



# **2014 Water Quality Integrated Report**

**Nebraska Department of Environmental Quality**

**Water Quality Division**

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## 1.0 Introduction

Section 303(d) of the federal Clean Water Act (CWA), which Congress enacted in 1972, requires states, territories, and authorized tribes (states) to identify and establish a priority ranking for all waterbodies where technology-based effluent limitations required by section 301 are not stringent enough to attain and maintain applicable water quality standards. Once identified, states are to establish total maximum daily loads (TMDLs) for the pollutants causing impairment in those waterbodies, and submit, from time to time, the (revised) list of impaired waterbodies and TMDLs to the U.S. Environmental Protection Agency (EPA). The requirements to identify and establish TMDLs apply to all waterbodies regardless of whether a waterbody is impaired by point sources, nonpoint sources, or a combination of both (*Pronsolino v. Marcus*, 2000 WL 356305 (N.D. Cal. March 30, 2000)).

EPA issued regulations governing identification of impaired waterbodies and establishment of TMDLs in 40 CFR 130.7 in 1985 and revised them in 1992 and again in 2000. However, on March 19, 2003, a final rule to formally and completely withdraw the 2000 regulations was published in the *Federal Register*. Therefore, the 2014 listing of impaired waters will be conducted under the 1985 TMDL regulations, as amended in 1992.

Section 305(b) of the CWA directs states to prepare a report every two (2) years that describes the status and trends of existing water quality, the extent to which designated uses are supported, pollution problems and sources, and the effectiveness of the water pollution control programs.

Section 314 of the CWA requires that each Section 305(b) submittal include an assessment of water quality trends of public owned lakes including the extent of point and nonpoint source impacts due to toxics, conventional pollutants, and acidification.

On March 21, 2011, EPA issued guidance for the 2012 waterbody assessments and reporting requirements for Section 303(d), Section 305(b), and Section 314 of the Clean Water Act. No new guidance for the 2014 waterbody assessments and reporting requirements for Section 303(d), Section 305(b), and Section 314 of the Clean Water Act have been provided; however on March 28, 2013 EPA sent a memo, “Announcements for Regional IR Data Coordinators and States.” The final product is again being referred to as an “Integrated Report”. EPA’s goal for this report is to provide the general public with a comprehensive summary of state and national water quality. The NDEQ has opted to prepare such a report not only for the general public but also for water quality management planning purposes (e.g. future monitoring, TMDL development, best management practice implementation).

To facilitate the waterbody assessment process and accommodate the above recognized needs, the Department prepared and utilized the *Methodologies for Waterbody Assessment and Developing the 2014 Integrated Report for Nebraska* (available on NDEQ’s website at <http://deq.ne.gov>). These procedures lay out the step-by-step process that was undertaken to characterize surface waterbodies.

## 2.0 Surface Water Waterbody Categories

Similar to the previous Integrated Reports (IR), the 2014 IR includes multiple categories of waterbodies to present information in a descriptive and comprehensive manner. The designated uses of waterbodies are explained in Section 5. The five waterbody categories are as follows with the possibility of multiple sub-category 4 combinations:

**Category 1** – Waterbodies where all designated uses are met.

**Category 2** – Waterbodies where some of the designated uses are met but there is insufficient information to determine if all uses are being met.

**Category 3** – Waterbodies where there is insufficient data to determine if any beneficial uses are being met.

**Category 4** – Waterbody is impaired, but a TMDL is not needed. Sub-categories 4A, 4B, 4C and 4R outline the rationale for the waters not needing a TMDL:

**Category 4A** – Waterbody assessment indicates the waterbody is impaired, but all of the required TMDLs have been completed.

**Category 4B** – Waterbody is impaired, but “other pollution control requirements” are expected to address the water quality impairment(s) within a reasonable period of time. Other pollution control requirements include but are not limited to, National Pollutant Discharge Elimination System (NPDES) permits and best management practices.

**Category 4C** – Waterbody is impaired but the impairment is not caused by a pollutant. This category also includes waters where natural causes/sources have been determined to be the cause of the impairment. In general, natural causes/sources shall refer to those pollutants that originate from landscape geology and climactic conditions. It should be noted; this general description can only be utilized when appropriate justification is provided.

**Category 4R** – Waterbody data exceeds the impairment threshold, however a TMDL is not appropriate at this time. The category will only be used for nutrient assessments in new or renovated lakes and reservoirs. Newly filled reservoirs usually go through a period of trophic instability – a trophic upsurge followed by the trophic decline (Holdren, et. al. 2001). Erroneous or non-representative water quality assessments are likely to occur during this period. To account for this, all new or renovated reservoirs will be placed in this category for a period not to exceed eight years following the fill or re-fill process. After the eighth year monitoring data will be assessed and the waterbody will be appropriately placed into category 1, 2, or 5.

**Category 5** – Waterbodies where one or more beneficial uses are determined to be impaired by one or more pollutants and all of the TMDLs have not been developed. **Category 5 waters constitute the Section 303(d) list subject to EPA approval/disapproval.**

### 3.0 Surface Water Data Sources

40 CFR Part 130.7 requires that “each state assemble and evaluate all existing and readily available water quality related data and information” to make the listing and assessment decisions. To facilitate this requirement, data was requested via email on June 20, 2013 from numerous sources, including federal, state and local agencies and other entities. A copy of the data request email will be submitted to EPA Region 7 as an attachment to this Integrated Report. Data was received from the United States Geological Survey (USGS) as well as the United States Army Corps of Engineers (USACE) and utilized in the development of the 2014 Integrated Report.

### 4.0 Surface Water Assessment Outcomes and Interpretation

Based on the procedures cited above, a waterbody beneficial use assessment can have one of four outcomes:

S = Supported Beneficial Use

I = Impaired Beneficial Use

NA = Not assessed

A blank cell in the tables will indicate the beneficial use is not assigned to this waterbody in Title 117-Nebraska’s Surface Water Quality Standards.



The format of the Integrated Report is set to allow the user to navigate through a river basin, similar to the tables found in Title 117 – Nebraska Surface Water Quality Standards. The tables list the waterbody identification number, name, and applicable beneficial uses.

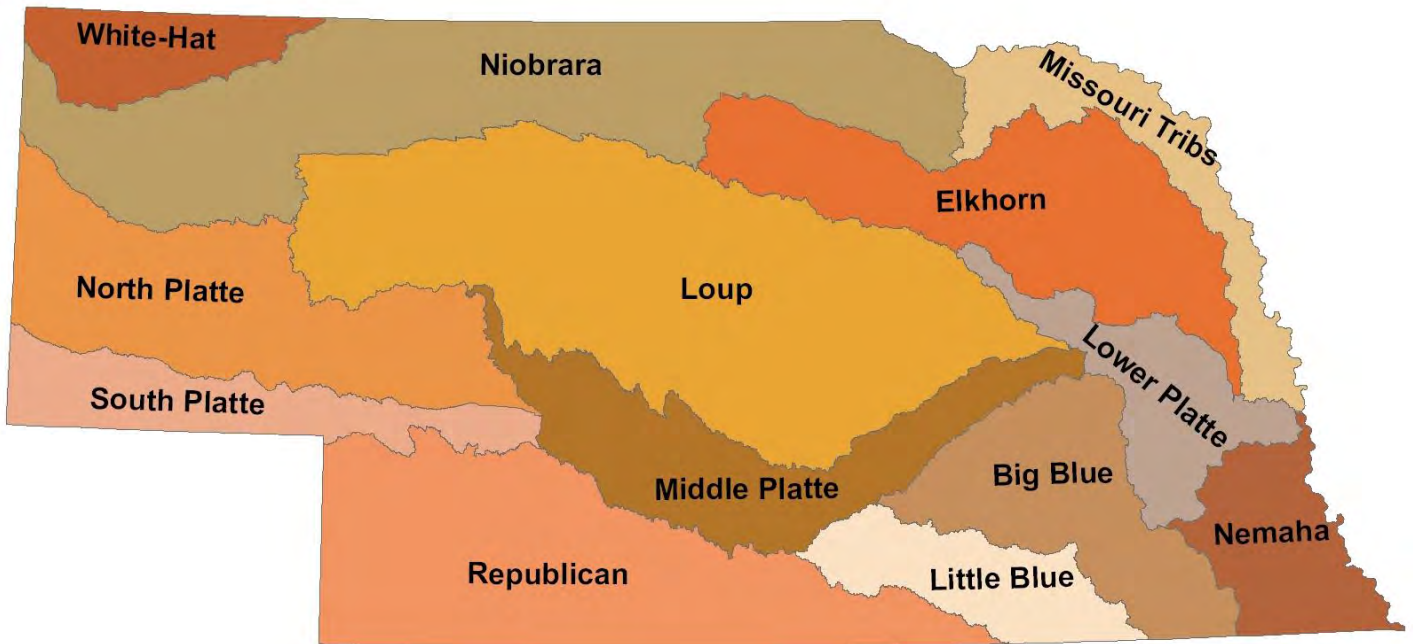
## 5.0 Surface Water Waterbody Beneficial Uses

Beneficial uses are assigned to all designated surface waters within or bordering the State and descriptions of each can be found in Title 117 – Nebraska Surface Water Quality Standards (Title 117), Chapter 4. All uses are not assigned to all waters and use attainability analyses are utilized on a waterbody by waterbody basis to determine whether or not the use(s) are applicable. The beneficial uses defined by Title 117 are:

- Primary Contact Recreation
- Aquatic Life – Coldwater A, Coldwater B, Warmwater A and Warmwater B
- Water Supply – Public Drinking Water, Agriculture and Industrial
- Aesthetics

Title 117 includes 1558 designated stream segments and 528 lakes/impounded waters. Table 5a presents the beneficial use totals by river basin for streams and 5b presents the beneficial use totals by river basin for the lakes/impounded waters.

**Figure 1 - Nebraska's Major River Basins.** Nebraska's surface water quality assessments are organized by major river basin.



**Table 5a – Beneficial Use Totals for Streams**

	<b>Big Blue</b>	<b>Elkhorn</b>	<b>Little Blue</b>	<b>Loup</b>	<b>Lower Platte</b>	<b>Middle Platte</b>	<b>Missouri Tributaries</b>	<b>Nemaha</b>	<b>Niobrara</b>	<b>North Platte</b>	<b>Republican</b>	<b>South Platte</b>	<b>White River-Hat Creek</b>	<b>Total Segments</b>
<b>Total Segments</b>	63	135	38	107	126	29	136	326	269	136	102	28	63	1558
<b>Primary Contact Recreation</b>	10	23	6	37	16	13	21	20	53	42	33	16	18	308
<b>Aquatic Life – Coldwater Class A</b>	0	0	0	0	0	0	0	0	14	21	0	1	15	51
<b>Aquatic Life – Coldwater Class B</b>	0	1	0	36	1	3	3	0	164	79	19	13	36	355
<b>Aquatic Life – Warmwater Class A</b>	16	38	14	26	13	12	15	40	15	7	24	11	1	232
<b>Aquatic Life – Warmwater Class B</b>	47	96	24	45	112	14	118	286	76	29	59	3	11	920
<b>Water Supply – Public Drinking Water</b>	0	0	1	0	2	1	2	2	0	0	0	0	7	15
<b>Water Supply – Agriculture Class A</b>	63	135	38	107	120	29	136	326	269	136	102	28	63	1552
<b>Water Supply – Agriculture Class B</b>	0	0	0	0	6	0	0	0	0	0	0	0	0	6
<b>Water Supply – Industrial</b>	0	0	0	0	1	1	1	1	1	1	0	4	0	10
<b>Aesthetics</b>	63	135	38	107	126	29	136	326	269	136	102	28	63	1558
<b>Total</b>														<b>1558</b>

**Table 5b – Beneficial Use Totals for Lakes/Reservoirs**

	<b>Big Blue</b>	<b>Elkhorn</b>	<b>Little Blue</b>	<b>Loup</b>	<b>Lower Platte</b>	<b>Middle Platte</b>	<b>Missouri Tributaries</b>	<b>Nemaha</b>	<b>Niobrara</b>	<b>North Platte</b>	<b>Republican</b>	<b>South Platte</b>	<b>White River-Hat Creek</b>	<b>Total Lakes</b>
<b>Total Lakes</b>	31	32	13	47	75	95	29	32	66	48	20	13	27	528
<b>Primary Contact Recreation</b>	31	32	13	47	75	95	29	32	66	48	20	13	27	528
<b>Aquatic Life – Coldwater Class A</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Aquatic Life – Coldwater Class B</b>	0	0	0	1	1	0	0	0	2	3	1	1	14	23
<b>Aquatic Life – Warmwater Class A</b>	31	32	13	46	74	95	29	32	64	45	19	12	13	505
<b>Aquatic Life – Warmwater Class B</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Water Supply – Public Drinking Water</b>	0	0	3	0	0	0	1	0	0	0	0	0	0	4
<b>Water Supply – Agriculture Class A</b>	31	32	13	47	75	95	29	32	66	48	20	13	27	528
<b>Water Supply – Agriculture Class B</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Water Supply – Industrial</b>	0	0	0	0	2	2	1	0	2	1	0	2	0	10
<b>Aesthetics</b>	31	32	13	47	75	95	29	32	66	48	20	13	27	528
<b>Total</b>														<b>528</b>

## 6.0 Surface Water Waterbody Assessment Results

The results of the assessments by river basin and the state as a whole can be found in Table 6a for stream segments and 6b for lakes/reservoirs. As well, table 6c provides a summary of the monitoring and assessment activities for the number and sizes of waterbodies designated in Title 117.

**Table 6a – Summary of 2014 Assessments for Streams**

Category	1	2	3	4A	4B	4C	4A/C	5	Basin Total
Big Blue	5	16	24	7	0	0	0	11	63
Elkhorn	1	23	86	2	0	0	3	20	135
Little Blue	1	9	19	4	0	0	0	5	38
Loup	7	11	64	9	0	3	3	10	107
Lower Platte	4	22	70	2	0	7	0	21	126
Middle Platte	3	4	14	1	0	0	0	7	29
Missouri Tributaries	5	27	77	4	0	1	0	22	136
Nemaha	3	36	266	4	0	0	0	17	326
Niobrara	5	20	226	6	0	0	1	11	269
North Platte	7	22	87	7	0	4	0	9	136
Republican	4	11	52	1	0	2	1	31	102
South Platte	1	9	8	0	0	1	0	9	28
White-Hat	6	7	43	0	0	0	0	7	63
<b>Total</b>	<b>52</b>	<b>217</b>	<b>1036</b>	<b>47</b>	<b>0</b>	<b>18</b>	<b>8</b>	<b>180</b>	<b>1558</b>

**Table 6b – Summary of 2014 Assessments for Lakes/Reservoirs**

Category	1	2	3	4A	4B	4C	4R	4A/R	5	Basin Total
Big Blue	2	6	4	0	0	0	1	0	18	31
Elkhorn	0	10	14	0	0	0	1	0	7	32
Little Blue	0	2	1	0	0	0	1	0	9	13
Loup	0	8	30	0	0	0	0	0	9	47
Lower Platte	1	20	21	0	0	0	5	0	28	75
Middle Platte	1	18	62	0	0	0	0	0	14	95
Missouri Tributaries	0	6	6	0	0	0	1	0	16	29
Nemaha	0	9	14	0	0	0	1	0	8	32
Niobrara	0	19	36	0	0	1	0	0	10	66
North Platte	1	6	30	0	0	3	0	1	7	48
Republican	1	2	4	0	0	0	1	0	12	20
South Platte	0	1	1	0	0	0	0	0	11	13
White-Hat	2	2	16	0	0	0	0	0	7	27
<b>Total</b>	<b>8</b>	<b>109</b>	<b>239</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>11</b>	<b>1</b>	<b>156</b>	<b>528</b>

Table 6c – Statewide Monitoring and Assessment Summary for 2014

<i>Streams</i>	Number of Segments	Percentage of Total Segments	Size Stream = miles Lakes = acres	Percentage of Total Size
<b>Total</b>	<b>1,558</b>		<b>16,670.3</b>	
Category 1	52	3.7%	1,267.7	7.6%
Category 2	217	13.9%	2,820.1	16.9%
Category 3	1,036	66.5%	6,924.8	41.5%
Category 4A	47	3.0%	1,238.4	7.4%
Category 4B	0	0.0%	0.0	0.0%
Category 4C	18	1.2%	280.2	1.7%
Category 4A/C	8	0.5%	311.4	1.9%
Category 5	180	11.6%	3,827.7	23.0%
<b>Assessed</b>	<b>522</b>	<b>33.5%</b>	<b>9,745.5</b>	<b>58.5%</b>
<b>Lakes</b>				
<b>Total</b>	<b>528</b>		<b>132,328.6</b>	
Category 1	8	1.5%	1,074.7	0.8%
Category 2	109	20.6%	12,323.2	9.3%
Category 3	239	45.3%	10,750.1	8.1%
Category 4A	0	0.0%	0	0.0%
Category 4B	0	0.0%	0	0.0%
Category 4C	4	0.8%	839.4	0.6%
Category 4R	11	2.1%	935.2	0.7%
Category 4A/R	1	0.2%	573.7	0.4%
Category 5	156	29.5%	105,832.3	80.0%
<b>Assessed</b>	<b>289</b>	<b>54.7%</b>	<b>121,578.5</b>	<b>91.9%</b>

## 7.0 Completed TMDLs and TMDLs Targeted for Completion in Next Two Years

Section 303(d) of the CWA required that TMDLs be established for all identified impaired waters and set at a level to achieve the applicable water quality standards and assigned beneficial uses. Over the last several listing cycles the Department has made significant progress in the preparation and completion of the necessary TMDLs. Table 7 provides a listing of the completed and approved TMDLs within each river basin.

As required by 40 CFR Part 130.7, the TMDLs targeted for development within the next two years include all waterbodies in the North Platte, South Platte, White-Hat, and Republican basins. TMDLs may also be completed for additional waterbodies not in these basins in order to accompany Section 319 or other water quality improvement projects and as prioritized by the Department. Note the number of completed TMDLs approved in Table 7 does not match the number of category 4A waterbodies because a waterbody may have more than one TMDL.

**Table 7 – Established and Approved TMDLs**

<b>River Basin</b>	<b>Stream TMDLs</b>	<b>Lake/Reservoir TMDLs</b>	<b>Total</b>
Big Blue	28	2	30
Elkhorn	8	0	8
Little Blue	15	0	15
Loup	14	0	14
Lower Platte	12	34	46
Middle Platte	4	1	5
Missouri Tributaries	6	10	16
Nemaha	10	4	14
Niobrara	8	0	8
North Platte	21	1	22
Republican	10	0	10
South Platte	0	0	0
White-Hat	1	0	1
<b>Total</b>	<b>137</b>	<b>52</b>	<b>189</b>

## 8.0 Surface Water Quality Trends

### 8.1 Streams and Rivers

In 2001, the Department re-established a fixed station ambient network whereby several streams across the state would be systematically monitored. In 2002, the network was expanded by the inclusion of additional monitoring locations.

Stream monitoring locations can be segregated into one of two categories; basin *integrator* sites and basin *indicator* sites. Basin integrator sites are chosen to represent water-quality conditions of rivers and streams in large heterogeneous basins that are affected by complex combinations of land use settings and natural and human influences. Only one basin integrator site shall be selected for each major river basin. Basin indicator sites are those sites selected to characterize one or more factors influencing water quality such as significant point and non-point sources. A consideration given to site selection is the presence of a stream gauging station.

In 2004, the frequency of sampling was increased from once per month to twice per month during the months of April through September. The increase was aimed at obtaining data across the hydrograph.

For the purposes of evaluating trends in stream water quality, three parameters were evaluated: Conductivity, Atrazine and Ammonia. Time series trends analysis was conducted for each of the three parameters at the basin integrator site and one basin indicator site.

A summary is provided in Table 8.1. The results of the analysis can be: Increasing trend observed, Decreasing trend observed, and Not Significant (no increasing or decreasing trend observed). The Department considers a trend to be significant when the p-value is  $\leq 0.05$  (the probability of the observed trend being due to random chance is less than 5%).

**Table 8.1 – Stream Water Quality Trend Information for Three Parameters**

Waterbody ID	Waterbody Name	Conductivity		Atrazine		Ammonia	
		Trend	P-value	Trend	P-value	Trend	P-value
BB1-10000	Big Blue River	Not Significant	0.1481	Not Significant	0.468	Not Significant	0.282
BB3-10000	West Fork Big Blue River	Not Significant	0.1705	Not Significant	0.516	Not Significant	0.431
EL1-10000	Elkhorn River	Not Significant	0.4431	Decreasing	0.019	Not Significant	0.107
EL1-20100	Pebble Creek	Not Significant	0.4259	Not Significant	0.063	Decreasing	< 0.001
LB1-10000	Little Blue River	Not Significant	0.3605	Not Significant	0.697	Not Significant	0.279
LB2-10100	Big Sandy Creek	Increasing	0.0339	Not Significant	0.426	Not Significant	0.222
LO1-20200	Loup River Power Canal	Increasing	0.0479	Not Significant	0.875	Not Significant	0.871
LO4-10000	South Loup River	Increasing	0.0285	Not Significant	0.161	Not Significant	0.871
LP1-10000	Platte River	Increasing	< 0.001	Decreasing	< 0.001	Not Significant	0.175
LP2-10000	Salt Creek	Not Significant	0.4645	Not Significant	0.568	Decreasing	< 0.001
MP1-20000	Platte River	Increasing	0.0275	Not Significant	0.772	Not Significant	0.115
MP2-20000	Platte River	Increasing	0.0216	Not Significant	0.839	Not Significant	0.275
MT1-10000	Missouri River	Not Significant	0.0975	Not Significant	0.234	Decreasing	0.048
MT1-10100	Papillion Creek	Not Significant	0.6754	Not Significant	0.354	Not Significant	0.098
NE2-10000	Big Nemaha River	Not Significant	0.0934	Not Significant	0.856	Not Significant	0.188
NE3-10000	Little Nemaha River	Not Significant	0.0561	Not Significant	0.752	Decreasing	0.028
NI2-10000	Niobrara River	Increasing	0.0376	Not Significant	0.180	Increasing	0.018
NI3-13100	Plum Creek	Increasing	0.0494	Not Significant	0.233	Not Significant	0.704
NP1-10000	North Platte River	Increasing	0.0193	Not Significant	0.118	Not Significant	0.070
NP3-12600	Winters Creek	Not Significant	0.1213	Not Significant	0.901	Not Significant	0.477
RE1-10000	Republican River	Increasing	< 0.001	Not Significant	0.955	Decreasing	0.001
RE3-10200	Medicine Creek	Increasing	< 0.001	Not Significant	0.824	Not Significant	0.746
SP1-20000	South Platte River	Increasing	0.0019	Not Significant	0.176	Not Significant	0.305
SP2-50000	Lodgepole Creek	Increasing	< 0.001	Not Significant	0.249	Not Significant	0.312
WH1-10000	White River	Increasing	0.0239	Not Significant	0.492	Not Significant	0.333
WH1-11300	Chadron Creek	Increasing	0.036	Not Significant	0.309	Not Significant	0.486

## **8.2 Lakes and Reservoirs**

Trend information was evaluated for six waterbodies based on the quality and quantity of the existing data set. Future IRs may include additional waterbodies as the data sets are updated. For the purpose of evaluating trends in lake water quality, five parameters were evaluated: Transparency, Atrazine, Chlorophyll a, Total Phosphorus, and Total Nitrogen. Trend analysis for these five parameters can be found in Table 8.2. Similar to streams, significant trends are those with a p-value of  $\leq 0.05$ .

## **8.3 Assessment of Lake Trophic Status**

Along with the reporting on the beneficial use status of lakes and reservoirs, Section 314 of the CWA requires that states submit information on the eutrophic condition of publicly owned lakes. While the Department has not monitored all classified public lakes, there is sufficient information to report on 45 waterbodies. The assessment and classification was conducted using Carlson's Trophic State Index (Carlson, 1977) and the results can be found in Table 8.3.

## **9.0 Cost/Benefit Assessment**

The cost of protecting and improving water quality can be measured or estimated using grants, loans and other programs. In contrast, estimating the monetary value of the benefits of water quality protection and improvements is more difficult. Rather than attempt to identify specific monetary values, the overwhelming belief that the ecological and societal benefits outweigh the costs will be accepted. Following is information on some of the costs associated with water quality protection and improvement.

### **9.1 Clean Water State Revolving Loan Fund**

The Clean Water State Revolving Loan Fund (CWSRF) provides low interest loans to municipalities for construction of wastewater treatment facilities and sanitary sewer collection systems. The sources of funding for this program include federal grants, an initial state general fund appropriation, and funds from Nebraska Investment Financial Authority (NIFA) through bond issuance. Nebraska received \$6,798,000 from the EPA in the FY2013 CWSRF Capitalization Grant. The CWSRF program has provided funding to over 185 communities and 247 wastewater projects since its inception in 1989.

### **9.2 Facility Planning Grants**

CWSRF administrative cash funds are used to provide financial assistance to eligible municipalities for facility planning reports for wastewater treatment system improvement projects that will seek funding through the Water Wastewater Advisory Committee (WWAC) Common Pre-application Process. This financial assistance is provided to communities to identify capital improvement needs as well as increase their readiness to proceed in accomplishing these improvements.

Facility planning grants may be provided to municipalities with populations of 10,000 or fewer people that are identified with a financial hardship, and listed on the current CWSRF Intended Use Plan (IUP). This includes any city, town, village, sanitary improvement district, natural resource district, or other public body created by or pursuant to state law having jurisdiction over a wastewater treatment facility. Privately owned wastewater treatment systems are not eligible for assistance.

Grants are provided for up to 90% of the eligible facility plan project cost, but cannot exceed \$20,000. Grant awards for SFY2013 and SFY2014, totaling \$180,000, were awarded to 9 communities: Hebron, Minatare, Mitchell, Plymouth, Scribner, St. Paul, Table Rock, Winside, and York.

Since its inception in SFY2004, the CWSRF has awarded planning grants to 56 communities, for a total of \$903,710.



### **9.3 Nonpoint Source Management**

The Nonpoint Source Management program provides pass through funding for the prevention and abatement of nonpoint source water pollution and the restoration of watershed resources under Section 319 of the federal Clean Water Act. This funding is provided to units of government, educational institutions, and non-profit organizations, for projects that facilitate implementation of the state Nonpoint Source Management Plan. A total of 200 large projects, spending \$61,681,055, have been funded through Section 319 grants since the beginning of the program in 1990. Of these 200 projects, 124 have addressed surface water, 51 have addressed groundwater and 25 have focused on both surface water and groundwater problems.

### **10.0 Groundwater Monitoring and Assessment**

The 2001 Nebraska Legislature passed LB329 (Neb. Rev. Stat. §46-1304) which, in part, directed the Nebraska Department of Environmental Quality (NDEQ) to report on groundwater quality monitoring in Nebraska. Specifically:

“The Department of Environmental Quality shall prepare a report outlining the extent of ground water quality monitoring conducted by natural resources districts during the preceding calendar year. The department shall analyze the data collected for the purpose of determining whether or not ground water quality is degrading or improving and shall present the results to the Natural Resources Committee of the Legislature beginning December 1, 2001, and each year thereafter. The districts shall submit in a timely manner all ground water quality monitoring data collected to the department or its designee. The department shall use the data submitted by the districts in conjunction with all other readily available and compatible data for the purpose of the annual ground water quality trend analysis.”

Rather than regenerate this information, a copy of the *2013 Nebraska Groundwater Quality Monitoring Report* has been included as Appendix A.

### **11.0 Public Participation**

On June 20, 2013, NDEQ issued a request for all existing and readily available surface water quality data to Federal, State, and Local agencies, members of the public and academic institutions. The draft version of this document was available for public viewing via the Department’s website <http://deq.ne.gov> beginning February 5, 2014 and remained available for viewing through March 8, 2014.

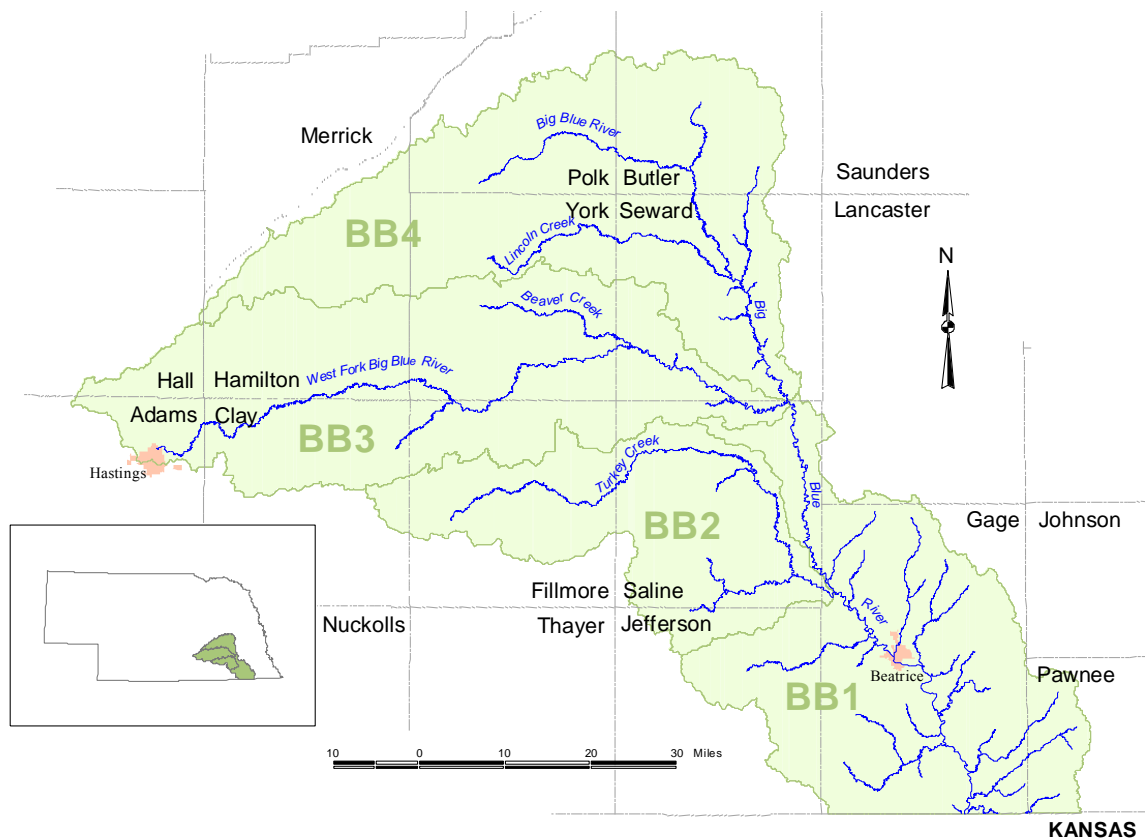
**Table 8.2 Lake Water Quality Trend Information**

Waterbody ID	Waterbody Name	Transparency		Atrazine		Chlorophyll a		Total Phosphorus		Total Nitrogen	
		Trend	P-value	Trend	P-value	Trend	P-value	Trend	P-value	Trend	P-value
LP2-L0020	Wagon Train	Decreasing	0.002	Not Significant	0.254	Not Significant	0.313	Increasing	< 0.001	Increasing	0.003
LP2-L0050	Stagecoach	Decreasing	< 0.001	Not Significant	0.297	Decreasing	0.004	Not Significant	0.061	Not Significant	0.175
LP2-L0130	Conestoga	Decreasing	0.013	Decreasing	< 0.001	Not Significant	0.062	Increasing	< 0.001	Increasing	< 0.001
MT1-L0030	Wehrspann	Decreasing	0.009	Not Significant	0.172	Increasing	< 0.001	Decreasing	0.01	Decreasing	< 0.001
MT1-L0100	Standing Bear	Not Significant	0.066	Decreasing	< 0.001	Decreasing	< 0.001	Decreasing	< 0.001	Not Significant	0.472
NE2-L0040	Kirkman's Cove	Not Significant	0.431	Decreasing	< 0.001	Not Significant	0.099	Decreasing	0.017	Increasing	0.038

**Table 8.3 Eutrophic Conditions of Public Lakes Using the Trophic State Index (TSI)**

River Basin	Lakes Assessed	Oligotrophic (TSI < 40)	Mesotrophic (TSI 40-50)	Eutrophic (TSI 51-70)	Hypereutrophic (TSI > 70)
Big Blue River	4				4
Elkhorn River	2			1	1
Little Blue River	3				3
Loup River	3			2	1
Lower Platte River	19		1	8	10
Middle Platte River	1			1	
Missouri River Tributaries	6			1	5
Nemaha River	1				1
Niobrara River	3	1	1		1
Republican River	2			2	
South Platte River	1			1	
<b>Total Assessed for TSI</b>	<b>45</b>	<b>1</b>	<b>2</b>	<b>16</b>	<b>26</b>

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## BIG BLUE RIVER BASIN (and Subbasins)

### Big Blue Basin – Hydrologic Units 10270201, 10270202, 10270203, 10270204 and 10270205

The Big Blue River Basin includes 63 designated stream segments and 31 lakes/reservoirs. Beneficial uses assigned to designated water in the basin can be found in the below table.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	31	0	0	31	0	0	31	0	31
Streams	10	0	0	16	47	0	63	0	63

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

#### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**BB1-L0030: Big Indian Lake (11A)** – This waterbody was listed as 4A in the 2012 IR. This waterbody’s aquatic life use was impaired for Total Nitrogen and Total Phosphorous; aesthetics use was impaired for Sedimentation. This waterbody was renovated in 2011 and will be placed in Category 4R.

**BB1-L0060: Rockford Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a due to nutrients, Total Phosphorous and Total Nitrogen, Hazard Index compounds, and Mercury. Data collected in 2012 determined the aquatic life use is also being impaired for Dissolve Oxygen due to nutrients. This waterbody will remain in Category 5.

**BB1-L0080: Cub Creek Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli; aquatic life use was impaired for Total Phosphorous. Data collected in 2012 determined the aquatic life use is also being impaired for Total Nitrogen. This waterbody will remain in Category 5.

**BB3-L0050: Lake Hastings** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aesthetics was impaired for Sedimentation; aquatic life was impaired for Hazard index and Cancer risk compounds. Data collected in 2012 determined the aquatic life use was also being impaired for Chlorophyll a due to nutrients, Total Phosphorus and Total Nitrogen. This waterbody will remain in Category 5.

**BB4-L0020: Seward City Park Pond (Independence Landing Pond)** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 determined all assigned uses are being met. This waterbody will be placed in Category 1.

**BB4-L0035: Oxbow Trail Reservoir** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a due to nutrients, Total Phosphorus and Total Nitrogen. Data collected in 2012 determined both the recreation and agriculture water supply uses are being met; aquatic life use is also being impaired for pH due to nutrients. This waterbody will remain in Category 5.

**BB4-L0045: Aurora Leadership Center Lake** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 determined all assigned uses are being met. This waterbody will be placed in Category 1.

**BB1-10000: Big Blue River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine, Hazard index compounds, Mercury and Cancer risk compounds. Data collected in 2012 determined the recreational use for E coli is being met and the aquatic life use is also being impaired for Selenium. An E coli and Atrazine TMDL was approved 12/13. This waterbody will remain Category 5 due to other impairments not being addressed in the TMDL.

**BB1-10100: Mission Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine. An E coli and Atrazine TMDL was approved 12/13. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**BB1-10300: Spring Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB1-10400: Plum Creek** - This waterbody was listed as Category 3 in the 2012 IR. Data Collected in 2012 determined all beneficial uses are being met. This waterbody will be placed in Category 1.

**BB1-10610: Wolf Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB1-10800: Big Indian Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine. An E coli and Atrazine TMDL was approved 12/13. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**BB1-10900: Big Indian Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Atrazine. An Atrazine TMDL was approved 12/13. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**BB1-11100: Mud Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB1-11400: Bear Creek** – This waterbody was listed as Category 3 in the 2012 IR. Data Collected in 2012 determined all beneficial uses are being met. This waterbody will be placed in Category 1.

**BB1-11410: Pierce Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB1-11500: Bear Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB1-11600: Indian Creek** – This waterbody was listed as Category 3 in the 2012 IR. Data Collected in 2012 determined all beneficial uses are being met. This waterbody will be placed in Category 1.

**BB1-11700: Indian Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment completed in 2012 determined aquatic life and aesthetics beneficial uses are being met. This waterbody will be placed in Category 2.

**BB1-11900: Cub Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB1-12000: Soap Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB1-20000: Big Blue River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine and Selenium. An E coli and Atrazine TMDL was approved 12/13. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDL.

**BB2-10000: Turkey Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine, Selenium and for an impaired aquatic community due to an unknown pollutant. An E coli and Atrazine TMDL was approved 12/13. This waterbody will remain Category 5 due to other impairments not being addressed in the TMDL.

**BB2-10100: Swan Creek** – This waterbody was listed as Category 2 in the 2012 IR. An aquatic community assessment determined aquatic life and aesthetics beneficial uses are still being met. This waterbody will remain in Category 2.

**BB2-10110: South Fork Swan Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB2-20000: Turkey Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine. An E coli and

Atrazine TMDL was approved 12/13. An aquatic community assessment determined aquatic life and aesthetics beneficial uses are being met for the aquatic community. Data last collected in 2007 was sufficient in determining agricultural water supply use is being met. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**BB2-30000: Turkey Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB2-40000: Turkey Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB3-10000: West Fork Big Blue River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine and Selenium. An E coli and Atrazine TMDL was approved 12/13. An aquatic community assessment determined aquatic life use not being met due to an unknown pollutant. This waterbody will remain Category 5 due to other impairments not being addressed in the TMDL.

**BB3-10200: Walnut Creek** - This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment in 2012 determined the aquatic life use was not being met due to an unknown pollutant. This waterbody will be placed in Category 5.

**BB3-10300: Beaver Creek** - This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Atrazine. An Atrazine TMDL was approved 12/13. An aquatic community assessment in 2012 determined aquatic life and aesthetics beneficial uses are being met for the aquatic community. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**BB3-20000: West Fork Big Blue River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine and an impaired aquatic community due to an unknown pollutant. An E. coli and Atrazine TMDL was approved 12/13. This waterbody will remain in Category 5 due to other impairments not being addressed by the TMDL.

**BB3-20100: School Creek** - This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 determined the aquatic life use is being impaired for Atrazine. Agricultural water supply and aesthetics beneficial uses are being met. This waterbody will be placed in Category 5.

**BB3-30000: West Fork Big Blue River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB4-10000: Big Blue River** - This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine. An Atrazine TMDL was approved 12/13. An aquatic community assessment in 2012 determined the aquatic life and aesthetics uses are being met for the aquatic community. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**BB4-20000: Big Blue River** - This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli. An E. coli TMDL was approved 12/13. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**BB4-20500: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB4-20600: Plum Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB4-20700: Plum Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**BB4-20800: Lincoln Creek** - This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Atrazine, Selenium and an impaired aquatic community due to an unknown pollutant. An Atrazine TMDL was approved 12/13. An aquatic community assessment completed in 2012 determined aquatic life and aesthetics beneficial uses are being met for the aquatic community. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDL.

**BB4-30000: Big Blue River** - This waterbody was listed as Category 3 in the 2012 IR. Data collected and an aquatic community assessment in 2012 determined all beneficial uses are being met. This waterbody will be placed in Category 1.

**BB4-40000: Big Blue River** - This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was being impaired for Dissolved Oxygen by an unknown pollutant and Atrazine. An Atrazine TMDL was approved 12/13. This waterbody will remain in Category 5 due to other all impairments not being addressed in the TMDL.



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
BB1-L0010	Donald Whitney Memorial Lake	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Nutrients, DO	E. coli, Total Phosphorus, Total Nitrogen	
BB1-L0020	Diamond Lake South	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Nutrients, DO	E. coli, Total Phosphorus, Total Nitrogen	
BB1-L0030	Big Indian Lake (11A)	S	I		S		I	I	4R	Aesthetics-Sedimentation, Aquatic Life-Nutrients	Total Phosphorus, Total Nitrogen, Sediment	Lake Renovated 2011, Nutrient and Sediment TMDL approved 09/09, Fish consumption assessment
BB1-L0040	Arrowhead Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, DO	Total Phosphorus, Total Nitrogen	
BB1-L0050	Wolf Wildcat Lake	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment
BB1-L0060	Rockford Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, DO, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index Compounds*, Mercury	Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB1-L0065	Bear Creek Lake	NA	S		S		S	S	2			
BB1-L0070	Leisure Lake	NA	S		NA		S	S	2			
BB1-L0080	Cub Creek Lake	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Nutrients	E. coli, Total Phosphorus, Total Nitrogen	
BB1-L0090	Clatonia Lake (3A)	NA	S		S		S	S	2			
BB1-L0100	Walnut Creek Lake (2A)	S	I		S		S	I	5	Aquatic Life-Nutrients, pH	Total Phosphorus, Total Nitrogen	
BB2-L0005	Swanton Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, pH	Total Phosphorus, Total Nitrogen	
BB2-L0010	Swan Creek Lake 2A	NA	I		S		S	I	5	Aquatic Life-DO	Unknown	TP and TN are Not Assessed, Fish consumption assessment
BB2-L0020	Swan Creek Lake 5A	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index Compounds*, Mercury	Fish consumption assessment
BB2-L0030	Friend City Park Lake	NA	NA		NA		S	S	2			
BB2-L0040	Geneva City Lake	NA	NA		NA		NA		3			
BB3-L0010	Smith Creek Lake	NA	S		S		S	S	2			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB3-L0030	Waco Basin	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Nutrients	E. coli, Total Phosphorus, Total Nitrogen	
BB3-L0035	Overland Trail Reservoir	NA	NA		NA		NA		3			
BB3-L0040	Henderson Pond	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	
BB3-L0045	Clark's Pond (Sutton)	NA	NA		NA		S	S	2			
BB3-L0050	Lake Hastings	NA	I		S		I	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory, Aesthetics-Sedimentation	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Cancer Risk Compounds*, Sediment	Fish consumption assessment
BB3-L0060	Hastings Northwest Dam Lake	S	I		S		S	I	5	Aquatic Life - Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	
BB3-L0070	Heartwell Lake	NA	NA		NA		I	I	5	Aesthetics-Algae Blooms	Unknown	TP and TN are Not Assessed

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB3-L0080	Recharge Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index Compounds*, Mercury	Fish consumption assessment
BB4-L0010	David City Park Lake	S	I		S		S	I	5	Aquatic Life - Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	
BB4-L0020	Seward City Park Pond (Independence Landing Pond)	S	S		S		S	S	1			
BB4-L0030	Surprise City Lake	NA	NA		NA		NA		3			
BB4-L0035	Oxbow Trail Reservoir	S	I		S		S	I	5	Aquatic Life - Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	
BB4-L0040	Pioneer Trails Lake	NA	NA		NA		NA		3			
BB4-L0045	Aurora Leadership Center Lake	S	S		S		S	S	1			
<b>Streams</b>												
BB1-10000	Big Blue River	S	I		S		S	I	5	Aquatic Life-May-June Atrazine, Selenium, Fish Consumption Advisory	Atrazine, Selenium, Cancer Risk compounds*, Hazard Index compounds*, Mercury	Atrazine & E. coli TMDLs approved 12/13, Aquatic community assessment, Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB1-10100	Mission Creek	I	I		S		S	I	4A	Recreation-Bacteria, Aquatic Life-May-June Atrazine	E. coli, Atrazine	Atrazine & E. coli TMDLs approved 12/13
BB1-10200	Mission Creek		NA		NA		NA		3			
BB1-10300	Spring Creek		S		NA		S	S	2			Aquatic community assessment
BB1-10400	Plum Creek		S		S		S	S	1			
BB1-10410	Arkeketa Creek		NA		NA		NA		3			
BB1-10500	Plum Creek		NA		NA		NA		3			
BB1-10510	Tipps Creek		NA		NA		NA		3			
BB1-10600	Wildcat Creek		NA		NA		NA		3			
BB1-10610	Wolf Creek		S		NA		S	S	2			Aquatic community assessment
BB1-10700	Wildcat Creek		NA		NA		NA		3			
BB1-10800	Big Indian Creek	I	I		S		S	I	4A	Recreation-Bacteria, Aquatic Life-May-June Atrazine	E. coli, Atrazine	Atrazine & E. coli TMDLs approved 12/13
BB1-10810	Squaw Creek		NA		NA		NA		3			
BB1-10820	Sicily Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
BB1-10900	Big Indian Creek	NA	I		NA		NA	I	4A	Aquatic Life-May-June Atrazine	Atrazine	Atrazine TMDL approved 12/13, Fish consumption assessment
BB1-11000	Bills Creek		NA		NA		NA		3			
BB1-11100	Mud Creek		S		NA		S	S	2			Aquatic community assessment
BB1-11110	Bloody Run		S		S		S	S	1			Aquatic community assessment
BB1-11200	Mud Creek		NA		NA		NA		3			
BB1-11300	Cedar Creek		NA		NA		NA		3			
BB1-11400	Bear Creek		S		S		S	S	1			
BB1-11410	Pierce Creek		S		NA		S	S	2			Aquatic community assessment
BB1-11500	Bear Creek		S		NA		S	S	2			Aquatic community assessment
BB1-11600	Indian Creek		S		S		S	S	1			
BB1-11610	Town Creek		NA		NA		NA		3			
BB1-11700	Indian Creek		S		NA		S	S	2			Aquatic community assessment
BB1-11800	Bottle Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB1-11900	Cub Creek		S		NA		S	S	2			Aquatic community assessment
BB1-12000	Soap Creek		S		NA		S	S	2			Aquatic community assessment
BB1-20000	Big Blue River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium, May-June Atrazine	E. coli, Atrazine, Selenium	Atrazine and E. coli TMDL approved 12/13, Fish consumption assessment
BB1-20100	Clatonia Creek		NA		NA		NA		3			
BB2-10000	Turkey Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-May-June Atrazine, Selenium, Impaired Aquatic Community	E. coli, Atrazine, Selenium, Unknown	Atrazine and E. coli TMDL approved 12/13, Aquatic community and Fish consumption assessment
BB2-10100	Swan Creek		S		NA		S	S	2			Aquatic community assessment
BB2-10110	South Fork Swan Creek		S		NA		S	S	2			Aquatic community assessment
BB2-10120	North Fork Swan Creek		NA		NA		NA		3			
BB2-20000	Turkey Creek	I	I		S		S	I	4A	Recreation-Bacteria, Aquatic Life-May-June Atrazine	E. coli, Atrazine	Atrazine and E. coli TMDL approved 12/13, Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB2-20100	Spring Creek		NA		NA		NA		3			
BB2-30000	Turkey Creek		S		NA		S	S	2			Aquatic community assessment
BB2-40000	Turkey Creek		S		NA		S	S	2			Aquatic community assessment
BB3-10000	West Fork Big Blue River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-May-June Atrazine, Selenium, Impaired Aquatic Community	E. coli, Atrazine, Selenium, Unknown	Atrazine and E. coli TMDL approved 12/13, Aquatic community assessment, Fish consumption assessment
BB3-10100	Johnson Creek		NA		NA		NA		3			
BB3-10200	Walnut Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
BB3-10300	Beaver Creek		I		NA		S	I	4A	Aquatic Life-May-June Atrazine	Atrazine	Atrazine TMDL approved 12/13, Aquatic community assessment
BB3-10400	Beaver Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment



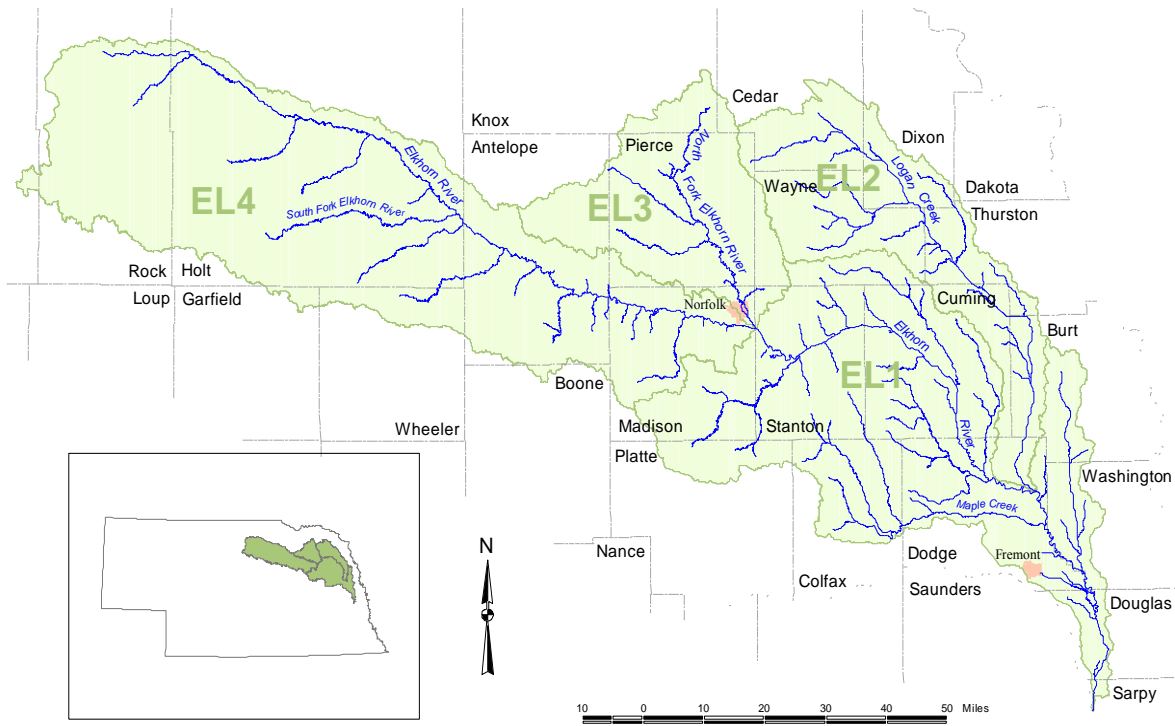
<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB3-20000	West Fork Big Blue River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-May-June Atrazine, Impaired Aquatic Community	E. coli, Atrazine, Unknown	Atrazine and E. coli TMDL approved 12/13, Aquatic community assessment, Fish consumption assessment
BB3-20100	School Creek		I		S		S	I	5	Aquatic Life-May-June Atrazine	Atrazine	
BB3-30000	West Fork Big Blue River		S		NA		S	S	2			Aquatic community assessment
BB4-10000	Big Blue River	I	I		S		S	I	4A	Recreation-Bacteria, Aquatic Life-May-June Atrazine	E. coli, Atrazine	Atrazine and E. coli TMDL approved 12/13, Aquatic community assessment
BB4-20000	Big Blue River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 12/13
BB4-20100	Coon Creek		NA		NA		NA		3			
BB4-20200	Wolf Creek		NA		NA		NA		3			
BB4-20300	Crooked Creek		NA		NA		NA		3			
BB4-20400	Clark Creek		NA		NA		NA		3			
BB4-20500	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
BB4-20600	Plum Creek		S		NA		S	S	2			Aquatic community assessment
BB4-20610	Big Weedy Creek		NA		NA		NA		3			
BB4-20700	Plum Creek		S		NA		S	S	2			Aquatic community assessment
BB4-20800	Lincoln Creek		I		S		S	I	5	Aquatic Life- May-June Atrazine, Selenium	Atrazine, Selenium	Atrazine TMDL approved 12/13, Aquatic community assessment, Fish consumption assessment
BB4-20900	Lincoln Creek		I		NA		NA	I	5	Aquatic Life- Impaired Aquatic Community	Unknown	Aquatic community assessment
BB4-30000	Big Blue River		S		S		S	S	1			Aquatic community assessment
BB4-30100	North Fork Big Blue River		NA		NA		NA		3			
BB4-30200	North Fork Big Blue River		NA		NA		NA		3			
BB4-40000	Big Blue River		I		S		S	I	5	Aquatic Life-DO, Atrazine	Unknown, Atrazine	Atrazine TMDL approved 12/13, Aquatic community assessment
<b>Wetlands</b>												
BB3-WXXXX <sup>1</sup>	County Line WPA		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
BB3-WXXXX	Harvard WPA		NA		NA		NA		3			
BB3-WXXXX	Real WPA		NA		NA		NA		3			
BB3-WXXXX	Sininger WPA		NA		NA		NA		3			
BB3-WXXXX	Wilkins WPA		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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.



## ELKHORN RIVER BASIN (and Subbasins)

### Elkhorn Basin – Hydrologic Units 10220001, 10220002, 10220003 and 10220004

The Elkhorn River Basin includes 135 designated stream segments and 32 lakes/reservoirs. Beneficial uses assigned to designated water in the basin can be found in the below table.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	32	0	0	32	0	0	32	0	32
Streams	23	0	1	38	96	0	135	0	135

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**EL1-L0030: Hwy 275 Bypass Lake No. 4 (Johnson Park Lake)** – This waterbody was listed as Category 3 in the 2012 IR. This waterbody was previously documented as LP1-LXXXX: Johnson Lake, which was listed as Category 5 in the 2012 IR for a Fish Consumption Advisory being impaired for Hazard Index Compounds and Mercury. This waterbody will be updated to reflect these impairments and will be placed in Category 5.

**EL1-L0060: West Point City Lake (Neligh Park Lake)** – This waterbody was listed as Category 4R in the 2012 IR. Renovations for this waterbody were completed in 2004. This waterbody’s aquatic life use was impaired for Chlorophyll a due to nutrients, Total Phosphorus and Total Nitrogen. A fish consumption assessment determined the aquatic life use is also being impaired for Hazard Index Compounds and Mercury. This waterbody will remain in Category 4R.

**EL1-L0080: Maskenthine Reservoir** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a and Dissolved Oxygen due to nutrients, Total Phosphorus, Total Nitrogen, Hazard Index Compounds and Mercury. Data collected in 2012 determined the aquatic life use is being met for Dissolved Oxygen and is not being met for pH. This waterbody will remain in Category 5.

**EL1-L0095: Maple Creek Recreation Area Lake** – This waterbody was not listed in the 2012 IR. Data collected in 2012 determined the recreation use is being met. This waterbody will be placed in Category 2.

**EL1-LXXXX: Red Fox Lake** – This waterbody was not listed in the 2012 IR. A fish consumption assessment determined the aquatic life use was being met. This waterbody will be placed in Category 2.

**EL3-L0010: Willow Creek Reservoir** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a and pH due to nutrients, Total Phosphorus, Total Nitrogen, Hazard Index Compounds and Mercury. A fish consumption assessment determined the aquatic life use is supporting for Hazard Index compounds and Mercury. Data collected in 2012 determined the recreation use is being impaired for Microcystin. This waterbody will remain in Category 5.

**EL4-L0020: Skyview Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Total Phosphorus and Hazard Index Compounds. A fish consumption assessment determined the aquatic life use is being supported for Hazard Index Compounds. Data collected in 2012 determined the recreation use is being met; the aquatic life use is being met for Total Phosphorus but impaired for Chlorophyll a. This waterbody will remain in Category 5.

**EL4-L0040: Penn Park Lake (Neligh)** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined the aquatic life use is being met. This waterbody will be placed in Category 2.

**EL4-L0060: O’Neill City Lake** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined the aquatic life use is being impaired for Hazard Index Compounds and Mercury. This waterbody will be placed in Category 5.

**EL4-L0070: Atkinson Lake (SRA)** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined the aquatic life use is being met. This waterbody will be placed in Category 2.

**EL1-10000: Elkhorn River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired by E coli and aquatic life use was impaired for Hazard Index Compounds and Mercury. Data collected over the past 10 years has determined the aquatic life use is not being met for Selenium. Pollutants of concern were updated to reflect this naturally elevated Selenium impairment. A fish consumption assessment determined the aquatic life use is being met for Hazard Index Compounds and Mercury. A Selenium 4C justification was approved 3/09 and an E. coli TMDL was approved 9/09. This waterbody will be placed in Category 4A/C.

**EL1-10400: Rawhide Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL1-10920: East Fork Maple Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL1-20900: Plum Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL1-21300: Humbug Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL1-21310: South Humbug Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL1-21900: Union Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli. A fish consumption assessment in 2012 determined the aquatic life use is being met. This waterbody will remain in Category 5.

**EL1-21920: Meridian Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL1-21921: Tracy Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL2-10000: Logan Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for naturally elevated Selenium, Cancer Risk compounds and Hazard Risk compounds. A selenium 4C justification was approved 3/09 and a fish consumption assessment in 2012 determined the aquatic life use is being met for both Cancer Risk and Hazard Index compounds. This waterbody will remain in Category 5.

**EL2-10300: Little Logan Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL2-20200: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL2-20800: South Logan Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli. A fish consumption assessment in 2012 determined the aquatic life use is being met. This waterbody will remain in Category 5.

**EL2-20810: Dog Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL2-20920: Deer Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL2-40100: Baker Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL2-40300: Perrin Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL3-10000: North Fork Elkhorn River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for Selenium. Data collected in 2010 did not include Selenium data; therefore the data does not determine an aquatic life impairment for Selenium. Due to the E. coli impairment this waterbody will remain in Category 5.

**EL3-20200: Willow Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli. A fish consumption assessment in 2012 determined the aquatic life use is being met. This waterbody will remain in Category 5.

**EL3-20500: Dry Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL3-30000: North Fork Elkhorn River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL4-10500: Battle Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL4-10700: Buffalo Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL4-20000: Elkhorn River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli. A fish consumption assessment in 2012 determined the aquatic life use is being met. This waterbody will remain in Category 5.

**EL4-20300: Clearwater Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL4-20600: Cache Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL4-20800: South Fork Elkhorn River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**EL4-30000: Elkhorn River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for Hazard Index Compounds and Mercury. An E. coli TMDL was approved 9/09. Data collected in 2010 determined the recreational use is being met. A fish consumption assessment in 2012 determined the aquatic life use is being met. This waterbody will be placed in Category 1.

**EL4-30400: Holt Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

***EL4-30500: Holt Creek*** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
EL1-L0010	Highway 275 Bypass Lake No. 1	NA	NA		NA		NA		3			
EL1-L0020	Highway 275 Bypass Lake No. 2	NA	NA		NA		NA		3			
EL1-L0030	Highway 275 Bypass Lake No. 4 (Johnson Park Lake)	NA	I		NA		NA	I	5	Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
EL1-L0040	Highway 275 Bypass Lake No. 3	NA	NA		NA		NA		3			
EL1-L0050	Hooper City Lake	NA	NA		NA		NA		3			
EL1-L0060	West Point City Lake (Neligh Park Lake)	NA	I		S		S	I	4R	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazardous Index compounds*, Mercury	Lake renovated 2004, Fish consumption assessment
EL1-L0070	Pilger Reservoir	NA	S		S		S	S	2			
EL1-L0080	Maskenthine Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazardous Index compounds*, Mercury	Fish consumption assessment
EL1-L0090	Leigh Tri-County Lake	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL1-L0095	Maple Creek Recreation Area Lake	S	NA		NA		NA	S	2			
EL1-L0100	Wood Duck Lake (WMA)	NA	NA		NA		NA		3			
EL1-L0110	Loes Lake (Wood Duck WMA)	NA	NA		NA		NA		3			
EL1-L0120	Pillar Lake (Wood Duck WMA)	NA	NA		NA		NA		3			
EL1-L0130	Wood Duck Pond (Wood Duck WMA)	NA	NA		NA		NA		3			
EL1-L0140	Dead Timber Lake	NA	I		S		S	I	5	Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
EL1-LXXXX <sup>1</sup>	Red Fox Lake	NA	S		NA		NA	S	2			Fish consumption assessment
EL2-L0010	Lyons City Park Lake	S	NA		NA		NA	S	2			
EL2-L0020	Wayne Izaak Walton Lake	NA	NA		NA		NA		3			
EL3-L0010	Willow Creek Reservoir	I	I		S		S	I	5	Recreation - Algae Toxins, Aquatic Life-Nutrients, Chlorophyll a, pH	Microcystin, Total Phosphorus, Total Nitrogen	Fish consumption assessment
EL3-L0020	Pierce City Lake	NA	NA		NA		NA		3			
EL4-L0005	Andy's Lake	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
EL4-L0010	Ta-Ha-Zouka Park Lagoon	NA	S		NA		NA	S	2			Fish consumption assessment
EL4-L0020	Skyview Lake	S	I		S		S	I	5	Aquatic Life-Chlorophyll a	Unknown	TP and TN are supporting, Fish consumption assessment
EL4-L0025	Horseshoe Bend (Tilden City Lake)	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Lake renovated 2003
EL4-L0030	Antelope County Country Club Lake	NA	NA		NA		NA		3			
EL4-L0040	Penn Park Lake (Neligh)	NA	S		NA		NA	S	2			Fish consumption assessment
EL4-L0050	Goose Lake	NA	S		NA		NA	S	2			Fish consumption assessment
EL4-L0060	O'Neill City Lake	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
EL4-L0070	Atkinson Lake (SRA)	NA	S		NA		NA	S	2			Fish consumption assessment
EL4-L0080	Swan Lake	NA	S		NA		NA	S	2			Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL4-L0090	Overton Lake	NA	S		NA		NA	S	2			Fish consumption assessment
EL4-L0100	Fish Lake	NA	S		NA		NA	S	2			Fish consumption assessment
EL4-L0110	Peterson Lake	NA	NA		NA		NA		3			
<b>Streams</b>												
EL1-10000	Elkhorn River	I	I		S		S	I	4A/C	Recreation - Bacteria, Aquatic Life - Selenium	E. coli, natural Selenium	Se 4C justification approved 3/09†, E. coli TMDL approved 9/09, Fish consumption assessment
EL1-10100	Unnamed Creek		NA		NA		NA		3			
EL1-10200	Big Slough		NA		NA		NA		3			
EL1-10300	Rawhide Creek		NA		NA		NA		3			
EL1-10400	Rawhide Creek		S		NA		S	S	2			Aquatic community assessment
EL1-10500	Rawhide Creek		NA		NA		NA		3			
EL1-10600	Bell Creek		NA		NA		NA		3			
EL1-10610	Brown Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL1-10620	Little Bell Creek		NA		NA		NA		3			
EL1-10630	Unnamed Creek		NA		NA		NA		3			
EL1-10700	Bell Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
EL1-10800	Unnamed Creek		NA		NA		NA		3			
EL1-10900	Maple Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium, Impaired Aquatic Community	E. coli, natural Selenium, Unknown	Se 4C justification approved 3/09†, E. Coli TMDL approved 9/09, Aquatic community assessment, Fish consumption assessment
EL1-10910	Crystal Creek		NA		NA		NA		3			
EL1-10920	East Fork Maple Creek		S		NA		S	S	2			Aquatic community assessment
EL1-10930	West Fork Maple Creek		NA		NA		NA		3			
EL1-10931	Dry Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
EL1-10931.1	South Fork Dry Creek		NA		NA		NA		3			
EL1-10932	Dry Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
EL1-10933	Unnamed Creek		NA		NA		NA		3			
EL1-10934	Unnamed Creek		NA		NA		NA		3			
EL1-10940	West Fork Maple Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
EL1-11000	Clark Creek		NA		NA		NA		3			
EL1-20000	Elkhorn River	I	I		S		S	I	4A/C	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, natural Selenium	Se 4C justification approved 3/09†, E. coli TMDL approved 9/09, Aquatic community assessment, Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL1-20100	Pebble Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium, Impaired Aquatic Community	E. coli, natural Selenium, Unknown	Se 4C justification approved 3/09†, E. coli TMDL approved 9/09, Aquatic community assessment
EL1-20110	Silver Creek		NA		NA		NA		3			
EL1-20120	Unnamed Creek		NA		NA		NA		3			
EL1-20121	Unnamed Creek		NA		NA		NA		3			
EL1-20130	Unnamed Creek		S		NA		NA	S	2			Aquatic community assessment
EL1-20200	Pebble Creek		NA		NA		NA		3			
EL1-20210	South Branch Pebble Creek		NA		NA		NA		3			
EL1-20220	North Branch Pebble Creek		NA		NA		NA		3			
EL1-20300	Pebble Creek		NA		NA		NA		3			
EL1-20400	Cuming Creek		NA		NA		NA		3			
EL1-20410	Willow Creek		NA		NA		NA		3			
EL1-20500	Cuming Creek		NA		NA		NA		3			
EL1-20600	Fisher Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
EL1-20700	Plum Creek		NA		NA		NA		3			
EL1-20800	Plum Creek		NA		NA		NA		3			
EL1-20810	Dry Creek		NA		NA		NA		3			
EL1-20820	Kane Creek		NA		NA		NA		3			
EL1-20900	Plum Creek		S		NA		S	S	2			Aquatic community assessment
EL1-21000	Rock Creek	I	I		S		S	I	5	Recreation-Bacteria, Impaired Aquatic Community	E. coli, Unknown	Aquatic community assessment
EL1-21100	Leisy Creek		NA		NA		NA		3			
EL1-21200	Sand Creek		NA		NA		NA		3			
EL1-21300	Humbug Creek		S		NA		S	S	2			Aquatic community assessment
EL1-21310	South Humbug Creek		S		NA		S	S	2			Aquatic community assessment
EL1-21400	Humbug Creek		NA		NA		NA		3			
EL1-21500	Payne Creek		NA		NA		NA		3			
EL1-21600	Cedar Creek		NA		NA		NA		3			



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
EL1-21700	Indian Creek		NA		NA		NA		3			
EL1-21800	Butterfly Creek		NA		NA		NA		3			
EL1-21900	Union Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
EL1-21910	Sand Creek		NA		NA		NA		3			
EL1-21920	Meridian Creek		S		NA		S	S	2			Aquatic community assessment
EL1-21921	Tracy Creek		S		NA		S	S	2			Aquatic community assessment
EL1-21930	Meridian Creek		NA		NA		NA		3			
EL1-22000	Union Creek	NA	NA		NA		NA		3			
EL1-22010	Taylor Creek		NA		NA		NA		3			
EL1-22100	Union Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
EL1-22200	Unnamed Creek		NA		NA		NA		3			
EL1-22300	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL2-10000	Logan Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, natural Selenium	Se 4C justification approved 3/09†, Fish consumption assessment
EL2-10100	Unnamed Creek		NA		NA		NA		3			
EL2-10200	Little Logan Creek		NA		NA		NA		3			
EL2-10210	Unnamed Creek		NA		NA		NA		3			
EL2-10300	Little Logan Creek		S		NA		S	S	2			Aquatic community assessment
EL2-10400	Big Slough Creek		NA		NA		NA		3			
EL2-20000	Logan Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
EL2-20100	Rattlesnake Creek		NA		NA		NA		3			
EL2-20200	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
EL2-20300	Middle Creek		NA		NA		NA		3			
EL2-20400	Rattlesnake Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
EL2-20500	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
EL2-20600	Unnamed Creek		NA		NA		NA		3			
EL2-20700	Coon Creek		NA		NA		NA		3			
EL2-20800	South Logan Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
EL2-20810	Dog Creek		S		NA		S	S	2			Aquatic community assessment
EL2-20900	South Logan Creek		NA		NA		NA		3			
EL2-20910	Deer Creek		NA		NA		NA		3			
EL2-20911	Unnamed Creek		NA		NA		NA		3			
EL2-20920	Deer Creek		S		NA		S	S	2			Aquatic community assessment
EL2-21000	South Logan Creek		NA		NA		NA		3			
EL2-30000	Logan Creek		NA		NA		NA		3			
EL2-30100	North Logan Creek		NA		NA		NA		3			
EL2-40000	Logan Creek		NA		NA		NA		3			
EL2-40100	Baker Creek		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL2-40200	Middle Logan Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
EL2-40300	Perrin Creek		S		NA		S	S	2			Aquatic community assessment
EL3-10000	North Fork Elkhorn River	I	S		NA		NA	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
EL3-10100	Spring Creek		NA		NA		NA		3			
EL3-20000	North Fork Elkhorn River	I	I		S		S	I	4A/C	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, natural Selenium	Se 4C justification approved 3/09†, E. coli TMDL approved 3/09, Aquatic community assessment, Fish consumption assessment
EL3-20100	Hadar Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL3-20200	Willow Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment
EL3-20300	Willow Creek	NA	NA		NA		NA		3			
EL3-20400	Dry Creek	I	S		NA		NA	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
EL3-20500	Dry Creek		S		NA		S	S	2			Aquatic community assessment
EL3-30000	North Fork Elkhorn River		S		NA		S	S	2			Aquatic community assessment
EL3-30100	West Branch North Fork Elkhorn River		NA		NA		NA		3			
EL3-30110	Breslau Creek		NA		NA		NA		3			
EL3-40000	North Fork Elkhorn River		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL4-10000	Elkhorn River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/09, Aquatic community assessment, Fish consumption assessment
EL4-10100	Unnamed Creek		NA		NA		NA		3			
EL4-10200	Unnamed Creek		NA		NA		NA		3			
EL4-10300	Unnamed Creek		NA		NA		NA		3			
EL4-10400	Battle Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment
EL4-10500	Battle Creek		S		NA		S	S	2			Aquatic community assessment
EL4-10600	Deer Creek		NA		NA		NA		3			
EL4-10700	Buffalo Creek		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL4-10800	Dry Creek		NA		NA		NA		3			
EL4-10900	Al Hopkins Creek		NA		NA		NA		3			
EL4-11000	Giles Creek		NA		NA		NA		3			
EL4-11100	Ives Creek		NA		NA		NA		3			
EL4-11200	Trueblood Creek		NA		NA		NA		3			
EL4-11300	Cedar Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
EL4-11310	Blacksnake Creek		NA		NA		NA		3			
EL4-11400	Cedar Creek		NA		NA		NA		3			
EL4-20000	Elkhorn River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/09, Fish consumption assessment
EL4-20100	Belmer Creek		NA		NA		NA		3			
EL4-20200	Antelope Creek		NA		NA		NA		3			
EL4-20300	Clearwater Creek	NA	S		NA		S	S	2			Aquatic community assessment
EL4-20400	Clearwater Creek		NA		NA		NA		3			
EL4-20500	Cache Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL4-20600	Cache Creek		S		NA		S	S	2			Aquatic community assessment, ICI score influenced by extreme flow events ‡
EL4-20700	South Fork Elkhorn River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
EL4-20800	South Fork Elkhorn River		S		NA		S	S	2			Aquatic community assessment, ICI score influenced by extreme flow events ‡



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL4-30000	Elkhorn River	S	S		S		S	S	1			E. coli TMDL approved 9/09, Aquatic community assessment, Fish consumption assessment, ICI score impacted by extreme flow events‡
EL4-30100	Willow Swamp Creek		NA		NA		NA		3			
EL4-30200	Dry Creek		NA		NA		NA		3			
EL4-30300	Dry Creek		NA		NA		NA		3			
EL4-30400	Holt Creek		S		NA		S	S	2			Aquatic community assessment
EL4-30500	Holt Creek		S		NA		S	S	2			Aquatic community assessment

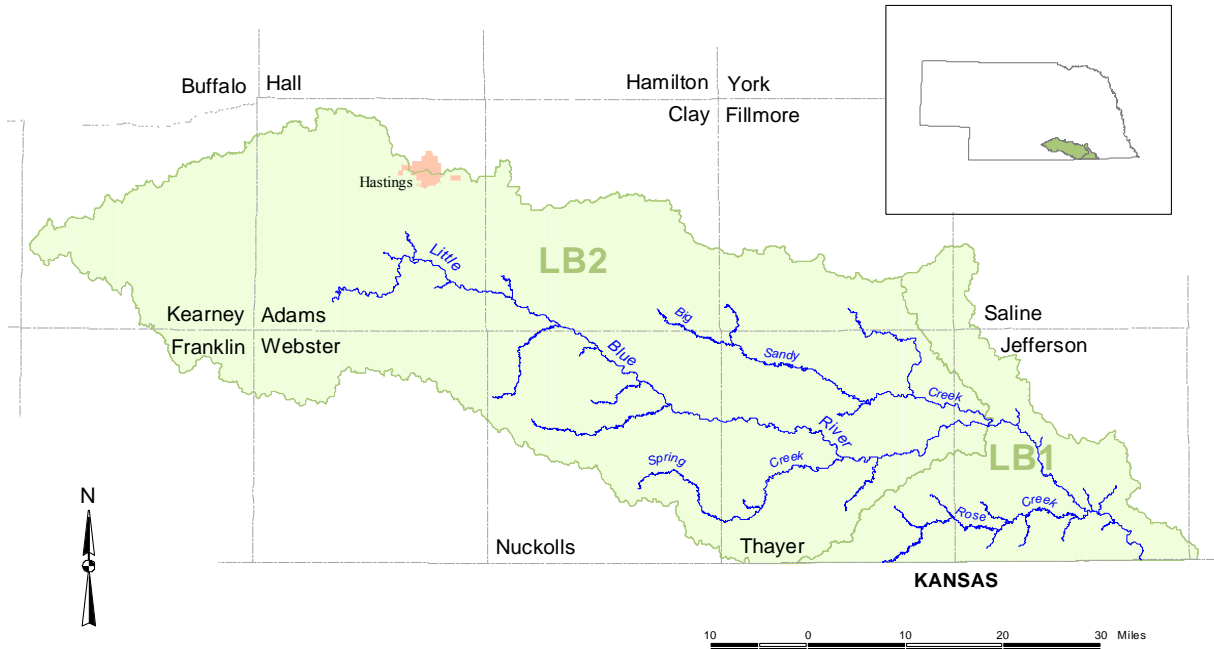
Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
EL4-40000	Elkhorn River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-pH	E. coli, Unknown	Aquatic community assessment, ICI score impacted by extreme flow events‡
EL4-40100	South Fork Elkhorn River		NA		NA		NA		3			
EL4-40200	North Fork Elkhorn River		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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.

‡ 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

† See AppendixC: Natural Occurrence of Selenium in the Elkhorn River Basin



## LITTLE BLUE RIVER BASIN (and Subbasins)

### Little Blue Basin – Hydrologic Units 10270206 and 10270207

The Little Blue River Basin includes 38 designated stream segments and 13 designated lakes/reservoirs.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	13	0	0	13	0	3	13	0	13
Streams	6	0	0	14	24	1	38	0	38

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**LB1-L0050: Lone Star Reservoir (Little Sandy Creek Reservoir)** – This waterbody was listed as Category 5 in the 2012 IR. Lake renovations were completed in 2006. This waterbody will be placed in Category 4R.

**LB2-L0010: Alexandria Lake No. 1 & 2** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined the aquatic life use is being impaired for pH by an Unknown pollutant and the agriculture water supply use is being met.

**LB2-L0030: Alexandria Lake No. 3** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for Microcystin; aquatic life use was impaired for Chlorophyll a,

pH and Dissolved Oxygen due to nutrients, Total Phosphorus, Total Nitrogen. Data collected in 2012 determined the aquatic life use is being met for Dissolved Oxygen. This waterbody will remain in Category 5.

**LB1-10000: Little Blue River** - This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired by E. coli, aquatic life use was impaired for Atrazine and public drinking water supply use was impaired for Atrazine. An Atrazine TMDL for both aquatic life and public drinking water uses and an updated E. coli TMDL were approved 2/13. An aquatic community assessment in 2012 determined aquatic life use is being met for the aquatic community. Data collected in 2012 determined the recreational use is being met. This waterbody will be placed in Category 4A.

**LB1-10100: Coon Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LB1-10200: Rock Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli. An E. coli TMDL was approved 2/13. Data collected in 2007 was sufficient in determining support for both aesthetics and agricultural water supply uses. This waterbody will be placed in Category 4A.

**LB1-10400: Rose Creek** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 and an aquatic community assessment has determined all uses are being met. This waterbody will be placed in Category 1.

**LB1-10410: Dry Branch** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LB1-10430: Buckley Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment has determined the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**LB1-10500: Rose Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment has determined the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**LB1-10530: Spring Branch**– This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment has determined the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**LB2-10000: Little Blue River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine. An Atrazine and E. coli TMDL was approved 2/13. An aquatic community assessment determined the aquatic life use is being met for the aquatic community. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDLs.

**LB2-10100: Big Sandy Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine. An Atrazine and E. coli TMDL was approved 2/13. An aquatic community assessment determined the aquatic life use is being met for the aquatic community. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Selenium. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDLs.

**LB2-10400: Dry Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment has determined the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**LB2-20000: Little Blue River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for Atrazine. An Atrazine and E. coli TMDL was approved 2/13. An aquatic community assessment determined the aquatic life use is being met for the aquatic community. Data collected in 2012 determined this waterbody’s aquatic life use is also being impaired for Selenium. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDLs.

**LB2-20200: Elk Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LB2-20500: Liberty Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LB2-30000: Little Blue River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli. An E. coli TMDL was approved 2/13. An aquatic community assessment determined the aquatic life use is being met for the aquatic community. This waterbody will be placed in Category 4A due to all impairments being addressed in the TMDL.

**LB2-40000: Little Blue River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
LB1-L0010	Buckley Reservoir (3F)	NA	I		S		S	I	5	Aquatic Life-Nutrients	Total Phosphorus, Total Nitrogen	
LB1-L0020	Crystal Springs Northwest Lake	S	I	NA	S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	Fish consumption assessment
LB1-L0030	Crystal Springs Center Lake	S	I	NA	S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	
LB1-L0040	Crystal Springs East Lake	I	I	NA	S		S	I	5	Recreation-Bacteria, Aquatic Life-Nutrients, Chlorophyll a	E. coli, Total Phosphorus, Total Nitrogen	
LB1-L0050	Lone Star Reservoir (Little Sandy Creek Reservoir)	S	I		S		S	I	4R	Aquatic Life-Nutrients, Chlorophyll a, DO	Total Phosphorus, Total Nitrogen	Lake renovated 2006
LB2-L0010	Alexandria Lake No. 1 & 2	S	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN are Not Assessed
LB2-L0030	Alexandria Lake No. 3	I	I		S		S	I	5	Recreation-Algae Toxins, Aquatic Life-Nutrients, Chlorophyll a, pH	Microcystin, Total Phosphorus, Total Nitrogen	Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LB2-L0040	Bruning Dam Lake	NA	S		S		S	S	2			
LB2-L0050	Liberty Cove Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazardous Index Compounds*, Mercury	Fish consumption assessment
LB2-L0060	Brick Yard Park Pond	NA	NA		NA		NA		3			
LB2-L0070	Crystal Lake (SRA)	S	I		S		S	I	5	Aquatic Life-pH, Nutrients, Chlorophyll a, DO	Total Phosphorus, Total Nitrogen	
LB2-L0080	Prairie Lake (32-Mile H)	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN are Not Assessed, Fish consumption assessment
LB2-L0090	Roseland (32-Mile D)	NA	S		S		S	S	2			
<b>Streams</b>												

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LB1-10000	Little Blue River	S	I	I	S		S	I	4A	Aquatic Life-May-June Atrazine, Public Drinking Water Supply-Atrazine	Atrazine	Atrazine & E. coli TMDLs approved 2/13, Aquatic community assessment, Fish consumption assessment
LB1-10100	Coon Creek		S		NA		S	S	2			Aquatic community assessment
LB1-10200	Rock Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 2/13, Aquatic community assessment
LB1-10300	Smith Creek		NA		NA		NA		3			
LB1-10400	Rose Creek		S		S		S	S	1			Aquatic community assessment
LB1-10410	Dry Branch		S		NA		S	S	2			Aquatic community assessment
LB1-10420	Silver Creek		NA		NA		NA		3			
LB1-10430	Buckley Creek		S		NA		S	S	2			Aquatic community assessment
LB1-10500	Rose Creek		S		NA		S	S	2			Aquatic community assessment
LB1-10510	Wiley Creek		NA		NA		NA		3			



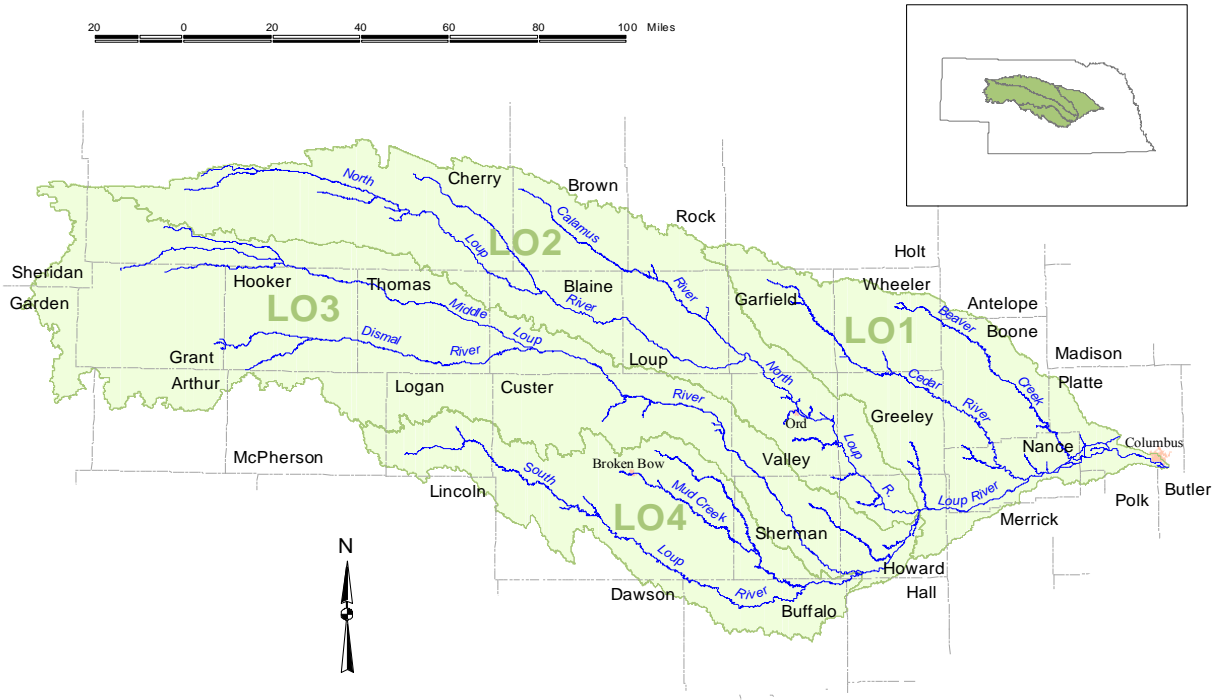
Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LB1-10520	Balls Branch		NA		NA		NA		3			
LB1-10530	Spring Branch		S		NA		S	S	2			Aquatic community assessment
LB1-10600	Rose Creek		NA		NA		NA		3			
LB1-10700	Whisky Run		NA		NA		NA		3			
LB1-10800	Little Sandy Creek		NA		NA		NA		3			
LB2-10000	Little Blue River	I	I		S		S	I	4A	Recreation-Bacteria, Aquatic Life-May-June Atrazine	E. coli, Atrazine	Atrazine & E. coli TMDLs approved 2/13, Aquatic community assessment
LB2-10100	Big Sandy Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-May-June Atrazine, Selenium	E. coli, Atrazine, Selenium	Atrazine & E. coli TMDLs approved 2/13, Aquatic community assessment
LB2-10110	Dry Sandy Creek		NA		NA		NA		3			
LB2-10200	Big Sandy Creek		I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Aquatic community & Fish consumption assessment
LB2-10210	South Fork Big Sandy Creek		NA		NA		NA		3			
LB2-10220	Little Sandy Creek		NA		NA		NA		3			
LB2-10300	Big Sandy Creek		NA		NA		NA		3			
LB2-10400	Dry Creek		S		NA		S	S	2			Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LB2-10500	Spring Creek		I		NA		S	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
LB2-10510	Unnamed Creek		NA		NA		NA		3			
LB2-10600	Spring Creek		I		NA		S	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
LB2-20000	Little Blue River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-May-June Atrazine, Selenium	E. coli, Atrazine, Selenium	Atrazine & E. coli TMDLs approved 2/13, Aquatic community assessment, Fish consumption assessment
LB2-20100	Elk Creek		NA		NA		NA		3			
LB2-20200	Elk Creek		S		NA		S	S	2			Aquatic community assessment
LB2-20300	Ox Bow Creek		NA		NA		NA		3			
LB2-20400	Walnut Creek		NA		NA		NA		3			
LB2-20500	Liberty Creek		S		NA		S	S	2			Aquatic community assessment
LB2-30000	Little Blue River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 2/13, Aquatic community assessment
LB2-30100	Pawnee Creek		NA		NA		NA		3			
LB2-30200	Ash Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LB2-30300	Thirty-two Mile Creek		NA		NA		NA		3			
LB2-40000	Little Blue River		S		NA		S	S	2			Aquatic community assessment
LB2-40100	Scott Creek		NA		NA		NA		3			
<b>Wetlands</b>												
LB2-WXXXX <sup>1</sup>	Gleason WPA		NA		NA		NA		3			
LB2-WXXXX	Massie WPA		NA		NA		NA		3			
LB2-WXXXX	McMurtrey WPA		NA		NA		NA		3			
LB2-WXXXX	Moger WPA		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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.



## LOUP RIVER BASIN (and Subbasins)

### Loup River Basin – Hydrologic Units 10210001, 10210002, 10210003, 10210004, 10210005, 10210006, 10210007, 10210008, 10210009 and 10210010

The Loup River Basin includes 107 designated stream segments and 48 designated lakes/reservoirs. Beneficial uses assigned to designated water in the basin can be found in the below table.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	48	0	1	47	0	0	48	0	48
Streams	37	0	36	26	45	0	107	0	107

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

#### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**LO1-L0130: Pibel Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Total Phosphorus, Total Nitrogen, Chlorophyll a, Hazard Index compounds, Mercury, Dissolved Oxygen and pH by an unknown pollutant. Data collected in 2012 determined the aquatic life use is now supporting for Dissolved Oxygen. This waterbody will remain in Category 5.

**LO2-L0050: Calamus Reservoir** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Total Phosphorus, Chlorophyll a and pH by an unknown pollutant. Data collected in 2012 determined the aquatic life use is also being impaired for Total Nitrogen. This waterbody will remain in Category 5.

**LO3-L0020: Sherman Reservoir** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Total Phosphorus, Dissolved Oxygen by an unknown pollutant, Hazard Index compounds and Mercury. Data collected in 2012 determined the aquatic life use is also being impaired for Chlorophyll a. This waterbody will remain in Category 5.

**LO3-L0050: Halsey Trout Pond (Nebraska National Forest)** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined the aquatic life use is being met. This waterbody will be placed in Category 2.

**LO1-10800: Beaver Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO1-30311: South Branch Timber Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO1-30500: Cedar River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO2-10200: Munson Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO2-10300: Davis Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO2-11100: Turtle Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO2-20100: Goose Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO2-60000: North Loup River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO3-40400: Victoria Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO3-50330: North Fork Dismal River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LO4-10100: Mud Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli. Data collected in 2012 determined the aquatic life use is also

being impaired for Atrazine. E. coli and Atrazine TMDLs were approved for this waterbody 5/12. This waterbody will be placed in Category 4A.

**LO4-10200: Mud Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli and aquatic life use was impaired for an impaired aquatic community by an unknown pollutant. An E. coli TMDL was approved for this waterbody. This waterbody will remain in Category 5.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
LO1-L0010	Columbus City Park Pond	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazardous Index Compounds, Mercury	Fish consumption assessment
LO1-L0020	Columbus Izaak Walton Lake	NA	NA		NA		NA		3			
LO1-L0030	Pawnee Park Lake (Columbus)	NA	NA		NA		NA		3			
LO1-L0040	Stires Lake	NA	NA		NA		NA		3			
LO1-L0050	Wagner's Lake	NA	NA		NA		NA		3			
LO1-L0060	Loup Power District Headgate Pond No. 1	NA	NA		NA		NA		3			
LO1-L0070	Loup Power District Headgate Pond No. 2	NA	NA		NA		NA		3			
LO1-L0080	Loup Power District Headgate Pond No. 3	NA	NA		NA		NA		3			
LO1-L0090	Loup Power District Headgate Pond No. 4	NA	NA		NA		NA		3			
LO1-L0100	Loup Power District Headgate Pond No. 5	NA	NA		NA		NA		3			
LO1-L0110	Stevenson's Lake	NA	NA		NA		NA		3			
LO1-L0120	Wolbach City Lake	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO1-L0125	Spalding Lake	NA	NA		NA		NA		3			
LO1-L0130	Pibel Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, pH, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Chlorophyll a, Unknown, Hazard Index Compounds*, Mercury	Fish consumption assessment
LO1-L0140	Lake Ericson	NA	S		S		S	S	2			Fish consumption assessment
LO2-L0010	North Loup Lake (SRA)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazardous Index Compounds	Fish consumption assessment
LO2-L0015	Davis Creek Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients, DO	Total Phosphorus, Unknown	Fish consumption assessment
LO2-L0020	Ord City Lake	NA	NA		NA		S	S	2			
LO2-L0030	Burwell Lake	NA	NA		NA		NA		3			
LO2-L0040	Burwell Park Lake	NA	NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO2-L0050	Calamus Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients, pH	Total Phosphorus, Total Nitrogen, Chlorophyll a, Unknown	Fish consumption assessment
LO2-L0055	Willow Lake B.C.	NA	NA		NA		NA		3			
LO2-L0060	Clear Lake	NA	S		S		S	S	2			
LO2-L0070	Enders Overflow Lake	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		3			
LO2-L0100	Dew Lake (Valentine NWR)	NA	NA		NA		NA		3			
LO2-L0110	Crooked Lake (Valentine NWR)	NA	NA		NA		NA		3			
LO2-L0120	East Long Lake (Valentine NWR)	NA	NA		NA		NA		3			
LO2-L0180	Cow Lake (Valentine NWR)	NA	NA		NA		NA		3			
LO2-L0250	Coleman Lake (Valentine NWR)	NA	NA		NA		NA		3			
LO2-L0260	Rat and Beaver Lake (WMA)	NA	NA		NA		NA		3			
LO2-L0270	Mule Lake (Valentine NWR)	NA	NA		NA		NA		3			
LO2-L0280	Devil's Punch Bowl Lake	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO3-L0010	Farwell South Reservoir	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment
LO3-L0020	Sherman Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients, DO, Fish Consumption Advisory	Total Phosphorus, Chlorophyll a, Unknown, Hazard Index Compounds*, Mercury	Fish consumption assessment
LO3-L0030	Bowman Lake (SRA)	NA	NA		NA		NA		3			
LO3-L0040	Victoria Springs Lake (SRA)	NA	NA		NA		NA		3			
LO3-L0050	Halsey Trout Pond (Nebraska National Forest)	NA	S		NA		NA	S	2			Fish consumption assessment
LO3-L0060	Spring Valley Lake	NA	NA		NA		NA		3			
LO3-L0070	Frey Lake	NA	S		S		S	S	2			
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	Hazard Index Compounds*, Mercury	Fish consumption assessment
LO4-L0020	Beaver Creek Lake (SWA)	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO4-L0030	Ansley City Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients	Total Nitrogen, Chlorophyll a	Lake renovated 2003, Fish consumption assessment
LO4-L0040	Melham Park Lake (Broken Bow)	NA	NA		NA		NA		3			
LO4-L0050	Arnold Lake (SRA)	NA	S		NA		NA	S	2			Fish consumption assessment
<b>Streams</b>												
LO1-10000	Loup River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Fish consumption assessment
LO1-10100	Barnum Creek		NA		NA		NA		3			
LO1-10200	Cherry Creek		NA		NA		NA		3			
LO1-10300	Unnamed Creek		NA		NA		NA		3			
LO1-10400	Looking Glass Creek		NA		NA		NA		3			
LO1-10500	Looking Glass Creek		NA		NA		NA		3			
LO1-10600	Beaver Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
LO1-10610	Bogus Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO1-10700	Beaver Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Impaired Aquatic Community	E. coli, Unknown	Aquatic community assessment, Fish consumption assessment
LO1-10800	Beaver Creek		S		NA		S	S	2			Aquatic community assessment
LO1-10900	Beaver Creek		NA		NA		NA		3			
LO1-10910	Unnamed Tributary		NA		NA		NA		3			
LO1-11000	Beaver Creek		NA		NA		NA		3			
LO1-20000	Loup River	NA	NA		NA		NA		3			
LO1-20100	Unnamed Creek		NA		NA		NA		3			
LO1-20200	Loup River Canal	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
LO1-30000	Loup River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06
LO1-30100	Council Creek		NA		NA		NA		3			
LO1-30200	Plum Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO1-30300	Cedar River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Fish consumption assessment
LO1-30310	Timber Creek		S		S		S	S	1			
LO1-30311	South Branch Timber Creek		S		NA		S	S	2			Aquatic community assessment
LO1-30312	North Branch Timber Creek		NA		NA		NA		3			
LO1-30320	Clear Creek		NA		NA		NA		3			
LO1-30400	Cedar River		NA		NA		NA		3			
LO1-30500	Cedar River		S		NA		S	S	2			Aquatic community assessment
LO1-30510	Dry Cedar Creek		NA		NA		NA		3			
LO1-30600	Cedar River		NA		NA		NA		3			
LO1-30610	Little Cedar Creek		NA		NA		NA		3			
LO1-30620	Big Cedar Creek		NA		NA		NA		3			
LO1-30700	Spring Creek		NA		NA		NA		3			
LO1-30710	West Branch Spring Creek		NA		NA		NA		3			
LO1-30800	Spring Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO2-10000	North Loup River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Aquatic community & Fish consumption assessment
LO2-10100	Auger Creek		NA		NA		NA		3			
LO2-10200	Munson Creek		S		NA		S	S	2			Aquatic community assessment
LO2-10300	Davis Creek		S		NA		S	S	2			Aquatic community assessment
LO2-10400	Mira Creek		S		S		S	S	1			Aquatic community assessment
LO2-10410	South Branch Mira Creek		NA		NA		NA		3			
LO2-10420	North Branch Mira Creek		NA		NA		NA		3			
LO2-10500	Messenger Creek		NA		NA		NA		3			
LO2-10600	Spring Creek		NA		NA		NA		3			
LO2-10700	Elm Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO2-10800	Unnamed Creek		NA		NA		NA		3			
LO2-10900	Dane Creek		NA		NA		NA		3			
LO2-11000	Haskell Creek		NA		NA		NA		3			
LO2-11100	Turtle Creek		S		NA		S	S	2			Aquatic community assessment
LO2-11200	Bean Creek		NA		NA		NA		3			
LO2-11300	Calamus River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	
LO2-11310	Gracie Creek		NA		NA		NA		3			
LO2-11320	Bloody Creek		NA		NA		NA		3			
LO2-11330	Skull Creek		NA		NA		NA		3			
LO2-11400	Calamus River	I	I		S		S	I	4A/C	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	E. coli TMDL approved 1/06
LO2-11500	Calamus River	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LO2-11600	Calamus River		NA		NA		NA		3			
LO2-20000	North Loup River	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	Fish consumption assessment
LO2-20100	Goose Creek	NA	S		NA		S	S	2			Aquatic community assessment
LO2-20200	Goose Creek		NA		NA		NA		3			Aquatic community assessment results were inconclusive - site will be reassessed†
LO2-30000	North Loup River	I	I		S		S	I	4A/C	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	E. coli TMDL approved 1/06
LO2-30100	Pass Creek		NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO2-40000	North Loup River	I	I		S		S	I	4A/C	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	E. coli TMDL approved 1/06, Aquatic community assessment, ICI score not representative of water quality conditions†
LO2-40100	Brush Creek		NA		NA		NA		3			
LO2-40200	Big Creek		S		NA		NA	S	2			Aquatic community assessment
LO2-50000	North Loup River		NA		NA		NA		3			
LO2-60000	North Loup River		S		NA		S	S	2			Aquatic community assessment
LO2-70000	North Loup River		NA		NA		NA		3			
LO2-70100	Mud Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO3-10000	Middle Loup River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Fish consumption assessment
LO3-10100	Lake Creek		NA		NA		NA		3			
LO3-10200	Turkey Creek		I		S		S	I	5	Aquatic Life-May-June Atrazine	Atrazine	
LO3-10300	Oak Creek		NA		NA		NA		3			
LO3-10400	Oak Creek	NA	I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
LO3-20000	Middle Loup River	S	S		S		S	S	1			
LO3-30000	Middle Loup River	S	S		S		S	S	1			Aquatic community & Fish consumption assessment
LO3-40000	Middle Loup River	S	S		S		S	S	1			Fish consumption assessment
LO3-40100	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO3-40200	Wagner Creek		NA		NA		NA		3			
LO3-40300	Lillian Creek		NA		NA		NA		3			
LO3-40400	Victoria Creek		S		NA		S	S	2			Aquatic community assessment
LO3-50000	Middle Loup River	S	S		S		S	S	1			
LO3-50100	Dismal River	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	Fish consumption assessment
LO3-50200	Dismal River	S	S		S		S	S	1			Aquatic community assessment
LO3-50300	Dismal River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06
LO3-50310	South Fork Dismal River	NA	NA		NA		NA		3			
LO3-50320	South Fork Dismal River		NA		NA		NA		3			
LO3-50330	North Fork Dismal River	NA	S		NA		S	S	2			Aquatic community assessment
LO3-50340	North Fork Dismal River		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO3-60000	Middle Loup River	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	Aquatic community assessment
LO3-70000	Middle Loup River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
LO3-70100	South Branch Middle Loup River		NA		NA		NA		3			
LO3-70200	North Branch Middle Loup River		NA		NA		NA		3			
LO3-70210	Middle Branch Middle Loup River		NA		NA		NA		3			
LO3-70300	North Branch Middle Loup River		NA		NA		NA		3			
LO4-10000	South Loup River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Aquatic community & Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO4-10100	Mud Creek	I	I		S		S	I	4A	Recreation-Bacteria Aquatic Life - May-June Atrazine	E. coli, Atrazine	E. coli & Atrazine TMDLs approved 5/12
LO4-10110	Spring Branch		NA		NA		NA		3			
LO4-10120	Clear Creek		NA		NA		NA		3			
LO4-10200	Mud Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Impaired Aquatic Community	E. coli, Unknown	E. coli TMDL approved 5/12, Aquatic community assessment
LO4-10210	Dutchman Valley		NA		NA		NA		3			
LO4-20000	South Loup River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Aquatic community & Fish consumption assessment
LO4-20100	Spring Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LO4-30000	South Loup River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
LO4-30100	Sand Creek		NA		NA		NA		3			
LO4-30200	Unnamed Creek		NA		NA		NA		3			
LO4-40000	South Loup River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
LO4-40100	North Fork South Loup River		NA		NA		NA		3			
LO4-50000	South Loup River		NA		NA		NA		3			

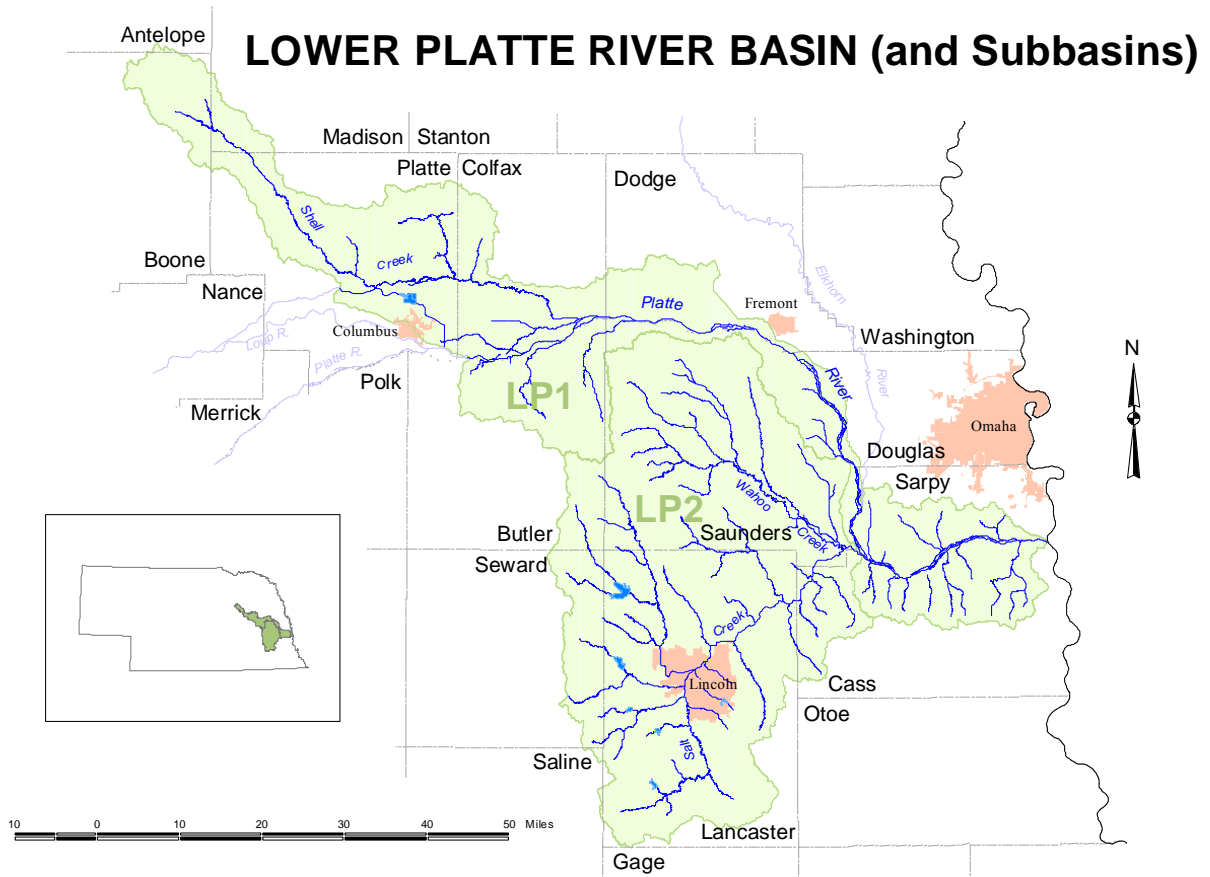
\* **Cancer risk compounds** -Aroclor-1248 (PCB-1248), Aroclor-1254 (PCB-1254), Aroclor-1260 (PCB-1260), cis-chlordane, Chlordane, trans-chlordane, DDD, DDE, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin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

† 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

Literature Cited:

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### Lower Platte River Basin – Hydrologic Units 10200201, 10200202 and 10200203

The Lower Platte River Basin includes 126 designated stream segments and 75 designated lakes/reservoirs.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply –Ag	Water Supply-Ind.	Aesthetics
Lakes	75	0	1	74	0	0	75	2	75
Streams	16	0	1	13	112	2	126	1	126

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

#### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**LP1-L0200: Fremont Lake No. 15 (Victory) (SRA)** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined this waterbody’s recreation and agriculture water supply uses are being met. This waterbody will remain in Category 2.

**LP1-L0220: Fremont Lake No. 18E (SRA)** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined this waterbody’s aquatic life use is being impaired for Chlorophyll a due to an unknown pollutant. This waterbody will be placed in Category 5.

**LP1-L0230: Fremont Lake No 17 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for pH and Chlorophyll a due to Total Nitrogen and Total Phosphorus. A Phosphorous TMDL to address pH, Total Phosphorous and Chlorophyll a was approved 1/13. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP1-L0240: Fremont Lake No. 10 (SRA)** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined this waterbody’s agriculture water supply use is being met. This waterbody will remain in Category 2.

**LP1-L0270: Fremont Lake No 16 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for pH and Chlorophyll a due to Total Nitrogen. A Phosphorous TMDL to address pH and Chlorophyll a was approved 1/13. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP1-L0280: Fremont Lake No. 9 (SRA)** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined this waterbody’s agriculture water supply use is being met. This waterbody will remain in Category 2.

**LP1-L0290: Fremont Lake No 1 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for pH, Dissolved Oxygen and Chlorophyll a due to Total Phosphorous; Hazard Index Compounds and Mercury. A Phosphorous TMDL to address Total Phosphorous, Chlorophyll a, Dissolved Oxygen and pH was approved 1/13. Data collected in 2012 determined this waterbody’s aquatic life is being met for Dissolved Oxygen. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP1-L0300: Fremont Lake No 2 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a due to Total Phosphorous and Total Nitrogen. A Phosphorous TMDL to address Total Phosphorous and Chlorophyll a was approved 1/13. Data collected in 2012 determined this waterbody’s aquatic life use is also being impaired for pH due to Total Phosphorous and Total Nitrogen. This waterbody will remain in Category 5.

**LP1-L0310: Fremont Lake No 3 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a and Dissolved Oxygen due to Total Phosphorous and Total Nitrogen. A Phosphorous TMDL to address Total Phosphorous, Chlorophyll a and Dissolved Oxygen was approved 1/13. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP1-L0320: Fremont Lake No 5 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a, Dissolved Oxygen and pH due to Total Phosphorous and Total Nitrogen. A Phosphorous TMDL to address Total Phosphorous, Chlorophyll a, pH and DO was approved 1/13. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP1-L0330: Fremont Lake No 4 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a and pH due to Total Phosphorous and Total Nitrogen. A Phosphorous TMDL to address Total Phosphorous, Chlorophyll a and pH was approved 1/13. Data collected in 2012 determined this waterbody’s aquatic life use is being met for Total Phosphorus. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP1-L0350: Fremont Lake No 7 & 8 (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a and pH due to Total Phosphorous and



Total Nitrogen. A Phosphorous TMDL to address Total Phosphorous, Chlorophyll a and pH was approved 1/13. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP1-L0440: Lake North** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for pH due to an unknown pollutant. This waterbody is assigned an industrial water supply use which is assessed against site specific criteria depending on the type of industry involved. The industrial water supply user has not contacted the Department requesting site specific criteria be developed to address a pollutant of concern, thus the industrial water supply use is being met. This waterbody will remain in Category 5.

**LP1-L0450: Lake Babcock** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli. This waterbody is assigned an industrial water supply use which is assessed against site specific criteria depending on the type of industry involved. The industrial water supply user has not contacted the Department requesting site specific criteria be developed to address a pollutant of concern, thus the industrial water supply use is being met. This waterbody will remain in Category 5.

**LP2-L0010: Memphis Lake (SRA)**-This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Hazard Index compounds and Mercury. A Fish Consumption assessment in 2012 determined the aquatic life use is being met for Hazard Index compounds. Due to a change in translator the Hazard Index compounds assessment is no longer valid. This waterbody will remain in Category 5.

**LP2-L0030: Wagon Train Lake** - This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Chlorophyll a and Dissolved Oxygen due to Total Phosphorous, Total Nitrogen; naturally elevated Arsenic, Hazard Index Compounds and Mercury. This waterbody was renovated in 2001. A Sediment and Phosphorous TMDL to address Total Phosphorous, and Dissolved Oxygen was approved 10/02. Data collected in 2012 determined this waterbody's aquatic life use is being met for Arsenic. This waterbody will remain in Category 5 due to other pollutants not being addressed in the TMDL.

**LP2-L0040: Holmes Lake** – This waterbody was listed as Category 5 in the 2012 IR. Lake renovations were completed in 2005. This waterbody will be placed in Category 4R.

**LP2-L0090: Yankee Hill Lake** – This waterbody was listed as Category 4R in the 2012 IR. This waterbody's aquatic life use was impaired for pH. A Phosphorus TMDL to address Total Phosphorus and Sediment was approved 9/02 and will be noted. Lake renovations were completed in 2006. Data collected in 2012 determined this waterbody's aquatic life use is being impaired for Chlorophyll a and pH due to Total Phosphorus and Total Nitrogen. This waterbody will remain in Category 4R.

**LP2-L0130: Conestoga Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for Microcystin; aquatic life use was impaired for Chlorophyll a due to Total Phosphorus and Total Nitrogen; aesthetics use was impaired for Sedimentation. Data collected in 2012 determined this waterbody's recreation use is being met. This waterbody will remain in Category 5.

**LP2-L0140: Olive Creek Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Chlorophyll a and pH due to Total Phosphorus and Total Nitrogen; Ammonia, Arsenic and Dissolved Oxygen from fish kills. Data collected in 2012 determined this waterbody's aquatic life use is being met for Arsenic and Dissolved Oxygen. This waterbody will remain in Category 5.

**LP2-L0160: Pawnee Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for Microcystin; aquatic life use was impaired for Chlorophyll a due to Total Phosphorus and Total Nitrogen; aesthetics use was impaired for Sedimentation. A Sediment TMDL was approved 3/01 and will be noted. This waterbody will remain in Category 5.

**LP1-10000: Platte River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Selenium, high pH by an unknown pollutant and hazard index compounds; public drinking water supply use was impaired for Atrazine. Data collected in 2009 determined the recreational use was being met. Although the recreational use was reported as supporting in the last IR, it was also listed as impaired for E. coli bacteria in the “Impairments” and “Pollutants” cells in the basin table. This waterbody will be updated to reflect full support of its recreational use. Data collected in 2012 determined aquatic life use support for pH and public drinking water supply use support for Atrazine. This waterbody will remain in Category 5.

**LP1-10100: Fourmile Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-10110: Eightmile Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-10200: Fourmile Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-10400: Zwiebel Creek** – This waterbody was listed as Category 4B in the 2012 IR. This waterbody’s aquatic life was impaired for high pH based on the facility’s water monitoring report to NDEQ. The facility removed its discharging point from this waterbody in 2010. This waterbody will be placed in Category 3.

**LP1-11200: Decker Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-11500: Pawnee Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-11600: Pawnee Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-20000: Platte River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli, aquatic life use was impaired for atrazine and public drinking water supply use was impaired for atrazine. An E. coli TMDL was approved for this waterbody 9/07. Data collected in 2012 determined this waterbody’s aquatic life use and public drinking water supply use is being met. This waterbody will be placed in Category 4A.

**LP1-20640: Loseke Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-20700: Shell Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Atrazine and Selenium. An Atrazine TMDL was approved 9/07. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDL.

**LP1-21100: Lost Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP1-21400: Bone Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-10000: Salt Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for Chloride. Upon review of the Chloride data it was discovered this waterbody should have been assessed against the natural background calculation for this specific site. The natural background calculation for the data determined this waterbody is supporting for Chloride. An E. coli TMDL was approved 9/07. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Selenium. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDL.

**LP2-10100: Wahoo Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for Selenium. An E. coli TMDL was approved 9/07. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDL.

**LP2-10140: Silver Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-10160: Sand Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-10211: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-10220: Miller Branch** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-10400: Wahoo Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-10500: Callahan Creek** – This waterbody was listed as Category 4C in the 2012 IR. This waterbody's aquatic life use was being impaired by naturally elevated Iron. Although this impairment was documented, the aquatic life use column was marked as supporting. This waterbody will be correctly marked impaired for the aquatic life use impairment and will remain in Category 4C.

**LP2-10800: Dee Creek** – This waterbody was listed as Category 4C in the 2012 IR. This waterbody's aquatic life use was impaired for naturally elevated Iron concentrations. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 4C.

**LP2-10900: Camp Creek** – This waterbody was listed as Category 4C in the 2012 IR. This waterbody's aquatic life use was impaired for naturally elevated Iron concentrations. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 4C.

**LP2-11010: North Fork Rock Creek** – This waterbody was listed as Category 4C in the 2012 IR. This waterbody's aquatic life use was impaired for naturally elevated Iron concentrations. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 4C.

**LP2-11100: Rock Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-20000: Salt Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli, aquatic life use was impaired for Ammonia, Chloride and Hazard Index Compounds and agriculture water supply use was impaired for Specific Conductivity. This waterbody's agricultural water supply is a Class B and should not have been assessed against the 2000 umhos/cm seasonal conductivity criteria of Class A water supplies. This waterbody's agricultural water supply use is being met. This waterbody will remain in Category 5.

**LP2-20300: Little Salt Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Copper, Chloride, Selenium and an Impaired Aquatic Community due to an unknown pollutant. Upon review of the Chloride data it was discovered this waterbody should have been assessed against the natural background calculation for this specific site. The natural background calculation for data determined this waterbody is supporting for Chloride. This waterbody will remain in Category 5.

**LP2-20400: Dead Man's Run** – This waterbody was listed as Category 4A/C in the 2012 IR. This waterbody's recreational use was impaired for E. coli and aquatic life use was impaired for naturally elevated pH concentrations. An E. coli TMDL was approved for this waterbody 9/07. Data made available from USGS determined this waterbody's aquatic life use is being impaired for low Dissolved Oxygen. This waterbody will be placed in Category 5.

**LP2-20610: North Oak Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-20612: Bates Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-20700: Oak Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-20900: Antelope Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli; aquatic life use was impaired for Selenium, Copper and Chloride; agricultural water supply use was impaired for Specific Conductivity. This waterbody's agricultural water supply is a Class B and should not have been assessed against the 2000 umhos/cm seasonal conductivity criteria of Class A water supplies, thus this waterbody's agriculture water supply use is being met. Upon review of the Chloride data it was discovered this waterbody should have been assessed against the natural background calculation for this specific site. The natural background calculation for data determined this waterbody is supporting for Chloride. Data made available from USGS determined the aquatic life use is being impaired by low Dissolved Oxygen. This waterbody will remain in Category 5.

**LP2-30200: Hickman Branch** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**LP2-40310: North Branch** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
LP1-L0010	Louisville Lake No. 1 (SRA)	S	NA		NA		NA	S	2			Fish consumption assessment
LP1-L0020	Louisville Lake No. 1A (SRA)	NA	S		NA		NA	S	2			
LP1-L0030	Louisville Lake No. 2 (SRA)	S	NA		NA		S	S	2			
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-Nutrients, Chlorophyll a	Total Phosphorus	
LP1-L0070	Schramm Park Ponds (10 Ponds) (SRA)	NA	NA		NA		NA		3			
LP1-L0080	Qwest Lake (Mahoney State Park)	NA	NA		NA		NA		3			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	NA		NA		NA	S	2			
LP1-L0110	Two Rivers Carp Lake (SRA)	NA	NA		NA		NA		3			
LP1-L0120	Two Rivers Lake No. 6 (SRA)	S	NA		NA		NA	S	2			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP1-L0130	Two Rivers Lake No. 1 and 2 (SRA)	S	NA		NA		NA	S	2			
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		3			
LP1-L0170	Fremont Lake No. 13 (SRA)	NA	NA		NA		NA		3			
LP1-L0180	Fremont Lake No. 12 (SRA)	NA	S		S		S	S	2			
LP1-L0190	Fremont Lake No. 19 (SRA)	NA	NA		NA		NA		3			
LP1-L0200	Fremont Lake No. 15 (Victory) (SRA)	S	NA		S		S	S	2			
LP1-L0210	Fremont Lake No. 11 (SRA)	NA	NA		NA		NA		3			
LP1-L0220	Fremont Lake No. 18E (SRA)	NA	I		S		S	I	5	Aquatic Life-Chlorophyll a	Unknown	TP and TN are supporting
LP1-L0230	Fremont Lake No. 17 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	Phosphorous TMDL to address Total Phosphorous, Chlorophyll a & pH approved 1/13
LP1-L0240	Fremont Lake No. 10 (SRA)	S	NA		S		S	S	2			Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LP1-L0250	Fremont Lake No. 20 (SRA)	S	S		S		S	S	1			Phosphorous TMDL to address Algal Toxins approved 9/07
LP1-L0270	Fremont Lake No. 16 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Nitrogen	Phosphorous TMDL to address Chlorophyll a & pH approved 1/13
LP1-L0280	Fremont Lake No. 9 (SRA)	S	NA		S		S	S	2			
LP1-L0290	Fremont Lake No. 1 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH, Fish Consumption Advisory	Total Phosphorus, Hazard Index Compounds*, Mercury	Phosphorous TMDL to address Total Phosphorous, Chlorophyll a, DO and pH approved 1/13, Fish consumption assessment
LP1-L0300	Fremont Lake No. 2 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	Phosphorous TMDL to address Total Phosphorous & Chlorophyll a approved 1/13

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP1-L0310	Fremont Lake No. 3 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, DO	Total Phosphorus, Total Nitrogen	Phosphorous TMDL to address Total Phosphorous, Chlorophyll a, & DO approved 1/13
LP1-L0315	Fremont Lake No. 3A (SRA)	NA	NA		NA		NA		3			
LP1-L0320	Fremont Lake No. 5 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, DO, pH	Total Phosphorus, Total Nitrogen	Phosphorous TMDL to address Total Phosphorous, Chlorophyll a, pH, & DO approved 1/13
LP1-L0330	Fremont Lake No. 4 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Nitrogen	Phosphorous TMDL to address Total Phosphorous, Chlorophyll a & pH approved 1/13
LP1-L0340	Fremont Lake No. 6 (SRA)	NA	NA		NA		NA		3			
LP1-L0350	Fremont Lake No. 7 and 8 (SRA)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	Phosphorous TMDL to address Total Phosphorous, Chlorophyll a & pH approved 1/13



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP1-L0355	Homestead Lake	S	I		NA		NA	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	
LP1-L0360	Schuyler East Park Pond	NA	NA		NA		NA		3			
LP1-L0370	Schuyler City Lake (South Park Lake)	NA	NA		NA		I	I	4R	Aesthetics-Algae Blooms	Unknown	TP and TN not assessed, Lake renovated 2006
LP1-L0380	Camp Luther Pond	NA	NA		NA		NA		3			
LP1-L0390	McAllister Lake	NA	NA		NA		NA		3			
LP1-L0400	Christopher Cove Lake	NA	NA		NA		NA		3			
LP1-L0410	Country Club Shores Lake	NA	NA		NA		NA		3			
LP1-L0420	Columbus Country Club Lake	NA	NA		NA		NA		3			
LP1-L0430	Oconee Siphon Pond	NA	NA		NA		NA		3			
LP1-L0440	Lake North	S	I		S	S	S	I	5	Aquatic Life-pH	Unknown	TN and TP are supporting, Fish consumption assessment
LP1-L0450	Lake Babcock	I	S		NA	S	S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-L0010	Memphis Lake (SRA)	S	I		NA		NA	I	5	Aquatic Life- Fish Consumption Advisory	Mercury	Fish consumption assessment
LP2-L0020	Hedgefield Lake (WMA)	NA	NA		NA		NA		3			
LP2-L0030	Wagon Train Lake	S	I		S		S	I	5	Aquatic Life- Nutrients, Chlorophyll a, DO, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Phosphorous TMDL to address Total Phosphorous & DO and Sediment TMDLs approved 10/02, Lake Renovated 2001, Fish consumption assessment
LP2-L0040	Holmes Lake	S	I		S		S	I	4R	Aquatic Life- Nutrients, Chlorophyll a, pH, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Phosphorous TMDL to address Total Phosphorous & DO and Sediment TMDLs approved 7/03, Lake renovated 2005, Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-L0050	Stagecoach Lake	S	I		S		I	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory, Aesthetics-Sedimentation	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury, Sediment	Fish consumption assessment
LP2-L0060	Oak Lake	NA	I		NA		S	I	5	Aquatic Life-DO, Chlorides	Unknown, natural Chlorides	TP and TN not assessed, Salinity is natural. Fish consumption assessment
LP2-L0065	Regional Center Pond	NA	NA		NA		NA		3			
LP2-L0070	Cottontail Lake (17A)	S	NA		NA		NA	S	2			
LP2-L0080	Killdeer Lake (WMA)	NA	S		NA		NA	S	2			Fish consumption assessment
LP2-L0090	Yankee Hill Lake	S	I		S		S	I	4R	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	Phosphorus TMDL to address Total Phosphorus and Sediment TMDLs approved 9/02, Lake Renovated 2006

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-L0100	Bowling Lake	NA	I		NA		S	I	4R	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	Sediment TMDL approved 3/01, Lake Renovated 2006
LP2-L0110	Bluestem Lake	S	I		S		I	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory, Aesthetics-Sedimentation	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury, Sediment	Fish consumption assessment
LP2-L0120	Wildwood Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, DO, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Lake Renovated 2004, Fish consumption assessment
LP2-L0130	Conestoga Lake	S	I		S		I	I	5	Aquatic Life-Nutrients, Chlorophyll a, Aesthetics-Sedimentation	Total Phosphorus, Total Nitrogen, Sediment	Fish consumption assessment
LP2-L0140	Olive Creek Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH, Ammonia	Total Phosphorus, Total Nitrogen, Ammonia	Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-L0150	Branched Oak Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	Fish consumption assessment
LP2-L0160	Pawnee Lake	I	I		S		I	I	5	Recreation-Algae Toxins, Aquatic Life-Nutrients, Chlorophyll a, Aesthetics-Sedimentation	Microcystin, Total Phosphorus, Total Nitrogen, Sediment	Sediment TMDL approved 3/01, Fish consumption assessment
LP2-L0170	Merganser Lake (25A)	NA	I		NA		NA	I	5	Aquatic Life- Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
LP2-L0180	Teal Lake (27C)	NA	NA		NA		NA		3			
LP2-L0190	Red Cedar Lake	S	NA		NA		NA	S	2			
LP2-L0200	Wild Plum Lake (26A)	S	NA		NA		NA	S	2			
LP2-L0210	Tanglewood Lake (27C)	NA	NA		NA		NA		3			
LP2-L0220	Meadowlark Lake	NA	I		S		S	I	4R	Aquatic Life-Nutrients, Chlorophyll a, DO	Total Phosphorus, Total Nitrogen	Lake renovated 2006
LP2-L0230	Twin Lakes WMA Pond	NA	NA		NA		NA		3			
LP2-L0240	East Twin Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-L0250	Timber Point Lake (6C)	S	NA		NA		NA	S	2			
LP2-L0260	West Twin Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Ammonia	Total Phosphorus, Total Nitrogen, Ammonia	
LP2-L0270	Czechland Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Fish consumption assessment
LP2-L0280	Redtail Lake	NA	I		NA		NA	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus	
<b>Streams</b>												
LP1-10000	Platte River	S	I	S	S		S	I	5	Aquatic Life-Selenium, Fish Consumption Advisory	Selenium, Hazard Index compounds*	E. coli TMDL approved 9/07, Fish consumption assessment
LP1-10100	Fourmile Creek		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LP1-10110	Eightmile Creek		S		NA		S	S	2			Aquatic community assessment
LP1-10111	Bachelor Branch		NA		NA		NA		3			
LP1-10200	Fourmile Creek		S		NA		S	S	2			Aquatic community assessment
LP1-10210	Unnamed Creek		NA		NA		NA		3			
LP1-10300	Fourmile Creek		NA		NA		NA		3			
LP1-10400	Zwiebel Creek		NA		NA		NA		3			
LP1-10410	Unnamed Creek		NA		NA		NA		3			
LP1-10500	Zwiebel Creek		NA		NA		NA		3			
LP1-10600	Turkey Creek		NA		NA		NA		3			
LP1-10700	Cedar Creek		NA		NA		NA		3			
LP1-10710	Unnamed Creek		NA		NA		NA		3			
LP1-10800	Cedar Creek		NA		NA		NA		3			
LP1-10900	Springfield Creek		NA		NA		NA		3			
LP1-11000	Buffalo Creek		NA		NA		NA		3			
LP1-11100	Mill Creek		NA		NA		NA		3			
LP1-11200	Decker Creek	NA	S		NA		S	S	2			Aquatic community assessment
LP1-11300	Fountain Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP1-11400	Unnamed Creek		NA		NA		NA		3			
LP1-11500	Pawnee Creek		S		NA		S	S	2			Aquatic community assessment
LP1-11510	West Branch Pawnee Creek		NA		NA		NA		3			
LP1-11600	Pawnee Creek		S		NA		S	S	2			Aquatic community assessment
LP1-11700	Western Sarpy Ditch		NA		NA		NA		3			
LP1-20000	Platte River	I	S	S	S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/07, Fish consumption assessment
LP1-20100	Clear Creek		NA		NA		NA		3			
LP1-20110	Upper Clear Creek		NA		NA		NA		3			
LP1-20200	Clear Creek		NA		NA		NA		3			
LP1-20300	Otoe Creek		NA		NA		NA		3			
LP1-20400	Skull Creek		NA		NA		NA		3			
LP1-20410	Unnamed Creek		NA		NA		NA		3			
LP1-20500	Skull Creek		NA		NA		NA		3			
LP1-20600	Shell Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
LP1-20610	Taylor Creek		NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LP1-20620	Loseke Creek		NA		NA		NA		3			
LP1-20621	Schaad Creek		NA		NA		NA		3			
LP1-20621.1	Unnamed Creek		NA		NA		NA		3			
LP1-20630	Loseke Creek		NA		NA		NA		3			
LP1-20631	Unnamed Creek		NA		NA		NA		3			
LP1-20640	Loseke Creek		S		NA		S	S	2			Aquatic community assessment
LP1-20700	Shell Creek		I		S		S	I	5	Aquatic Life-May-June Atrazine, Selenium	Atrazine, Selenium	Atrazine TMDL approved 9/07
LP1-20710	Unnamed Creek		NA		NA		NA		3			
LP1-20720	Elm Creek		NA		NA		NA		3			
LP1-20800	Shell Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
LP1-20810	North Shell Creek		NA		NA		NA		3			
LP1-20900	Shell Creek		NA		NA		NA		3			
LP1-21000	Lost Creek		NA		NA		NA		3			
LP1-21010	Shonka Ditch		S		NA		NA	S	2			
LP1-21100	Lost Creek		S		NA		S	S	2			Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP1-21200	Lost Creek		NA		NA		NA		3			
LP1-21300	Bone Creek		NA		NA		NA		3			
LP1-21310	Unnamed Creek		NA		NA		NA		3			
LP1-21400	Bone Creek		S		NA		S	S	2			Aquatic community assessment
LP1-21500	Unnamed Creek		NA		NA		NA		3			
LP1-21600	Deer Creek		NA		NA		NA		3			
LP1-21700	Unnamed Creek		NA		NA		NA		3			
LP1-21800	Loup River Canal	S	S		NA	S	S	S	2			Fish consumption assessment
LP2-10000	Salt Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	E. coli TMDL approved 9/07, Fish consumption assessment
LP2-10100	Wahoo Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	E. coli TMDL approved 9/07, Aquatic community & Fish consumption assessment
LP2-10110	Clear Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-10111	Silver Creek		NA		NA		NA		3			
LP2-10120	Clear Creek		NA		NA		NA		3			
LP2-10121	Johnson Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
LP2-10130	Clear Creek		NA		NA		NA		3			
LP2-10140	Silver Creek		S		NA		S	S	2			Aquatic community assessment
LP2-10150	Mosquito Creek		NA		NA		NA		3			
LP2-10160	Sand Creek		S		NA		S	S	2			Aquatic community assessment
LP2-10161	Duck Creek		S		S		S	S	1			Aquatic community assessment
LP2-10170	Sand Creek		S		S		S	S	1			Aquatic community assessment
LP2-10171	Spring Creek		NA		NA		NA		3			
LP2-10180	Sand Creek		NA		NA		NA		3			
LP2-10200	Wahoo Creek		NA		NA		NA		3			
LP2-10210	Cottonwood Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LP2-10211	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
LP2-10220	Miller Branch		S		NA		S	S	2			Aquatic community assessment
LP2-10230	North Fork Wahoo Creek		NA		NA		NA		3			
LP2-10231	Unnamed Creek		NA		NA		NA		3			
LP2-10240	North Fork Wahoo Creek		NA		NA		NA		3			
LP2-10300	Wahoo Creek		NA		NA		NA		3			
LP2-10310	Dunlap Creek		NA		NA		NA		3			
LP2-10400	Wahoo Creek		S		NA		S	S	2			Aquatic community assessment
LP2-10500	Callahan Creek		S I		NA		NA	I	4C		natural Iron	
LP2-10600	Robinson Creek		I		NA		NA	I	4C		natural Iron	
LP2-10700	Greenwood Creek		I		NA		NA	I	4C		natural Iron	
LP2-10800	Dee Creek		I		NA		S	I	4C		natural Iron	Aquatic community assessment
LP2-10900	Camp Creek		I		NA		S	I	4C		natural Iron	Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LP2-11000	Rock Creek		I		S		S	I	4C		natural Iron	Fish consumption assessment, Aquatic community assessment
LP2-11010	North Fork Rock Creek		I		NA		S	I	4C		natural Iron	Aquatic community assessment
LP2-11100	Rock Creek		S		NA		S	S	2			Aquatic community assessment
LP2-11110	Ash Hollow Creek		NA		NA		NA		3			
LP2-11120	Little Rock Creek		NA		NA		NA		3			
LP2-11200	Rock Creek		NA		NA		NA		3			
LP2-20000	Salt Creek	I	I		I		S	I	5	Recreation-Bacteria, Aquatic Life-Ammonia, Chloride, Fish Consumption Advisory, Impaired Aquatic Community	E. coli, Ammonia, Chloride Hazard Index compounds*, Unknown	E. coli TMDL approved 9/07, Aquatic community assessment, Fish consumption assessment
LP2-20100	Jordan Creek		NA		NA		NA		3			
LP2-20200	Stevens Creek		NA		NA		NA		3			
LP2-20300	Little Salt Creek		I		S		S	I	5	Aquatic Life-Copper, Selenium, Impaired Aquatic Community	Copper, Selenium, Unknown	Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-20400	Dead Man's Run	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-naturally High pH, DO	E. coli, Unknown	E. coli TMDL approved 9/07
LP2-20500	Oak Creek	I	S		S		S	I	5	Recreation-Bacteria, Aquatic Life-Chloride, Fish Tissue-Hazard Index Compounds	E. coli, Chloride, Hazard Index Compounds*	E. coli TMDL approved 9/07, Fish consumption assessment
LP2-20510	Elk Creek		NA		NA		NA		3			
LP2-20511	West Oak Creek		NA		NA		NA		3			
LP2-20520	Elk Creek		NA		NA		NA		3			
LP2-20600	Oak Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Impaired Aquatic Community	E. coli, Unknown	Aquatic community assessment
LP2-20610	North Oak Creek		S		NA		S	S	2			Aquatic community assessment
LP2-20611	Wagon Tongue Creek		NA		NA		NA		3			
LP2-20612	Bates Branch		S		NA		S	S	2			Aquatic community assessment
LP2-20700	Oak Creek		S		NA		S	S	2			Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
LP2-20710	Middle Oak Creek		I		S		S	I	5	Aquatic Life-Atrazine	Atrazine	Aquatic community assessment
LP2-20800	Oak Creek		I		S		S	I	5	Aquatic Life-Atrazine	Atrazine	
LP2-20900	Antelope Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium, Copper, DO	E. coli, Selenium, Copper, Unknown	E. coli and Ammonia TMDLs approved 9/07
LP2-21000	Middle Creek		S		S		S	S	1			Aquatic community assessment
LP2-21010	South Branch Middle Creek		NA		NA		NA		3			
LP2-21100	Middle Creek		I		S		S	I	4A	Aquatic Life-May-June Atrazine	Atrazine	Atrazine TMDL approved 9/07
LP2-21200	Haines Branch		NA		NA		NA		3			
LP2-21210	Holmes Creek		S		S		S	S	1			
LP2-21300	Haines Branch		NA		NA		NA		3			
LP2-21310	Cheese Creek		NA		NA		NA		3			
LP2-21400	Haines Branch		NA		NA		NA		3			
LP2-21500	Beal Slough	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-High pH	E. coli, Unknown	

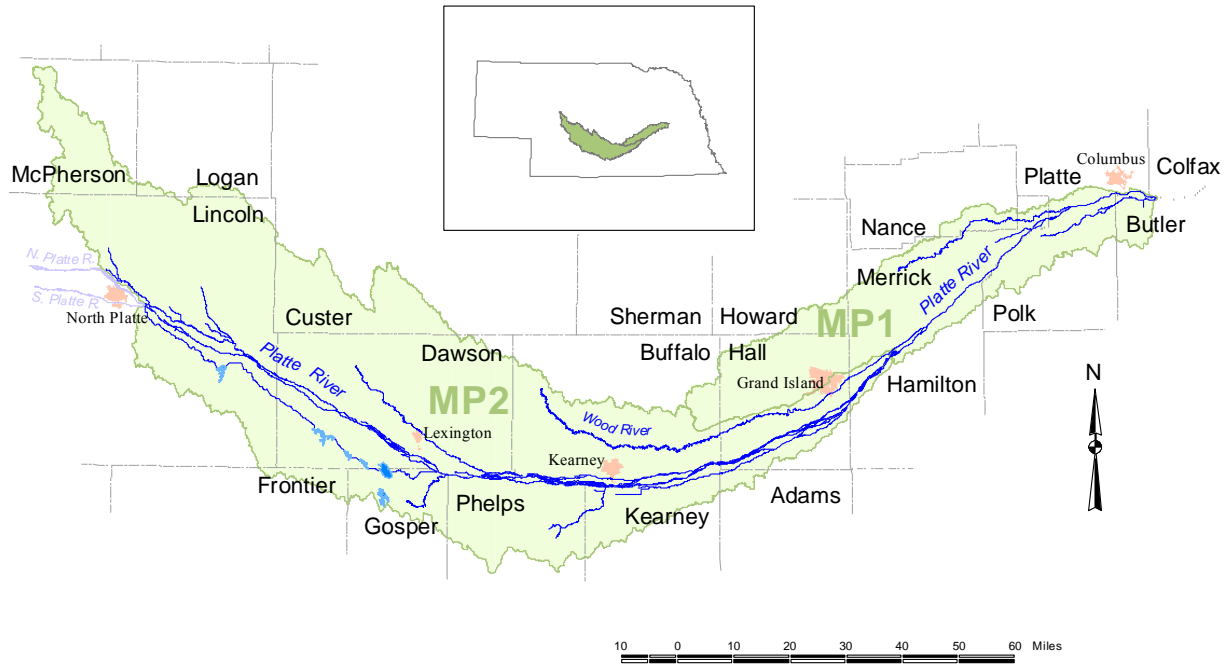
Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
LP2-30000	Salt Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Impaired Aquatic Community	E. coli, Unknown	E. coli TMDL approved 9/07, Fish consumption assessment, Aquatic community assessment
LP2-30100	Cardwell Branch	I	NA		NA		NA	I	5	Recreation-Bacteria	E. coli	
LP2-30200	Hickman Branch		S		NA		S	S	2			Aquatic community assessment
LP2-40000	Salt Creek		NA		NA		NA		3			
LP2-40100	Wittstruck Creek		NA		NA		NA		3			
LP2-40200	Spring Branch		NA		NA		NA		3			
LP2-40300	Olive Branch		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community Assessment
LP2-40310	North Branch		S		NA		S	S	2			Aquatic community assessment

\* **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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.



# MIDDLE PLATTE RIVER BASIN (and Subbasins)



## Middle Platte River Basin – Hydrologic Units 10200101, 10200102 and 10200103

The Middle Platte River Basin includes 29 designated stream segments and 95 designated lakes/reservoirs

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	95	0	0	95	0	0	95	2	95
Streams	13	0	3	12	14	1	29	1	29

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**MP1-L0090: Bader Memorial Lake No. 2** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined the agriculture water supply use is being met. This waterbody will remain in Category 2.

**MP2-L0520: Johnson Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a due to nutrients and Total Phosphorous. This waterbody is assigned an Industrial Water Supply use which is site specific depending on the Industrial User. The Industrial Water Supply user has not contacted the Department with a water quality concern thus the use is being met and will be added to the table as supporting. Data collected in 2012 determined both the

recreation and agriculture water supply uses are being met. A Fecal Coliform TMDL was approved 9/04. This waterbody will remain in Category 5.

**MP2-L0650: Lake Helen** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Dissolved Oxygen due to nutrients, Total Phosphorus, Total Nitrogen. Data collected in 2012 determined the recreation and agriculture water supply uses are being met; the aquatic life use is being impaired for pH due to nutrients, Total Phosphorus, Total Nitrogen and is being met for Dissolved Oxygen. This waterbody will remain in Category 5.

**MP2-L0710: Jeffrey Reservoir** – This waterbody was listed as Category 2 in the 2012 IR. This waterbody is assigned an Industrial Water Supply use which is site specific depending on the Industrial User. The Industrial Water Supply user has not contacted the Department with a water quality concern thus the use is being met and will be added to the table as Supporting. This waterbody will remain in Category 2.

**MP1-20300: Silver Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MP2-10000: Platte River** – This waterbody was listed as Category 1 in the 2012 IR. Data collected in 2012 determined this waterbody's aquatic life use is being impaired for Selenium. Upon review of segment MP2-20000's E. coli data it was discovered that the data actually belonged to segment MP2-10000. This waterbody's recreation use is being impaired for E. coli bacteria. This waterbody will be placed in Category 5.

**MP2-10200: Wood River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Selenium. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Ammonia. This waterbody will remain in Category 5.

**MP2-20000: Platte River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody's recreation use was impaired for E. coli. Upon review of the data it was discovered the E. coli data impairing this waterbody actually belonged to MP2-10000. There is no E. coli data available for this segment so the recreational use will be changed to Not Assessed. This waterbody will be placed in Category 2.

**MP2-20100: North Dry Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MP2-40100: Pawnee Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
MP1-L0010	Lease Lake	NA	NA		NA		NA		3			
MP1-L0015	Silver Creek City Pond	S	NA		NA		S	S	2			
MP1-L0020	Mormon Trail Lake (SWA)	NA	S		NA		NA	S	2			Fish consumption assessment
MP1-L0030	Hord Lake East	NA	S		NA		NA	S	2			Fish consumption assessment
MP1-L0040	Hord Lake West	NA	NA		NA		NA		3			
MP1-L0050	Bader Memorial Lake No. 7	NA	NA		NA		NA		3			
MP1-L0060	Bader Memorial Lake No. 6	NA	NA		NA		NA		3			
MP1-L0070	Bader Memorial Lake No. 5	NA	NA		NA		NA		3			
MP1-L0080	Bader Memorial Lake No. 4	NA	NA		NA		NA		3			
MP1-L0090	Bader Memorial Lake No. 2	S	NA		S		S	S	2			
MP1-L0100	Bader Memorial Lake No. 3	NA	NA		NA		NA		3			
MP1-L0110	Bader Memorial Lake No. 1	NA	NA		NA		NA		3			
MP1-L0120	Grand Island Detention Cell	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
MP1-L0130	Cornhusker Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0010	Grand Island Rest Area Lake (I-80 mile 315.0 S)	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MP2-L0020	Grand Island Pier Lake	NA	NA		NA		NA		3			
MP2-L0030	Grand Island L. E. Ray Lake	NA	S		NA		NA	S	2			Fish consumption assessment
MP2-L0040	Grand Island Sucks Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	
MP2-L0050	Mormon Island Lake (SWA)	NA	S		S		S	S	2			Fish consumption assessment
MP2-L0060	East Mormon Island Lake (SRA)	NA	NA		NA		NA		3			
MP2-L0070	West Mormon Island Lake (SRA)	S	I		S		S	I	5	Aquatic Life-DO	Unknown	TP and TN not assessed
MP2-L0090	Alda Rest Area Lake (I-80 mile 306.0 N)	NA	S		S		S	S	2			
MP2-L0100	Cheyenne Lake (SRA)	NA	S		S		S	S	2			Fish consumption assessment
MP2-L0110	West Wood River Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0120	War Axe (SRA)	NA	S		S		S	S	2			
MP2-L0130	Windmill Lake No. 4 (SRA)	NA	NA		NA		NA		3			
MP2-L0140	Windmill Lake No. 5 (SRA)	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
MP2-L0150	Windmill Lake No. 3 (SRA)	NA	NA		NA		NA		3			
MP2-L0160	Windmill Lake No. 2 (SRA)	NA	NA		NA		NA		3			
MP2-L0170	Windmill Lake No. 1 (SRA)	NA	NA		NA		NA		3			
MP2-L0180	Windmill Lake No. 6 (SRA)	NA	NA		NA		NA		3			
MP2-L0190	Bassway Strip Lake No. 5 (WMA)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish Consumption Assessment
MP2-L0200	Bassway Strip Lake No. 4 (WMA)	NA	NA		NA		NA		3			
MP2-L0210	Bassway Strip Lake No. 3 (WMA)	NA	NA		NA		NA		3			
MP2-L0220	Bassway Strip Lake No. 2 (WMA)	NA	NA		NA		NA		3			
MP2-L0230	Bassway Strip Lake No. 1 (WMA)	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN not assessed
MP2-L0240	Bufflehead Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN not assessed
MP2-L0250	Ft. Kearny Lake No. 1	NA	NA		NA		NA		3			
MP2-L0260	Ft. Kearny Lake No. 2	NA	NA		NA		NA		3			
MP2-L0270	Ft. Kearny Lake No. 3	NA	NA		NA		NA		3			
MP2-L0280	Ft. Kearny Lake No. 4	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
MP2-L0290	Ft. Kearny Lake No. 5	NA	NA		NA		NA		3			
MP2-L0300	Ft. Kearny Lake No. 6	NA	NA		NA		NA		3			
MP2-L0310	Ft. Kearny Lake No. 7	NA	NA		NA		NA		3			
MP2-L0320	Kea Lake (WMA)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
MP2-L0330	Kearney Lake	NA	NA		NA		NA		3			
MP2-L0340	Kea West Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0350	North Kearney Rest Area Lake (I-80 mile 271.0 N)	NA	NA		NA		NA		3			
MP2-L0360	Cottonmill Lake	NA	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
MP2-L0370	South Kearney Rest Area Lake (I-80 mile 269.0 S)	NA	NA		NA		NA		3			
MP2-L0380	East Odessa Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0390	Union Pacific Lake (SRA)	NA	NA		NA		NA		3			
MP2-L0400	Coot Shallows (WMA)	NA	S		S		S	S	2			
MP2-L0410	Blue Hole East Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus	

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MP2-L0420	Sandy Channel (WMA)	NA	S		S		S	S	2			Fish consumption assessment
MP2-L0430	Blue Hole Lake (Elm Creek) (WMA)	NA	NA		NA		NA		3			
MP2-L0440	West Elm Creek Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0450	Overton Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0460	Dogwood Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0470	Dawson County Museum Lake	NA	NA		NA		NA		3			
MP2-L0480	Interstate Lake (Lexington)	NA	NA		NA		NA		3			
MP2-L0490	Plum Creek Park Lake (Lexington)	NA	NA		NA		NA		3			
MP2-L0500	Phillips Lake	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
MP2-L0510	Bossung Lake	NA	NA		NA		NA		3			
MP2-L0520	Johnson Lake	S	I		S	S	S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus	Fecal Coliform TMDL approved 9/04, Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MP2-L0530	Buffalo Creek Lake	NA	NA		NA		NA		3			
MP2-L0540	Elwood Reservoir	S	S		S		S	S	1			
MP2-L0550	Darr Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0560	Plum Creek Lake	NA	S		NA		NA	S	2			Fish consumption assessment
MP2-L0570	Gallagher Canyon Reservoir	NA	I		S		S	I	5	Aquatic Life-Nutrients	Total Phosphorus	Fish consumption assessment
MP2-L0580	Cozad Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP & TN not assessed, Fish consumption assessment
MP2-L0590	West Cozad Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0600	East Willow Island Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0610	Willow Island Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0620	Midway Lake (8 Lakes)	NA	S		NA		NA	S	2			Fish consumption assessment
MP2-L0630	East Gothenberg Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0640	Little Canyon Lake No. 2	NA	NA		NA		NA		3			



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MP2-L0650	Lake Helen	S	I		S		S	I	5	Aquatic Life-Nutrients, pH	Total Phosphorus, Total Nitrogen	
MP2-L0660	Little Canyon Lake No. 1	NA	NA		NA		NA		3			
MP2-L0680	West Gothenburg Lake (WMA)	NA	S		S		S	S	2			
MP2-L0690	Brady Lake (WMA)	NA	S		S		S	S	2			
MP2-L0700	Chester Island Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0710	Jeffrey Reservoir	NA	S		S	S	S	S	2			Fish consumption assessment
MP2-L0720	West Brady Lake (WMA)	NA	NA		NA		NA		3			
MP2-L0730	Snell Canyon Lake No. 2	NA	NA		NA		NA		3			
MP2-L0740	Snell Canyon Lake No. 1	NA	NA		NA		NA		3			
MP2-L0750	Maxwell Rest Area Lake (I-80 mile 194.0 N)	NA	S		NA		NA	S	2			
MP2-L0760	Target Lake	NA	NA		NA		NA		3			
MP2-L0770	Ft. McPherson Lake (SWA)	NA	S		NA		NA	S	2			Fish consumption assessment
MP2-L0780	Cottonwood Canyon Lake	NA	NA		NA		NA		3			
MP2-L0790	I-80 BLM Lake	NA	NA		NA		NA		3			
MP2-L0800	West Maxwell Lake (WMA)	NA	NA		NA		NA		3			Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
MP2-L0810	Box Elder Canyon Lake	NA	NA		NA		NA		3			
MP2-L0820	Crystal Lake	NA	NA		NA		NA		3			
MP2-L0840	Fremont Slough Lake (WMA)	NA	NA		NA		NA		3			
MP2-LXXXX <sup>1</sup>	Yanney Park Lake	NA	I		NA		NA	I	5	Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
<b>Streams</b>												
MP1-10000	Platte River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	Fecal coliform TMDL approved 5/03
MP1-10100	Clear Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	Aquatic community assessment
MP1-10110	Wilson Creek		NA		NA		NA		3			
MP1-10120	South Channel Platte River		NA		NA		NA		3			
MP1-10200	Loup Power Canal	I	NA		NA		NA	I	5	Recreation-Bacteria	E. coli	
MP1-20000	Platte River	S	S		S		S	S	1			Fecal coliform TMDL approved 5/03

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MP1-20100	Prairie Creek		I		S		S	I	5	Aquatic Life-DO	Unknown	Aquatic community assessment
MP1-20200	Silver Creek		NA		NA		NA		3			
MP1-20300	Silver Creek		S		NA		S	S	2			Aquatic community assessment
MP2-10000	Platte River	I	I	S	S		S	I	5	Aquatic Life-Selenium, Recreation-Bacteria	Selenium, E. coli	
MP2-10100	Wood River		NA		NA		NA		3			
MP2-10200	Wood River		I		S		S	I	5	Aquatic Life-Selenium, Ammonia	Selenium, Ammonia	
MP2-10300	Wood River		NA		NA		NA		3			
MP2-10400	Crooked Creek		NA		NA		NA		3			
MP2-20000	Platte River	NA	S		S		S	S	2			Fecal coliform TMDL approved 5/03, Aquatic community & Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MP2-20100	North Dry Creek		S		NA		S	S	2			Aquatic community assessment
MP2-20110	Whiskey Slough		NA		NA		NA		3			
MP2-20120	Unnamed Creek		NA		NA		NA		3			
MP2-20200	Turkey Creek	NA	NA		NA		NA		3			
MP2-20300	Spring Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
MP2-20400	Plum Creek		S		S		S	S	1			
MP2-20500	Tri-County Canal	NA	NA		NA	NA	NA		3			
MP2-30000	Platte River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
MP2-40000	Platte River	S	S		S		S	S	1			Fecal coliform TMDL approved 5/03, Aquatic community assessment
MP2-40100	Pawnee Creek		S		NA		S	S	2			Aquatic community assessment
MP2-40200	Pawnee Slough	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
MP2-40300	Unnamed Slough		NA		NA		NA		3			
MP2-40400	White Horse Creek	NA	NA		NA		NA		3			
MP2-40410	Unnamed Creek		NA		NA		NA		3			
<b>Wetlands</b>												
MP2-WXXXX	Cottonwood WPA		NA		NA		NA		3			
MP2-WXXXX	Linder WPA		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.

†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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.



## MISSOURI TRIBUTARIES RIVER BASIN

### Missouri Tributaries Basin – Hydrologic Units 10170101, 10230001 and 10230006

The Missouri Tributaries Basin includes 136 designated stream segments and 29 designated lakes. The waterbody assessment also included a lake that has not been identified in Title 117 – Nebraska Surface Water Quality Standards.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	29	0	0	29	0	1	29	1	29
Streams	21	0	3	15	118	2	136	1	136

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

## **Delisting/ Changes from 2012 IR**

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**MT1-L0010: Offutt Lake** – This waterbody was listed as Category 3 in the 2012 IR. A Fish consumption assessment determined the aquatic life use is being impaired for Cancer Risk and Hazard Risk compounds. This waterbody will be placed in Category 5.

**MT1-L0090: Cater Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aesthetics use was impaired for Algae Blooms; aquatic life use was impaired for Total Nitrogen, Hazard Index compounds and Mercury. Data collected in 2012 determined the aquatic life use is also being impaired for Chlorophyll a due to nutrients and Total Phosphorus. This waterbody will remain in Category 5.

**MT1-L0120: Glen Cunningham Lake (Site No. 11)** – This waterbody was listed as Category 4R in the 2012 IR. This waterbody's aquatic life was impaired for Chlorophyll a due to nutrients, Total Phosphorus, Total Nitrogen. Data collected in 2012 determined this waterbody's recreation use is being met; aquatic life use is also being impaired for pH due to nutrients. This waterbody was renovated in 2009 and will remain in Category 4R.

**MT1-L0150: Summit Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Chlorophyll a due to nutrients, Total Phosphorus, Total Nitrogen, Hazard Index Compounds and Mercury. A fish consumption assessment determined the aquatic life use is being met for Hazard Index compounds and Mercury. This waterbody will remain in Category 5.

**MT1-LXXXX: Lake Bennington** – This waterbody was not listed in the 2012 IR. A fish consumption assessment in 2012 determined this waterbody's aquatic life use was impaired for Hazard Index compounds and Mercury. This waterbody will be placed in Category 5.

**MT2-L0040: Lewis and Clark Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Chlorophyll a due to an unknown pollutant. This waterbody has both a public drinking water use and an industrial water supply use assigned that were not acknowledged in the 2012 IR. This waterbody's Industrial Water Supply use is site specific depending on the Industrial User. The Industrial Water Supply user has not contacted the Department with a water quality concern thus the use is being met and will be added to the table as supporting. The public water supply use will be added to the table as not assessed. This waterbody will remain in Category 5.

**MT1-10000: Missouri River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for both Cancer Risk and Hazard Index Compounds. A new Fish consumption assessment determined full support for the aquatic life use. This waterbody will be placed in category 1.

**MT1-10100: Papillion Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli; aquatic life use was impaired for Selenium, Cancer Risk and Hazard Index compounds. A new Fish consumption assessment determined for full support for both Cancer Risk and Hazard Index Compounds. This waterbody will remain in Category 5.

**MT1-10140: Big Papillion Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT1-10250: West Papillion Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for both Cancer Risk and Hazard Index Compounds. A new Fish

consumption assessment determined support for Cancer Risk compounds. This waterbody will remain in Category 5.

**MT1-10700: Long Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT1-11600: Tekamah Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT1-11700: Elm Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT1-11800: Wood Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT1-12100: Omaha Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for both Cancer Risk and Hazard Index compounds. A new Fish consumption assessment determined full support for the aquatic life use. This waterbody will be placed in Category 1.

**MT1-12171: Cow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT1-12200: Pigeon Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT1-12300: Pigeon Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-10200: Elk Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-10300: Elk Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-10400: Elk Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for the Aquatic Community Assessment yet there was no pollutant of concern provided. The pollutant of concern was unknown and the table will be noted accordingly. This waterbody will remain in Category 5.

**MT2-10510: Badger Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-10520: South Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreational use was impaired for E. coli; aquatic life use was impaired for the aquatic community assessment – unknown. A fish consumption assessment was completed. This waterbody will remain in Category 5.



**MT2-10531: Jordan Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-11000: Lime Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-11310: West Bow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-11320: West Bow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-11410: East Bow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-11500: Bow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-11520: Norwegian Bow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-11521: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-12000: Beaver Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-12420: Howe Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-12510: Little Bazile Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-12520: Little Bazile Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-12600: Bazile Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**MT2-12620: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
MT1-L0010	Offutt Lake	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Cancer Risk compounds, Hazard Index compounds*	Fish consumption assessment
MT1-L0020	Haworth Park Lake (Bellevue)	S	S		S		NA	S	2			
MT1-L0023	Halleck Park (Papillion)	NA	I		NA		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*	Fish consumption assessment
MT1-L0025	Walnut Creek Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Fish consumption assessment
MT1-L0030	Wehrspann Lake (Site No. 20)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Fish consumption assessment
MT1-L0040	Hitchcock Park Lake (Omaha)	S	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN not assessed

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MT1-L0050	Ed Zorinsky Lake (site No. 18)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Sediment and Nutrient TMDLs approved 2002, Fish consumption assessment
MT1-L0060	Hanscom Park Lake (Omaha)	NA	S		NA		NA	S	2			
MT1-L0070	Fontenelle Park Lake (Omaha)	NA	NA		NA		NA		3			
MT1-L0080	Benson Park Lake	S	NA		NA		NA	S	2			
MT1-L0090	Carter Lake	S	I		S		I	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory, Aesthetics-Algae Blooms	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Phosphorous TMDL to address Total Phosphorus, Nitrogen, Chlorophyll a, pH & Algal Toxins approved 9/07, Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
MT1-L0100	Standing Bear Lake (Site No. 16)	S	I		S		I	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory, Aesthetics-Sedimentation	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury, Sediment	Sediment and Phosphorus TMDL to address Total Phosphorus & DO approved 7/03, Fish consumption assessment
MT1-L0110	Miller Park Lake (Omaha)	S	I		S		NA	I	5	Aquatic Life-pH	Unknown	TP and TN not assessed
MT1-L0120	Glenn Cunningham Lake (Site No. 11)	S	I		S		S	I	4R	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	Lake renovated 2009
MT1-L0130	Papio D-4 Lake	NA	NA		NA		NA		3			
MT1-L0140	DeSoto Lake (DeSoto NWR)	NA	S		NA		NA	S	2			Fish consumption assessment
MT1-L0150	Summit Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	Fish consumption assessment
MT1-L0160	Mud Creek SCS Pond	NA	NA		NA		NA		3			
MT1-L0170	Middle Decatur Bend Lake (WMA)	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MT1-L0180	Omadi Bend Lake (WMA)	NA	NA		NA		NA		3			
MT1-L0190	Gateway Lake	S	NA		NA		NA	S	2			
MT1-L0200	Crystal Cove Lake (South Sioux City)	S	I		NA		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
MT1-LXXXX <sup>1</sup>	Lake Bennington	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
MT1-LXXXX	Candlewood Lake	S	S		NA		I	I	5	Aesthetics-Sedimentation	Sediment	
MT2-L0005	Powder Creek Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	Fish consumption assessment
MT2-L0010	Buckskin Hills Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus	Fish consumption assessment
MT2-L0020	Chalkrock Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*	Fish consumption assessment
MT2-L0030	Cottonwood Lake (Lake Yankton)	S	S		NA		S	S	2			Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MT2-L0040	Lewis and Clark Lake	S	I	NA	S	S	S	I	5	Aquatic Life- Chlorophyll a	Unknown	TP and TN not assessed, Fish consumption assessment
MT2-L0050	Crofton City Lake	NA	NA		NA		NA		3			
MT2-L0060	Plainview Country Club Lake	I	NA		NA		NA	I	5	Recreation-Bacteria	E. coli	
<b>Streams</b>												
MT1-10000	Missouri River	S	S	S	S	S	S	S	1			Fish consumption assessment
MT1-10100	Papillion Creek	I	I		S		S	I	5	Aquatic Life- Selenium, Recreation- Bacteria	Selenium, E. coli	E. coli TMDL approved 9/09, Fish consumption assessment
MT1-10110	Big Papillion Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/09, Fish consumption assessment
MT1-10111	Little Papillion Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/09

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MT1-10111.1	Cole Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-DO	E. coli, Unknown	E. coli TMDL approved 9/09
MT1-10111.2	Thomas Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT1-10112	Little Papillion Creek		S		S		S	S	1			
MT1-10120	Big Papillion Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/09, Aquatic community assessment
MT1-10121	Butter Flat Creek		NA		NA		NA		3			
MT1-10130	Big Papillion Creek		NA		NA		NA		3			
MT1-10131	Unnamed Creek		NA		NA		NA		3			
MT1-10132	Northwest Branch		NA		NA		NA		3			
MT1-10140	Big Papillion Creek		S		NA		S	S	2			Aquatic community assessment
MT1-10200	Papillion Creek	I	NA		NA		NA	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/09

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MT1-10210	Walnut Creek		I		S		S	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT1-10220	Hell Creek		NA		NA		NA		3			
MT1-10230	South Papillion Creek		NA		NA		NA		3			
MT1-10231	Unnamed Creek		S		S		S	S	2			
MT1-10240	South Papillion Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT1-10250	West Papillion Creek		I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*	Fish consumption assessment
MT1-10251	Boxelder Creek		S		S		S	S	1			
MT1-10252	North Branch West Papillion Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community		Aquatic community assessment
MT1-10260	West Papillion Creek		NA		NA		NA		3			
MT1-10300	Ponca Creek		NA		NA		NA		3			
MT1-10400	Deer Creek		NA		NA		NA		3			
MT1-10500	Turkey Creek		NA		NA		NA		3			
MT1-10600	Moore's Creek		NA		NA		NA		3			



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MT1-10700	Long Creek		S		NA		S	S	2			Aquatic community assessment
MT1-10710	Mill Creek		NA		NA		NA		3			
MT1-10800	Long Creek		I		NA		NA	I	4C	Aquatic Life-Impaired Aquatic Community	In-stream structures prevent fish passage	Aquatic community assessment
MT1-10900	Cameron Ditch		NA		NA		NA		3			
MT1-10910	Couble Creek		NA		NA		NA		3			
MT1-10920	South Creek		NA		NA		NA		3			
MT1-10930	North Creek		NA		NA		NA		3			
MT1-10940	Stuart Creek		NA		NA		NA		3			
MT1-11000	Cameron Ditch		NA		NA		NA		3			
MT1-11100	Hill Creek		NA		NA		NA		3			
MT1-11110	New York Creek		NA		NA		NA		3			
MT1-11120	Carr Creek		NA		NA		NA		3			
MT1-11121	Davis Creek		NA		NA		NA		3			
MT1-11200	Hill Creek		NA		NA		NA		3			
MT1-11300	Combination Ditch		NA		NA		NA		3			
MT1-11400	Combination Ditch		NA		NA		NA		3			

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MT1-11500	Tekamah Creek		NA		NA		NA		3			
MT1-11510	Silver Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT1-11600	Tekamah Creek		S		NA		S	S	2			Aquatic community assessment
MT1-11700	Elm Creek		S		NA		S	S	2			Aquatic community assessment
MT1-11710	Lone Tree Creek		NA		NA		NA		3			
MT1-11800	Wood Creek		S		NA		S	S	2			Aquatic community assessment
MT1-11900	Blackbird Creek	NA	NA		NA		NA		3			
MT1-11910	South Blackbird Creek		NA		NA		NA		3			
MT1-11920	South Blackbird Creek		NA		NA		NA		3			
MT1-11930	North Blackbird Creek		NA		NA		NA		3			
MT1-11931	Unnamed Creek		S		NA		NA	S	2			Aquatic community assessment

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MT1-11940	North Blackbird Creek		NA		NA		NA		3			
MT1-12000	Omaha Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
MT1-12100	Omaha Creek		S		S		S	S	1			Aquatic community assessment, Fish consumption assessment
MT1-12110	Fiddlers Creek		NA		NA		NA		3			
MT1-12120	Wigle Creek		NA		NA		NA		3			
MT1-12130	Turtle Creek		NA		NA		NA		3			
MT1-12140	Morgan Creek		NA		NA		NA		3			
MT1-12150	North Omaha Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT1-12151	Unnamed Creek		NA		NA		NA		3			
MT1-12152	Unnamed Creek		NA		NA		NA		3			
MT1-12160	North Omaha Creek		NA		NA		NA		3			
MT1-12170	South Omaha Creek		NA		NA		NA		3			
MT1-12171	Cow Creek		S		NA		S	S	2			Aquatic community assessment

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MT1-12180	South Omaha Creek		NA		NA		NA		3			
MT1-12200	Pigeon Creek		S		NA		S	S	2			Aquatic community assessment
MT1-12300	Pigeon Creek		S		NA		S	S	2			Aquatic community assessment
MT2-10000	Missouri River	S	S	S	S		S	S	1			Fish consumption assessment
MT2-10100	Elk Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
MT2-10200	Elk Creek		S		NA		S	S	2			Aquatic community assessment
MT2-10210	Otter Creek		NA		NA		NA		3			
MT2-10211	Minnow Creek		NA		NA		NA		3			
MT2-10220	Otter Creek		NA		NA		NA		3			
MT2-10300	Elk Creek		S		NA		S	S	2			Aquatic community assessment
MT2-10310	Pigeon Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
MT2-10400	Elk Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT2-10500	Aowa Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment
MT2-10510	Badger Creek		S		NA		S	S	2			Aquatic community assessment
MT2-10520	South Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Impaired Aquatic Community	E. coli, Unknown	Aquatic community assessment, Fish consumption assessment
MT2-10521	Daily Branch	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
MT2-10530	South Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
MT2-10531	Jordan Creek		S		NA		S	S	2			Aquatic community assessment

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MT2-10540	South Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT2-10600	Aowa Creek		NA		NA		NA		3			
MT2-10610	Silver Creek		NA		NA		NA		3			
MT2-10620	Powder Creek		NA		NA		NA		3			
MT2-10700	Aowa Creek		NA		NA		NA		3			
MT2-10800	Turkey Creek		NA		NA		NA		3			
MT2-10900	Walnut Creek		NA		NA		NA		3			
MT2-11000	Lime Creek		S		NA		S	S	2			Aquatic community assessment
MT2-11010	West Branch Lime Creek		NA		NA		NA		3			
MT2-11100	Lime Creek		NA		NA		NA		3			
MT2-11200	Ames Creek		NA		NA		NA		3			
MT2-11300	Bow Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
MT2-11310	West Bow Creek	NA	S		NA		S	S	2			Aquatic community assessment
MT2-11311	Second Bow Creek		NA		NA		NA		3			

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MT2-11311.1	Unnamed Creek		NA		NA		NA		3			
MT2-11312	Second Bow Creek		NA		NA		NA		3			
MT2-11320	West Bow Creek		S		NA		S	S	2			Aquatic community assessment
MT2-11400	Bow Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
MT2-11410	East Bow Creek	NA	S		NA		S	S	2			Aquatic community assessment
MT2-11411	Unnamed Creek		NA		NA		NA		3			
MT2-11412	Unnamed Creek		NA		NA		NA		3			
MT2-11420	East Bow Creek		NA		NA		NA		3			
MT2-11500	Bow Creek		S		NA		S	S	2			Aquatic community assessment
MT2-11510	Dead Creek		NA		NA		NA		3			
MT2-11520	Norwegian Bow Creek		S		NA		S	S	2			Aquatic community assessment

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MT2-11521	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
MT2-11600	Bow Creek		NA		NA		NA		3			
MT2-11610	Pearl Creek		NA		NA		NA		3			
MT2-11611	Kerloo Creek		NA		NA		NA		3			
MT2-11620	Pearl Creek		NA		NA		NA		3			
MT2-11700	Bow Creek		NA		NA		NA		3			
MT2-11710	Unnamed Creek		NA		NA		NA		3			
MT2-11800	Antelope Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
MT2-11900	Beaver Creek		NA		NA		NA		3			
MT2-12000	Beaver Creek		S		NA		S	S	2			Aquatic community assessment
MT2-12100	Weigand Creek		NA		NA		NA		3			
MT2-12200	Devils Nest Creek		NA		NA		NA		3			
MT2-12300	Cooks Creek		NA		NA		NA		3			



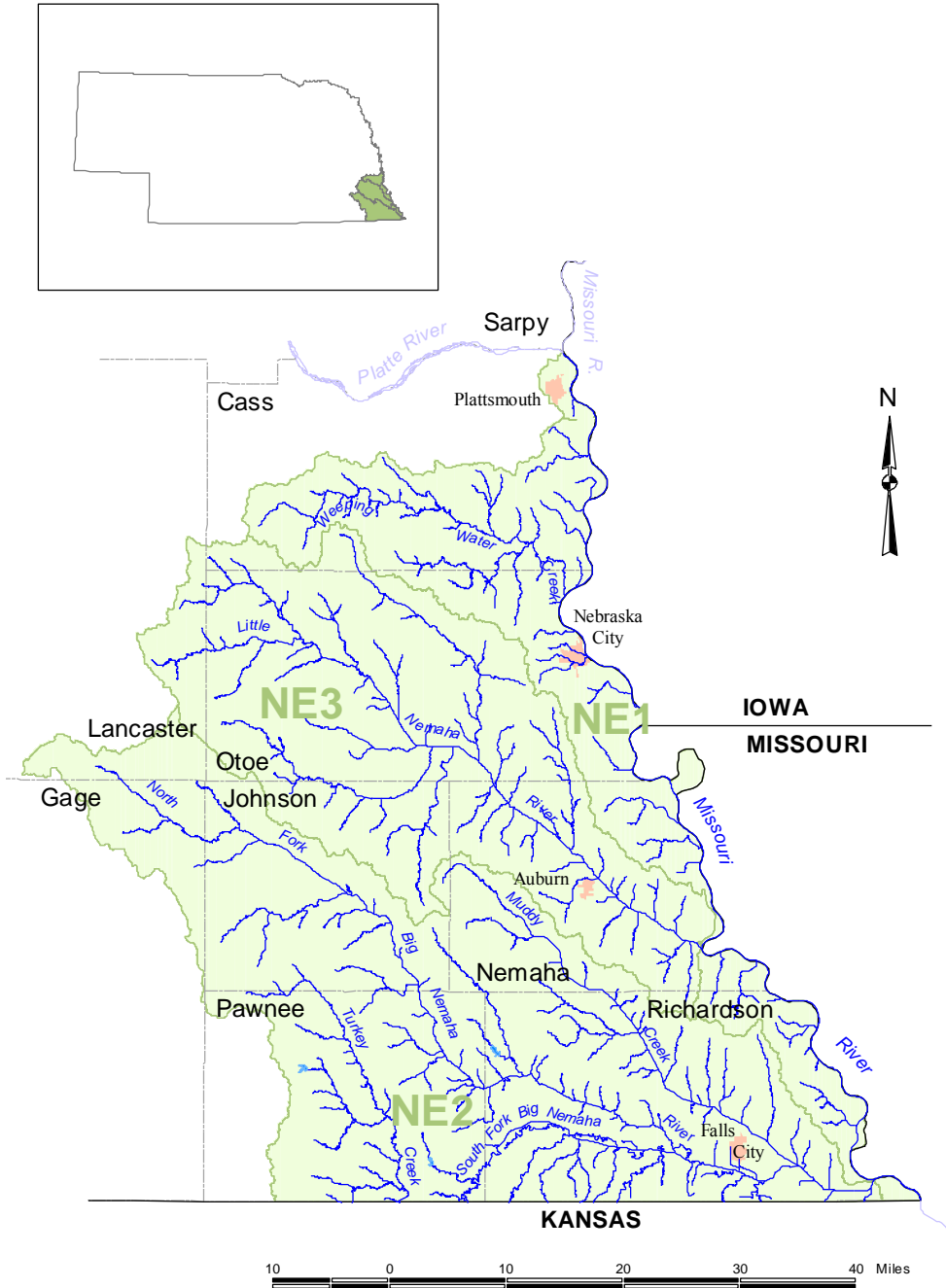
<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
MT2-12400	Bazile Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment
MT2-12410	Lost Creek		NA		NA		NA		3			
MT2-12420	Howe Creek		S		NA		S	S	2			Aquatic community assessment
MT2-12421	Unnamed Creek		NA		NA		NA		3			
MT2-12500	Bazile Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
MT2-12510	Little Bazile Creek		S		NA		S	S	2			Aquatic community assessment
MT2-12511	Unnamed Creek		NA		NA		NA		3			
MT2-12520	Little Bazile Creek		S		NA		S	S	2			Aquatic community assessment
MT2-12600	Bazile Creek		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
MT2-12610	Spring Creek		NA		NA		NA		3			
MT2-12620	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
MT2-12630	Unnamed Creek		NA		NA		NA		3			
MT2-12700	Bazile Creek		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

† 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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.



## NEMAHA RIVER BASIN (and Subbasins)

**Nemaha Basin – Hydrologic Units 10240001, 10240005, 10240006 and 10240007**

The Nemaha River Basin includes 326 designated stream segments and 33 designated lake/reservoirs.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply- Ind.	Aesthetics
Lakes	33	0	0	33	0	0	33	0	33
Streams	20	0	0	40	286	2	326	1	326

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**NE2-L0040: Kirkman’s Cove Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a due to nutrients, Total Phosphorus, Total Nitrogen, Hazard Index compounds and Mercury; aesthetics use was listed as supporting yet Sediment was listed as a pollutant of concern. Sedimentation was listed on the 2012 IR; the aesthetics use will be changed to impaired. Data collected in 2012 determined the recreation use is also being impaired for E. coli. A Phosphorus TMDL to address Total Phosphorus and DO was approved 10/02. This waterbody will remain in Category 5.

**NE2-L0090: Iron Horse Trail (WMA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a due to nutrients, Total Phosphorus, Total Nitrogen, Hazard Index compounds and Mercury; aesthetics use was impaired for sedimentation; recreation use was listed as impaired yet there was no pollutant of concern listed for the impairment. Algae Toxins were delisted in the 2012 IR; the impairment status for the recreation use will be changed to supporting. This waterbody was renovated in 2011 and will be placed in Category 4R.

**NE1-10000: Missouri River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli; aquatic life use was impaired for Cancer Risk and Hazard Index compounds. A Fish consumption assessment determined the aquatic life use is being met. An E. coli TMDL was approved 9/07. This waterbody will be placed in Category 4A.

**NE1-10500: Cottier Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-11500: Honey Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-11610: Duck Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-12800: Weeping Water Creek** – This waterbody was listed as Category 1 in the 2012 IR. Data collected in 2012 determined this waterbody’s aquatic life use is being impaired for Selenium. This waterbody will be placed in Category 5.

**NE1-12831: Big Slough** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-12840: South Branch Weeping Water Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-12880: North Branch Weeping Water Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-12920: South Cedar Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-13400: Ervine Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE1-13500: Rakes Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-10000: Big Nemaha River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for an Impaired Aquatic Community due to an unknown pollutant. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Selenium. This waterbody will remain in Category 5.

**NE2-10751: Whiskey Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-10760: Little Muddy Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-10770: Little Muddy Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-10810: Hoosier Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-11920: Rock Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-11980: Rattlesnake Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-11982: Spring Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12000: Fourmile Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12110: Lores Branch** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12135.21: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12410: Turkey Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12141: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12200: North Fork Big Nemaha River** – This waterbody was listed as 4A in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An E. coli TMDL was approved 9/07. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Selenium. This waterbody will be placed in Category 5 due to other impairments not being addressed in the TMDL.

**NE2-12230: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12141: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12570: Yankee Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12572: Lost Branch** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE2-12700: North Fork Big Nemaha River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-10000: Little Nemaha River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was also incorrectly listed as impaired. In the 2012 IR a Fish Consumption Advisory was removed; the aquatic life use should have been changed to support. An E. coli TMDL was approved 9/07. Data collected in 2012 determined this waterbody's aquatic life use is being impaired for Selenium. This waterbody will remain in Category 5.

**NE3-12800: Indian Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-11920: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-12700: Sand Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-20100: Spring Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-20310: Coon Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-30200: Muddy Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-30210: Little Muddy Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-31200: Hooper Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NE3-50000: Little Nemaha River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
NE1-L0010	Steinhart Park Lake (Nebraska City)	S	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment
NE1-L0020	Weeping Water City Lake	S	I		NA		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment
NE1-L0030	Plattsmouth City Lake	S	NA		NA		NA	S	2			
NE1-L0040	Randall Schilling Lake No. 1 (WMA)	NA	NA		NA		NA		3			
NE1-L0050	Randall Schilling Lake No. 2 (WMA)	NA	NA		NA		NA		3			
NE2-L0010	Falls City Lake (Stanton Lake)	S	NA		NA		NA	S	2			
NE2-L0020	Verdon Lake (SRA)	S	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment
NE2-L0030	Humboldt City Lake	S	NA		NA		NA	S	2			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NE2-L0040	Kirkman's Cove Lake	I	I		S		I	I	5	Recreation-Bacteria, Aquatic Life-Nutrients, , Chlorophyll a, Fish Consumption Advisory, Aesthetics-Sediment	E. coli, Total Phosphorus, Total Nitrogen, Hazard Index Compounds*, Mercury, Sediment	Phosphorus TMDL to address Total Phosphorus and DO approved 10/02, Fish consumption assessment
NE2-L0060	Twin Oaks Lake No. 9 (WMA)	NA	NA		NA		NA		3			
NE2-L0070	Twin Oaks Lake No. 7 (WMA)	NA	NA		NA		NA		3			
NE2-L0080	Prairie Knoll Lake (WMA)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NE2-L0090	Iron Horse Trail (WMA)	S	I		S		I	I	4R	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory, Aesthetics-Sedimentation	Total Phosphorus, Total Nitrogen, Hazard Index Compounds*, Mercury, Sediment	Lake renovated 2011, Phosphorus and Sediment TMDL approved 1/06, Fish consumption assessment
NE2-L0100	Pawnee City Lake	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	
NE2-L0110	Tecumseh City Lake	S	NA		NA		S	S	2			
NE2-L0120	Burchard Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index Compounds*, Mercury	Fish consumption assessment
NE2-L0130	Pawnee Prairie Lake No. 3 (WMA)	NA	NA		NA		NA		3			
NE2-L0140	Pawnee Prairie Lake No. 6 (WMA)	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-L0150	Pawnee Prairie Lake No. 8 (WMA)	NA	NA		NA		NA		3			
NE2-L0160	Pawnee Prairie Lake No. 10 (WMA)	NA	NA		NA		NA		3			
NE2-L0170	Pawnee Prairie Lake No. 1 (WMA)	NA	NA		NA		NA		3			
NE2-L0180	Pawnee Prairie Lake No. 7 (WMA)	NA	NA		NA		NA		3			
NE2-L0190	Pawnee Prairie Lake No. 9 (WMA)	NA	NA		NA		NA		3			
NE2-L0200	Site 41-B Lake	NA	NA		NA		NA		3			
NE2-L0210	Big Nemaha Lake (27R)	S	NA		NA		NA	S	2			
NE2-LXXXX <sup>1</sup>	Mayberry Lake (WMA)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment
NE3-L0010	Auburn City Park Lake	S	NA		NA		NA	S	2			
NE3-L0020	Gritzka Lake (Talmage)	S	NA		NA		NA	S	2			
NE3-L0030	Prairie Owl Lake	S	I		S		S	I	5	Aquatic Life-Nutrients	Total Phosphorus	
NE3-L0040	Wilson Creek Lake 2X (WMA)	S	NA		NA		NA	S	2			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE3-L0045	Wirth Brothers Lake (Site 27)	S	NA		NA		NA	S	2			
NE3-L0050	Osage Lake No. 1 (WMA)	NA	NA		NA		NA		3			
NE3-L0060	Osage Lake No. 2 (WMA)	NA	NA		NA		NA		3			
<b>Streams</b>												
NE1-10000	Missouri River	I	S	S	S	S	S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/07 Fish consumption assessment
NE1-10100	Winnebago Creek		NA		NA		NA		3			
NE1-10110	Bean Creek		NA		NA		NA		3			
NE1-10200	Winnebago Creek		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
NE1-10210	Unnamed Creek		NA		NA		NA		3			
NE1-10220	Unnamed Creek		NA		NA		NA		3			
NE1-10300	Unnamed Creek		NA		NA		NA		3			
NE1-10400	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE1-10500	Cottier Creek		S		NA		S	S	2			Aquatic community assessment
NE1-10510	Wine Branch		NA		NA		NA		3			
NE1-10600	Cottier Creek		NA		NA		NA		3			
NE1-10610	Unnamed Creek		NA		NA		NA		3			
NE1-10700	Unnamed Creek	NA	NA		NA		NA		3			
NE1-10800	Beadow Creek		NA		NA		NA		3			
NE1-10810	Unnamed Creek	NA	NA		NA		NA		3			
NE1-10900	Beadow Creek		NA		NA		NA		3			
NE1-10910	Unnamed Creek		NA		NA		NA		3			
NE1-11000	Deroin Creek		NA		NA		NA		3			
NE1-11100	Unnamed Creek		NA		NA		NA		3			
NE1-11200	Unnamed Creek		NA		NA		NA		3			
NE1-11300	Honey Creek		NA		NA		NA		3			
NE1-11400	Honey Creek		NA		NA		NA		3			
NE1-11410	Unnamed Creek		NA		NA		NA		3			
NE1-11500	Honey Creek		S		NA		S	S	2			Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE1-11600	Buck Creek		S		S		NA	S	2			
NE1-11610	Duck Creek		S		S		S	S	2			Aquatic community assessment
NE1-11700	Buck Creek		S		S		S	S	1			Aquatic community assessment
NE1-11800	Camp Creek		NA		NA		NA		3			
NE1-11810	South Branch Camp Creek		NA		NA		NA		3			
NE1-11900	Camp Creek		NA		NA		NA		3			
NE1-12000	Fourmile Creek		NA		NA		NA		3			
NE1-12100	Fourmile Creek		NA		NA		NA		3			
NE1-12110	Threemile Creek		NA		NA		NA		3			
NE1-12200	Fourmile Creek		NA		NA		NA		3			
NE1-12300	South Table Creek		NA		NA		NA		3			
NE1-12310	Unnamed Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NE1-12400	South Table Creek		NA		NA		NA		3			
NE1-12500	North Table Creek		NA		NA		NA		3			
NE1-12600	Walnut Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE1-12700	Squaw Creek		NA		NA		NA		3			
NE1-12800	Weeping Water Creek		I		S		S	I	5	Aquatic Life-Selenium	Selenium	Fish consumption assessment
NE1-12810	Wolf Creek		NA		NA		NA		3			
NE1-12820	Coal Creek		NA		NA		NA		3			
NE1-12830	South Branch Weeping Water Creek		NA		NA		NA		3			
NE1-12831	Big Slough		S		NA		S	S	2			Aquatic community assessment
NE1-12832	Goose Creek		NA		NA		NA		3			
NE1-12840	South Branch Weeping Water Creek		S		NA		S	S	2			Aquatic community assessment
NE1-12841	Jordan Creek		NA		NA		NA		3			
NE1-12842	Flood Creek		NA		NA		NA		3			
NE1-12843	Wilson Creek		NA		NA		NA		3			
NE1-12850	South Branch Weeping Water Creek		NA		NA		NA		3			
NE1-12851	Unnamed Creek		NA		NA		NA		3			
NE1-12860	Tyson Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE1-12870	North Branch Weeping Water Creek		NA		NA		NA		3			
NE1-12871	Unnamed Creek		NA		NA		NA		3			
NE1-12880	North Branch Weeping Water Creek		S		NA		S	S	2			Aquatic community assessment
NE1-12881	Unnamed Creek		NA		NA		NA		3			
NE1-12900	Weeping Water Creek		NA		NA		NA		3			
NE1-12910	Unnamed Creek		NA		NA		NA		3			
NE1-12920	South Cedar Creek		S		NA		S	S	2			Aquatic community assessment
NE1-13000	Weeping Water Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
NE1-13010	Cascade Creek		NA		NA		NA		3			
NE1-13020	Unnamed Creek		NA		NA		NA		3			
NE1-13030	Unnamed Creek		NA		NA		NA		3			
NE1-13040	Unnamed Creek		NA		NA		NA		3			
NE1-13050	Unnamed Creek		NA		NA		NA		3			
NE1-13060	Unnamed Creek		NA		NA		NA		3			
NE1-13070	Unnamed Creek		NA		NA		NA		3			



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE1-13080	Unnamed Creek		NA		NA		NA		3			
NE1-13090	Unnamed Creek		NA		NA		NA		3			
NE1-13100	Beaver Creek		NA		NA		NA		3			
NE1-13110	Stove Creek		NA		NA		NA		3			
NE1-13200	Weeping Water Creek		NA		NA		NA		3			
NE1-13300	East Chute		NA		NA		NA		3			
NE1-13400	Ervine Creek		S		NA		S	S	2			Aquatic community assessment
NE1-13500	Rakes Creek		S		NA		S	S	2			Aquatic community assessment
NE1-13600	Unnamed Creek		NA		NA		NA		3			
NE1-13700	Rock Creek		NA	NA	NA		NA		3			
NE1-13710	Squaw Creek		NA		NA		NA		3			
NE1-13800	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NE2-10000	Big Nemaha River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium, Impaired Aquatic Community	E. coli, Selenium, Unknown	E. coli & Atrazine TMDL approved 9/07, Aquatic community & Fish consumption assessment
NE2-10100	Roys Creek		NA		NA		NA		3			
NE2-10200	Noharts Creek		NA		NA		NA		3			
NE2-10300	Mooney Creek		NA		NA		NA		3			
NE2-10400	Snake Creek		NA		NA		NA		3			
NE2-10500	Canada Creek		NA		NA		NA		3			
NE2-10600	Muddy Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Impaired Aquatic Community	E. coli, Unknown	E. coli TMDL approved 9/07, Aquatic community assessment
NE2-10610	Berard Creek		NA		NA		NA		3			
NE2-10620	Halfbreed Creek		NA		NA		NA		3			
NE2-10630	Silver Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-10640	Goolsby Branch		NA		NA		NA		3			
NE2-10641	Temple Creek		NA		NA		NA		3			
NE2-10650	Unnamed Creek		NA		NA		NA		3			
NE2-10660	Mackelroy Creek		NA		NA		NA		3			
NE2-10670	Unnamed Creek		NA		NA		NA		3			
NE2-10680	Unnamed Creek		NA		NA		NA		3			
NE2-10690	Unnamed Creek		NA		NA		NA		3			
NE2-10700	Sardine Creek		NA		NA		NA		3			
NE2-10710	Wolf Creek		NA		NA		NA		3			
NE2-10711	Spring Creek		NA		NA		NA		3			
NE2-10720	Wolf Creek		NA		NA		NA		3			
NE2-10730	Deer Creek		NA		NA		NA		3			
NE2-10740	Unnamed Creek		NA		NA		NA		3			
NE2-10750	Little Muddy Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NE2-10751	Whiskey Run		S		NA		S	S	2			Aquatic community assessment
NE2-10751.1	Dry Branch		NA		NA		NA		3			
NE2-10751.2	Porter Branch		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-10752	Whiskey Run		NA		NA		NA		3			
NE2-10760	Little Muddy Creek		S		NA		S	S	2			Aquatic community assessment
NE2-10761	Unnamed Creek		NA		NA		NA		3			
NE2-10770	Little Muddy Creek		S		NA		S	S	2			Aquatic community assessment
NE2-10800	Muddy Creek		NA		NA		NA		3			
NE2-10810	Hoosier Creek		S		NA		S	S	2			Aquatic community assessment
NE2-10820	Unnamed Creek		NA		NA		NA		3			
NE2-10830	Unnamed Creek		NA		NA		NA		3			
NE2-10840	Unnamed Creek		NA		NA		NA		3			
NE2-10850	Unnamed Creek		NA		NA		NA		3			
NE2-10860	Unnamed Creek		NA		NA		NA		3			
NE2-10870	Unnamed Creek		NA		NA		NA		3			
NE2-10880	Unnamed Creek		NA		NA		NA		3			
NE2-10881	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-10900	Muddy Creek		NA		NA		NA		3			
NE2-11000	Walnut Creek		NA		NA		NA		3			
NE2-11010	Unnamed Creek		NA		NA		NA		3			
NE2-11020	Unnamed Creek		NA		NA		NA		3			
NE2-11100	Unnamed Creek		NA		NA		NA		3			
NE2-11200	Pony Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
NE2-11300	Unnamed Creek		NA		NA		NA		3			
NE2-11400	Unnamed Creek		NA		NA		NA		3			
NE2-11500	Unnamed Creek		NA		NA		NA		3			
NE2-11600	Unnamed Creek		NA		NA		NA		3			
NE2-11700	Wildcat Creek		NA		NA		NA		3			
NE2-11800	Old Channel Big Nemaha River		NA		NA		NA		3			
NE2-11900	South Fork Big Nemaha River	S	S		S		S	S	1			Aquatic community & Fish consumption assessment
NE2-11910	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-11920	Rock Creek		S		NA		S	S	2			Aquatic community assessment
NE2-11921	Contrary Creek		NA		NA		NA		3			
NE2-11922	Rabbit Creek		NA		NA		NA		3			
NE2-11930	Old Channel South Fork Big Nemaha River		NA		NA		NA		3			
NE2-11940	Unnamed Creek		NA		NA		NA		3			
NE2-11950	Honey Creek		NA		NA		NA		3			
NE2-11960	Old Channel South Fork Big Nemaha River		NA		NA		NA		3			
NE2-11970	Holy Creek		NA		NA		NA		3			
NE2-11980	Rattlesnake Creek		S		NA		S	S	2			Aquatic community assessment
NE2-11981	Easily Creek		NA		NA		NA		3			
NE2-11982	Spring Creek		S		NA		S	S	2			Aquatic community assessment
NE2-11990	Rattlesnake Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-12000	Fourmile Creek		S		NA		S	S	2			Aquatic community assessment
NE2-12010	Unnamed Creek		NA		NA		NA		3			
NE2-12020	Unnamed Creek		NA		NA		NA		3			
NE2-12100	South Fork Big Nemaha River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/07
NE2-12110	Lores Branch		S		NA		S	S	2			Aquatic community assessment
NE2-12120	Negro Branch		NA		NA		NA		3			
NE2-12130	Turkey Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/07
NE2-12131	Unnamed Creek		NA		NA		NA		3			
NE2-12132	Johnson Creek		I		S		S	I	5	Aquatic Life-DO	Unknown	
NE2-12132.1	Beebe Creek		NA		NA		NA		3			
NE2-12132.2	Wildcat Creek		NA		NA		NA		3			
NE2-12133	Johnson Creek		NA		NA		NA		3			
NE2-12134	Chatawa Creek		NA		NA		NA		3			
NE2-12135	West Branch Turkey Creek		S		S		S	S	1			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-12135.1	Balls Branch		NA		NA		NA		3			
NE2-12135.11	Unnamed Creek		NA		NA		NA		3			
NE2-12135.12	Unnamed Creek		NA		NA		NA		3			
NE2-12135.2	Balls Branch		NA		NA		NA		3			
NE2-12135.21	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NE2-12136	West Branch Turkey Creek		NA		NA		NA		3			
NE2-12140	Turkey Creek		S		NA		S	S	2			Aquatic community assessment
NE2-12141	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NE2-12142	Unnamed Creek		NA		NA		NA		3			
NE2-12143	Unnamed Creek		NA		NA		NA		3			
NE2-12144	Unnamed Creek		NA		NA		NA		3			
NE2-12145	Rock Creek		NA		NA		NA		3			
NE2-12150	Turkey Creek		NA		NA		NA		3			
NE2-12151	Sampson Branch		NA		NA		NA		3			



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-12152	Unnamed Creek		NA		NA		NA		3			
NE2-12200	North Fork Big Nemaha River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	E. coli TMDL approved 9/07, Fish consumption assessment
NE2-12210	Unnamed Creek		NA		NA		NA		3			
NE2-12220	Deer Branch		NA		NA		NA		3			
NE2-12230	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NE2-12240	Unnamed Creek		NA		NA		NA		3			
NE2-12250	Bradley Branch		NA		NA		NA		3			
NE2-12260	Barneys Branch		NA		NA		NA		3			
NE2-12270	Unnamed Creek		NA		NA		NA		3			
NE2-12280	Cottonwood Creek		NA		NA		NA		3			
NE2-12290	Unnamed Creek		NA		NA		NA		3			
NE2-12300	Unnamed Creek		NA		NA		NA		3			
NE2-12310	Unnamed Creek		NA		NA		NA		3			
NE2-12320	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NE2-12330	Long Branch Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Impaired Aquatic Community	E. coli, Unknown	E. coli TMDL approved 9/07, Aquatic community assessment
NE2-12331	Kirkham Creek		NA		NA		NA		3			
NE2-12340	Unnamed Creek		NA		NA		NA		3			
NE2-12350	Round Grove Creek		NA		NA		NA		3			
NE2-12360	Dry Branch		NA		NA		NA		3			
NE2-12370	Unnamed Creek		NA		NA		NA		3			
NE2-12380	Unnamed Creek		NA		NA		NA		3			
NE2-12390	Unnamed Creek		NA		NA		NA		3			
NE2-12400	Unnamed Creek		NA		NA		NA		3			
NE2-12410	Unnamed Creek		NA		NA		NA		3			
NE2-12420	Taylor Branch		NA		NA		NA		3			
NE2-12421	Unnamed Creek		NA		NA		NA		3			
NE2-12430	Taylor Branch		NA		NA		NA		3			
NE2-12440	Clear Creek		NA		NA		NA		3			
NE2-12441	Coopers Branch		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-12450	Clear Creek		NA		NA		NA		3			
NE2-12460	Unnamed Creek		NA		NA		NA		3			
NE2-12470	Robinson Creek		NA		NA		NA		3			
NE2-12480	Todd Creek		NA		NA		NA		3			
NE2-12481	Elk Creek		NA		NA		NA		3			
NE2-12490	Todd Creek		NA		NA		NA		3			
NE2-12500	North Fork Big Nemaha River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 9/07, Aquatic community & Fish consumption assessment
NE2-12510	Unnamed Creek		NA		NA		NA		3			
NE2-12520	Corson Branch		NA		NA		NA		3			
NE2-12530	Town Branch		NA		NA		NA		3			
NE2-12540	Badger Branch		NA		NA		NA		3			
NE2-12541	Unnamed Creek		NA		NA		NA		3			
NE2-12550	Badger Branch		NA		NA		NA		3			
NE2-12560	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE2-12570	Yankee Creek		S		NA		S	S	2			Aquatic community assessment
NE2-12571	Brewers Branch		NA		NA		NA		3			
NE2-12572	Lost Branch		S		NA		S	S	2			Aquatic community assessment
NE2-12580	Yankee Creek		NA		NA		NA		3			
NE2-12590	Hooker Creek		NA		NA		NA		3			
NE2-12600	Middle Branch Big Nemaha River		S		NA		NA	S	2			Aquatic community assessment
NE2-12601	Shaw Creek		NA		NA		NA		3			
NE2-12610	Middle Branch Big Nemaha River		I		NA		NA	I	5	Aquatic Life-Impaired Aquatic Community	Unknown	Aquatic community assessment
NE2-12700	North Fork Big Nemaha River		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NE3-10000	Little Nemaha River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	E. coli TMDL approved 9/07, Aquatic community assessment, Fish consumption assessment
NE3-10100	Whiskey Run		NA		NA		NA		3			
NE3-10200	Jarvis Creek		NA		NA		NA		3			
NE3-10210	Unnamed Creek		NA		NA		NA		3			
NE3-10220	Unnamed Creek		NA		NA		NA		3			
NE3-10300	Jarvis Creek		NA		NA		NA		3			
NE3-10400	Happy Hollow Creek		NA		NA		NA		3			
NE3-10500	Swartz Run		NA		NA		NA		3			
NE3-10510	Unnamed Creek		NA		NA		NA		3			
NE3-10600	Swartz Run		NA		NA		NA		3			
NE3-10700	Indian Creek		NA		NA		NA		3			
NE3-10800	Indian Creek		S		NA		S	S	2			Aquatic community assessment
NE3-10900	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE3-11000	Hughes Creek		NA		NA		NA		3			
NE3-11100	Codington Creek		NA		NA		NA		3			
NE3-11200	Unnamed Creek		NA		NA		NA		3			
NE3-11300	Unnamed Creek		NA		NA		NA		3			
NE3-11400	Longs Creek		NA		NA		NA		3			
NE3-11410	Scotch Branch		NA		NA		NA		3			
NE3-11500	Longs Creek		NA		NA		NA		3			
NE3-11600	Willow Creek		NA		NA		NA		3			
NE3-11700	Ord Creek		NA		NA		NA		3			
NE3-11800	Rock Creek		NA		NA		NA		3			
NE3-11810	Plum Run		NA		NA		NA		3			
NE3-11820	Unnamed Creek		NA		NA		NA		3			
NE3-11900	Rock Creek		NA		NA		NA		3			
NE3-11910	Unnamed Creek		NA		NA		NA		3			
NE3-11920	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NE3-11930	Unnamed Creek		NA		NA		NA		3			
NE3-12000	Rock Creek		NA		NA		NA		3			
NE3-12100	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE3-12200	Unnamed Creek		NA		NA		NA		3			
NE3-12210	Unnamed Creek		NA		NA		NA		3			
NE3-12300	Unnamed Creek		NA		NA		NA		3			
NE3-12400	Houchen Creek		NA		NA		NA		3			
NE3-12500	Unnamed Creek		NA		NA		NA		3			
NE3-12600	Piper Creek		NA		NA		NA		3			
NE3-12700	Sand Creek		S		NA		S	S	2			Aquatic community assessment
NE3-12710	Unnamed Creek		NA		NA		NA		3			
NE3-12800	Sand Creek		NA		NA		NA		3			
NE3-12900	Jones Creek		NA		NA		NA		3			
NE3-12910	East Branch Jones Creek		NA		NA		NA		3			
NE3-13000	Jones Creek		NA		NA		NA		3			
NE3-13100	North Fork Little Nemaha River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NE3-13110	Unnamed Creek		NA		NA		NA		3			
NE3-13120	Unnamed Creek		NA		NA		NA		3			
NE3-13130	Fox Creek		NA		NA		NA		3			
NE3-13140	Wilson Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE3-13150	Deer Creek		NA		NA		NA		3			
NE3-13200	North Fork Little Nemaha River		NA		NA		NA		3			
NE3-13210	Unnamed Creek		NA		NA		NA		3			
NE3-13220	Unnamed Creek		NA		NA		NA		3			
NE3-13300	North Fork Little Nemaha River		NA		NA		NA		3			
NE3-20000	Little Nemaha River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NE3-20100	Spring Creek		S		NA		S	S	2			Aquatic community assessment
NE3-20110	Ayres Creek		NA		NA		NA		3			
NE3-20120	Manns Branch		NA		NA		NA		3			
NE3-20200	Spring Branch		NA		NA		NA		3			
NE3-20300	South Fork Little Nemaha River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment, Aquatic community assessment



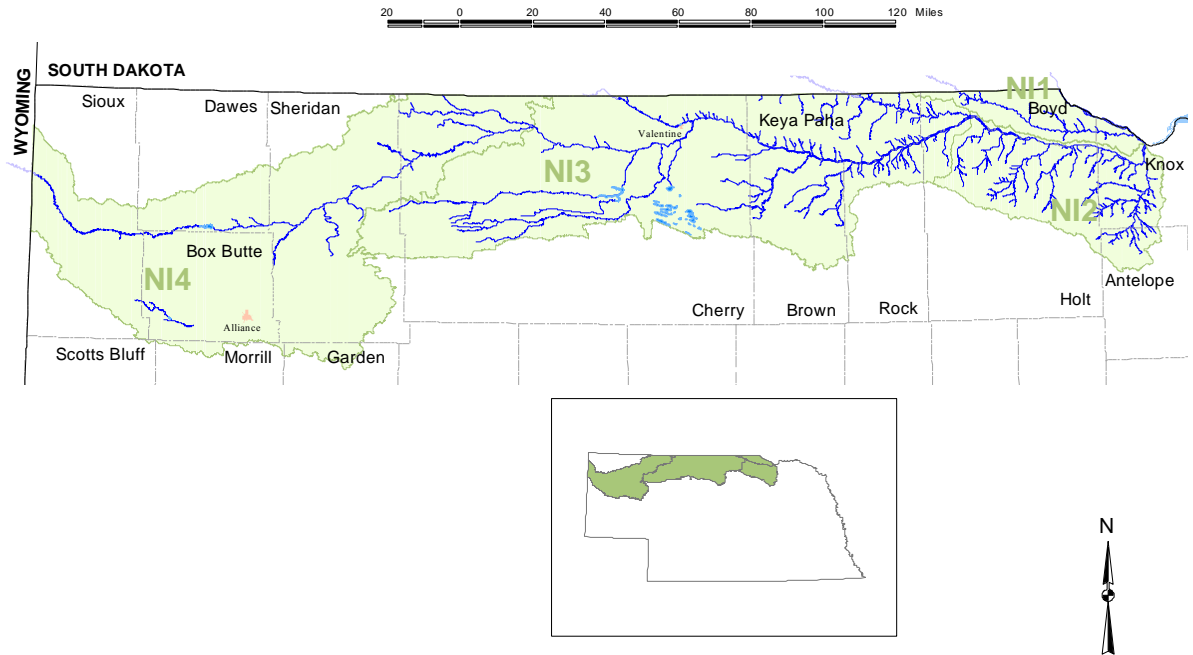
<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE3-20310	Coon Creek		S		NA		S	S	2			Aquatic community assessment
NE3-20320	Unnamed Creek		NA		NA		NA		3			
NE3-20330	Turkey Creek		NA		NA		NA		3			
NE3-20400	South Fork Little Nemaha River		NA		NA		NA		3			
NE3-20410	Silver Creek		NA		NA		NA		3			
NE3-20420	Saunders Creek		NA		NA		NA		3			
NE3-20421	Unnamed Creek		NA		NA		NA		3			
NE3-20430	Saunders Creek		NA		NA		NA		3			
NE3-20500	South Fork Little Nemaha River		NA		NA		NA		3			
NE3-20510	Unnamed Creek		NA		NA		NA		3			
NE3-20520	Unnamed Creek		NA		NA		NA		3			
NE3-30000	Little Nemaha River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NE3-30100	Unnamed Creek		NA		NA		NA		3			
NE3-30200	Muddy Creek		S		NA		S	S	2			Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NE3-30210	Little Muddy Creek		S		NA		S	S	2			Aquatic community assessment
NE3-30300	Brownell Creek		NA		NA		NA		3			
NE3-30310	Unnamed Creek		NA		NA		NA		3			
NE3-30400	Brownell Creek		NA		NA		NA		3			
NE3-30500	Boxelder Creek		NA		NA		NA		3			
NE3-30600	Unnamed Creek		NA		NA		NA		3			
NE3-30700	Ziegler Creek		NA		NA		NA		3			
NE3-30800	Wolf Creek		NA		NA		NA		3			
NE3-30810	Owl Creek		NA		NA		NA		3			
NE3-30900	Wolf Creek		NA		NA		NA		3			
NE3-30910	Unnamed Creek		NA		NA		NA		3			
NE3-31000	Russell Creek		NA		NA		NA		3			
NE3-31100	Henry Creek		NA		NA		NA		3			
NE3-31200	Hooper Creek		S		NA		S	S	2			Aquatic community assessment
NE3-31210	Unnamed Creek		NA		NA		NA		3			
NE3-31220	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NE3-31230	Unnamed Creek		NA		NA		NA		3			
NE3-31300	Hooper Creek		NA		NA		NA		3			
NE3-31310	Unnamed Creek		NA		NA		NA		3			
NE3-31320	Unnamed Creek		NA		NA		NA		3			
NE3-40000	Little Nemaha River		NA		NA		NA		3			
NE3-40100	Silver Creek		NA		NA		NA		3			
NE3-50000	Little Nemaha River		S		NA		S	S	2			Aquatic community assessment
NE3-50100	Unnamed Creek		NA		NA		NA		3			
NE3-50200	Unnamed Creek		NA		NA		NA		3			
NE3-50300	Unnamed Creek		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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.



## Niobrara River Basin (and Subbasins)

### Niobrara River Basin – Hydrologic Units 10150001, 10150002, 10150003, 10150004, 10150005, 10150006, 10150007 and 10140203

The Niobrara River Basin includes 269 designated stream segments and 67 designated lakes/reservoirs.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	66	0	2	64	0	0	66	2	66
Streams	53	14	164	15	76	0	269	1	269

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

#### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**NI2-L0070: Spencer Hydro Dam Lake** – This waterbody was listed as Category 3 in the 2012 IR. This waterbody is assigned an industrial water supply use which was not shown on the 2012 IR. This use is site specific depending on the industrial user. The industrial water supply user has not contacted the Department with a water quality concern thus the use is being met and will be added to the table as supporting. This waterbody will be placed in Category 2.

**NI3-L0090: Cornell Dam Lake** – This waterbody was listed as Category 3 in the 2012 IR. This waterbody is assigned an industrial water supply use which was not shown on the 2012 IR. This use is site specific

depending on the industrial user. The industrial water supply user has not contacted the Department with a water quality concern thus the use is being met and will be added to the table as supporting. This waterbody will be placed in Category 2.

**NI3-L0330: Merritt Reservoir** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for pH due to nutrients, Hazard Index compounds and Mercury. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Total Phosphorus and Total Nitrogen. This waterbody will remain in Category 5.

**NI1-10230: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI2-10000: Niobrara River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for Hazard Index Compounds. An E. coli TMDL was approved 1/06. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Selenium. This waterbody will remain in Category 5.

**NI2-10100: Verdigre Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for an Impaired Aquatic Community due to an unknown pollutant. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Selenium. This waterbody will remain in Category 5.

**NI2-10142: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI2-10200: Verdigre Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI2-10239: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI2-10271: Unnamed Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-10220: Burton Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-12220: Short Pine Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-12310: Willow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-13120: South Branch Plum Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-20210: *Unnamed Creek*** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-20500: *Fairfield Creek*** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-20700: *Muleshoe Creek*** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI3-22000: *Gordon Creek*** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI4-20000: *Niobrara River*** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**NI4-50000: *Niobrara River*** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
NI1-L0010	Hull Lake (WMA)	NA	NA		NA		NA		3			
NI2-L0010	Creighton Rod and Gun Club Lake	NA	NA		NA		NA		3			
NI2-L0020	Niobrara State Park Lake No. 1	NA	NA		NA		NA		3			
NI2-L0030	Niobrara State Park Lake No. 2	NA	NA		NA		NA		3			
NI2-L0050	Grove Sandpit Lake (WMA)	NA	NA		NA		NA		3			
NI2-L0060	Grove Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, pH	Total Phosphorus, Total Nitrogen	Fish consumption assessment
NI2-L0070	Spencer Hydro Dam Lake	NA	NA		NA	S	NA		2			
NI3-L0010	F. Peterson Pond	NA	NA		NA		NA		3			
NI3-L0020	Keller Park Lake No. 1 (SRA)	NA	NA		NA		NA		3			
NI3-L0030	Keller Park Lake No. 2 (SRA)	NA	S		NA		NA	S	2			Fish consumption assessment
NI3-L0040	Keller Park Lake No. 3 (SRA)	NA	NA		NA		NA		3			
NI3-L0050	Keller Park Lake No. 4 (SRA)	NA	NA		NA		NA		3			
NI3-L0060	Keller Park Lake No. 5 (SRA)	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-L0070	Cub Creek Lake	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Fish consumption assessment
NI3-L0080	Williams Pond	NA	NA		NA		NA		3			
NI3-L0090	Cornell Dam Lake	NA	NA		NA	S	NA	S	2			
NI3-L0100	North Marsh Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0110	Middle Marsh (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0120	South Marsh Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0130	East Twin Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0140	Valentine Fish Hatchery Lake	NA	NA		NA		NA		3			
NI3-L0150	Calf Camp Marsh (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0160	Little Hay Lake (Valentine NWR)	NA	NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-L0170	Valentine Mill Pond	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Total Phosphorus, Hazard Index compounds*, Mercury	Fish consumption assessment
NI3-L0180	Ballards Marsh (WMA)	NA	NA		NA		NA		3			
NI3-L0181	Twenty-one Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0182	Center Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0183	Lee Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0184	Pony Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0185	East Sweetwater Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0190	West Twin Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0191	Round Lake (Tom's Lake) (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0192	Homestead Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0193	Campbell Lake (Valentine NWR)	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NI3-L0194	Lost Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0195	Dad's Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0196	Baker Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0200	Hackberry (Valentine NWR)	NA	S		S		S	S	2			Fish consumption assessment
NI3-L0210	Willow Lake (WMA)	NA	S		NA		NA	S	2			Fish consumption assessment
NI3-L0220	Big Alkali Lake (WMA)	NA	I		I		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Ag Water Supply-Conductivity	Total Phosphorus, Total Nitrogen	Fish consumption assessment, Sandhills lakes have naturally elevated conductivity
NI3-L0230	McKeel Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0240	Dewey Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0250	School Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0260	Clear Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0270	Pelican Lake (Valentine NWR)	NA	S		S		S	S	2			Fish consumption assessment
NI3-L0280	Whitewater Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0290	Watts Lake (Valentine NWR)	NA	S		S		S	S	2			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-L0300	West Long Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0310	Rice Lake (Valentine NWR)	NA	NA		NA		NA		3			
NI3-L0320	Duck Lake (Valentine NWR)	NA	S		S		S	S	2			
NI3-L0330	Merritt Reservoir	S	I		S		S	I	5	Aquatic Life- pH, Fish Consumption Advisory	Total Phosphorus, Total Nitrogen, Hazard Index compounds*, Mercury	Fish consumption assessment
NI3-L0340	Cody Lake	NA	S		NA		NA	S	2			Fish consumption assessment
NI3-L0350	Shaup Lake	NA	S		S		S	S	2			
NI3-L0360	Medicine Lake	NA	NA		NA		NA		3			
NI3-L0370	Round Lake	NA	S		I		S	I	4C	Ag Water Supply- Conductivity	None	Sandhills lakes have naturally elevated conductivity
NI3-L0374	Home Valley Lake (WMA)	NA	NA		NA		NA		3			
NI3-L0375	Cottonwood/Steverson Lake (WMA)	NA	NA		NA		NA		3			
NI3-L0380	Three Corners Lake	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI4-L0010	Cottonwood Lake (SRA)	NA	I		NA		NA	I	5	Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
NI4-L0020	Shell Lake	NA	I		NA		NA	I	5	Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
NI4-L0030	Leistrantz-Meyer Lake	NA	NA		NA		NA		3			
NI4-L0040	Smith Lake (WMA)	NA	S		NA		NA	S	2			
NI4-L0050	Walgren Lake (SRA)	NA	I		S		S	I	5	Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
NI4-L0060	Alliance City Lake	NA	NA		NA		NA		3			
NI4-L0080	Box Butte Reservoir	S	I		S		S	I	5	Aquatic Life-pH, Fish Consumption Advisory	Unknown, Hazard Index compounds*, Mercury	TP and TN are supporting, Fish consumption assessment
NI4-L0090	Kilpatrick Lake	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN are supporting
<b>Streams</b>												
NI1-10000	Missouri River	S	S		S		S	S	1			Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI1-10100	Ponca Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	
NI1-10110	Unnamed Creek		NA		NA		NA		3			
NI1-10120	Unnamed Creek		NA		NA		NA		3			
NI1-10130	Unnamed Creek		NA		NA		NA		3			
NI1-10140	Unnamed Creek		NA		NA		NA		3			
NI1-10150	Whiskey Creek		NA		NA		NA		3			
NI1-10151	Silver Creek		NA		NA		NA		3			
NI1-10160	Whiskey Creek		NA		NA		NA		3			
NI1-10170	Unnamed Creek		NA		NA		NA		3			
NI1-10180	Beaver Creek	NA	NA		NA		NA		3			
NI1-10200	Ponca Creek		S		NA		S	S	2			Aquatic community assessment
NI1-10210	Unnamed Creek		NA		NA		NA		3			
NI1-10220	Unnamed Creek		NA		NA		NA		3			
NI1-10230	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI1-10240	Unnamed Creek		NA		NA		NA		3			
NI1-10250	Unnamed Creek		NA		NA		NA		3			
NI1-10260	Unnamed Creek		NA		NA		NA		3			
NI2-10000	Niobrara River	I	I		S	S	S	I	5	Recreation- Bacteria, Aquatic Life- Selenium, Fish Consumption Advisory	E. coli, Selenium, Hazard Index compounds*	E. coli TMDL approved 1/06, Aquatic community assessment, Fish consumption assessment
NI2-10100	Verdigre Creek	I	I		S		S	I	5	Recreation- Bacteria, Aquatic Life- Selenium, Impaired Aquatic Community	E. coli, Selenium, Unknown	Aquatic community assessment
NI2-10110	Unnamed Creek		NA		NA		NA		3			
NI2-10120	Unnamed Creek		NA		NA		NA		3			
NI2-10130	Unnamed Creek		NA		NA		NA		3			
NI2-10140	North Branch Verdigre Creek	NA	NA		NA		NA		3			
NI2-10141	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI2-10142	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NI2-10143	Unnamed Creek		NA		NA		NA		3			
NI2-10144	Unnamed Creek		NA		NA		NA		3			
NI2-10200	Verdigre Creek	NA	S		NA		S	S	2			Aquatic community assessment
NI2-10210	Unnamed Creek		NA		NA		NA		3			
NI2-10220	Unnamed Creek		NA		NA		NA		3			
NI2-10221	Unnamed Creek		NA		NA		NA		3			
NI2-10222	Unnamed Creek		NA		NA		NA		3			
NI2-10230	Middle Branch Verdigre Creek	NA	NA		NA		NA		3			
NI2-10231	Unnamed Creek		NA		NA		NA		3			
NI2-10232	Unnamed Creek		NA		NA		NA		3			
NI2-10233	Unnamed Creek		NA		NA		NA		3			
NI2-10234	Unnamed Creek		NA		NA		NA		3			
NI2-10235	Unnamed Creek		NA		NA		NA		3			
NI2-10236	Lamb Creek		NA		NA		NA		3			
NI2-10237	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NI2-10238	Unnamed Creek		NA		NA		NA		3			
NI2-10239	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NI2-10240	Unnamed Creek		NA		NA		NA		3			
NI2-10250	Unnamed Creek		NA		NA		NA		3			
NI2-10260	Unnamed Creek		NA		NA		NA		3			
NI2-10270	Merriman Creek	NA	NA		NA		NA		3			
NI2-10271	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NI2-10280	Merriman Creek		NA		NA		NA		3			
NI2-10281	Unnamed Creek		NA		NA		NA		3			
NI2-10290	Cottonwood Creek		NA		NA		NA		3			
NI2-10300	South Branch Verdigre Creek	NA	NA		NA		NA		3			
NI2-10310	East Branch Verdigre Creek	NA	NA		NA		NA		3			
NI2-10311	Hay Creek		NA		NA		NA		3			
NI2-10320	East Branch Verdigre Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NI2-10330	Unnamed Creek		NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI2-10340	Unnamed Creek		NA		NA		NA		3			
NI2-10350	Big Springs Creek		NA		NA		NA		3			
NI2-10351	Hathoway Slough		NA		NA		NA		3			
NI2-10352	Unnamed Creek		NA		NA		NA		3			
NI2-10400	Schindler Creek		NA		NA		NA		3			
NI2-10500	Unnamed Creek		NA		NA		NA		3			
NI2-10600	Soldier Creek		NA		NA		NA		3			
NI2-10610	Unnamed Creek		NA		NA		NA		3			
NI2-10700	Pishel Creek		NA		NA		NA		3			
NI2-10800	Steel Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NI2-10810	Long Gulch		NA		NA		NA		3			
NI2-10900	Squaw Creek		NA		NA		NA		3			
NI2-11000	Unnamed Creek		NA		NA		NA		3			
NI2-11100	Sand Creek		NA		NA		NA		3			
NI2-11200	Louse Creek	NA	NA		NA		NA		3			
NI2-11300	Louse Creek		S		S		S	S	1			
NI2-11400	Redbird Creek	NA	NA		NA		NA		3			
NI2-11410	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI2-11420	Spring Creek		S		NA		NA	S	2			Aquatic community assessment, ICI score influenced by extreme flows†
NI2-11430	Blackbird Creek		NA		NA		NA		3			
NI2-11500	Redbird Creek		NA		NA		NA		3			
NI2-11510	Unnamed Creek		NA		NA		NA		3			
NI2-11520	Unnamed Creek		NA		NA		NA		3			
NI2-11600	Unnamed Creek		NA		NA		NA		3			
NI2-11700	Eagle Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NI2-11710	Camp Creek		NA		NA		NA		3			
NI2-11720	Unnamed Creek		NA		NA		NA		3			
NI2-11730	Honey Creek		NA		NA		NA		3			
NI2-11740	Unnamed Creek		NA		NA		NA		3			
NI2-11750	Oak Creek		NA		NA		NA		3			
NI2-11760	Unnamed Creek		NA		NA		NA		3			
NI2-11770	East Branch Eagle Creek		NA		NA		NA		3			
NI2-11771	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI2-11772	Unnamed Creek		NA		NA		NA		3			
NI2-11780	Middle Branch Eagle Creek	NA	S		NA		NA	S	2			Aquatic community assessment, ICI score influenced by extreme flows†
NI2-11781	North Branch Eagle Creek	NA	NA		NA		NA		3			
NI2-11781.1	Unnamed Creek		NA		NA		NA		3			
NI2-11781.2	Unnamed Creek		NA		NA		NA		3			
NI2-11781.3	Unnamed Creek		NA		NA		NA		3			
NI2-11782	Unnamed Creek		NA		NA		NA		3			
NI2-11783	Unnamed Creek		NA		NA		NA		3			
NI2-11784	Unnamed Creek		NA		NA		NA		3			
NI2-11800	Unnamed Creek		NA		NA		NA		3			
NI2-11900	Turkey Creek		NA		NA		NA		3			
NI2-12000	Brush Creek		NA		NA		NA		3			
NI2-12010	Spring Creek		NA		NA		NA		3			
NI2-12020	Unnamed Creek		NA		NA		NA		3			
NI2-12030	Unnamed Creek		NA		NA		NA		3			
NI2-12040	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI2-12041	Unnamed Creek		NA		NA		NA		3			
NI2-12100	Brush Creek		NA		NA		NA		3			
NI2-12200	Little Sandy Creek		NA		NA		NA		3			
NI2-12300	Big Sandy Creek	NA	NA		NA		NA		3			
NI2-12310	Unnamed Creek		NA		NA		NA		3			
NI2-12320	Unnamed Creek		NA		NA		NA		3			
NI2-12330	Unnamed Creek		NA		NA		NA		3			
NI2-12340	Unnamed Creek		NA		NA		NA		3			
NI2-12350	Spring Creek		NA		NA		NA		3			
NI2-12400	Big Sandy Creek	NA	NA		NA		NA		3			
NI2-12410	Unnamed Creek		NA		NA		NA		3			
NI3-10000	Niobrara River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06
NI3-10100	Keya Paha River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
NI3-10110	Morse Creek		NA		NA		NA		3			
NI3-10111	Unnamed Creek		NA		NA		NA		3			
NI3-10120	Big Creek		NA		NA		NA		3			
NI3-10130	Meglin Creek		NA		NA		NA		3			
NI3-10140	Oak Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NI3-10141	Unnamed Creek		NA		NA		NA		3			
NI3-10142	Unnamed Creek		NA		NA		NA		3			
NI3-10150	Alkali Creek		NA		NA		NA		3			
NI3-10160	Spotted Tail Creek		NA		NA		NA		3			
NI3-10170	Coon Creek		NA		NA		NA		3			
NI3-10171	Unnamed Creek		NA		NA		NA		3			
NI3-10180	Wolf Creek		NA		NA		NA		3			
NI3-10190	Spring Creek		NA		NA		NA		3			
NI3-10200	Dry Creek		NA		NA		NA		3			
NI3-10210	Buffalo Creek		NA		NA		NA		3			
NI3-10211	Unnamed Creek		NA		NA		NA		3			
NI3-10220	Burton Creek		S		NA		S	S	2			Aquatic community assessment
NI3-10230	Lute Creek		NA		NA		NA		3			
NI3-10240	Jordan Creek		NA		NA		NA		3			
NI3-10250	Holt Creek		NA		NA		NA		3			
NI3-10251	East Branch Holt Creek		NA		NA		NA		3			
NI3-10260	Holt Creek		NA		NA		NA		3			
NI3-10261	Unnamed Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NI3-10270	Timber Creek		NA		NA		NA		3			
NI3-10280	Cottonwood Creek		NA		NA		NA		3			
NI3-10290	Lost Creek		NA		NA		NA		3			
NI3-10300	Shadley Creek		NA		NA		NA		3			
NI3-10400	Beaver Creek		NA		NA		NA		3			
NI3-10500	Clay Creek		NA		NA		NA		3			
NI3-10510	West Branch Clay Creek		NA		NA		NA		3			
NI3-10600	Unnamed Creek		NA		NA		NA		3			
NI3-10700	Otter Creek		NA		NA		NA		3			
NI3-10800	Unnamed Creek		NA		NA		NA		3			
NI3-10900	Simpson Creek		NA		NA		NA		3			
NI3-10910	Unnamed Creek		NA		NA		NA		3			
NI3-11000	Big Anne Creek		NA		NA		NA		3			
NI3-11010	Haughin Creek		NA		NA		NA		3			
NI3-11011	Unnamed Creek		NA		NA		NA		3			
NI3-11100	Ash Creek		NA		NA		NA		3			
NI3-11110	Unnamed Creek		NA		NA		NA		3			
NI3-11120	Unnamed Creek		NA		NA		NA		3			
NI3-11200	Oak Creek		NA		NA		NA		3			
NI3-11210	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-11220	Unnamed Creek		NA		NA		NA		3			
NI3-11300	Willow Creek		NA		NA		NA		3			
NI3-11310	Sand Creek		NA		NA		NA		3			
NI3-11400	Unnamed Creek		NA		NA		NA		3			
NI3-11500	Rock Creek		NA		NA		NA		3			
NI3-11600	Unnamed Creek		NA		NA		NA		3			
NI3-11700	West Branch Laughing Water Creek		NA		NA		NA		3			
NI3-11710	East Branch Laughing Water Creek		NA		NA		NA		3			
NI3-11720	Middle Branch Laughing Water Creek		NA		NA		NA		3			
NI3-11800	Coon Creek		NA		NA		NA		3			
NI3-11900	Elk Creek		NA		NA		NA		3			
NI3-12000	Wyman Creek		NA		NA		NA		3			
NI3-12100	Sand Creek		NA		NA		NA		3			
NI3-12200	Long Pine Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-12210	Short Pine Creek		S		NA		S	S	2			Aquatic community assessment
NI3-12220	Bone Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	Aquatic community assessment
NI3-12221	Sand Draw		NA		NA		NA		3			
NI3-12222	Unnamed Creek		NA		NA		NA		3			
NI3-12230	Bone Creek		NA		NA		NA		3			
NI3-12300	Long Pine Creek	NA	NA		NA		NA		3			
NI3-12310	Willow Creek		S		NA		S	S	2			Aquatic community assessment
NI3-12400	Long Pine Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
NI3-12500	Thomas Creek		NA		NA		NA		3			
NI3-12600	Prosser Creek		NA		NA		NA		3			
NI3-12700	Jewett Creek		NA		NA		NA		3			
NI3-12800	Dutch Creek		NA		NA		NA		3			



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NI3-12900	Rock Creek		NA		NA		NA		3			
NI3-12910	Unnamed Creek		NA		NA		NA		3			
NI3-13000	Plum Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Aquatic community assessment
NI3-13010	Little Minnie Creek		NA		NA		NA		3			
NI3-13020	Evergreen Creek		NA		NA		NA		3			
NI3-13021	Cedar Creek		NA		NA		NA		3			
NI3-13021.1	Dry Creek		NA		NA		NA		3			
NI3-13100	Plum Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06
NI3-13110	North Branch Plum Creek		NA		NA		NA		3			
NI3-13111	Brush Creek		NA		NA		NA		3			
NI3-13120	South Branch Plum Creek		S		NA		S	S	2			Aquatic community assessment
NI3-20000	Niobrara River	S	S		S		S	S	1			Fish consumption assessment
NI3-20100	Cub Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NI3-20110	Unnamed Creek		NA		NA		NA		3			
NI3-20200	Chimney Creek		NA		NA		NA		3			
NI3-20210	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NI3-20300	Turkey Creek		NA		NA		NA		3			
NI3-20400	Middle Creek		NA		NA		NA		3			
NI3-20410	East Middle Creek		NA		NA		NA		3			
NI3-20500	Fairfield Creek	NA	S		NA		S	S	2			Aquatic community assessment
NI3-20510	South Fork Fairfield Creek		NA		NA		NA		3			
NI3-20600	McGill Creek		NA		NA		NA		3			
NI3-20700	Muleshoe Creek		S		NA		S	S	2			Aquatic community assessment
NI3-20800	Coleman Creek		NA		NA		NA		3			
NI3-20900	Unnamed Creek		NA		NA		NA		3			
NI3-21000	Clapp Creek		NA		NA		NA		3			
NI3-21100	Unnamed Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-21200	Unnamed Creek		NA		NA		NA		3			
NI3-21300	Unnamed Creek		NA		NA		NA		3			
NI3-21400	Unnamed Creek		NA		NA		NA		3			
NI3-21500	Crooked Creek		NA		NA		NA		3			
NI3-21600	Little Beaver Creek		NA		NA		NA		3			
NI3-21700	Big Beaver Creek		NA		NA		NA		3			
NI3-21800	Coon Creek		NA		NA		NA		3			
NI3-21900	Minnechaduza Creek	I	I		S		S	I	4A/C	Recreation- Bacteria, Aquatic Life-naturally High Temperature	E. coli	E. coli TMDL approved 1/06, Aquatic community assessment
NI3-21910	Spring Creek		NA		NA		NA		3			
NI3-21920	Fishberry Creek		NA		NA		NA		3			
NI3-21930	Dry Creek		NA		NA		NA		3			
NI3-22000	Minnechaduza Creek	NA	NA		NA		NA		3			
NI3-22010	Bull Creek		NA		NA		NA		3			
NI3-22100	Schlagel Creek	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-22200	Gordon Creek		S		NA		S	S	2			Aquatic community assessment
NI3-22210	Betsy Creek		NA		NA		NA		3			
NI3-22300	Gordon Creek	NA	NA		NA		NA		3			Aquatic community assessment results were inconclusive - site will be reassessed†
NI3-22310	Arkansas Flats		NA		NA		NA		3			
NI3-22320	Sandy Richards Creek		NA		NA		NA		3			
NI3-22400	Snake River	S	S		S		S	S	1			
NI3-22500	Snake River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06
NI3-22510	Boardman Creek		NA		NA		NA		3			Aquatic community assessment results were inconclusive - site will be reassessed†

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI3-22511	Unnamed Creek		NA		NA		NA		3			
NI3-22520	Clifford Creek	NA	NA		NA		NA		3			
NI3-22521	Willow Creek		NA		NA		NA		3			
NI3-22600	Snake River		NA		NA		NA		3			
NI3-30000	Niobrara River	S	S		S		S	S	1			
NI3-30100	Unnamed Creek		NA		NA		NA		3			
NI3-30200	McCann Canyon		NA		NA		NA		3			
NI3-30300	Medicine Creek		NA		NA		NA		3			
NI4-10000	Niobrara River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 1/06, Aquatic community assessment
NI4-10100	Bear Creek	NA	NA		NA		NA		3			
NI4-10110	Dry Creek	NA	NA		NA		NA		3			Aquatic community assessment results were inconclusive - site will be reassessed†
NI4-10120	Dry Creek	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI4-10121	Unnamed Creek		NA		NA		NA		3			
NI4-10200	Leander Creek	NA	NA		NA		NA		3			
NI4-10300	Hay Creek		NA		NA		NA		3			
NI4-10400	Antelope Creek		NA		NA		NA		3			
NI4-10500	Pole Creek		NA		NA		NA		3			
NI4-10600	Rush Creek		S		NA		NA	S	2			Aquatic community assessment, ICI score influenced by low water conditions†
NI4-10700	Deer Creek	NA	NA		NA		NA		3			
NI4-10800	Pine Creek	NA	S		S		S	S	2			
NI4-10900	Pine Creek		NA		NA		NA		3			
NI4-11000	Box Butte Creek		NA		NA		NA		3			
NI4-20000	Niobrara River	NA	S		NA		S	S	2			Aquatic community assessment
NI4-20100	Pepper Creek		NA		NA		NA		3			
NI4-20200	Cottonwood Creek		NA		NA		NA		3			
NI4-20300	Snake Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NI4-20310	Spring Creek		NA		NA		NA		3			
NI4-20320	North Branch Snake Creek		NA		NA		NA		3			
NI4-20330	South Branch Snake Creek		NA		NA		NA		3			
NI4-30000	Niobrara River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
NI4-40000	Niobrara River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
NI4-40100	Whistle Creek		NA		NA		NA		3			
NI4-50000	Niobrara River	NA	S		NA		S	S	2			Aquatic community assessment

\* **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

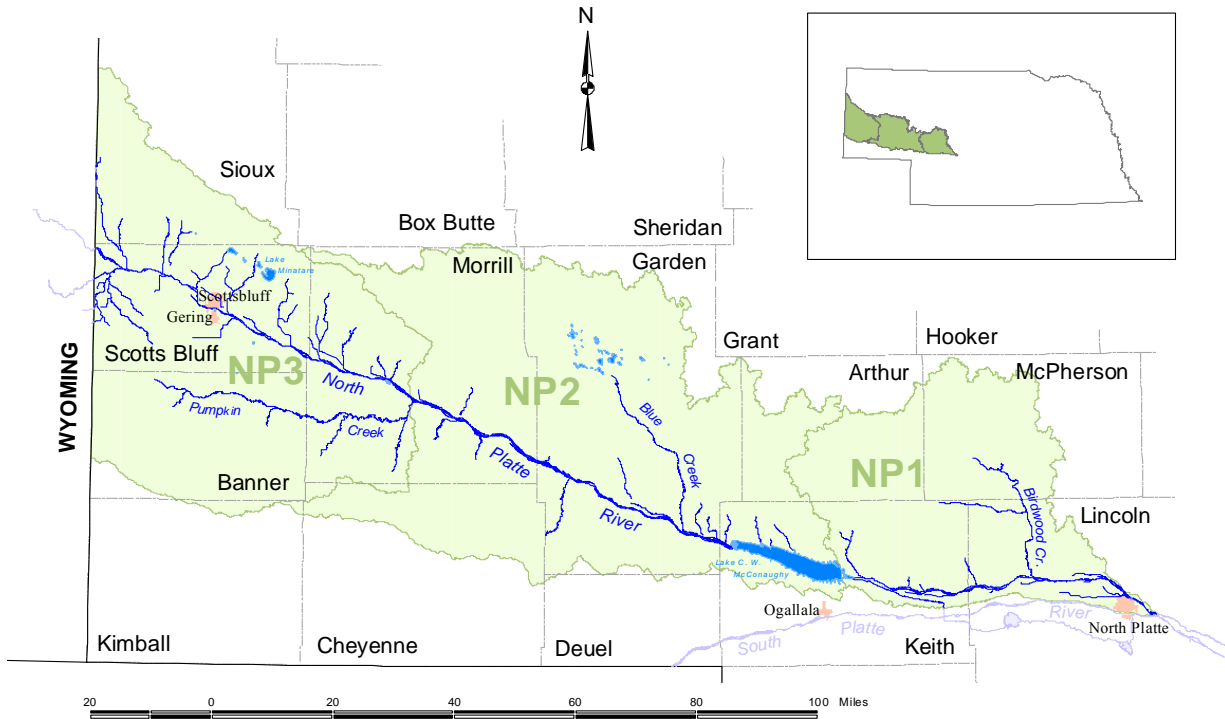
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# NORTH PLATTE RIVER BASIN (and Subbasins)



## North Platte River Basin – Hydrologic Units 10180009, 10180012, 10180013 and 10180014

The North Platte River Basin includes 136 designated stream segments and 48 designated lakes/reservoirs.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	48	0	3	45	0	0	48	1	48
Streams	42	21	79	7	29	0	136	1	136

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**NP1-L0030: Lake Ogallala** – This waterbody was listed as Category 4A/R in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a and Dissolved Oxygen due to nutrients, Total Phosphorus, Total Nitrogen. A Fish Consumption assessment in 2011 determined the aquatic life use is being met for the Fish Tissue assessment. This waterbody was renovated in 2010. This waterbody will remain in Category 4A/R.

**NP2-L0010: Lake C. W. McConaughy** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Chlorophyll a, Dissolved Oxygen due to nutrients, Total Phosphorus, Total Nitrogen. A Fish Consumption assessment in 2011 determined the aquatic life use is also being impaired for Hazard Index compounds and Mercury. An industrial water supply use is assigned to this waterbody and was not reflected in the 2012 IR. Industrial water supply users must contact the Department with a water quality concern. Having received no concerns from the user, the industrial water supply use is considered met. Data collected in 2012 determined this waterbody’s aquatic life use is being met for Total Nitrogen and Dissolved Oxygen. This waterbody will remain in Category 5.

**NP2-L0110: Island Lake (Crescent Lake NWR)** – This waterbody was listed as Category 2 in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Mercury. This waterbody will be placed in Category 5.

**NP2-L0150: Blue Lake (Crescent Lake NWR)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was being impaired for naturally occurring low Dissolved Oxygen. This waterbody will be placed in Category 4C.

**NP2-L0290: Smith Lake (Crescent Lake NWR)** – This waterbody was listed as Category 2 in the 2012 IR. A fish consumption assessment determined this waterbody’s aquatic life use is being impaired for Hazard Index compound and Mercury. This waterbody will be placed in Category 5.

**NP2-LXXXX: Crescent Lake** – This waterbody was not listed in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Mercury. This waterbody will be placed in Category 5.

**NP2-LXXXX: Morrill Sandpit (Southwest)** – This waterbody was not listed in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Mercury. This waterbody will be placed in Category 5.

**NP2-LXXXX: Morrill Sandpit (North)** – This waterbody was not listed in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Hazard Index compounds and Mercury. This waterbody will be placed in Category 5.

**NP3-L0030: Bridgeport Middle Lake (SRA)** – This waterbody was listed as Category 1 in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Mercury. This waterbody will be placed in Category 5.

**NP3-L0050: Bridgeport Northwest Lake (SRA)** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined the recreation use is being met. This waterbody will be placed in Category 1.

**NP3-L0070: Winters Creek Lake (North Platte NWR)** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being met. This waterbody will be placed in Category 2.

**NP3-L0110: Lake Alice (North Platte NWR)** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 determined this waterbody’s recreation use is being met. This waterbody will be placed in Category 2.

**NP1-10000: North Platte River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreational use was impaired for E. coli; aquatic life use was impaired for Hazard Index Compounds and Mercury. Data collected in 2011 determined this waterbody’s recreational use is being met. An E. coli TMDL was approved 5/12 and will replace the Fecal Coliform TMDL approved 10/03. This waterbody will remain in Category 5.

**NP1-20100: Unnamed Creek** – This waterbody was listed as Category 3 in the 2012 IR. An Aquatic Community assessment determined this waterbody’s aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP1-20520: North Fork Birdwood Creek** – This waterbody was listed as Category 3 in the 2012 IR. An Aquatic Community assessment determined this waterbody’s aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP1-30200: East Clear Creek** – This waterbody was listed as Category 3 in the 2012 IR. An Aquatic Community assessment determined this waterbody’s aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP1-30900: Whitetail Creek** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined this waterbody’s recreational use is being impaired for E. coli; the aquatic life use is being impaired for naturally elevated Temperatures. This waterbody will be placed in Category 5.

**NP2-10000: North Platte River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12 and will replace the Fecal Coliform TMDL approved 10/03. Data collected in 2012 determined all uses are fully being met. This waterbody will be placed in Category 1.

**NP2-10300: Otter Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12. An aquatic community assessment, fish consumption assessment and data collected in 2011 determined all uses are fully being met. This waterbody will be placed in Category 1.

**NP2-10700: Ash Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody’s aesthetics use is being met. This waterbody will remain in Category 2.

**NP2-10800: Blue Creek** – This waterbody was listed as Category 4C in the 2012 IR. This waterbody’s aquatic life use was impaired for naturally elevated Temperature. Data collected in 2012 determined this waterbody’s aquatic life use is also being impaired for Selenium. This waterbody will be placed in Category 5.

**NP2-11000: Blue Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody’s aesthetics use is being met. This waterbody will remain in Category 2.

**NP2-11200: Blue Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody’s aesthetics use is being met. This waterbody will remain in Category 2.

**NP2-11300: Blue Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody’s aesthetics use is being met. This waterbody will remain in Category 2.

**NP2-11800: Cedar Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined this waterbody’s aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP2-12100: Lower Dugout Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined this waterbody’s aquatic life use is being impaired for an impaired aquatic community by an unknown pollutant. This waterbody will be placed in Category 5.

**NP3-10000: North Platte River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli; aquatic life use was impaired for Hazard Index

compounds. An E. coli TMDL was approved 5/12 and will replace the Fecal Coliform TMDL approved 10/03. Data collected in 2012 determined this waterbody's recreational use is being met. Although this waterbody was noted for the aquatic life impairment the table showed the aquatic life use as supporting. The table will be updated to reflect the aquatic life use as being impaired. This waterbody will remain in Category 5.

**NP3-10600: Upper Dugout Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined this waterbody's aquatic life use is being impaired for an impaired aquatic community by an unknown pollutant. This waterbody will be placed in Category 5.

**NP3-10700: Indian Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined this waterbody's aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP3-10900: Red Willow Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12. This waterbody will be placed in Category 4A.

**NP3-10910: Wildhorse Drain** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody's aesthetics use is being met. This waterbody will remain in Category 2.

**NP3-10920: Wildhorse Drain** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined this waterbody's aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP3-11000: Red Willow Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody's aesthetics use is being met. This waterbody will remain in Category 2.

**NP3-11200: Red Willow Creek** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2011 determined this waterbody is fully meeting all assigned uses. This waterbody will be placed in Category 1.

**NP3-11700: Ninemile Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12. This waterbody will be placed in Category 4A.

**NP3-11900: Ninemile Creek** – This waterbody was listed as Category 2 in the 2012 IR. An aquatic community assessment and data collected in 2011 determined full support for all assigned uses. This waterbody will be placed in Category 1.

**NP3-12000: Ninemile Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Dissolved Oxygen by an unknown pollutant. A fish consumption assessment determined the aquatic life use is being met for the fish tissue assessment. This waterbody will remain in Category 5.

**NP3-12400: Gering Drain** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12. This waterbody will be placed in Category 4A.

**NP3-12500: Gering Drain** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody's aesthetics use is being met. This waterbody will remain in Category 2.

**NP3-12600: Winters Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12. Data collected in 2012 determined this waterbody’s aquatic life use is being impaired for Selenium. This waterbody will remain in Category 5.

**NP3-12700: Winters Creek** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2011 along with an aquatic community and Fish Consumption assessment determined all assigned uses are being met. This waterbody will be placed in Category 1.

**NP3-13000: Tub Springs Drain** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli; aquatic life use was impaired for Selenium. Data collected in 2011 determined the aquatic life use is being met. An E. coli TMDL was approved 5/12. This waterbody will be placed in Category 4A.

**NP3-20000: North Platte River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12 and will replace the Fecal Coliform TMDL approved 10/03. This waterbody will remain in Category 4A.

**NP3-20300: Spottedtail Creek** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined the aquatic life use was being met. This waterbody will be placed in Category 2.

**NP3-20700: Dry Spottedtail Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined this waterbody’s aesthetics use is being met. This waterbody will remain in Category 2.

**NP3-30000: North Platte River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12 and will replace the Fecal Coliform TMDL approved 10/03. This waterbody will remain in Category 4A.

**NP3-30400: Sheep Creek** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined all assigned uses are being fully met. This waterbody will be placed in Category 1.

**NP3-30500: Sheep Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined both the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP3-30600: Horse Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An E. coli TMDL was approved 5/12. This waterbody will be placed in Category 4A.

**NP3-30623 Kiowa Creek** – This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined both the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**NP3-50000: North Platte River** – This waterbody was listed as Category 4A/C in the 2012 IR. This waterbody’s recreation use was impaired for E. coli; aquatic life use was impaired for naturally elevated Temperatures. Data collected in 2011 determined the recreation use is being met. An E.coli TMDL was approved 5/12 and will replace the Fecal Coliform TMDL approved 10/03. This waterbody will be placed in 4C.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
NP1-L0010	Cody Park Lake (North Platte)	NA	NA		NA		NA		3			
NP1-L0020	North Platte City Lake	NA	NA		NA		NA		3			
NP1-L0030	Lake Ogallala	NA	I		S		S	I	4A/R	Aquatic Life-Nutrients, Chlorophyll a, DO	Total Phosphorus, Total Nitrogen	Dissolved Oxygen TMDL approved 9/07, Lake renovated 2010, Fish consumption assessment
NP2-L0010	Lake C. W. McConaughy	S	I		S	S	S	I	5	Aquatic Life-Nutrients, Chlorophyll a,-Fish Consumption Advisory	Total Phosphorus, Hazard Index compounds*, Mercury	Fish consumption assessment
NP2-L0020	Camp Valley Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0030	Phillips Flats Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0040	Upper East Jones Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0050	Lower West Jones Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP2-L0060	Swede Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0070	Deer Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0080	Christ Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0090	Crane Lake (Crescent Lake NWR)	NA	S		S		S	S	2			
NP2-L0100	Hackberry Lake (Crescent Lake NWR)	NA	S		S		S	S	2			
NP2-L0110	Island Lake (Crescent Lake NWR)	NA	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Mercury	Fish consumption assessment
NP2-L0120	Shafer Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0130	Roundup Lake (Crescent Lake NWR)	NA	S		S		S	S	2			
NP2-L0140	Mallard Arm (Crescent Lake NWR)	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP2-L0150	Blue Lake (Crescent Lake NWR)	NA	I		S		S	I	4C	Aquatic Life-DO	None	Low dissolved oxygen occurs naturally in highly productive lakes of the Sandhills, Fish consumption assessment
NP2-L0160	Duck Slough (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0170	Gimlet Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0180	Goose Lake (Crescent Lake NWR)	NA	S		I		S	I	4C	Ag Water Supply-Conductivity	None	Sandhill lakes have naturally elevated conductivity
NP2-L0190	West Jones Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0200	Swan Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0210	Boyd Pond (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0220	Lost Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0230	Lower Harrison Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP2-L0240	Upper Harrison Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0250	Redhead Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0260	Perrin Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0270	Tree Claim Lake (Crescent Lake NWR)	NA	S		I		S	I	4C	Ag Water Supply-Conductivity	None	Sandhill lakes have naturally elevated conductivity
NP2-L0280	Upper Tree Claim Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0290	Smith Lake (Crescent Lake NWR)	NA	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
NP2-L0300	Border Lake (Crescent Lake NWR)	NA	I		I		S	I	5	Aquatic Life-DO, Ag Water Supply-Conductivity	None	Low dissolved oxygen and high conductivity occur naturally in Sandhill lakes
NP2-L0310	Ramelli Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			
NP2-L0320	Martin Lake (Crescent Lake NWR)	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP2-LXXXX <sup>1</sup>	Crescent Lake	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Mercury	Fish consumption assessment
NP2-LXXXX	Morrill Sandpit (Southwest)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Mercury	Fish consumption assessment
NP2-LXXXX	Morrill Sandpit (North)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
NP3-L0010	Bridgeport Southeast Lake (SRA)	NA	S		S		S	S	2			Fish consumption assessment
NP3-L0020	Bridgeport Northeast Lake (SRA)	NA	NA		NA		NA		3			
NP3-L0030	Bridgeport Middle Lake (SRA)	S	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Mercury	Fish consumption assessment
NP3-L0040	Bridgeport Southwest Lake (SRA)	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP3-L0050	Bridgeport Northwest Lake (SRA)	S	S		S		S	S	1			Fish consumption assessment
NP3-L0060	Lake Minatare (North Platte NWR)	S	I		S		S	I	5	Aquatic Life-Nutrients, DO	Total Phosphorus	Fish consumption assessment
NP3-L0070	Winters Creek Lake (North Platte NWR)	NA	S		NA		NA	S	2			Fish consumption assessment
NP3-L0080	Cochran Lake	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN not assessed, Fish consumption assessment
NP3-L0090	Little Lake Alice (No. 2) (North Platte NWR)	NA	NA		NA		NA		3			
NP3-L0100	Buffalo Springs Lake (WMA)	NA	NA		NA		NA		3			
NP3-L0110	Lake Alice (North Platte NWR)	S	NA		NA		NA	S	2			
NP3-L0120	Terry's Pit Lake	NA	NA		NA		NA		3			
NP3-L0130	University Lake	NA	NA		NA		NA		3			
<b>Streams</b>												

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP1-10000	North Platte River	S	I		S		S	I	5	Aquatic Life-Fish Consumption advisory	Hazard Index compounds*, Mercury	E. coli TMDL approved 5/12, Aquatic community assessment, Fish consumption assessment
NP1-10100	Scout Creek	NA	NA		NA		NA		3			
NP1-10110	Ditch No. 2	NA	NA		NA		NA		3			
NP1-10200	Scout Creek		NA		NA		NA		3			
NP1-20000	North Platte River	S	S		S		S	S	1			Fecal coliform TMDL approved 10/03, Aquatic community assessment
NP1-20100	Unnamed Creek		S		NA		S	S	2			Aquatic community assessment
NP1-20200	Unnamed Creek		NA		NA		NA		3			
NP1-20300	Unnamed Creek		NA		NA		NA		3			
NP1-20400	Ditch No. 3		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP1-20500	Birdwood Creek	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	Fecal coliform TMDL approved 10/03, Aquatic community assessment
NP1-20510	West Birdwood Creek	NA	NA		NA		NA		3			
NP1-20520	North Fork Birdwood Creek		S		NA		S	S	2			Aquatic community assessment
NP1-20521	Squaw Creek		NA		NA		NA		3			
NP1-20530	North Fork Birdwood Creek		NA		NA		NA		3			
NP1-30000	North Platte River	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	Aquatic community assessment
NP1-30100	Bull Ditch		NA		NA		NA		3			
NP1-30200	East Clear Creek		S		NA		S	S	2			Aquatic community assessment
NP1-30300	Unnamed Drain		NA		NA		NA		3			
NP1-30400	Unnamed Drain		NA		NA		NA		3			
NP1-30500	Cedar Creek		NA		NA		NA		3			
NP1-30600	Lake Creek		NA		NA		NA		3			
NP1-30700	Unnamed Drain		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP1-30800	Sand Creek		NA		NA		NA		3			
NP1-30900	Whitetail Creek	I	I		S		S	I	5	Recreation- E.coli, Aquatic Life- naturally High Temperature	E. coli	Aquatic community assessment
NP1-30910	Unnamed Creek		NA		NA		NA		3			
NP1-31000	Whitetail Creek		NA		NA		NA		3			
NP1-40000	North Platte River	S	I		S		S	I	4C	Aquatic Life- naturally High Temperature	None	
NP1-40100	Unnamed Drain		NA		NA		NA		3			
NP1-40200	Sutherland Canal	NA	S		NA		NA	S	2			Fish consumption assessment
NP2-10000	North Platte River	S	S		S		S	S	1			E. coli TMDL approved 5/12, Aquatic community assessment, Fish consumption assessment
NP2-10100	Lonergan Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP2-10200	Sand Creek		NA		NA		NA		3			
NP2-10300	Otter Creek	S	S		S		S	S	1			E. coli TMDL approved 5/12, Aquatic community assessment, Fish consumption assessment
NP2-10400	Clear Creek		NA		NA		NA		3			
NP2-10500	Plum Creek		NA		NA		NA		3			
NP2-10600	Plum Creek		NA		NA		NA		3			
NP2-10700	Ash Creek		S		NA		S	S	2			Aquatic community assessment
NP2-10800	Blue Creek		I		S		S	I	5	Aquatic Life-Selenium, naturally High Temperature	Selenium	Aquatic community assessment
NP2-10900	Blue Creek	NA	NA		NA		NA		3			
NP2-11000	Blue Creek	NA	S		NA		S	S	2			Aquatic community assessment
NP2-11100	Blue Creek	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP2-11200	Blue Creek	NA	S		NA		S	S	2			Aquatic community assessment
NP2-11300	Blue Creek	NA	S		NA		S	S	2			Aquatic community assessment
NP2-11400	Blue Creek	NA	NA		NA		NA		3			
NP2-11500	Lost Creek		NA		NA		NA		3			
NP2-11600	Rush Creek		S		NA		NA	S	2			Aquatic community assessment
NP2-11700	Coldwater Creek		NA		NA		NA		3			
NP2-11800	Cedar Creek		S		NA		S	S	2			Aquatic community assessment
NP2-11900	Cedar Creek		NA		NA		NA		3			
NP2-12000	Deep Holes Creek		NA		NA		NA		3			
NP2-12100	Lower Dugout Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
NP2-12200	Silvernail Drain		NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP3-10000	North Platte River	I	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard index compounds*	E.coli TMDL approved 5/12, Aquatic community assessment, Fish consumption assessment
NP3-10100	Pumpkin Creek		I		S		S	I	5	Aquatic Life-Selenium, DO	Selenium, Unknown	
NP3-10200	Pumpkin Creek		NA		NA		NA		3			
NP3-10210	Greenwood Creek		NA		NA		NA		3			
NP3-10300	Pumpkin Creek	NA	NA		NA		NA		3			
NP3-10310	Lawrence Fork		NA		NA		NA		3			
NP3-10400	Pumpkin Creek		NA		NA		NA		3			
NP3-10410	Big Horn Gulch		NA		NA		NA		3			
NP3-10500	Pumpkin Creek		NA		NA		NA		3			
NP3-10510	Willow Creek		NA		NA		NA		3			
NP3-10600	Upper Dugout Creek		I		NA		NA	I	5	Impaired Aquatic Community	Unknown	Aquatic community assessment
NP3-10700	Indian Creek		S		NA		S	S	2			Aquatic community assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP3-10800	DeGraw Drain		NA		NA		NA		3			
NP3-10900	Red Willow Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 5/12
NP3-10910	Wildhorse Drain		S		NA		S	S	2			Aquatic community assessment
NP3-10911	Wildhorse Canyon		NA		NA		NA		3			
NP3-10920	Wildhorse Drain	NA	S		NA		S	S	2			Aquatic community assessment
NP3-11000	Red Willow Creek		S		NA		S	S	2			Aquatic community assessment
NP3-11100	Red Willow Creek		S		NA		NA	S	2			Fish consumption assessment
NP3-11110	West Water Creek		NA		NA		NA		3			
NP3-11200	Red Willow Creek		S		S		S	S	1			
NP3-11300	Bayard Drain		NA		NA		NA		3			
NP3-11400	Bayard Drain	NA	NA		NA		NA		3			
NP3-11410	Stuckenhole Drain		NA		NA		NA		3			
NP3-11500	Bayard Drain		NA		NA		NA		3			
NP3-11600	Cleveland Drain		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP3-11700	Ninemile Creek	S	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 5/12
NP3-11800	Ninemile Creek	NA	NA		NA		NA		3			
NP3-11810	Moffat Drain		NA		NA		NA		3			
NP3-11820	Alliance Drain	NA	NA		NA		NA		3			
NP3-11900	Ninemile Creek	S	S		S		S	S	1			Aquatic community assessment, Fish consumption assessment
NP3-11910	East Ninemile Creek		NA		NA		NA		3			
NP3-12000	Ninemile Creek	S	I		S		S	I	5	Aquatic Life-DO	Unknown	Fish consumption assessment
NP3-12100	Fairfield Seep		NA		NA		NA		3			
NP3-12200	Melbeta Drain		NA		NA		NA		3			
NP3-12300	Scottsbluff Drain No. 2		NA		NA		NA		3			
NP3-12400	Gering Drain	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 5/12
NP3-12500	Gering Drain		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP3-12600	Winters Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life- Selenium	E. coli, Selenium	E. coli TMDL approved 5/12
NP3-12610	Scottsbluff Drain No. 1		NA		NA		NA		3			
NP3-12620	Dunham Andrews Drain		NA		NA		NA		3			
NP3-12700	Winters Creek		S		S		S	S	1			Aquatic community assessment, Fish consumption assessment
NP3-12800	Unnamed Creek		NA		NA		NA		3			
NP3-12900	Tub Springs Drain	NA	S		NA		NA	S	2			Fish Consumption Assessment
NP3-12910	Unnamed Creek		NA		NA		NA		3			
NP3-12911	Unnamed Creek		NA		NA		NA		3			
NP3-13000	Tub Springs Drain	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 5/12
NP3-13010	Sunflower Drain		NA		NA		NA		3			
NP3-13100	Tub Springs Drain	NA	S		NA		NA	S	2			Fish consumption assessment
NP3-13110	Hiersche Drain	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP3-13200	Tub Spring Drain		NA		NA		NA		3			
NP3-20000	North Platte River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 5/12, Aquatic community assessment
NP3-20100	Unnamed Creek		NA		NA		NA		3			
NP3-20200	Mitchell Drain		NA		NA		NA		3			
NP3-20300	Spottedtail Creek		S		NA		NA	S	2			Fish consumption assessment
NP3-20310	Unnamed Creek		NA		NA		NA		3			
NP3-20400	Spottedtail Creek		NA		NA		NA		3			
NP3-20500	Browns Canyon		NA		NA		NA		3			
NP3-20600	Dry Spottedtail Creek		NA		NA		NA		3			
NP3-20610	Unnamed Drain		NA		NA		NA		3			
NP3-20700	Dry Spottedtail Creek		S		NA		S	S	2			Aquatic community assessment
NP3-30000	North Platte River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 5/12, Aquatic community assessment
NP3-30100	Unnamed Drain		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
NP3-30200	Sheep Creek		NA		NA		NA		3			
NP3-30300	Sheep Creek	NA	NA		NA		NA		3			
NP3-30310	Dry Sheep Creek	NA	NA		NA		NA		3			
NP3-30400	Sheep Creek	S	S		S		S	S	1			Aquatic community assessment, Fish consumption assessment
NP3-30410	Unnamed Creek		NA		NA		NA		3			
NP3-30500	Sheep Creek		S		NA		S	S	2			Aquatic community assessment
NP3-30600	Horse Creek	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 5/12
NP3-30610	Unnamed Drain		NA		NA		NA		3			
NP3-30620	Owl Creek		NA		NA		NA		3			
NP3-30621	Dry Creek		NA		NA		NA		3			
NP3-30621.1	Dry Creek-Branch A		NA		NA		NA		3			
NP3-30621.2	Dry Creek-Branch B		NA		NA		NA		3			
NP3-30622	Dry Creek		NA		NA		NA		3			
NP3-30622.1	Unnamed Drain		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
NP3-30623	Kiowa Creek		S		NA		S	S	2			Aquatic community assessment
NP3-30623.1	Kiowa Creek-Branch B		NA		NA		NA		3			
NP3-30624	Kiowa Creek		NA		NA		NA		3			
NP3-30630	Owl Creek		NA		NA		NA		3			
NP3-30640	Owl Creek		NA		NA		NA		3			
NP3-40000	North Platte River	NA	NA		NA		NA		3			
NP3-50000	North Platte River	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	E.coli TMDL approved 5/12, Aquatic community assessment, Fish consumption assessment

\* **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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.

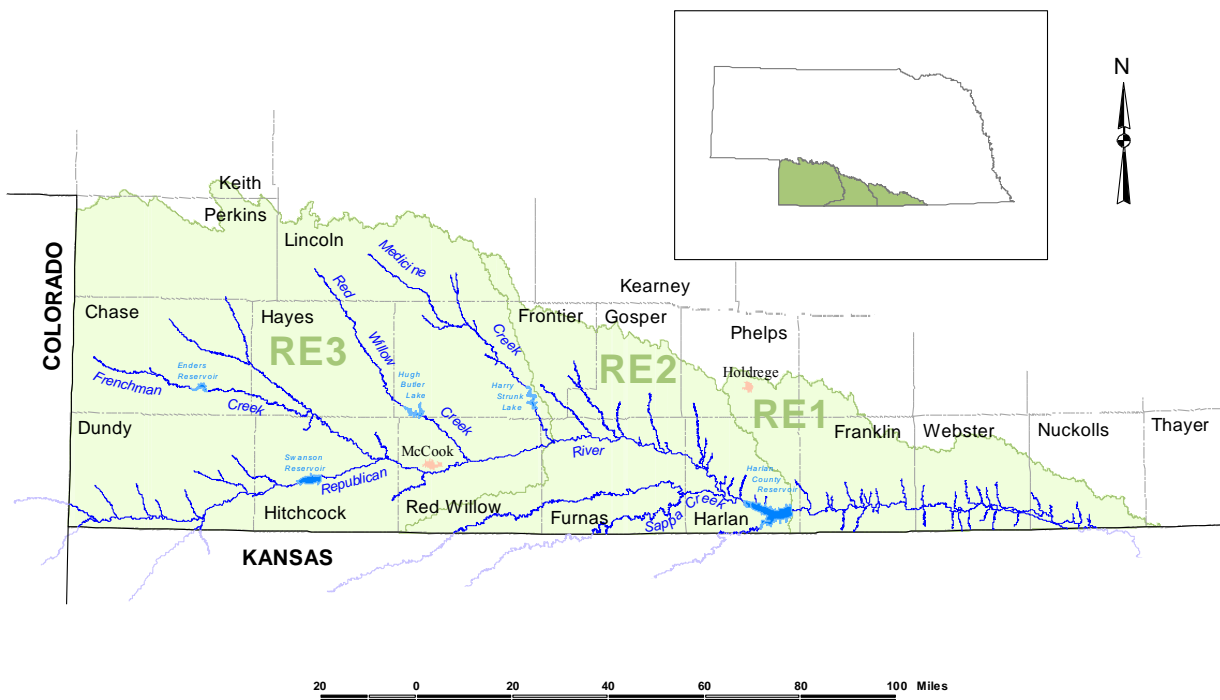
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# REPUBLICAN RIVER BASIN (and Subbasins)



## Republican River Basin – Hydrologic Units 10250001, 10250002, 10250003, 10250004, 10250006, 10250007, 10250008, 10250009, 10250011, 10250014, 10250015 and 0250016

The Republican River basin includes 102 designated stream segments and 20 designated lakes/reservoirs.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	20	0	1	19	0	0	20	0	20
Streams	33	0	19	24	59	0	102	0	102

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**RE3-L0020: Bartley Diversion Dam Lake (WMA)** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 determined this waterbody’s recreation use is being impaired for E. coli. This waterbody will be placed in Category 5.

**RE3-L0030: Curtis City Pond** – This waterbody ID was reassigned in 2009 from Hansen Memorial Reserve Lake to Curtis City Pond. Data since 2009 has correctly reflected Curtis City Pond although it was labeled Hansen Memorial Reserve Lake until the 2014 IR. This waterbody was listed as Category 4R in the 2012 IR. This waterbody was renovated in 2008 and will remain in Category 4R.

**RE3-L0050: Barnett Park Lake (McCook)** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined this waterbody's recreation use is being met; agriculture water supply use is being impaired for Conductivity. This waterbody will be placed in Category 5.

**RE3-L0100: Enders Reservoir** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Chlorophyll a due to nutrients and Total Phosphorus, Hazard Index compounds and Mercury. Data collected in 2012 determined this waterbody's aquatic life use is being met for Total Phosphorus and Total Nitrogen. This waterbody will remain in Category 5.

**RE3-L0110: Champion Mills Pond (SRA)** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined this waterbody's recreation use is being met. This waterbody will be placed in Category 1.

**RE3-L0120: Rock Creek Lake (SRA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for Hazard Index compounds and Mercury. Data collected in 2012 determined this waterbody's recreation use is being met. This waterbody will remain in Category 5.

**RE1-10000: Republican River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An E. coli TMDL was approved 3/05. Data collected in 2012 determined all uses assigned are being met. This waterbody will be placed in Category 1.

**RE1-20000: Republican River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An aquatic community assessment in 2011 determined full support for the aquatic life use. This waterbody will remain in Category 4A.

**RE1-30000: Republican River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An aquatic community assessment in 2011 determined full support for the aquatic life use. This waterbody will remain in Category 5.

**RE1-30100: Elm Creek** – This waterbody was listed as Category 1 in the 2012 IR. Data collected in 2012 determined full support for all assigned uses. A new aquatic community assessment determined the aquatic life use was impaired an impaired aquatic community due to an unknown pollutant. This waterbody will be placed in category 5.

**RE1-30300: Hicks Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE1-30500: Crooked Creek** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 determined full support for both the Agricultural water supply and Aesthetics uses. The aquatic life use is being impaired for naturally elevated Temperatures. This waterbody will be placed in Category 4C.

**RE1-30800: Hicks Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE1-31100: Hicks Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE1-31200: Thompson Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for high temperatures. An aquatic

community assessment determined the aquatic life use was being supported for aquatic community. This waterbody will remain in Category 5.

**RE1-40700: Center Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE1-41000: Cottonwood Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE2-10000: Republican River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An E. coli TMDL was approved 3/05. Data collected in 2012 determined this waterbody's aquatic life use is being impaired for Selenium. This waterbody will be placed in Category 5.

**RE2-10300: Prairie Dog Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for low Dissolved Oxygen. Data collected in 2012 determined the aquatic life use is being met. This waterbody will remain in Category 5.

**RE2-10500: Flag Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous Aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE2-10600: Sappa Creek** – This waterbody was listed as Category 1 in the 2012 IR. Data collected in 2012 determined this waterbody's aquatic life use is being impaired for Selenium. This waterbody will be placed in Category 5.

**RE2-10900: Spring Creek** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2012 determined all assigned uses are being met. An aquatic community assessment determined the aquatic life use is impaired for an impaired aquatic community due to an unknown pollutant. This waterbody will be placed in Category 5.

**RE2-11100: Turkey Creek** – This waterbody was listed as Category 1 in the 2012 IR. An aquatic community assessment determined the aquatic life use is being met. This waterbody will remain in Category 1.

**RE2-11500: Muddy Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous Aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE2-11600: Deer Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous Aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE3-10000: Republican River** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli; aquatic life use was impaired for Selenium. An E. coli TMDL was approved 3/05. This waterbody will remain in Category 5 due to other impairments not being addressed in the TMDL.

**RE3-10200: Medicine Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's recreation use was impaired for E. coli. An aquatic community assessment determined the aquatic life use is being met. This waterbody will remain in Category 5.

**RE3-10600: Red Willow Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An aquatic community assessment determined the aquatic life use is being impaired for an impaired aquatic community due to an unknown pollutant. This waterbody will remain in Category 5.

**RE3-20220: Stinking Water Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s recreation use was impaired for E. coli; aquatic life use was impaired for High Temperature. Data collected in 2012 determined the aquatic life use is being met for Temperature. An aquatic community assessment determined the aquatic life use is being met for the aquatic community. This waterbody will remain in Category 5.

**RE3-20221: Spring Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

**RE3-30000: Republican River** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being met. This waterbody will be placed in category 2.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
RE1-L0005	Big Indian Pond (WMA)	NA	S		S		S	S	2			
RE1-L0010	Sacramento-Wilcox No. 1	NA	S		S		S	S	2			
RE1-L0020	Sacramento-Wilcox No. 2	NA	NA		NA		NA		3			
RE1-L0030	Sacramento-Wilcox No. 3	NA	NA		NA		NA		3			
RE1-L0040	Holdrege Park Lake	NA	I		S		S	I	5	Aquatic Life-pH, Fish Consumption Advisory	Unknown, Hazardous Index compounds*, Mercury	Fish consumption assessment
RE1-L0050	Limestone Bluffs Lake (WMA)	NA	NA		NA		NA		3			
RE1-LXXXX <sup>1</sup>	Frenchman WMA Lake	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Hazardous Index compounds, Mercury	Fish consumption assessment
RE2-L0010	Harlan County Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients	Total Phosphorus, Total Nitrogen	Fish consumption assessment
RE2-L0020	Oxford City Lake	NA	NA		NA		I	I	5	Aesthetics-Algae Blooms	Unknown	TP and TN not assessed
RE3-L0010	Harry Strunk Lake (Medicine Creek Reservoir)	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	Fish consumption assessment
RE3-L0020	Bartley Diversion Dam Lake (WMA)	I	NA		S		NA	I	5	Recreation- Bacteria	E. coli	

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
RE3-L0030	Curtis City Pond	NA	I		S		S	I	4R	Aquatic Life-Nutrients	Total Phosphorus, Total Nitrogen	Lake renovated 2008, Waterbody ID was reassigned to Curtis City Pond from Hansen Memorial Reserve Lake in 2009
RE3-L0040	Red Willow Diversion Dam Lake (WMA)	NA	NA		NA		NA		3			
RE3-L0050	Barnett Park Lake (McCook)	S	NA		I		S	I	5	Ag Water Supply-Conductivity	Unknown	
RE3-L0060	Hugh Butler Lake (Red Willow Reservoir)	S	I		S		S	I	5	Aquatic Life-DO, Nutrients, Fish Consumption Advisory	Total Phosphorus, Hazard Index compounds*, Mercury	Fish consumption assessment
RE3-L0070	Wellfleet Lake	S	I		S		S	I	5	Aquatic Life-DO	Unknown	TP and TN are supporting, Fish consumption assessment
RE3-L0080	Camp Hayes Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a		
RE3-L0090	Swanson Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus, Total Nitrogen	Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
RE3-L0100	Enders Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, Fish Consumption Advisory	Unknown, Hazard Index compounds*, Mercury	TP and TN are supporting, Fish consumption assessment
RE3-L0110	Champion Mills Pond (SRA)	S	S		S		S	S	1			
RE3-L0120	Rock Creek Lake (SRA)	S	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Fish consumption assessment
<b>Streams</b>												
RE1-10000	Republican River	S	S		S		S	S	1			E. coli TMDL approved 3/05, Aquatic community assessment, Fish consumption assessment
RE1-10100	Blakely Creek		NA		NA		NA		3			
RE1-10110	Oak Creek		NA		NA		NA		3			
RE1-10200	Lost Creek	I	I		NA		NA	I	5	Recreation-Bacteria, Aquatic Life-DO	E. coli, Unknown	
RE1-10300	Unnamed Creek		NA		NA		NA		3			
RE1-10400	Cottonwood Creek		NA		NA		NA		3			
RE1-10500	Beaver Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
RE1-20000	Republican River	I	S		S		S	I	4A	Recreation-Bacteria	E. coli	E. coli TMDL approved 3/05, Aquatic community assessment
RE1-20100	Rankin Creek		NA		NA		NA		3			
RE1-20200	Willow Creek		NA		NA		NA		3			
RE1-20300	Courtland Canal	I	NA		NA		NA	I	5	Recreation-Bacteria	E. coli	
RE1-30000	Republican River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
RE1-30100	Elm Creek		I		S		S	I	5	Aquatic Life- Impaired Aquatic community	Unknown	Aquatic community assessment
RE1-30200	Lost Creek		NA		NA		NA		3			
RE1-30300	Hicks Creek		S		NA		S	S	2			Aquatic community assessment
RE1-30400	Dry Creek		NA		NA		NA		3			
RE1-30500	Crooked Creek		I		S		S	I	4C	Aquatic Life - naturally High Temperature	None	
RE1-30600	Cedar Creek		NA		NA		NA		3			
RE1-30700	Indian Creek		NA		NA		NA		3			



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
RE1-30800	East Penny Creek		S		NA		S	S	2			Aquatic community assessment
RE1-30900	Louisa Creek		NA		NA		NA		3			
RE1-31000	Walnut Creek		NA		NA		NA		3			
RE1-31100	Farmers Creek		S		NA		S	S	2			Aquatic community assessment
RE1-31200	Thompson Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	Aquatic community assessment
RE1-40000	Republican River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment
RE1-40100	Wortham Creek		NA		NA		NA		3			
RE1-40200	Lovely Creek		NA		NA		NA		3			
RE1-40300	Reams Creek		NA		NA		NA		3			
RE1-40400	Coates Creek		NA		NA		NA		3			
RE1-40410	Wasp Creek		NA		NA		NA		3			
RE1-40500	Calumet Creek		NA		NA		NA		3			
RE1-40600	Walnut Run		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
RE1-40700	Center Creek		S		NA		S	S	2			Aquatic community assessment
RE1-40800	Lost Creek		NA		NA		NA		3			
RE1-40900	Little Cottonwood Creek		NA		NA		NA		3			
RE1-41000	Cottonwood Creek		S		NA		S	S	2			Aquatic community assessment
RE1-41100	Turkey Creek		NA		NA		NA		3			
RE1-50000	Republican River	S	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-May-June Atrazine, DO	E. coli, Atrazine, Unknown	
RE2-10000	Republican River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	E. coli TMDL approved 3/05
RE2-10100	Methodist Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
RE2-10200	Cook Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
RE2-10300	Prairie Dog Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
RE2-10400	Rope Creek		NA		NA		NA		3			
RE2-10500	Flag Creek		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
RE2-10600	Sappa Creek		I		S		S	I	5	Aquatic Life-Selenium	Selenium	Aquatic community assessment
RE2-10610	Beaver Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-DO	E. coli, Unknown	Aquatic community assessment
RE2-10620	Sheep Creek		NA		NA		NA		3			
RE2-10630	Dutch Creek		NA		NA		NA		3			
RE2-10700	Milrose Creek		NA		NA		NA		3			
RE2-10800	Foster Creek		NA		NA		NA		3			
RE2-10900	Spring Creek		I		S		S	I	5	Aquatic Life-Impaired Aquatic community	Unknown	Aquatic community assessment
RE2-10910	Deep Creek		NA		NA		NA		3			
RE2-11000	Swartz Creek		NA		NA		NA		3			
RE2-11100	Turkey Creek		S		S		S	S	1			Aquatic community assessment
RE2-11200	Dry Creek		NA		NA		NA		3			
RE2-11300	Elk Creek		NA		NA		NA		3			
RE2-11400	Muddy Creek		I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Hazard Index compounds*, Mercury	Aquatic community assessment, Fish consumption assessment

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
RE2-11410	West Muddy Creek		NA		NA		NA		3			
RE2-11500	Muddy Creek		S		NA		S	S	2			Aquatic community assessment
RE2-11600	Deer Creek		S		NA		S	S	2			Aquatic community assessment
RE3-10000	Republican River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	E. coli TMDL approved 3/05
RE3-10100	Medicine Creek	S	I		S		S	I	5	Aquatic Life-DO	Unknown	Aquatic community assessment, ICI score influenced by low water†
RE3-10200	Medicine Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment
RE3-10210	Cedar Creek		NA		NA		NA		3			
RE3-10220	Spring Creek		NA		NA		NA		3			
RE3-10230	Curtis Creek		NA		NA		NA		3			
RE3-10240	Fox Creek		NA		NA		NA		3			
RE3-10241	Cut Canyon		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
RE3-10300	Medicine Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
RE3-10310	Brushy Creek		NA		NA		NA		3			
RE3-10400	Medicine Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
RE3-10500	Red Willow Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
RE3-10600	Red Willow Creek	I	I		S		S	I	5	Aquatic Life-Impaired Aquatic Community, Recreation-Bacteria	E. coli, Unknown	Aquatic community assessment
RE3-10700	Red Willow Creek		NA		NA		NA		3			
RE3-10800	Driftwood Creek		S		S		S	S	1			
RE3-20000	Republican River	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-DO	E. coli, Unknown	Aquatic community assessment
RE3-20100	Blackwood Creek		NA		NA		NA		3			
RE3-20200	Frenchman Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	Aquatic community assessment
RE3-20210	Bobtail Creek		NA		NA		NA		3			
RE3-20220	Stinking Water Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
RE3-20221	Spring Creek		S		NA		S	S	2			Aquatic community assessment
RE3-20300	Frenchman Creek	I	I		S		S	I	4A/C	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	E. coli TMDL approved 3/05
RE3-20400	Frenchman Creek	I	I		S		S	I	5	Recreation-Bacteria, Aquatic Life-naturally High Temperature	E. coli	Aquatic community assessment
RE3-20410	Sand Draw		NA		NA		NA		3			
RE3-20500	Frenchman Creek	NA	S		NA		NA	S	2			Fish consumption assessment
RE3-30000	Republican River	NA	S		NA		S	S	2			Aquatic community assessment
RE3-40000	Republican River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
RE3-40100	Muddy Creek		NA		NA		NA		3			
RE3-40200	Burntwood Creek		NA		NA		NA		3			
RE3-40300	Indian Creek		NA		NA		NA		3			
RE3-40310	Rock Canyon		NA		NA		NA		3			
RE3-40400	Indian Creek		NA		NA		NA		3			
RE3-40500	South Fork Republican River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
RE3-40510	Big Timber Creek		NA		NA		NA		3			
RE3-40600	Spring Creek		NA		NA		NA		3			
RE3-40700	Horse Creek		NA		NA		NA		3			
RE3-40800	Rock Creek	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	
RE3-50000	Republican River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment
RE3-50100	Buffalo Creek		S		S		S	S	1			
RE3-50200	Buffalo Creek		NA		NA		NA		3			
RE3-50300	North Fork Republican River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
RE3-50400	Arikaree River	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
<b>Wetlands</b>												
RE1-WXXXX	Killdeer WPA		NA		NA		NA		3			
RE1-WXXXX	Prairie Dog WPA		NA		NA		NA		3			
RE1-WXXXX	Atlanta WPA		NA		NA		NA		3			
RE1-WXXXX	Jones WPA		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

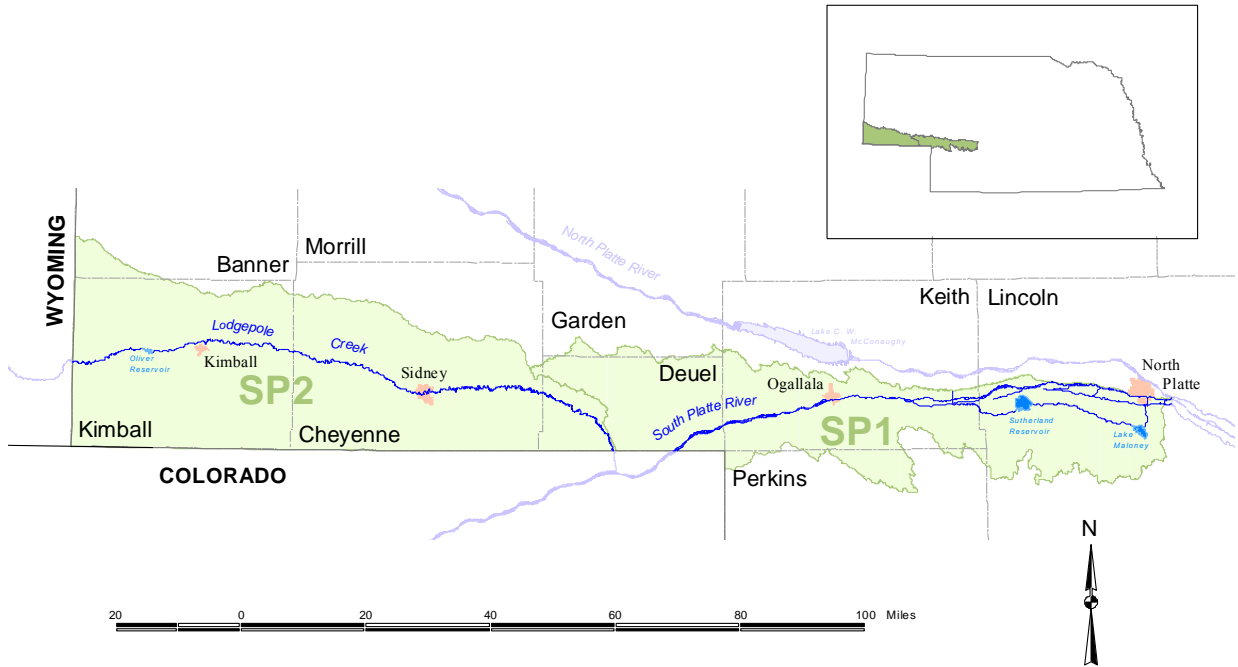
***Hazard index compounds-*** Aroclor-1254 (PCB-1254), Lindane (g-BHC), cis-chlordane, Chlordane, trans-chlordane, DDT, Dieldrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, cis-nonachlor, trans-nonachlor, Oxychlordane, Pentachloroanisole, Trifluralin, Mercury, Cadmium, Selenium

† 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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.



# SOUTH PLATTE RIVER BASIN (and Subbasins)



## South Platte Basin – Hydrologic Units 10190012, 10190015, 10190016, 10190017 and 10190018

The South Platte River Basin includes 28 designated stream segments and 13 designated lakes/reservoirs.

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	13	0	1	12	0	0	13	2	13
Streams	16	1	13	11	3	0	28	4	28

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**SP1-L0010: Interstate Lake (North Platte)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Hazard Index compounds and Mercury. Data collected in 2011 determined this waterbody’s recreation and agriculture water supply uses are being met. A fish consumption assessment determined this waterbody’s aquatic life use is being met for Hazard Index compounds. Due to a change in translator the Hazard Index compounds assessment is no longer valid. This waterbody will remain in Category 5.

**SP1-L0020: Lake Maloney** – This waterbody was listed as Category 1 in the 2012 IR. Data collected in 2011 determined this waterbody’s aquatic life use is being impaired for Chlorophyll a due to nutrients and Total Phosphorus. This waterbody will be placed in Category 5.

**SP1-L0030: Birdwood Lake (WMA)** – This waterbody was listed as Category 2 in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Mercury. This waterbody will be placed in Category 5.

**SP1-L0040: East Hershey Lake (WMA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Hazard Index compounds and Mercury. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being met for Hazard Index compounds. Due to a change in translator the Hazard Index compounds assessment is no longer valid. This waterbody will remain in Category 5.

**SP1-L0050: Hershey Lake (WMA)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for pH due to an unknown pollutant, Hazard Index compounds and Mercury. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being met for Hazard Index compounds. Due to a change in translator the Hazard Index compounds assessment is no longer valid. This waterbody will remain in Category 5.

**SP1-L0070: East Sutherland Lake (WMA)** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined this waterbody’s aquatic life use is being impaired for Mercury. This waterbody will be placed in Category 5.

**SP1-L0080: Sutherland Reservoir** – This waterbody was listed as Category 1 in the 2012 IR. A fish consumption assessment determined this waterbody’s aquatic life use is being impaired for Hazard Index compounds. An industrial water supply use is assigned to this waterbody and was not reflected in the 2012 IR. Industrial water supply users must contact the Department with a water quality concern. Having received no concerns from the user, the industrial water supply use is considered met. This waterbody will be placed in Category 5.

**SP1-L0090: Ogallala City Park Lake** – This waterbody was listed as Category 2 in the 2012 IR. A fish consumption assessment determined this waterbody’s aquatic life use is being impaired for Cancer Risk. This waterbody will be placed in Category 5.

**SP1-L0095: Big Springs Community Lake** – This waterbody was listed as Category 4C in the 2012 IR. This waterbody’s aesthetics use was impaired for dead tree around the lake after the Department received a complaint. This waterbody was renovated and the trees were removed in 2010. This waterbody’s aesthetics use is being met. This waterbody will be placed in Category 2.

**SP1-LXXXX: Sutherland Cooling Pond** – This waterbody was not listed in the 2012 IR. A fish consumption assessment determined this waterbody’s aquatic life use is being impaired for Hazard Index compounds and Mercury. This waterbody will be placed in Category 5.

**SP2-L0010: Chappell Interstate Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Hazard Index compounds. Data collected in 2011 determined this waterbody’s aquatic life is being impaired for pH due to an unknown pollutant; recreation, agriculture water supply and aesthetics uses are being met. This waterbody will remain in Category 5.

**SP1-10200 Fremont Slough** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2011 determined this waterbody’s aquatic life use is being impaired for naturally elevated Temperature. All other uses were determined to be fully met. This waterbody will be placed in Category 4C.

**SP1-10300 Fremont Slough** – This waterbody was listed as Category 3 in the 2012 IR. An Aquatic community assessment determined full support for both the aquatic life and aesthetics uses. This waterbody will be placed in Category 2.

**SP1-10500: Outlet Canal** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Hazard Index compounds and Mercury. A new fish consumption assessment determined this waterbody’s aquatic life use is also impaired for Cancer Risk compounds. This waterbody will remain in Category 5.

**SP1-10600: Outlet Canal** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for Hazard Index and Cancer Risk compounds. A new fish consumption assessment determined this waterbody’s aquatic life use is no longer impaired for Cancer Risk compounds. This waterbody will remain in Category 5.

**SP1-20100: Fremont Slough** – This waterbody was listed as Category 2 in the 2012 IR. A previous Aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**SP1-30100: Fremont Slough** – This waterbody was listed as Category 2 in the 2012 IR. A previous Aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**SP1-30200: Unnamed Creek** – This waterbody was listed as Category 3 in the 2012 IR. An Aquatic community assessment determined both the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**SP1-40000: South Platte River** – This waterbody was listed as Category 2 in the 2012 IR. A previous Aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**SP1-60000: South Platte River** – This waterbody was listed as Category 2 in the 2012 IR. A previous Aquatic community assessment determined the aesthetics use was being met. This waterbody will remain in Category 2.

**SP1-70000: South Platte River** – This waterbody was listed as Category 1 in the 2012 IR. An aquatic community assessment determined the aquatic life use is being met. This waterbody will remain in Category 1.

**SP1-80000: South Platte River** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined the Agriculture Water supply use was impaired for high Conductivity. All other assigned uses are being met. An Aquatic community assessment determined full support for both the aquatic life and aesthetics uses. This waterbody will be placed in Category 5.

**SP1-90000: South Platte River** – This waterbody was listed as Category 5 in the 2012 IR. An aquatic community assessment determined the aquatic life use is being met for the aquatic community. Data collected in 2012 reconfirmed this waterbody’s aquatic life use is being impaired for Selenium; agriculture water supply use is being impaired for Conductivity. This waterbody will remain in Category 5.

**SP2-10000: Lodgepole Creek** – This waterbody was listed as Category 4B in the 2012 IR. This waterbody was not listed as being impaired for any pollutant. The facility discharging to this waterbody is now in full compliance. An aquatic community assessment determined the aquatic life use is impaired for an unknown pollutant. Data collected in 2012 determined both the aesthetics and agriculture water supply uses are being met and the aquatic life use is impaired for Selenium. This waterbody will be placed in Category 5.

**SP2-20000: Lodgepole Creek** – This waterbody was listed as Category 2 in the 2012 IR. An aquatic community assessment determined the aquatic life use was impaired for an unknown pollutant. This waterbody will be placed in Category 5.

**SP2-30000: Lodgepole Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being supported. This waterbody will remain in Category 2.

**SP2-40000: Lodgepole Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being supported. This waterbody will remain in Category 2.

**SP2-50000: Lodgepole Creek** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody's aquatic life use was impaired for low Dissolved Oxygen. An aquatic community assessment determined the aquatic life use is being supported. Data collected in 2012 determined this waterbody's aquatic life use is also being impaired for Selenium. This waterbody will remain in Category 5.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
SP1-L0010	Interstate Lake (North Platte)	S	I		S		NA	I	5	Aquatic Life-Fish Consumption Advisory	Mercury	Fish consumption assessment
SP1-L0020	Lake Maloney	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a	Total Phosphorus	Fish consumption assessment
SP1-L0030	Birdwood Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-Fish Consumption Advisory	Mercury	Fish consumption assessment
SP1-L0040	East Hershey Lake (WMA)	NA	I		NA		NA	I	5	Aquatic Life-Fish Consumption Advisory	Mercury	Fish consumption assessment
SP1-L0050	Hershey Lake (WMA)	NA	I		S		S	I	5	Aquatic Life-pH, Fish Consumption Advisory	Unknown, Mercury	TP and TN not assessed, Fish consumption assessment
SP1-L0060	West Hershey Lake (WMA)	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
SP1-L0070	East Sutherland Lake (WMA)	NA	I		NA		NA	I	5	Aquatic Life-Fish consumption advisory	Mercury	Fish consumption assessment
SP1-L0080	Sutherland Reservoir	S	I		S	S	S	I	5	Aquatic Life-Fish consumption advisory	Hazard Index compounds*	Fish consumption assessment
SP1-L0090	Ogallala City Park Lake	NA	I		NA		S	I	5	Aquatic Life-Fish Consumption Advisory	Cancer Risk	Fish consumption assessment
SP1-L0095	Big Springs Community Lake	NA	NA		NA		S	S	2			Lake renovated 2010
SP1-L0100	Goldeneye Pond (WMA)	NA	S		I		S	I	5	Ag Water Supply-Conductivity	Unknown	Fish consumption assessment
SP1-LXXXX <sup>1</sup>	Sutherland Cooling Pond	NA	I		NA		NA	I	5	Aquatic Life-Fish consumption advisory	Hazard Index compounds*, Mercury	Fish consumption assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
SP2-L0010	Chappell Interstate Lake	S	I		S		S	I	5	Aquatic Life-pH, Fish Consumption Advisory	Unknown, Hazard Index Compounds*	TP and TN not assessed, Fish consumption assessment
SP2-L0030	Oliver Reservoir	S	I		S		S	I	5	Aquatic Life-Nutrients, Chlorophyll a, DO	Total Phosphorus, Total Nitrogen	Fish consumption assessment
<b>Streams</b>												
SP1-10000	South Platte River	S	I		S		S	I	5	Aquatic Life-Fish consumption advisory	Hazard Index compounds*	Fish consumption assessment
SP1-10100	Fremont Slough	NA	NA		NA		NA		3			
SP1-10200	Fremont Slough	S	I		S		S	I	4C	Aquatic Life-naturally High Temperature	None	
SP1-10300	Fremont Slough		S		NA		S	S	2			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
SP1-10400	Fremont Slough		NA		NA		NA		3			
SP1-10500	Outlet Canal	S	I		NA	S	NA	I	5	Aquatic Life-Fish Consumption advisory	Cancer Risk & Hazard Index compounds*, Mercury	Fish consumption assessment
SP1-10600	Outlet Canal	NA	I		NA	S	NA	I	5	Aquatic Life-Fish Consumption advisory	Hazard Index compounds*	Fish consumption assessment
SP1-10700	Sutherland Canal	NA	NA		NA		NA		3			
SP1-10710	South Platte River Supply Canal		NA		NA	NA	NA		3			
SP1-20000	South Platte River	S	I		S		S	I	5	Aquatic Life-Selenium	Selenium	Aquatic community assessment, Fish consumption assessment
SP1-20100	Fremont Slough	NA	S		NA		S	S	2			Aquatic community assessment
SP1-20200	Fremont Slough		NA		NA		NA		3			



<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
SP1-30000	South Platte River	NA	NA		NA		NA		3			
SP1-30100	Fremont Slough		S		NA		S	S	2			Aquatic community assessment
SP1-30200	Unnamed Creek	NA	S		NA		S	S	2			Aquatic community assessment
SP1-40000	South Platte River	NA	S		NA		S	S	2			Aquatic community assessment
SP1-40100	Unnamed Creek		NA		NA		NA		3			
SP1-50000	South Platte River	NA	S		NA		NA	S	2			Fish consumption assessment
SP1-60000	South Platte River	NA	S		NA		S	S	2			Aquatic community assessment
SP1-70000	South Platte River	S	S		S		S	S	1			Aquatic community assessment

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
SP1-80000	South Platte River	S	S		I		S	I	5	Ag Water Supply-Conductivity	Conductivity	Aquatic community assessment
SP1-90000	South Platte River	S	I		I		S	I	5	Aquatic Life-Selenium, Ag Water Supply-Conductivity	Selenium, Conductivity	Aquatic community assessment
SP2-10000	Lodgepole Creek		I		S		S	I	5	Aquatic Life-Selenium, Impaired aquatic community	Selenium, Unknown	Aquatic community assessment
SP2-20000	Lodgepole Creek		I		NA		NA	I	5	Aquatic Life-Impaired aquatic community	Unknown	Aquatic community assessment, ICI score is influenced by low water†
SP2-30000	Lodgepole Creek		S		NA		S	S	2			Aquatic community assessment

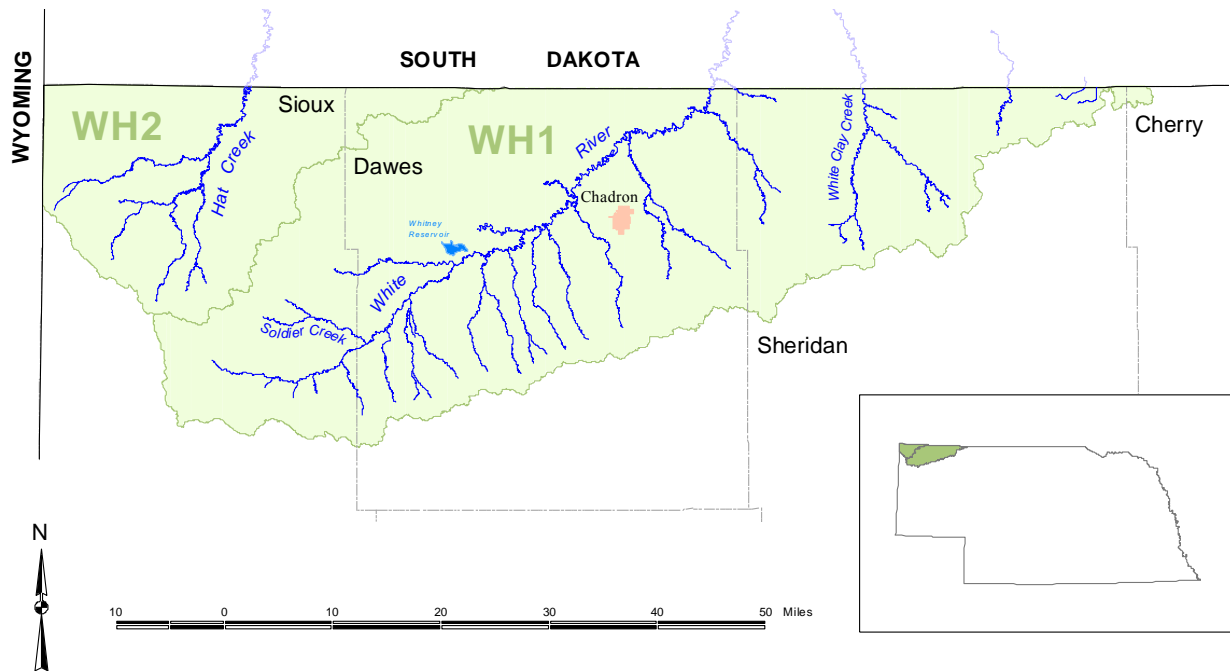
Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
SP2-40000	Lodgepole Creek		S		NA		S	S	2			Aquatic community assessment
SP2-50000	Lodgepole Creek		I		S		S	I	5	Aquatic Life-Selenium, DO	Selenium, Unknown	Aquatic community assessment
SP2-60000	Lodgepole Creek		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

† 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

<sup>1</sup> XXXX designates in Title 117 an undesignated waterbody. See Title 117 Chapter 2.004.

# WHITE RIVER - HAT CREEK BASIN (and Subbasins)



## White River-Hat Creek Basin – Hydrologic Units 10120108, 10120108 and 10140201

The White River-Hat Creek Basin includes 63 designated stream segments and 27 designated lake/reservoirs

Waterbody Type	Primary Contact Recreation	Aquatic Life CA <sup>1</sup>	Aquatic Life CB <sup>1</sup>	Aquatic Life WA <sup>1</sup>	Aquatic Life WB <sup>1</sup>	Water Supply – Public Drinking	Water Supply – Ag	Water Supply-Ind.	Aesthetics
Lakes	27	0	14	13	0	0	27	0	27
Streams	18	15	36	1	11	7	63	0	63

<sup>1</sup> CA = Coldwater Class A, CB = Coldwater Class B, WA = Warmwater Class A and WB = Warmwater Class B

### Delisting/ Changes from 2012 IR

The following are waters and or parameters that were delisted – removed from category 5 or other significant changes from the 2012 Integrated Report (IR).

**WH1-L0010: Isham Lake** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for pH due to an unknown pollutant. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Hazard Index compounds and Mercury. This waterbody will remain in Category 5.

**WH1-L0020: Chadron City Reservoir South** – This waterbody was listed as Category 3 in the 2012 IR. Data collected in 2011 determined this waterbody’s recreation, aesthetics, and agriculture water supply uses are being met. A fish consumption assessment determined the aquatic life use is being met. This waterbody will be placed in Category 1.

**WH1-L0030: Chadron City Reservoir North** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined this waterbody’s recreation use is being met. This waterbody will be placed in Category 1.

**WH1-L0060: Whitney Reservoir** – This waterbody was listed as Category 2 in the 2012 IR. A fish consumption assessment in 2011 determined this waterbody’s aquatic life use is being impaired for Mercury. This waterbody will be placed in Category 5.

**WH1-L0110: Lower Ice House Pond (Ft. Robinson State Park)** – This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined this waterbody’s aquatic life use is being met. This waterbody will be placed in Category 2.

**WH1-L0170: Grabel Pond 5 (Ft. Robinson State Park)** - This waterbody was listed as Category 3 in the 2012 IR. A fish consumption assessment determined this waterbody’s aquatic life use is being impaired for Hazard Index compounds and Mercury. This waterbody will be placed in Category 5.

**WH1-L0200: Lake Carter p. Johnson (Ft. Robinson State Park)** – This waterbody was listed as Category 5 in the 2012 IR. This waterbody’s aquatic life use was impaired for pH due to an unknown pollutant, Hazard Index compounds and Mercury. Data collected in 2011 determined this waterbody’s recreation use is being met. This waterbody will remain in Category 5.

**WH1-10000: White River** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2012 determined all assigned uses are being met. This waterbody will be placed in Category 1.

**WH1-10420: Larabee Creek** – This waterbody was listed as Category 2 in the 2012 IR. An aquatic community assessment determined the aquatic life use is being impaired for an unknown pollutant. This waterbody will be placed in Category 5.

**WH1-10900: Beaver Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being supported. This waterbody will remain in Category 2.

**WH1-11120: Big Bordeaux Creek** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined all assigned uses are being met. This waterbody will be placed in Category 1.

**WH1-11400: Dead Horse Creek** - This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined both the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**WH1-11810: East Ash Creek** - This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined both the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**WH1-11820: West Ash Creek** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined the aquatic life, agriculture water supply and aesthetics uses are being met and the recreation use is being impaired for E. coli. This waterbody will be placed in Category 5.

**WH1-20000: White River** – This waterbody was listed as Category 4A in the 2012 IR. This waterbody’s recreation use was impaired for E. coli. An E. coli TMDL was approved 1/06. Data collected in 2011 determined this waterbody’s aquatic life use is being impaired for Selenium. This waterbody will be placed in Category 5.

**WH1-20310: Middle Fork Soldier Creek** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined the aquatic life, agriculture water supply and aesthetics uses are being met. An aquatic community assessment determined the aquatic life use is being impaired for an unknown pollutant. This waterbody will be placed in Category 5.

**WH1-30000: White River** – This waterbody was listed as Category 5 in the 2012 IR. Data collected in 2012 determined the aquatic life, public drinking water supply, agriculture water supply and aesthetics uses are being met and the recreation use is being impaired for E. coli. An aquatic community assessment also determined the aquatic life use is being met. This waterbody will remain in Category 5.

**WH1-30200: Deep Creek** - This waterbody was listed as Category 3 in the 2012 IR. An aquatic community assessment determined both the aquatic life and aesthetics uses are being met. This waterbody will be placed in Category 2.

**WH1-40000: White River** – This waterbody was listed as Category 2 in the 2012 IR. Data collected in 2011 determined all assigned uses are being met. This waterbody will be placed in Category 1.

**WH2-10200: Warbonnet Creek** – This waterbody was listed as Category 2 in the 2012 IR. A previous aquatic community assessment determined the aesthetics use was being supported. This waterbody will remain in Category 2.

**WH2-30000: Hat Creek** – This waterbody was listed as Category 1 in the 2012 IR. An aquatic community assessment determined the aquatic life use was being supported. Data collected in 2012 determined all assigned uses are being supported. This waterbody will remain in Category 1.

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
<b>Lakes</b>												
WH1-L0010	Isham Lake	NA	I		S		S	I	5	Aquatic Life-pH, Fish consumption advisory	Unknown, Hazard Index Compounds*, Mercury	TP and TN not assessed, Fish consumption assessment
WH1-L0020	Chadron City Reservoir South	S	S		S		S	S	1			Fish consumption assessment
WH1-L0030	Chadron City Reservoir North	S	S		S		S	S	1			Fish consumption assessment
WH1-L0040	Chadron State Park Pond	NA	NA		NA		NA		3			
WH1-L0050	Snus Lake	NA	NA		NA		NA		3			
WH1-L0060	Whitney Reservoir	NA	I		S		S	I	5	Aquatic Life-Fish consumption advisory	Mercury	Fish consumption assessment
WH1-L0070	Dodd Dam Lake	NA	NA		NA		NA		3			
WH1-L0080	Rock Bass Dam Lake	NA	S		S		S	S	2			
WH1-L0090	Lake Crawford (Ft. Robinson State Park)	NA	NA		NA		NA		3			
WH1-L0100	Cherry Creek Pond (Ft. Robinson State Park)	NA	NA		NA		NA		3			
WH1-L0105	Cherry Creek Diversion Pond (Ft. Robinson State Park)	NA	NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
WH1-L0110	Lower Ice House Pond (Ft. Robinson State Park)	NA	S		NA		NA	S	2			Fish consumption assessment
WH1-L0120	Ice House Diversion Pond (Ft. Robinson State Park)	NA	NA		NA		NA		3			
WH1-L0130	Upper Ice House Pond (Ft. Robinson State Park)	NA	NA		NA		NA		3			
WH1-L0140	Grabel Pond No 1 (Ft. Robinson State Park)	NA	NA		NA		NA		3			
WH1-L0150	Grabel Pond No 2 (Ft. Robinson State Park)	NA	NA		NA		NA		3			
WH1-L0160	Grabel Pond No 3 (Ft. Robinson State Park)	NA	NA		NA		NA		3			
WH1-L0170	Grabel Pond No 5 (Ft. Robinson State Park)	NA	I		NA		NA	I	5	Aquatic Life-Fish consumption advisory	Hazard Index Compounds*, Mercury	Fish consumption assessment
WH1-L0180	Boardgate Pond	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN not assessed
WH1-L0190	Crazy Horse Lake (Ft. Robinson State Park)	NA	NA		NA		NA		3			



Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
WH1-L0200	Lake Carter P. Johnson (Ft. Robinson State Park)	S	I		S		S	I	5	Aquatic Life-pH, Fish Consumption Advisory	Unknown, Hazard Index Compounds*, Mercury	TP and TN not assessed, Fish consumption assessment
WH1-L0210	Beaver Dam Pond	NA	NA		NA		NA		3			
WH1-L0220	Round Top Pond	NA	NA		NA		NA		3			
WH2-L0010	Lundy Pond	NA	NA		NA		NA		3			
WH2-L0020	Agate Pond	NA	I		S		S	I	5	Aquatic Life-pH	Unknown	TP and TN not assessed
WH2-L0030	Meng Lake	NA	I		I		S	I	5	Aquatic Life-Nutrients, pH, Ag Water Supply-Conductivity	Total Phosphorus	
WH2-L0040	Gilbert Baker Pond (WMA)	NA	NA		NA		NA		3			
<b>Streams</b>												
WH1-10000	White River		S	S	S		S	S	1			Aquatic community assessment, Fish consumption assessment, IBI score influenced by low water†

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
WH1-10100	Unnamed Creek		NA		NA		NA		3			
WH1-10200	Unnamed Creek		NA		NA		NA		3			
WH1-10300	Wounded Knee Creek		NA		NA		NA		3			
WH1-10400	White Clay Creek		NA		NA		NA		3			
WH1-10410	Patton Creek		NA		NA		NA		3			
WH1-10420	Larabee Creek		I		NA		NA	I	5	Aquatic Life- Impaired Aquatic community	Unknown	Aquatic community assessment
WH1-10421	Unnamed Creek		NA		NA		NA		3			
WH1-10422	Unnamed Creek		NA		NA		NA		3			
WH1-10430	Larabee Creek		NA		NA		NA		3			
WH1-10500	White Clay Creek		NA		NA		NA		3			
WH1-10510	Unnamed Creek		NA		NA		NA		3			
WH1-10600	White Clay Creek		NA		NA		NA		3			
WH1-10610	Unnamed Creek		NA		NA		NA		3			
WH1-10700	Limekiln Creek		NA		NA		NA		3			
WH1-10800	Beaver Creek		NA		NA		NA		3			
WH1-10810	Little Beaver Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
WH1-10900	Beaver Creek		S		NA		S	S	2			Aquatic community assessment
WH1-11000	Alkali Creek		NA		NA		NA		3			
WH1-11100	Bordeaux Creek		S		NA		NA	S	2			Fish consumption assessment
WH1-11110	Little Bordeaux Creek	NA	NA		NA		NA		3			
WH1-11120	Big Bordeaux Creek		S		S		S	S	1			Aquatic community assessment
WH1-11200	Lone Tree Creek		NA		NA		NA		3			
WH1-11300	Chadron Creek	I	S	S	S		S	I	5	Recreation-Bacteria	E. coli	Fish consumption assessment
WH1-11400	Dead Horse Creek	NA	S		NA		S	S	2			Aquatic community assessment
WH1-11500	Trunk Butte Creek	NA	NA		NA		NA		3			
WH1-11600	Big Cottonwood Creek	NA	NA		NA		NA		3			
WH1-11700	Indian Creek	NA	NA		NA		NA		3			
WH1-11710	Cunningham Creek	NA	NA		NA		NA		3			
WH1-11800	Ash Creek		NA		NA		NA		3			

Waterbody ID	Waterbody Name	Recreation	Aquatic Life	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics	Overall Assessment	2014 IR	Impairments	Pollutants of Concern	Comments/Actions
WH1-11810	East Ash Creek	NA	S		NA		S	S	2			Aquatic community assessment
WH1-11820	West Ash Creek	I	S		S		S	I	5			Aquatic community assessment
WH1-11900	Little Cottonwood Creek		NA		NA		NA		3			
WH1-12000	Little Cottonwood Creek	NA	NA		NA		NA		3			
WH1-20000	White River	I	I	S	S		S	I	5	Recreation-Bacteria, Aquatic Life-Selenium	E. coli, Selenium	E. coli TMDL approved 1/06, Aquatic community assessment, Fish consumption assessment
WH1-20100	White Clay Creek	I	S		S		S	I	5	Recreation-Bacteria	E. coli	
WH1-20110	Squaw Creek		NA		NA		NA		3			
WH1-20111	English Creek		NA		NA		NA		3			
WH1-20120	Squaw Creek	NA	NA		NA		NA		3			
WH1-20130	Unnamed Creek	NA	NA		NA		NA		3			
WH1-20200	Bozle Creek		NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
WH1-20300	Soldier Creek		S	S	S		S	S	1			Fish consumption assessment
WH1-20310	Middle Fork Soldier Creek		I		S		S	I	5	Aquatic Life-Impaired Aquatic community	Unknown	Aquatic community assessment
WH1-20400	Soldier Creek		NA		NA		NA		3			
WH1-30000	White River	I	S	S	S		S	I	5	Recreation-Bacteria	E. coli	Aquatic community assessment, Fish consumption assessment
WH1-30100	Dead Man's Creek	NA	NA	NA	NA		NA		3			
WH1-30200	Deep Creek		S		NA		S	S	2			Aquatic community assessment
WH1-30300	Bull Creek		NA		NA		NA		3			
WH1-30400	Kyle Creek		NA		NA		NA		3			
WH1-40000	White River		S	S	S		S	S	1			Aquatic community assessment
WH2-10000	Hat Creek	NA	S		S		S	S	2			
WH2-10100	Squaw Creek	NA	NA		NA		NA		3			

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Recreation</b>	<b>Aquatic Life</b>	<b>Public Drinking Water Supply</b>	<b>Agriculture Water Supply</b>	<b>Industrial Water Supply</b>	<b>Aesthetics</b>	<b>Overall Assessment</b>	<b>2014 IR</b>	<b>Impairments</b>	<b>Pollutants of Concern</b>	<b>Comments/Actions</b>
WH2-10110	West Squaw Creek		NA		NA		NA		3			
WH2-10200	Warbonnet Creek		S		NA		S	S	2			Aquatic community assessment
WH2-10210	Sowbelly Creek		NA		NA		NA		3			
WH2-10220	Sowbelly Creek		NA		NA		NA		3			
WH2-10230	Monroe Creek		NA		NA		NA		3			
WH2-10240	Monroe Creek		S		S		S	S	1			
WH2-20000	Hat Creek		NA		NA		NA		3			
WH2-30000	Hat Creek		S		S		S	S	1			Aquatic community assessment
WH2-30100	East Hat Creek		NA		NA		NA		3			
WH2-30200	West Hat Creek		NA		NA		NA		3			
WH2-30300	West Hat Creek		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

† 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

# **2013 Nebraska Groundwater Quality Monitoring Report**

Prepared Pursuant  
to Neb. Rev. Stat. §46-1304  
(LB329 – 2001)



**Nebraska Department of Environmental Quality  
Water Quality Assessment Section  
Groundwater Unit  
December 2013**



**Photo on front cover:**

Farmer checking pivot in northeast Buffalo County, Dale R. Link

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## Appendix

Appendix A. Compounds for which groundwater samples have been analyzed . . . . .	A-1 – A-2
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# 2013 Nebraska Groundwater Quality Monitoring Report

## **INTRODUCTION**

The 2001 Nebraska Legislature passed LB329 (Neb. Rev. Stat. §46-1304) which, in part, directed the Nebraska Department of Environmental Quality (NDEQ) to report on groundwater quality monitoring in Nebraska. Reports have been issued annually since December 2001. The text of the statute applicable to this report follows:

“The Department of Environmental Quality shall prepare a report outlining the extent of ground water quality monitoring conducted by natural resources districts during the preceding calendar year. The department shall analyze the data collected for the purpose of determining whether or not ground water quality is degrading or improving and shall present the results to the Natural Resources Committee of the Legislature beginning December 1, 2001, and each year thereafter. The districts shall submit in a timely manner all ground water quality monitoring data collected to the department or its designee. The department shall use the data submitted by the districts in conjunction with all other readily available and compatible data for the purpose of the annual ground water quality trend analysis.”

The section following the statute quoted above (§ 46-1305), requires the State’s Natural Resources Districts to submit an annual report to the legislature with information on their water quality programs, including financial data. That report has been prepared by the Nebraska Association of Resources Districts and is being issued concurrently with this groundwater quality report.

## **GROUNDWATER IN NEBRASKA**

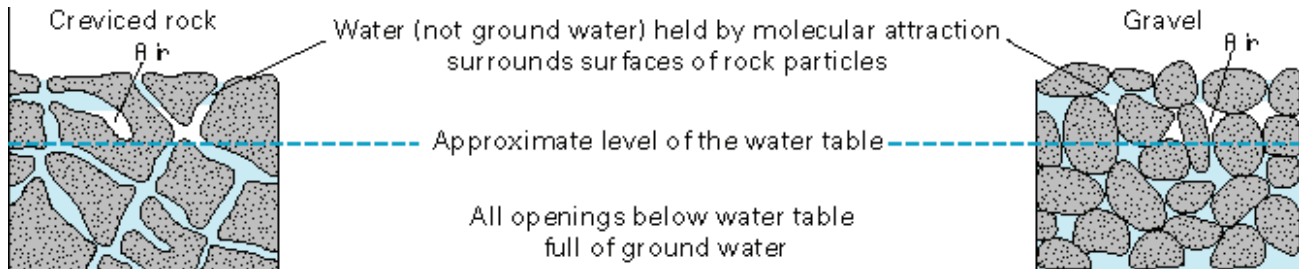
Groundwater can be defined as water that occurs in the open spaces below the surface of the earth (Figure 1). In Nebraska (as in many places worldwide), useable groundwater occurs in voids or pore spaces in various layers of geologic material such as sand, gravel, silt, sandstone, and limestone. These layers are referred to as aquifers where such geologic units yield sufficient water for human use. In parts of the state, groundwater may be encountered just a few feet below the surface, while in other areas, it may be a few hundred feet underground. This underground water “surface” is usually referred to as the water table, while water which soaks downward through overlying rocks and sediment to the water table is called recharge as shown in Figure 2. The amount of water that can be obtained from a given aquifer may range from a few gallons per minute (which is just enough to supply a typical household) to many hundreds or even thousands of gallons per minute (which is the yield of large irrigation, industrial or public water supply wells).



Public Water Supply well capable of pumping thousands of gallons per minute (Hastings, NE).

## Depth & Velocity of Groundwater

The depth to groundwater plays a very important role in Nebraska's valuable water resource. Obviously, a shallow well is cheaper to drill, construct, and pump. Conversely, shallow groundwater is more at-risk from impacts from human activities. Surface spills, application of agricultural chemicals, effluent from septic tank leach fields, and other sources of contamination will impact shallow groundwater more quickly than groundwater found at depth. The map in Figure 3 shows the great variation of depth to water across the State.



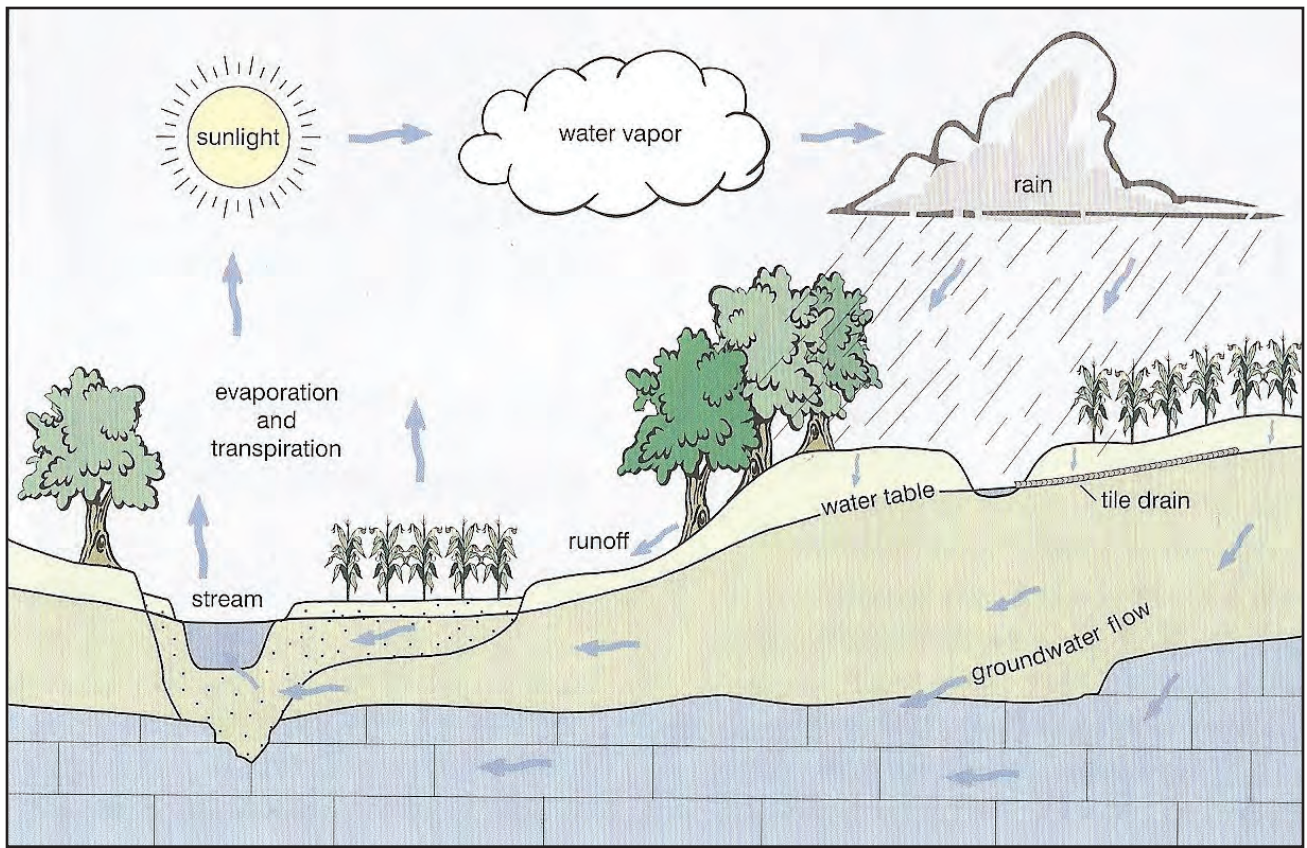
**Figure 1.** Basic aquifer concepts (U.S. Geological Survey).

In general, groundwater flows very slowly, especially when compared to the flow of water in streams and rivers. Many factors determine the speed of groundwater and most of these factors cannot be measured or observed directly. Basic groundwater features are shown in Figures 1 and 2. The most important geologic characteristics that impact groundwater movement are as follows:

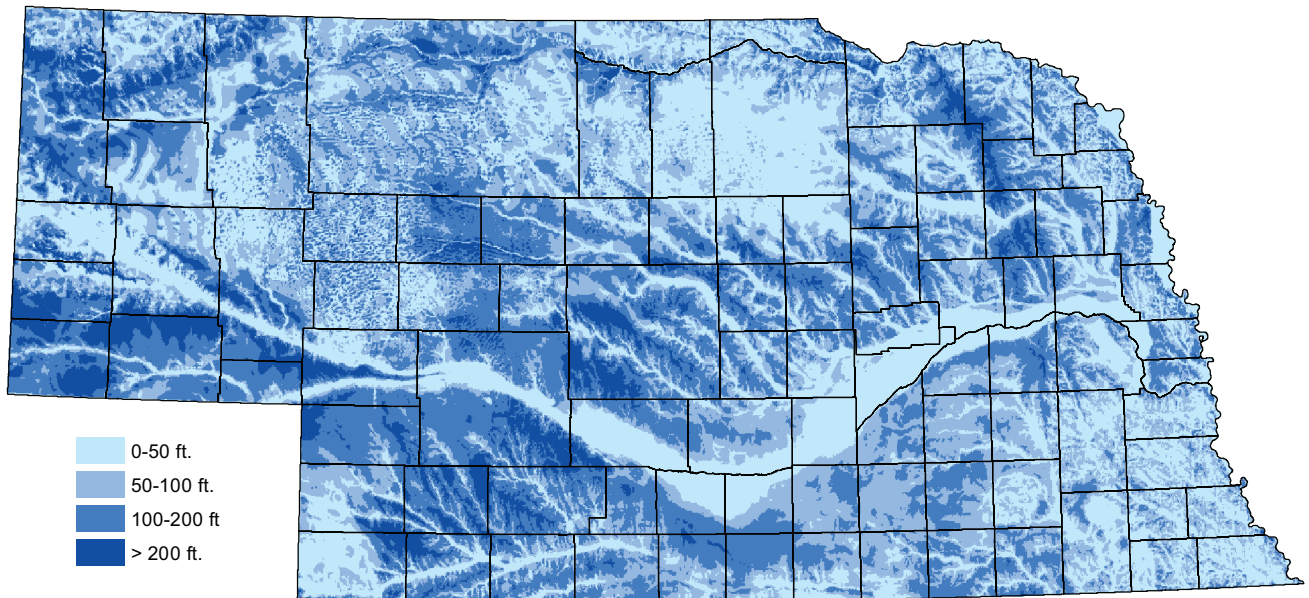
- o The sediments in the saturated zone of the aquifer – for example, groundwater generally flows faster through gravel sediments than clay sediments.
- o The ‘sorting’ of the sediments. Groundwater in aquifers with a mix of clay, sand, and gravel (poor sorting) generally does not flow as fast as in aquifers that are composed of just one sediment, such as gravel (good sorting).
- o The ‘gradient’ of the water table. Groundwater flows from higher elevations toward lower elevations under the force of gravity. In areas of high relief, groundwater flows faster. A typical groundwater gradient in Nebraska is 10 feet of drop over a mile (0.002 ft/ft).
- o Well pumping influences. In areas of the State with numerous high capacity wells (mainly irrigation wells), groundwater velocity and direction can be changed seasonally as water is pumped.

Ultimately, groundwater scientists have determined that groundwater in Nebraska can flow as fast as one to two feet per day in areas like the Platte River valley and as slow as one to two inches per year in areas like the Pine Ridge in northwest Nebraska or the glacially deposited sediments in southeast Nebraska.





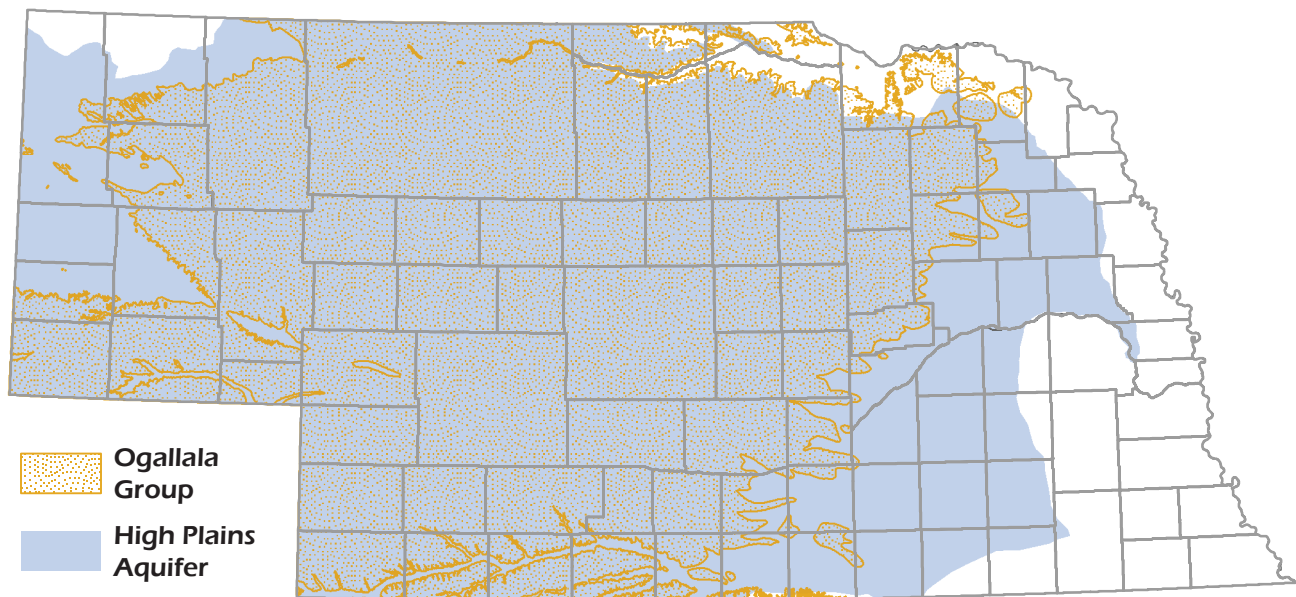
**Figure 2.** Generalized hydrologic cycle. (Prior, 2003).



**Figure 3.** Generalized depth to groundwater. (Source: University of Nebraska, Conservation and Survey Division, 1998)

## Geology and Groundwater

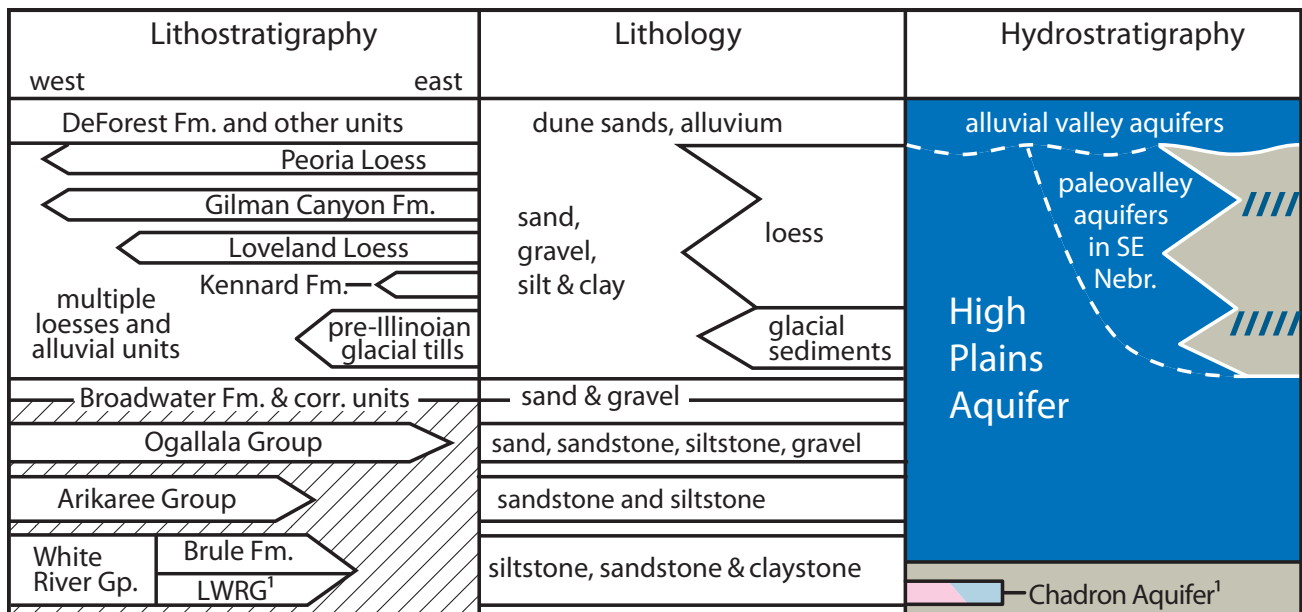
Nebraska has been “underwater” most of its history. Ancient seas deposited multiple layers of marine sediments that eventually formed sandstone, shale and limestone. These units are now considered “bedrock” and have limited fresh water supplies, such as in portions of the Dakota and Niobrara. After the seas retreated, huge river systems deposited sand and gravel eroded from mountain building to the west to form groundwater bearing formations such as the lower Chadron, Ogallala (Figure 4 and 5) and Broadwater. Next, the combination of erosion (statewide) and glaciation in the east introduced new material that was deposited by wind, water and ice to form the remainder of the High Plains Aquifer (Figure 4 and 5).



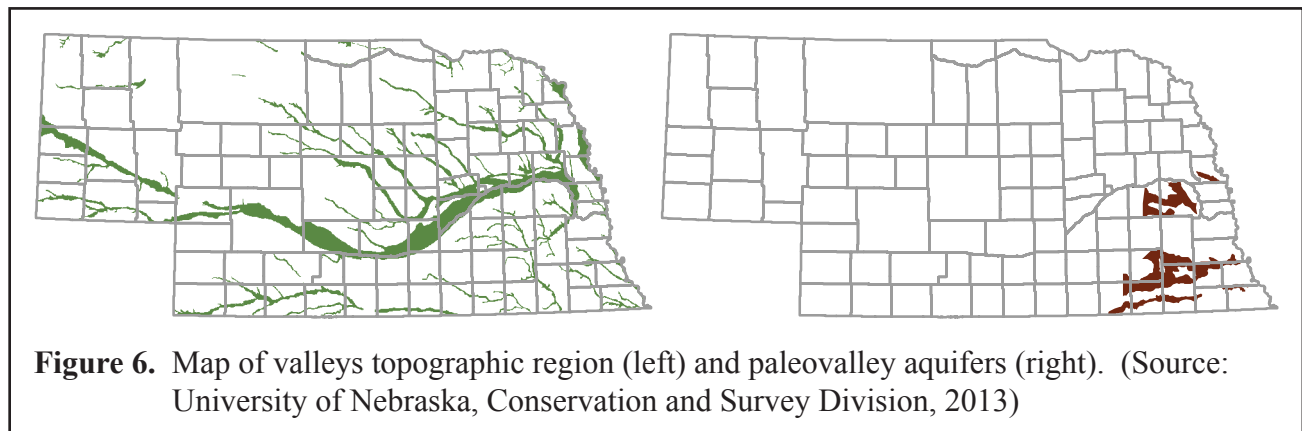
**Figure 4.** Map of the High Plains aquifer identifying the Ogallala Group. (Source: University of NE, Conservation and Survey Division, 2013)

The High Plains Aquifer is a conglomeration of many separate groundwater bearing formations such as the Brule, Arikaree, Ogallala, Broadwater, and many more recent unnamed deposits (including the Sand Hills). Many of the unnamed deposits are found mainly within the stream valleys (recent or ancient) and are a common source of groundwater (Figure 6, left pane). No single formation completely covers the entire state. However, when these numerous formations and deposits are combined, they form the High Plains Aquifer, covering almost 90% of Nebraska.

There are parts of eastern Nebraska where the High Plains Aquifer is not present. These areas rely heavily on groundwater from buried ancient river channels, recent alluvial valleys (Missouri, Platte, and Nemaha Rivers) or surface water intakes from the Missouri River (Figure 6, right pane).



**Figure 5.** Excerpts from the generalized geologic and hydrostratigraphic framework of Nebraska. (Source: University of NE, Conservation and Survey Division, 2013)

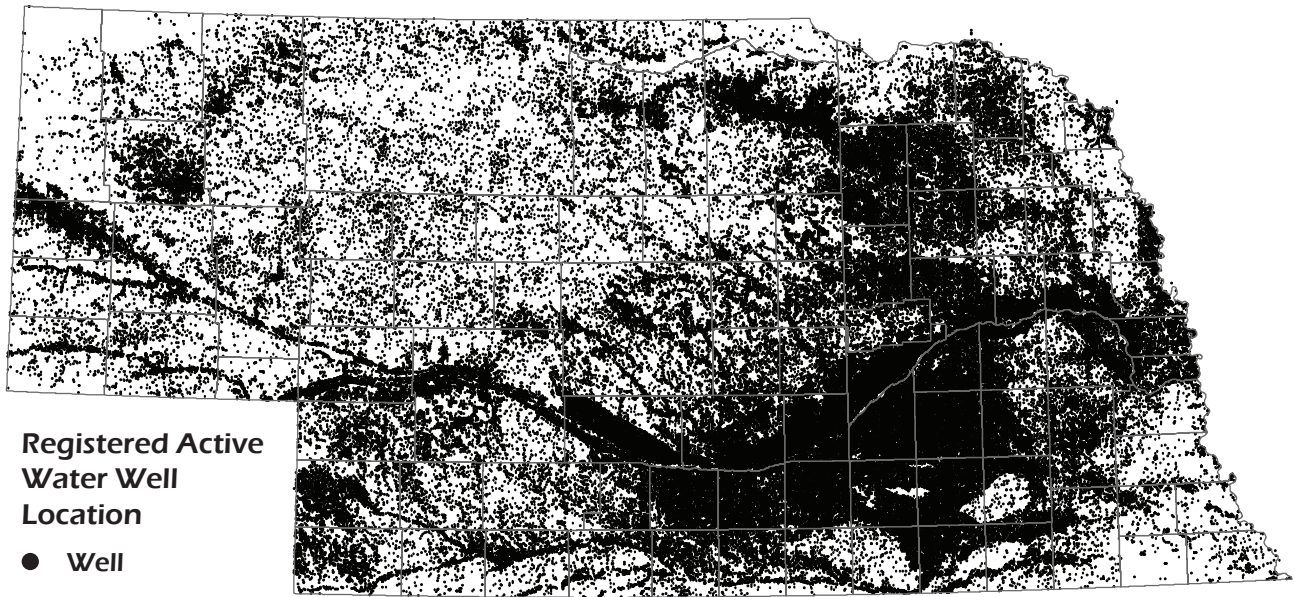


**Figure 6.** Map of valleys topographic region (left) and paleovalley aquifers (right). (Source: University of Nebraska, Conservation and Survey Division, 2013)

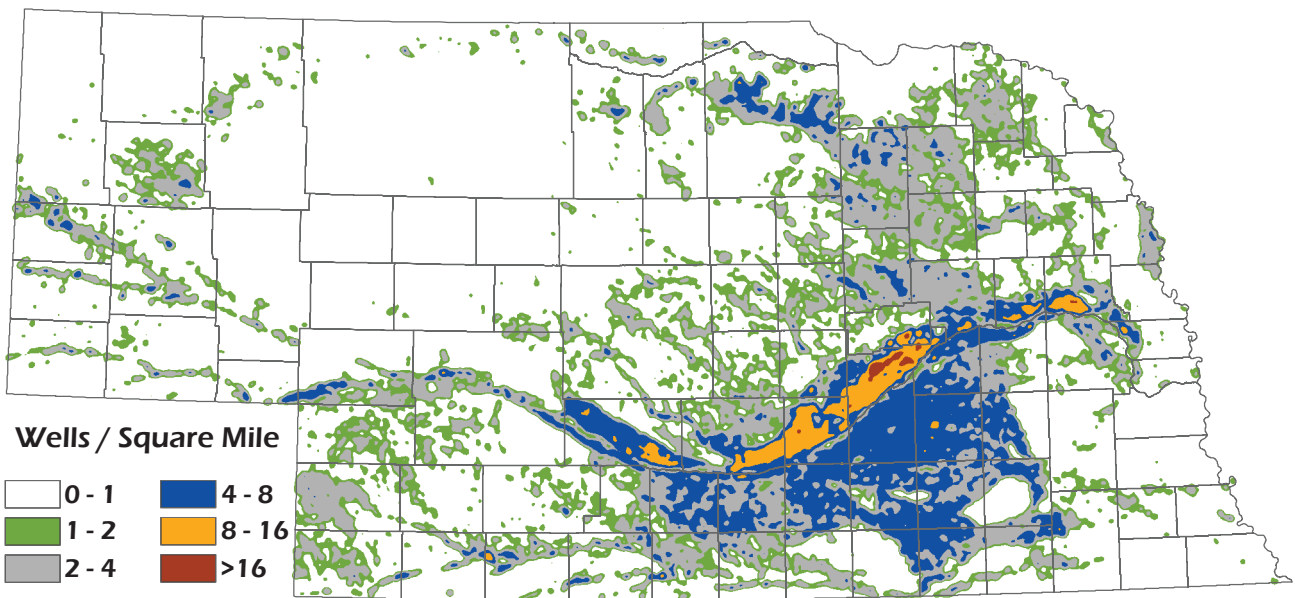
### Importance of Groundwater

Nebraska is one of the most groundwater-rich places in the entire world. Approximately 88% of the state's residents rely on groundwater as their source of drinking water. If the public water supply for the Omaha metropolitan area (which gets about a third of its water supply from the Missouri River) isn't counted, this rises to nearly 99%. Essentially all of the rural residents of the state use groundwater for their domestic supply. Not only does Nebraska depend on groundwater for its drinking water supply, the state's agricultural industry utilizes vast amounts of groundwater to irrigate crops. Most of Nebraska experiences variable amounts of precipitation throughout the year, so irrigation is used, where possible, to ensure adequate amounts of moisture for raising such crops as corn, soybeans, alfalfa, and edible beans. As of November 2013, the Nebraska Department of Natural Resources (NDNR) listed 94,882 active irrigation wells and 26,596 active domestic wells registered in the state. Domestic wells were not required to be registered with the state prior to September 1993, therefore thousands of domestic wells exist that are not registered with the NDNR. Figures 7 and 8 and information shown in Table 1 help illustrate this.

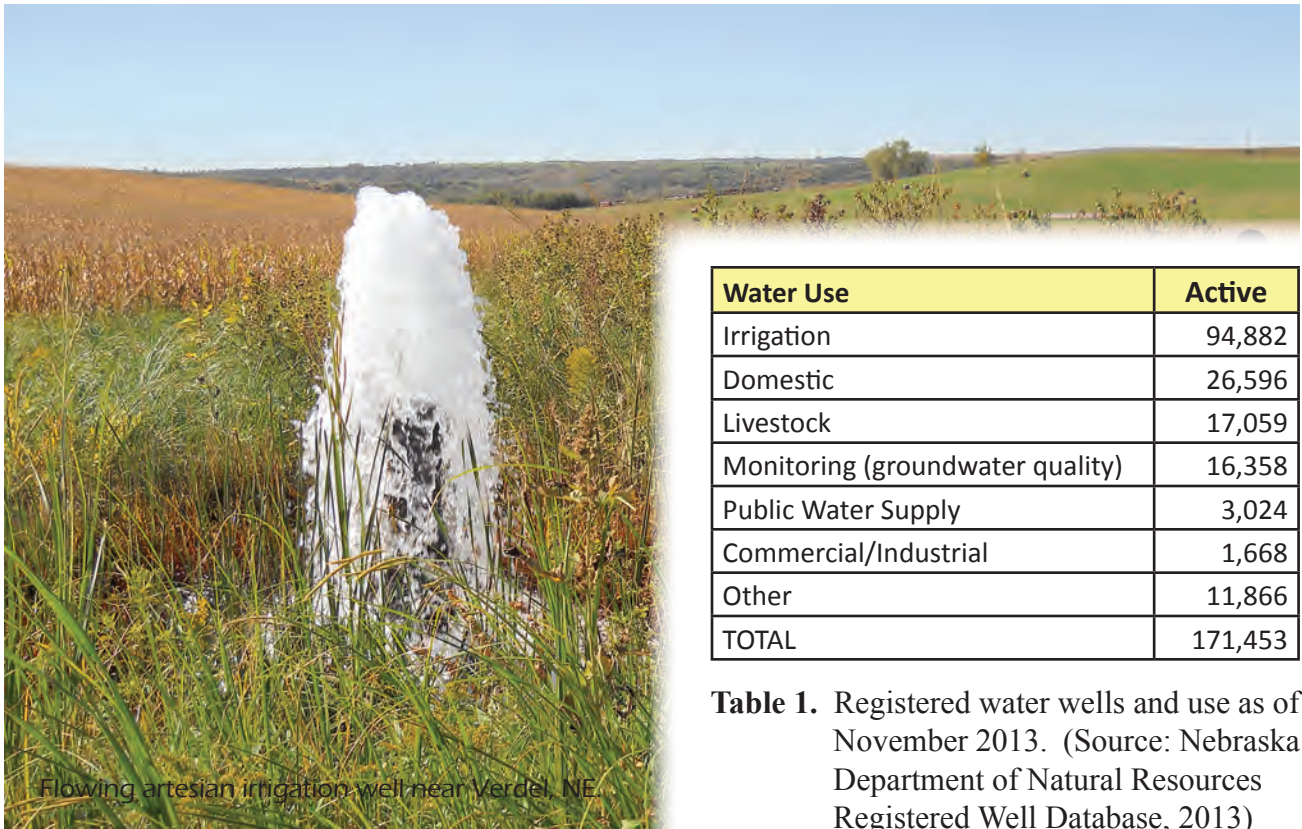




**Figure 7.** Active registered water wells as of November 2013. (Source: Nebraska Department of Natural Resources Registered Well Database, 2013)



**Figure 8.** Density of active registered irrigation wells as of November 2013. (Source: Nebraska Department of Natural Resources Registered Well Database, 2013)



Flowing artesian irrigation well near Verdel, NE.

Water Use	Active
Irrigation	94,882
Domestic	26,596
Livestock	17,059
Monitoring (groundwater quality)	16,358
Public Water Supply	3,024
Commercial/Industrial	1,668
Other	11,866
<b>TOTAL</b>	<b>171,453</b>

**Table 1.** Registered water wells and use as of November 2013. (Source: Nebraska Department of Natural Resources Registered Well Database, 2013)

## Groundwater Monitoring

The previous information clearly shows that groundwater is vital to the well-being of all Nebraskans. Fortunately, our state has a long tradition of progressive action in monitoring, managing, and protecting this most precious resource. Several agencies perform monitoring of groundwater for a variety of purposes.

Those entities include:

- Natural Resources Districts (23)
- Nebraska Department of Agriculture
- Nebraska Department of Environmental Quality
- Nebraska Department of Health and Human Services
- University of Nebraska-Lincoln
- United States Geological Survey

Groundwater monitoring performed by these organizations meets a variety of needs, and therefore is not always directly comparable. For instance, the state’s 23 Natural Resources Districts (NRDs) perform groundwater monitoring primarily to address contaminants over which they have some jurisdiction; mainly nitrates and agricultural chemicals. In contrast, the state’s 1306 public water suppliers monitor groundwater for a large number of possible pollutants which could impact human health. These include basic field parameters, agricultural compounds, and industrial chemicals. Not only are these samples analyzed for many different parameters, the methods used for sampling and analysis vary widely as well.





Lower Platte South Natural Resources District staff sampling an irrigation well.

Partly in response to this situation, the Nebraska Departments of Agriculture (NDA) and Environmental Quality and the University of Nebraska - Lincoln (UNL) began a project in 1996 to develop a centralized data repository for groundwater quality information that would allow comparison of data obtained at different times and for different purposes. The result of this project is the Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater (referred to as the Database in this publication). The Database brings together groundwater data from many different sources and provides public access to this data.

The Database serves two primary functions. First, it provides to the public the results of groundwater monitoring for agricultural compounds in Nebraska as performed by a variety of entities. At present, agricultural contaminants (mainly nitrate and pesticides) are the focus of the

Database because of their widespread use, and also because historical data suggests that these compounds pose the greatest threat to the quality of groundwater across Nebraska. Second, the Database provides an indicator of the methodologies that were used in sampling and analysis for each of the results. UNL staff examine the methods used for sampling and analysis to assign a quality “flag” consisting of a number from 1 to 5 to each of the sample results. The flag depends upon the amount and type of quality assurance/quality control (QA/QC) that was identified in obtaining each of the results. The higher the “flag” number, the better the QA/QC, and the higher the confidence in that particular result.

During the past several years, UNL staff have worked vigorously to establish contact with all the entities performing groundwater monitoring of agricultural chemicals (nitrates and pesticides) in Nebraska. Groundwater data is submitted to UNL by these entities each year, where it is assigned a quality “flag” and entered into the Database. The updated information is then forwarded to the Nebraska Department of Natural Resources (NDNR), which places the data on its website (<http://www.dnr.ne.gov/> or more specifically <http://dnrdata.dnr.ne.gov/clearinghouse/>). The Database can be accessed and searched at NDNR’s website for numerous subsets of data, sorted by county, type of well, Natural Resources District, etc.

## **GROUNDWATER QUALITY DATA**

Groundwater quality data presented in the remainder of this report reflect the data present in the Database as of October 1, 2013. The dates for these data range from mid-1974 to 2012. Groundwater results from some of the agencies working in Nebraska have not been submitted to UNL to be entered into the Database, but NDEQ is confident that the information presented represents the majority of sample results available. Table 2 lists each agency producing groundwater quality data for this report.

<b>Agency</b>	
Central Platte NRD	Nebraska Department of Health and Human Services
Hastings Utilities	
Lewis & Clark NRD	Nemaha NRD
Little Blue NRD	North Platte NRD
Lower Big Blue NRD	Papio-Missouri River NRD
Lower Elkhorn NRD	South Platte NRD
Lower Loup NRD	Tri-Basin NRD
Lower Niobrara NRD	Twin Platte NRD
Lower Platte North NRD	U.S. Geological Survey
Lower Platte South NRD	University of Nebraska
Lower Republican NRD	Upper Big Blue NRD
Middle Niobrara NRD	Upper Elkhorn NRD
Middle Republican NRD	Upper Loup NRD
Nebraska Department of Agriculture	Upper Niobrara-White NRD
Nebraska Department of Environmental Quality	Upper Republican NRD

**Table 2.** Various agencies providing groundwater analyses in Nebraska to be used in the Database. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)



## Types of Wells Sampled

The data summarized in Table 3 represent the quantity of water samples analyzed from a variety of well types. Historically, most wells that have been sampled are irrigation or domestic supply wells. Irrigation and domestic wells are constructed to yield adequate supplies of water, not to provide water quality samples. However, in recent years, monitoring agencies have been installing increasing numbers of dedicated groundwater monitoring wells designed and located specifically to produce samples. By utilizing such varied sources, groundwater data from a wide range of geologic conditions can be obtained.

Well Type	Number of Analyses
Monitoring	251,136
Irrigation	99,801
Domestic	74,216
Public Water Supply	27,465
Commercial/Industrial	2,214
Livestock/Other	1,818
Total	456,650

**Table 3.** Total number of groundwater analyses by well type. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)



Lower Loup Natural Resources District staff utilizing a passive diffusion sampler to sample a monitoring well near Duncan, NE.

## Monitoring Parameters

As already mentioned, numerous entities across Nebraska have been monitoring groundwater quality for many years, for a wide variety of possible contaminants. However, much of this monitoring has been for area-specific (part of an NRD), or at most, regional purposes (entire NRDs), and it has been difficult to assess data on a statewide basis for more than a short period of time. Creation of the Database has provided an important tool for such analysis. Appendix A lists the compounds for which groundwater has been sampled and analyzed since 1974. Table 4, found on page 11 lists the compounds from Appendix A for which at least 50 samples collected exceeded the **Reporting Limit\***. This comparison gives an indication of which compounds are more prevalent than others in Nebraska's groundwater. Only 12 of the 241 compounds sampled met the criteria.

*\*Reporting Limit refers to the concentration a laboratory has indicated their analysis method can be validated. For example, if a contaminant were at a level below the reporting limit, the laboratory's analysis method could not detect it and the concentration would be reported as "below the reporting limit".*

Throughout this report, the number of sample analyses for any one contaminant refers only to the number of analyses as reported in the **Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater**, and not for the total number of analyses for that contaminant taken in the state. As already mentioned, data which are currently in the process of being submitted to UNL to be entered into the database are not reflected in this report. In addition, there are undoubtedly samples for various contaminants taken by entities other than the agencies referred to in this report (for instance, private consulting firms, or other programs within some of the reporting agencies), which are not included in this database.

The table in Appendix A shows a wide variety of compounds for which groundwater samples have been analyzed, all of which are used in agricultural production. As mentioned previously, there is a significant effort in monitoring groundwater for other, non-agricultural contaminants. Examples of such compounds include petroleum products and additives, industrial chemicals, hazardous wastes, contaminants associated with landfills and other waste disposal sites, and effluent from wastewater treatment facilities. Such issues are beyond the scope of §46-1304, and information about such monitoring data is not contained in any centralized database at present.

Compound	Total Samples Collected	Number of Samples that exceed the Reporting Limit	Percent of Samples that exceed the Reporting Limit
nitrate-N	98,278	91,043	92.64%
alachlor ethane sulfonic acid	127	66	51.97%
deethylatrazine	5,236	1,566	29.91%
atrazine	10,087	2,249	22.30%
metolachlor	9,156	1,044	11.40%
deisopropylatrazine	4,795	377	7.86%
cyanazine	9,656	422	4.37%
alachlor	9,691	305	3.15%
propazine	5,128	119	2.32%
simazine	5,665	125	2.21%
prometon	5,482	54	0.99%
metribuzin	9,557	59	0.62%

**Table 4.** Compounds more commonly found in wells monitored in Nebraska. More than 50 samples analyzed for each compound were greater than the reporting limit. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)



## **DISCUSSION AND ANALYSIS**

The information presented previously in this report shows that a considerable amount of effort has gone into groundwater quality monitoring in Nebraska since the mid-1970s, especially in areas that are heavily farmed. **It is worth noting that the majority of samples taken during this period show that groundwater in the State is of very high quality.** A comparison of Appendix A and Table 4 shows that only a small percentage of parameters analyzed have been detected. However, these same data show that several contaminants have been detected in numerous samples throughout the monitoring period. Levels and distribution of these compounds are issues of concern to Nebraskans.

As Table 4 shows, the compounds that have been detected more than just a few times throughout the period of record include nitrate-nitrogen (nitrate-N), atrazine, metolachlor, and degradation products of atrazine, alachlor, and metolachlor. Nitrate is a form of nitrogen common in human and animal waste, plant residue, and commercial fertilizers. Atrazine, alachlor, and metolachlor are herbicides used for weed control in crops such as corn and sorghum while deethylatrazine, deisopropylatrazine, and metolachlor ethane sulfonic acid are degradation products, or metabolites of atrazine and metolachlor. Cyanazine is a trizine herbicide similar to atrazine, but its use has been discontinued.

In addition to atrazine and metolachlor, the Nebraska Department of Agriculture identified two other priority compounds (alachlor and simazine) for development of pesticide State Management Plans, following guidance produced by the U.S. Environmental Protection Agency. While these compounds (alachlor and simazine) were not identified in any significant quantities in Nebraska's groundwater, (alachlor ethane sulfonic acid is a degradation product of alachlor) they will be discussed later in this report.



University of Nebraska Conservation and Survey Division staff installing a monitoring well near Clearwater, NE.



Taylor-Ord canal, property of North Loup Public Power and Irrigation District, located north of Elyria, NE.

Occurrence of elevated levels of nitrate and herbicides in groundwater has been associated with the practice of irrigated agriculture, especially corn production. A good summary of this can be found in Exner and Spalding (1990). The Natural Resources Districts have instituted Groundwater Management Areas (GWMAs) over all or parts of nearly all of the 23 districts based on NRD and NDEQ groundwater sampling. The NRDs' institution of these GWMAs indicates a concern and recognition of nonpoint source groundwater contamination. Additionally, NDEQ's Groundwater Management Area program (Title 196, 2002) has completed 20 studies across the state since 1988 identifying areas of nonpoint source contamination from the widespread application of commercial fertilizer and animal waste.

The State of Nebraska is a large geographic area, over 77,000 square miles. Accurately showing the quality of Nebraska's groundwater is becoming an easier task, but this highly complex system is still difficult to characterize. The acquisition of more data is making a trend analysis more viable. However, practices of sampling the "problem" areas still skew the data and make it very difficult to show the areas in Nebraska where the contaminant levels are decreasing through better management and farming practices.

Another difficulty is obtaining the resources and the logistics of collecting groundwater samples. There are approximately 171,000 active registered wells in Nebraska and only enough resources to collect samples from 3,100 (1.9%) to 4,500 (2.6%) annually (since 2000). Also, not all water well owners are receptive to having their well sampled. Figure 7 is a map showing all active registered water wells in Nebraska as of November 2013. As discussed earlier in this document, not all water wells are registered and these will not show up on this map.



## **Nitrate Trends Utilizing the Database**

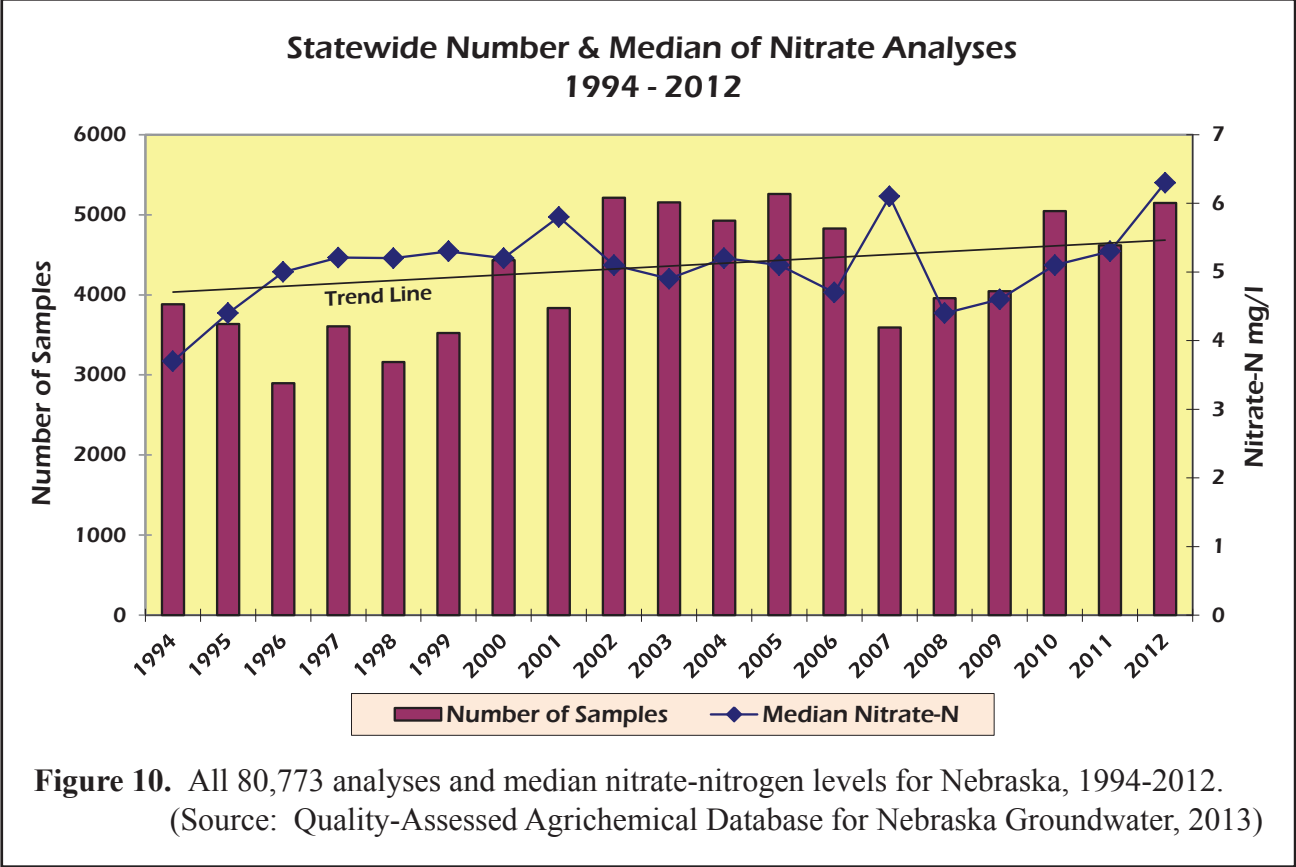
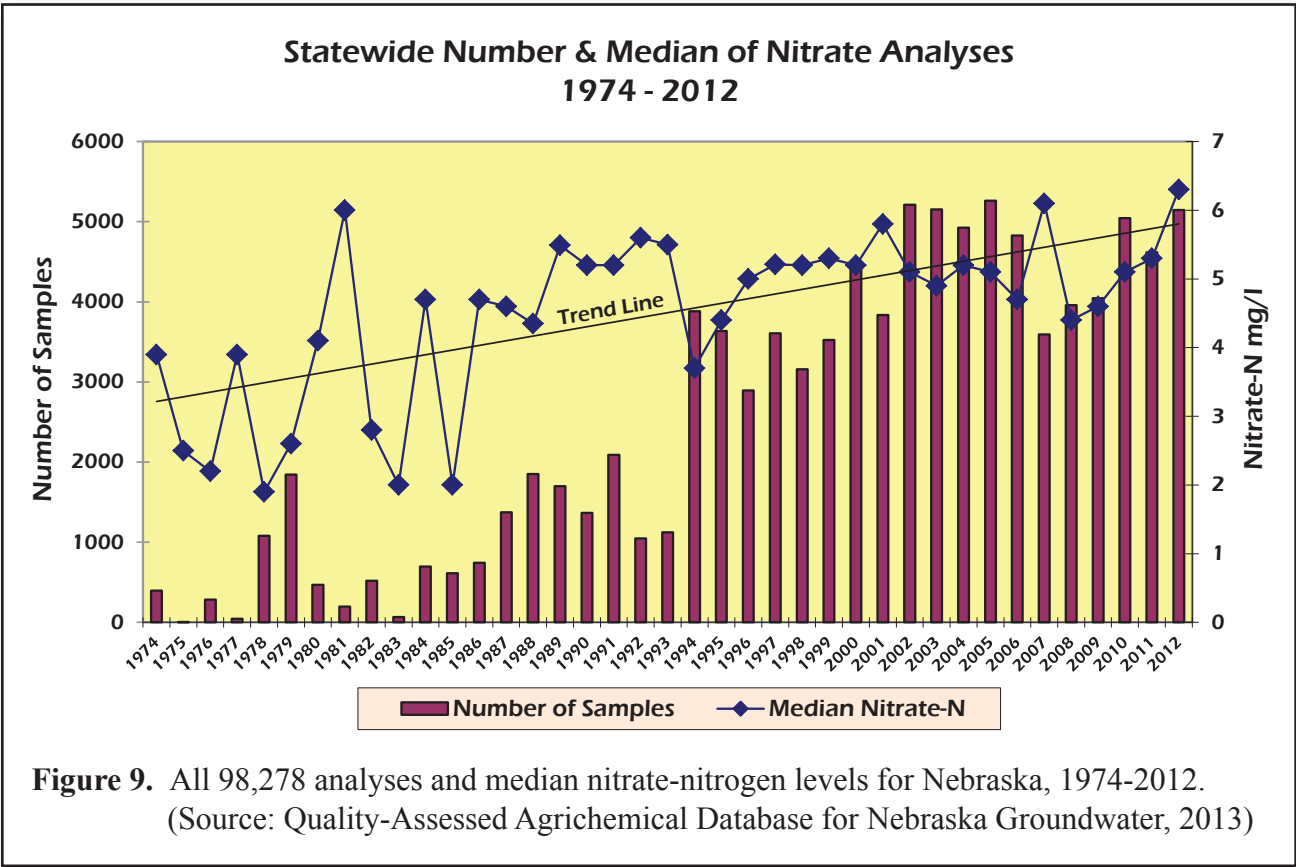
Nitrate monitoring data from wells have been collected for many years, and the purpose of collection varies by the agency or organization performing the work. For instance, public water supply operators sample their drinking water wells to ensure that the public is offered good quality water through the municipal system. Natural Resources Districts have been tasked by the Nebraska legislature to manage groundwater quality and quantity and preserve its usefulness into the future. Additionally, shallow groundwater may have much different natural chemical characteristics than deep groundwater and is more easily and quickly affected by things happening on the surface than its deeper counterpart.

The database makes accessing and reviewing data relatively simple. One must use caution, though, when utilizing the vast database because differences in wells may result in differences in the data. Deep wells may not necessarily be compared to shallow wells, nor irrigation wells (potentially screened across multiple aquifers) to dedicated monitoring wells (with perhaps only 10 feet of screen), nor wells used for measuring water levels (piezometers) for water quality. All of these issues have been considered and not necessarily well-addressed. The data are being used to present what we believe to be the most interesting and useful information available, but other interpretations are possible.

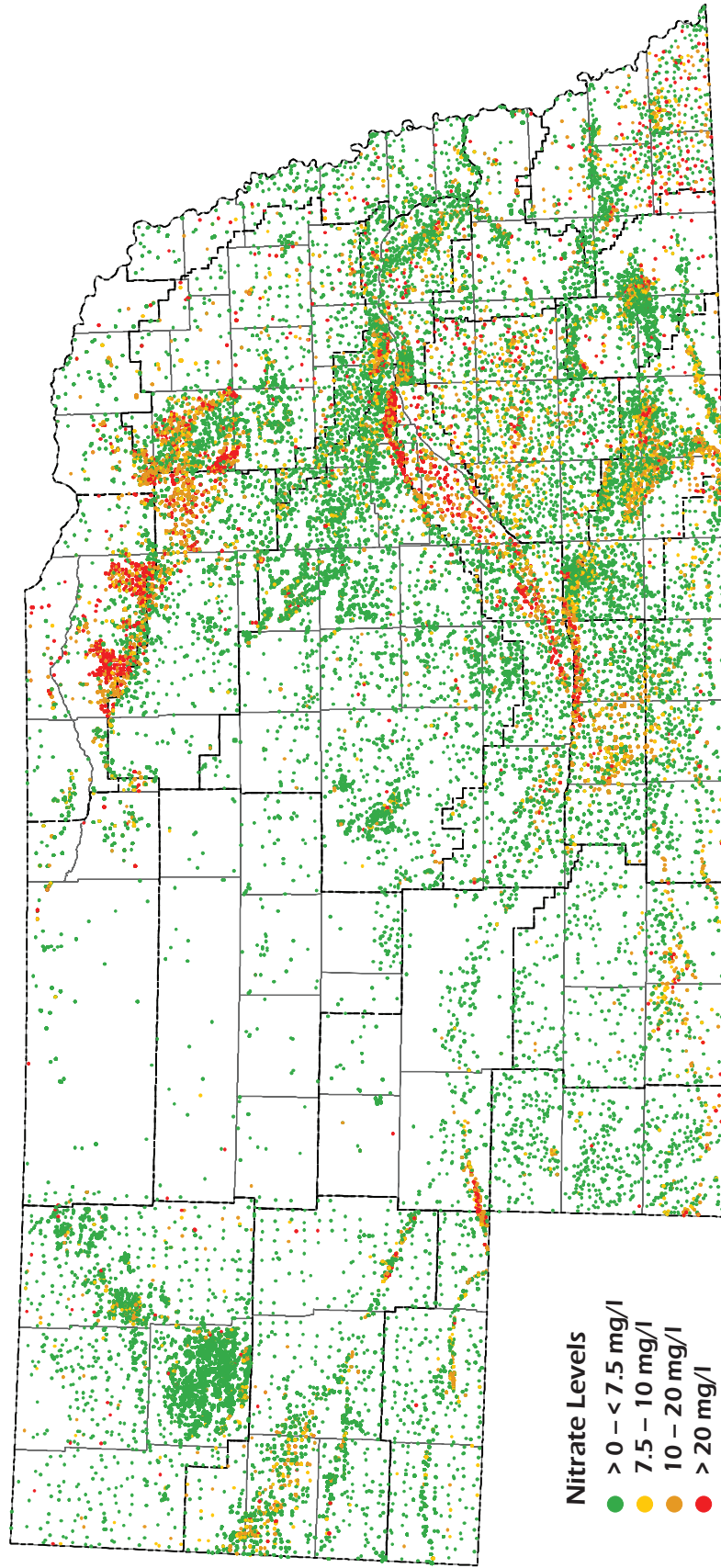
Several different methods have been used to present and interpret the nitrate data collected since the early 70s. In past reports there have been many discussions on the adequacy of the data, with respect to determining the quality of the State's groundwater quality. It is known that a majority of the sampling was done in "problem" areas (elevated nitrate) and that data would skew the values toward higher means. In fact, one site sampled between 1991 and 1996 skewed the data so much that it was removed from our analysis. Additionally, due to the nature of the data, the median (center of the data set) as opposed to the mean (average) was more representative of the data. The tables presented in past reports have been updated again and presented in Figures 9 and 10.

In the past, maps were generated using the entire Database data set in an attempt to show "current" statewide groundwater quality (see Figure 11) from the most recent time the well had been sampled (aiming to show the most current water quality at that location). Unfortunately, there are numerous wells that haven't been sampled for 10 or more years but represented the most recent sample collected in that location. As an example, there are four wells in Adams County that were only sampled once in 1991. These wells show up as green dots (<7.5 mg/L) on the statewide map (Figure 11) and it is assumed that after 21 years, the groundwater quality is still the same. There is no recent data to either verify or falsify this assumption.

One of the best ways to use the entire data set is to refer to the maps found in Appendix B, which shows the results of sampling done each year, and compare the annual monitoring data. The 2012 map is also presented below as Figure 12. This gives the reader an idea of where there are reoccurring "problem" areas. For example, the reader is directed to look at the samples collected over the years in parts of Phelps, Kearney, Merrick, Nance, Platte, Holt, and Antelope Counties. These are all locations with sandy soils, shallow groundwater, and high nitrate.

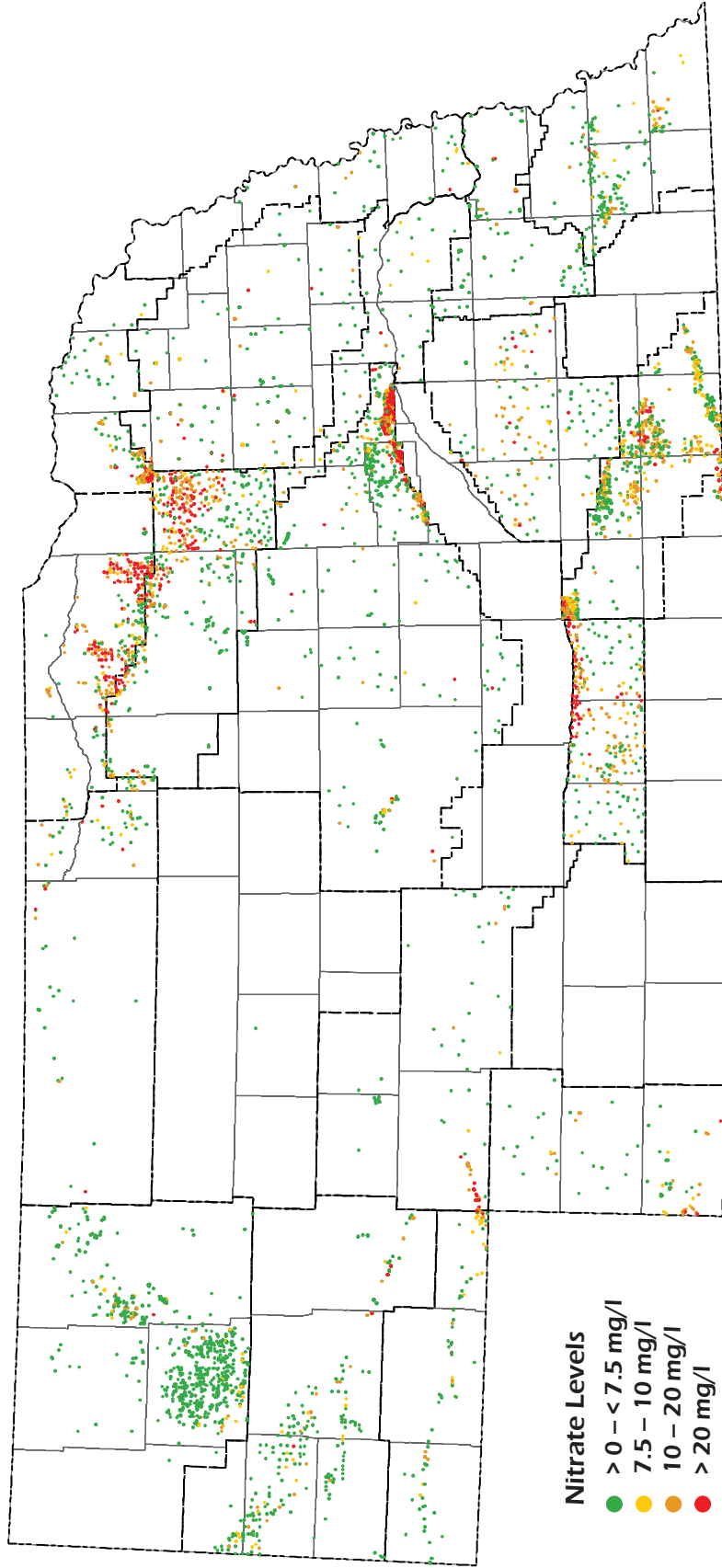


# MOST RECENT NITRATE-N CONCENTRATIONS



**Figure 11.** Most recent recorded concentration of nitrate from 1974 - 2012. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013) Empty areas indicate no data reported, not the absence of nitrate in groundwater.

# NITRATE-N CONCENTRATIONS OF WELLS SAMPLED IN 2012



**Figure 12.** Nitrate concentrations of wells sampled in 2012.  
(Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)  
*Empty areas indicate no data reported, not the absence of nitrate in groundwater.*

In 2002 the NRDs began discussing a Statewide Monitoring Network (a defined subset of wells from the Database) with regularly sampled wells to help better assess Nebraska's groundwater quality and better develop and analyze trends for this report. The first data for this network were assessed in the 2005 Groundwater Quality Monitoring Report using 1280 wells that were scheduled to be sampled in 2004. The 2006 report used 1437 network wells, followed by 1427 wells in 2007, 1404 wells in 2008 and 2009, and 1386 wells from 2010 through present for the Statewide Network trend analysis. A current map of the network wells is presented in Figure 13.

The network wells were set up to be sampled on an annual basis to make data assessment more reliable and to complete trend analyses. Unfortunately, resources were not always available to the NRDs and not all of the wells were sampled on an annual basis. The data that were collected are still very useful and can still be used for trend analysis. Data from network wells sampled in 2012 are presented on in Figure 14.

It is important to keep some qualifications in mind when interpreting these maps. Since each NRD has its own schedule for monitoring, individual samples may not have been taken at the same time as other samples within the same District or between Districts. Thus, at this point, each map does not necessarily represent a "snapshot" in time of nitrate levels or nitrate concentration changes, but they do give a very general indication of how nitrate levels are changing over time. It is also important to remember that aquifer systems and nitrate levels within them are very dynamic, complex, and variable. Although care was taken to select wells that were fairly representative of the geologic conditions present in various areas of the state, it is impossible to extrapolate conditions in a given well to a large area. Therefore, the several hundred wells in the statewide network give a general indication of how nitrate levels are changing over time across the state as a whole, but it would be inappropriate to use one or a few wells in the network to try to analyze nitrate levels in a specific part of the state.



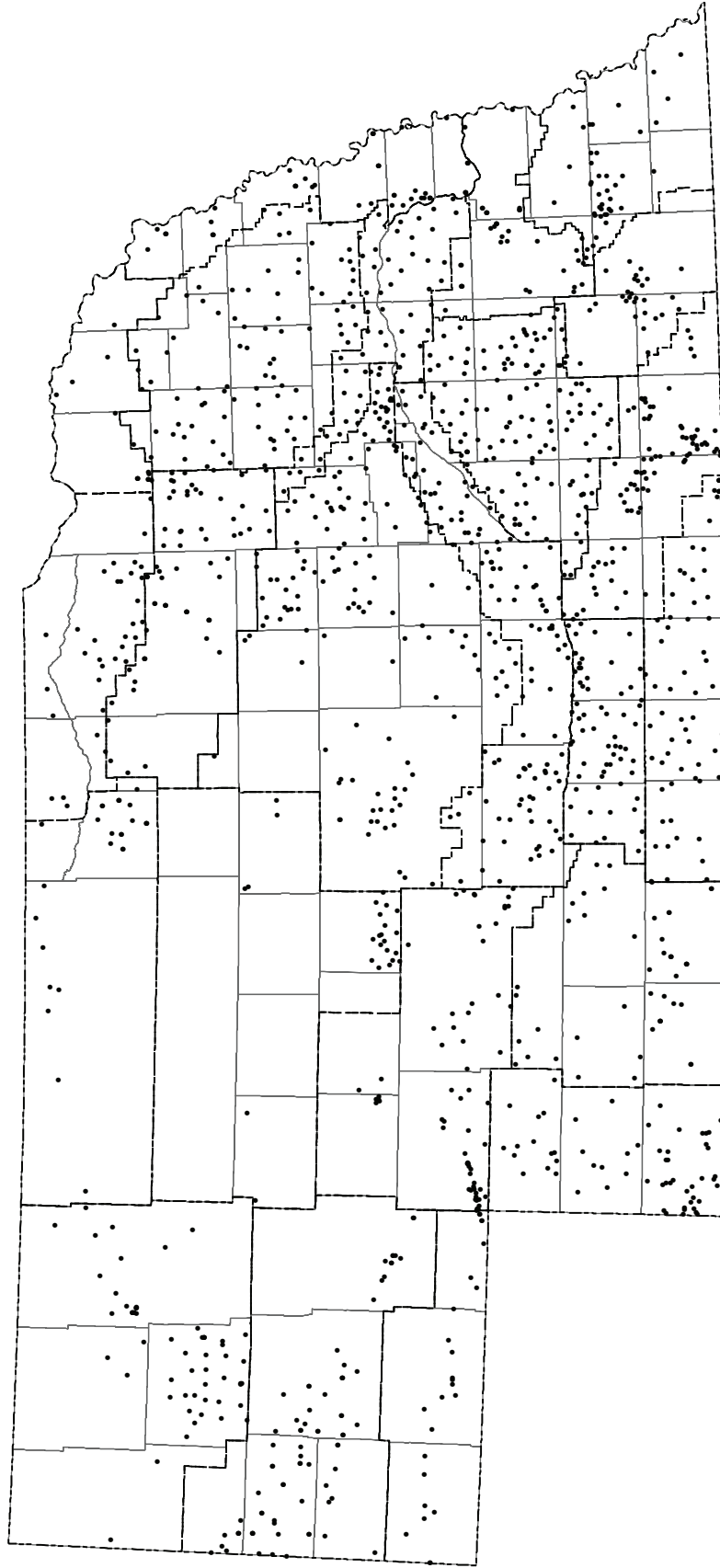
Little Blue Natural Resources District





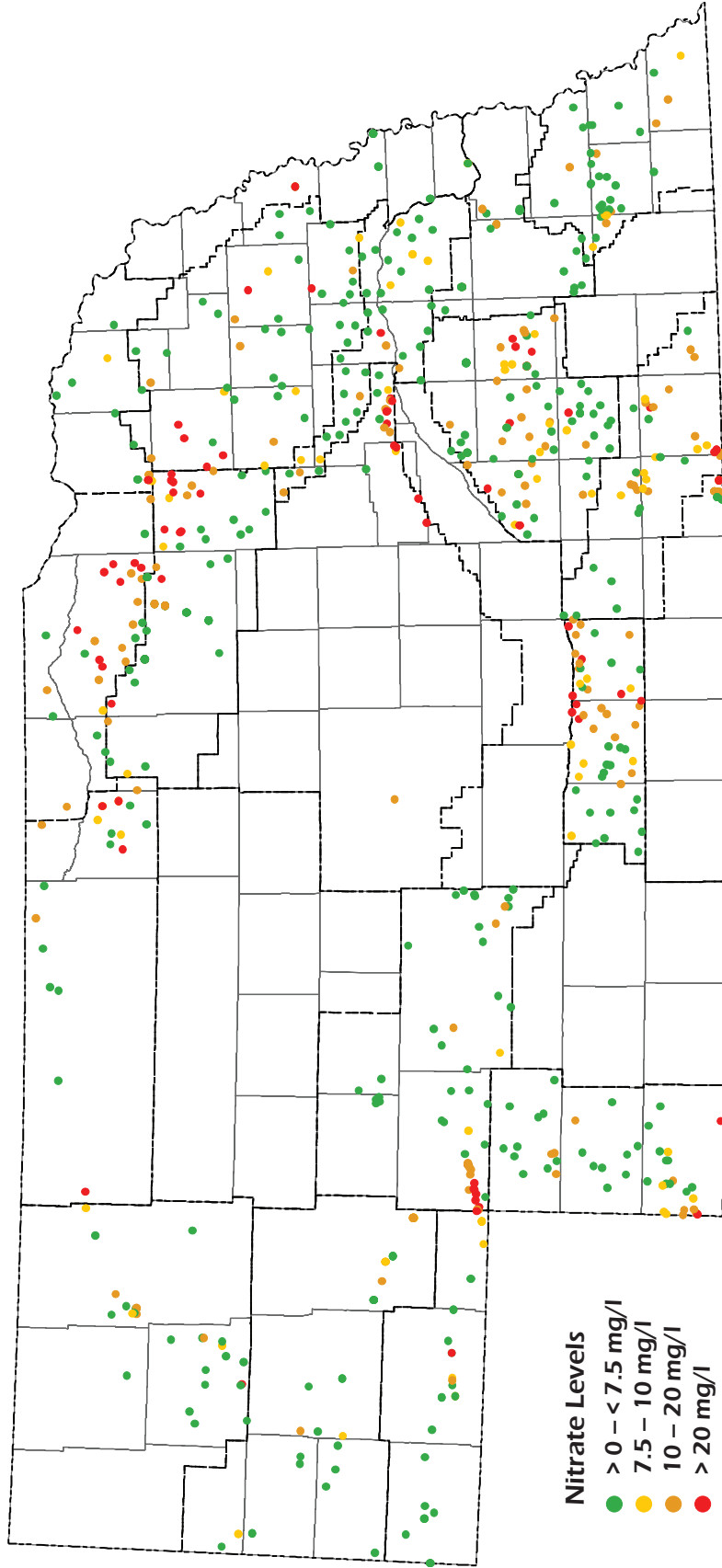
Little Blue Natural Resources District

LOCATION OF STATEWIDE GROUNDWATER MONITORING NETWORK WELLS



**Figure 13.** Location of all 1386 statewide groundwater monitoring network wells. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013) Empty areas indicate no data reported, not the absence of nitrate in groundwater.

# NITRATE-N CONCENTRATIONS OF NETWORK WELLS SAMPLED IN 2012



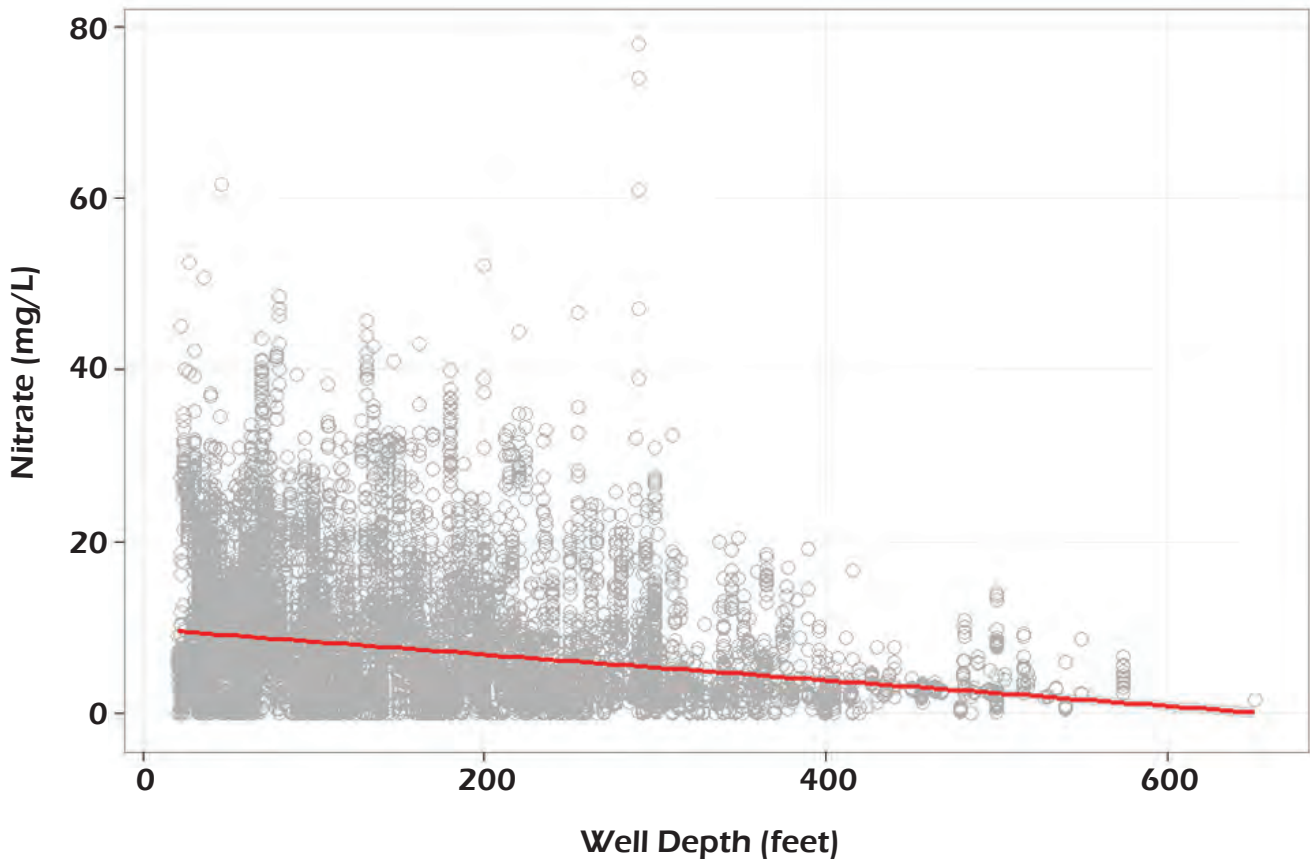
**Figure 14.** Nitrate concentrations of statewide groundwater monitoring network wells sampled in 2012.  
(Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)  
*Empty areas indicate no data reported, not the absence of nitrate in groundwater.*



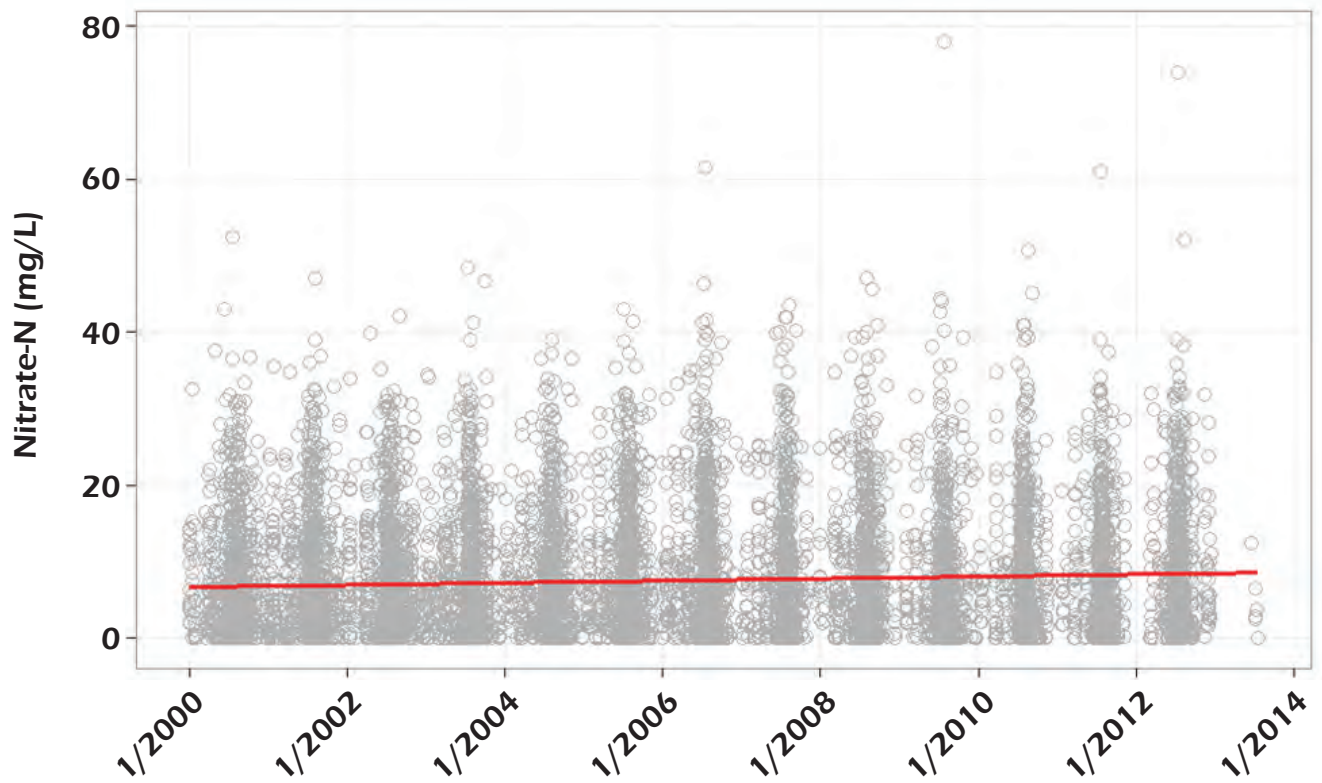


Before a trend analysis was completed on all the network well data from 2000 to 2012, a few factors had to be considered. First, the data were reviewed at to see if the depth of the well had any effect on the concentration. Figure 15 clearly shows that the deeper the well, the lower the nitrate concentration. Next, the nitrate data were analyzed to determine if an obvious increase or decrease can be seen over time in the network wells. Figure 16 shows essentially no change in the aggregated data.

The data was then separated by NRD to do trend analysis with data from the network wells going back as far as 1980. No clear trends were indicated. Comparing the trend analysis done on the network wells (Figure 16) to the simple trends of all the data conducted in previous reports (Figure 10) is a good indication that the nitrate concentration of Nebraska's groundwater is holding pretty steady. However, there are several places in Nebraska where the median concentration is approaching 10 mg/L.



**Figure 15.** Comparison between nitrate concentration and total depth of well using the statewide groundwater monitoring network wells. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)



**Figure 16.** Comparison of nitrate concentrations over time using the statewide groundwater monitoring network wells. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)



Lower Loup Natural Resources District

## Nitrate in Public Water Supplies

Public water supply systems are required to test for a variety of potential contaminants in the drinking water that they serve to the public. When a contaminant in the drinking water is over the federal Safe Drinking Water Act limit (also known as the maximum contaminant level [MCL]), the water system will receive an Administrative Order for that contaminant from the Nebraska Department of Health and Human Services (DHHS) and must somehow 'fix' the problem. The MCL for nitrate-nitrogen is 10 mg/l, but public water supply systems with wells or intakes testing over 5 mg/l may be required to perform quarterly sampling. Of the nearly 550 groundwater based community public water supply systems in Nebraska that supply their own water, 66 of those must perform quarterly sampling for nitrate. Common methods to solve a nitrate Administrative Order include drilling a new or deeper well, hooking on to a neighboring water system, or building a treatment plant. Figure 17 shows the location of active community public water supply systems with their own wells. Colors differentiate administrative order for nitrate, systems required to preform quarterly sampling, and systems treating for nitrate. Please note that the public water supply system data from DHHS is not in the Database. Also note that nitrate Administrative Orders do not necessarily fall in the areas of highest nitrate problems, as indicated in Figures 11 and 12 and the figures in Appendix B.



Reverse Osmosis treatment plant to remove nitrate (Seward, NE).

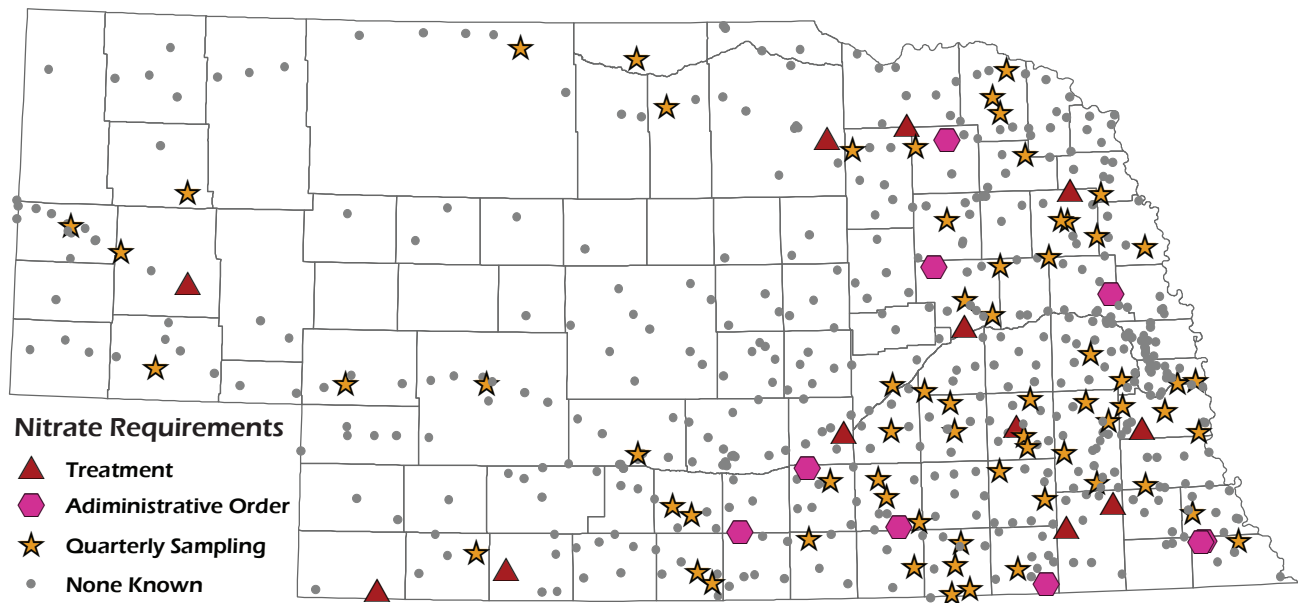


Figure 17. Community public water supply systems with requirements for nitrate. (Source: DHHS, November 2013)

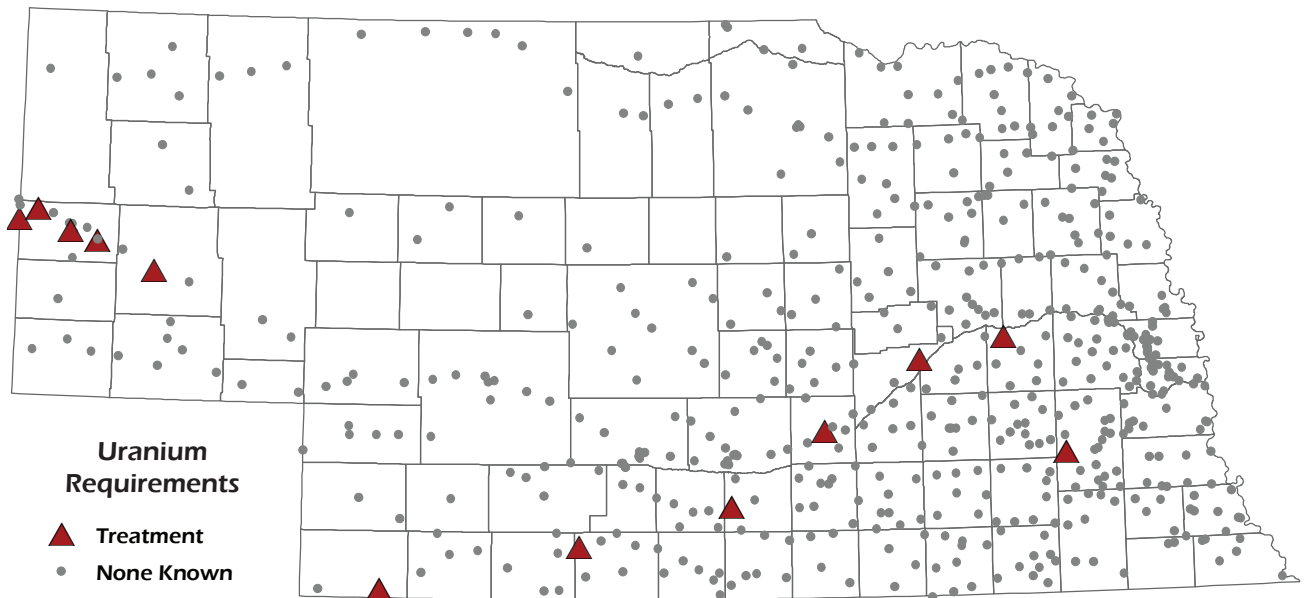


Several studies have been completed over the last several years on the relationship of nitrate leaching into the subsurface and uranium concentrations found in groundwater. Research indicates that the natural uranium in the subsurface may be oxidized and mobilized as the nitrate (in many forms) moves past the root zone and eventually to groundwater.

More public water supply systems are now finding themselves not only treating for nitrate, but also uranium. The MCL for uranium is 0.030 mg/L. Figure 18 shows the location of active community public water systems treating for uranium.



Ion Exchange plant to remove uranium (McCook, NE).

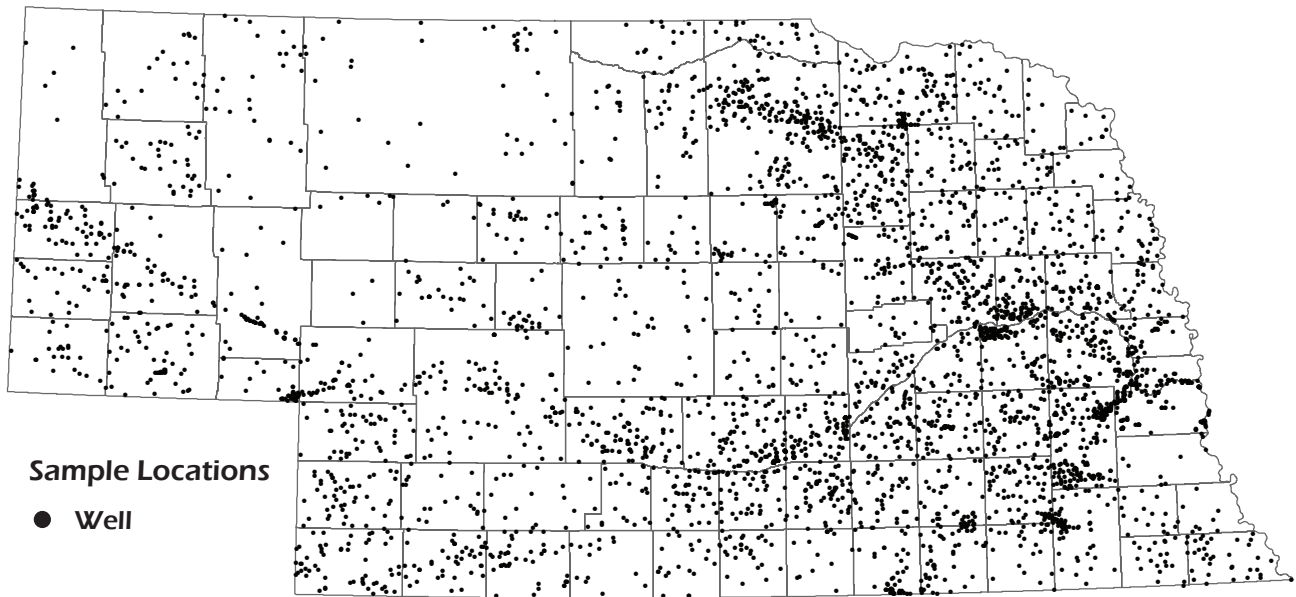


**Figure 18.** Community public water supply systems with requirements for uranium. (Source: DHHS, November 2013)

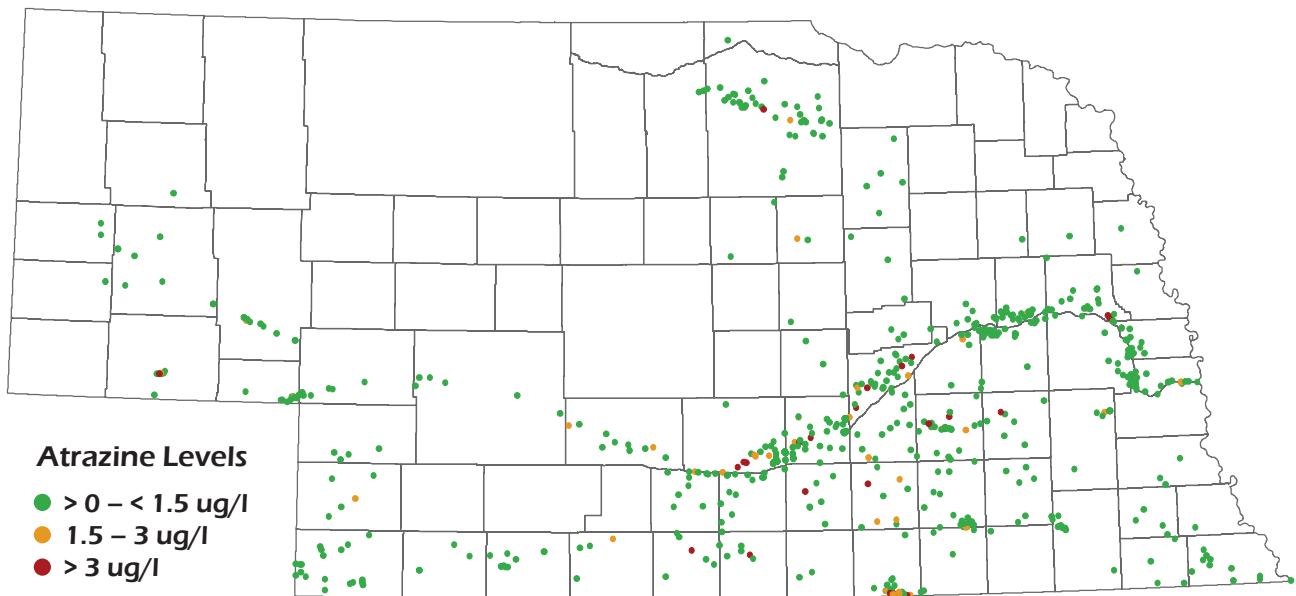
# **HERBICIDES**

## **Atrazine**

The locations of all wells sampled for atrazine from 1974 to 2012 and then the most recent recorded concentration of that herbicide are presented in Figures 19 and 20. Atrazine is used as an herbicide to eradicate broad leaf weeds. Common commercial trademark names include, but are not limited to Aatrex and Bicep.

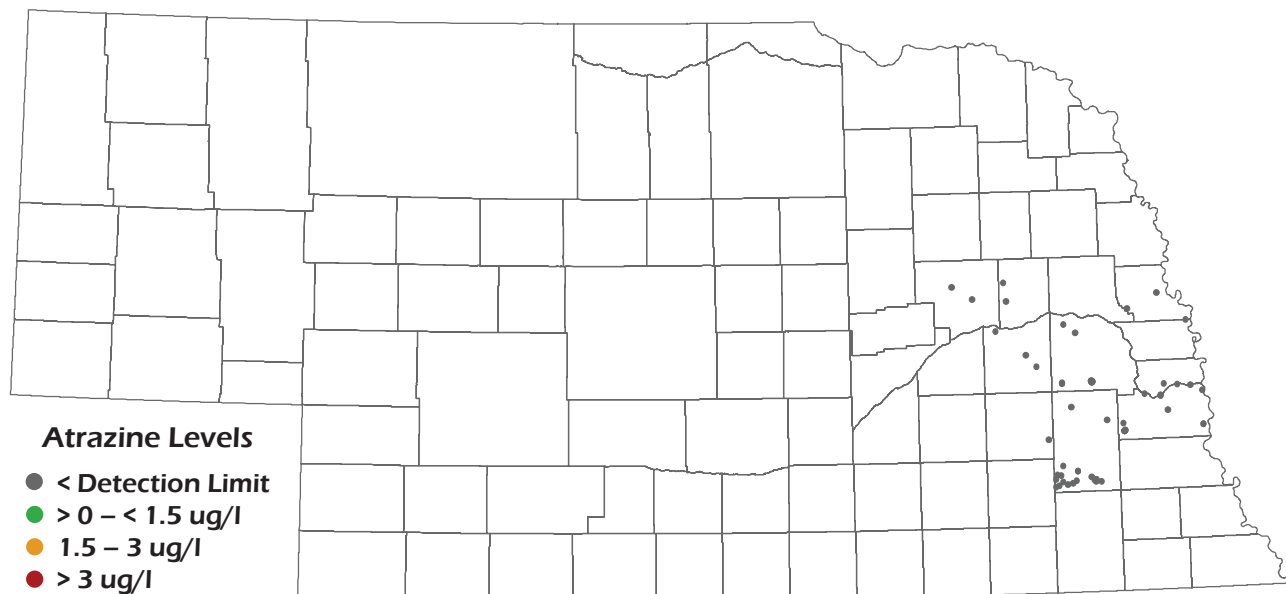


**Figure 19.** Location of 4,243 wells sampled for atrazine from 1974 – 2012. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)



**Figure 20.** Most recent recorded detected concentration of atrazine from 1974 – 2012. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)

The locations of all wells sampled for atrazine in 2012 are presented in Figure 21, there were no detections of atrazine in the 2012 sampling.



**Figure 21.** Location of 67 wells sampled for atrazine in 2012. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2013)

The mean atrazine concentration calculated from the Database has been less than 1  $\mu\text{g/L}$  since 1979, compared to the USEPA's MCL of 3  $\mu\text{g/L}$ .



## **Alachlor**

Alachlor is used as an herbicide to eradicate broad leaf weeds and grasses. Common commercial trademark names include, but are not limited to, Lasso, Bullet, and Lariat. There have been 9,691 samples collected since 1974 and no reported concentrations of Alachlor in the 1,156 samples collected since 2004.

The mean alachlor concentration calculated from the Database for the entire record from 1974 is 0.008  $\mu\text{g/L}$ , compared to the USEPAs MCL of 6  $\mu\text{g/L}$ . Fourteen of the 23 NRDs are currently using the in-house analysis described on page 29, but that data is not yet in the Database.

## **Metolachlor**

Metolachlor is used as an herbicide to eradicate broad leaf weeds. Common commercial trademark names include, but are not limited to, Bicep and Dual. There have been 9,156 samples collected since 1974 and only one sample above the reporting limit for Metolachlor in the 636 samples collected since 2007.

The mean metolachlor concentration calculated from the Database for the entire record from 1974 is 0.037  $\mu\text{g/L}$ . There is no USEPA MCL for metolachlor. Fourteen of the 23 NRDs are currently using the in-house analysis described on page 29, but that data is not yet in the Database.

## **Simazine**

Simazine is used as an herbicide to eradicate broad leaf weeds. Common commercial trademark names include, but are not limited to, Princep and Aladdin. There have been 5,666 samples collected and no reported concentrations of Simazine in the 1,157 samples collected since 2004.

The mean simazine concentration calculated from the Database for the entire record from 1974 is 0.0035  $\mu\text{g/L}$ , compared to the USEPAs MCL of 4  $\mu\text{g/L}$ .





## **Alternative Laboratory Methods**

In mid-2004, the NRDs, working with NDEQ and the Nebraska Department of Agriculture (NDA), began two new monitoring efforts. Using funding from USEPA Region 7, NDEQ, and NDA placed in-house equipment for the analysis of priority herbicides (atrazine, alachlor, metolachlor, and acetochlor) in several NRD offices. In 2005, NDEQ obtained additional funding from USEPA to place herbicide units in other NRD offices for a total of 14.

Monitoring for these parameters using these in-house methods continues as resources allow. The herbicide data received from this project can be considered qualitative or semi-quantitative, and the results have been roughly similar to the pattern of detections from the Database.

The herbicide data has been compiled by the NDA and will soon be available at: <http://dnrdata.dnr.ne.gov/clearinghouse/>

## **Herbicide Trends**

An in-depth analysis of statewide trends for any of the herbicides has not been attempted this year because the number of detections in separate wells for these compounds was too small to permit a reliable trend analysis. Many of the detections for these compounds were in the same wells or a series of closely spaced wells. Therefore, an analysis for trends in these parameters would not be valid. In general, the greater numbers of detections of herbicides in groundwater follows the same overall pattern of higher nitrate in groundwater.

As mentioned previously in this report, 14 of the 23 NRDs continue to sample for atrazine, metolachlor, and acetochlor and analyze on a case-by-case basis using the in-house technology described above. The Nebraska Department of Agriculture (NDA) has authority to manage pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The NDA can be contacted at (402) 471-2351.



## **CONCLUSIONS**

**Groundwater is a valuable resource for Nebraska.** The majority of Nebraska's residents rely on groundwater for drinking water, agriculture, and industry. Most public water supplies that utilize groundwater do not require any form of treatment for drinking water before serving it to the public. There are some limited areas in Nebraska where the nitrate concentration is greater than the drinking water standard of 10 mg/L. The state's reliance on groundwater alone makes it important to continue to monitor groundwater quality and to coordinate and share monitoring techniques, to enable decision makers to make more informed management decisions.

**The Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater has been invaluable to decision makers in managing Nebraska's groundwater resource.** This report authorized by Neb. Rev. Stat. § 46-1304 (LB 329, 2001) would be extremely difficult, if not impossible, to prepare were it not for the existence of the Database. More importantly, the Database has made it possible to quickly and confidently retrieve both recent and historic groundwater quality data for the entire state. These data not only are utilized to make regulatory decisions to protect groundwater quality, but can also be used by the private sector to identify alternate sources of groundwater for drinking water purposes. Most of the 23 NRDs and several state and federal agencies are conducting or analyzing groundwater monitoring, resulting in a large number of analyses spread across the entire state. It is imperative that the Database continue to be implemented and updated for the foreseeable future.

**Nebraska's Natural Resources Districts are conducting extensive groundwater quality monitoring, focusing on nitrate and pesticides and have instituted many Groundwater Management Areas (GWMAs).** Most of the NRDs have submitted groundwater quality monitoring data to the Database. The other NRDs are submitting data through a cooperative agreement with USGS. In addition, the NRDs have also developed a Statewide Groundwater Monitoring Network that has been sampled for eight years. Not only are the NRDs data vital to the Database, but their implementation of GWMAs is essential in the protection of groundwater quality in Nebraska. NRDs with GWMAs have instituted farm operator certification, soil testing for nitrogen, irrigation water management, and other best management practices. It will be through these GWMA and related practices that Nebraskans will see a decrease in contaminants such as nitrate over the next several decades.



**Concentrations and trends of contaminants.** This is the first year that the data from the Statewide Groundwater Monitoring Network was utilized to show trends of nitrate detected in the states groundwater. These data indicate that nitrate concentrations tend to decrease with depth of the well. Also, there is no clear trend in the nitrate concentrations in groundwater for the data gathered from 2000 to the present. Looking back at previous reports where the median nitrate concentration in groundwater for each year was utilized in a simple trend analysis, these data also indicated that there was no clear trend after 2000. However, there are still areas in Nebraska where the median nitrate concentration in groundwater is approaching the drinking water MCL of 10 mg/l. There is not enough recent data statewide for atrazine, alachlor, metolachlor, or simazine to conduct any trend analyses.

**The Future.** There has been a significant amount of time and effort expended to populate the Database and the importance of its merits cannot be emphasized enough. The NRDs' Statewide Groundwater Monitoring Network has been very useful and consists of many dedicated monitoring wells. However, in the past, the NRDs' network had limitations and the resources were not available to improve the dedicated monitoring well network or maintain the necessary yearly sampling routine. Efforts are being made to improve the Statewide Groundwater Monitoring Network with new dedicated monitoring wells with strict well construction and screen placement, and emphasizing standards for sample collection and reporting. Also, dedicated pumps will be added to current network monitoring wells to make sampling more efficient. Continued attention and resources (i.e. local and state time, funding, and staff) directed toward monitoring to implement the Statewide Groundwater Monitoring Network will be crucial for the successful management of Nebraska's valuable natural resource, groundwater.

## **REFERENCES**

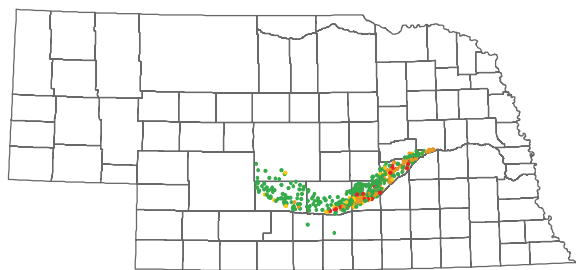
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**Appendix A. Compounds for which groundwater samples have been analyzed**

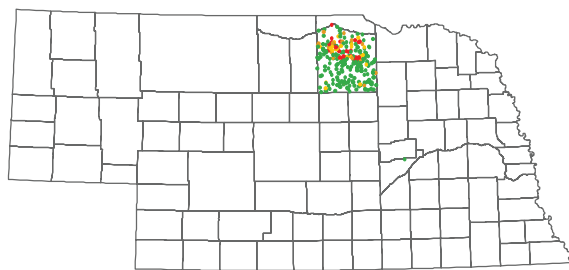
<b>Compound</b>	<b>Compound</b>	<b>Compound</b>
1,1,1-trichloroethane	aldicarb sulfoxide	dechloroacetochlor
1,2,4-trichlorobenzene	aldrin	dechloroalachlor
1,2-dibromo-3-chloropropane	alpha-HCH	dechlorodimethenamid
1,2-dibromoethane	ametryn	dechlorometolachlor
1,2-dichlorobenzene	atrazine	deethylatrazine
1,2-dichloroethane	azinphos-methyl	deethylcyanazine
1,2-dichloropropane	azinphos-methyl oxon	deethylcyanazine acid
1,3-dichloropropane	bendiocarb	deethylcyanazine amid
1,4-dichlorobenzene	benfluralin	deethylhydroxyatrazine
1-naphthol	benomyl	deisopropylatrazine
2,4,5-T	bensulfuron-methyl	deisopropylhydroxyatrazine
2,4,6-trichlorophenol	bentazon	delta-HCH
2,4-D	benzo(a)pyrene	demethylfluometuron
2,4-D methyl ester	beta-HCH	desulfinylfipronil
2,4-DB	bromacil	desulfinylfipronil amide
2,4-dinitrophenol	bromomethane	di(2-ethylhexyl)adipate
2,6-diethylaniline	bromoxynil	di(2-ethylhexyl)phtalate
2-[(2-ethyl-6-methylphenyl) amino]-1-propanol	butachlor	diazinon
	butylate	diazoxon
2-[(2-ethyl-6-methylphenyl) amino]-2-oxoethane sulfonic acid	carbaryl	dicamba
	carbofuran	dichlobenil
2-chloro-2',6'-diethylacetanilide	carbon disulfide	dichlorprop
2-ethyl-6-methylaniline	carbon tetrachloride	dichlorvos
3,4-dichloroaniline	carboxin	dicrotophos
3,5-dichloroaniline	chloramben methyl ester	didealkyl atrazine
3-hydroxycarbofuran	chlordane	dieldrin
4,6-dinitro-o-cresol	chlorimuron-ethyl	dimethenamid
4-chloro-2-methylphenol	chloroform	dimethenamid ethane sulfonic acid
4-chloro-3-methylphenol	chlorothalonil	
4-nitrophenol	chlorpyrifos	dimethenamid oxalinic acid
acenaphthene	chlorpyrifos oxon	dimethoate
acetochlor	cis-1,3-dichloropropene	dinoseb
acetochlor ethane sulfonic acid	cis-permethrin	diphenamid
acetochlor oxanilic acid	clopyralid	disulfoton
acetochlor sulfynilacetic acid	cyanazine	disulfoton sulfone
acifluorfen	cyanazine acid	diuron
acrylonitrile	cyanazine amide	endosulfan I
alachlor	cycloate	endosulfan II
alachlor ethane sulfonic acid	cyfluthrin	endosulfan sulfate
alachlor ethane sulfonic acid, secondary amide	cypermethrin	endrin
	cyprazine	endrin aldehyde
alachlor oxanilic acid	DCPA	EPTC
alachlor sulfynilacetic acid	DCPA monoacid	esfenvalerate
aldicarb	DDD	ethalfluralin
aldicarb sulfone	DDT	ethion

**Appendix A. Compounds for which groundwater samples have been analyzed**

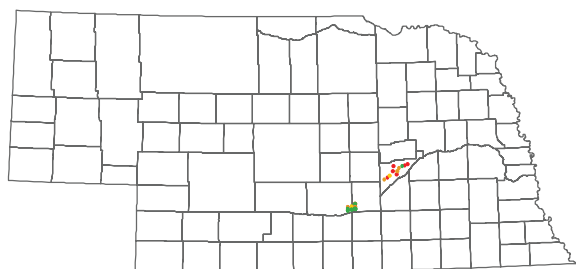
<b>Compound</b>	<b>Compound</b>	<b>Compound</b>
ethion monoxon	lindane	phorate
ethoprop	linuron	phorate oxon
ethyl parathion	malathion	phosmet
fenamiphos	malathion oxon	phosmet oxon
fenamiphos sulfone	MCPA	picloram
fenamiphos sulfoxide	MCPB	prometon
fenuron	metalaxyl	prometryn
fipronil	methidathion	propachlor
fipronil sulfide	methiocarb	propachlor ethane sulfonic acid
fipronil sulfone	methomyl	propachlor oxalinic acid
flufenacet	methoxychlor	propanil
flufenacet ethane sulfonic acid	methyl paraoxon	propargite
flufenacet oxalinic acid	methyl parathion	propazine
flumetsulam	methylene chloride	propham
fluometuron	metolachlor	propiconazole
fonofos	metolachlor ethane sulfonic acid	propoxur
fonofos oxon	metolachlor oxalinic acid	propyzamide
heptachlor	metribuzin	siduron
heptachlor epoxide	metsulfuron-methyl	silvex
hexachlorobenzene	molinate	simazine
hexachlorocyclopentadiene	myclobutanil	simetryn
hexazinone	naphthalene	sulfometuron-methyl
hydroxyacetochlor	napropamide	tebuthiuron
hydroxyalachlor	neburon	terbacil
hydroxyatrazine	nicosulfuron	terbufos
hydroxydimethenamid	nitrate-N	terbufos oxon sulfone
hydroxymetolachlor	norflurazon	terbuthylazine
hydroxysimazine	oryzalin	terbutryn
imazaquin	oxadiazon	tetrachloroethene
imazethapyr	oxamyl	thiobencarb
imidacloprid	oxyfluorfen	toxaphene
iodomehtane	p,p'-DDE	trans-1,3-dichloropropene
iprodione	pebulate	triallate
isofenphos	pendimethalin	trichloroethene
isoxaflutole	pentachlorophenol	triclopyr
isoxaflutole benzoic acid	permethrin	trifluralin
isoxaflutole diketonitrile		vernolate



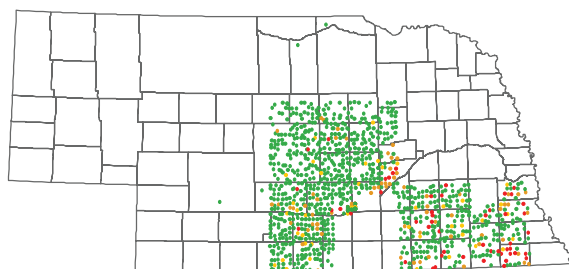
1974 - 1975 (397 wells, 397 analyses)



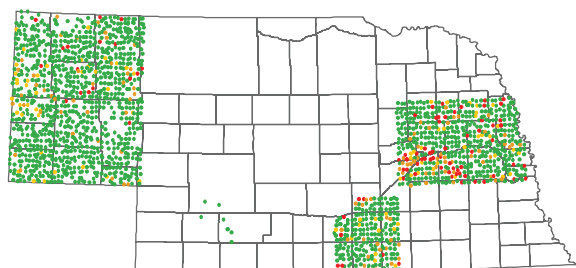
1976 (283 wells, 283 analyses)



1977 (45 wells, 45 analyses)

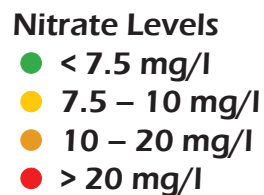


1978 (1057 wells, 1082 analyses)



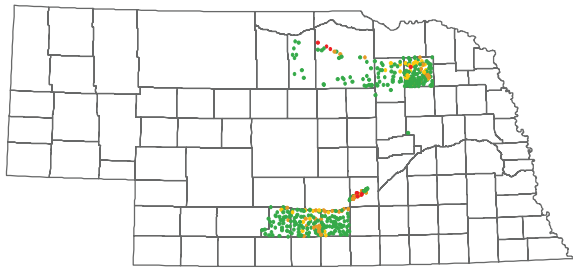
1979 (1843 wells, 1844 analyses)

**Figure B-1**  
**Nitrate analyses for years 1974 - 1979**  
*(Source: Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater)*

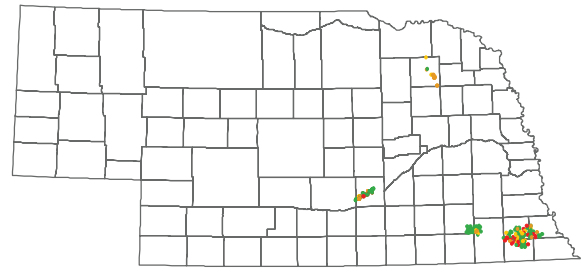


Empty areas indicate no data reported. These Maps were provided to give you a snapshot of the data. To see them better, view the report on NDEQ’s web site (<http://deq.ne.gov>) and use your Adobe Acrobat reader to enlarge individual maps.

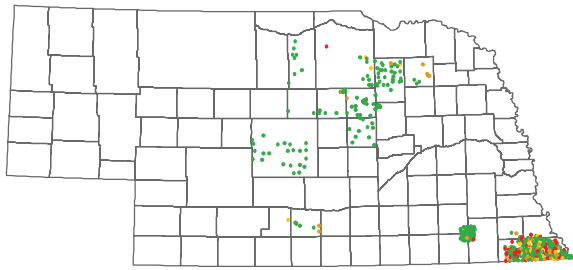
Appendix B. Maps of Annual Nitrate Analyses, 1974 - 2012



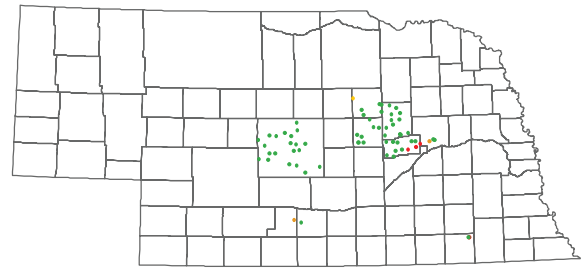
1980 (403 wells, 470 analyses)



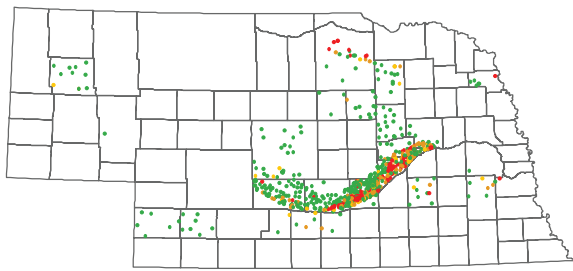
1981 (143 wells, 197 analyses)



1982 (506 wells, 519 analyses)

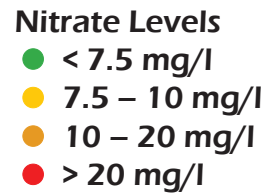


1983 (65 wells, 67 analyses)



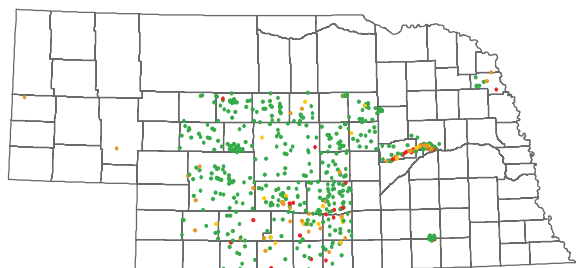
1984 (691 wells, 695 analyses)

**Figure B-2**  
**Nitrate analyses for years 1980 - 1984**  
(Source: *Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater*)

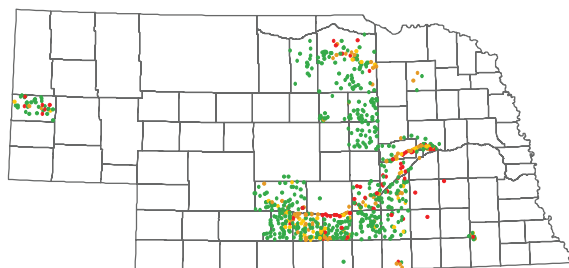


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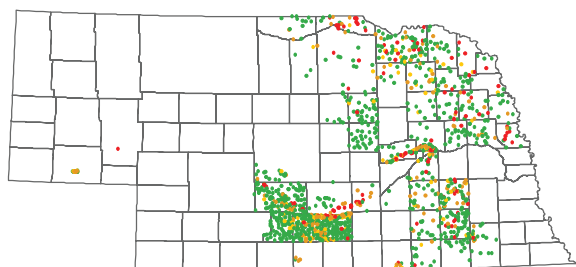




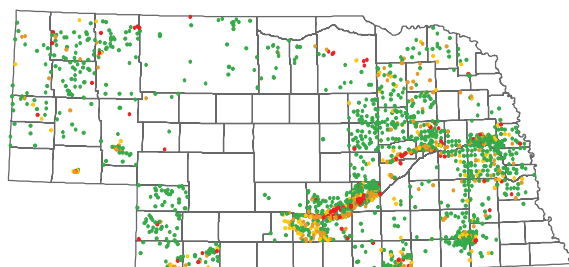
1985 (615 wells, 615 analyses)



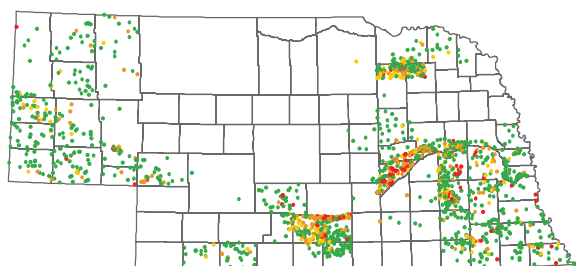
1986 (742 wells, 742 analyses)



1987 (1324 wells, 1372 analyses)



1988 (1794 wells, 1850 analyses)



1989 (1664 wells, 1699 analyses)

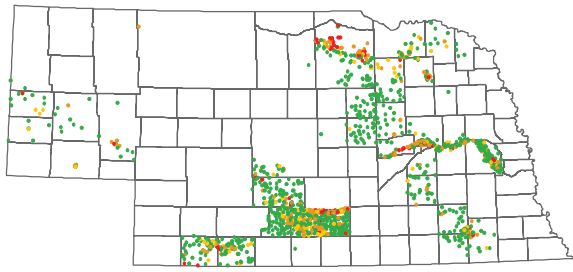
**Figure B-3**  
**Nitrate analyses for years 1985 - 1989**  
*(Source: Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater)*

- Nitrate Levels**
- < 7.5 mg/l
  - 7.5 – 10 mg/l
  - 10 – 20 mg/l
  - > 20 mg/l

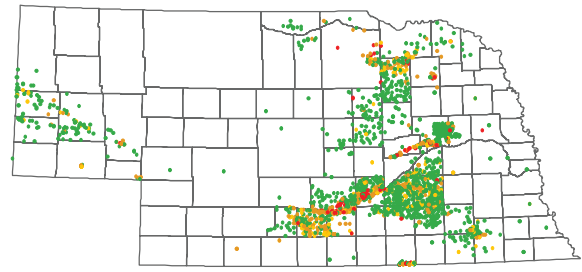
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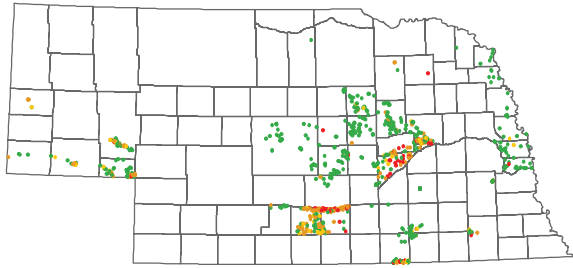
Appendix B. Maps of Annual Nitrate Analyses, 1974 - 2012



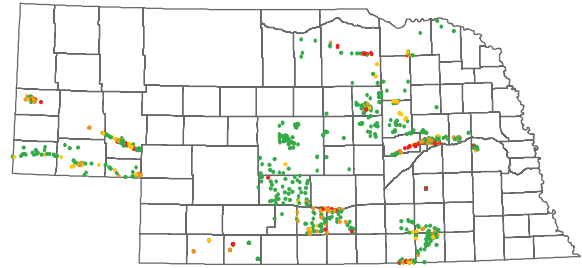
1990 (1336 wells, 1365 analyses)



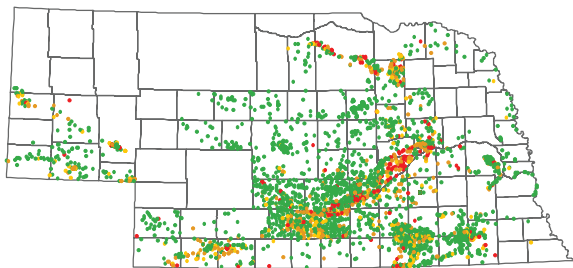
1991 (1918 wells, 2089 analyses)



1992 (803 wells, 1049 analyses)

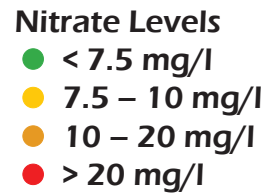


1993 (809 wells, 1124 analyses)

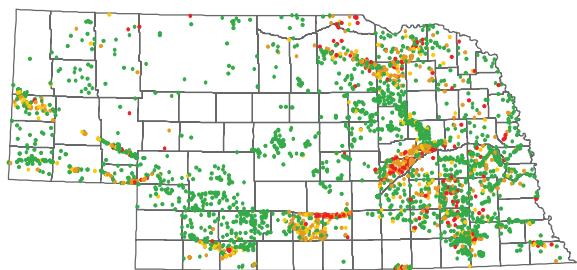


1994 (3149 wells, 3881 analyses)

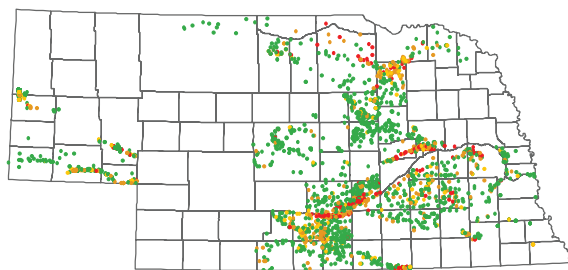
**Figure B-4**  
**Nitrate analyses for years 1990 - 1994**  
(Source: *Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater*)



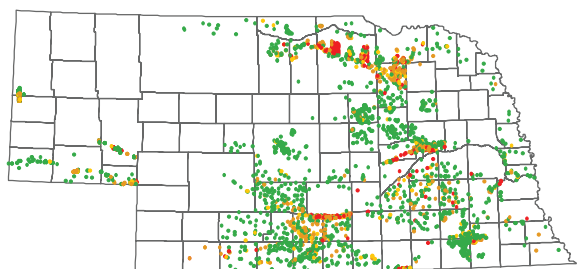
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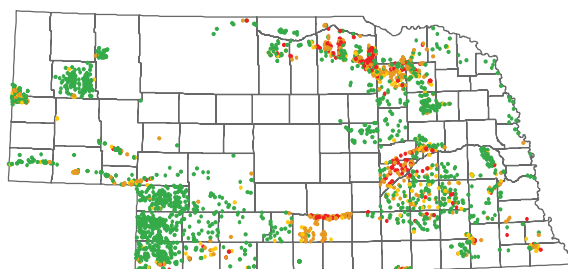
1995 (2939 wells, 3635 analyses)



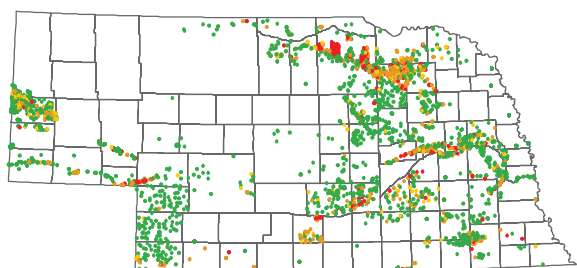
1996 (2124 wells, 2895 analyses)



1997 (2626 wells, 3607 analyses)

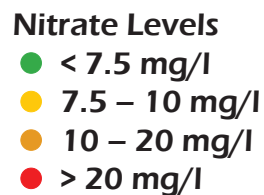


1998 (2428 wells, 3160 analyses)



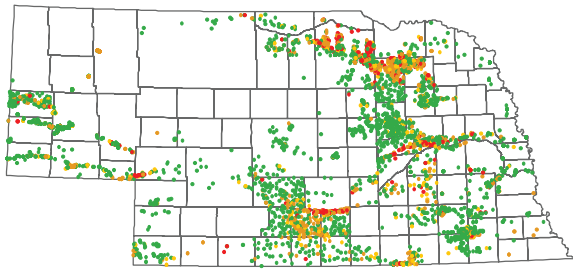
1999 (2883 wells, 3525 analyses)

**Figure B-5**  
**Nitrate analyses for years 1995 - 1999**  
*(Source: Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater)*

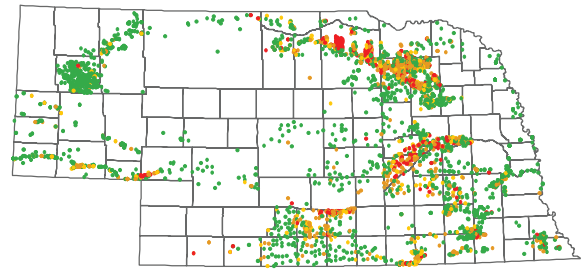


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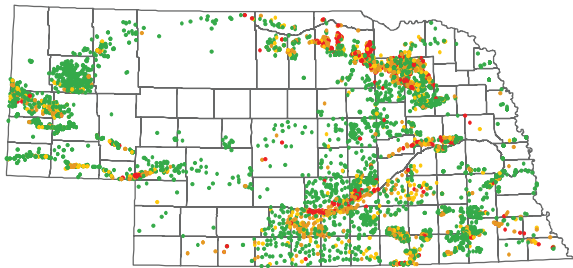
Appendix B. Maps of Annual Nitrate Analyses, 1974 - 2012



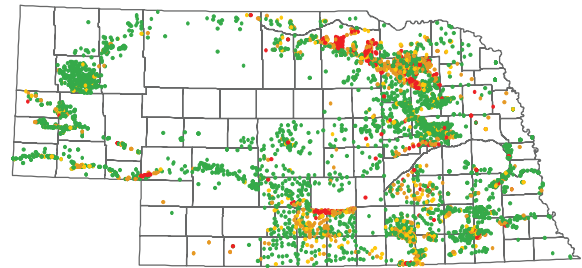
2000 (3504 wells, 4434 analyses)



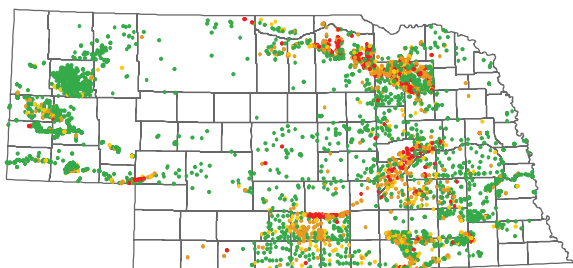
2001 (3243 wells, 3834 analyses)



2002 (4318 wells, 5213 analyses)



2003 (4420 wells, 5154 analyses)

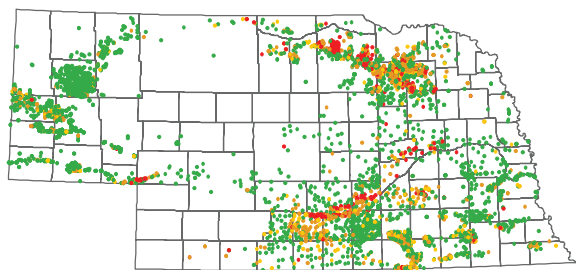


2004 (3976 wells, 4926 analyses)

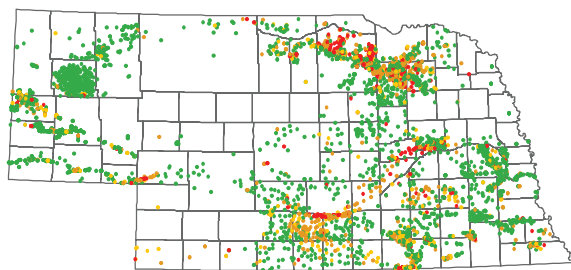
**Figure B-6**  
**Nitrate analyses for years 2000 - 2004**  
(Source: *Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater*)

- Nitrate Levels**
- < 7.5 mg/l
  - 7.5 – 10 mg/l
  - 10 – 20 mg/l
  - > 20 mg/l

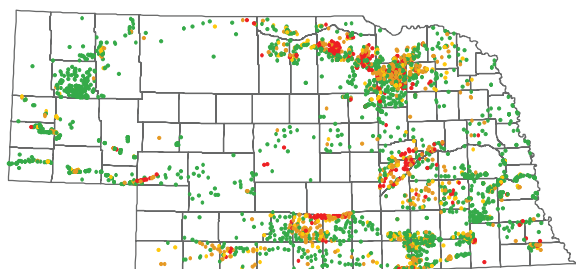
Empty areas indicate no data reported. These Maps were provided to give you a snapshot of the data. To see them better, view the report on NDEQ's web site (<http://deq.ne.gov>) and use your Adobe Acrobat reader to enlarge individual maps.



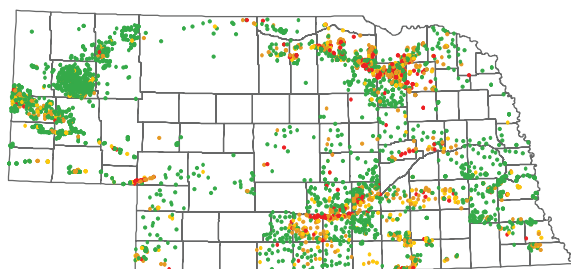
2005 (4274 wells, 5261 analyses)



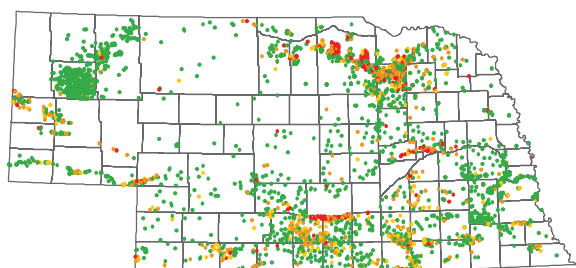
2006 (3892 wells, 4829 analyses)



2007 (3198 wells, 3593 analyses)



2008 (3460 wells, 3960 analyses)



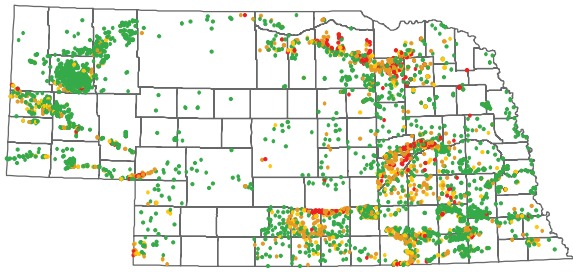
2009 (3429 wells, 4044 analyses)

**Figure B-7**  
**Nitrate analyses for years 2005 - 2009**  
*(Source: Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater)*

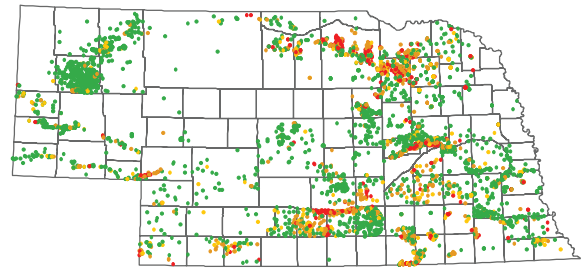
- Nitrate Levels**
- < 7.5 mg/l
  - 7.5 – 10 mg/l
  - 10 – 20 mg/l
  - > 20 mg/l

Empty areas indicate no data reported. These Maps were provided to give you a snapshot of the data. To see them better, view the report on NDEQ’s web site (<http://deq.ne.gov>) and use your Adobe Acrobat reader to enlarge individual maps.

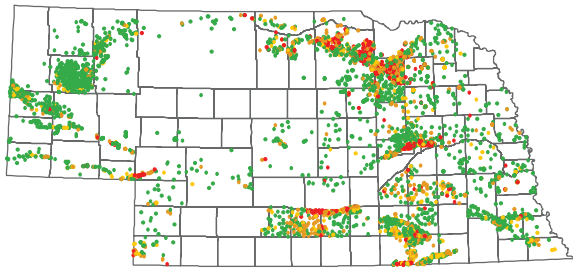
Appendix B. Maps of Annual Nitrate Analyses, 1974 - 2012



2010 (4492 wells, 5044 analyses)



2011 (4119 wells, 4618 analyses)



2012 (4472 wells, 5147 analyses)

**Figure B-8**  
**Nitrate analyses for years 2010 - 2012**  
(Source: *Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater*)

- Nitrate Levels**
- < 7.5 mg/l
  - 7.5 – 10 mg/l
  - 10 – 20 mg/l
  - > 20 mg/l

Empty areas indicate no data reported. These Maps were provided to give you a snapshot of the data. To see them better, view the report on NDEQ's web site (<http://deq.ne.gov>) and use your Adobe Acrobat reader to enlarge individual maps.

**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.**

<b>Waterbody ID</b>	<b>Waterbody Name</b>	<b>Sampling Date</b>	<b>Impairment*</b>	<b>Justification†</b>	<b>2014 IR Category</b>
EL4-20600	Cache Creek	8/11/2010	ICI	Extreme flow events, heated water	2
EL4-20800	South Fork Elkhorn River	8/11/2010	ICI	Extreme flow events	2
EL4-30000	Elkhorn River	8/16/2005	ICI	Extreme flow events	1
EL4-40000	Elkhorn River	8/11/2005	ICI	Extreme flow events	5
LO2-20200	Goose Creek	8/14/2008	ICI	Unique system	3
LO2-40000	North Loup River	8/14/2008	ICI	Unique system	4A/C
MP2-20300	Spring Creek	7/14/2006	IBI	Low flow	5
NI2-11420	Spring Creek	7/24/2008	ICI	Extreme flow events	2
NI2-11780	Middle Branch Eagle Creek	7/24/2008	ICI	Extreme flow events	2
NI3-22300	Gordon Creek	8/13/2008	ICI	Unique system	3
NI3-22510	Boardman Creek	8/14/2008	ICI	Unique system	3
NI4-10110	Dry Creek	7/15/2008	ICI	Unique system	3
NI4-10600	Rush Creek	7/16/2008	ICI	Low flow	2
RE3-10100	Medicine Creek	8/31/2007	ICI	Low flow	5
WH1-10000	White River	7/08/2008	IBI	Low flow	1

\* The bio-indicator metric that scored the waterbody as impaired. **ICI**-(Invertebrate Community Index) Uses macroinvertebrate community data as a bio-indicator of ecosystem health. **IBI**-(Index of Biotic Integrity) Uses fish community data as a bio-indicator of ecosystem health.

† The ecological explanation for the poor bio-metric score. Each waterbody is discussed in more detail in the following sections.

***EL4-20600: Cache Creek*** –ICI Score=Poor

Field data sheets along with hydrologic and climatologic data indicate that the poor ICI score was due to flooding water levels (See Attachment B: Elkhorn Basin), sand deposition in June, and high water temperatures during collection and not due to pollution. Field data sheets document that the substrate in this creek was 100% shifting and that flood waters in June scoured the banks and deposited large amounts of sand atop stream banks, thus lessening the in-stream and near shore invertebrate habitat. The water temperature at time of collection was found to be very high (37.5 C) which was attributed to solar radiation and not anthropogenic pollution. The land use surrounding the site and in the watershed is pasture. The watershed is located in the Nebraska Sandhills, one of the least disturbed regions in the Great Plains. The field data sheets document that the river was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. The ICI score is a reflection of the aftermath of flooding and not the water quality of the stream. This stream will be placed in category 2 based on the IBI score.

***EL4-20800: South Fork Elkhorn River*** – ICI=Poor

Field data sheets and hydrologic data document that the poor ICI score was due to lack of in-stream habitat and not due to pollution. The field data sheets, completed at time of collection, documented the following habitat limitations: 1. Shifting sand substrate due to flooding, 2. Little in-stream vegetation or woody debris, 3. Wetted channel width is less than bank full width. Much of the roots found on the shore for in-stream invertebrate habitat did not have the macroinvertebrate population that is usually

present. In addition, the stream filled only a portion of the stream channel (wetted width 3.4m, bank full width 4.5m). Watershed land use is pasture. Lastly, hydrologic data shows that in June 2010, the streams in the upper Elkhorn watershed experienced extreme high flows that would have resulted in bank and riverbed scour. Major sediment re-distribution reset the aquatic plant and invertebrate communities. The second most common fish species captured was a pollution sensitive species (IBI=good), all measured water quality parameters met Nebraska water quality standards. Nine EPT species and one cold water midge species was collected at the site. The stream was placed in category 2 based on the IBI score.

***EL4-30000: Elkhorn River*** – ICI score = Poor

Field data sheets and hydrologic data indicate that the poor ICI score was due to a lack of in-stream habitat and not pollution. The field data sheets, completed at the time of sample collection, documented the following habitat limitations: 1. Shifting sand substrate 2. Little in-stream vegetation or woody debris 3. Wetted channel width of 20 meters while the bank-full width was 40.5 meters. The field data sheets also document that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, all water quality parameters, measured at the time of sample collection, met Nebraska water quality standards, numerous fish species were captured including several pollution sensitive species (IBI score=good), and the ecological integrity of the site was sufficient to score it as a possible reference site. Lastly, hydrologic data shows that in June 2005, the streams in the upper Elkhorn watershed experienced extreme high flows that would have resulted in bank and riverbed scour, major sediment redistribution and a resetting of the aquatic plant and invertebrate communities (Allan and Castillo 2007, Poff et al. 1997, and Resh et al. 1988). For the reasons listed above, the ICI score was not considered when determining the attainment status of the aquatic life use in this stream. This waterbody will be placed in category 1 due to all assigned uses being met (See Attachment B: Elkhorn Basin).

***EL4-40000: Elkhorn River*** – ICI score = Poor

Field data sheets and hydrologic data indicate that the poor ICI score was due to a lack of in-stream habitat and not pollution. The field data sheets, completed at the time of sample collection, documented the following habitat limitations: 1. Shifting sand substrate 2. Little in-stream vegetation or woody debris 3. Wetted channel width of 3.8 meters while the bank-full width was 15 meters. The field data sheets also document that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, all water quality parameters, measured at the time of sample collection, met Nebraska water quality standards, numerous fish species were captured including several pollution sensitive species (IBI score=good), and the ecological integrity of the site was sufficient to score it as a possible reference site. Lastly, hydrologic data shows that in June 2005, the streams in the upper Elkhorn watershed experienced extreme high flows that would have resulted in bank and riverbed scour, major sediment redistribution and a resetting of the aquatic plant and invertebrate communities (Allan and Castillo 2007, Poff et al. 1997, and Resh et al. 1988). For the reasons listed above, the ICI score was not considered when determining the attainment status of the aquatic life use in this stream. This waterbody will remain in category 5 with the pollutant of concern being high pH (See Attachment B: Elkhorn Basin).

***LO2-20200: Goose Creek*** – ICI score = Poor

Field data sheets and watershed land use data indicate that the poor ICI score was not due to pollution. Field data sheets document that the substrate in this creek was 100% shifting sand and that very little in-stream or near shore invertebrate habitat was present. Conversely, the field data sheets documented that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, numerous fish species were captured, including several pollution sensitive species (IBI score=excellent), all water quality parameters, measured at the time of sample collection, met Nebraska water quality standards, and the ecological integrity of the site was sufficient to score it as a possible reference site. Furthermore, examination of the land use finds that there is no row-crop agriculture, no industry, and no town or village within this 150,000 acre watershed. This watershed is located in the Nebraska Sandhills, one of the least disturbed regions in the Great Plains. The ICI score is a reflection of

the unique ecological conditions within the Sandhills and not the water quality of this stream (McCarragher 1960, 1964, and 1977). NDEQ is currently refining its biological assessment criteria to better address the unique ecological conditions in the Sandhills, until the refinement is complete this stream will be placed in category 3. (See Attachment C: Loup Basin).

***LO2-40000: North Loup River*** – ICI Score = Poor

Field data sheets and watershed land use data indicate that the poor ICI score was not due to pollution. Field data sheets document that the substrate in this river was 100% shifting sand and that very little in-stream or near shore invertebrate habitat was present. Conversely, the field data sheets documented that the river was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, numerous fish species were captured, including several pollution sensitive species (IBI score=excellent), all water quality parameters, measured at the time of sample collection, met Nebraska water quality standards, and the ecological integrity of the site was sufficient to score it as a possible reference site. Furthermore, examination of the land use finds that there is no row-crop agriculture, no industry, and no town or village within this 400,000 acre watershed. This watershed is located in the Nebraska Sandhills, one of the least disturbed regions in the Great Plains. The ICI score is a reflection of the unique ecological conditions within the Sandhills and not the water quality of this stream (McCarragher 1960, 1964, and 1977). For the reasons listed above, the ICI score was not considered when determining the attainment status of the aquatic life use in this stream. This stream will be placed in category 4a,c for E. coli and temperature impairments (See Attachment C: Loup Basin).

***MP2-20300: Spring Creek*** – IBI Score = Poor

Review of the field data sheets, hydrologic, and climatologic data indicate that the poor IBI score was due to low water levels and not pollution. Field data sheets document that at its deepest this stream was 1.0ft deep, and filled only a portion of the stream channel (wetted width 2.0m, channel width 3.3m). Hydrologic data shows that this stream often goes dry and was dry for several months in early 2006. Climatologic data shows that the Spring Creek watershed was in a severe drought during the summer of 2006 and had received between 6 to 9 inches less precipitation than the historic average. Lastly, other biological observations document that this stream did support robust invertebrate community (ICI score=good) and numerous frogs and crayfish were observed during fish collection. For the reasons listed above, the IBI score was not considered when determining the attainment status of the aquatic life use in this stream. This stream will remain in category 5 with the pollutant of concern being E. coli (See Attachment D: Middle Platte Basin).

***NI2-11420: Spring Creek*** – ICI Score = Poor

Review of the field data sheets, climatologic, and hydrologic data indicate that the poor ICI score was due to low water levels and a lack of in-stream habitat and not due to pollution. Field data sheets document that there was little in-stream invertebrate habitat and the stream filled only a portion of the stream channel (wetted width 2.1m, bank full width 6.6m). The field data sheets also document that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, all water quality parameters, measured at the time of sample collection, met Nebraska water quality standards, pollution sensitive fish species were captured (IBI score=good), and the ecological integrity of the site was sufficient to score it as a possible reference site. Lastly, precipitation data from three weather stations surrounding the Spring Creek watershed showed that greater than normal precipitation fell in May and June 2008, followed by an abnormally dry July 2008. This precipitation pattern resulted in exceptionally high flows in the nearby Niobrara River, followed by a period of low flow, and a similar flow regime would have occurred in Spring Creek. The observed flow regime would have resulted in bank and riverbed scour, major sediment redistribution, and a resetting of the aquatic plant and invertebrate communities (Allan and Castillo 2007, Poff et al. 1997, and Resh et al. 1988). For the reasons listed above, the ICI score was not considered when determining the attainment status of the



aquatic life use in this stream. The stream was placed in category 2 based on the IBI score (See Attachment E: Niobrara Basin).

**NI2-11780: Middle Branch Eagle Creek** – ICI Score = Poor

Review of the field data sheets and hydrologic data indicate that the poor ICI score was due to low water levels and a lack of in-stream habitat and not due to pollution. Field data sheets document that there was little in-stream invertebrate habitat and the stream filled only a portion of the stream channel (wetted width 3.4m, bank full width 6.9m). The field data sheets also document that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, all water quality parameters, measured at the time of sample collection, met Nebraska water quality standards, pollution sensitive fish species were captured (IBI score=good), and the ecological integrity of the site was sufficient to score it as a possible reference site. Lastly, precipitation data from three weather stations near the Eagle Creek watershed showed that greater than normal precipitation fell in May and June 2008, followed by an abnormally dry July 2008. This precipitation pattern resulted in exceptionally high flows in the nearby Niobrara River, followed by a period of low flow, and a similar flow regime would have occurred in Eagle Creek. The observed flow regime would have resulted in bank and riverbed scour, major sediment redistribution, and a resetting of the aquatic plant and invertebrate communities (Allan and Castillo, 2007, Poff, et al., 1997, Resh et al., 1988). For the reasons listed above, the ICI score was not considered when determining the attainment status of the aquatic life use in this stream. The stream was placed in category 2 based on the IBI score (See Attachment E: Niobrara Basin).

**NI3-22300: Gordon Creek** – ICI Score = Poor

Field data sheets and watershed land use data indicate that the poor ICI score was due to a lack of in-stream habitat and not pollution. Field data sheets document that the substrate in this creek is 100% shifting sand and that very little in-stream or near shore invertebrate habitat was present. The field data sheets also documented that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, nine fish species were captured, including six pollution sensitive species (IBI score=excellent), all measured water quality parameters met Nebraska water quality standards, and the ecological integrity of the site was sufficient to score it as a possible reference site. Furthermore, examination of the land use finds that there is no row-crop agriculture, no industry, and no town or village within this 55,000 acre watershed. This watershed is located in the Nebraska Sandhills, one of the least disturbed regions in the Great Plains. The ICI score is a reflection of the unique ecological conditions within the Sandhills and not the water quality of this stream (McCarragher 1960, 1964, 1977). NDEQ is currently refining its biological assessment criteria to better address the unique ecological conditions in the Sandhills, until the refinement is complete this stream will be placed in category 3. (See Attachment E: Niobrara Basin).

**NI3-22510: Boardman Creek** – ICI Score = Poor

Field data sheets and watershed land use data indicate that the poor ICI score was due to a lack of in-stream habitat and not pollution. Field data sheets document that the substrate in this creek is 100% shifting sand and that very little in-stream or near shore invertebrate habitat was present. The field data sheets also documented that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, the most common fish species captured was a pollution sensitive species (IBI score=good), all measured water quality parameters met Nebraska water quality standards, and the ecological integrity of the site was sufficient to score it as a possible reference site. Furthermore, examination of the land use finds that there is no row-crop agriculture, no industry, and no town or village within this 40,000 acre watershed. This watershed is located in the Nebraska Sandhills, one of the least disturbed regions in the Great Plains, and the ICI score is a reflection of the unique ecological conditions within the Sandhills and not the water quality of this stream (McCarragher 1960,

1964, 1977). NDEQ is currently refining its biological assessment criteria to better address the unique ecological conditions in the Sandhills, until the refinement is complete this stream will be placed in category 3. (See Attachment E: Niobrara Basin).

**NI4-10110: Dry Creek** – ICI Score = Poor

Field data sheets and watershed land use data indicate that the poor ICI score was due to a lack of in-stream habitat and not pollution. Field data sheets document that the substrate in this creek is 100% shifting sand and the stream was experiencing low flows (wetted width 1.8m, bank full width 3.1m). The field data sheets also documented that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, all measured water quality parameters met Nebraska water quality standards, the fish community score was good (IBI=good), and the ecological integrity of the site was sufficient to score it as a possible reference site. Furthermore, examination of the land use finds that there is no row-crop agriculture, no industry, and only one village (Merriman) within this 30,000 acre watershed. This watershed is located in the Nebraska Sandhills, one of the least disturbed regions in the Great Plains. The ICI score is a reflection of the unique ecological conditions within the Sandhills and not the water quality of this stream (McCarragher 1960, 1964, 1977). NDEQ is currently refining its biological assessment criteria to better address the unique ecological conditions in the Sandhills, until the refinement is complete this stream will be placed in category 3. (See Attachment E: Niobrara Basin).

**NI4-10600: Rush Creek** – ICI Score = Poor

Review of the field data sheets and climatologic data indicate that the poor ICI score was due to low water levels and not pollution. Field data sheets document that at its deepest this stream was 0.45ft deep, and filled only a portion of the stream channel (wetted width 1.0m, channel width 2.0m), and had very little in-stream invertebrate habitat. Climatologic data shows that the Rush Creek watershed was abnormally dry during the summer of 2008 and had received up to 4 inches less precipitation than the historic average. The field data sheets also documented that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, numerous fish species were captured, including sensitive species (IBI score=excellent), all measured water quality parameters met Nebraska water quality standards, and the ecological integrity of the site was sufficient to score it as a possible reference site. For the reasons listed above, the ICI score was not considered when determining the attainment status of the aquatic life use in this stream. The stream was placed in category 2 based on the IBI score (See Attachment E: Niobrara Basin).

**RE3-10100 Medicine Creek** – ICI Score = Poor

Field data sheets and hydrologic data indicate that the poor ICI score was due to a lack of in-stream habitat and not pollution. Field data sheets document that at its deepest this stream was 0.5ft deep, filled only a portion of the stream channel (wetted width 4.6m, channel width 19.0m), and had very little in-stream invertebrate habitat. This sampling site is located approximately two miles downstream of the 34,700 acre-feet Medicine Creek Reservoir and flow within this stream is dictated by the discharge from the reservoir. Hydrologic data from Medicine Creek documents a large discharge from the reservoir in early June 2007, followed by very low flow conditions during the time of sample collection (discharge June 3, 2007 was 777 cfs, discharge August 31, 2007 was 0.33 cfs). Lastly, the stream showed no obvious signs of pollution, all water quality parameters measured at the time of sample collection, met Nebraska water quality standards and 16 fish species were identified during the collection (IBI score=excellent). For the reasons listed above, the ICI score was not considered when determining the attainment status of the aquatic life use in this stream. This stream was placed in category 5 because of low dissolved oxygen values that resulted from a lack of water releases from the upstream dam (See Attachment F: Republican Basin).

**WH1-10000: White River** – IBI Score = Poor

Review of the field data sheets, hydrologic, and climatologic data indicate that the poor IBI score was due to low water levels and a lack of in stream habitat not pollution. The field data sheets completed at the time of sample collection documented the following habitat limitations: Little in-stream vegetation or woody debris, a wetted channel width of 2.3m, while the bankfull width was 5.3m, and a maximum depth of 1.0 feet. The field data sheets also document that the stream was experiencing little anthropogenic disturbance and showed no obvious signs of pollution. For example, all measured water quality parameters met Nebraska water quality standards, numerous invertebrate taxa, including pollution sensitive taxa, were captured (ICI score=excellent), and the ecological integrity of the site was sufficient to score it as a possible reference site. This stream segment is also part of NDEQ's ambient stream monitoring program and monthly water quality samples have been collected from this segment since January, 2001. Analysis of the ambient monitoring water quality data shows this stream to be meeting the Nebraska water quality standards for all parameters collected. For the reasons listed above, the IBI score was not considered when determining the attainment status of the aquatic life use in this stream. The stream was placed in category 1 due to all assigned uses being met (See Attachment H: White River Basin).

Field data sheets are available for review: contact Laura Johnson at (402) 471-4249 or [laura.r.johnson@nebraska.gov](mailto:laura.r.johnson@nebraska.gov) to arrange a viewing.

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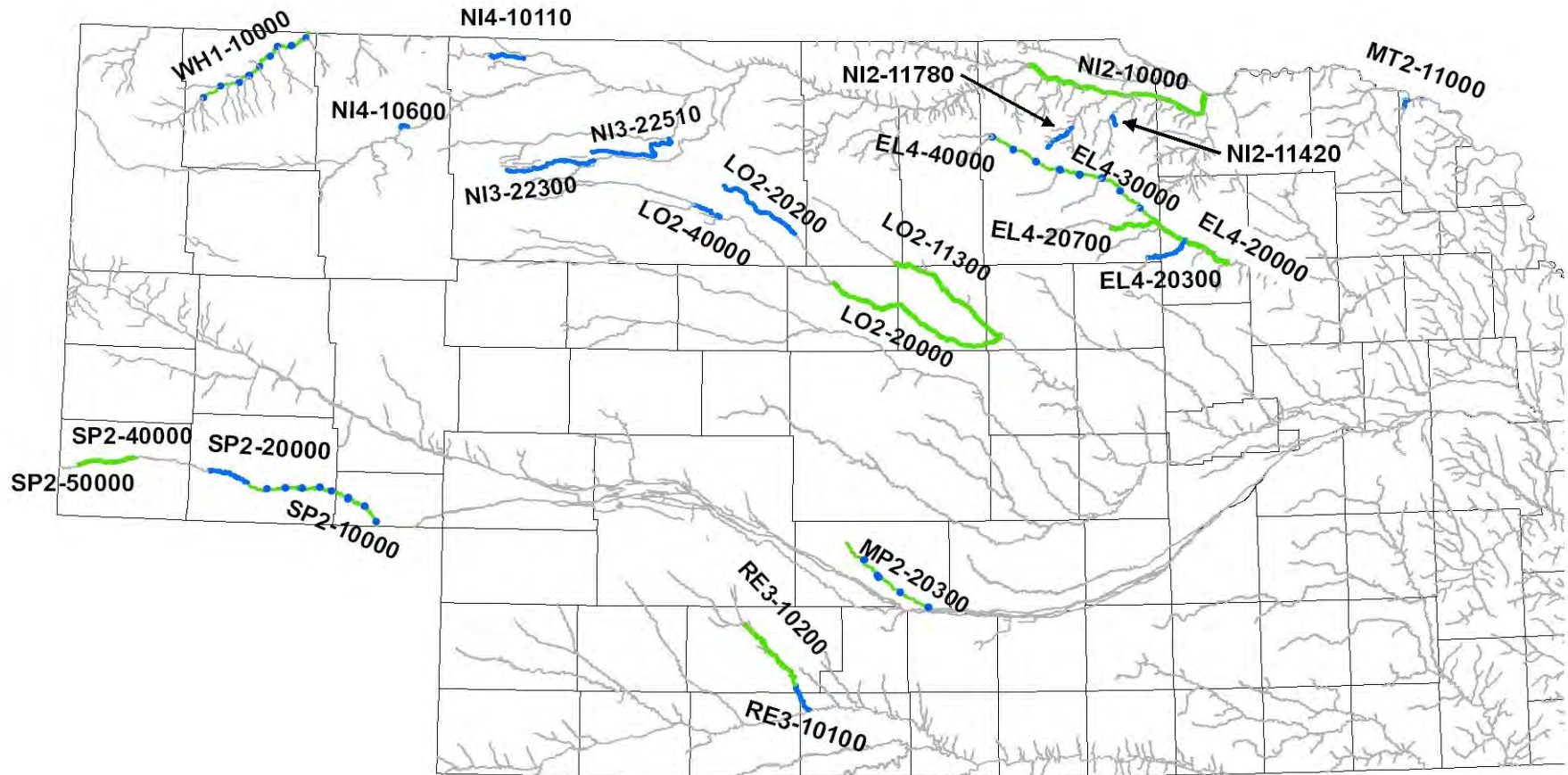
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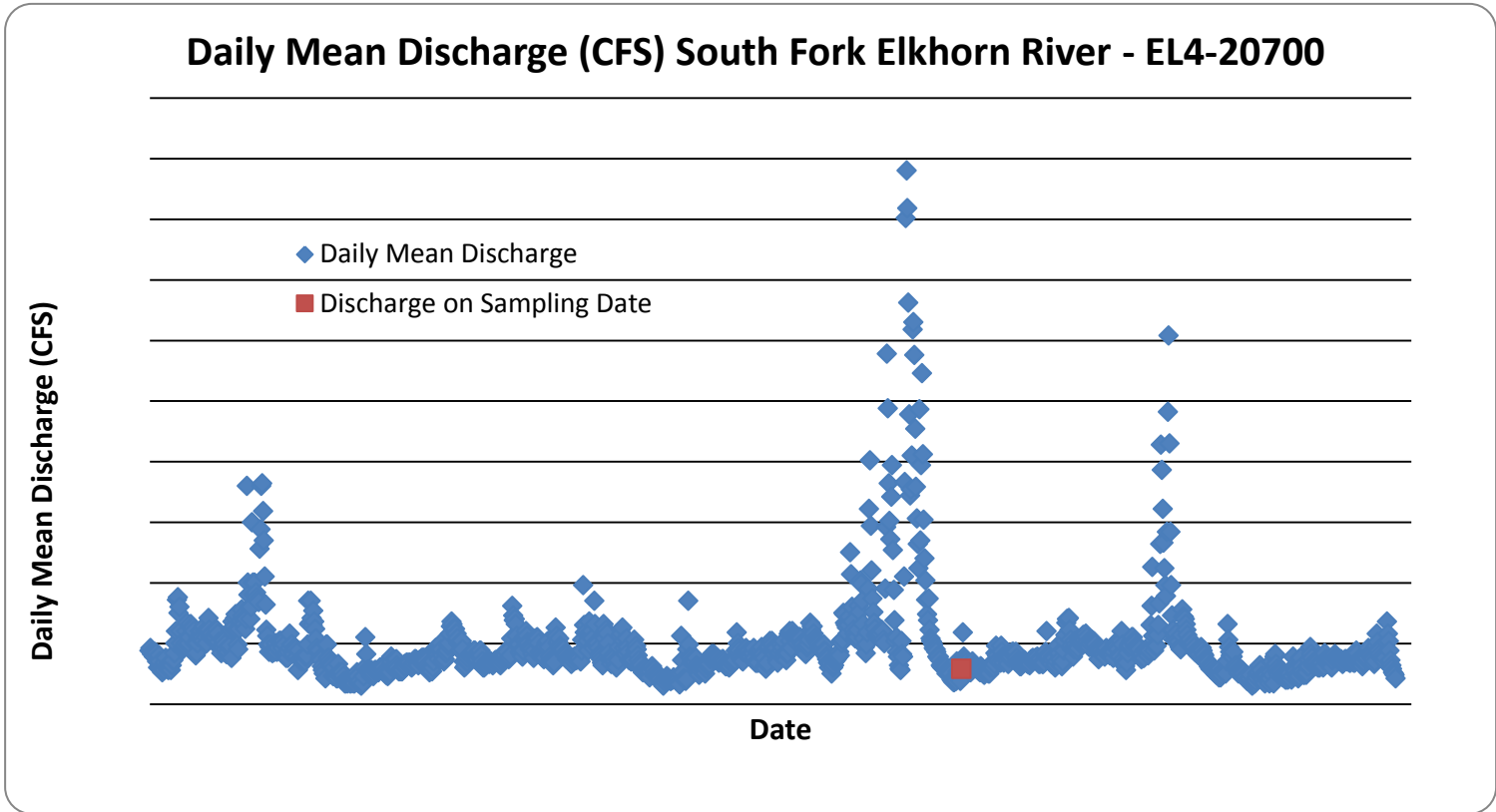
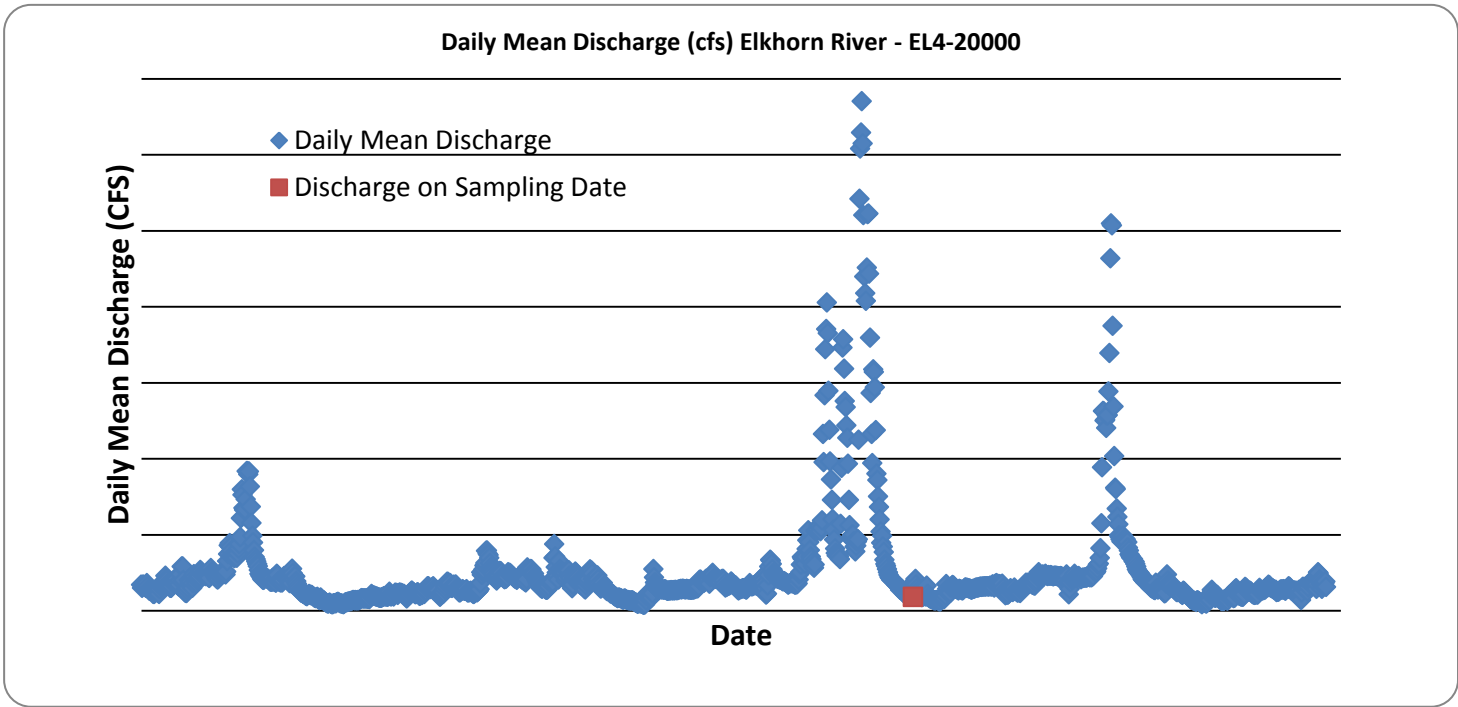
Attachment A: Map of Assessed and Flow Gauged Sites



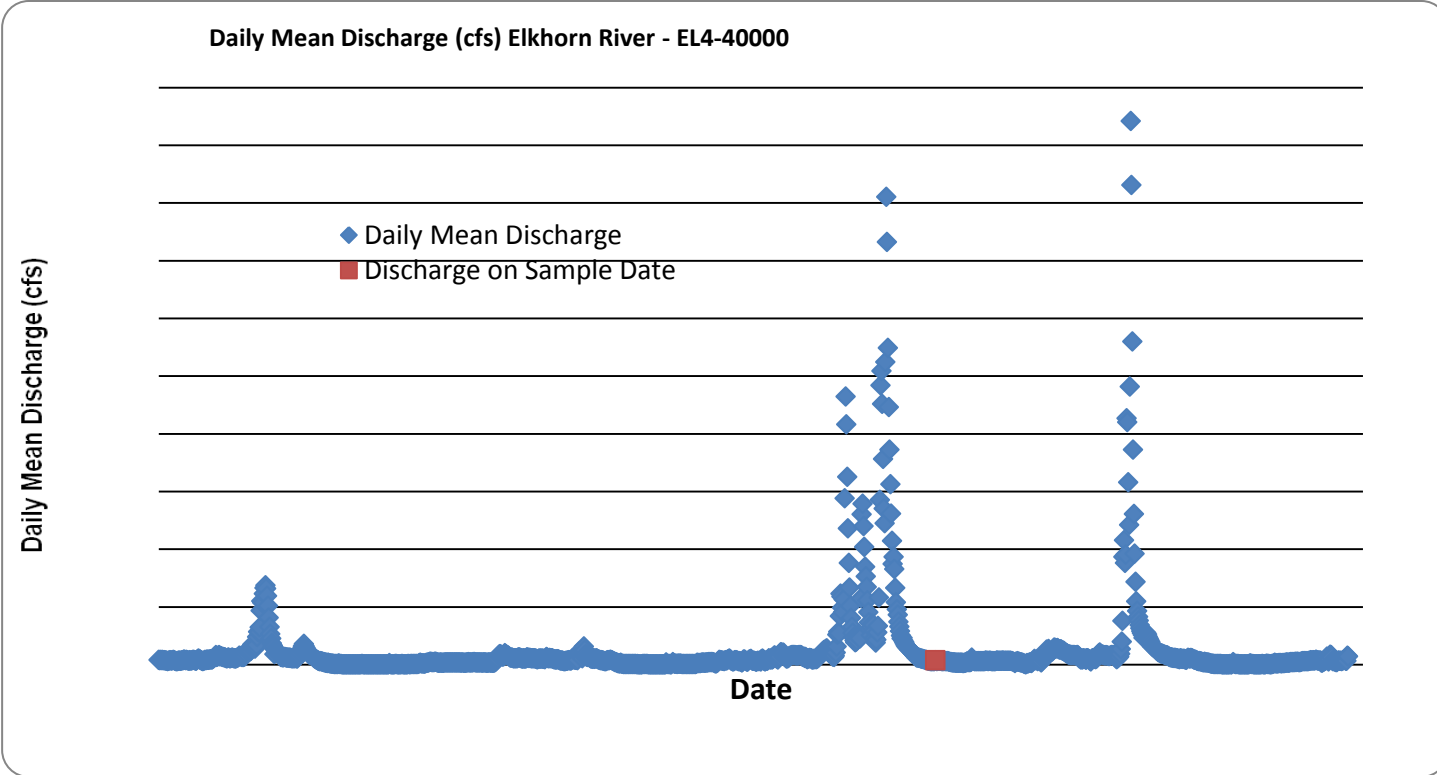
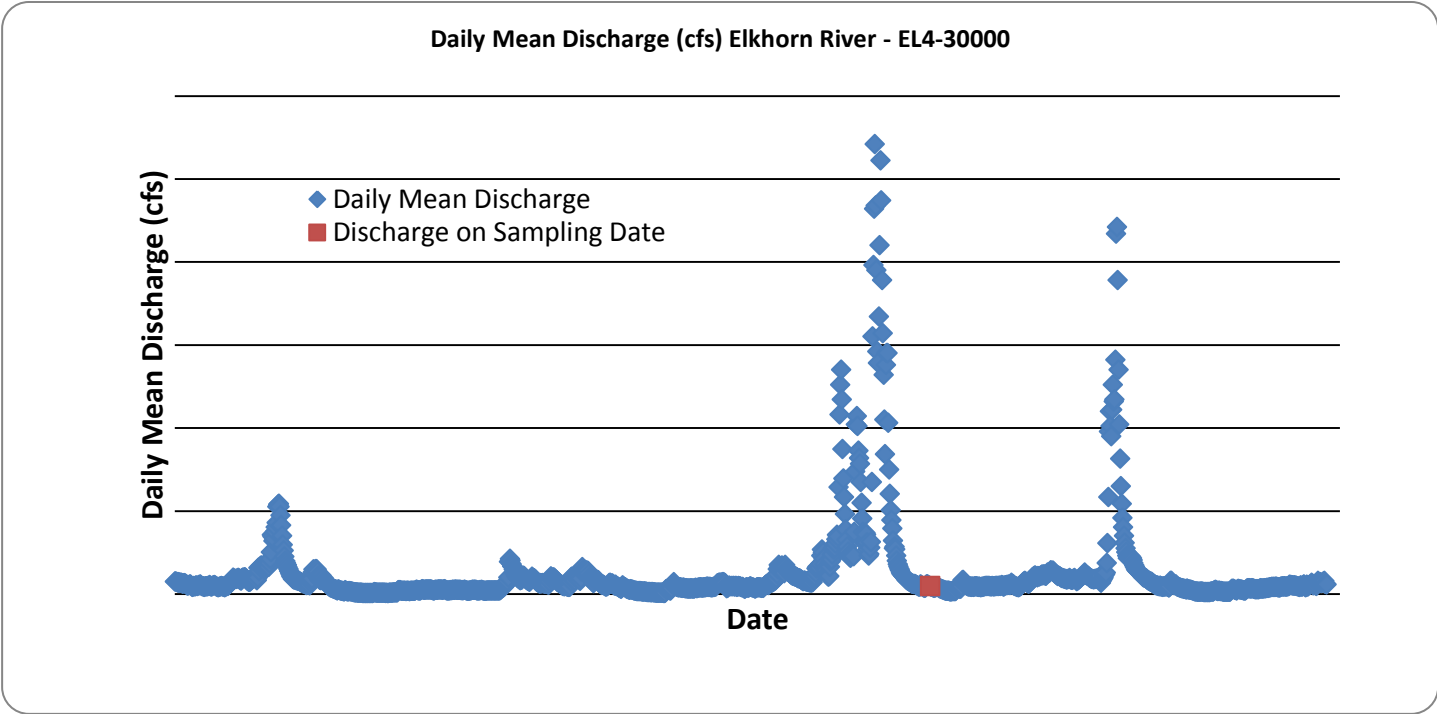
**Assessed and Flow Gauged Streams**

- Assessed Streams
- Flow Gauged Streams
- Assessed & Flow Gauged Streams

Attachment B: Elkhorn Basin (EL4-20300 Clearwater Creek, EL4-30000 Elkhorn River, EL4-40000 Elkhorn River)

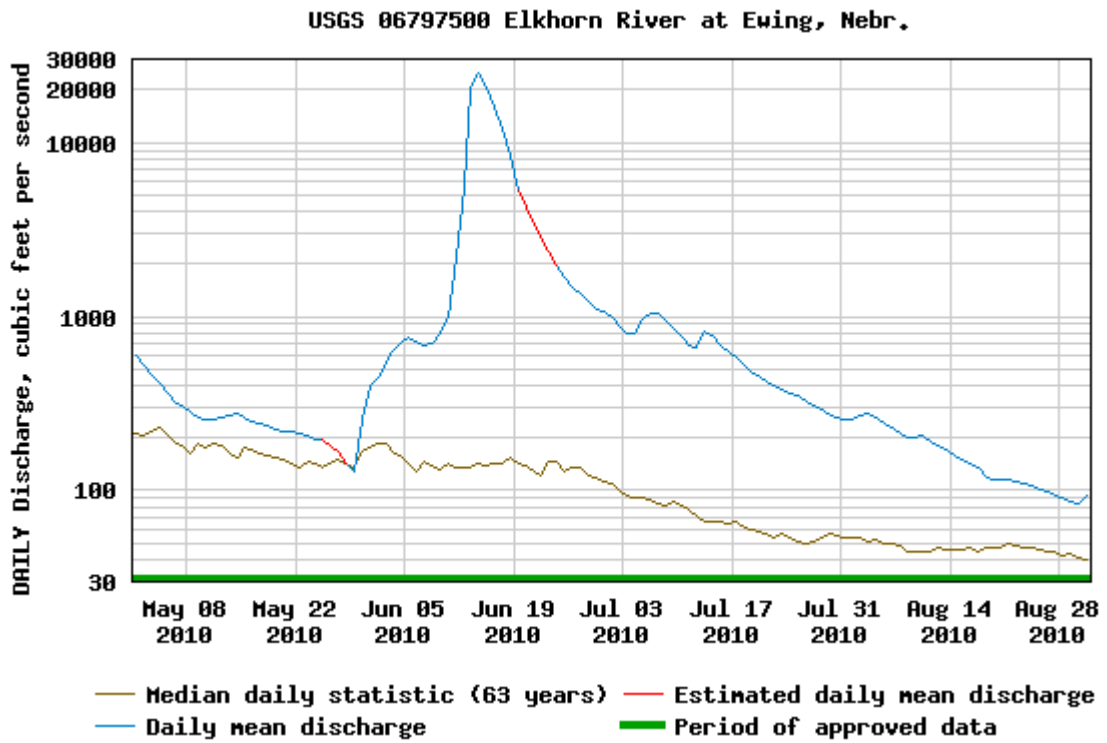


Attachment B: Elkhorn Basin (EL4-20300 Clearwater Creek, EL4-30000 Elkhorn River, EL4-40000 Elkhorn River)



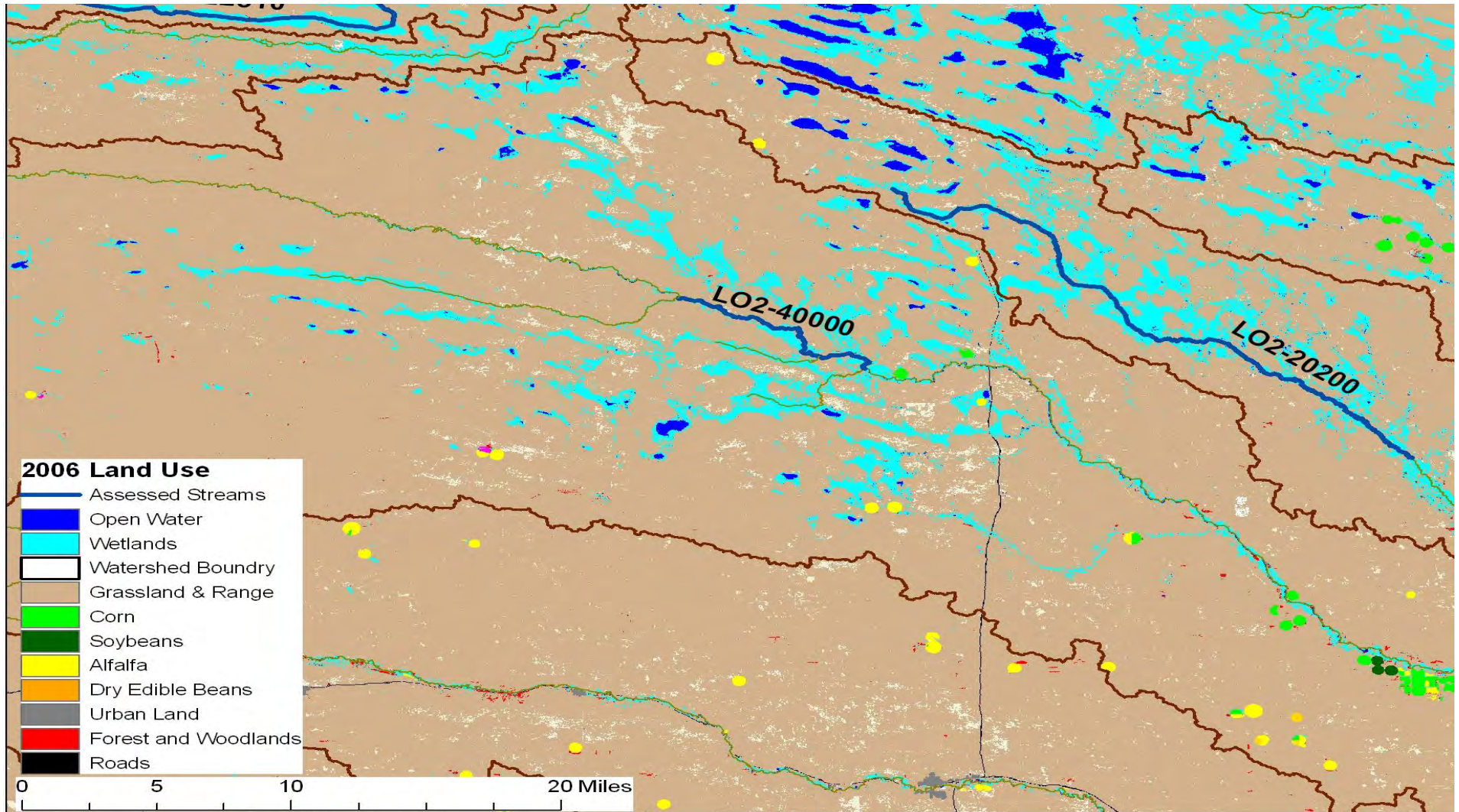
Discharge Data courtesy the USGS and NDNR

Attachment B: Elkhorn Basin-Elkhorn River Discharge at Ewing, Nebraska (Nearest discharge site to EL4-20600: Cache Creek and EL4-20800: South Fork Elkhorn River).



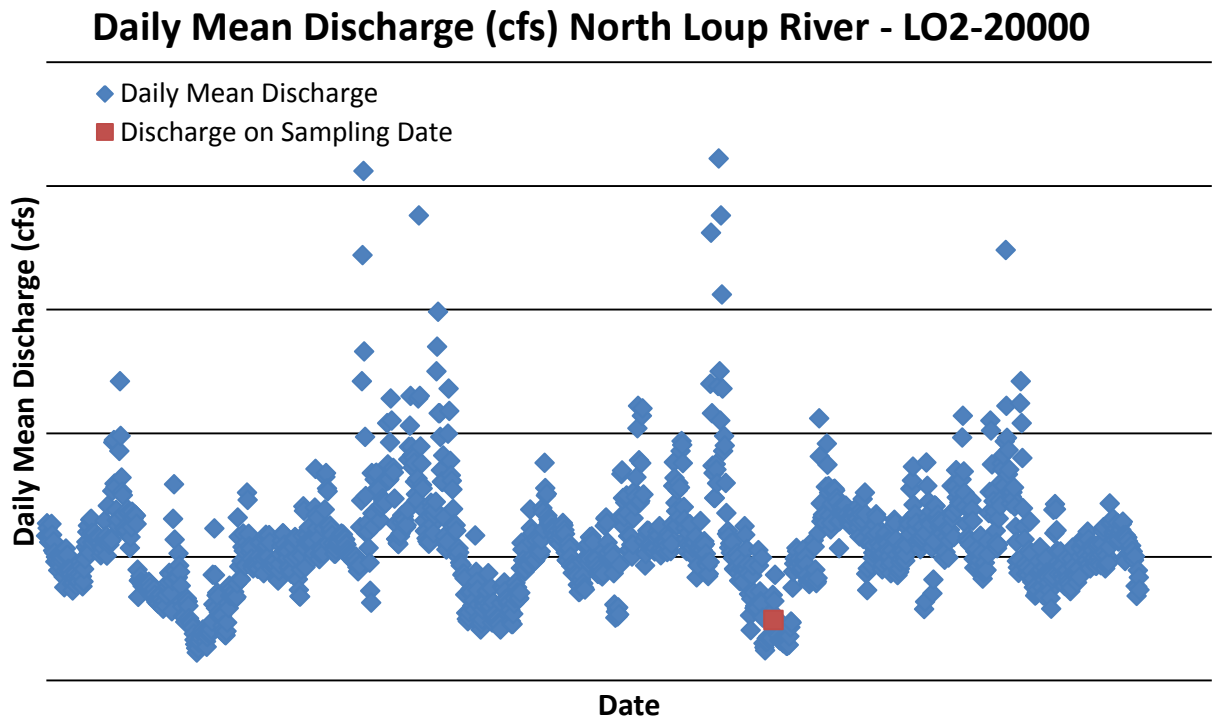
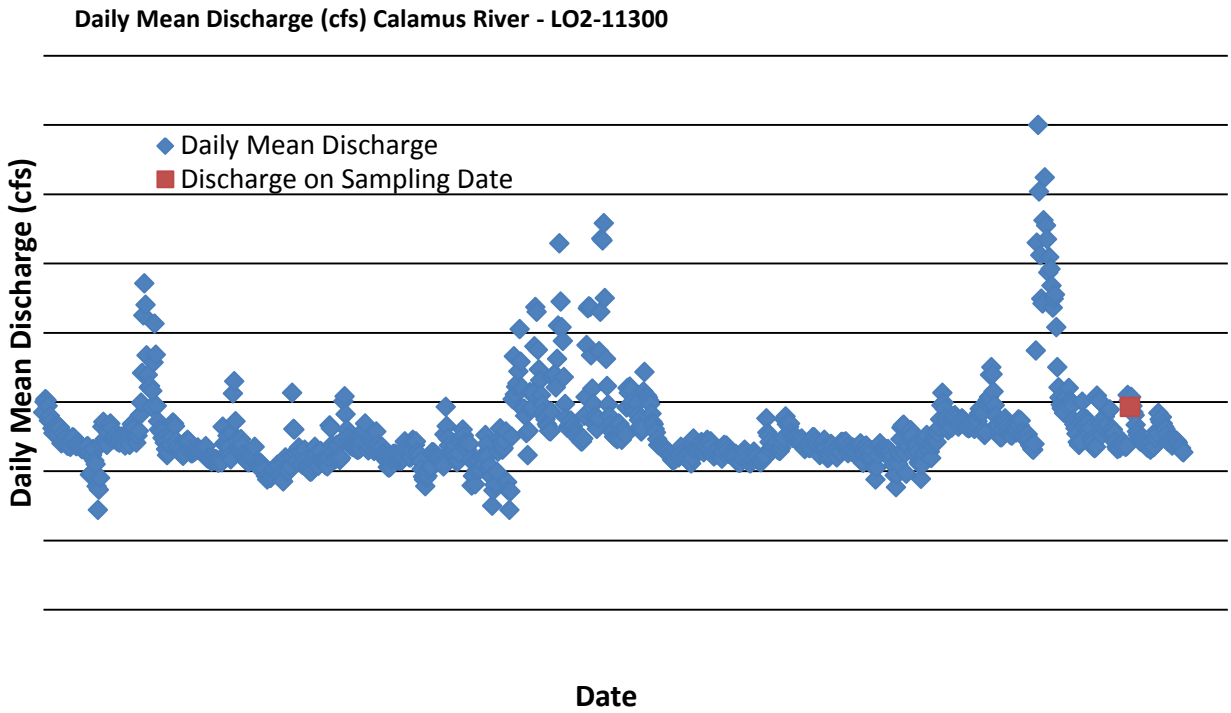


Attachment C: Loup Basin (LO2-20200 Goose Creek & LO2-40000 North Loup River)



Land use data courtesy Center for Advanced Land Management Information Technologies

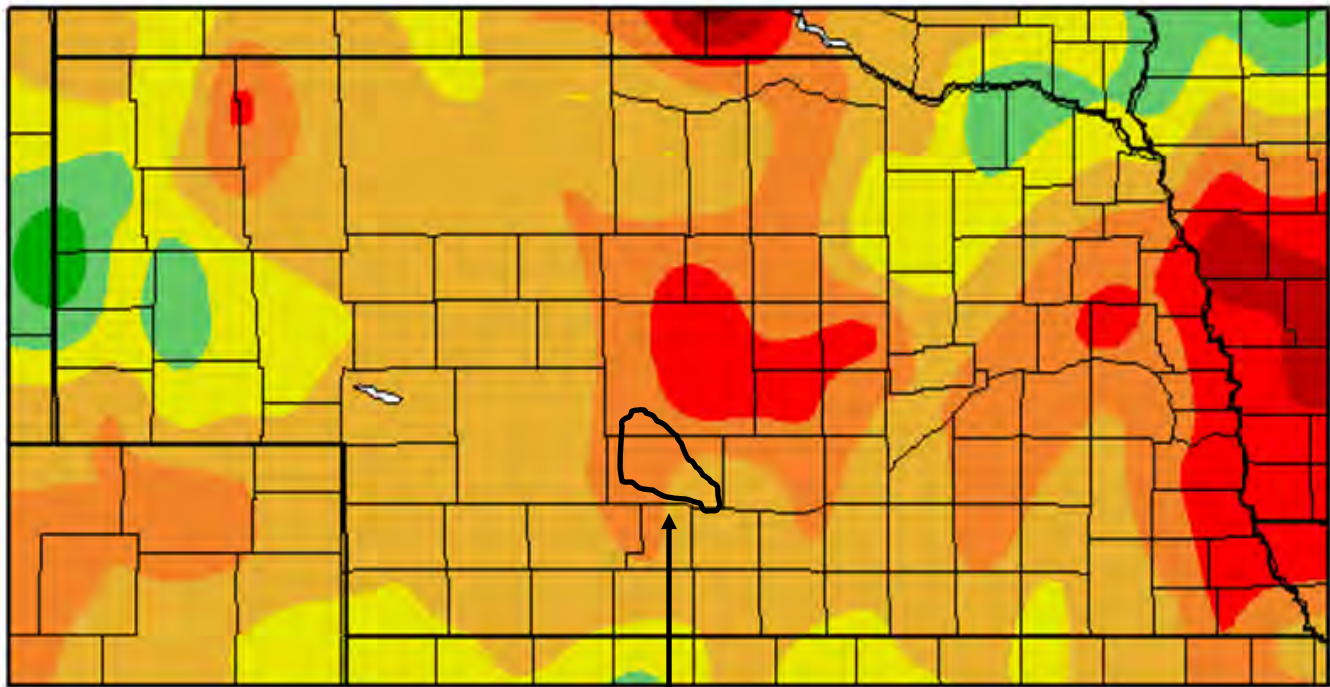
Attachment C: Loup Basin (LO2-20200 Goose Creek & LO2-40000 North Loup River)



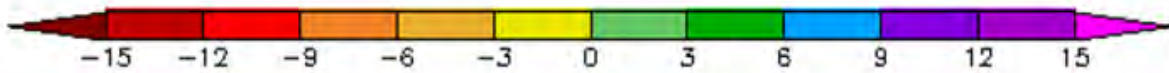
Discharge data courtesy the USGS and NDNR



# Departure from Normal Precipitation (in) 7/1/2005 - 6/30/2006



Spring Creek Watershed



Generated 2/14/2007 at HPRCC using provisional data.

NOAA Regional Climate Centers

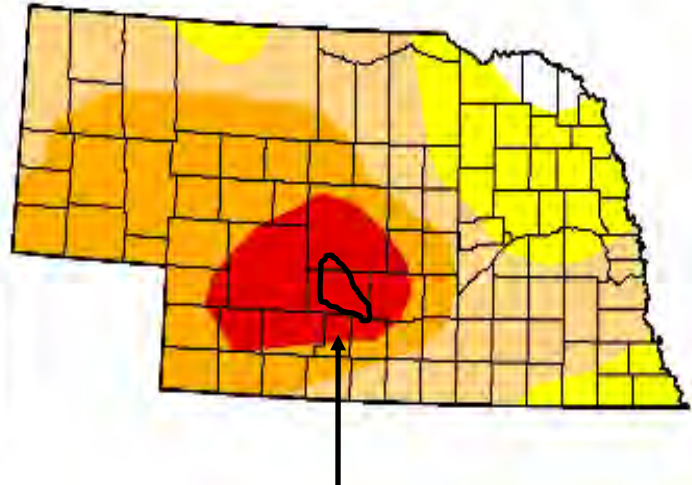
# U.S. Drought Monitor

## Nebraska

July 4, 2006  
Valid 8 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	1.8	98.2	79.0	44.1	11.4	0.0
Last Week (06/27/2006 map)	1.9	98.1	69.6	44.2	16.9	0.0
3 Months Ago (04/11/2006 map)	33.4	66.6	44.2	0.0	0.0	0.0
Start of Calendar Year (01/03/2006 map)	13.0	87.0	34.5	0.2	0.0	0.0
Start of Water Year (10/04/2005 map)	27.5	72.5	40.5	0.0	0.0	0.0
One Year Ago (07/05/2005 map)	46.7	53.3	22.5	1.1	0.0	0.0



Spring Creek Watershed

Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

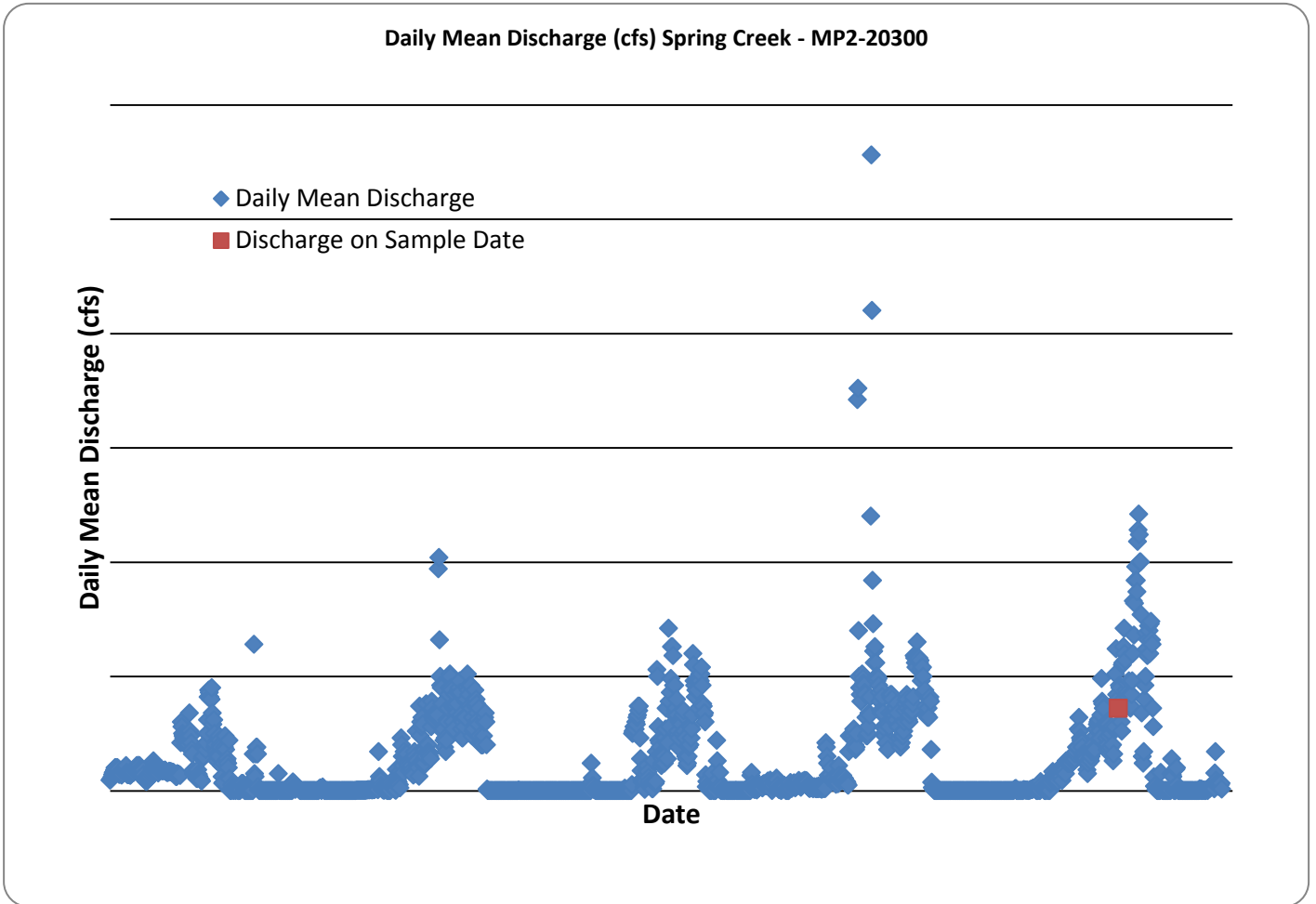


Released Thursday, July 6, 2006

Author: Douglas Le Comte and Tom Heddinghaus, NOAA/CPC

<http://drought.unl.edu/dm>

Attachment D: Middle Platte Basin (MP2-20300 Spring Creek)



Discharge data courtesy USGS and NDNR

# SPENCER 5 SE, NE

## Monthly Total Precipitation (inches)

(258040)

File last updated on Dec 22,

\*\*\* Note \*\*\* Provisional Data \*\*\* After Year/Month 200908

a = 1 day missing, b = 2 days missing, c = 3 days, ..etc.,  
z = 26 or more days missing, A = Accumulations present

Long-term means based on columns; thus, the monthly row may not sum (or average) to the long-term annual value.

MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5

Individual Months not used for annual or monthly statistics if more than 5 days are missing.

Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR (S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
2007	0.27	1.51	1.47	2.90	5.04	2.21	0.29	4.98	1.11	3.73	0.01	0.75b	24.27
2008	0.20a	0.44	0.62	1.56	3.57	4.77	2.11	3.03	2.20	4.36	0.45	0.21b	23.52
2009	0.14	0.39	0.58	0.00z	0.00z	0.00z	0.00z	4.31	0.00z	0.00z	0.00z	0.00z	5.42
Period of Record Statistics													
MEAN	0.37	0.54	1.28	2.57	3.34	3.48	2.81	2.63	2.35	1.58	0.82	0.43	22.24
S.D.	0.36	0.46	1.16	1.70	1.74	1.93	1.97	1.58	1.57	1.36	0.71	0.46	5.43
SKEW	1.95	1.19	2.08	1.40	0.83	0.70	1.58	1.17	0.78	0.80	1.07	1.88	0.35
MAX	1.92	2.12	6.31	8.19	9.72	8.38	10.10	8.59	6.45	4.92	3.20	2.09	35.42
MIN	0.00	0.00	0.00	0.15	0.48	0.28	0.29	0.30	0.00	0.00	0.00	0.00	12.72
NO YRS	69	69	67	66	65	66	67	67	68	66	67	67	58

May 1-June 30, 2008 precipitation = 10.64" Mean May 1 – June 30 precipitation = 7.08"

Sample collection occurred 7-24-2008.

Precipitation data courtesy High Plains Regional Climate Center

# O'NEILL, NE

## Monthly Total Precipitation (inches)

(256290)

File last updated on Dec 22,

\*\*\* Note \*\*\* Provisional Data \*\*\* After Year/Month 200908

a = 1 day missing, b = 2 days missing, c = 3 days, ..etc.,  
z = 26 or more days missing, A = Accumulations present

Long-term means based on columns; thus, the monthly row may not  
sum (or average) to the long-term annual value.

MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5

Individual Months not used for annual or monthly statistics if more than 5 days are missing.

Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR (S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
2005	0.28	0.60	2.69	5.34	5.35	7.41a	0.75	1.73	4.48	0.57	1.93	0.24	31.37
2006	0.50	0.16	1.31	2.79	0.22	2.89	0.71	4.63	3.67	0.94	0.28	2.58	20.68
2007	0.43	1.39	2.74	4.95	5.19	3.62	0.81	5.74	1.30	4.70a	0.16	2.05a	33.08
2008	0.28b	0.42	0.51	2.28	9.00	1.64	2.75	1.75	2.64	4.71	1.49a	0.76	28.23
2009	0.31	0.60	1.41	1.03a	2.70	3.25	1.90	5.64	1.23	4.41b	0.00	0.40u	22.48
Period of Record Statistics													
MEAN	0.47	0.61	1.42	2.50	3.34	3.74	2.86	2.57	2.20	1.49	0.90	0.58	23.24
S.D.	0.37	0.48	1.26	1.62	1.79	1.90	1.84	1.50	1.56	1.26	0.79	0.59	4.89
SKEW	1.43	1.21	3.49	1.10	0.59	1.09	1.01	1.04	1.50	1.01	0.97	1.91	0.12
MAX	1.95	2.17	9.92	8.22	9.00	10.95	9.17	7.74	8.14	4.75	3.21	2.95	33.08
MIN	0.00	0.00	0.03	0.02	0.03	0.75	0.05	0.29	0.40	0.00	0.00	0.00	14.00
NO YRS	102	101	102	102	100	101	98	100	103	99	102	99	77

May 1-June 30, 2008 precipitation = 10.64" Mean May 1 – June 30 precipitation = 7.08"  
Sample collection occurred 7-24-2008.

Precipitation data courtesy High Plains Regional Climate Center



# LYNCH, NE

## Monthly Total Precipitation (inches)

(255040)

File last updated on Dec 22,

\*\*\* Note \*\*\* Provisional Data \*\*\* After Year/Month 200908

a = 1 day missing, b = 2 days missing, c = 3 days, ..etc.,  
z = 26 or more days missing, A = Accumulations present

Long-term means based on columns; thus, the monthly row may not  
sum (or average) to the long-term annual value.

MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS :5

Individual Months not used for annual or monthly statistics if more than 5 days are missing.

Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

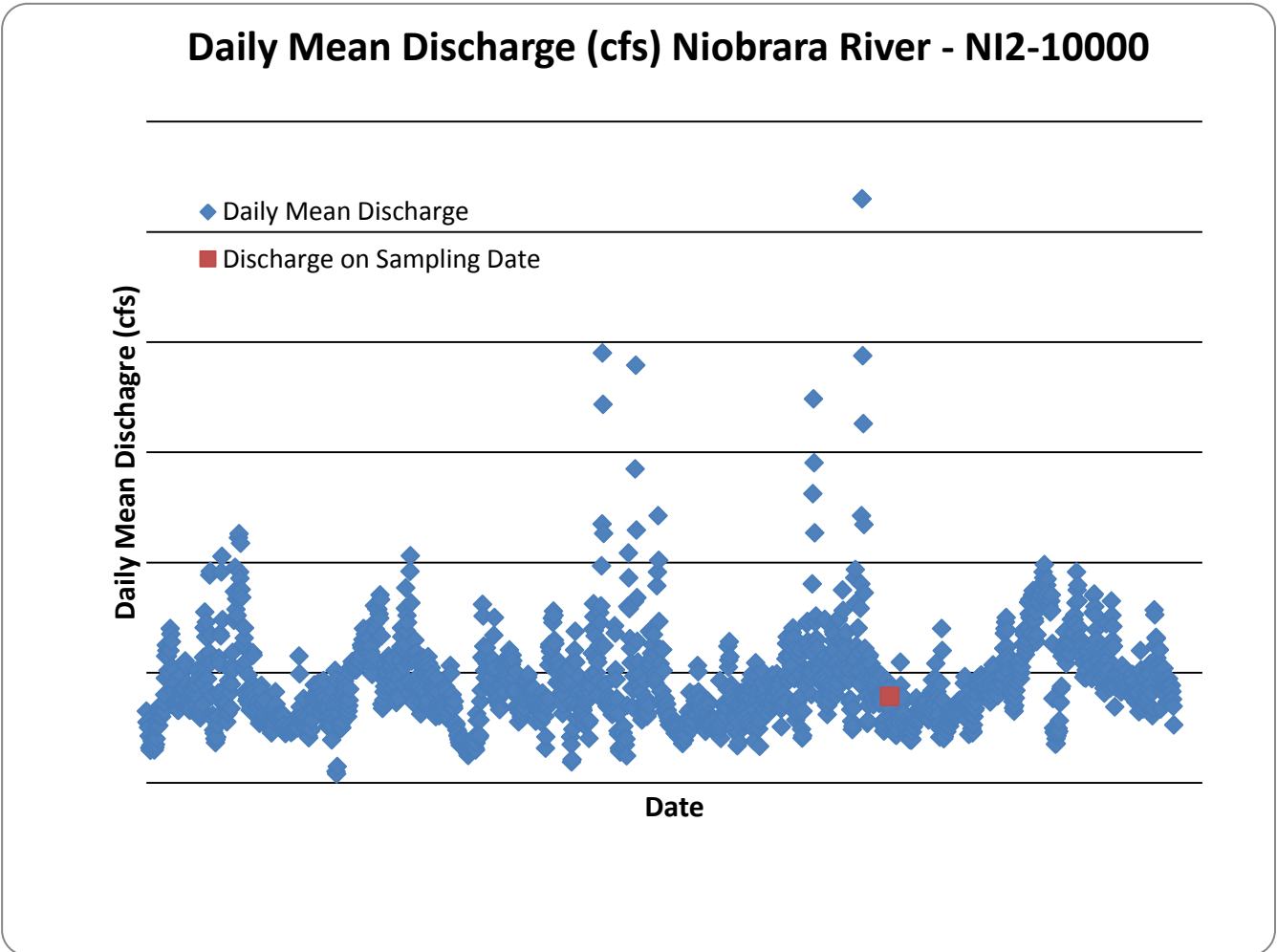
YEAR (S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
2005	0.51a	0.64	2.38	5.18	4.05	7.52	2.14	0.68	3.30	0.60	1.48	0.44c	28.92
2006	0.00a	0.23	1.60b	3.64x	1.19	2.92	0.43	2.69	5.59	0.36a	0.55	2.83a	18.39
2007	0.55p	1.72a	1.69a	4.07	4.64	3.58	0.28	5.29	1.64	5.74	0.04	1.40a	30.09
2008	0.00z	0.76	0.88	2.29	4.51	3.42	1.61	4.82	2.61	5.27	0.45	0.60	27.22
2009	0.12	0.67	0.00z	2.79	2.12	4.03a	3.23	4.77	1.55z	3.16z	0.00z	0.00z	17.73
Period of Record Statistics													
MEAN	0.48	0.72	1.48	2.67	3.37	3.62	2.96	2.81	2.33	1.61	0.84	0.58	23.49
S.D.	0.40	0.58	1.17	1.76	1.71	2.16	1.98	1.70	1.43	1.38	0.70	0.57	5.42
SKEW	1.29	1.48	2.06	1.26	0.52	1.07	1.18	1.09	0.82	1.16	0.90	1.87	0.05
MAX	1.85	3.18	7.58	8.68	8.95	10.64	10.10	9.25	6.65	5.74	2.77	2.83	36.62
MIN	0.00	0.00	0.09	0.00	0.05	0.55	0.12	0.00	0.12	0.00	0.00	0.00	12.63
NO YRS	98	99	97	100	98	101	103	103	100	102	100	101	81

May 1-June 30, 2008 precipitation = 7.93" Mean May 1 – June 30 precipitation = 6.99"  
Sample collection occurred 7-24-2008.

Precipitation data courtesy High Plains Regional Climate Center

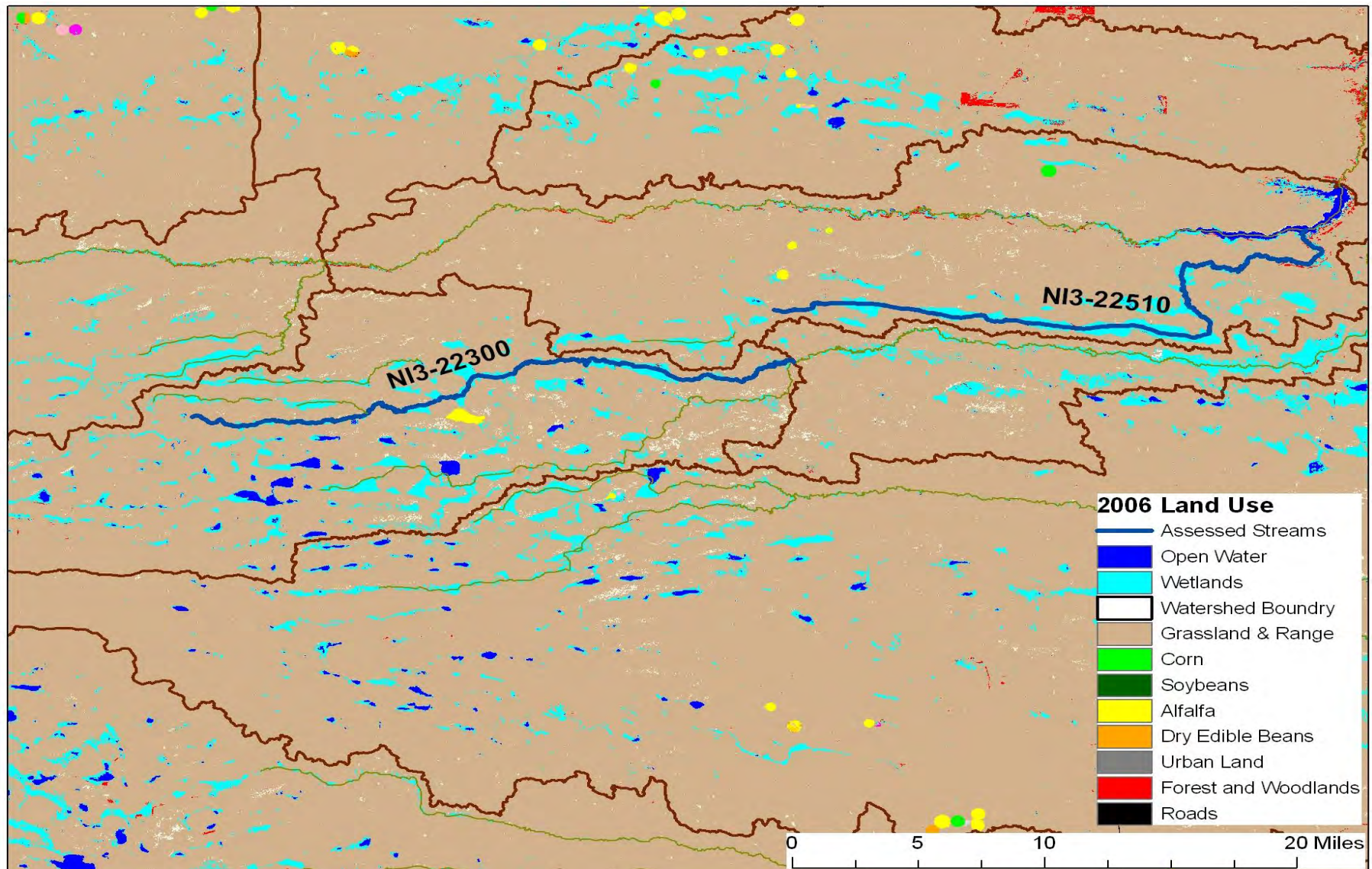


Attachment E: Niobrara Basin (NI2-11420 Spring Creek & NI2-11780 Middle Branch Eagle Creek)



Discharge data courtesy USGS and NDNR

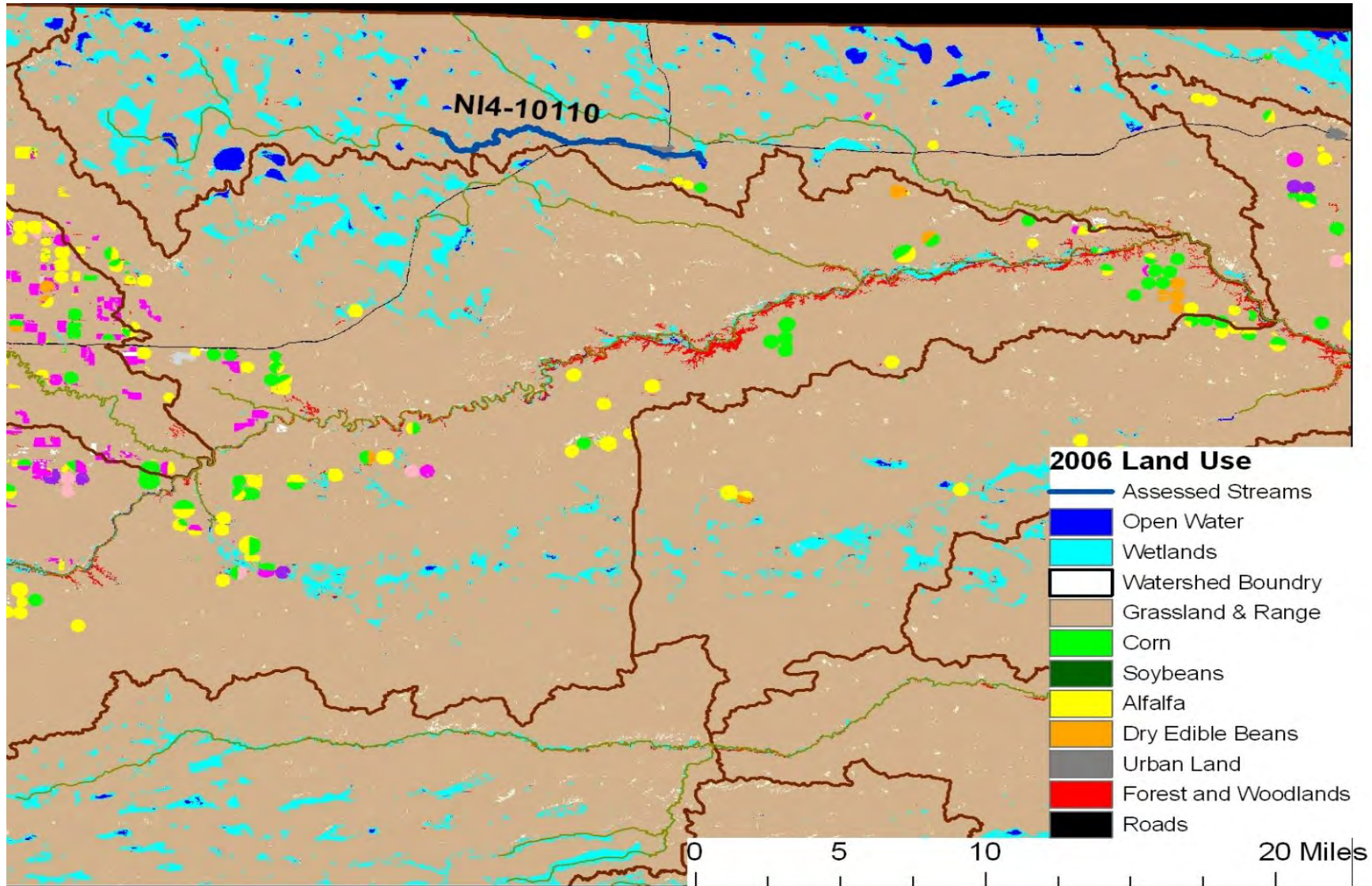
Attachment E: Niobrara Basin (NI3-22300 Gordon Creek & NI3-22510 Boardman Creek)



Land use data courtesy Center for Advanced Land Management Information Technologies



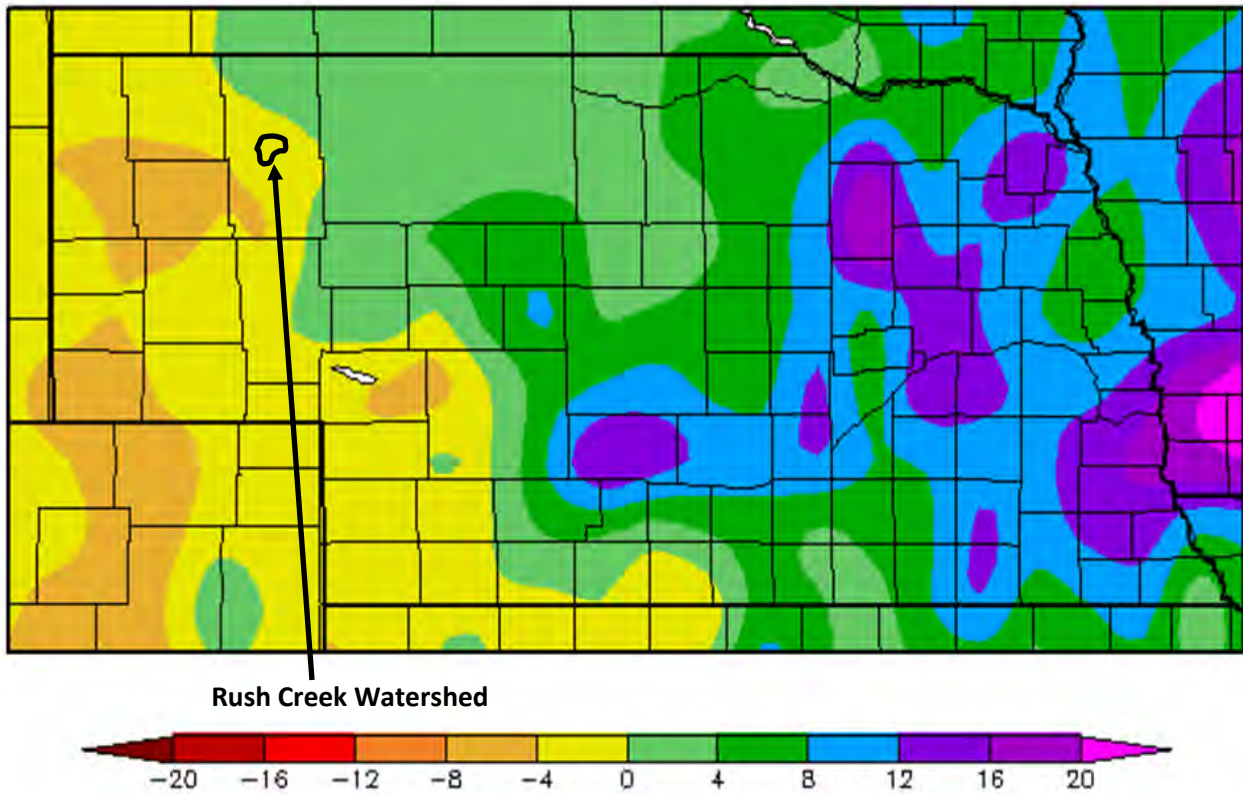
Attachment E: Niobrara Basin (NI4-10110 Dry Creek)



Land use data courtesy Center for Advanced Land Management Information Technologies

Attachment E: Niobrara Basin (NI4-10600 Rush Creek)

Departure from Normal Precipitation (in)  
8/1/2007 - 7/31/2008



Generated 9/16/2008 at HPRCC using provisional data.

NOAA Regional Climate Centers



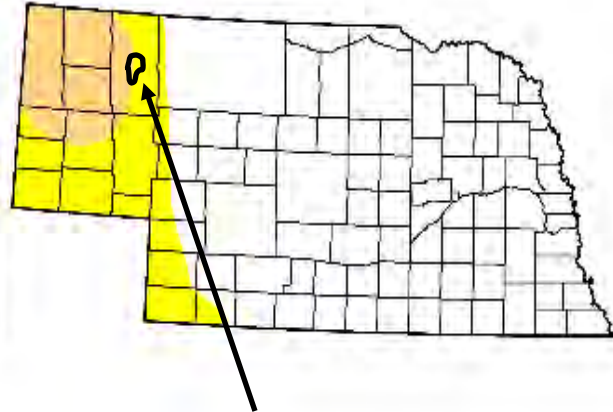
# U.S. Drought Monitor

## Nebraska

July 15, 2008  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	76.8	23.2	8.8	0.0	0.0	0.0
Last Week (07/08/2008 map)	77.0	23.0	8.8	0.0	0.0	0.0
3 Months Ago (04/23/2008 map)	66.7	33.3	19.1	7.8	1.7	0.0
Start of Calendar Year (01/01/2008 map)	66.7	33.3	15.9	7.8	1.7	0.0
Start of Water Year (10/02/2007 map)	70.9	29.1	13.6	7.0	1.7	0.0
One Year Ago (07/17/2007 map)	52.9	47.1	20.8	9.0	0.4	0.0



Rush Creek Watershed

Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

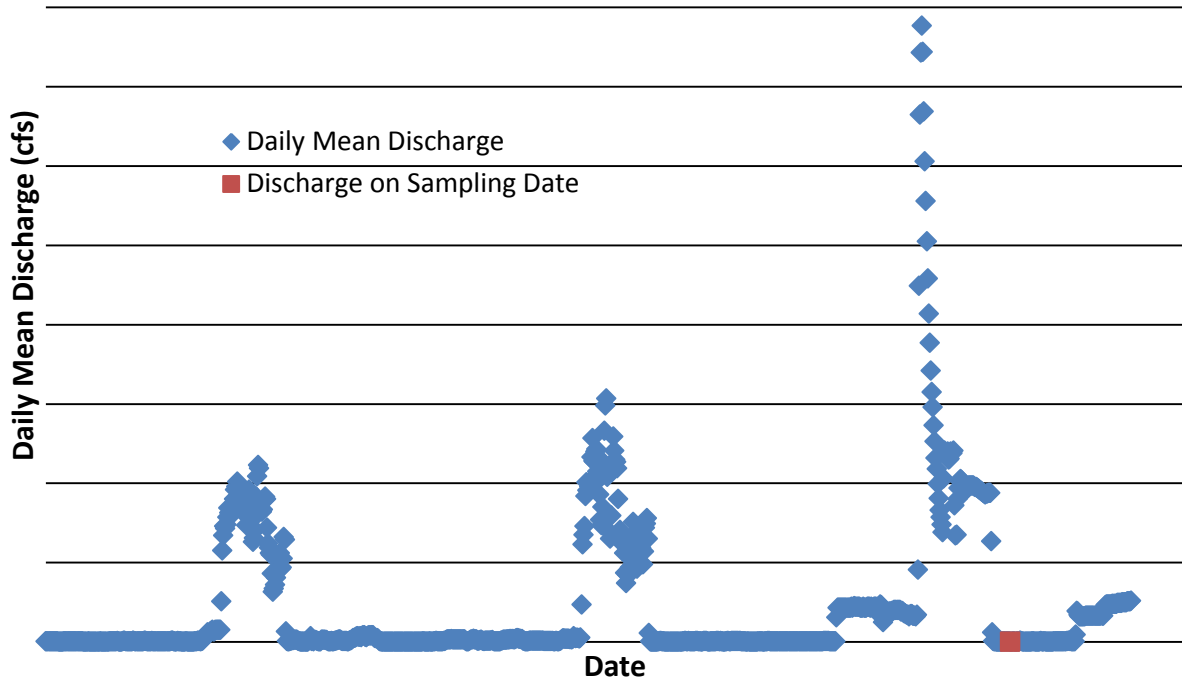
<http://drought.unl.edu/dm>



Released Thursday, July 17, 2008  
Author: Brad Rippey, U.S. Department of Agriculture

Attachment F: Republican Basin (RE3-10100 Medicine Creek)

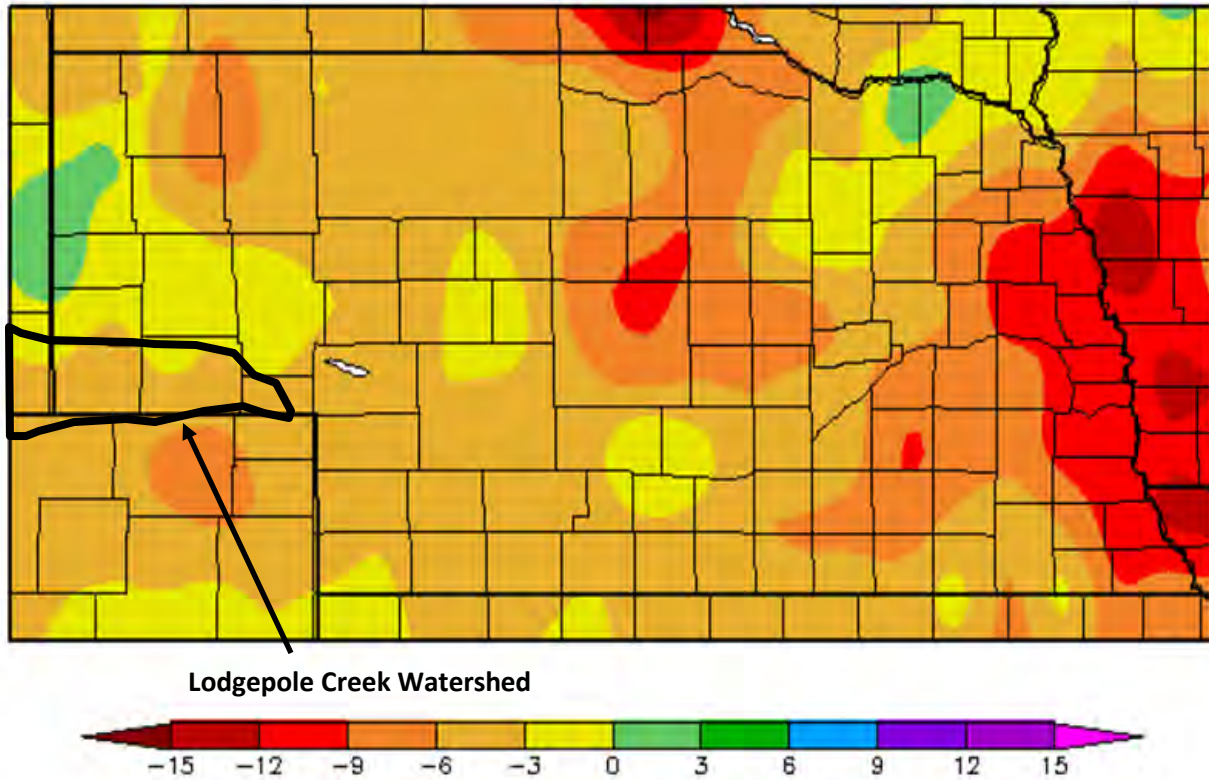
### Daily Mean Discharge (cfs) Medicine Creek - RE3-10200



Discharge data courtesy USGS and NDNR

Attachment G: South Platte Basin (SP2-10000 Lodgepole Creek & SP2-20000 Lodgepole Creek)

Departure from Normal Precipitation (in)  
8/1/2005 - 7/31/2006



Generated 2/14/2007 at HPRCC using provisional data.

NOAA Regional Climate Centers

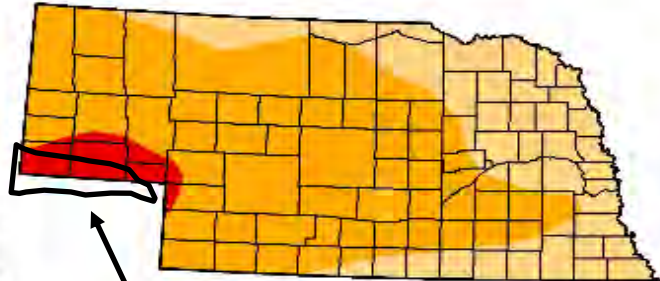
# U.S. Drought Monitor

## Nebraska

July 18, 2006  
Valid 8 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.0	100.0	100.0	68.3	4.6	0.0
Last Week (07/11/2006 map)	0.0	100.0	78.4	38.1	0.0	0.0
3 Months Ago (04/25/2006 map)	33.1	66.9	43.4	0.0	0.0	0.0
Start of Calendar Year (01/03/2006 map)	13.0	87.0	34.5	0.2	0.0	0.0
Start of Water Year (10/04/2005 map)	27.5	72.5	40.5	0.0	0.0	0.0
One Year Ago (07/19/2005 map)	16.9	83.1	41.6	1.1	0.0	0.0



**Intensity:**



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

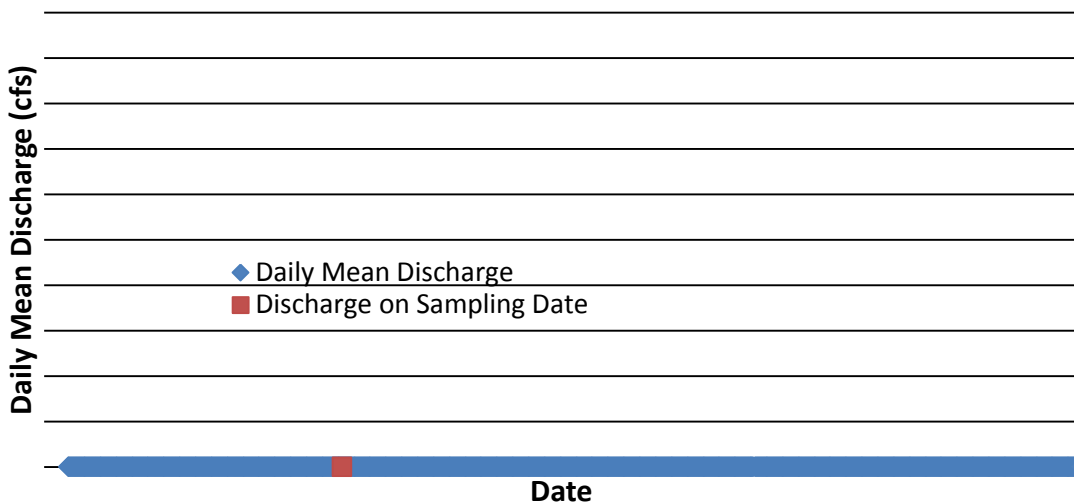


Released Thursday, July 20, 2006

Author: Richard Helm/Liz Love-Brotak, NOAA/NESDIS/NCDC

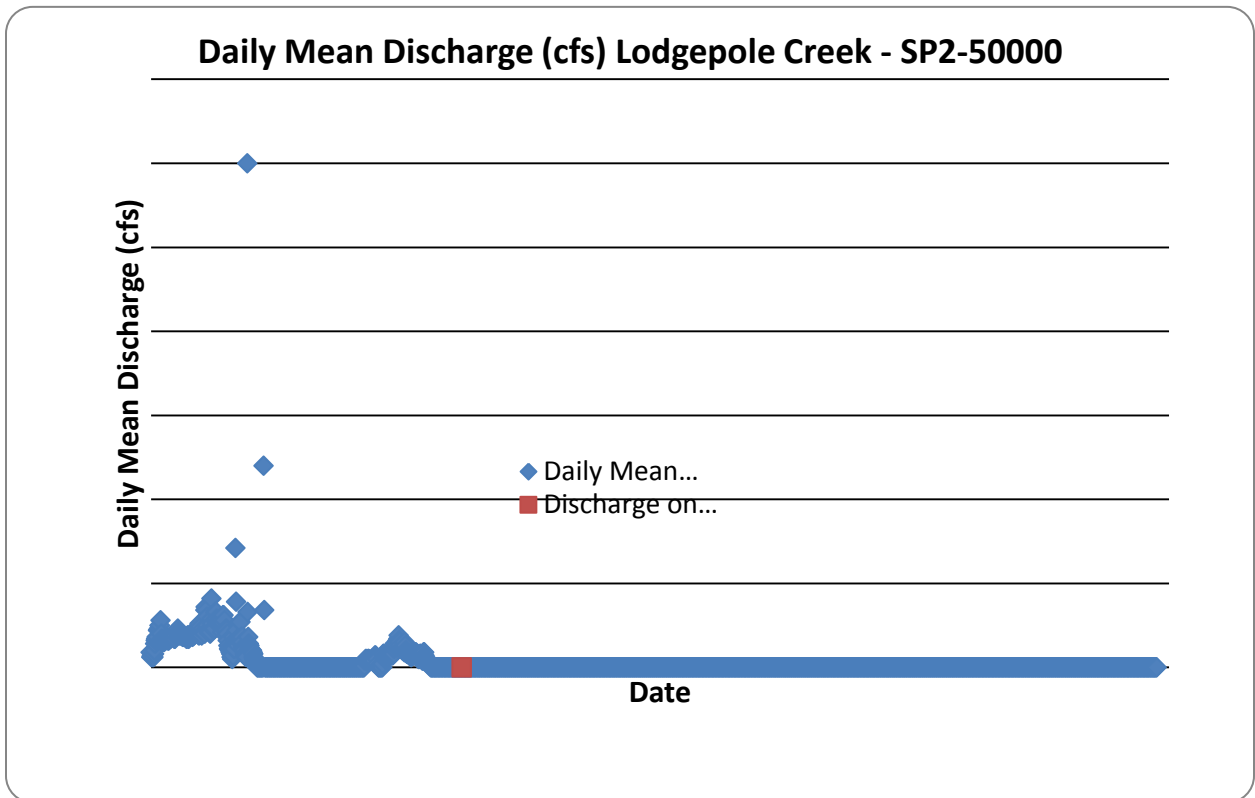
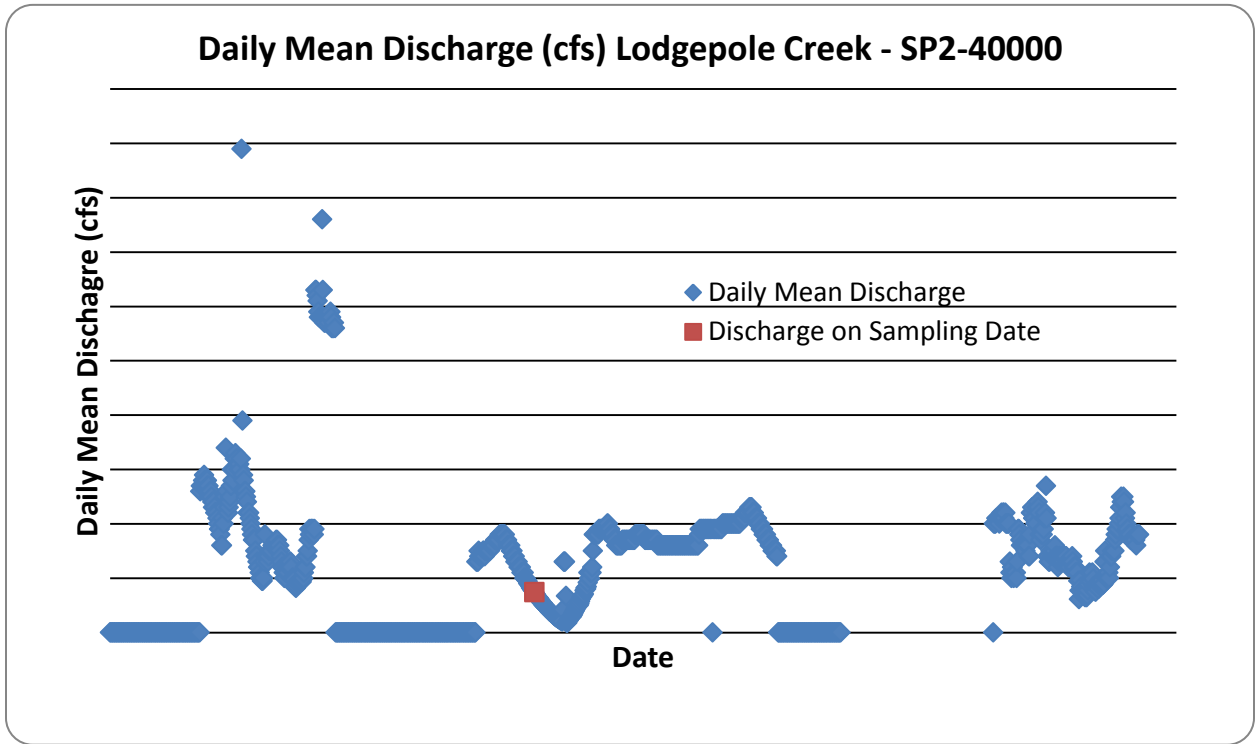
<http://drought.unl.edu/dm>

### Daily Mean Discharge (cfs) Lodgepole Creek - SP2-10000





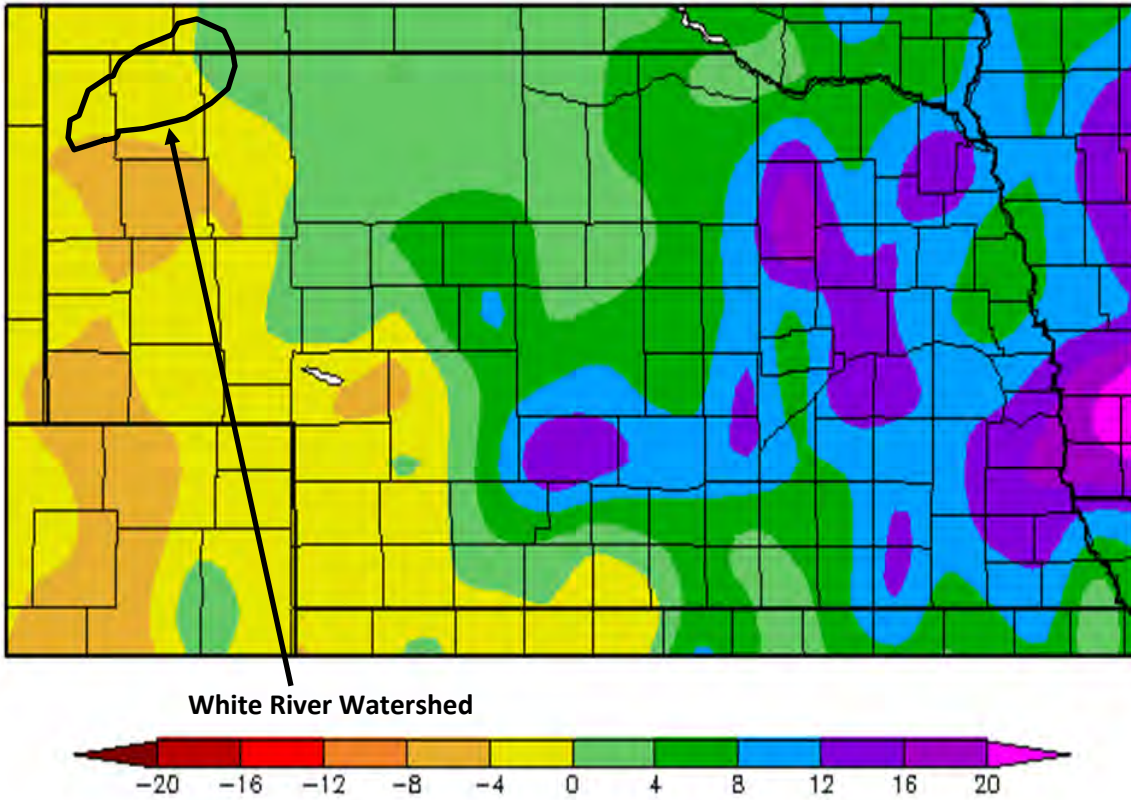
Attachment G: South Platte Basin (SP2-10000 Lodgepole Creek & SP2-20000 Lodgepole Creek)



Discharge data courtesy USGS and NDNR

Attachment H: White Basin (WH1-10000 White River)

Departure from Normal Precipitation (in)  
8/1/2007 - 7/31/2008



Generated 9/16/2008 at HPRCC using provisional data.

NOAA Regional Climate Centers

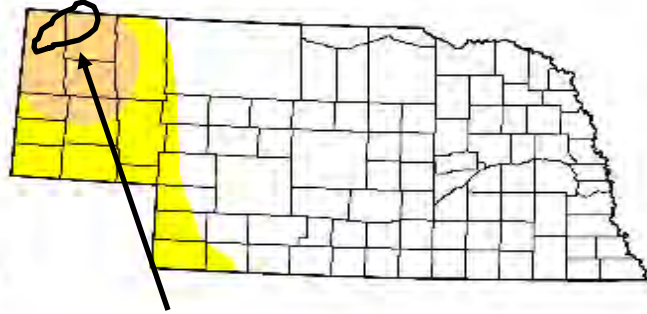
# U.S. Drought Monitor

## Nebraska

July 8, 2008  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	77.0	23.0	8.8	0.0	0.0	0.0
Last Week (07/01/2008 map)	77.0	23.0	9.9	0.0	0.0	0.0
3 Months Ago (04/15/2008 map)	66.7	33.3	19.1	7.8	1.7	0.0
Start of Calendar Year (01/01/2008 map)	66.7	33.3	15.9	7.8	1.7	0.0
Start of Water Year (10/02/2007 map)	70.9	29.1	13.6	7.0	1.7	0.0
One Year Ago (07/10/2007 map)	61.8	38.2	16.1	8.1	0.0	0.0



White River Watershed

Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

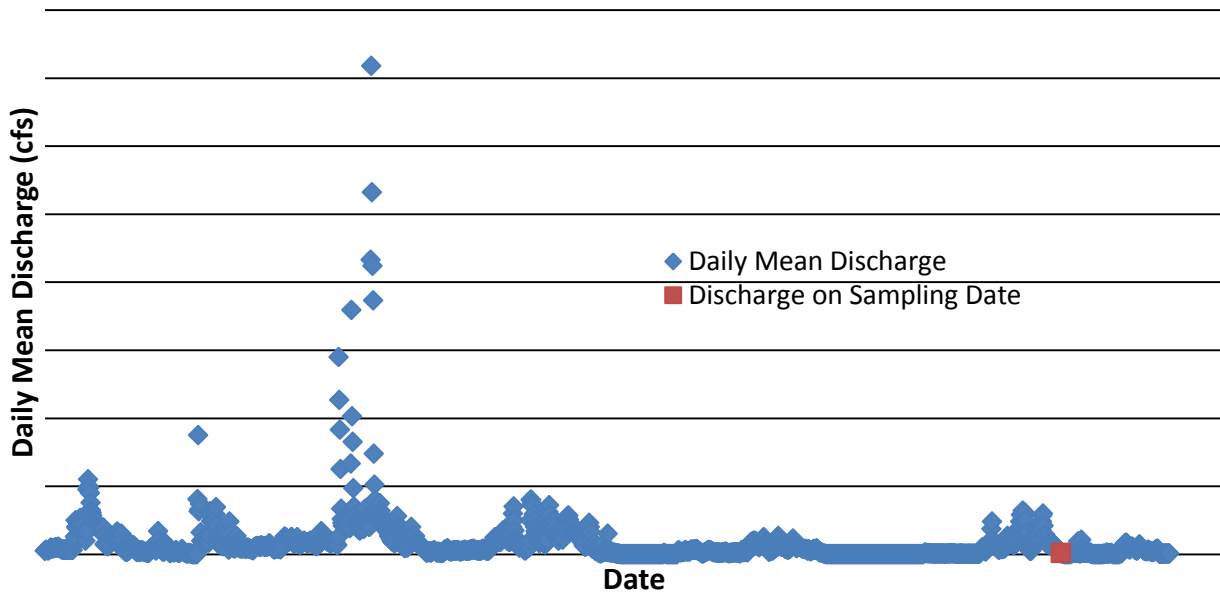
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



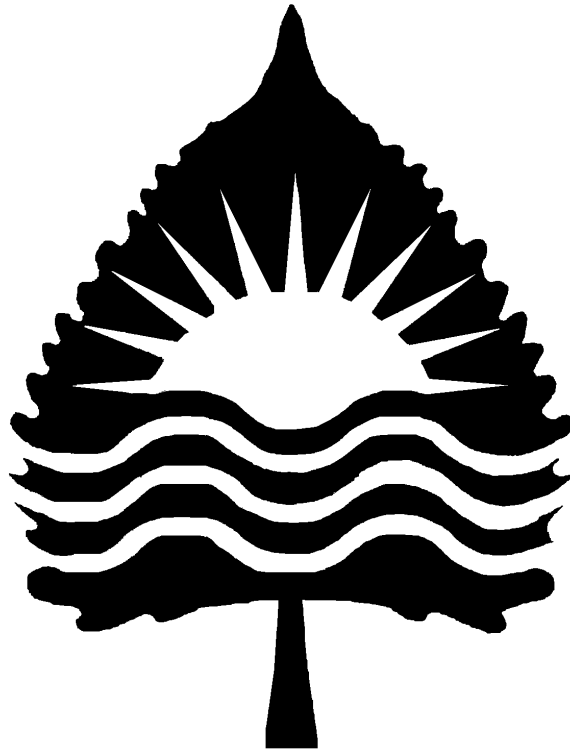
Released Thursday, July 10, 2008  
Author: Rich Tinker, CPC/NOAA

Daily Mean Discharge (cfs) White River - WH1-10000



Discharge data courtesy USGS and NDNR

**Appendix C: Documentation for Elkhorn River Basin 4c Listings**



**Nebraska Surface Water Quality Integrated Report Category  
Change for Waters in the Elkhorn River Basin Impaired by  
Selenium**

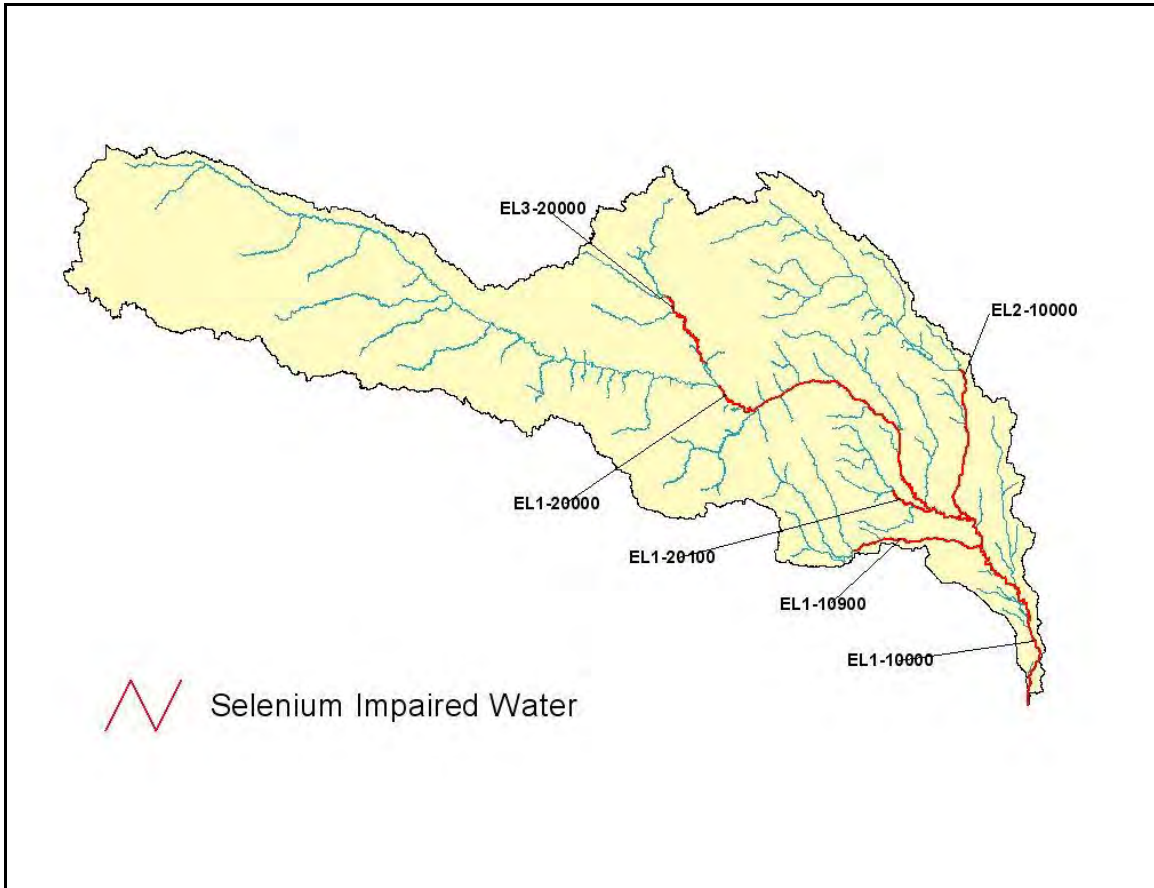
**Water Quality Planning Unit  
Water Quality Division  
Nebraska Department of Environmental Quality**

**March 2009**

## Introduction

The 2008 Nebraska Water Quality Integrated Report (IR) identified five waterbodies in the Elkhorn River Basin as impaired by excessive selenium (Figure 1). Initially, and in accordance with EPA guidance, the waterbodies were included in category 5 – waters needing a TMDL. Further investigation has indicated the excess selenium is not the result of anthropogenic pollutants rather a function of the geology of the area. The purpose of this document is to provide the information necessary to document the natural condition of the Elkhorn Basin and the justification to include the selenium impairments as Category 4C candidates in future IRs.

**Figure 1 Selenium Impaired Segments in the Elkhorn River Basin**



## EPA Guidance and Title 117

The *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Section 303(d), 305(b) and 314 of the Clean Water Act* provides information on the placement of waters into category 4C. Specifically:

*“Segments should be placed in Category 4c when the state demonstrates that the failure to meet an applicable water quality standard is not caused by a pollutant, but instead is caused by other types of pollution. Segments placed in Category 4c do not require the development of a TMDL. Pollution, as defined by the CWA is “the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water” (section 502(19)). In some cases, the pollution is caused by the presence of a pollutant and a TMDL is required. In other cases, pollution does not result from a pollutant and a TMDL is not required. States should schedule these segments for monitoring to confirm that there continues to be no pollutant associated with the failure to meet the water quality standard and to support water quality management actions necessary to address the cause(s) of the impairment. Examples of circumstances where an impaired segment may be placed in Category 4c include segments impaired solely due to lack of adequate flow or to stream channelization.*

*EPA encourages the state to collect or assemble additional data and/or information to verify the initial placement of the segment, and to re-categorize the segment based on the assessment of the additional data and/or information where appropriate.”*

As well, Title 117 Nebraska Surface Water Quality Standards (Title 117) does include a definition of natural background. The definitions states: “natural background shall mean quantifiable measurements of water quality existing in the absence of water pollution.”

Water pollution in turn is defined as: “the manmade or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.”

#### **Assessment and Reporting Methodologies**

Historic water quality data and assessments have presented situations where the data indicates criteria are not being met however the parameter exceedance is not the result of a pollution source. Because of these, the “*Methodologies for Waterbody Assessments and Development of the 2008 Integrated Report for Nebraska*”, as well as the 2004-06 versions included a category for placement and identification of these types of waterbodies. Consistent with the EPA guidance, Category 4C is the identified category and is defined to be:

*“Waterbody is impaired but the impairment is not caused by a pollutant. This category also includes waters where natural causes/sources have been determined to be the cause of the impairment. In general, natural causes/sources shall refer to those pollutants that originate from landscape geology and climactic conditions. It should be noted, this definition is not inclusive.”*

Title 117 and the assessment methodologies do not contain specific implementation language for the use or identification of natural background. It is the Department’s intent to address situations independently as the circumstances will differ given the diverse nature of Nebraska’s geology, land use, water policies and climate.

#### **Current and Historic Water Quality Data**

As indicated, the 2008 Integrated Report included six waterbodies as impaired by excessive selenium. A summary of the assessments can be found in Table 1 and boxplots of the data can be found in Figure 2. The assessments and subsequent impairment status was based on the comparison to the aquatic life beneficial use and the chronic criteria of 5 µg/l.

Water quality data used in the assessment was obtained through the Nebraska Ambient Stream Monitoring Network. Within the Elkhorn Basin there are ten waterbodies included in the network. As shown above six of the ten are considered impaired. The remaining four are not and monitoring and analysis have not detected selenium in any samples (n=75). Figure 3 provides a comparison of the data from impaired versus non-impaired segments. The data has been separated into above and below (Title 117) EL3-10000 which is also the boundaries of sub-basins EL1, EL3 and EL4

**Table 1 Water Quality Data Assessments of Selenium Impaired Elkhorn River Basin Segments**

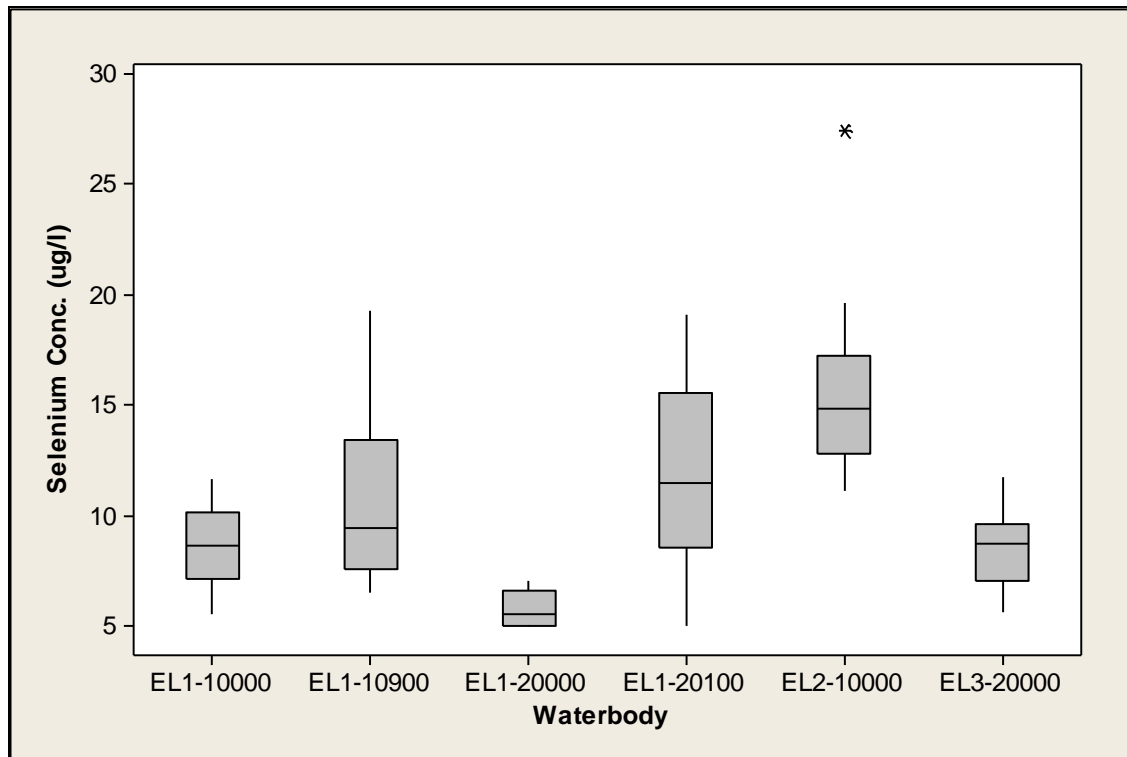
Waterbody Title 117 ID	Waterbody Name	Data Period of Record	Number of Observations	Number >5 µg/l	Minimum needed for Impaired Assessment	Maximum Value (µg/l)
EL1-10000	Elkhorn River	2001-06	24	24	5	11.57
EL1-10900	Maple Creek	2002-06	17	17	4	19.35
EL1-20000	Elkhorn River	2002-06	16	9	4	7.02
EL1-20100	Pebble Creek	2001-06	23	22	5	19.06
EL2-10000	Logan Creek	2002-06	18	18	4	27.39
EL3-20000	N. Fork Elkhorn River	2002-06	17	17	4	11.71

From the surface water quality data and analysis the 4C justification will only be applied to specified waterbodies in the Elkhorn sub-basins EL1, EL2 and EL3. The area is shown in Figure 3.

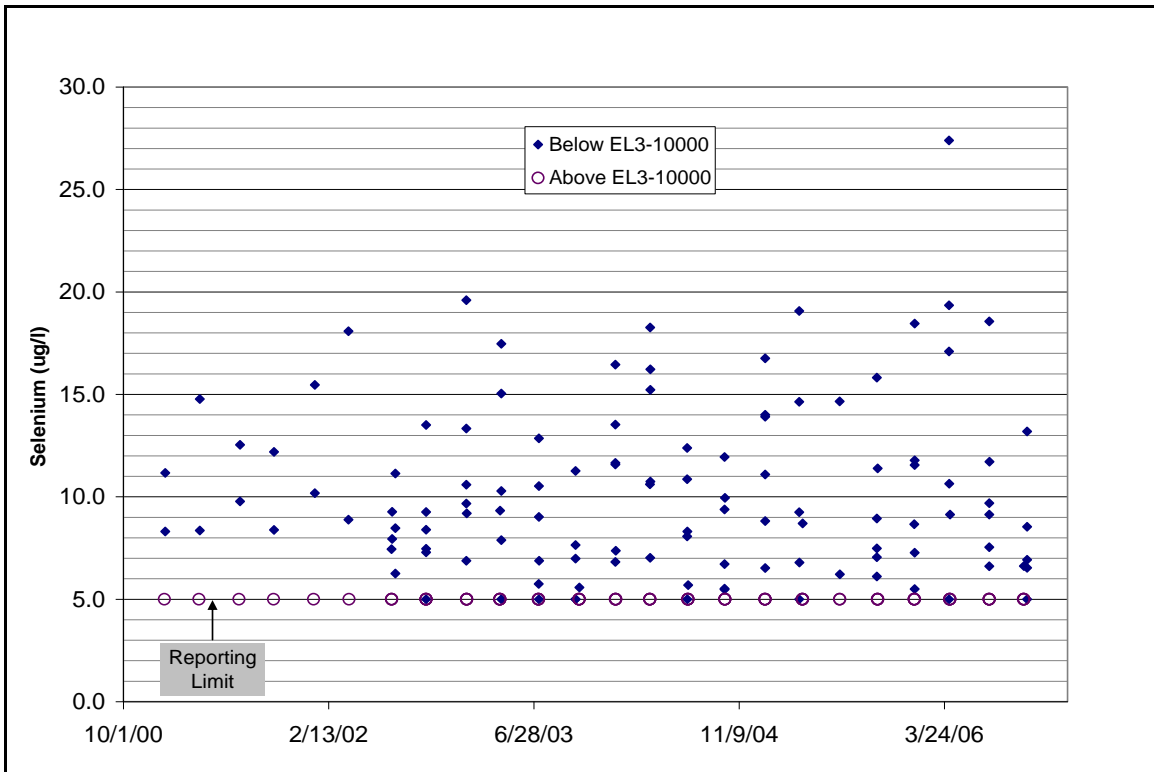
Historic data and information was retrieved from the United States Geological Survey (USGS) for comparison to the current information. Three sites/sources of information were located in the USGS data base; two are similar to the NDEQ ambient stream locations and one is upstream of a NDEQ ambient site. The sites are as follows:

- Elkhorn River @ Waterloo (EL1-10000)
- Elkhorn River @ West Point (EL1-20000)
- Logan Creek @ Pender (EL2-20000)

**Figure 1 Boxplots of the Elkhorn River Basin Selenium Impaired Waters**



**Figure 2 Elkhorn River Basin Selenium Concentrations**



Although the data and information is collected from two similar sites, a direct comparison is not appropriate based on several factors including:

- sample type (width and depth integrated vs. centroid grab)
- stream flow conditions
- Analytical techniques and differing reporting and/or method detection limits

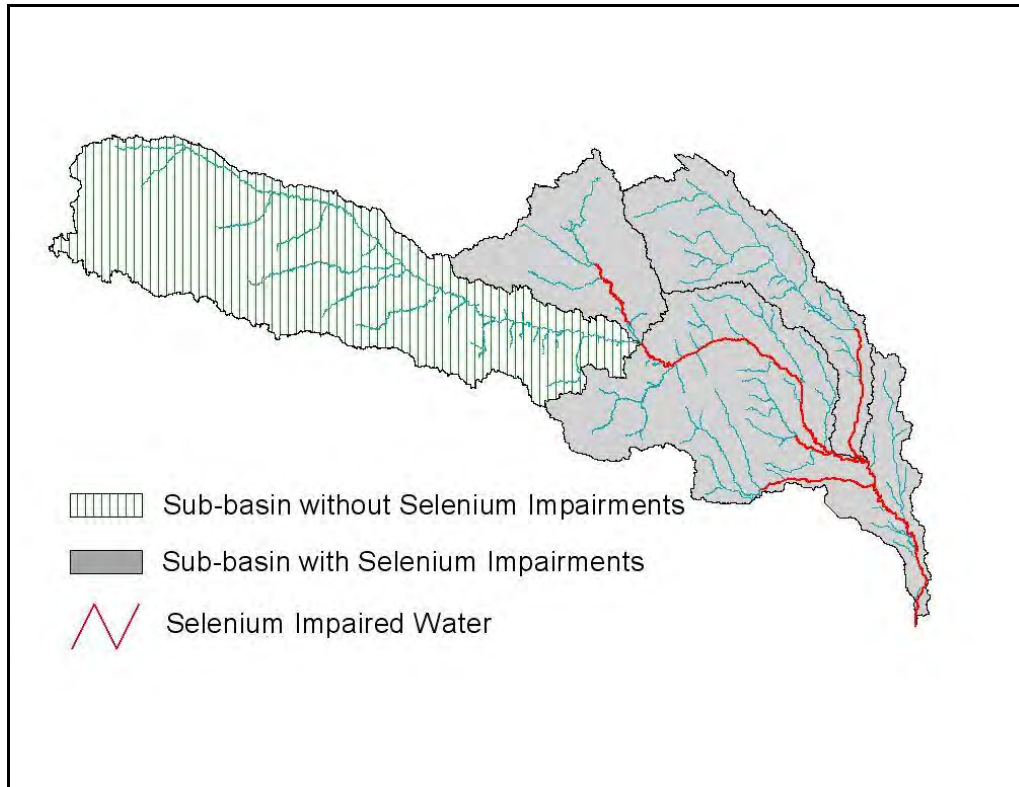
While a direct comparison will not be conducted, the data can be used to illustrate the long-term selenium conditions in the Elkhorn River Basin. The period of record for the historic data from the three sites is 1973-89, contains 81 observations and is shown in Figure 4.

### **Geologic Considerations**

Selenium in surface and ground water can be ascribed to both natural and human sources. Natural sources include soils, plant decay, and aquifer materials, while human sources include waste products from uranium, bentonite, or coal mining, oil refinery wastewater, and irrigation wastewater (Engberg and Spalding, 1978; Stanton and Qi, 2007). The Elkhorn River basin in Nebraska exhibits several features associated with natural sources of selenium, and little in the way of human-induced sources.



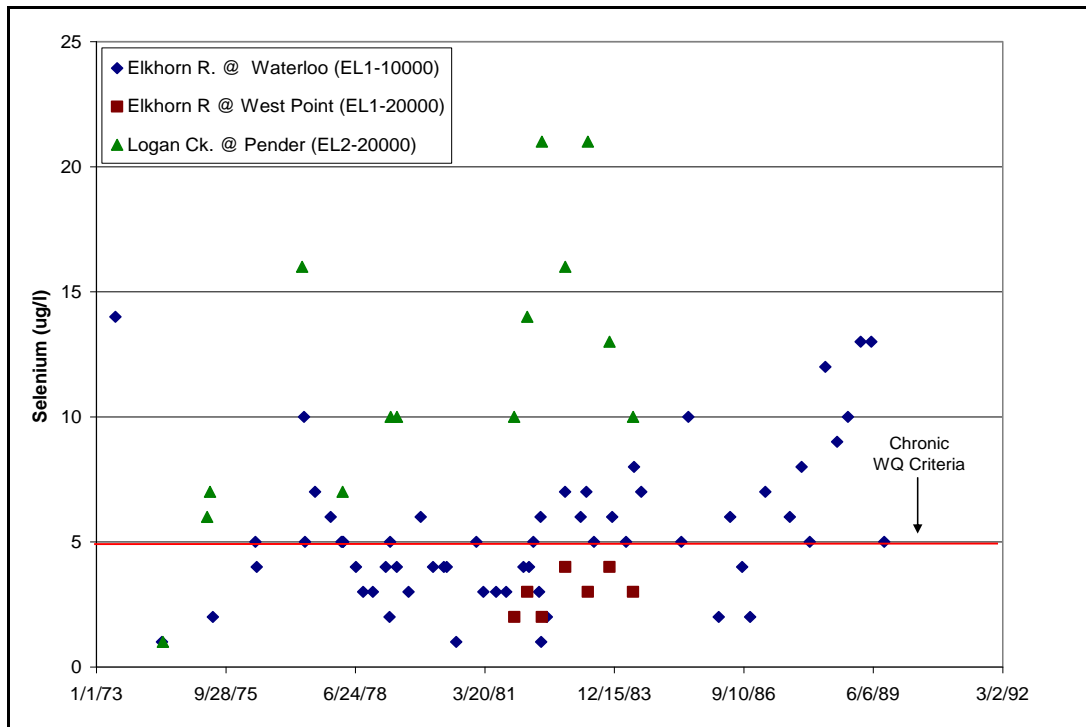
**Figure 3 Elkhorn River Basin 4C Sub-basins**



Most selenium near the Earth's surface is the result of volcanic activity (Engberg and Spalding, 1978). Volcanic activity in the Late Cretaceous and Tertiary Periods contributed considerable amounts of selenium to marine sediments accumulating in the Cretaceous, and to terrestrial sediments generated during the Tertiary (Engberg and Spalding, 1978). Seleniferous volcanic ash deposited along with these sediments was then incorporated into the resulting bedrock. The bedrock units of the Elkhorn River basin in Nebraska include several Upper Cretaceous marine units associated with elevated selenium, especially the Pierre Shale, Niobrara Formation, Carlile Shale, Greenhorn-Graneros Formation, and Dakota Group (Burchett *et al.*, 1986; Engberg and Spalding, 1978; Seiler *et al.*, 1999; see Figure 5).

In most cases, naturally-occurring levels of selenium rarely exceed  $1 \mu\text{g}/\ell$  (Hem, 1989). In the upper portion of the Elkhorn River Basin in Nebraska, existing surface water quality sample results are generally at this level or below as described above. However, sample results from further downstream in the basin tend to increase, in some cases reaching levels of a few tens of  $\mu\text{g}/\ell$  (Figure 2). This is to be expected as near-surface bedrock in the upper portion of the basin consists mostly of the Tertiary Ogallala Group, a variable unit of sand, sandstone, gravel, and conglomerate with localized volcanic ash deposits (Stanton and Qi, 2007). Such localized deposits would be expected to supply only limited amounts of selenium to runoff and/or baseflow. Also, in this portion of the basin (roughly above Pierce and western Madison Counties), the Ogallala is frequently covered by varying thicknesses of eolian dune sand, which is also not a source for selenium in runoff or baseflow. However, in the lower portion of the basin, the Ogallala thins out and disappears, and eolian dune sand is generally not present. Existing ground water quality data from the U.S. Geological Survey indicates that ground water samples from the upper portion of the Elkhorn River Basin, where wells are completed primarily in the Ogallala, exhibit levels of dissolved selenium generally below  $2 \mu\text{g}/\ell$  (USGS ground water data for Nebraska available online at: <http://groundwaterwatch.usgs.gov/StateMaps.asp?sc=31>).

**Figure 4 1973-89 Selenium Data from Three Elkhorn River Basin Sites**



The nearsurface bedrock in the lower portion of the basin consists of upper Cretaceous units known to exhibit considerable selenium content (Engberg and Spalding, 1978). In addition, the surficial deposits in the lower portion of the basin consist largely of glacial till which often contains rock debris from the underlying Cretaceous bedrock units (Engberg and Spalding, 1979). It is illustrative to note that the highest levels of selenium in ground water from the Elkhorn basin in the USGS’ online database range from about 55 to 129  $\mu\text{g}/\ell$ ; these are shallow wells completed in a local aquifer composed of glacial till (USGS ground water data available at <http://groundwaterwatch.usgs.gov/StateMaps.asp?sc=31>) and shown in Figure 6. Thus, both the bedrock units (which can supply some baseflow to streams) and the surficial sediments (over which runoff flows and from which plants take up nutrients) are likely to exhibit elevated selenium concentrations as compared to the upper portion of the basin. As a result, it appears that the major input of selenium in the lower portion of the Elkhorn River Basin is derived from naturally occurring bedrock, soil, and plant sources.

**Industrial Sources**

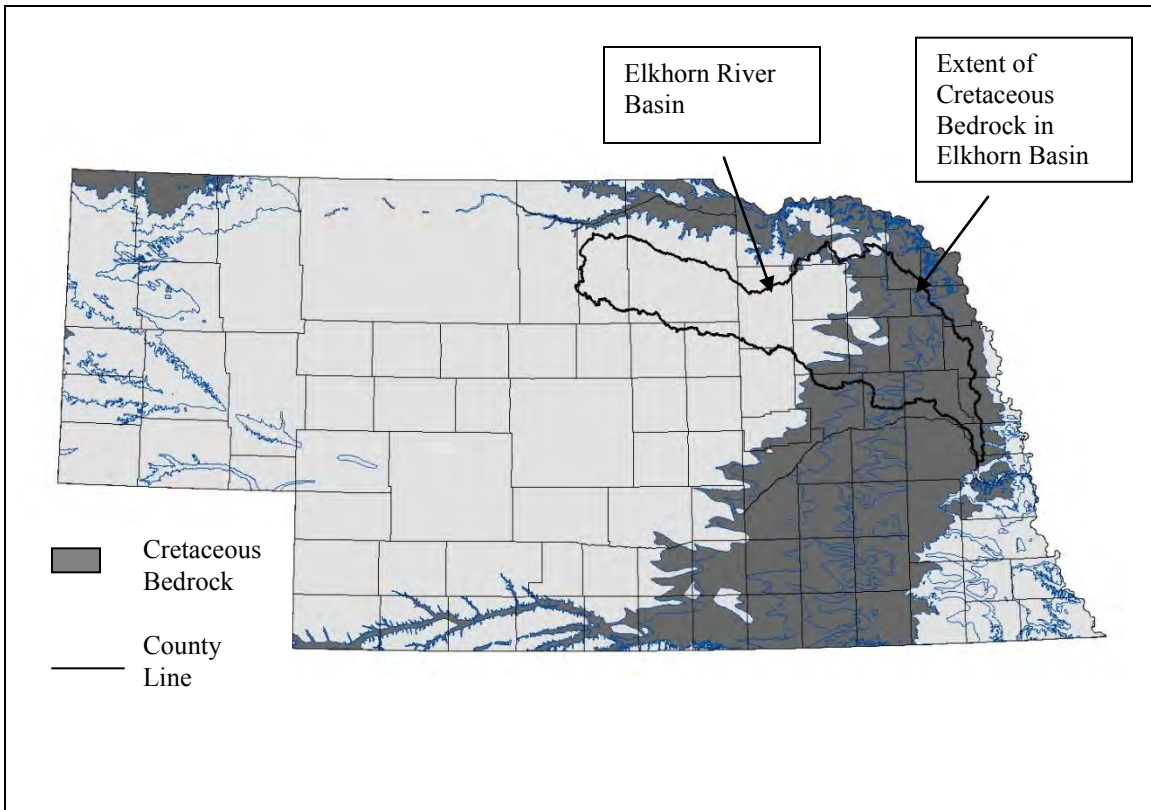
As stated above, industrial selenium sources include waste products from uranium, bentonite, coal mining, or oil refinery wastewater. Nebraska does have deposits of bentonite present at a few locations however, these deposits are not located in the lower Elkhorn River basin. Also, there has been no major mining of bentonite deposits in Nebraska (Burchett 1990).

**Irrigation Water**

Irrigation with groundwater is important to crop production in the Elkhorn River Basin. According to the Nebraska Department of Natural Resources, there are approximately 5,800 irrigation wells in the Lower Elkhorn Natural Resource District (LENRD) (NDNR 2008). The area of concern identified mostly lies in the LENRD.

While groundwater use is widespread in the LENRD, Nebraska state statute §46-663.02 requires each person to who uses groundwater to take action to control or prevent runoff. The same statute requires the NRDs to adopt rules and regulations to necessary to control or prohibit surface runoff of water derived from groundwater irrigation including the ability to issue cease and desist orders.

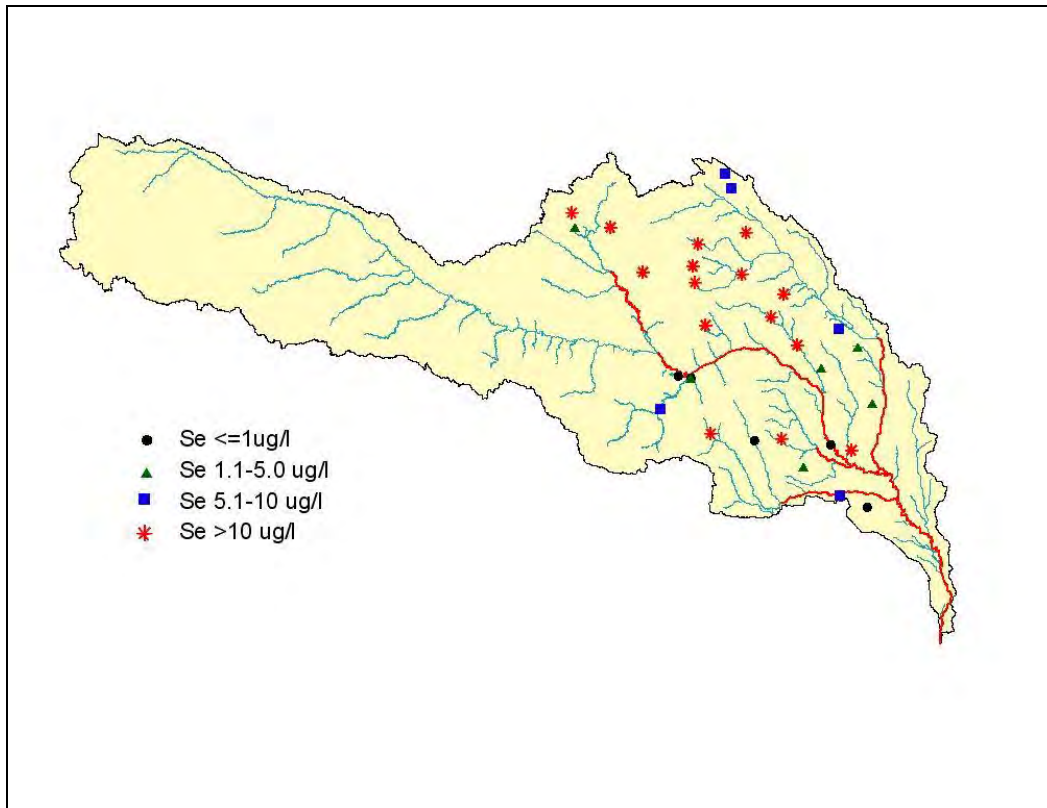
**Figure 5 Simplified geologic bedrock map showing extent of Cretaceous bedrock units in Nebraska and Elkhorn River Basin. Modified from Conservation & Survey Division, University of Nebraska-Lincoln, 1996. (NOTE: irregular blue lines indicate boundaries between various bedrock units; specific units not differentiated for purposes of this figure.)**



The LENRD has adopted the rules and regulation necessary to control and prohibit surface runoff of groundwater derived irrigation water. Specifically; the LENRD’s Administrative Policy No. 10. defines improper irrigation runoff to be the occurrence of irrigation runoff water that...causes or contributes to the deterioration of water quality by depositing sediment and/or associated chemicals ins surface waters within the area. The policy includes procedures for issuing cease and desist orders.

While irrigation return flow and runoff of irrigation water is regulated, a concern could exist over the build-up of selenium in the soils as a result of irrigation practices. Specifically, as water is lost through evaporation or evapotranspiration the selenium will remain in the soil. In response to these concerns in the semiarid and arid western states, the USGS developed methods to predict where selenium contamination is likely. The methods are documented in the publication entitled “*Methods to Identify Areas Susceptible to Irrigation Induced Selenium Contamination in the Western United States*”.

**Figure 6 Groundwater Selenium Concentrations in the Lower Elkhorn Basin**



Two methods were devised to identify areas susceptible with the first using a decision tree and the second based one based on a map that combines geologic and climatic data (Seiler , 1999). Use of the decision tree considers an evaporation index (annual free water surface evaporation/annual precipitation) where areas  $\geq 2.5$  are considered likely candidates. The Elkhorn Basin evaporation index is less than 2.5 and thus selenium contamination is considered to be unlikely.

### **Conclusion**

While selenium can be a function of anthropogenic activities, geologic circumstances appear to be the overwhelming source in surface water of the lower Elkhorn basin and are supported by:

- Selenium is not detected in surface water above EL3-10000;
- Historic surface water quality data is consistent with the current data;
- Cretaceous bedrock underlies the area where the impairments occur;
- Groundwater data from the area of concern frequently exceeds the 5  $\mu\text{g/l}$  surface water quality criteria;

The evidence above demonstrates that selenium a concentration in surface water is naturally occurring, not a pollutant and a candidate for Nebraska Water Quality Report – Category 4C designation.

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## **Appendix D: Project Information for Category 4R Designated Waters**

### **Big Indian Lake (11A) – BB1-L0030**

- Watershed management plan
- Constructed 3 sediment dikes
- In-lake breakwaters
- Shoreline stabilized
- Completed in 2011

### **West Point City Lake (Neligh Park Lake) – EL1-L0060**

- Lake drained in 2001
- Sediment excavation in 2002
- Shoreline stabilization in 2003
- Lake re-filled in 2004

### **Lone Star Reservoir (Little Sandy Creek Reservoir) - LB1-L0050**

- Construction started in 2004
- Sediment basin installed above lake
- Pond cleanouts within the watershed
- Buffer strips were planted adjacent to the lake
- Construction completed in 2006

### **Schuyler City Lake (South Park Lake) - LP1-L0370**

- Lake drained in 2005
- Groundwater well to supplement lake was drilled in 2005
- Bank stabilization occurred in 2006
- Sediment excavated in 2006
- Rock waterfall for aeration was installed in 2006
- Construction was completed in May 2006
- Lake remained drained for work in 2009

### **Holmes Lake – LP2-L0040**

- Reservoir drained in 2003
- Sediment excavation in 2004
- Jetty and breakwater construction in 2004
- Shoreline stabilization in 2004
- Wetland development in 2004
- Reservoir re-filled in 2005

**Yankee Hill Reservoir – LP2-L0090**

- Reservoir drained in 2004
- Sediment excavation in 2005
- Jetty and breakwater construction in 2005
- Shoreline stabilization in 2005
- Wetland development in 2005
- Reservoir re-filled in 2006

**Bowling Lake - LP2-L0100**

- Lake drained in 2005
- Sediment excavation in 2006
- Lake re-filled in 2006

**Meadowlark Lake - LP2-L0220**

- Lower Platte South NRD performed a renovation in 2006

**Glenn Cunningham Reservoir – MT1-L0120**

- Reservoir drained in 2006
- Sediment removal in 2007 & 2008
- Shoreline stabilization in 2008 – 2009
- Reservoir currently re-filling
- Upstream wetland development initiated in 2010

**Iron Horse Trail (WMA) – NE2-L0090**

- Sediment excavated
- Sediment control structures
- Shoreline stabilization
- Grade control structure
- Construction finished in 2011

**Lake Ogallala – NP1-L0030**

- Lake drained in 2009
- Sediment excavation in 2009
- Lake re-filled in 2010

**Curtis City Pond – RE3-L0030**

- Lake drained in 2006
- Sediment excavation in 2007
- Shoreline stabilization in 2007
- Wetland development in 2007
- Aeration installed in 2007
- Lake re-filled in 2008

**Big Springs Community Lake – SP1-L0095**

- Sediment excavated
- Shoreline stabilization
- Bio-filter constructed
- Completed in 2010



## **Appendix E: NDEQ Response to Public Comments on the Draft-2014 Nebraska Water Quality Integrated Report**

In compliance with 40 CFR 130.7(a), NDEQ issued a 30 day public notice on February 05, 2014, on the NDEQ website, announcing the availability of the 2014 Draft Water Quality Integrated Report for public review and comment. Following EPA's *Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act*, this appendix is NDEQ's response to comments received on the draft 2014 Nebraska Water Quality Integrated Report.

Comments from EPA are listed in italics below, with NDEQ's response following.

***EPA Region 7 Comment #1:*** *Olive Creek Lake (LP2-L0140). The data you provided shows that 129 of 348 pH samples were outside the water quality criteria range for pH. The data sheet provided uses a formula which points to the wrong data column to result in an assessment of full support of pH standards.*

**NDEQ Response:** The formula was pointing to the incorrect columns.

**Action:** NDEQ corrected the formula resulting in an impairment of pH standards. This waterbody will remain in Category 5.

***EPA Region 7 Comment #2:*** *Platte River (MP1-20000) which is listed for selenium. The data provided only show one exceedance of the selenium criterion in the last ten years. As such, this water does not need to be included on the state's 303(d) list, though the state may list the water if it so chooses.*

**NDEQ Response:** This is correct, selenium assessments are based on EPA's method where more than one violation in the last three years results in impairment.

**Action:** NDEQ changed the status to full support of selenium standards. This waterbody will be placed in Category 1.

***EPA Region 7 Comment #3:*** *Wirth Brothers Lake (NE3-L0045). The data provided do not show atrazine results for this lake. The assessment formula in the spreadsheet is querying E. coli data to make an assessment decision on atrazine.*

**NDEQ Response:** Correct, Wirth Brother Lake does not have atrazine data available for assessment.

**Action:** NDEQ corrected the formula resulting in a not assessed status for atrazine. This waterbody will remain in Category 2.