S	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
LP2-L0250	Timber Point Lake (6C)	S	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury)	Fish Consumption Assessment completed
LP2-L0260	West Twin Lake	NA	I		S		S	I	5	Aquatic Life - Chlorophyll α (Total Nitrogen, Total Phosphorus),	

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
										(Ammonia)	
LP2-L0270	Czechland Lake	NA	I		S		S	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α , pH (Total Nitrogen, Total Phosphorus)	Fish Consumption Assessment completed
LP2-L0280	Redtail Lake	NA	I		NA		NA	I	5	Aquatic Life - Fish Consumption Advisory (Mercury), Chlorophyll α (Total Phosphorus)	Fish Consumption Assessment completed
Streams											
LP1-10000	Platte River	I	I	I	S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Fish Consumption Advisory (Hazard Index Compounds*) Public Drinking Water Supply (Arsenic)	E. coli TMDL approved 9/07, Fish Consumption Assessment completed
LP1-10100	Fourmile Creek		S		S		S	S	1		Aquatic Community Assessment completed
LP1-10110	Eightmile Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-10111	Bachelor Branch		NA		NA		NA	NA	3		
LP1-10200	Fourmile Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-10210	Unnamed Creek		NA		NA		NA	NA	3		
LP1-10300	Fourmile Creek		NA		NA		NA	NA	3		
LP1-10400	Zwiebel Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-10410	Unnamed Creek		NA		NA		NA	NA	3		
LP1-10500	Zwiebel Creek		NA		NA		NA	NA	3		
LP1-10600	Turkey Creek		NA		NA		NA	NA	3		
LP1-10700	Cedar Creek		NA		NA		NA	NA	3		
LP1-10710	Unnamed Creek		NA		NA		NA	NA	3		
LP1-10800	Cedar Creek		NA		NA		NA	NA	3		
LP1-10900	Springfield Creek		S		S		NA	S	2		
LP1-11000	Buffalo Creek		S		S		NA	S	2		
LP1-11100	Mill Creek		NA		NA		NA	NA	3		
LP1-11200	Decker Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed
LP1-11300	Fountain Creek		S		S		NA	S	2		
LP1-11400	Unnamed Creek		NA		NA		NA	NA	3		
LP1-11500	Pawnee Creek		S		NA		S	S	2		Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-11510	West Branch Pawnee Creek		NA		NA		NA	NA	3		
LP1-11600	Pawnee Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-11700	Western Sarpy Ditch		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-20000	Platte River	I	S	I	S		S	S	5	Recreation (<i>E. coli</i>), Public Drinking Water Supply (Arsenic)	E. coli TMDL approved 9/07, Fish Consumption Assessment completed
LP1-20100	Clear Creek		NA		NA		NA	NA	3		
LP1-20110	Upper Clear Creek		NA		NA		NA	NA	3		
LP1-20200	Clear Creek		NA		NA		NA	NA	3		
LP1-20300	Otoe Creek		NA		NA		NA	NA	3		
LP1-20400	Skull Creek		S		S		S	S	1		Aquatic Community Assessment completed
LP1-20410	Unnamed Creek		NA		NA		NA	NA	3		
LP1-20500	Skull Creek		NA		NA		NA	NA	3		
LP1-20600	Shell Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	
LP1-20610	Taylor Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-20620	Loseke Creek		S		S		NA	S	2		Fish Consumption Assessment completed
LP1-20621	Schaad Creek		NA		NA		NA	NA	3		
LP1-20621.1	Unnamed Creek		NA		NA		NA	NA	3		
LP1-20630	Loseke Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-20631	Unnamed Creek		NA		NA		NA	NA	3		
LP1-20640	Loseke Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-20700	Shell Creek		S		S		S	S	1		Atrazine TMDL approved 9/07
LP1-20710	Unnamed Creek		NA		NA		NA	NA	3		
LP1-20720	Elm Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-20800	Shell Creek		I		S		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
LP1-20810	North Shell Creek		NA		NA		NA	NA	3		
LP1-20900	Shell Creek		NA		NA		NA	NA	3		
LP1-21000	Lost Creek		S		S		NA	S	2		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP1-21010	Shonka Ditch		S		NA		NA	S	2		
LP1-21100	Lost Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-21200	Lost Creek		NA		NA		NA	NA	3		
LP1-21300	Bone Creek		S		S		NA	S	2		
LP1-21310	Unnamed Creek		NA		NA		NA	NA	3		
LP1-21400	Bone Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP1-21500	Unnamed Creek		NA		NA		NA	NA	3		
LP1-21600	Deer Creek		NA		NA		NA	NA	3		
LP1-21700	Unnamed Creek		NA		NA		NA	NA	3		
LP1-21800	Loup River Canal	S	S		NA	S	S	S	2		Fish Consumption Assessment completed
LP2-10000	Salt Creek	I	S				S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 9/07, Fish Consumption Assessment completed
LP2-10100	Wahoo Creek	I	S		S		S	I	4a	Recreation (<i>E. coli</i>)	E. coli TMDL approved 9/07, Aquatic Community & Fish Consumption Assessment completed
LP2-10110	Clear Creek	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-10111	Silver Creek		S		S		NA	S	2		
LP2-10120	Clear Creek		I		S		NA	I	5	Aquatic Life (Ammonia)	
LP2-10121	Johnson Creek		I		NA		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown), (May-June Atrazine)	Aquatic Community Assessment completed
LP2-10130	Clear Creek		S		S		NA	S	2		
LP2-10140	Silver Creek		I		S		S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
LP2-10150	Mosquito Creek		S		S		NA	S	2		
LP2-10160	Sand Creek		I		S		S	I	5	Aquatic Life (May-June Atrazine)	Aquatic Community Assessment completed
LP2-10161	Duck Creek		S		S		S	S	1		Aquatic Community Assessment completed
LP2-10170	Sand Creek		S		S		S	S	1		Aquatic Community Assessment completed
LP2-10171	Spring Creek		NA		NA		NA	NA	3		
LP2-10180	Sand Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-10200	Wahoo Creek		S		S		NA	S	2		
LP2-10210	Cottonwood Creek		I		S		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-10211	Unnamed Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-10220	Miller Branch		S		S		S	S	1		Aquatic Community Assessment completed
LP2-10230	North Fork Wahoo Creek		S		S		NA	S	2		
LP2-10231	Unnamed Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-10240	North Fork Wahoo Creek		NA		NA		NA	NA	3		
LP2-10300	Wahoo Creek		S		S		NA	S	2		
LP2-10310	Dunlap Creek		NA		NA		NA	NA	3		
LP2-10400	Wahoo Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-10500	Callahan Creek		I		NA		NA	I	4c	Aquatic Life - Iron (Naturally Elevated)	
LP2-10600	Robinson Creek		I		NA		NA	I	4c	Aquatic Life - Iron (Naturally Elevated)	
LP2-10700	Greenwood Creek		I		NA		NA	I	4c	Aquatic Life - Iron (Naturally Elevated)	
LP2-10800	Dee Creek		I		NA		S	I	4c	Aquatic Life - Iron (Naturally Elevated)	Aquatic Community Assessment completed
LP2-10900	Camp Creek		I		NA		S	I	4c	Aquatic Life - Iron (Naturally Elevated)	Aquatic Community Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-11000	Rock Creek		I		S		S	I	4c	Aquatic Life - Iron (Naturally Elevated)	Fish Consumption Assessment completed, Aquatic Community Assessment completed
LP2-11010	North Fork Rock Creek		I		NA		S	I	4c	Aquatic Life - Iron (Naturally Elevated)	Aquatic Community Assessment completed
LP2-11100	Rock Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-11110	Ash Hollow Creek		NA		NA		NA	NA	3		
LP2-11120	Little Rock Creek		NA		NA		NA	NA	3		
LP2-11200	Rock Creek		NA		NA		NA	NA	3		
LP2-20000	Salt Creek	I	I				S	I	5	Recreation (E. coli), Aquatic Life (Aluminum)	E. coli TMDL approved 9/07, Aquatic Community Assessment completed, Fish Consumption Assessment completed
LP2-20100	Jordan Creek		NA		NA		NA	NA	3		
LP2-20200	Stevens Creek		S		S		NA	S	2		
LP2-20300	Little Salt Creek		I				S	I	5	Aquatic Life - Impaired Aquatic Community (Unknown), (Copper, Ammonia)	Aquatic Community Assessment completed
LP2-20400	Dead Man's Run	I	I		S		S	I	5	Recreation (E. coli), Aquatic Life - Dissolved Oxygen (Unknown), pH	E. coli TMDL approved 9/07
LP2-20500	Oak Creek	I	I				S	I	5	Recreation (E. coli), Aquatic Life - Fish Consumption Advisory (Mercury), (Chloride)	E. coli TMDL approved 9/07, Fish Consumption Assessment completed

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-20510	Elk Creek		S		S		NA	S	2		
LP2-20511	West Oak Creek		NA		NA		NA	NA	3		
LP2-20520	Elk Creek		NA		NA		NA	NA	3		
LP2-20600	Oak Creek	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
LP2-20610	North Oak Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-20611	Wagon Tongue Creek		NA		NA		NA	NA	3		
LP2-20612	Bates Branch		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-20700	Oak Creek		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-20710	Middle Oak Creek		I		S		S	I	5	Aquatic Life (May-June Atrazine)	Aquatic Community Assessment completed
LP2-20800	Oak Creek		I		S		S	I	5	Aquatic Life (May-June Atrazine)	
LP2-20900	Antelope Creek	S	I				S	I	5	Aquatic Life (Copper)	E. coli and Ammonia TMDLs approved 9/07
LP2-21000	Middle Creek		S		S		S	S	1		Aquatic Community Assessment completed
LP2-21010	South Branch Middle Creek		NA		NA		NA	NA	3		

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-21100	Middle Creek		I		S		S	I	4a	Aquatic Life (May-June Atrazine)	Atrazine TMDL approved 9/07
LP2-21200	Haines Branch		S				NA	S	2		
LP2-21210	Holmes Creek		S		S		S	S	1		
LP2-21300	Haines Branch		NA		NA		NA	NA	3		
LP2-21310	Cheese Creek		NA		NA		NA	NA	3		
LP2-21400	Haines Branch		NA		NA		NA	NA	3		
LP2-21500	Beal Slough	I	S		S		S	I	5	Recreation (<i>E. coli</i>)	
LP2-30000	Salt Creek	I	I		S		S	I	5	Recreation (<i>E. coli</i>), Aquatic Life - Impaired Aquatic Community (Unknown)	E. coli TMDL approved 9/07, Fish Consumption Assessment completed, Aquatic Community Assessment completed
LP2-30100	Cardwell Branch	I	S		S		NA	I	5	Recreation (<i>E. coli</i>)	
LP2-30200	Hickman Branch		S		NA		S	S	2		Aquatic Community Assessment completed
LP2-40000	Salt Creek		S		S		NA	S	2		
LP2-40100	Wittstruck Creek		NA		NA		NA	NA	3		
LP2-40200	Spring Branch		NA		NA		NA	NA	3		

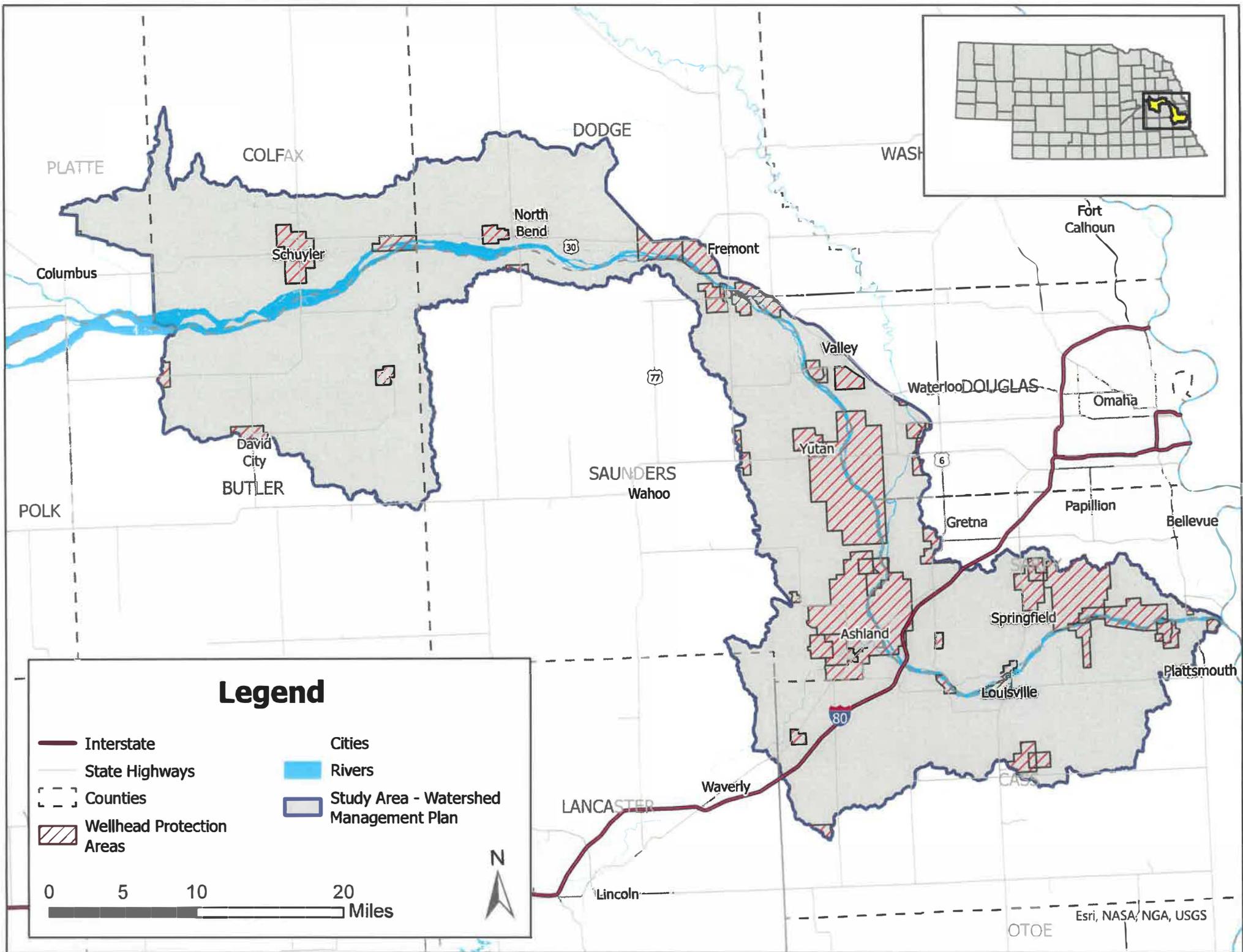
Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Water Supply			Aesthetics	Overall	2022 IR	Impairments (Causes)	Comments/Actions
				Public Drinking	Agricultural	Industrial					
LP2-40300	Olive Branch		I		S		NA	I	5	Aquatic Life - Impaired Aquatic Community (Unknown)	Aquatic Community Assessment completed
LP2-40310	North Branch		S		NA		S	S	2		Aquatic Community Assessment completed

***Cancer risk compounds** -Aroclor-1248 (PCB-1248), Aroclor-1254 (PCB-1254), Aroclor-1260 (PCB-1260), cis-chlordane, Chlordane, trans-chlordane, DDD, DDE, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin

***Hazard index compounds**- Aroclor-1254 (PCB-1254), Lindane (g-BHC), cis-chlordane, Chlordane, trans-chlordane, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin, Mercury, Cadmium, Selenium

¹ XXX# designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.

ATTACHMENT 3
REVISED FIGURE 9. WELLHEAD PROTECTION
AREAS



RE: LPRCA WMP Update

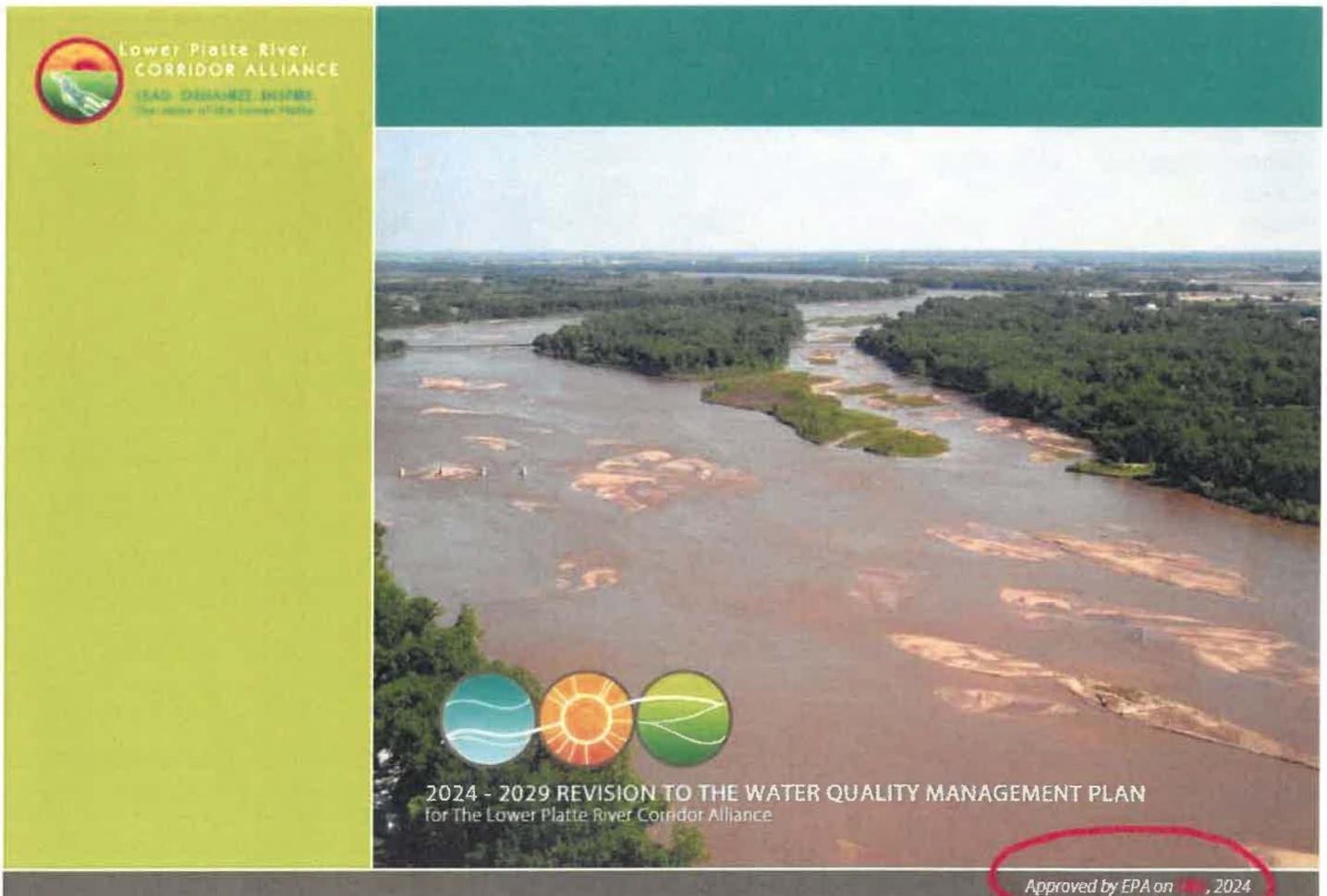
From Russell, Jessica <Jessica.Russell@nebraska.gov>
Date Fri 10/25/2024 1:00 PM
To Ghanavati, Ian <IGhanavati@papionrd.org>

EPA will not be issuing any other documentation and you are good to update that page, but use the wording "Approved by NDEE in September of 2024." These Plans, updates, and PIPs are only ever approved by NDEE. The reason we go through EPA is because the money used for 319 projects is federal, so we want to make sure we are abiding by EPA's guidelines. But, all EPA does when they review these documents is accept NDEE's approval of said document. Does that make sense?

From: Ghanavati, Ian <IGhanavati@papionrd.org>
Sent: Friday, October 25, 2024 12:08 PM
To: Russell, Jessica <Jessica.Russell@nebraska.gov>
Subject: Re: LPRCA WMP Update

Hey Jessica -

Looked further at this, we'll make note of the comments but won't make adjustments to the document since they are suggestions. Is there anything else that we need to do, or any other document EPA will issue? Would we be good to update this page (screenshoted below) as approved in September of 2024?



Thanks!

Ian O. Ghanavati, CFM

Water Resources Engineer

Papio-Missouri River Natural Resources District

m. 402-315-1716

From: Russell, Jessica <Jessica.Russell@nebraska.gov>

Sent: Monday, September 30, 2024 8:05 AM

To: Ghanavati, Ian <I.Ghanavati@papionrd.org>

Cc: Grint, Amanda <agrint@papionrd.org>; Hickie, Katie <Katie.Hickie@nebraska.gov>

Subject: LPRCA WMP Update

GOOD NEWS!!!!

EPA has finished their review of the LPRCE WMP Update and accepted it! So it is good to go! There are some purple comments that are suggestions we can look at, but nothing that is required to be changed (see attached checklist).

What a great way to start the week!

Jessica Russell

Section 319 Grant Project Manager | Nebraska Department of Environment and Energy

Direct: (402) 471-3382 | Main Office: (402) 471-2186

P.O. Box 98922 | Lincoln, NE 68509-8922

Watershed Based Plan Amendment Checklist

Watershed Management Plan Title: 2019-2024 Water Quality Management Plan for Lower Platte River Corridor Alliance	Amendment Title: 2024-2029 Revision to the Water Quality Management Plan for the Lower Platte River Corridor Alliance	
Amendment Number: 1	Reviewer: Angela Puls	Review Date: 9/30/2024
Project Name/Number: Multiple Projects		
Comments: a) () Accept b) (X) Accept with Comments c) () Needs Revision		

Element A: Causes and Sources of Pollution

Criteria	Brief Description	Reference Document	Page(s)
1. Are new priority areas and/or new water quality goals (if any) identified and mapped?	<p>No, priority watershed selection remain the same due to insignificant overall change in the LPRCA Watersheds.</p> <p>Both segments of Lower Platte River are impaired (2020 NDEE IR). Impairments include: Segment LP1-1000-Recreation use:E. coli, aquatic life: fish consumption advisory for hazard index compounds, impaired for DW use: arsenic Segment LP1-2000-Recreation use:E. coli, DW use-arsenic</p> <p>Loup River-Impaired for recreation-bacteria: TMDL is approved (removal of Aquatic Life-fish consumption impairment)</p> <p>Salt Creek-Impaired for recreation: bacteria, aquatic life-ammonia, copper, impaired aquatic community: TMDL is approved (removal of Aquatic Life-Chloride, fish consumption advisory and Agriculture Water Supply-conductivity; addition of Copper and impaired aquatic community impairments)</p> <p>Wellhead protection areas have been added as Special Priority Areas to implement Wellhead Protection Areas, as applicable.</p>	LPRCA 2024-2029 Revision to the Water Quality Management Plan	Pg 3 of update document 17 74 53-54 Figure 9
2. Are new best management practices (if any) identified, quantified, and mapped?	<p>No new BMPs added. Cost-share for septic tank system replacement has been updated as follows, per NDEE’s current guidelines:</p> <p>“If the homeowner wishes to upgrade to current design standards, the homeowner may request up to 60% reimbursement (not to exceed \$15,000) for the</p>		74

	<p>replacement of the system in addition to 60% reimbursement (not to exceed \$300) for pumping and inspection.”</p> <p>The scale of this WBP includes 3 HUC 8 Watersheds- please be sure to be more specific in PIPs to provide more detailed BMP implementation.</p>		
3. Is there an updated implementation and cost schedule?	<p>Yes, updated schedule and milestones (Table 16, Page 77). Narrative schedules and ES8 adjusted to reflect new timelines.</p> <p>Any changes to costs from 2019?</p>		76-77
4. Are load reductions provided associated with the water quality goals of the plan?	<p>No, load reduction data remain the same due to insignificant overall change in the LPRCA Watersheds</p> <p>Have there been any LRs where BMP implementation has occurred that have resulted in changes to projected load reduction needs?</p>		Pg 3 of update document

Summary of updates:

1. Highlights of Accomplishments between 2019-2024 are added to the plan, including:
 - a. Beginning the Lower Platte River Water Quality and Spring Field, NE Drinking Water Protection Management Implementation: Phase I Project
 - o Began to scope out monitoring well installation in Springfield, NE
2. LPRCA continues to meet semiannually
2. All references to NDEQ changed to NDEE
3. Page 17 – 2020 Nebraska Water Quality Integrated Report referenced rather than 2016 Report
4. Page 74
 - a. Loup River River impairment updated
 - b. Salt Creek impairment updated
5. Schedule and Milestones updated
6. Page 74 – updated septic tank system replacement cost-share updated
7. Page 64 – Implement Wellhead Protection Plan(s) (as applicable) within Wellhead Protection Areas as Special Priority Areas added under Management Initiative 2
8. Figure 9 updated to show current Wellhead Protection Areas

**FIRST AMENDMENT TO THE INTERLOCAL COOPERATION ACT AGREEMENT
PLATTE RIVER AND ELKHORN RIVER CAMERAS
BETWEEN
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
AND
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

This First Amendment (hereinafter named “Amendment”) is made by and among the following Parties (all are political subdivisions of the State of Nebraska):

Lower Platte South Natural Resources District (“LPSNRD”)
Papia-Missouri River Natural Resources District (“PMRNRD”)

The parties hereinafter being referred to individually as “Party” and collectively as “Parties.”

WHEREAS:

The Parties entered into an Interlocal Agreement in 2023 for sharing costs associated with purchasing and placing cameras and supporting equipment along the Lower Platte River and Lower Elkhorn River and for the future operation and maintenance of that equipment (the “Interlocal Agreement”).

The Interlocal Agreement provided for sharing local costs for the equipment, installation and supporting operation and maintenance for three (3) cameras along the Lower Platte River and Lower Elkhorn River.

The Parties and their partners, acknowledging the benefit of the river cameras, desire to install a new camera near Louisville, Nebraska and agree to contribute to the new camera’s on-going operation and maintenance.

The Parties desire to amend the Interlocal Agreement through this Amendment setting forth each Parties’ obligations for the new Louisville, Nebraska camera in addition to the existing three (3) cameras along the Lower Platte River and Lower Elkhorn River.

THEREFORE, in consideration of the foregoing recitals and their mutual covenants hereinafter expressed, the Parties agree as follows:

That the following numbered paragraphs of the Interlocal Agreement should be modified in the manner as set forth as follows:

2. Funding for Cameras & Supporting Equipment and Installation:

The Parties agree to provide assistance toward the local costs for up to three (3) cameras and supporting equipment as follows:

PMRNRD:	\$21,479
<u>LPSNRD:</u>	<u>\$4,296</u>

Total Equipment Expense for 2023 FY: \$25,775

The Parties agree to pay the above-identified amounts in the 2023 Fiscal Year.

The Parties agree to provide assistance toward the local costs for a fourth camera and supporting equipment located near Louisville, Nebraska as follows:

PMRNRD:	\$5,090.00
<u>LPSNRD:</u>	<u>\$5,090.00</u>

Total Equipment Expense for 2025 FY: \$10,180.00

The Parties agree to pay the above-identified amounts in the 2025 Fiscal Year.

3. Cameras/Equipment Operation and Maintenance Expenses:

The Partners agree to share on-going camera/equipment operation and maintenance expenses as follows:

	<u>Fiscal Year 2024</u>	<u>Fiscal Year 2025</u>
PMRNRD:	\$7,783	\$9,783.50
LPSNRD:	\$1,557	\$3,226.50

It shall be the PMRNRD's sole discretion to determine when and how operation and maintenance is to be conducted and to then bill each Partner accordingly.

Except as modified by this Amendment, the Interlocal Agreement is ratified and confirmed in all respects.

[Signatures on following page]

IN WITNESS WHEREOF, each Partner has caused this Agreement to be executed by its duly authorized officer as of the date and year.

Lower Platte South Natural Resources District

By: _____
Printed Name: _____
Title: _____
Date: _____

Papio-Missouri River Natural Resources District

By: _____
John Winkler, General Manager
Date: _____



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Water Resources Discipline
Nebraska Water Science Center
5231 South 19th Street
Lincoln, NE 68512-1271

September 26, 2024

John Winkler
Papio-Missouri River Natural Resources District
8901 South 154 Street
Omaha, NE 68138

COPY

Dear Mr. Winkler:

Enclosed is a copy of supplemental Joint Funding Agreement No. 23NRJFA00260 Mod 001 to purchase, install and operate a camera gage at the USGS streamgage at Platte River at Louisville for FY 2025 (October 1, 2024 to September 30, 2025), as shown in Table 1 (attached). This modification would be for an additional \$17,805, with \$4,450 for the USGS CMF and \$13,355 for the PMR NRD. Please sign the agreement and return by email to aflynn@usgs.gov. Work cannot be started until we receive the signed agreement.

Work performed with funds from this agreement will be conducted on a fixed-price basis under the authority of statute 43 USC 36C. Billings will be rendered quarterly. The results of all work under this agreement will be available for publication by the U.S. Geological Survey.

Please contact Jason Lambrecht at 402-328-4123 if you have any questions concerning this agreement.

Sincerely,

**JASON
LAMBRECHT**

Jason M Lambrecht, Acting Director
USGS Nebraska Water Science Center

Digitally signed by JASON
LAMBRECHT
Date: 2024.09.26 16:23:32 -05'00'

2 Enclosures
USGS UEI No. NJQMLNG5LA5

COPY

Agreement No.	23NRJFA00260
Modification No.	001
Customer No.	6000000134
Cost Center	GGEMNR0000
Project	NR00GS1
TIN	47-0542469

DEPARTMENT OF THE INTERIOR GEOLOGICAL
SURVEY
SUPPLEMENTAL JOINT FUNDING AGREEMENT FOR
WATER RESOURCES INVESTIGATIONS

THE GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the **PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**, party of the second part, hereby agree to amend the Joint Funding Agreement No. **23NRJFA00260** dated October 1, 2022 as follows:

Paragraph 2(a) is hereby **increased by \$4,450** to read as follows:

- (a) \$28,030 by the party of the first part during the period
October 1, 2022 to September 30, 2025

Paragraph 2(b) is hereby **increased by \$13,355** to read as follows:

- (b) \$58,305 by the party of the second part during the period
October 1, 2022 to September 30, 2025

Billing for this agreement will be rendered **quarterly**. Payments of bills are due within 60 days after billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30-day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983.)

Geological Survey
UNITED STATES
DEPARTMENT OF THE INTERIOR

By **JASON LAMBRECHT**
Jason M. Lambrecht, Acting Director
Nebraska Water Science Center
Date 9/26/24

Digitally signed by JASON
LAMBRECHT
Date: 2024.09.26 16:22:27
-05'00'

PAPIO-MISSOURI RIVER NRD

By _____

Date _____

Table 1. Summary of proposed funding for the period October 1, 2022 -- September 30, 2025 for the equipment purchase (one-time cost) and operation of gage cameras at two USGS streamgages and one NDNR streamgage, and amended to include the October 1 -- September 30, 2025 equipment purchase/installation and operation of an additional camera at the USGS Louisville streamgage; supported by the Papio-Missouri River NRD (herein referred to as Cooperator), and other potential funding partners yet to be named.

[CMF=USGS, Cooperative matching funds; R&D=USGS, National Research and Development; Cooperator= Papio-Missouri River NRD; USGS=U.S. Geological Survey]

Station number	Fiscal Year and USGS Services	Station funding			
		USGS CMF	USGS R&D	Cooperator	Total funding
Streamgage Cameras					
*	FY23 Equipment purchase, installations and camera gage operations	\$17,185	\$6,075	\$25,775	\$49,035
*	FY24 Camera gage operations	\$3,115	\$0	\$9,340	\$12,455
*	FY25 Camera gage operations	\$3,280	\$0	\$9,835	\$13,115
**	FY25 Equipment purchase, installation for camera gage at streamgage 06805500 Platte River at Louisville	\$3,390	\$0	\$10,180	\$13,570
**	FY25 Camera gage operation at Louisville	\$1,060	\$0	\$3,175	\$4,235
Funding partner totals		\$28,030	\$6,075	\$58,305	\$92,410

* Cameras at 3 streamgage locations:

- 1) 06799350 Elkhorn River at West Point, Nebr.
- 2) 06799510 Elkhorn River near Winslow, Nebr. (streamgage operated by NDNR)
- 3) 06801000 Platte River near Ashland, Nebr.

** Camera at 06805500 Platte River at Louisville, Nebr.

COPY

COPY

**INTERLOCAL COOPERATION ACT AGREEMENT
PLATTE RIVER AND ELKHORN RIVER CAMERAS
BETWEEN
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
AND
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

This Agreement (hereinafter named "Agreement") is made by and among the following Parties (all are political subdivisions of the State of Nebraska):

Lower Platte South Natural Resources District ("LPSNRD")
Papio-Missouri River Natural Resources District ("PMRNRD")

The parties hereinafter being referred to individually as "Partner" and collectively as "Partners".

WHEREAS:

Flooding and resulting damages from winter ice jams and seasonal rainstorms frequently occur along the Lower Platte River and Lower Elkhorn River corridors.

The Partners work closely with the National Weather Service, the Nebraska Emergency Management Agency and the Nebraska Department of Natural Resources to monitor winter ice/ice-out and flood stage conditions along the Lower Platte River and Lower Elkhorn River corridors and take necessary actions to alert the public of resulting flood hazards.

The Partners desire to increase awareness of potential flood threats due to winter ice/ice-out conditions and other significant seasonal rainstorm events, by establishing cameras at mutually agreed upon locations along the Lower Platte River and Lower Elkhorn River.

The Partners desire to enter into an Interlocal Agreement for sharing costs associated with purchasing and placing cameras and supporting equipment along the Lower Platte River and Lower Elkhorn River and for the future operation and maintenance of that equipment.

THEREFORE, in consideration of the foregoing recitals and their mutual covenants hereinafter expressed, the Partners agree as follows:

1. Authority:

The Partners desire to work together for purchasing and the installation of three cameras and supporting equipment, at mutually agreed upon locations along the Platte and Elkhorn River and to make the most efficient use of their respective powers by cooperating on a basis of mutual advantage under the auspices of the Interlocal Cooperation Act (Neb. Rev. Stat. §§ 13-801 to 13-827). In furtherance of this cooperative effort the Parties desire to enter into this Interlocal Agreement with one another for joint and cooperative action for any power or powers, privileges or authorities exercised or capable of exercise individually by them as public agencies under the Interlocal Cooperation Act. This Agreement is not

intended to create a separate legal entity as between the Partners.

2. Funding for Cameras & Supporting Equipment and Installation:

The Partners agree to provide assistance toward the local costs for up to three (3) cameras and supporting equipment as follows:

PMRNRD:	\$21,479
LPSNRD:	\$4,296

Total Equipment Expense: \$25,775

The Partners agree to pay the above-identified amounts in the 2023 Fiscal Year.

3. Cameras/Equipment Operation and Maintenance Expenses:

The Partners agree to share on-going camera/equipment operation and maintenance expenses as follows:

	<u>Fiscal Year 2024</u>	<u>Fiscal Year 2025</u>
PMRNRD:	\$7,783	\$8,196
LPSNRD:	\$1,557	\$1,639

It shall be the PMRNRD's sole discretion to determine when and how operation and maintenance is to be conducted and to then bill each Partner accordingly.

4. Authorized Partner for Entering into USGS Agreement/Billings:

The Partners agree that PMRNRD will enter into a three-year agreement with USGS for purchasing up to three cameras and supporting equipment and for operation and maintenance of the equipment. PMRNRD will bill each Partner for their share annually.

5. Effective Date:

This Agreement becomes effective upon execution by all Partners. The original copy of this Agreement will be maintained as part of the records of PMRNRD, with a copy being provided to each of the Partners. The Agreement may be signed electronically and in counterparts.

6. Duration of Agreement:

This Agreement shall extend from the date of execution by all Partners and will remain in effect until September 30, 2025, unless mutually or individually terminated by one or more of the Partners upon an advance 90 day written notice. Provided, however, termination cannot affect the initial obligations of the Partners as the PMRNRD will be bound to the three year term with USGS so the parties are committing to at least that length of term.

7. Amendments, Assignments, Severability and Integration:

This Agreement may be amended, or Addendums added, subject to written approval by all Partners. This Agreement may not be assigned without the express written permission of the other Partners to this Agreement. If any portion of this Agreement is held invalid, the remainder hereof shall not be affected thereby if such remainder would then continue to conform to the terms and requirements of applicable law. This Agreement constitutes the entire agreement between the Partners with respect to the subject matter herein and merges all prior discussions between them. It shall not be modified except by written agreement dated subsequent to the date of this Agreement and signed by all Partners.

8. Indemnification:

The Partners assume no liability under this Agreement unless expressly accepted herein. Each party agrees to defend the other from and against all liabilities, obligations, losses, damages, claims, and demands arising from the acts of its own respective officers, agents, or employees. Liability includes any claims, damages, losses, and expenses arising out of or resulting from performance of this Agreement that results in any claim for damage whatsoever including any bodily injury, civil rights liability, sickness, disease, or damage to or destruction of tangible property, including the loss of use resulting therefrom. Further, each Partner shall maintain a policy or policies of insurance (or a self-insurance program), sufficient in coverage and amount to pay any judgments or related expenses from or in conjunction with any such claims. Nothing in this Agreement shall require any Partner to indemnify or hold harmless the other Partners from liability for the negligent or wrongful acts or omissions of said other Partners or its principals, officers, or employees.

[Signatures on following page]

IN WITNESS WHEREOF, each Partner has caused this Agreement to be executed by its duly authorized officer as of the date and year.

Lower Platte South Natural Resources District

By: _____

Printed Name: _____

Title: _____

Date: _____



Paul D. Zillig

GENERAL MANAGER

FEB 15 2023

Papio-Missouri River Natural Resources District

By: _____

John Winkler, General Manager

Date: _____

IN WITNESS WHEREOF, each Partner has caused this Agreement to be executed by its duly authorized officer as of the date and year.

Lower Platte South Natural Resources District

By: _____

Printed Name: _____

Title: _____

Date: _____

Papio-Missouri River Natural Resources District

By: _____

John Winkler, General Manager

Date: 2-23-23