



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7**

11201 Renner Boulevard
Lenexa, Kansas 66219

APR 25 2014

Mr. Patrick W. Rice
Acting Director
Nebraska Department of Environmental Quality
1200 N Street, Suite 400
Lincoln, Nebraska 68509-8922

Dear Mr. Rice:

The U.S. Environmental Protection Agency has completed its review of the Nebraska Clean Water Act, Section 303(d) List of water quality-limited segments still requiring Total Maximum Daily Loads. The original list was submitted as an email attachment by the Nebraska Department of Environmental Quality on March 31, 2014.

The NDEQ's 303(d) list submittal included:

- 1) Official submittal letter
- 2) Nebraska's final 2014 Integrated Report, including CWA, Section 303(d) impaired waters list (including an identification of priority waters for TMDL development), and
- 3) NDEQ's 2014 assessment and listing methodology.

The NDEQ's submission is formatted consistent with the EPA guidance regarding "integrated reporting" and, therefore, contains five separate categories of listing waters. There are 342 water body segments and 582 impairments within Category 5 of Nebraska's integrated report which constitutes Nebraska's list of water quality-limited segments still requiring TMDLs subject to the EPA's approval.

Based on its review, the EPA has determined that the NDEQ's list of water quality-limited segments and their impairments still requiring TMDLs meets the requirement of Section 303(d) of the CWA and the EPA's implementing regulations. The EPA is therefore approving Nebraska's 2014 CWA, Section 303(d) List.

I congratulate you and your staff for the completion of the list development and submission process. This process requires a significant amount of staff resources and involves a complex evaluation and assessment of water quality data. We look forward to working with the NDEQ on the development of the 2016 Section 303(d) List in the near future.



If you would like to further discuss the EPA's action, please contact John DeLashmit, Chief, Water Quality Management Branch, at 913-551-7821, or myself at 913-551-7782.

Sincerely,



Karen A. Flournoy
Director
Water, Wetlands and Pesticides Division

Enclosure

cc: John Goodin, EPA HQ
Marty Link, NDEQ

United States Environmental Protection Agency

Region 7

2014 Decision Document



Nebraska's Clean Water Act

Section 303(d) List

Water Quality Limited Segments Still Requiring TMDLs


Karen A. Flournoy

Director

Water, Wetlands and Pesticides Division


Date

2014 Decision Document of Nebraska's Clean Water Act, Section 303(d) List Water Quality Limited Segments Still Requiring TMDLs

I. Executive Summary

On March 31, 2014, the Nebraska Department of Environmental Quality (NDEQ) submitted its 2014 update to its Clean Water Act (CWA) Section 303(d) list to the United States Environmental Protection Agency (EPA) for review, herein referred to as the submittal. Following its review of Nebraska's complete submittal, the EPA is approving the state's addition of 72 water bodies and 80 water body/pollutant impairment pairs to its CWA Section 303(d) list. In addition, the EPA approves the removal of 76 water bodies and 116 water body/pollutant impairment pairs to from the state's CWA Section 303(d) list. As a result, the EPA-approved 2014 Nebraska Section 303(d) List includes 342 water bodies and 582 water body/pollutant combinations. This document summarizes the EPA's review and the basis for its decision.

Section 303(d)(1) of the CWA directs states to identify those waters within their jurisdictions for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard (referred to as 'water quality-limited segments' defined in 40 CFR §130.7), and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The CWA Section 303(d) listing requirement applies to water quality-limited segments impaired by pollutant loadings from both point and/or nonpoint sources. After a state submits its CWA Section 303(d) list to the EPA, the Agency is required to approve or disapprove that list.

Nebraska's 2014 submittal is an update to the state's most recently approved CWA Section 303(d) list, approved by the EPA on April 16, 2012 (i.e., the state's 2012 CWA Section 303(d) List). In its submittal, the NDEQ included its assessment methodology to identify waters that do not meet the state's approved water quality standards and, therefore, are required to be included on CWA Section 303(d) lists. This 2014 assessment methodology includes revisions to the methodology used to develop the 2012 CWA Section 303(d) list for Nebraska. Water quality data that meet the assessment criteria included within the state's 2014 revised methodology were evaluated by the NDEQ. Those waters determined to be water quality-limited were submitted to the EPA as an update to the CWA Section 303(d) list. The methodology establishes specific protocols and thresholds for assessing water bodies, in addition to data sufficiency and data quality requirements. The methodology contains procedures for assessing both aquatic life use support and human health use support.

All waters which were included in Nebraska's approved 2012 CWA Section 303(d) List will remain on the state's CWA Section 303(d) list, unless the NDEQ removes a water body from a future list and the EPA approves the removal. The NDEQ's submittal for the EPA's review includes an updated list reflecting, among other things:

- Additional water bodies NDEQ determined to be water quality-limited segments pursuant to the state's listing methodology and, therefore, included in the update of the CWA Section 303(d) list which the NDEQ submitted to the EPA for review; and

- Water bodies included on Nebraska’s previously approved 2012 CWA Section 303(d) List that were determined not to need TMDLs pursuant to the listing methodology and, therefore, removed from the update of the CWA Section 303(d) list submitted to the EPA for review (Table 1).

While the guidelines, protocols, and requirements in state statute and the NDEQ methodology might be useful tools for the NDEQ to use in identifying impaired waters, they are not part of the state’s water quality standards. Hence, the EPA did not rely solely on the statute or the methodology in reviewing Nebraska’s list. Instead, the EPA reviewed all available information including any information excluded under the state’s methodology, to determine if the state’s list was developed consistent with the underlying state water quality standards. The EPA’s review process generally followed a two-step analysis:

- 1) The Region reviewed the state’s listing methodology, including data collection and data assessment requirements, to determine whether, based on Nebraska’s approved water quality standards, the methodology was a reasonable method for identifying water quality-limited segments; and
- 2) Where the EPA was unsure whether the methodology was a reasonable method for identifying water quality-limited segments, the Region requested additional information from the NDEQ to conduct further water body and data analysis.

Following the EPA’s decision on Nebraska’s 2014 submission, the current CWA Section 303(d) List (Table 2) in the state of Nebraska contains:

- approved additions and removals to the 2012 CWA Section 303(d) List; and
- waters carried over from the EPA-approved 2012 CWA Section 303(d) List.

The statutory and regulatory requirements relevant to CWA Section 303(d) lists, and the EPA’s review of Nebraska’s compliance with each requirement, are described in detail below. The EPA’s approval of Nebraska’s Section 303(d) list extends to all water bodies on the list with the exception of those waters that may be within Indian Country, as defined in 18 U.S.C. Section 1151. The EPA is taking no action to approve or disapprove the State’s list with respect to those waters at this time. The EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under Section 303(d) for those waters. In addition, the EPA approval actions of State section 303(d) lists do not constitute a finding of State and/or Tribal jurisdiction over particular waters.

II. Statutory and Regulatory Background

A. Identification of Water Quality-limited Segments for Inclusion on the CWA Section 303(d) List

Section 303(d)(1) of the CWA directs each state to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to the EPA’s long-standing interpretation of Section 303(d).

The EPA regulations at 40 CFR § 130.7(b)(1) provide that states do not need to list waters where the following controls are adequate to implement applicable standards:

- Technology-based effluent limitations required by the CWA;
- More stringent effluent limitations required by state or local authority; and
- Other pollution control requirements required by state, local or federal authority.

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing Section 303(d) lists, states are required to assemble and evaluate all existing and readily available water quality related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters:

- Waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent Section 305(b) report;
- Waters for which dilution calculations or predictive modeling indicate non-attainment of applicable standards;
- Waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and
- Waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to the EPA (see 40 CFR § 130.7(b)(5)).

States are also required to consider any other data and information that is existing and readily available. The EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available (see *Guidance for Water Quality-Based Decisions, The TMDL Process, EPA Office of Water, 1991, Appendix C ("EPA's 1991 Guidance")*). While states are required to evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring states to assemble and evaluate all existing and readily available water quality-related data and information, the EPA regulations at 40 CFR § 130.7(b)(6) require states to include as part of their submissions to the EPA, documentation to support decisions to rely or not to rely on particular data and information and decisions to list or not to list waters. Such documentation needs to include, at a minimum, the following information:

- A description of the methodology used to develop the list;
- A description of the data and information used to identify waters;
- A rationale for any decision to not use any existing and readily available data and information; and
- Any other reasonable information requested by the Region.

C. Priority Ranking

The EPA regulations also codify and interpret the requirement in the CWA, Section 303(d)(1)(A) of the CWA, that states establish a priority ranking for listed waters. The regulations at 40 CFR § 130.7(b)(4) require states to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those water quality-limited segments (WQLS) targeted for TMDL development in the next two

years. In prioritizing and targeting waters, states must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters (see CWA Section 303(d)(1)(A)). As long as these factors are taken into account, the CWA provides that states establish priorities for TMDL development. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities (see 57 FR 33040, 33045 [July 24, 1992], and EPA's 1991 Guidance).

Nebraska's prioritization of impaired waters for TMDL completion will be based on the availability of data, complexity of the problem, sources of impairment and other relevant factors. Where data is lacking, priorities are assigned in part based on the rotational basin, Section 319 priorities and NPDES/permitting priorities. The state identified TMDLs targeted water bodies in the North Platte, South Platte, White-Hat, and Republican basins for development within the next two years.

III. Nebraska's Approach to Identifying Waters for the 2014 Section 303(d) List

A. Nebraska's 2014 Integrated Report Format

The EPA guidance for states in meeting the requirements of CWA Section 303(d) recommends a format which integrates the requirements of both CWA Sections 305(b) and 303(d) in creating a five category "integrated report" format. The 2014 Nebraska submission under CWA Section 303(d) is the sixth submission by the state of Nebraska using this "integrated report" format. Category 5 of the 2014 IR constitutes Nebraska's list of impaired waters for purposes of CWA Section 303(d), and is subject to the EPA's review and approval. The EPA is taking action only on Category 5, which includes water quality-limited segments still requiring TMDLs. The following describes the five categories constituting Nebraska's IR and the number of water bodies assigned to each category by the NDEQ. Under Nebraska's five category system, most water bodies are assigned to one category. The EPA reviews and acts on only Category 5 waters and does not take action on waters in categories 1 – 4 except to determine whether the state has demonstrated an appropriate reason, with supporting information, to list the water body segment in a different category or subcategory. The information below regarding all five categories provides context for the EPA's IR determination regarding Category 5 waters.

Category 1 consists of 60 water body segments attaining all designated uses.

Category 2 consists of 326 water body segments for which some, but not all, designated uses are attained and none are threatened. Attainment status of the remaining designated uses is unknown because data are insufficient to categorize a water body consistent with the state's listing methodology.

Category 3 consists of 1275 water body segments for which there are insufficient or no data and information to determine, consistent with the state's listing methodology, if any designated use is impaired or attained.

Category 4 consists of 81 water body segments for which one or more designated uses are impaired or threatened but establishment of a TMDL is not required.

Category 5 consists of 342 water body segments for which one or more pollutants has caused, is suspected of causing, or is projected to cause an impairment or threat of impairment of one or more designated uses and the establishment of a TMDL is required. This category also includes

those segments for which impairment is indicated, but the cause or source is unknown and segments for which the impairment is to a presumed use. In total this category contains 581 impairments (water body/pollutant combinations).

Only water body segments within Category 5 are subject to EPA approval. The 1601 water body segments listed within Categories 2 and 3 served to support the EPA's evaluation of the NDEQ's data assessment process and its determination whether all water quality-limited segments were listed by the NDEQ in Category 5.

The state's IR format also incorporates an expansion of Category 4 into four sub-categories. Sub-category 4a includes waters that are threatened or impaired, but for which a TMDL has been completed and approved. Sub-category 4b includes waters that are threatened or impaired, but for which "other required control measures are expected to result in the attainment of water quality standards." Sub-category 4c includes waters where the "threat or impairment is not caused by a pollutant." Sub-category 4r includes lakes that are impaired for nutrient assessments or variables which respond to nutrient enrichment, but are newly filled or for which renovation has been completed and the lake is undergoing stabilization. Nebraska's methodology limits the time period for Category 4r to eight years, after which these water bodies will be assessed by the same methods as all other lakes. Sub-categories 4a through 4c are recognized within the EPA guidance for the development of an integrated report. However, sub-category 4r constitutes a variation on the EPA guidance. The EPA's review of the state categories and sub-categories was conducted within the context of whether or not a water body segment should be listed within Category 5 based on existing and readily available data and information.

B. Nebraska's 2014 Methodology

The NDEQ uses its "Methodologies for Waterbody Assessments and Development of the 2014 Integrated Report for Nebraska" (June 2013), to evaluate "existing and readily available water quality-related data and information" (40 CFR § 130.7(b)(5)) and identify "water quality-limited segments still requiring TMDLs" (40 CFR § 130.7(a)). As described above, Category 5 of the 2014 list constitutes Nebraska's list of impaired waters for purposes of CWA Section 303(d) and is subject to the EPA's review and approval. The EPA is taking action only on Category 5 which consists of water quality-limited segments still requiring TMDLs.

No changes were made in the methodology from that used for development of the 2012 Integrated Report.

Any exceptions to EPA-approved WQS made in listing methodology are not approved for CWA purposes. The EPA reviews, but does not approve, a state's listing methodology; the EPA reviews and acts upon a state's 303(d) submittal based on the state's EPA-approved WQS, rather than its listing methodology.

According to the state's listing methodology, data sources used to assess water quality conditions in Nebraska for purposes of Section 305(b) reporting and to aid in developing the state's 303(d) list include:

- 1) Waters included on the most recently approved state Section 303(d) list;
- 2) Waters included in the most recent Section 305(b) report as threatened, partially meeting or not meeting a designated use;

- 3) Waters for which dilution calculations or predictive models indicate non-attainment of applicable WQS;
- 4) Waters where effluent toxicity tests indicate a potential or actual exceedance of applicable WQS;
- 5) Waters where water quality problems have been reported by local, state, or federal agencies, the public or academic institutions;
- 6) Nonpoint source assessments reported to EPA under CWA Section 319 or any updates to such assessments;
- 7) Waters monitored within nonpoint source priority watersheds;
- 8) Drinking water sources water assessments under the Safe Drinking Water Act Section 1453;
- 9) Streams monitored under the NDEQ Basin Rotation Monitoring Program;
- 10) Waters where repeated fish kills have occurred or where abnormalities have been observed in fish or other aquatic life;
- 11) Streams monitored under the NDEQ Ambient Stream Monitoring Program;
- 12) Waters monitored under Nebraska's Fish Tissue Monitoring Program;
- 13) Lakes monitored under NDEQ's Statewide Lake and Reservoir Monitoring Program, and,
- 14) Waters monitored within Nebraska by the United States Geological Survey, Academic Institutions, United States Fish and Wildlife Service (FWS), United States Environmental Protection Agency, United States Army Corps of Engineers, Nebraska Game and Parks Commission, Nebraska Division of Health and Human Services System and Nebraska's 23 Natural Resource Districts.

C. Coordination with Other States on the Boundary Waters

The EPA's Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act contains recommendations on how states should handle shared waters with regard to the sharing of water quality data, assessment decisions for those shared waters, and accounting for the listing decision inconsistencies between states. The guidance further recommends that the EPA Regional offices and Interstate Commissions, where applicable, should assist in resolving inconsistencies among states with shared waters, where they arise.

The NDEQ's 2014 assessment methodology specifically addresses NDEQ's coordination efforts with other state agencies regarding listing of waters flowing into the state or from the state to "an area controlled by another state or tribe." The NDEQ forwards draft IRs and requests comments from those jurisdictions. Comments are evaluated and modifications to the list are made, where appropriate.

IV. EPA Analysis of Nebraska's Approach to Listing Waters for the 2014 List

EPA is approving Nebraska's 2014 CWA Section 303(d) list, based on the requirements of Section 303(d) of the CWA and 40 CFR § 130.7. The EPA's action is based on its analysis of whether the NDEQ reasonably identified all water quality-limited segments requiring listing. In determining whether the NDEQ reasonably identified all water quality-limited segments still needing a TMDL, the EPA first looked at the NDEQ's use support determinations as documented in the state's submittal.

The NDEQ's data request for 2014 identified a general "cutoff date" as September 30, 2013, for data collection in support of NDEQ's water quality data assessment. The EPA's guidance recognizes the appropriateness of a reasonable data collection cutoff date allowing states to initiate actual data assessment and list preparation. Data not considered for the 2014 assessment should be considered for the 2016 submission. Despite the application of a "cutoff date" by the NDEQ for the development of the 2014 list, the NDEQ considered data submitted as part of the state's public notice and comment period starting February 5, 2014 and ending March 8, 2014. The EPA believes the NDEQ complied with the requirements of federal regulations at 40 CFR § 130.7(b)(5) regarding the assembly and evaluation of all existing and readily available water quality-related data and information.

The 2014 assessment methodology also discusses NDEQ's treatment of water quality-related data collected more than five years prior to the current assessment period. Federal regulations and guidance recognize that, in some instances, older data might not reflect current water quality conditions. Where the state demonstrates "good cause" for not including older data in the derivation of its list, federal regulations at 40 CFR § 130.7(b)(6)(iv) provide for the state not including a water or waters on its list. However, a demonstration of "good cause" relies on the state showing that there are changes in condition in the watershed or water body which result in older data not being representative of current water quality status. Also, Nebraska's methodology states a listed water body will not be removed from the state's Section 303(d) list simply because the data upon which the impairment was based have aged beyond five years.

To confirm that Nebraska's CWA Section 303(d) list was developed in a manner compliant with the requirements at 40 CFR Part 130.7 (regarding the assembly and evaluation of "all existing and readily available water quality-related data and information"), the EPA reviewed the information contained in the NDEQ's submittal for waters listed in Nebraska's Integrated Report Category 5, and all waters proposed for delisting.

V. The EPA's Analysis of NDEQ Changes to the State's CWA Section 303(d) List

The EPA compared waters listed in Category 5 of the state's EPA-approved 2012 IR with waters listed in Category 5 of the state's 2014 IR to determine whether waters were removed from the list, pollutants identified as causing impairment were changed, or water body descriptions had changed. In each case, such changes could constitute a change to the state's CWA Section 303(d) list requiring EPA approval. As described earlier in this document, Nebraska's 2014 CWA Section 303(d) list is a part of the state's IR. The IR format is consistent with the EPA guidance and includes five categories of waters. Category 5 of the state's IR constitutes the state's 2014 CWA Section 303(d) list.

In its review of the state's 2014 list, the EPA has reviewed Nebraska's description of the data and information the state relied upon in developing its list, its methodology for identifying water bodies and the NDEQ's responses to public comment. In accordance with 40 CFR § 130.7(d)(2), the EPA is

approving Nebraska's 2014 CWA Section 303(d) list (Category 5 of its 2012 IR), consisting of a total of 345 water bodies with 581 water body/pollutant combinations.

Waters proposed by the NDEQ for exclusion from Category 5 of Nebraska's 2014 CWA Section 303(d) list or for changes in its listing status which could be considered as a change to the CWA Section 303(d) list (e.g., segment description changed, listed causal pollutant changed) are identified below.

As a result of the NDEQ's changes to the list of water bodies which were modified or removed from Nebraska's CWA Section 303(d) list, the EPA initiated its review of 19 water bodies to determine whether the NDEQ had "good cause" for modifying or not including these waters on its 2014 CWA Section 303(d) list.

A. Waters Removed by NDEQ from Nebraska's CWA Section 303(d) List and Approved by EPA

The EPA is approving the modification to or removal of 116 water body/pollutant combinations from 76 water bodies from the state's CWA Section 303(d) list consistent with the requirements of federal regulations at 40 CFR § 130.7(b)(6)(iv). Section 40 CFR § 130.7(b)(6)(iv) provides for the exclusion of waters from the state's CWA Section 303(d) list. These regulations require that the state "demonstrate good cause for not including water or waters on the list. The reasons for each delisting were included in the submittal, and additional details were provided to the EPA in the form of a responsiveness summary prior to the final Section 303(d) list submittal. The following are the general reasons cited for removal of water bodies from the Section 303(d) list:

- TMDLs or other pollution control requirements have been prepared for the 303(d) listed segment.
- Recent data collected from a 303(d) listed segment indicated that a listed pollutant is no longer a potential cause of water quality impairment.
- Changes in water quality standards and/or assessment methods resulted in changes in the use support status of listing segments.
- The state review identified flaws in original listings, attributable to errors associated with segment identifiers, or the use of inapplicable criteria.

The rationale supporting the removal of impairments from these 76 waters from the state's list can be grouped into three general categories and are also identified below. In some cases water body pollutant (causes) combinations may be delisted for reasons relating to more than one category for different causes. In these cases water body segments may be found in more than one of the sections which follow.

1. Waters with Approved TMDLs or other pollution control requirements (53 waters)

a. TMDLs (waters)

Forty-one water bodies had impairments removed from the state's list because TMDLs or other pollution control requirements have been developed for those waters and approved by the EPA. In each instance, a TMDL or other pollution control requirement has been developed for the listed pollutant or condition, or the NDEQ and the EPA have agreed that the submittal will address the listed pollutant or condition. For some waters, they continue to be listed in Nebraska's Category 5 for another pollutant or condition, or they are listed in another category within Nebraska's IR based on other water quality data. These waters are included in Table 1 with information regarding

each described in the last column. Each water body and the rationale for moving it from Category 5 are listed below.

Big Blue River (NE-BB1-10000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of Big Blue River because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Mission Creek (NE-BB1-10100) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Mission Creek because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Big Indian Creek (NE-BB1-10800) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Big Indian Creek because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Big Indian Creek (NE-BB1-10900) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of Big Indian Creek because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Big Blue River (NE-BB1-20000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of Big Blue River because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Turkey Creek (NE-BB2-10000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Turkey Creek because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Turkey Creek (NE-BB2-20000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Turkey Creek because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

West Fork Big Blue River (NE-BB3-10000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of West Fork Big Blue River because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Beaver Creek (NE-BB3-10300) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of Beaver Creek because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

West Fork Big Blue River (NE-BB3-20000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of West Fork Big Blue River because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Big Blue River (NE-BB4-10000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Big Blue River because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Big Blue River (NE-BB4-20000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Big Blue River because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Big Blue River (NE-BB4-40000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of Big Blue River because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Little Blue River (NE-LB1-10000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of Little Blue River because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Rock Creek (NE-LB1-10200) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Rock Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Little Blue River (NE-LB2-10000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine. In today's action, the EPA is approving the delisting of Little Blue River because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Big Sandy Creek (NE-LB2-10100) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Big Sandy Creek because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Little Blue River (NE-LB2-20000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for atrazine and *E. coli* bacteria. In today's action, the EPA is approving the delisting of Little Blue River because this water body no longer requires the development of a TMDL for atrazine or *E. coli*, consistent with 40 CFR § 130.7(b).

Little Blue River (NE-LB2-30000) Nebraska submitted, and on December 19, 2013, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Little Blue River because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Mud Creek (NE-LO4-10100) Nebraska submitted, and on May 2, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Mud Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Mud Creek (NE-LO4-10200) Nebraska submitted, and on May 2, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Mud Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Fremont Lake No. 16 (SRA) (NE-LP1-L0270) Nebraska submitted, and on January 23, 2013, EPA approved, a TMDL for chlorophyll *a* and pH. In today's action, the EPA is approving the delisting of Fremont Lake No. 16 (SRA) because this water body no longer requires the development of a TMDL for chlorophyll *a* or pH, consistent with 40 CFR § 130.7(b).

Fremont Lake No. 1 (SRA) (NE-LP1-L0290) Nebraska submitted, and on January 23, 2013, EPA approved, a TMDL for low dissolved oxygen, chlorophyll *a*, total phosphorus and pH. In today's action, the EPA is approving the delisting of Fremont Lake No. 1 (SRA) because this water body no longer requires the development of a TMDL for low dissolved oxygen, chlorophyll *a*, total phosphorus or pH, consistent with 40 CFR § 130.7(b).

Fremont Lake No. 2 (SRA) (NE-LP1-L0300) Nebraska submitted, and on January 23, 2013, EPA approved, a TMDL for chlorophyll *a* and total phosphorus. In today's action, the EPA is approving the delisting of Fremont Lake No. 2 (SRA) because this water body no longer requires the development of a TMDL for chlorophyll *a* or total phosphorus, consistent with 40 CFR § 130.7(b).

Fremont Lake No. 3 (SRA) (NE-LP1-L0310) Nebraska submitted, and on January 23, 2013, EPA approved, a TMDL for low dissolved oxygen, chlorophyll *a* and total phosphorus. In today's action, the EPA is approving the delisting of Fremont Lake No. 3 (SRA) because this water body no longer requires the development of a TMDL for low dissolved oxygen, chlorophyll *a* or total phosphorus, consistent with 40 CFR § 130.7(b).

Fremont Lake No. 5 (SRA) (NE-LP1-L0320) Nebraska submitted, and on January 23, 2013, EPA approved, a TMDL for low dissolved oxygen, chlorophyll *a*, total phosphorus and pH. In today's action, the EPA is approving the delisting of Fremont Lake No. 5 (SRA) because this water body no longer requires the development of a TMDL for low dissolved oxygen, chlorophyll *a*, total phosphorus or pH, consistent with 40 CFR § 130.7(b).

Fremont Lake No. 4 (SRA) (NE-LP1-L0330) Nebraska submitted, and on January 23, 2013, EPA approved, a TMDL for chlorophyll *a*, total phosphorus and pH. In today's action, the EPA is approving the delisting of Fremont Lake No. 4 (SRA) because this water body no longer requires the development of a TMDL for chlorophyll *a*, total phosphorus or pH, consistent with 40 CFR § 130.7(b).

Fremont Lake No. 7 (SRA) (NE-LP1-L0350) Nebraska submitted, and on January 23, 2013, EPA approved, a TMDL for chlorophyll *a*, total phosphorus and pH. In today's action, the EPA is approving the delisting of Fremont Lake No. 7 (SRA) because this water body no longer requires

the development of a TMDL for chlorophyll *a*, total phosphorus or pH, consistent with 40 CFR § 130.7(b).

Wagon Train Lake (NE-LP2-L0020) Nebraska submitted, and on October 28, 2002, EPA approved, a TMDL for low dissolved oxygen and total phosphorus. In today's action, the EPA is approving the delisting of Wagon Train Lake because this water body no longer requires the development of a TMDL for low dissolved oxygen or total phosphorus, consistent with 40 CFR § 130.7(b).

Pawnee Lake (NE-LP2-L0160) Nebraska submitted, and on March 2, 2001, EPA approved, a TMDL for sediment. In today's action, the EPA is approving the delisting of Pawnee Lake because this water body no longer requires the development of a TMDL for sediment, consistent with 40 CFR § 130.7(b).

Carter Lake (NE-MT1-L0090) Nebraska submitted, and on September 28, 2007, EPA approved, a TMDL for total nitrogen. In today's action, the EPA is approving the delisting of Carter Lake because this water body no longer requires the development of a TMDL for total nitrogen, consistent with 40 CFR § 130.7(b).

Standing Bear Lake (NE-MT1-L0100) Nebraska submitted, and on July 30, 2003, EPA approved, a TMDL for total phosphorus and sediment. In today's action, the EPA is approving the delisting of Standing Bear Lake because this water body no longer requires the development of a TMDL for total phosphorus or sediment, consistent with 40 CFR § 130.7(b).

Kirkman's Cove Lake (NE-NE2-L0040) Nebraska submitted, and on October 28, 2002, EPA approved, a TMDL for total phosphorus. In today's action, the EPA is approving the delisting of Kirkman's Cove Lake because this water body no longer requires the development of a TMDL for total phosphorus, consistent with 40 CFR § 130.7(b).

Little Nemaha River (NE-NE3-10000) Nebraska submitted, and on September 28, 2007, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Little Nemaha River because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Otter Creek (NE-NP2-10300) Nebraska submitted, and on May 9, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Otter Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Red Willow Creek (NE-NP3-10900) Nebraska submitted, and on May 9, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Red Willow Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Ninemile Creek (NE-NP3-11700) Nebraska submitted, and on May 9, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Ninemile Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Gering Drain (NE-NP3-12400) Nebraska submitted, and on May 9, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Gering Drain because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Winters Creek (NE-NP3-12600) Nebraska submitted, and on May 9, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Winters Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Tub Springs Drain (NE-NP3-13000) Nebraska submitted, and on May 9, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Tub Springs Drain because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

Horse Creek (NE-NP3-30600) Nebraska submitted, and on May 9, 2012, EPA approved, a TMDL for *E. coli* bacteria. In today's action, the EPA is approving the delisting of Horse Creek because this water body no longer requires the development of a TMDL for *E. coli*, consistent with 40 CFR § 130.7(b).

b. Implemented restoration plans (2 waters)

Holmes Lake (NE-LP2-L0040) Nebraska supplied information which identified that this water body underwent renovation to address fish consumption, pH, chlorophyll, total phosphorus and total nitrogen impairments. These renovations were completed in 2005 and the state has placed the water into its Category 4r pending an eight year period for the lake to stabilize following the renovation. In today's action, the EPA is approving the delisting of Holmes Lake pending the results of renovation because this water body no longer requires the development of a TMDL for fish consumption, pH, chlorophyll, phosphorus or nitrogen, consistent with 40 CFR § 130.7(b).

Iron Horse Trail Lake (WMA) (NE-NE2-L0080) Nebraska supplied information which identified this water body underwent renovation to address fish consumption, sediment, chlorophyll *a*, total phosphorus and total nitrogen impairments. These renovations were completed in 2011 and the state has placed the water into its' Category 4r pending an eight year period for the lake to stabilize following the renovation. In today's action, the EPA is approving the delisting of Iron Horse Trail Lake (WMA) pending the results of renovation because this water body no longer requires the development of a TMDL for fish consumption, sediment, chlorophyll *a*, phosphorus or nitrogen, consistent with 40 CFR § 130.7(b).

c. Natural backgrounds (11 waters)

Salt Creek (NE-LP2-10000) Nebraska submitted a proposal to remove the chloride cause of impairment. The state contends that the chloride concentrations seen in Salt Creek are natural background conditions. Upon review of the locations of historic salt marshes in the basin (Appendix A), the EPA is approving the delisting of Salt Creek because this water body no longer requires the development of a TMDL for chloride, consistent with 40 CFR § 130.7(b).

Salt Creek (NE-LP2-20000) Nebraska proposed to remove the conductivity cause of impairment. The state contends that the wrong designated use was assessed. The previous impairment was

based upon an assessment against the Water Supply (Agricultural) Class A use. The approved designated use is Class A, however the state's EPA-approved water quality standards includes an exemption for conductivity from natural sources. Upon review, the EPA is approving the delisting of Salt Creek because this water body no longer requires the development of a TMDL for conductivity, consistent with 40 CFR § 130.7(b).

Little Salt Creek (NE-LP2-20300) Nebraska submitted a proposal to remove the chloride cause of impairment. The state contends that the chloride concentrations seen in Little Salt Creek are natural background conditions. Upon review of the locations of historic salt marshes in the basin (Appendix A), the EPA is approving the delisting of Little Salt Creek because this water body no longer requires the development of a TMDL for chloride, consistent with 40 CFR § 130.7(b).

Antelope Creek (NE-LP2-20900) Nebraska submitted a proposal to remove the chloride cause of impairment. The state contends that the chloride concentrations seen in Antelope Creek are natural background conditions. Upon review of the locations of historic salt marshes in the basin (Appendix A), the EPA is approving the delisting of Antelope Creek because this water body no longer requires the development of a TMDL for chloride, consistent with 40 CFR § 130.7(b).

Antelope Creek (NE-LP2-20900) Nebraska proposed to remove the conductivity cause of impairment. The state contends that the wrong designated use was assessed. The previous impairment was based upon an assessment against the Water Supply (Agricultural) Class A use. The approved designated use is Class A, however the state's EPA-approved water quality standards includes an exemption for conductivity from natural sources. Upon review, the EPA is approving the delisting of Antelope Creek because this water body no longer requires the development of a TMDL for conductivity, consistent with 40 CFR § 130.7(b).

Clear Creek (NE-MP1-10100) Nebraska submitted a proposal to remove the temperature cause of impairment. The state contends that the temperature conditions seen in Clear Creek are natural. The EPA obtained and reviewed National Oceanic and Atmospheric Administration data for the state during the time period in which these elevated temperatures were measured, the EPA is approving the delisting of Clear Creek because this water body no longer requires the development of a TMDL for temperature, consistent with 40 CFR § 130.7(b).

Big Alkali Lake (NE-NI3-L0220) Nebraska submitted a proposal to remove the conductivity cause of impairment. The state contends that the conductivity seen in Big Alkali Lake are natural background conditions. Upon the EPA's review of the locations and conditions in saline groundwater dominated Sand Hills lakes in the basin, the EPA is approving the delisting of Big Alkali Lake because this water body no longer requires the development of a TMDL for conductivity, consistent with 40 CFR § 130.7(b).

Bone Creek (NE-NI3-12220) Nebraska submitted a proposal to remove the temperature cause of impairment. The state contends that the temperature conditions seen in Bone Creek are natural. The EPA obtained and reviewed National Oceanic and Atmospheric Administration data for the state during the time period in which these elevated temperatures were measured, the EPA is approving the delisting of Bone Creek because this water body no longer requires the development of a TMDL for temperature, consistent with 40 CFR § 130.7(b).

Blue Lake (NE-NP2-L0150) Nebraska submitted a proposal to remove the dissolved oxygen cause of impairment. The state contends that the dissolved oxygen concentrations seen in Blue

Lake are natural background conditions. Upon the EPA's review of the conditions in groundwater dominated Sand Hills lakes in the basin (Appendix B), the EPA is approving the delisting of Blue Lake because this water body no longer requires the development of a TMDL for dissolved oxygen, consistent with 40 CFR § 130.7(b).

Thompson Creek (NE-RE1-31200) Nebraska submitted a proposal to remove the temperature cause of impairment. The state contends that the temperature conditions seen in Thompson Creek are natural. The EPA obtained and reviewed National Oceanic and Atmospheric Administration data for the state during the time period in which these elevated temperatures were measured, the EPA is approving the delisting of Thompson Creek because this water body no longer requires the development of a TMDL for temperature, consistent with 40 CFR § 130.7(b).

Frenchman Creek (NE-RE3-20400) Nebraska submitted a proposal to remove the temperature cause of impairment. The state contends that the temperature conditions seen in Frenchman Creek are natural. The EPA obtained and reviewed National Oceanic and Atmospheric Administration data for the state during the time period in which these elevated temperatures were measured, the EPA is approving the delisting of Frenchman Creek because this water body no longer requires the development of a TMDL for temperature, consistent with 40 CFR § 130.7(b).

2. New Data Supports Change in Listing (24 waters)

Twenty four water body segments are being removed from the state list based on new data which indicates the use is supported with regard to the previously specified causes:

Elkhorn River (NE-EL1-10000) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Elkhorn River for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Maskenthine Reservoir (NE-EL1-L0080) New water quality data indicate this water body is meeting water quality standards for dissolved oxygen. In today's action, the EPA is approving the delisting of Maskenthine Reservoir for dissolved oxygen because this water body no longer requires the development of a TMDL for dissolved oxygen, consistent with 40 CFR § 130.7(b).

Logan Creek (NE-EL2-10000) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Logan Creek for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Willow Creek Reservoir (NE-EL3-L0010) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Willow Creek Reservoir for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Elkhorn River (NE-EL4-30000) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Elkhorn River for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Skyview Lake (NE-EL4-L0020) New fish tissue and water quality data indicate this water body is meeting water quality standards for fish consumption and total phosphorus. In today's action, the EPA is approving the delisting of Skyview Lake for fish consumption and total phosphorus because this water body no longer requires the development of a TMDL for fish consumption or total phosphorus, consistent with 40 CFR § 130.7(b).

Alexandria Lake (NE-LB2-L0030) New water quality data indicate this water body is meeting water quality standards for dissolved oxygen. In today's action, the EPA is approving the delisting of Alexandria Lake for dissolved oxygen because this water body no longer requires the development of a TMDL for dissolved oxygen, consistent with 40 CFR § 130.7(b).

Pibel Lake (NE-LO1-L0130) New water quality data indicate this water body is meeting water quality standards for dissolved oxygen. In today's action, the EPA is approving the delisting of Pibel Lake for dissolved oxygen because this water body no longer requires the development of a TMDL for dissolved oxygen, consistent with 40 CFR § 130.7(b).

Platte River (NE-LP1-10000) New water quality data indicate this water body is meeting water quality standards for atrazine and pH. In today's action, the EPA is approving the delisting of Platte River for atrazine and pH because this water body no longer requires the development of a TMDL for atrazine or pH, consistent with 40 CFR § 130.7(b).

Platte River (NE-LP1-20000) New water quality data indicate this water body is meeting water quality standards for atrazine. In today's action, the EPA is approving the delisting of Platte River for atrazine because this water body no longer requires the development of a TMDL for atrazine, consistent with 40 CFR § 130.7(b).

Wagon Train Lake (NE-LP2-L0030) New water quality data indicate this water body is meeting water quality standards for arsenic. In today's action, the EPA is approving the delisting of Wagon Train Lake for arsenic because this water body no longer requires the development of a TMDL for arsenic, consistent with 40 CFR § 130.7(b).

Conestoga Lake (NE-LP2-L0130) New water quality data indicate this water body is meeting water quality standards for algal toxins. In today's action, the EPA is approving the delisting of Conestoga Lake for algal toxins because this water body no longer requires the development of a TMDL for algal toxins, consistent with 40 CFR § 130.7(b).

Olive Creek Lake (NE-LP2-L0140) New water quality data indicate this water body is meeting water quality standards for arsenic and dissolved oxygen. In today's action, the EPA is approving the delisting of Olive Creek Lake for arsenic and dissolved oxygen because this water body no longer requires the development of a TMDL for arsenic or dissolved oxygen, consistent with 40 CFR § 130.7(b).

Lake Helen (NE-MP2-L0650) New water quality data indicate this water body is meeting water quality standards for dissolved oxygen. In today's action, the EPA is approving the delisting of Lake Helen for dissolved oxygen because this water body no longer requires the development of a TMDL for dissolved oxygen, consistent with 40 CFR § 130.7(b).

Missouri River (NE-MT1-10000) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of

Missouri River for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Papillion Creek (NE-MT1-10100) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Papillion Creek for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Omaha Creek (NE-MT1-12100) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Omaha Creek for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Summit Lake (NE-MT1-L0150) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Summit Lake for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Missouri River (NE-NE1-10000) New fish tissue data indicate this water body is meeting water quality standards for fish consumption. In today's action, the EPA is approving the delisting of Missouri River for fish consumption because this water body no longer requires the development of a TMDL for fish consumption, consistent with 40 CFR § 130.7(b).

Lake C.W. McConaughy (NE-NP2-L0010) New water quality data indicate this water body is meeting water quality standards for dissolved oxygen and total nitrogen. In today's action, the EPA is approving the delisting of Lake C.W. McConaughy for dissolved oxygen and total nitrogen because this water body no longer requires the development of a TMDL for dissolved oxygen or total nitrogen, consistent with 40 CFR § 130.7(b).

Tub Springs Drain (NE-NP3-13000) New water quality data indicate this water body is meeting water quality standards for selenium. In today's action, the EPA is approving the delisting of Tub Springs Drain for selenium because this water body no longer requires the development of a TMDL for selenium, consistent with 40 CFR § 130.7(b).

Prairie Dog Creek (NE-RE2-10300) New water quality data indicate this water body is meeting water quality standards for dissolved oxygen. In today's action, the EPA is approving the delisting of Prairie Dog Creek for dissolved oxygen because this water body no longer requires the development of a TMDL for dissolved oxygen, consistent with 40 CFR § 130.7(b).

Stinking Water Creek (NE-RE3-20220) New water quality data indicate this water body is meeting water quality standards for temperature. In today's action, the EPA is approving the delisting of Stinking Water Creek for temperature because this water body no longer requires the development of a TMDL for temperature, consistent with 40 CFR § 130.7(b).

Enders Reservoir (NE-RE3-L0100) New water quality data indicate this water body is meeting water quality standards for total phosphorus. In today's action, the EPA is approving the delisting of Enders Reservoir for total phosphorus because this water body no longer requires the development of a TMDL for total phosphorus, consistent with 40 CFR § 130.7(b).

3. Error in Original Assessment (1 water)

One previously impaired water body segment/pollutant combinations were delisted based on an error in the NDEQ's analysis.

Lincoln Creek (NE-BB4-20800) Nebraska proposed to remove the biological integrity cause of impairment. The state contends that the wrong segment was assessed. The previous impairment was based upon data collected in Lincoln Creek (NE-BB4-20900). As a result the state is listing that segment for biological integrity and delisting this segment. Upon review, the EPA is approving the delisting of Lincoln Creek segment BB4-20800 because this water body no longer requires the development of a TMDL for biological integrity, consistent with 40 CFR § 130.7(b).

The EPA concludes that the state properly assembled and considered all existing and readily available data and information for the water bodies identified above proposed for delisting, including all of the existing and readily available data and information relating to the categories of waters specified in 40 CFR § 130.7(b)(5). Therefore, the EPA concludes that the state's decision to delist the above waters identified in its listing submittal are consistent with federal listing requirements.

VI. Priority Ranking in Nebraska's CWA Section 303(d) List

NDEQ's listing methodology describes how the state will prioritize water bodies for purposes of establishing TMDLs. Nebraska's prioritization of impaired waters for TMDL completion will be based on the availability of data, complexity of the problem, sources of impairment and other relevant factors. Where data is lacking, priorities are assigned in part based on the rotational basin, Section 319 priorities and NPDES/permitting priorities. For the next two years the state has targeted water bodies in the North Platte, South Platte, White-Hat and Republican basins as priority for TMDL development.

VII. Nebraska's Public Participation Process

The NDEQ public noticed its 2014 draft CWA Section 303(d) List from February 5, 2014 to March 8, 2014; this included notice of the availability of the draft IR published on February 5, 2014. The list was made available for public review and comment through the NDEQ. The NDEQ received comments from the EPA. The EPA's comment letter outlined the information expected from the state for a complete submittal of its Section 303(d) List and water body specific comments.

The EPA has reviewed Nebraska's public participation process and has concluded that the state provided adequate public notice and opportunity for the public to comment on its decision regarding the CWA Section 303(d) list in compliance with federal requirements.

Nebraska's 2014 303(d) List

Table 1 lists each modification or water body approved for the addition to, or removal from, the state's CWA Section 303(d) list and the supporting rationale for each. Table 2 identifies the Nebraska § 303 (d) list as approved by the EPA. The following terms are used in the tables and defined below.

BB	Big Blue River Basin
EL	Elkhorn River Basin
LB	Little Blue River Basin
LO	Loup River Basin
LP	Lower Platte River Basin
MP	Middle Platte River Basin
MT	Missouri River Tributaries
NE	Nemaha River Basin
NI	Niobrara River Basin
NP	North Platte River Basin
RE	Republican River Basin
SP	South Platte River Basin
WH	White River – Hat Creek Basin

Table 1. Changes from Nebraska's 2012 CWA Section 303(d) List as Approved by the EPA.

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
BIG BLUE RIVER	NE-BB1-10000	ATRAZINE		TMDL approved
BIG BLUE RIVER	NE-BB1-10000		SELENIUM	
MISSION CREEK	NE-BB1-10100	ATRAZINE		TMDL approved
MISSION CREEK	NE-BB1-10100	E. COLI		TMDL approved
BIG INDIAN CREEK	NE-BB1-10800	ATRAZINE		TMDL approved
BIG INDIAN CREEK	NE-BB1-10800	E. COLI		TMDL approved
BIG INDIAN CREEK	NE-BB1-10900	ATRAZINE		TMDL approved
BIG BLUE RIVER	NE-BB1-20000	ATRAZINE		TMDL approved
ROCKFORD LAKE	NE-BB1-L0060		DISSOLVED OXYGEN	
CUB CREEK LAKE	NE-BB1-L0080		TOTAL NITROGEN	
TURKEY CREEK	NE-BB2-10000	ATRAZINE		TMDL approved
TURKEY CREEK	NE-BB2-10000	E. COLI		TMDL approved
TURKEY CREEK	NE-BB2-20000	ATRAZINE		TMDL approved
TURKEY CREEK	NE-BB2-20000	E. COLI		TMDL approved
WEST FORK BIG BLUE RIVER	NE-BB3-10000	ATRAZINE		TMDL approved
WEST FORK BIG BLUE RIVER	NE-BB3-10000		BIOLOGICAL INTEGRITY	
WALNUT CREEK	NE-BB3-10200		BIOLOGICAL INTEGRITY	
BEAVER CREEK	NE-BB3-10300	ATRAZINE		TMDL approved
WEST FORK BIG BLUE RIVER	NE-BB3-20000	ATRAZINE		TMDL approved
WEST FORK BIG BLUE RIVER	NE-BB3-20000	E. COLI		TMDL approved
SCHOOL CREEK	NE-BB3-20100		ATRAZINE	
LAKE HASTINGS	NE-BB3-L0050		CHLOROPHYLL A	
LAKE HASTINGS	NE-BB3-L0050		TOTAL NITROGEN	
LAKE HASTINGS	NE-BB3-L0050		TOTAL PHOSPHORUS	

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
BIG BLUE RIVER	NE-BB4-10000	ATRAZINE		TMDL approved
BIG BLUE RIVER	NE-BB4-10000	E. COLI		TMDL approved
BIG BLUE RIVER	NE-BB4-20000	E. COLI		TMDL approved
LINCOLN CREEK	NE-BB4-20800	ATRAZINE		TMDL approved
LINCOLN CREEK	NE-BB4-20800	BIOLOGICAL INTEGRITY		ERROR – DATA USED WAS FROM DIFFERENT SEGMENT
BIG BLUE RIVER	NE-BB4-40000	ATRAZINE		TMDL approved
OXBOW TRAIL RESERVOIR	NE-BB4-L0035		PH	
ELKHORN RIVER	NE-EL1-10000	FISH CONSUMPTION ADVISORY		MEETING WQS
HIGHWAY 275 BYPASS LAKE NO.4 (JOHNSON PARK LAKE)	NE-EL1-L0030		FISH CONSUMPTION ADVISORY	PREVIOUSLY LISTED UNDER JOHNSON PARK LAKE
MASKENTHINE RESERVOIR	NE-EL1-L0080	PH		
MASKENTHINE RESERVOIR	NE-EL1-L0080	DISSOLVED OXYGEN		MEETING WQS
LOGAN CREEK	NE-EL2-10000	FISH CONSUMPTION ADVISORY		MEETING WQS
WILLOW CREEK RESERVOIR	NE-EL3-L0010	FISH CONSUMPTION ADVISORY		MEETING WQS
WILLOW CREEK RESERVOIR	NE-EL3-L0010		ALGAL TOXINS	
ELKHORN RIVER	NE-EL4-30000	FISH CONSUMPTION ADVISORY		MEETING WQS
SKYVIEW LAKE	NE-EL4-L0020	FISH CONSUMPTION ADVISORY		MEETING WQS
SKYVIEW LAKE	NE-EL4-L0020	TOTAL PHOSPHORUS		MEETING WQS
SKYVIEW LAKE	NE-EL4-L0020		CHLOROPHYLL A	
O'NEILL CITY LAKE	NE-EL4-L0060		FISH CONSUMPTION ADVISORY	
LITTLE BLUE RIVER	NE-LB1-10000	ATRAZINE (DRINKING WATER USE)		TMDL approved

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
ROCK CREEK	NE-LB1-10200	E. COLI		TMDL approved
LITTLE BLUE RIVER	NE-LB2-10000	ATRAZINE		TMDL approved
BIG SANDY CREEK	NE-LB2-10100	ATRAZINE		TMDL approved
BIG SANDY CREEK	NE-LB2-10100	E. COLI		TMDL approved
BIG SANDY CREEK	NE-LB2-10100		SELENIUM	
LITTLE BLUE RIVER	NE-LB2-20000	ATRAZINE		TMDL approved
LITTLE BLUE RIVER	NE-LB2-20000	E. COLI		TMDL approved
LITTLE BLUE RIVER	NE-LB2-20000		SELENIUM	
LITTLE BLUE RIVER	NE-LB2-30000	E. COLI		TMDL approved
ALEXANDRIA LAKE NO. 1&2	NE-LB2-L0010		PH	
ALEXANDRIA LAKE NO. 3	NE-LB2-L0030	LOW DISSOLVED OXYGEN		MEETING WQS
ALEXANDRIA LAKE NO. 3	NE-LB2-L0030		TOTAL NITROGEN	
ALEXANDRIA LAKE NO. 3	NE-LB2-L0030		TOTAL PHOSPHORUS	
PIBEL LAKE	NE-LO1-L0130	LOW DISSOLVED OXYGEN		MEETING WQS
CALAMUS RESERVOIR	NE-LO2-L0050		TOTAL NITROGEN	
SHERMAN RESERVOIR	NE-LO3-L0020		CHLOROPHYLL A	
MUD CREEK	NE-LO4-10100	E. COLI		TMDL approved
MUD CREEK	NE-LO4-10200	E. COLI		TMDL approved
PLATTE RIVER	NE-LP1-10000	ATRAZINE		MEETING WQS
PLATTE RIVER	NE-LP1-10000	HIGH PH		MEETING WQS
PLATTE RIVER	NE-LP1-20000	ATRAZINE		MEETING WQS
FREMONT LAKE NO. 18E (SRA)	NE-LP1-L0230		CHLOROPHYLL A	
FREMONT LAKE NO. 16 (SRA)	NE-LP1-L0270	CHLOROPHYLL A		TMDL approved
FREMONT LAKE NO. 16 (SRA)	NE-LP1-L0270	HIGH PH		TMDL approved

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
FREMONT LAKE NO. 1 (SRA)	NE-LP1-L0290	CHLOROPHYLL A		TMDL approved
FREMONT LAKE NO. 1 (SRA)	NE-LP1-L0290	LOW DISSOLVED OXYGEN		TMDL approved
FREMONT LAKE NO. 1 (SRA)	NE-LP1-L0290	HIGH PH		TMDL approved
FREMONT LAKE NO. 1 (SRA)	NE-LP1-L0290	TOTAL PHOSPHORUS		TMDL approved
FREMONT LAKE NO. 2 (SRA)	NE-LP1-L0300	CHLOROPHYLL A		TMDL approved
FREMONT LAKE NO. 2 (SRA)	NE-LP1-L0300		PH	
FREMONT LAKE NO. 2 (SRA)	NE-LP1-L0300	TOTAL PHOSPHORUS		TMDL approved
FREMONT LAKE NO. 3 (SRA)	NE-LP1-L0310	CHLOROPHYLL A		TMDL approved
FREMONT LAKE NO. 3 (SRA)	NE-LP1-L0310	LOW DISSOLVED OXYGEN		TMDL approved
FREMONT LAKE NO. 3 (SRA)	NE-LP1-L0310	TOTAL PHOSPHORUS		TMDL approved
FREMONT LAKE NO. 5 (SRA)	NE-LP1-L0320	CHLOROPHYLL A		TMDL approved
FREMONT LAKE NO. 5 (SRA)	NE-LP1-L0320	LOW DISSOLVED OXYGEN		TMDL approved
FREMONT LAKE NO. 5 (SRA)	NE-LP1-L0320	HIGH PH		TMDL approved
FREMONT LAKE NO. 5 (SRA)	NE-LP1-L0320	TOTAL PHOSPHORUS		TMDL approved
FREMONT LAKE NO. 4 (SRA)	NE-LP1-L0330	CHLOROPHYLL A		TMDL approved
FREMONT LAKE NO. 4 (SRA)	NE-LP1-L0330	PH (HIGH)		TMDL approved
FREMONT LAKE NO. 4 (SRA)	NE-LP1-L0330	TOTAL PHOSPHORUS		TMDL approved
FREMONT LAKE NO. 7 AND 8 (SRA)	NE-LP1-L0350	CHLOROPHYLL A		TMDL approved
FREMONT LAKE NO. 7 AND 8 (SRA)	NE-LP1-L0350	HIGH PH		TMDL approved

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
FREMONT LAKE NO. 7 AND 8 (SRA)	NE-LP1-L0350	TOTAL PHOSPHORUS		TMDL approved
JOHNSON LAKE	NE-LP1-LXXXX	FISH CONSUMPTION ADVISORY		LISTED UNDER NEW NAME SEE HIGHWAY 275 BYPASS LAKE NO.4 ABOVE
SALT CREEK	NE-LP2-10000	CHLORIDE		NATURAL CONDITION
SALT CREEK	NE-LP2-10000		SELENIUM	
SALT CREEK	NE-LP2-20000	CONDUCTIVITY		NATURAL CONDITION
LITTLE SALT CREEK	NE-LP2-20300	CHLORIDE		NATURAL CONDITION
DEAD MAN'S RUN	NE-LP2-20400		DISSOLVED OXYGEN	
ANTELOPE CREEK	NE-LP2-20900	CHLORIDE		NATURAL CONDITION
ANTELOPE CREEK	NE-LP2-20900	CONDUCTIVITY		NATURAL CONDITION
ANTELOPE CREEK	NE-LP2-20900		DISSOLVED OXYGEN	
WAGON TRAIN LAKE	NE-LP2-L0030	ARSENIC		MEETING WQS
WAGON TRAIN LAKE	NE-LP2-L0030	LOW DISSOLVED OXYGEN		TMDL approved
WAGON TRAIN LAKE	NE-LP2-L0030	TOTAL PHOSPHORUS		TMDL approved
HOLMES LAKE	NE-LP2-L0040	CHLOROPHYLL A		REHABILITATED
HOLMES LAKE	NE-LP2-L0040	FISH CONSUMPTION ADVISORY		REHABILITATED
HOLMES LAKE	NE-LP2-L0040	pH		REHABILITATED
HOLMES LAKE	NE-LP2-L0040	TOTAL NITROGEN		REHABILITATED
HOLMES LAKE	NE-LP2-L0040	TOTAL PHOSPHORUS		REHABILITATED
CONESTOGA LAKE	NE-LP2-L0130	ALGAL TOXINS		MEETING WQS
OLIVE CREEK LAKE	NE-LP2-L0140	ARSENIC		MEETING WQS
OLIVE CREEK LAKE	NE-LP2-L0140	LOW DISSOLVED OXYGEN		MEETING WQS
PAWNEE LAKE	NE-LP2-L0160	SEDIMENT		TMDL approved
CLEAR CREEK	NE-MP1-10100	HIGH TEMPERATURE		NATURAL CONDITION
PLATTE RIVER	NE-MP1-20000		SELENIUM	
PLATTE RIVER	NE-MP1-20000		E. COLI	

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
WOOD RIVER	NE-MP2-10200		AMMONIA	
LAKE HELEN	NE-MP2-L0650	LOW DISSOLVED OXYGEN		MEETING WQS
LAKE HELEN	NE-MP2-L0650		PH	
MISSOURI RIVER	NE-MT1-10000	FISH CONSUMPTION ADVISORY		MEETING WQS
PAPILLION CREEK	NE-MT1-10100	FISH CONSUMPTION ADVISORY		MEETING WQS
OMAHA CREEK	NE-MT1-12100	FISH CONSUMPTION ADVISORY		MEETING WQS
OFFUTT LAKE	NE-MT1-L0010		FISH CONSUMPTION ADVISORY	
CARTER LAKE (OMAHA)	NE-MT1-L0090	TOTAL NITROGEN		TMDL approved
STANDING BEAR LAKE (SITE NO. 16)	NE-MT1-L0100	CHLOROPHYLL A		TMDL approved
STANDING BEAR LAKE (SITE NO. 16)	NE-MT1-L0100	SEDIMENT		TMDL approved
SUMMIT LAKE	NE-MT1-L0150	FISH CONSUMPTION ADVISORY		MEETING WQS
LAKE BENNINGTON	NE-MT1-LXXXX		FISH CONSUMPTION ADVISORY	
MISSOURI RIVER	NE-NE1-10000	FISH CONSUMPTION ADVISORY		MEETING WQS
WEEPING WATER CREEK	NE-NE1-13000		SELENIUM	
BIG NEMAHA RIVER	NE-NE2-10000		SELENIUM	
NORTH FORK BIG NEMAHA RIVER	NE-NE2-12200		SELENIUM	
KIRKMAN'S COVE LAKE	NE-NE2-L0040	TOTAL PHOSPHORUS		TMDL approved
KIRKMAN'S COVE LAKE	NE-NE2-L0040		E. COLI	
IRON HORSE TRAIL LAKE (WMA)	NE-NE2-L0090	CHLOROPHYLL A		REHABILITATED
IRON HORSE TRAIL LAKE (WMA)	NE-NE2-L0090	FISH CONSUMPTION ADVISORY		REHABILITATED

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
IRON HORSE TRAIL LAKE (WMA)	NE-NE2-L0090	SEDIMENT		REHABILITATED
IRON HORSE TRAIL LAKE (WMA)	NE-NE2-L0090	TOTAL NITROGEN		REHABILITATED
IRON HORSE TRAIL LAKE (WMA)	NE-NE2-L0090	TOTAL PHOSPHORUS		REHABILITATED
LITTLE NEMAHA RIVER	NE-NE3-10000	E. COLI		TMDL approved
LITTLE NEMAHA RIVER	NE-NE3-10000		SELENIUM	
NIOBRARA RIVER	NE-NI2-10000		SELENIUM	
VERDIGRE CREEK	NE-NI2-10100		SELENIUM	
BONE CREEK	NE-NI3-12220	TEMPERATURE		NATURAL CONDITION
BIG ALKALI LAKE	NE-NI3-L0220	CONDUCTIVITY		NATURAL CONDITION
MERRITT RESERVOIR	NE-NI3-L0330		TOTAL NITROGEN	
MERRITT RESERVOIR	NE-NI3-L0330		TOTAL PHOSPHORUS	
WHITETAIL CREEK	NE-NP1-30900		E. COLI	TMDL approved
OTTER CREEK	NE-NP2-10300	E. COLI		
BLUE CREEK	NE-NP2-10900		SELENIUM	
LOWER DUGOUT CREEK	NE-NP2-12100		BIOLOGICAL INTEGRITY	
LAKE C. W. MCCONAUGHY	NE-NP2-L0010	LOW DISSOLVED OXYGEN		MEETING WQS
LAKE C. W. MCCONAUGHY	NE-NP2-L0010	TOTAL NITROGEN		MEETING WQS
LAKE C. W. MCCONAUGHY	NE-NP2-L0010		FISH CONSUMPTION ADVISORY	
ISLAND LAKE (CRESCENT LAKE NWR)	NE-NP2-L0110		FISH CONSUMPTION ADVISORY	
BLUE LAKE (CRESCENT LAKE NWR)	NE-NP2-L0150	LOW DISSOLVED OXYGEN		NATURAL CONDITION
SMITH LAKE (CRESCENT LAKE NWR)	NE-NP2-L0290		FISH CONSUMPTION ADVISORY	

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
CRESCENT LAKE	NE-NP2-LXXXXX		FISH CONSUMPTION ADVISORY	
MORRILL SANDPIT (SOUTHWEST)	NE-NP2-LXXXXX		FISH CONSUMPTION ADVISORY	
MORRILL SANDPIT (NORTH)	NE-NP2-LXXXXX		FISH CONSUMPTION ADVISORY	
UPPER DUGOUT CREEK	NE-NP3-10600		BIOLOGICAL INTEGRITY	
RED WILLOW CREEK	NE-NP3-10900	E. COLI		TMDL approved
NINEMILE CREEK	NE-NP3-11700	E. COLI		TMDL approved
GERING DRAIN	NE-NP3-12400	E. COLI		TMDL approved
WINTERS CREEK	NE-NP3-12600	E. COLI		TMDL approved
WINTERS CREEK	NE-NP3-12600		SELENIUM	
TUB SPRINGS DRAIN	NE-NP3-13000	E. COLI		TMDL approved
TUB SPRINGS DRAIN	NE-NP3-13000	SELENIUM		MEETING WQS
HORSE CREEK	NE-NP3-30600	E. COLI		TMDL approved
BRIDGEPORT MIDDLE LAKE (SRA)	NE-NP3-L0030		FISH CONSUMPTION ADVISORY	
ELM CREEK	NE-RE1-30100		BIOLOGICAL INTEGRITY	
THOMPSON CREEK	NE-RE1-31200	TEMPERATURE		NATURAL CONDITION
REPUBLICAN RIVER	NE-RE2-10000		SELENIUM	
PRAIRIE DOG CREEK	NE-RE2-10300	LOW DISSOLVED OXYGEN		MEETING WQS
SAPPA CREEK	NE-RE2-10600		SELENIUM	
SPRING CREEK	NE-RE2-10900		BIOLOGICAL INTEGRITY	
RED WILLOW CREEK	NE-RE3-10600		BIOLOGICAL INTEGRITY	
STINKING WATER CREEK	NE-RE3-20220	TEMPERATURE		MEETING WQS
FRENCHMAN CREEK	NE-RE3-20400	TEMPERATURE		NATURAL CONDITION

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
BARTLEY DIVERSION DAM LAKE (WMA)	NE-RE3-L0020		E. COLI	
BARNETT PARK LAKE (MCCOOK)	NE-RE3-L0050		CONDUCTIVITY	
ENDERS RESERVOIR	NE-RE3-L0100	TOTAL PHOSPHORUS		MEETING WQS
SOUTH PLATTE RIVER	NE-SP1-80000		CONDUCTIVITY	
LAKE MALONEY	NE-SP1-L0020		CHLOROPHYLL A	
LAKE MALONEY	NE-SP1-L0020		TOTAL PHOSPHORUS	
BIRDWOOD LAKE (WMA)	NE-SP1-L0030		FISH CONSUMPTION ADVISORY	
EAST SUTHERLAND LAKE (WMA)	NE-SP1-L0070		FISH CONSUMPTION ADVISORY	
SUTHERLAND RESERVOIR	NE-SP1-L0080		FISH CONSUMPTION ADVISORY	
OGALLALA CITY PARK LAKE	NE-SP1-L0090		FISH CONSUMPTION ADVISORY	
SUTHERLAND COOLING POND	NE-SP1-LXXXX		FISH CONSUMPTION ADVISORY	
LODGEPOLE CREEK	NE-SP2-10000		BIOLOGICAL INTEGRITY	
LODGEPOLE CREEK	NE-SP2-10000		SELENIUM	
LODGEPOLE CREEK	NE-SP2-20000		BIOLOGICAL INTEGRITY	
LODGEPOLE CREEK	NE-SP2-50000		SELENIUM	
CHAPPELL INTERSTATE LAKE	NE-SP2-L0010		PH	
LARABEE CREEK	NE-WH1-10420		BIOLOGICAL INTEGRITY	
WEST ASH CREEK	NE-WH1-11820		E. COLI	
WHITE RIVER	NE-WH1-20000		SELENIUM	
MIDDLE FORK SOLDIER CREEK	NE-WH1-20310		BIOLOGICAL INTEGRITY	
ISHAM LAKE	NE-WH1-L0010		FISH CONSUMPTION ADVISORY	

Water body name	WBID	2012 pollutant	New 2014 Pollutant	Rationale for change
WHITNEY RESERVOIR	NE-WH1-L0060		FISH CONSUMPTION ADVISORY	
GRABEL POND NO 5 (FT. ROBINSON STATE PARK)	NE-WH1-L0170		FISH CONSUMPTION ADVISORY	

Table 2. EPA-Approved 2014 Nebraska § 303(d) List

Count	WATER BODY ID	WATER BODY NAME	CAUSE
1	NE-BB1-10000	BIG BLUE RIVER	FISH CONSUMPTION ADVISORY
2	NE-BB1-10000	BIG BLUE RIVER	SELENIUM
3	NE-BB1-20000	BIG BLUE RIVER	SELENIUM
4	NE-BB1-L0010	DONALD WHITNEY MEMORIAL LAKE	DISSOLVED OXYGEN
5	NE-BB1-L0010	DONALD WHITNEY MEMORIAL LAKE	E. COLI
6	NE-BB1-L0010	DONALD WHITNEY MEMORIAL LAKE	TOTAL NITROGEN
7	NE-BB1-L0010	DONALD WHITNEY MEMORIAL LAKE	TOTAL PHOSPHORUS
8	NE-BB1-L0020	DIAMOND LAKE SOUTH	TOTAL NITROGEN
9	NE-BB1-L0020	DIAMOND LAKE SOUTH	DISSOLVED OXYGEN
10	NE-BB1-L0020	DIAMOND LAKE SOUTH	TOTAL PHOSPHORUS
11	NE-BB1-L0020	DIAMOND LAKE SOUTH	E. COLI
12	NE-BB1-L0040	ARROWHEAD LAKE	CHLOROPHYLL A
13	NE-BB1-L0040	ARROWHEAD LAKE	TOTAL NITROGEN
14	NE-BB1-L0040	ARROWHEAD LAKE	TOTAL PHOSPHORUS
15	NE-BB1-L0040	ARROWHEAD LAKE	DISSOLVED OXYGEN
16	NE-BB1-L0050	WOLF WILDCAT LAKE	FISH CONSUMPTION ADVISORY
17	NE-BB1-L0060	ROCKFORD LAKE	TOTAL NITROGEN
18	NE-BB1-L0060	ROCKFORD LAKE	FISH CONSUMPTION ADVISORY
19	NE-BB1-L0060	ROCKFORD LAKE	TOTAL PHOSPHORUS
20	NE-BB1-L0060	ROCKFORD LAKE	CHLOROPHYLL A
21	NE-BB1-L0060	ROCKFORD LAKE	DISSOLVED OXYGEN
22	NE-BB1-L0080	CUB CREEK LAKE	E. COLI
23	NE-BB1-L0080	CUB CREEK LAKE	TOTAL PHOSPHORUS
24	NE-BB1-L0080	CUB CREEK LAKE	TOTAL NITROGEN
25	NE-BB1-L0100	WALNUT CREEK LAKE (2A)	TOTAL PHOSPHORUS
26	NE-BB1-L0100	WALNUT CREEK LAKE (2A)	PH
27	NE-BB1-L0100	WALNUT CREEK LAKE (2A)	TOTAL NITROGEN
28	NE-BB2-10000	TURKEY CREEK	SELENIUM
29	NE-BB2-10000	TURKEY CREEK	BIOLOGICAL INTEGRITY
30	NE-BB2-L0005	SWANTON LAKE	PH
31	NE-BB2-L0005	SWANTON LAKE	TOTAL PHOSPHORUS
32	NE-BB2-L0005	SWANTON LAKE	TOTAL NITROGEN
33	NE-BB2-L0010	SWAN CREEK LAKE 2A	DISSOLVED OXYGEN
34	NE-BB2-L0020	SWAN CREEK LAKE (5A)	TOTAL NITROGEN
35	NE-BB2-L0020	SWAN CREEK LAKE (5A)	PH (HIGH)
36	NE-BB2-L0020	SWAN CREEK LAKE (5A)	CHLOROPHYLL A
37	NE-BB2-L0020	SWAN CREEK LAKE (5A)	FISH CONSUMPTION ADVISORY

Count	WATER BODY ID	WATER BODY NAME	CAUSE
38	NE-BB2-L0020	SWAN CREEK LAKE (5A)	TOTAL PHOSPHORUS
39	NE-BB3-10000	WEST FORK BIG BLUE RIVER	SELENIUM
40	NE-BB3-10000	WEST FORK BIG BLUE RIVER	BIOLOGICAL INTEGRITY
41	NE-BB3-10200	WALNUT CREEK	BIOLOGICAL INTEGRITY
42	NE-BB3-10400	BEAVER CREEK	BIOLOGICAL INTEGRITY
43	NE-BB3-20000	WEST FORK BIG BLUE RIVER	BIOLOGICAL INTEGRITY
44	NE-BB3-20100	SCHOOL CREEK	ATRAZINE
45	NE-BB3-L0030	WACO BASIN	E. COLI
46	NE-BB3-L0030	WACO BASIN	TOTAL PHOSPHORUS
47	NE-BB3-L0030	WACO BASIN	TOTAL NITROGEN
48	NE-BB3-L0040	HENDERSON POND	TOTAL NITROGEN
49	NE-BB3-L0040	HENDERSON POND	CHLOROPHYLL A
50	NE-BB3-L0040	HENDERSON POND	TOTAL PHOSPHORUS
51	NE-BB3-L0050	LAKE HASTINGS	SEDIMENT
52	NE-BB3-L0050	LAKE HASTINGS	FISH CONSUMPTION ADVISORY
53	NE-BB3-L0050	LAKE HASTINGS	TOTAL PHOSPHORUS
54	NE-BB3-L0050	LAKE HASTINGS	TOTAL NITROGEN
55	NE-BB3-L0050	LAKE HASTINGS	CHLOROPHYLL A
56	NE-BB3-L0060	HASTINGS NORTHWEST DAM LAKE	TOTAL PHOSPHORUS
57	NE-BB3-L0060	HASTINGS NORTHWEST DAM LAKE	TOTAL NITROGEN
58	NE-BB3-L0060	HASTINGS NORTHWEST DAM LAKE	PH
59	NE-BB3-L0060	HASTINGS NORTHWEST DAM LAKE	CHLOROPHYLL A
60	NE-BB3-L0070	HEARTWELL LAKE	ALGAL BLOOMS
61	NE-BB3-L0080	RECHARGE LAKE	TOTAL PHOSPHORUS
62	NE-BB3-L0080	RECHARGE LAKE	TOTAL NITROGEN
63	NE-BB3-L0080	RECHARGE LAKE	FISH CONSUMPTION ADVISORY
64	NE-BB3-L0080	RECHARGE LAKE	CHLOROPHYLL A
65	NE-BB4-20800	LINCOLN CREEK	SELENIUM
66	NE-BB4-20900	LINCOLN CREEK	BIOLOGICAL INTEGRITY
67	NE-BB4-40000	BIG BLUE RIVER	LOW DISSOLVED OXYGEN
68	NE-BB4-L0010	DAVID CITY PARK LAKE	CHLOROPHYLL A
69	NE-BB4-L0010	DAVID CITY PARK LAKE	TOTAL PHOSPHORUS
70	NE-BB4-L0010	DAVID CITY PARK LAKE	TOTAL NITROGEN
71	NE-BB4-L0035	OXBOW TRAIL RESERVOIR	CHLOROPHYLL A
72	NE-BB4-L0035	OXBOW TRAIL RESERVOIR	TOTAL PHOSPHORUS
73	NE-BB4-L0035	OXBOW TRAIL RESERVOIR	TOTAL NITROGEN
74	NE-BB4-L0035	OXBOW TRAIL RESERVOIR	PH
75	NE-EL1-10700	BELL CREEK	BIOLOGICAL INTEGRITY
76	NE-EL1-10900	MAPLE CREEK	BIOLOGICAL INTEGRITY
77	NE-EL1-10932	DRY CREEK	BIOLOGICAL INTEGRITY
78	NE-EL1-10940	WEST FORK MAPLE CREEK	BIOLOGICAL INTEGRITY

Count	WATER BODY ID	WATER BODY NAME	CAUSE
79	NE-EL1-20100	PEBBLE CREEK	BIOLOGICAL INTEGRITY
80	NE-EL1-21000	ROCK CREEK	BIOLOGICAL INTEGRITY
81	NE-EL1-21000	ROCK CREEK	E. COLI
82	NE-EL1-21900	UNION CREEK	E. COLI
83	NE-EL1-22100	UNION CREEK	BIOLOGICAL INTEGRITY
84	NE-EL1-L0030	HIGHWAY 275 BYPASS LAKE NO. 4 (JOHNSON PARK LAKE)	FISH CONSUMPTION ADVISORY
85	NE-EL1-L0080	MASKENTHINE RESERVOIR	FISH CONSUMPTION ADVISORY
86	NE-EL1-L0080	MASKENTHINE RESERVOIR	CHLOROPHYLL A
87	NE-EL1-L0080	MASKENTHINE RESERVOIR	TOTAL PHOSPHORUS
88	NE-EL1-L0080	MASKENTHINE RESERVOIR	TOTAL NITROGEN
89	NE-EL1-L0080	MASKENTHINE RESERVOIR	PH
90	NE-EL1-L0140	DEAD TIMBER LAKE	FISH CONSUMPTION ADVISORY
91	NE-EL2-10000	LOGAN CREEK	E. COLI
92	NE-EL2-20000	LOGAN CREEK	E. COLI
93	NE-EL2-20400	RATTLESNAKE CREEK	BIOLOGICAL INTEGRITY
94	NE-EL2-20800	SOUTH LOGAN CREEK	E. COLI
95	NE-EL2-40200	MIDDLE LOGAN CREEK	BIOLOGICAL INTEGRITY
96	NE-EL3-10000	NORTH FORK ELKHORN RIVER	E. COLI
97	NE-EL3-20200	WILLOW CREEK	E. COLI
98	NE-EL3-20400	DRY CREEK	E. COLI
99	NE-EL3-L0010	WILLOW CREEK RESERVOIR	TOTAL PHOSPHORUS
100	NE-EL3-L0010	WILLOW CREEK RESERVOIR	PH
101	NE-EL3-L0010	WILLOW CREEK RESERVOIR	TOTAL NITROGEN
102	NE-EL3-L0010	WILLOW CREEK RESERVOIR	CHLOROPHYLL A
103	NE-EL3-L0010	WILLOW CREEK RESERVOIR	ALGAL TOXINS
104	NE-EL4-10400	BATTLE CREEK	E. COLI
105	NE-EL4-11300	CEDAR CREEK	E. COLI
106	NE-EL4-20700	SOUTH FORK ELKHORN RIVER	E. COLI
107	NE-EL4-40000	ELKHORN RIVER	E. COLI
108	NE-EL4-40000	ELKHORN RIVER	PH (HIGH)
109	NE-EL4-L0020	SKYVIEW LAKE	CHLOROPHYLL A
110	NE-EL4-L0025	HORSESHOE BEND (TILDEN CITY LAKE)	E. COLI
111	NE-EL4-L0060	O'NEILL CITY LAKE	FISH CONSUMPTION ADVISORY
112	NE-LB1-L0010	BUCKLEY RESERVOIR (3F)	TOTAL NITROGEN
113	NE-LB1-L0010	BUCKLEY RESERVOIR (3F)	TOTAL PHOSPHORUS
114	NE-LB1-L0020	CRYSTAL SPRINGS NORTHWEST LAKE	CHLOROPHYLL A
115	NE-LB1-L0020	CRYSTAL SPRINGS NORTHWEST LAKE	TOTAL NITROGEN
116	NE-LB1-L0020	CRYSTAL SPRINGS NORTHWEST LAKE	TOTAL PHOSPHORUS

Count	WATER BODY ID	WATER BODY NAME	CAUSE
117	NE-LB1-L0020	CRYSTAL SPRINGS NORTHWEST LAKE	PH
118	NE-LB1-L0030	CRYSTAL SPRINGS CENTER LAKE	CHLOROPHYLL A
119	NE-LB1-L0030	CRYSTAL SPRINGS CENTER LAKE	PH
120	NE-LB1-L0030	CRYSTAL SPRINGS CENTER LAKE	TOTAL NITROGEN
121	NE-LB1-L0030	CRYSTAL SPRINGS CENTER LAKE	TOTAL PHOSPHORUS
122	NE-LB1-L0040	CRYSTAL SPRINGS EAST LAKE	CHLOROPHYLL A
123	NE-LB1-L0040	CRYSTAL SPRINGS EAST LAKE	E. COLI
124	NE-LB1-L0040	CRYSTAL SPRINGS EAST LAKE	TOTAL NITROGEN
125	NE-LB1-L0040	CRYSTAL SPRINGS EAST LAKE	TOTAL PHOSPHORUS
126	NE-LB2-10100	BIG SANDY CREEK	SELENIUM
127	NE-LB2-10200	BIG SANDY CREEK	FISH CONSUMPTION ADVISORY
128	NE-LB2-10500	SPRING CREEK	BIOLOGICAL INTEGRITY
129	NE-LB2-10600	SPRING CREEK	BIOLOGICAL INTEGRITY
130	NE-LB2-20000	LITTLE BLUE RIVER	SELENIUM
131	NE-LB2-L0010	ALEXANDRIA LAKE NO. 1&2	PH
132	NE-LB2-L0030	ALEXANDRIA LAKE NO. 3	CHLOROPHYLL A
133	NE-LB2-L0030	ALEXANDRIA LAKE NO. 3	PH
134	NE-LB2-L0030	ALEXANDRIA LAKE NO. 3	ALGAL TOXINS
135	NE-LB2-L0030	ALEXANDRIA LAKE NO. 3	TOTAL NITROGEN
136	NE-LB2-L0030	ALEXANDRIA LAKE NO. 3	TOTAL PHOSPHORUS
137	NE-LB2-L0050	LIBERTY COVE LAKE	CHLOROPHYLL A
138	NE-LB2-L0050	LIBERTY COVE LAKE	TOTAL NITROGEN
139	NE-LB2-L0050	LIBERTY COVE LAKE	TOTAL PHOSPHORUS
140	NE-LB2-L0050	LIBERTY COVE LAKE	FISH CONSUMPTION ADVISORY
141	NE-LB2-L0050	LIBERTY COVE LAKE	PH (HIGH)
142	NE-LB2-L0070	CRYSTAL LAKE (SRA)	CHLOROPHYLL A
143	NE-LB2-L0070	CRYSTAL LAKE (SRA)	TOTAL PHOSPHORUS
144	NE-LB2-L0070	CRYSTAL LAKE (SRA)	TOTAL NITROGEN
145	NE-LB2-L0070	CRYSTAL LAKE (SRA)	DISSOLVED OXYGEN
146	NE-LB2-L0070	CRYSTAL LAKE (SRA)	PH (HIGH)
147	NE-LB2-L0080	PRAIRIE LAKE (32-MILE H)	PH (HIGH)
148	NE-LO1-10600	BEAVER CREEK	E. COLI
149	NE-LO1-10700	BEAVER CREEK	E. COLI
150	NE-LO1-10700	BEAVER CREEK	BIOLOGICAL INTEGRITY
151	NE-LO1-20200	LOUP RIVER CANAL	E. COLI
152	NE-LO1-L0010	COLUMBUS CITY PARK POND	FISH CONSUMPTION ADVISORY
153	NE-LO1-L0130	PIBEL LAKE	CHLOROPHYLL A
154	NE-LO1-L0130	PIBEL LAKE	FISH CONSUMPTION ADVISORY
155	NE-LO1-L0130	PIBEL LAKE	TOTAL NITROGEN
156	NE-LO1-L0130	PIBEL LAKE	PH (HIGH)
157	NE-LO1-L0130	PIBEL LAKE	TOTAL PHOSPHORUS

Count	WATER BODY ID	WATER BODY NAME	CAUSE
158	NE-LO2-11300	CALAMUS RIVER	E. COLI
159	NE-LO2-11300	CALAMUS RIVER	TEMPERATURE
160	NE-LO2-L0010	NORTH LOUP LAKE (SRA)	FISH CONSUMPTION ADVISORY
161	NE-LO2-L0015	DAVIS CREEK RESERVOIR	TOTAL PHOSPHORUS
162	NE-LO2-L0015	DAVIS CREEK RESERVOIR	LOW DISSOLVED OXYGEN
163	NE-LO2-L0050	CALAMUS RESERVOIR	CHLOROPHYLL A
164	NE-LO2-L0050	CALAMUS RESERVOIR	PH (HIGH)
165	NE-LO2-L0050	CALAMUS RESERVOIR	TOTAL PHOSPHORUS
166	NE-LO2-L0050	CALAMUS RESERVOIR	TOTAL NITROGEN
167	NE-LO3-10200	TURKEY CREEK	ATRAZINE
168	NE-LO3-10400	OAK CREEK	BIOLOGICAL INTEGRITY
169	NE-LO3-70000	MIDDLE LOUP RIVER	E. COLI
170	NE-LO3-L0010	FARWELL SOUTH RESERVOIR	FISH CONSUMPTION ADVISORY
171	NE-LO3-L0020	SHERMAN RESERVOIR	FISH CONSUMPTION ADVISORY
172	NE-LO3-L0020	SHERMAN RESERVOIR	LOW DISSOLVED OXYGEN
173	NE-LO3-L0020	SHERMAN RESERVOIR	TOTAL PHOSPHORUS
174	NE-LO3-L0020	SHERMAN RESERVOIR	CHLOROPHYLL A
175	NE-LO4-10200	MUD CREEK	BIOLOGICAL INTEGRITY
176	NE-LO4-30000	SOUTH LOUP RIVER	E. COLI
177	NE-LO4-40000	SOUTH LOUP RIVER	E. COLI
178	NE-LO4-L0010	RAVENNA LAKE (SRA)	FISH CONSUMPTION ADVISORY
179	NE-LO4-L0030	ANSLEY CITY LAKE	CHLOROPHYLL A
180	NE-LO4-L0030	ANSLEY CITY LAKE	TOTAL NITROGEN
181	NE-LP1-10000	PLATTE RIVER	FISH CONSUMPTION ADVISORY
182	NE-LP1-10000	PLATTE RIVER	SELENIUM
183	NE-LP1-20600	SHELL CREEK	E. COLI
184	NE-LP1-20700	SHELL CREEK	SELENIUM
185	NE-LP1-20800	SHELL CREEK	BIOLOGICAL INTEGRITY
186	NE-LP1-L0060	JERRY NEWMAN LAKE (PLATTE RIVER STATE PARK)	TOTAL PHOSPHORUS
187	NE-LP1-L0060	JERRY NEWMAN LAKE (PLATTE RIVER STATE PARK)	CHLOROPHYLL A
188	NE-LP1-L0220	FREMONT LAKE NO. 18E (SRA)	CHLOROPHYLL A
189	NE-LP1-L0230	FREMONT LAKE NO. 17 (SRA)	TOTAL PHOSPHORUS
190	NE-LP1-L0230	FREMONT LAKE NO. 17 (SRA)	CHLOROPHYLL A
191	NE-LP1-L0230	FREMONT LAKE NO. 17 (SRA)	TOTAL NITROGEN
192	NE-LP1-L0230	FREMONT LAKE NO. 17 (SRA)	PH (HIGH)
193	NE-LP1-L0270	FREMONT LAKE NO. 16 (SRA)	TOTAL NITROGEN
194	NE-LP1-L0290	FREMONT LAKE NO. 1 (SRA)	FISH CONSUMPTION ADVISORY
195	NE-LP1-L0300	FREMONT LAKE NO. 2 (SRA)	TOTAL NITROGEN
196	NE-LP1-L0300	FREMONT LAKE NO. 2 (SRA)	PH
197	NE-LP1-L0310	FREMONT LAKE NO. 3 (SRA)	TOTAL NITROGEN

Count	WATER BODY ID	WATER BODY NAME	CAUSE
198	NE-LP1-L0320	FREMONT LAKE NO. 5 (SRA)	TOTAL NITROGEN
199	NE-LP1-L0330	FREMONT LAKE NO. 4 (SRA)	TOTAL NITROGEN
200	NE-LP1-L0350	FREMONT LAKE NO. 7 AND 8 (SRA)	TOTAL NITROGEN
201	NE-LP1-L0355	HOMESTEAD LAKE	TOTAL PHOSPHORUS
202	NE-LP1-L0355	HOMESTEAD LAKE	CHLOROPHYLL A
203	NE-LP1-L0355	HOMESTEAD LAKE	TOTAL NITROGEN
204	NE-LP1-L0440	LAKE NORTH	PH (HIGH)
205	NE-LP1-L0450	LAKE BABCOCK	E. COLI
206	NE-LP2-10000	SALT C REEK	SELENIUM
207	NE-LP2-10100	WAHOO CREEK	SELENIUM
208	NE-LP2-10110	CLEAR CREEK	E. COLI
209	NE-LP2-10121	JOHNSON CREEK	BIOLOGICAL INTEGRITY
210	NE-LP2-10210	COTTONWOOD CREEK	BIOLOGICAL INTEGRITY
211	NE-LP2-20000	SALT CREEK	BIOLOGICAL INTEGRITY
212	NE-LP2-20000	SALT CREEK	CHLORIDE
213	NE-LP2-20000	SALT CREEK	FISH CONSUMPTION ADVISORY
214	NE-LP2-20000	SALT CREEK	AMMONIA
215	NE-LP2-20300	LITTLE SALT CREEK	SELENIUM
216	NE-LP2-20300	LITTLE SALT CREEK	BIOLOGICAL INTEGRITY
217	NE-LP2-20300	LITTLE SALT CREEK	COPPER
218	NE-LP2-20400	DEAD MAN'S RUN	DISSOLVED OXYGEN
219	NE-LP2-20500	OAK CREEK	CHLORIDE
220	NE-LP2-20500	OAK CREEK	FISH CONSUMPTION ADVISORY
221	NE-LP2-20600	OAK CREEK	E. COLI
222	NE-LP2-20600	OAK CREEK	BIOLOGICAL INTEGRITY
223	NE-LP2-20710	MIDDLE OAK CREEK	ATRAZINE
224	NE-LP2-20800	OAK CREEK	ATRAZINE
225	NE-LP2-20900	ANTELOPE CREEK	COPPER
226	NE-LP2-20900	ANTELOPE CREEK	SELENIUM
227	NE-LP2-20900	ANTELOPE CREEK	DISSOLVED OXYGEN
228	NE-LP2-21500	BEAL SLOUGH	E. COLI
229	NE-LP2-21500	BEAL SLOUGH	PH (HIGH)
230	NE-LP2-30000	SALT CREEK	BIOLOGICAL INTEGRITY
231	NE-LP2-30100	CARDWELL BRANCH	E. COLI
232	NE-LP2-40300	OLIVE BRANCH	BIOLOGICAL INTEGRITY
233	NE-LP2-L0010	MEMPHIS LAKE (SRA)	FISH CONSUMPTION ADVISORY
234	NE-LP2-L0030	WAGON TRAIN LAKE	CHLOROPHYLL A
235	NE-LP2-L0030	WAGON TRAIN LAKE	FISH CONSUMPTION ADVISORY
236	NE-LP2-L0030	WAGON TRAIN LAKE	TOTAL NITROGEN
237	NE-LP2-L0050	STAGECOACH LAKE	SEDIMENT
238	NE-LP2-L0050	STAGECOACH LAKE	CHLOROPHYLL A

Count	WATER BODY ID	WATER BODY NAME	CAUSE
239	NE-LP2-L0050	STAGECOACH LAKE	FISH CONSUMPTION ADVISORY
240	NE-LP2-L0050	STAGECOACH LAKE	TOTAL PHOSPHORUS
241	NE-LP2-L0050	STAGECOACH LAKE	TOTAL NITROGEN
242	NE-LP2-L0060	OAK LAKE	LOW DISSOLVED OXYGEN
243	NE-LP2-L0110	BLUESTEM LAKE	FISH CONSUMPTION ADVISORY
244	NE-LP2-L0110	BLUESTEM LAKE	SEDIMENT
245	NE-LP2-L0110	BLUESTEM LAKE	TOTAL PHOSPHORUS
246	NE-LP2-L0110	BLUESTEM LAKE	CHLOROPHYLL A
247	NE-LP2-L0110	BLUESTEM LAKE	TOTAL NITROGEN
248	NE-LP2-L0120	WILDWOOD LAKE	TOTAL NITROGEN
249	NE-LP2-L0120	WILDWOOD LAKE	CHLOROPHYLL A
250	NE-LP2-L0120	WILDWOOD LAKE	TOTAL PHOSPHORUS
251	NE-LP2-L0120	WILDWOOD LAKE	FISH CONSUMPTION ADVISORY
252	NE-LP2-L0120	WILDWOOD LAKE	LOW DISSOLVED OXYGEN
253	NE-LP2-L0130	CONESTOGA LAKE	TOTAL NITROGEN
254	NE-LP2-L0130	CONESTOGA LAKE	CHLOROPHYLL A
255	NE-LP2-L0130	CONESTOGA LAKE	SEDIMENT
256	NE-LP2-L0130	CONESTOGA LAKE	TOTAL PHOSPHORUS
257	NE-LP2-L0140	OLIVE CREEK LAKE	AMMONIA
258	NE-LP2-L0140	OLIVE CREEK LAKE	TOTAL NITROGEN
259	NE-LP2-L0140	OLIVE CREEK LAKE	CHLOROPHYLL A
260	NE-LP2-L0140	OLIVE CREEK LAKE	TOTAL PHOSPHORUS
261	NE-LP2-L0140	OLIVE CREEK LAKE	PH (HIGH)
262	NE-LP2-L0150	BRANCHED OAK LAKE	TOTAL NITROGEN
263	NE-LP2-L0150	BRANCHED OAK LAKE	TOTAL PHOSPHORUS
264	NE-LP2-L0150	BRANCHED OAK LAKE	CHLOROPHYLL A
265	NE-LP2-L0160	PAWNEE LAKE	ALGAL TOXINS
266	NE-LP2-L0160	PAWNEE LAKE	TOTAL PHOSPHORUS
267	NE-LP2-L0160	PAWNEE LAKE	CHLOROPHYLL A
268	NE-LP2-L0160	PAWNEE LAKE	TOTAL NITROGEN
269	NE-LP2-L0170	MERGANSER LAKE (25A)	FISH CONSUMPTION ADVISORY
270	NE-LP2-L0240	EAST TWIN LAKE	CHLOROPHYLL A
271	NE-LP2-L0240	EAST TWIN LAKE	TOTAL NITROGEN
272	NE-LP2-L0240	EAST TWIN LAKE	TOTAL PHOSPHORUS
273	NE-LP2-L0260	WEST TWIN LAKE	TOTAL PHOSPHORUS
274	NE-LP2-L0260	WEST TWIN LAKE	TOTAL NITROGEN
275	NE-LP2-L0260	WEST TWIN LAKE	AMMONIA
276	NE-LP2-L0260	WEST TWIN LAKE	CHLOROPHYLL A
277	NE-LP2-L0270	CZECHLAND LAKE	CHLOROPHYLL A
278	NE-LP2-L0270	CZECHLAND LAKE	TOTAL PHOSPHORUS
279	NE-LP2-L0270	CZECHLAND LAKE	FISH CONSUMPTION ADVISORY

Count	WATER BODY ID	WATER BODY NAME	CAUSE
280	NE-LP2-L0270	CZECHLAND LAKE	PH
281	NE-LP2-L0270	CZECHLAND LAKE	TOTAL NITROGEN
282	NE-LP2-L0280	REDTAIL LAKE	TOTAL PHOSPHORUS
283	NE-LP2-L0280	REDTAIL LAKE	CHLOROPHYLL A
284	NE-MP1-10100	CLEAR CREEK	E. COLI
285	NE-MP1-10200	LOUP POWER CANAL	E. COLI
286	NE-MP1-20100	PRAIRIE CREEK	LOW DISSOLVED OXYGEN
287	NE-MP1-L0120	GRAND ISLAND DETENTION CELL	FISH CONSUMPTION ADVISORY
288	NE-MP2-10000	PLATTE RIVER	SELENIUM
289	NE-MP2-10000	PLATTE RIVER	E. COLI
290	NE-MP2-10200	WOOD RIVER	AMMONIA
291	NE-MP2-10200	WOOD RIVER	SELENIUM
292	NE-MP2-20300	SPRING CREEK	E. COLI
293	NE-MP2-30000	PLATTE RIVER	E. COLI
294	NE-MP2-L0040	GRAND ISLAND SUCHS LAKE	CHLOROPHYLL A
295	NE-MP2-L0040	GRAND ISLAND SUCHS LAKE	TOTAL NITROGEN
296	NE-MP2-L0040	GRAND ISLAND SUCHS LAKE	TOTAL PHOSPHORUS
297	NE-MP2-L0070	WEST MORMON ISLAND LAKE (SRA)	LOW DISSOLVED OXYGEN
298	NE-MP2-L0190	BASSWAY STRIP LAKE NO. 5 (WMA)	FISH CONSUMPTION ADVISORY
299	NE-MP2-L0230	BASSWAY STRIP LAKE NO. 1 (WMA)	PH (HIGH)
300	NE-MP2-L0240	BUFFLEHEAD LAKE (WMA)	PH (HIGH)
301	NE-MP2-L0320	KEA LAKE (WMA)	FISH CONSUMPTION ADVISORY
302	NE-MP2-L0360	COTTONMILL LAKE	FISH CONSUMPTION ADVISORY
303	NE-MP2-L0410	BLUE HOLE EAST LAKE (WMA)	TOTAL PHOSPHORUS
304	NE-MP2-L0410	BLUE HOLE EAST LAKE (WMA)	CHLOROPHYLL A
305	NE-MP2-L0410	BLUE HOLE EAST LAKE (WMA)	PH (HIGH)
306	NE-MP2-L0500	PHILLIPS LAKE	FISH CONSUMPTION ADVISORY
307	NE-MP2-L0520	JOHNSON LAKE	TOTAL PHOSPHORUS
308	NE-MP2-L0520	JOHNSON LAKE	CHLOROPHYLL A
309	NE-MP2-L0570	GALLAGHER CANYON RESERVOIR	TOTAL PHOSPHORUS
310	NE-MP2-L0580	COZAD LAKE (WMA)	PH (HIGH)
311	NE-MP2-L0650	LAKE HELEN	TOTAL NITROGEN
312	NE-MP2-L0650	LAKE HELEN	TOTAL PHOSPHORUS
313	NE-MP2-L0650	LAKE HELEN	PH
314	NE-MP2-XXXX	YANNEY PARK LAKE	FISH CONSUMPTION ADVISORY
315	NE-MT1-10100	PAPILLION CREEK	SELENIUM
316	NE-MT1-10111.1	COLE CREEK	LOW DISSOLVED OXYGEN
317	NE-MT1-10111.2	THOMAS CREEK	BIOLOGICAL INTEGRITY
318	NE-MT1-10210	WALNUT CREEK	BIOLOGICAL INTEGRITY
319	NE-MT1-10240	SOUTH PAPILLION CREEK	BIOLOGICAL INTEGRITY
320	NE-MT1-10250	WEST PAPILLION CREEK	FISH CONSUMPTION ADVISORY

Count	WATER BODY ID	WATER BODY NAME	CAUSE
321	NE-MT1-10252	NORTH BRANCH WEST PAPILLION CREEK	BIOLOGICAL INTEGRITY
322	NE-MT1-11510	SILVER CREEK	BIOLOGICAL INTEGRITY
323	NE-MT1-12000	OMAHA CREEK	E. COLI
324	NE-MT1-12150	NORTH OMAHA CREEK	BIOLOGICAL INTEGRITY
325	NE-MT1-L0010	OFFUTT LAKE	FISH CONSUMPTION ADVISORY
326	NE-MT1-L0023	HALLECK PARK (PAPILLION)	FISH CONSUMPTION ADVISORY
327	NE-MT1-L0025	WALNUT CREEK LAKE	FISH CONSUMPTION ADVISORY
328	NE-MT1-L0025	WALNUT CREEK LAKE	TOTAL PHOSPHORUS
329	NE-MT1-L0025	WALNUT CREEK LAKE	CHLOROPHYLL A
330	NE-MT1-L0025	WALNUT CREEK LAKE	TOTAL NITROGEN
331	NE-MT1-L0030	WEHRSPANN LAKE (SITE NO. 20)	FISH CONSUMPTION ADVISORY
332	NE-MT1-L0030	WEHRSPANN LAKE (SITE NO. 20)	TOTAL NITROGEN
333	NE-MT1-L0030	WEHRSPANN LAKE (SITE NO. 20)	CHLOROPHYLL A
334	NE-MT1-L0030	WEHRSPANN LAKE (SITE NO. 20)	TOTAL PHOSPHORUS
335	NE-MT1-L0040	HITCHCOCK PARK LAKE (OMAHA)	PH
336	NE-MT1-L0050	ED ZORINSKY LAKE (SITE NO. 18)	TOTAL PHOSPHORUS
337	NE-MT1-L0050	ED ZORINSKY LAKE (SITE NO. 18)	TOTAL NITROGEN
338	NE-MT1-L0050	ED ZORINSKY LAKE (SITE NO. 18)	CHLOROPHYLL A
339	NE-MT1-L0050	ED ZORINSKY LAKE (SITE NO. 18)	FISH CONSUMPTION ADVISORY
340	NE-MT1-L0090	CARTER LAKE (OMAHA)	FISH CONSUMPTION ADVISORY
341	NE-MT1-L0100	STANDING BEAR LAKE (SITE NO. 16)	TOTAL NITROGEN
342	NE-MT1-L0100	STANDING BEAR LAKE (SITE NO. 16)	FISH CONSUMPTION ADVISORY
343	NE-MT1-L0100	STANDING BEAR LAKE (SITE NO. 16)	CHLOROPHYLL A
344	NE-MT1-L0110	MILLER PARK LAKE (OMAHA)	PH
345	NE-MT1-L0150	SUMMIT LAKE	TOTAL PHOSPHORUS
346	NE-MT1-L0150	SUMMIT LAKE	CHLOROPHYLL A
347	NE-MT1-L0150	SUMMIT LAKE	TOTAL NITROGEN
348	NE-MT1-L0200	CRYSTAL COVE LAKE (SOUTH SIOUX CITY)	FISH CONSUMPTION ADVISORY
349	NE-MT1-LXXXX	CANDLEWOOD LAKE	SEDIMENT
350	NE-MT1-LXXXX	LAKE BENNINGTON	FISH CONSUMPTION ADVISORY
351	NE-MT2-10100	ELK CREEK	E. COLI
352	NE-MT2-10400	ELK CREEK	BIOLOGICAL INTEGRITY
353	NE-MT2-10500	AOWA CREEK	E. COLI
354	NE-MT2-10520	SOUTH CREEK	E. COLI
355	NE-MT2-10520	SOUTH CREEK	BIOLOGICAL INTEGRITY
356	NE-MT2-10521	DAILY BRANCH	E. COLI
357	NE-MT2-10530	SOUTH CREEK	E. COLI
358	NE-MT2-10540	SOUTH CREEK	BIOLOGICAL INTEGRITY
359	NE-MT2-11300	BOW CREEK	E. COLI

Count	WATER BODY ID	WATER BODY NAME	CAUSE
360	NE-MT2-11400	BOW CREEK	E. COLI
361	NE-MT2-11800	ANTELOPE CREEK	BIOLOGICAL INTEGRITY
362	NE-MT2-12400	BRAZILE CREEK	E. COLI
363	NE-MT2-12500	BRAZILE CREEK	E. COLI
364	NE-MT2-L0005	POWDER CREEK LAKE	TOTAL NITROGEN
365	NE-MT2-L0005	POWDER CREEK LAKE	CHLOROPHYLL A
366	NE-MT2-L0005	POWDER CREEK LAKE	TOTAL PHOSPHORUS
367	NE-MT2-L0010	BUCKSKIN HILLS LAKE	CHLOROPHYLL A
368	NE-MT2-L0010	BUCKSKIN HILLS LAKE	TOTAL PHOSPHORUS
369	NE-MT2-L0020	CHALKROCK LAKE	CHLOROPHYLL A
370	NE-MT2-L0020	CHALKROCK LAKE	TOTAL PHOSPHORUS
371	NE-MT2-L0020	CHALKROCK LAKE	TOTAL NITROGEN
372	NE-MT2-L0020	CHALKROCK LAKE	FISH CONSUMPTION ADVISORY
373	NE-MT2-L0040	LEWIS AND CLARK LAKE	CHLOROPHYLL A
374	NE-MT2-L0060	PLAINVIEW COUNTRY CLUB LAKE	E. COLI
375	NE-NE1-10200	WINNEBAGO CREEK	BIOLOGICAL INTEGRITY
376	NE-NE1-12310	UNNAMED CREEK	E. COLI
377	NE-NE1-12800	WEeping WATER CREEK	SELENIUM
378	NE-NE1-13000	WEeping WATER CREEK	E. COLI
379	NE-NE1-L0010	STEINHART PARK LAKE (NEBRASKA CITY)	FISH CONSUMPTION ADVISORY
380	NE-NE1-L0020	WEeping WATER CITY LAKE	FISH CONSUMPTION ADVISORY
381	NE-NE2-10000	BIG NEMAHA RIVER	BIOLOGICAL INTEGRITY
382	NE-NE2-10000	BIG NEMAHA RIVER	SELENIUM
383	NE-NE2-10600	MUDDY CREEK	BIOLOGICAL INTEGRITY
384	NE-NE2-10750	LITTLE MUDDY CREEK	E. COLI
385	NE-NE2-11200	PONY CREEK	E. COLI
386	NE-NE2-12132	JOHNSON CREEK	LOW DISSOLVED OXYGEN
387	NE-NE2-12200	NORTH FORK BIG NEMAHA RIVER	SELENIUM
388	NE-NE2-12330	LONG BRANCH CREEK	BIOLOGICAL INTEGRITY
389	NE-NE2-12610	MIDDLE BRANCH BIG NEMAHA RIVER	BIOLOGICAL INTEGRITY
390	NE-NE2-L0020	VERDON LAKE (SRA)	FISH CONSUMPTION ADVISORY
391	NE-NE2-L0040	KIRKMAN'S COVE LAKE	FISH CONSUMPTION ADVISORY
392	NE-NE2-L0040	KIRKMAN'S COVE LAKE	CHLOROPHYLL A
393	NE-NE2-L0040	KIRKMAN'S COVE LAKE	TOTAL NITROGEN
394	NE-NE2-L0040	KIRKMAN'S COVE LAKE	SEDIMENT
395	NE-NE2-L0040	KIRKMAN'S COVE LAKE	E. COLI
396	NE-NE2-L0080	PRAIRIE KNOLL LAKE (WMA)	FISH CONSUMPTION ADVISORY
397	NE-NE2-L0100	PAWNEE CITY LAKE	TOTAL NITROGEN
398	NE-NE2-L0100	PAWNEE CITY LAKE	CHLOROPHYLL A
399	NE-NE2-L0100	PAWNEE CITY LAKE	TOTAL PHOSPHORUS

Count	WATER BODY ID	WATER BODY NAME	CAUSE
400	NE-NE2-L0120	BURCHARD LAKE (WMA)	TOTAL NITROGEN
401	NE-NE2-L0120	BURCHARD LAKE (WMA)	CHLOROPHYLL A
402	NE-NE2-L0120	BURCHARD LAKE (WMA)	FISH CONSUMPTION ADVISORY
403	NE-NE2-L0120	BURCHARD LAKE (WMA)	TOTAL PHOSPHORUS
404	NE-NE2-LXXXX	MAYBERRY LAKE (WMA)	FISH CONSUMPTION ADVISORY
405	NE-NE3-10000	LITTLE NEMAHA RIVER	SELENIUM
406	NE-NE3-13100	NORTH FORK LITTLE NEMAHA RIVER	E. COLI
407	NE-NE3-20000	LITTLE NEMAHA RIVER	E. COLI
408	NE-NE3-20300	SOUTH FORK LITTLE NEMAHA RIVER	E. COLI
409	NE-NE3-30000	LITTLE NEMAHA RIVER	E. COLI
410	NE-NE3-L0030	PRAIRIE OWL LAKE	TOTAL PHOSPHORUS
411	NE-NI1-10100	PONCA CREEK	E. COLI
412	NE-NI1-10100	PONCA CREEK	SELENIUM
413	NE-NI2-10000	NIOBRARA RIVER	FISH CONSUMPTION ADVISORY
414	NE-NI2-10000	NIOBRARA RIVER	SELENIUM
415	NE-NI2-10100	VERDIGRE CREEK	E. COLI
416	NE-NI2-10100	VERDIGRE CREEK	BIOLOGICAL INTEGRITY
417	NE-NI2-10100	VERDIGRE CREEK	SELENIUM
418	NE-NI2-10320	EAST BRANCH VERDIGRE CREEK	E. COLI
419	NE-NI2-10800	STEEL CREEK	E. COLI
420	NE-NI2-11700	EAGLE CREEK	E. COLI
421	NE-NI2-L0060	GROVE LAKE (WMA)	TOTAL PHOSPHORUS
422	NE-NI2-L0060	GROVE LAKE (WMA)	PH (HIGH)
423	NE-NI2-L0060	GROVE LAKE (WMA)	CHLOROPHYLL A
424	NE-NI2-L0060	GROVE LAKE (WMA)	TOTAL NITROGEN
425	NE-NI3-10100	KEYA PAHA RIVER	E. COLI
426	NE-NI3-12220	BONE CREEK	E. COLI
427	NE-NI3-12400	LONG PINE CREEK	E. COLI
428	NE-NI3-L0070	CUB CREEK LAKE	TOTAL PHOSPHORUS
429	NE-NI3-L0070	CUB CREEK LAKE	CHLOROPHYLL A
430	NE-NI3-L0070	CUB CREEK LAKE	FISH CONSUMPTION ADVISORY
431	NE-NI3-L0070	CUB CREEK LAKE	TOTAL NITROGEN
432	NE-NI3-L0170	VALENTINE MILL POND	CHLOROPHYLL A
433	NE-NI3-L0170	VALENTINE MILL POND	FISH CONSUMPTION ADVISORY
434	NE-NI3-L0170	VALENTINE MILL POND	TOTAL PHOSPHORUS
435	NE-NI3-L0220	BIG ALKALI LAKE (WMA)	TOTAL NITROGEN
436	NE-NI3-L0220	BIG ALKALI LAKE (WMA)	TOTAL PHOSPHORUS
437	NE-NI3-L0220	BIG ALKALI LAKE (WMA)	CHLOROPHYLL A
438	NE-NI3-L0330	MERRITT RESERVOIR	PH (HIGH)
439	NE-NI3-L0330	MERRITT RESERVOIR	FISH CONSUMPTION ADVISORY

Count	WATER BODY ID	WATER BODY NAME	CAUSE
440	NE-NI3-L0330	MERRITT RESERVOIR	TOTAL NITROGEN
441	NE-NI3-L0330	MERRITT RESERVOIR	TOTAL PHOSPHORUS
442	NE-NI4-30000	NIOBRARA RIVER	E. COLI
443	NE-NI4-40000	NIOBRARA RIVER	E. COLI
444	NE-NI4-L0010	COTTONWOOD LAKE (SRA)	FISH CONSUMPTION ADVISORY
445	NE-NI4-L0020	SHELL LAKE	FISH CONSUMPTION ADVISORY
446	NE-NI4-L0050	WALGREN LAKE (SRA)	FISH CONSUMPTION ADVISORY
447	NE-NI4-L0080	BOX BUTTE RESERVOIR	PH
448	NE-NI4-L0080	BOX BUTTE RESERVOIR	FISH CONSUMPTION ADVISORY
449	NE-NI4-L0090	KILPATRICK LAKE	PH (HIGH)
450	NE-NP1-10000	NORTH PLATTE RIVER	FISH CONSUMPTION ADVISORY
451	NE-NP1-30900	WHITETAIL CREEK	E. COLI
452	NE-NP2-10800	BLUE CREEK	SELENIUM
453	NE-NP2-12100	LOWER DUGOUT CREEK	BIOLOGICAL INTEGRITY
454	NE-NP2-L0010	LAKE C. W. MCCONAUGHY	CHLOROPHYLL A
455	NE-NP2-L0010	LAKE C. W. MCCONAUGHY	TOTAL PHOSPHORUS
456	NE-NP2-L0010	LAKE C. W. MCCONAUGHY	FISH CONSUMPTION ADVISORY
457	NE-NP2-L0110	ISLAND LAKE (CRESCENT LAKE NWR)	FISH CONSUMPTION ADVISORY
458	NE-NP2-L0290	SMITH LAKE (CRESCENT LAKE NWR)	FISH CONSUMPTION ADVISORY
459	NE-NP2-L0300	BORDER LAKE (CRESCENT LAKE NWR)	LOW DISSOLVED OXYGEN
460	NE-NP2-LXXXX	CRESCENT LAKE	FISH CONSUMPTION ADVISORY
461	NE-NP2-LXXXX	MORRILL SANDPIT (SOUTHWEST)	FISH CONSUMPTION ADVISORY
462	NE-NP2-LXXXX	MORRILL SANDPIT (NORTH)	FISH CONSUMPTION ADVISORY
463	NE-NP3-10000	NORTH PLATTE RIVER	FISH CONSUMPTION ADVISORY
464	NE-NP3-10100	PUMPKIN CREEK	SELENIUM
465	NE-NP3-10100	PUMPKIN CREEK	LOW DISSOLVED OXYGEN
466	NE-NP3-10600	UPPER DUGOUT CREEK	BIOLOGICAL INTEGRITY
467	NE-NP3-12000	NINEMILE CREEK	DISSOLVED OXYGEN
468	NE-NP3-12600	WINTERS CREEK	SELENIUM
469	NE-NP3-L0030	BRIDGEPORT MIDDLE LAKE (SRA)	FISH CONSUMPTION ADVISORY
470	NE-NP3-L0060	LAKE MINATARE (NORTH PLATTE NWR)	LOW DISSOLVED OXYGEN
471	NE-NP3-L0060	LAKE MINATARE (NORTH PLATTE NWR)	TOTAL PHOSPHORUS
472	NE-NP3-L0080	COCHRAN LAKE	PH (HIGH)
473	NE-RE1-10200	LOST CREEK	LOW DISSOLVED OXYGEN
474	NE-RE1-10200	LOST CREEK	E. COLI
475	NE-RE1-20300	COURTLAND CANAL	E. COLI
476	NE-RE1-30000	REPUBLICAN RIVER	E. COLI
477	NE-RE1-30100	ELM CREEK	BIOLOGICAL INTEGRITY
478	NE-RE1-31200	THOMPSON CREEK	E. COLI

Count	WATER BODY ID	WATER BODY NAME	CAUSE
479	NE-RE1-40000	REPUBLICAN RIVER	E. COLI
480	NE-RE1-50000	REPUBLICAN RIVER	ATRAZINE
481	NE-RE1-50000	REPUBLICAN RIVER	E. COLI
482	NE-RE1-50000	REPUBLICAN RIVER	LOW DISSOLVED OXYGEN
483	NE-RE1-L0040	HOLDREGE PARK LAKE	PH (HIGH)
484	NE-RE1-L0040	HOLDREGE PARK LAKE	FISH CONSUMPTION ADVISORY
485	NE-RE1-LXXXX	FRENCHMAN WMA LAKE	FISH CONSUMPTION ADVISORY
486	NE-RE2-10000	REPUBLICAN RIVER	SELENIUM
487	NE-RE2-10100	METHODIST CREEK	E. COLI
488	NE-RE2-10200	COOK CREEK	E. COLI
489	NE-RE2-10300	PRAIRIE DOG CREEK	E. COLI
490	NE-RE2-10600	SAPPA CREEK	SELENIUM
491	NE-RE2-10610	BEAVER CREEK	LOW DISSOLVED OXYGEN
492	NE-RE2-10610	BEAVER CREEK	E. COLI
493	NE-RE2-10900	SPRING CREEK	BIOLOGICAL INTEGRITY
494	NE-RE2-11400	MUDDY CREEK	FISH CONSUMPTION ADVISORY
495	NE-RE2-L0010	HARLAN COUNTY RESERVOIR	TOTAL NITROGEN
496	NE-RE2-L0010	HARLAN COUNTY RESERVOIR	TOTAL PHOSPHORUS
497	NE-RE2-L0020	OXFORD CITY LAKE	ALGAL BLOOMS
498	NE-RE3-10000	REPUBLICAN RIVER	SELENIUM
499	NE-RE3-10100	MEDICINE CREEK	LOW DISSOLVED OXYGEN
500	NE-RE3-10200	MEDICINE CREEK	E. COLI
501	NE-RE3-10300	MEDICINE CREEK	E. COLI
502	NE-RE3-10400	MEDICINE CREEK	E. COLI
503	NE-RE3-10500	RED WILLOW CREEK	E. COLI
504	NE-RE3-10600	RED WILLOW CREEK	E. COLI
505	NE-RE3-10600	RED WILLOW CREEK	BIOLOGICAL INTEGRITY
506	NE-RE3-20000	REPUBLICAN RIVER	E. COLI
507	NE-RE3-20000	REPUBLICAN RIVER	LOW DISSOLVED OXYGEN
508	NE-RE3-20200	FRENCHMAN CREEK	SELENIUM
509	NE-RE3-20200	FRENCHMAN CREEK	E. COLI
510	NE-RE3-20220	STINKING WATER CREEK	E. COLI
511	NE-RE3-20400	FRENCHMAN CREEK	E. COLI
512	NE-RE3-40000	REPUBLICAN RIVER	E. COLI
513	NE-RE3-40500	SOUTH FORK REPUBLICAN RIVER	E. COLI
514	NE-RE3-50000	REPUBLICAN RIVER	E. COLI
515	NE-RE3-50300	NORTH FORK REPUBLICAN RIVER	E. COLI
516	NE-RE3-50400	ARIKAREE RIVER	E. COLI
517	NE-RE3-L0010	HARRY STRUNK LAKE (MEDICINE CREEK RESERVOIR)	TOTAL NITROGEN
518	NE-RE3-L0010	HARRY STRUNK LAKE (MEDICINE CREEK RESERVOIR)	TOTAL PHOSPHORUS

Count	WATER BODY ID	WATER BODY NAME	CAUSE
519	NE-RE3-L0010	HARRY STRUNK LAKE (MEDICINE CREEK RESERVOIR)	CHLOROPHYLL A
520	NE-RE3-L0020	BARTLEY DIVERSION DAM LAKE (WMA)	E. COLI
521	NE-RE3-L0050	BARNETT PARK LAKE (MCCOOK)	CONDUCTIVITY
522	NE-RE3-L0060	HUGH BUTLER LAKE (RED WILLOW RESERVOIR)	FISH CONSUMPTION ADVISORY
523	NE-RE3-L0060	HUGH BUTLER LAKE (RED WILLOW RESERVOIR)	TOTAL PHOSPHORUS
524	NE-RE3-L0060	HUGH BUTLER LAKE (RED WILLOW RESERVOIR)	DISSOLVED OXYGEN
525	NE-RE3-L0070	WELLFLEET LAKE	LOW DISSOLVED OXYGEN
526	NE-RE3-L0080	CAMP HAYES LAKE (WMA)	CHLOROPHYLL A
527	NE-RE3-L0090	SWANSON RESERVOIR	TOTAL PHOSPHORUS
528	NE-RE3-L0090	SWANSON RESERVOIR	TOTAL NITROGEN
529	NE-RE3-L0090	SWANSON RESERVOIR	CHLOROPHYLL A
530	NE-RE3-L0100	ENDERS RESERVOIR	FISH CONSUMPTION ADVISORY
531	NE-RE3-L0100	ENDERS RESERVOIR	CHLOROPHYLL A
532	NE-RE3-L0120	ROCK CREEK LAKE (SRA)	FISH CONSUMPTION ADVISORY
533	NE-SP1-10000	SOUTH PLATTE RIVER	FISH CONSUMPTION ADVISORY
534	NE-SP1-10500	OUTLET CANAL	FISH CONSUMPTION ADVISORY
535	NE-SP1-10600	OUTLET CANAL	FISH CONSUMPTION ADVISORY
536	NE-SP1-20000	SOUTH PLATTE RIVER	SELENIUM
537	NE-SP1-80000	SOUTH PLATTE RIVER	CONDUCTIVITY
538	NE-SP1-90000	SOUTH PLATTE RIVER	CONDUCTIVITY
539	NE-SP1-90000	SOUTH PLATTE RIVER	SELENIUM
540	NE-SP1-L0010	INTERSTATE LAKE (NORTH PLATTE)	FISH CONSUMPTION ADVISORY
541	NE-SP1-L0020	LAKE MALONEY	CHLOROPHYLL A
542	NE-SP1-L0020	LAKE MALONEY	TOTAL PHOSPHORUS
543	NE-SP1-L0030	BIRDWOOD LAKE (WMA)	FISH CONSUMPTION ADVISORY
544	NE-SP1-L0040	EAST HERSHEY LAKE (WMA)	FISH CONSUMPTION ADVISORY
545	NE-SP1-L0050	HERSHEY LAKE (WMA)	PH (HIGH)
546	NE-SP1-L0050	HERSHEY LAKE (WMA)	FISH CONSUMPTION ADVISORY
547	NE-SP1-L0070	EAST SUTHERLAND LAKE (WMA)	FISH CONSUMPTION ADVISORY
548	NE-SP1-L0080	SUTHERLAND RESERVOIR	FISH CONSUMPTION ADVISORY
549	NE-SP1-L0090	OGALLALA CITY PARK LAKE	FISH CONSUMPTION ADVISORY
550	NE-SP1-L0100	GOLDENEYE POND (WMA)	CONDUCTIVITY
551	NE-SP1-LXXXX	SUTHERLAND COOLING POND	FISH CONSUMPTION ADVISORY
552	NE-SP2-10000	LODGEPOLE CREEK	BIOLOGICAL INTEGRITY
553	NE-SP2-10000	LODGEPOLE CREEK	SELENIUM
554	NE-SP2-20000	LODGEPOLE CREEK	BIOLOGICAL INTEGRITY
555	NE-SP2-50000	LODGEPOLE CREEK	LOW DISSOLVED OXYGEN
556	NE-SP2-50000	LODGEPOLE CREEK	SELENIUM

Count	WATER BODY ID	WATER BODY NAME	CAUSE
557	NE-SP2-L0010	CHAPPELL INTERSTATE LAKE	FISH CONSUMPTION ADVISORY
558	NE-SP2-L0010	CHAPPELL INTERSTATE LAKE	PH
559	NE-SP2-L0030	OLIVER RESERVOIR	TOTAL PHOSPHORUS
560	NE-SP2-L0030	OLIVER RESERVOIR	DISSOLVED OXYGEN
561	NE-SP2-L0030	OLIVER RESERVOIR	TOTAL NITROGEN
562	NE-SP2-L0030	OLIVER RESERVOIR	CHLOROPHYLL A
563	NE-WH1-10420	LARABEE CREEK	BIOLOGICAL INTEGRITY
564	NE-WH1-11300	CHADRON CREEK	E. COLI
565	NE-WH1-11820	WEST ASH CREEK	E. COLI
566	NE-WH1-20000	WHITE RIVER	SELENIUM
567	NE-WH1-20100	WHITE CLAY CREEK	E. COLI
568	NE-WH1-20310	MIDDLE FORK SOLDIER CREEK	BIOLOGICAL INTEGRITY
569	NE-WH1-30000	WHITE RIVER	E. COLI
570	NE-WH1-L0010	ISHAM LAKE	PH (HIGH)
571	NE-WH1-L0010	ISHAM LAKE	FISH CONSUMPTION ADVISORY
572	NE-WH1-L0060	WHITNEY RESERVOIR	FISH CONSUMPTION ADVISORY
573	NE-WH1-L0170	GRABEL POND NO 5 (FT. ROBINSON STATE PARK)	FISH CONSUMPTION ADVISORY
574	NE-WH1-L0180	BOARDGATE POND	PH (HIGH)
575	NE-WH1-L0200	LAKE CARTER P. JOHNSON (FT. ROBINSON STATE PARK)	PH (HIGH)
576	NE-WH1-L0200	LAKE CARTER P. JOHNSON (FT. ROBINSON STATE PARK)	FISH CONSUMPTION ADVISORY
577	NE-WH2-L0020	AGATE POND	PH (HIGH)
578	NE-WH2-L0030	MENG LAKE	PH
579	NE-WH2-L0030	MENG LAKE	TOTAL PHOSPHORUS
580	NE-WH2-L0030	MENG LAKE	CONDUCTIVITY

Appendix A

**Section 303(d) Delisting Analysis for Waters in the Salt Creek
Basin Impaired by Chloride**

U.S. Environmental Protection Agency

April 2014

Introduction

In its 2014 Water Quality Integrated Report, the Nebraska Department of Environmental Quality proposed delisting three water body segments in the Salt Creek Sub-basin (Lower Platte River Basin) as impaired by excessive chloride (Figure 1). Initially, the water bodies were included in category 2 – waters meeting at least one designated use. An EPA review has determined that while the state’s conclusion is correct, the state used a non-EPA approved water quality standard in its analysis. The purpose of this document is to provide the information necessary to document a natural condition of the proposed delisted segments in the Salt Creek watershed and to support the conclusion that these water body segments do not need a TMDL prepared for the chloride pollutant.

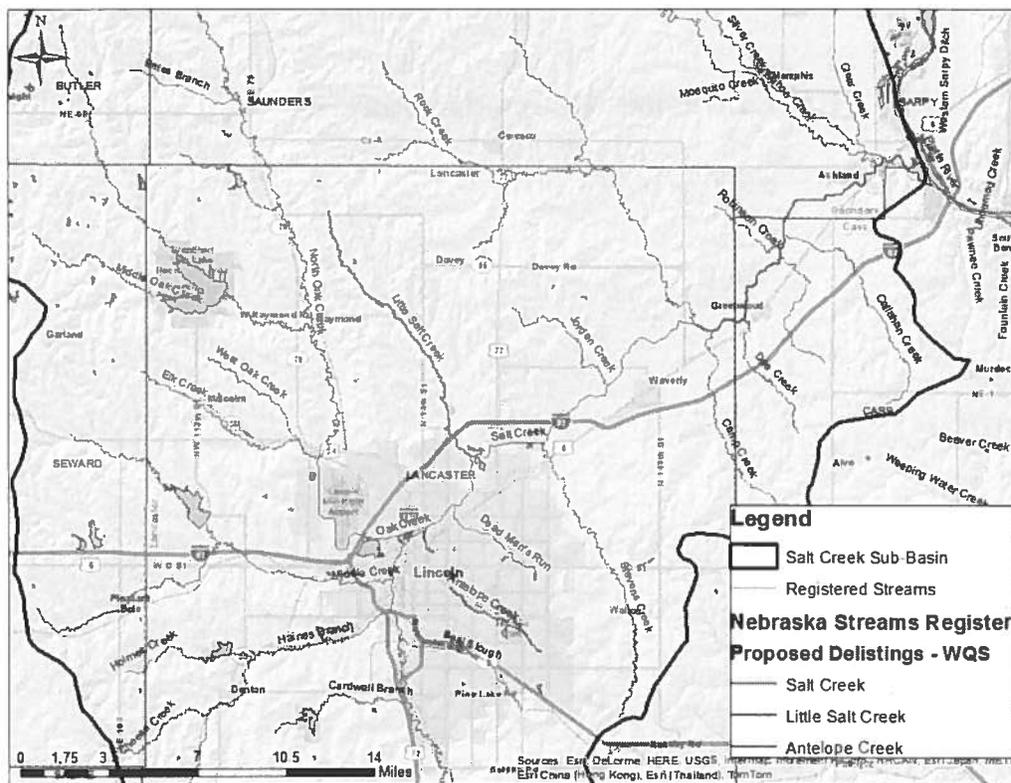


Figure 1 Chloride Impaired Segments proposed for delisting in the Salt Creek Sub-basin (Lower Platte River Basin).

Justification for Delisting Decision

Historic Salt Marsh References

Some of the earliest mentions of salt marshes in the Salt Creek sub-basin come from a collection of early settler’s accounts where a 1796 map, attributed to early Spanish explorers, outlining their existence is mentioned by Mr. Albert L. Green (Sogard and Verougstraete, 2001). In their History of Lincoln, Hays and Cox (1889) also describe the presence of salt marshes in the Salt Creek sub-basin. In Farrar and Gersib (1991), the authors present historical accounts from early settlers to the Salt Creek sub-basin that describe an extensive number of briny springs in addition to a large salt lake located in what is now northwest Lincoln. They also cite the first annual report for the Nebraska territory which describes a salt spring originating in sandstone. This is today referred to as the Dakota Sandstone formation. Other accounts described the ground being covered by a layer of salt. An 1857 government survey was cited

Appendix A.

which identified the region as a source for salt used by early explorers and the Indians in the area. There were early attempts to commercially exploit the salt which subsided as more easily exploited sources of salt in Kansas and transport by rail made those ventures no longer economically viable. This resource goes on to document the history of the salt marshes as the city of Lincoln grew and agricultural production developed in the area.

In addition, the state of Nebraska has an updated map of native vegetation in Nebraska from circa 1850 (Kaul, R.B. and Rolfsmeier, 1993). This data was plotted in the sub-basin to show the original extent of the salt marshes (Figure 2).

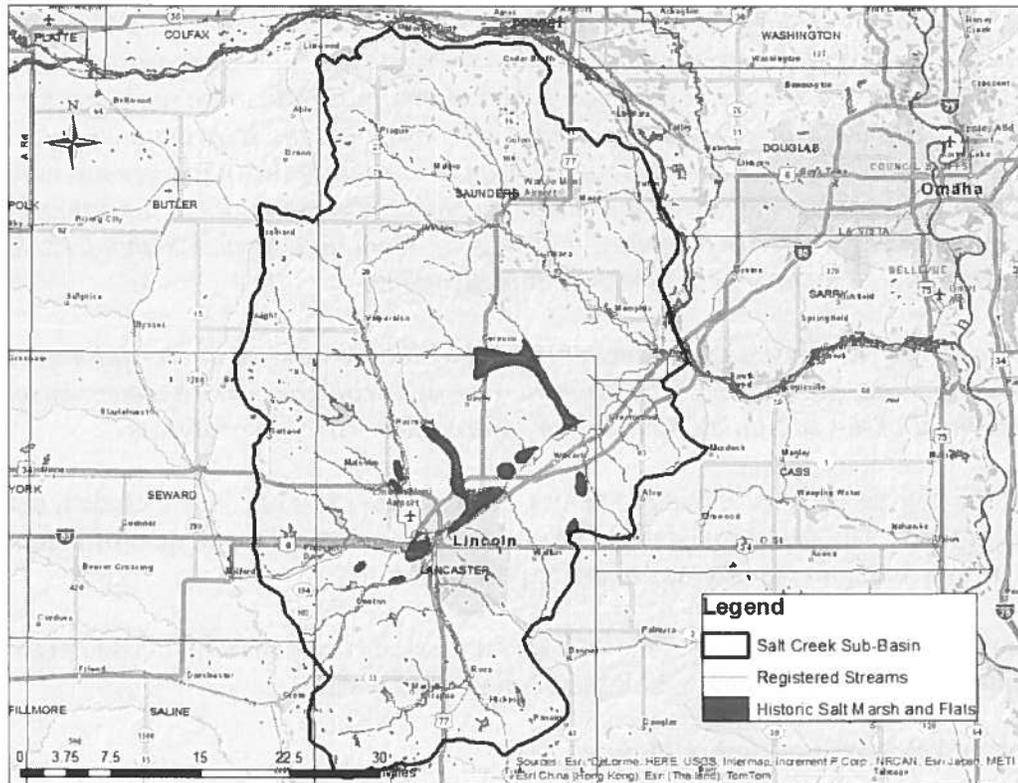


Figure 2 Extent of native salt marshes (<http://snr.unl.edu/data/geographygis/NebrGISland.asp>)

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.”

Title 117 of the Nebraska Surface Water Quality Standards (Title 117) does include a definition of natural background. The definition states: “natural background shall mean quantifiable measurements of water quality existing in the absence of water pollution.”

Water pollution in turn is defined by Title 117 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 even though the parameter exceedance is not the result of a pollution source. Because of these, the *“Methodologies for Waterbody Assessments and Development of the 2014 Integrated Report for Nebraska”*, as well as the 2004-06 versions included a category for placement and identification of these types of water bodies. Consistent with the EPA guidance, Category 4C would be 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 methodology do not contain specific implementation language for the use or identification of natural background. It has been the NDEQ’s intent in the past to address situations

independently as the circumstances differ given the diverse nature of Nebraska’s geology, land use, water policies and climate.

Water Quality Data

As indicated, the 2012 Integrated Report included five water body segments as impaired by excessive chloride (Figure 1). A summary of the assessments can be found in Table 1 and box plots of stream chloride data can be found in Figure 3. The assessments and subsequent impairment status were based on the comparison to the aquatic life beneficial use and the chronic water quality criterion of 230 mg/L chloride. The remaining water body segments in the sub-basin are not impaired or not monitored and analyses have not detected chloride in any samples at concentrations that lead to an impaired assessment. Figure 4 provides a comparison of the data from impaired versus non-impaired segments as identified in the 2012 Nebraska Section 303(d) List.

Table 1 Water Quality Data Assessments of Selenium Impaired Elkhorn River Basin Segments

Water body ID	Water body Name	Data Period of Record	Number of Observations	Number >230 mg/l	Maximum Value (mg/l)
LP2-10000	SALT CREEK	2003-2012	171	161	2546
LP2-20000	SALT CREEK	1994-2013	309	292	2800
LP2-20300	LITTLE SALT CREEK	1995-2012	162	160	11200
LP2-20500	OAK CREEK	1995-2004	26	25	1600
LP2-20900	ANTELOPE CREEK	1995-2012	173	154	6352

This delisting justification is only applicable to the specified water bodies in the Lower Platte River Sub-basin (LP2) where the state has proposed delisting based on the non-approved criterion. These segments are shown in Figure 1 and include Salt Creek (LP2-10000), Little Salt Creek (LP2-20300) and Antelope Creek (LP2-20900).

Historic data and information was retrieved from the United States Geological Survey (USGS) and the NDEQ for comparison to the currently assessed information. Four sites/sources of long term information were located in the USGS data base; three are NDEQ ambient stream locations and one is downstream stream of a NDEQ ambient site. The sites are as follows:

- Antelope Creek at State Fair Park in Lincoln, NE (NDEQ)
- Little Salt Creek North of Lincoln, NE (NDEQ)
- Salt Creek at Pioneers Boulevard in Lincoln, NE (NDEQ and USGS)
- Salt Creek below Stevens Creek near Waverly, NE (USGS)

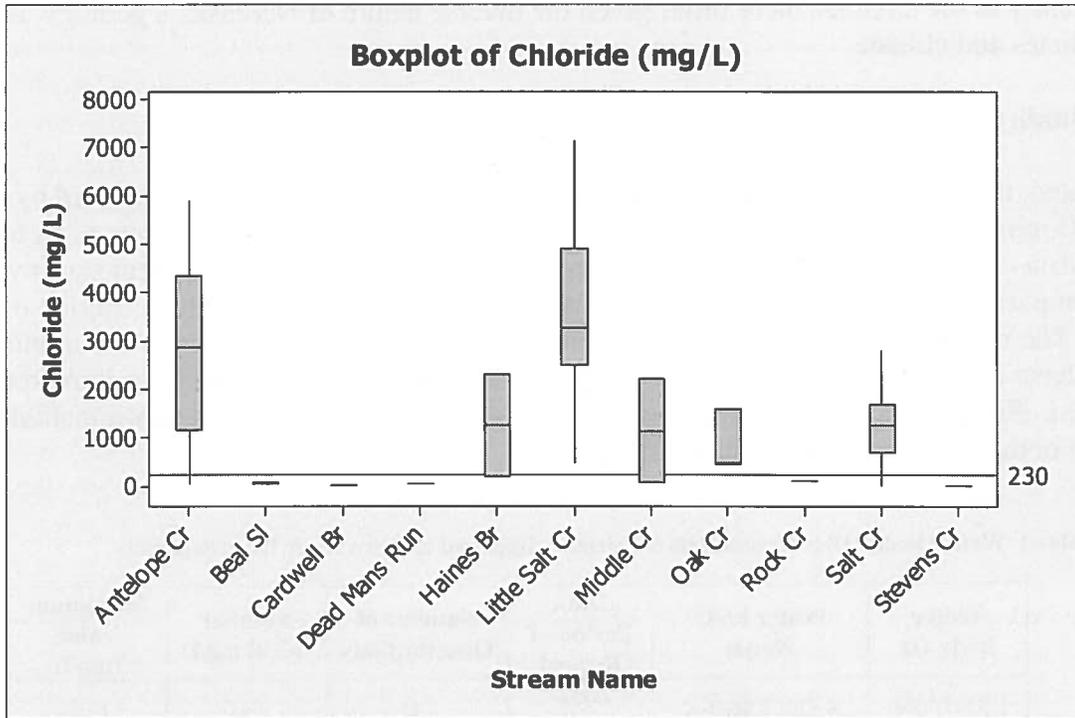


Figure 3 Box plots of the Salt Creek Sub-basin Waters Chloride Concentrations

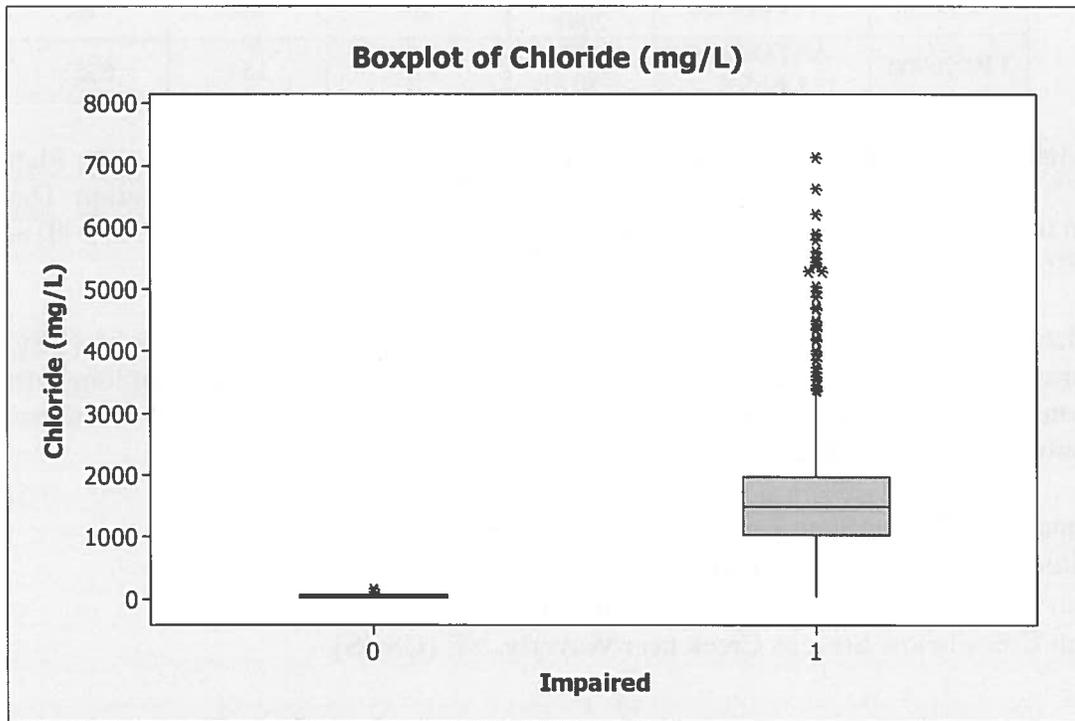


Figure 4 Salt Creek Sub-basin Impaired (1) vs. Non-impaired (0) Stream Chloride Concentrations

These data are used to illustrate long-term chloride conditions in the Salt Creek watershed. The period of record for the data examined from the Salt Creek sites is 1974 – 2013 (<http://www.waterqualitydata.us/>). This data set contains 654 observations and is shown as box plots by year over the period (Figure 5).

Geologic Considerations

Chloride in surface and ground water can be ascribed to both natural and human sources. Natural sources include weathering of natural rocks and mineral sources; while human sources include human, agricultural and industrial treatment facilities, snow and ice road treatments, landfill leachate, and irrigation wastewater (Mullaney et al., 2009). The Salt Creek watershed in Nebraska exhibits several features associated with natural sources of chloride at concentrations far above those expected from human-induced sources.

Groundwater passing through Dakota Sandstone (Figure 6) results in high concentration of salts (Clausen et al., 1989 and Harvey et al., 2007). Where the Dakota group is near the land surface, the groundwater is of the sodium chloride type (Kister and Mundorff, 1963). The water located within the general area of Lincoln, Nebraska is from the sodium chloride source Dakota group and contains chloride concentrations of over 1000 mg/L; while the southern half of the basin has calcium bicarbonate type groundwater with much lower chloride concentrations (Kister and Mundorff, 1963). These same conditions were shown to exist in the lower Little Salt Creek valley, Haines Branch and Oak Creek (Kister and Mundorff, 1963). This leads to the formation of what is called the eastern saline marshes of Lancaster County, Nebraska. While most of these original marshes have been drained or destroyed (Figure 2), those that remain lead to the saline waters found in the Salt Creek sub-basin.

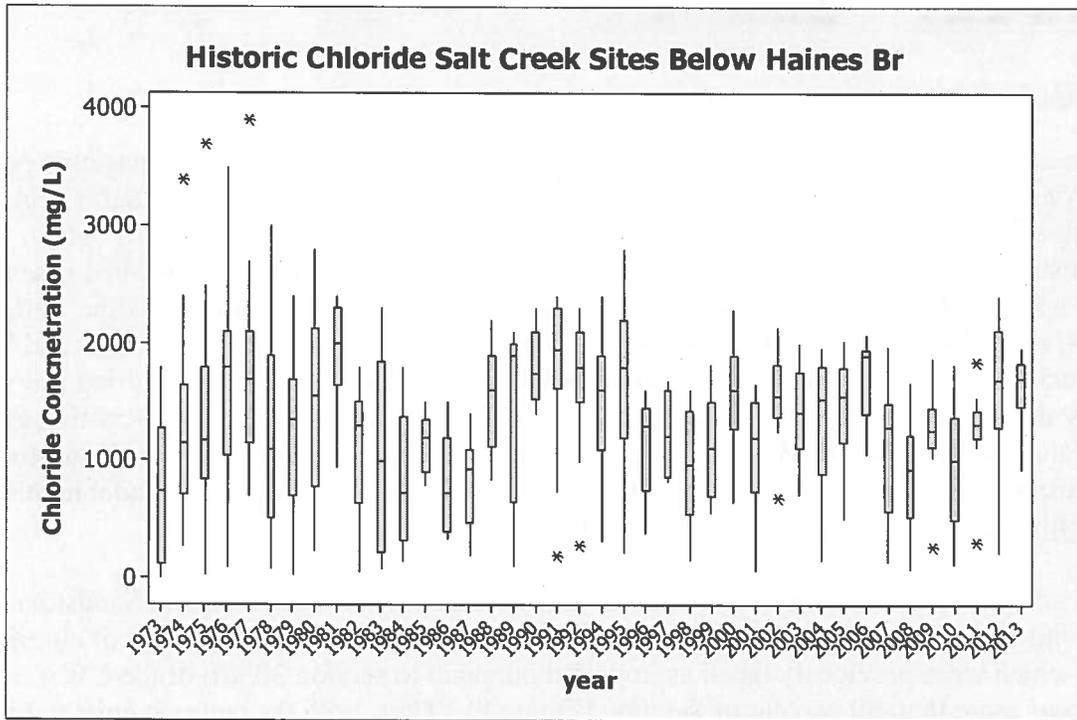


Figure 5 1974-2013 Chloride Data from historical record

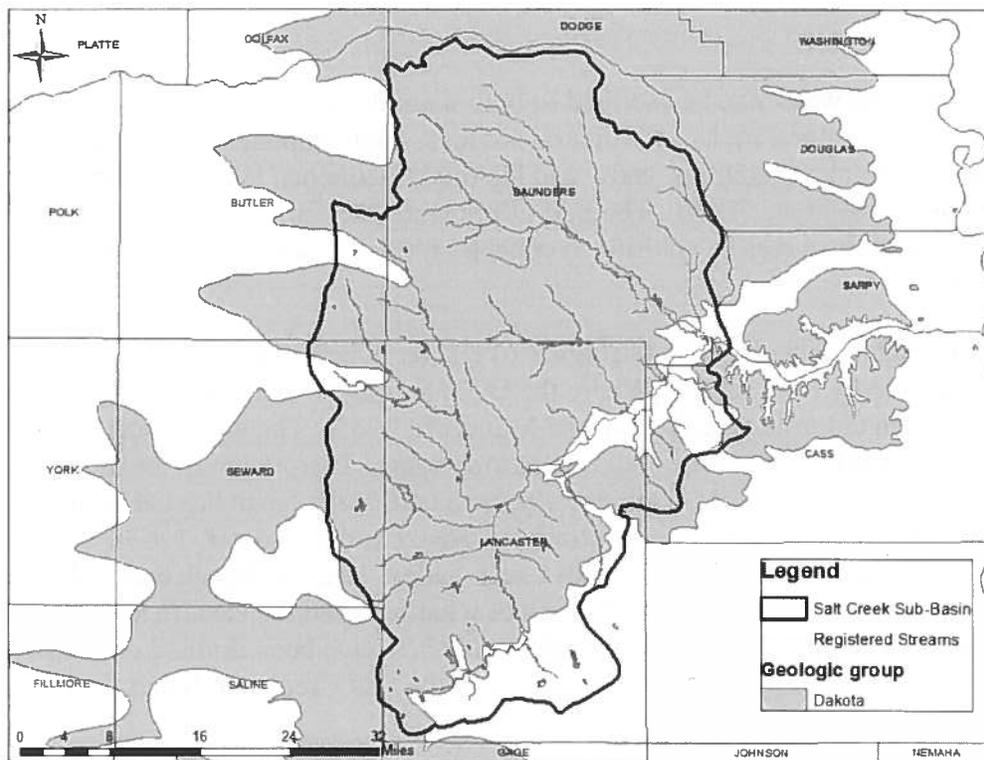


Figure 6 Extent of Dakota Sandstone

In most cases, naturally occurring levels of chloride in forested land in northern glaciated portion of the US rarely exceed 50 mg/L (Mullaney et al., 2009). In some upper portions of the Salt Creek sub-basin in Nebraska, existing surface water quality sample results are generally at this level or below. However, sample results from some segments downstream in the basin tend to increase, in some cases reaching levels of a few thousands of mg/L (Figure 3). This is to be expected as remnant saline wetlands exist in the area (Lower Platte South Natural Resources District brochure, undated and Gilbert and Stutheit, 1994). Such localized deposits would be expected to supply chloride to streams during runoff and/or base flow depending on the connectedness between the wetlands and the stream. Existing ground water quality data from the USGS indicates that ground water samples from the Salt Creek sub-basin exhibit median dissolved chloride of 14 mg/L (USGS ground water data for Nebraska available online at: <http://groundwaterwatch.usgs.gov/StateMaps.asp?sc=31>).

The near surface bedrock in the lower portion of the basin consists of the Dakota Sandstone formation (Gilbert and Stutheit, 1994). It is illustrative to note that the highest concentrations of chloride in these streams, which were previously listed as impaired pursuant to section 303(d) of the CWA, occur at flows which occur more than 80 percent of the time (Figure 8). Thus, both the bedrock units (which can supply some baseflow to streams) and the surficial sediments (over which runoff flows) are likely to exhibit elevated chloride concentrations as compared to the other portions of the basin. Comparing chloride:bromide ratios between high and low concentrations of chloride in surface and ground water can provide a line of evidence for the source of high concentrations of chloride (Panno et al., 2005). Examining groundwater and surface water data from the 1950s when both chloride and bromide was analyzed in samples, the median ratios were similar for both high chloride and low chloride concentrations (Table 2). It is therefore reasonable to conclude that the cause of chloride impairment in

the segments proposed for delisting is derived from naturally occurring bedrock, soil, and saline wetlands.

Table 2 Investigation of Chloride:Bromide Ratios by water source.

Classification	Cl:Br Ratio*	Number of samples
Impaired surface water segments	2720	5
Non-impaired surface water segments	200	5
Groundwater Chloride > 230mg/L	3727	8
Groundwater Chloride < 230mg/L	77	3

*data from Krister and Mundorff, 1946

Biotic Considerations

Ducey (1987) examined the biological features of the eastern salt marshes in Lancaster County, Nebraska. He documented the remaining wetlands, soil series, habitat types and plant species associated with salt marshes. He also referenced Elmore (1921) which identified the collection of diatoms species specific to saline environments. The area is also considered as critical habitat for the endangered species Salt Creek Tiger Beetle (<http://www.fws.gov/mountain-prairie/species/invertebrates/saltcreektiger/>). Specifically, the critical habitat for this species includes areas along the Little Salt Creek, and Rock Creek. This species is endemic to this area of Lancaster County, Nebraska (Carter 1989).

With the expansive collection of biota from plants through animals that are found in the sub-basin requiring saline environments, it is reasonable to conclude that the saline conditions of the eastern salt marshes in Lancaster County are natural.

Anthropogenic Sources

Wastewater Treatment

Sample results for the Lincoln Northeast Wastewater Treatment Plant, which discharges to Salt Creek, show concentrations of chloride in the treated effluent of 130-140 mg/L. This concentration is well below the chronic aquatic life criterion in the state's EPA-approved water quality standards. This effluent also had no significant effect on the chloride concentration in Salt Creek when upstream and downstream data were reviewed. A typical level of chloride in municipal wastewater effluent is around 100 mg/L (Mullaney et al., 2009). Since the greatest impact of this potential source of chloride is during base flow conditions, and the observed base flow concentrations are greater than 10-fold higher than would be expected from this source, it is unlikely that wastewater is the cause of elevated chloride in Salt Creek. In fact, effluent from the wastewater treatment plant seems to provide dilution of the background chloride concentrations in the stream.

Deicing Use

During forecast snow or ice weather conditions, the city of Lincoln pretreats its roads with salt brine and uses rock salt for deicing (<http://lincoln.ne.gov/city/pworks/engine/traffic/snow/topten.htm>). The pretreatment reduces the amount of rock salt typically needed for deicing operations. There was no study found that was specific to salt application and in-stream chloride concentrations in the Salt Creek sub-basin. However, monitoring stations in urban Illinois waters measured maximum concentrations of chloride from 252 to 829 mg/L during months when deicing was undertaken. These concentrations were

generally seen during increased flow conditions with base flow chloride concentrations generally below 100 mg/L (Mullaney et al., 2009). In the Salt Creek sub-basin, elevated concentrations of chloride are observed at lower percentiles of flow exceedance. During flows exceeded 20% of the time or greater a reduction in concentrations is observed (Figure 8). The behavior observed between flow and concentration in this sub-basin is opposite to that in the Illinois study. Increases in flow in the Salt Creek sub-basin result in decreases in chloride concentration rather than increases. Based on these observations, it seems that the high concentrations of chloride are not the result of load from deicing applications.

Irrigation Water

Groundwater use is widespread in the sub-basin. Nebraska state statute §46-663.02 requires each person who uses groundwater to take action to control or prevent runoff. The same statute requires the Natural Resource Districts to adopt rules and regulations necessary to control or prohibit surface runoff of water derived from groundwater irrigation including the ability to issue cease and desist orders.

While irrigation return flow and runoff of irrigation water is regulated, a concern could exist over the build-up of chloride in the soils as a result of irrigation practices. Specifically, as water is lost through evaporation or evapo-transpiration the chloride 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”*.

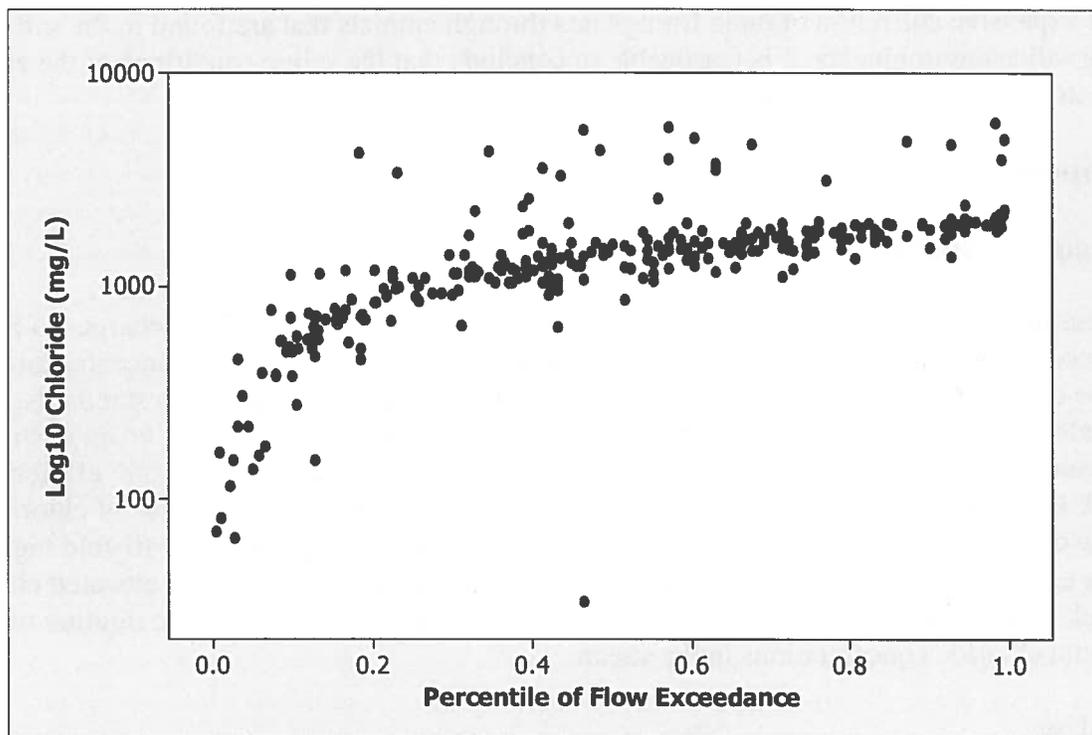


Figure 7 Response of Chloride concentration to flow in Antelope and Salt creeks

Two methods were devised to identify areas susceptible with the first using a decision tree and the second 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 ≥ 2.5 are considered likely candidates. The Salt Creek sub-basin evaporation index is less than 2.5 and thus chloride contamination is considered to be unlikely from irrigation sources.

Agricultural Runoff

A study of chloride in the northern U.S., (Mullaney et al., 2009) found runoff concentrations attributable to wet deposition in this area of the state of Nebraska to range from 0 to 0.5 mg/L. This would indicate that runoff concentrations are lower than seen in the base flow in these streams. As such, this indicates that agricultural runoff is not a source of high concentrations of chloride; in fact it could explain why high flow in these streams has a diluting effect on the concentration of chloride in the stream.

Conclusion

While chloride can be a function of anthropogenic activities, geologic circumstances appear to be the overwhelming source in surface water of the Salt Creek Sub-basin and are supported by:

- Historic surface water quality data is consistent with the current data
- Dakota sandstone bedrock underlies the area where the impairments occur
- Historic salt marshes located in the area
- Salt marsh dependent biota and endangered species, Salt Creek Tiger Beetle;

The evidence above demonstrates that high chloride concentration in surface water for these named segments is naturally occurring, and these segments are candidates for removal from the state's section 303(d) list.

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Appendix B.

**Section 303(d) Delisting Analysis for Blue Lake in the North Platte Basin
Impaired for Dissolved Oxygen**

U.S. Environmental Protection Agency

April 2014

Introduction

In its 2014 Water Quality Integrated Report, the Nebraska Department of Environmental Quality proposed Blue Lake (NE-NP2-L0150) in the North Platte River Basin as impaired for low dissolved oxygen (Figure 1). The water bodies were included in category 4c – waters impaired by a natural condition. An EPA review has determined that the state’s 4c listing is correct. The purpose of this document is to provide the information necessary to document a natural condition of the proposed delisted lake and to support the conclusion that this water body does not need a TMDL prepared for low dissolved oxygen.

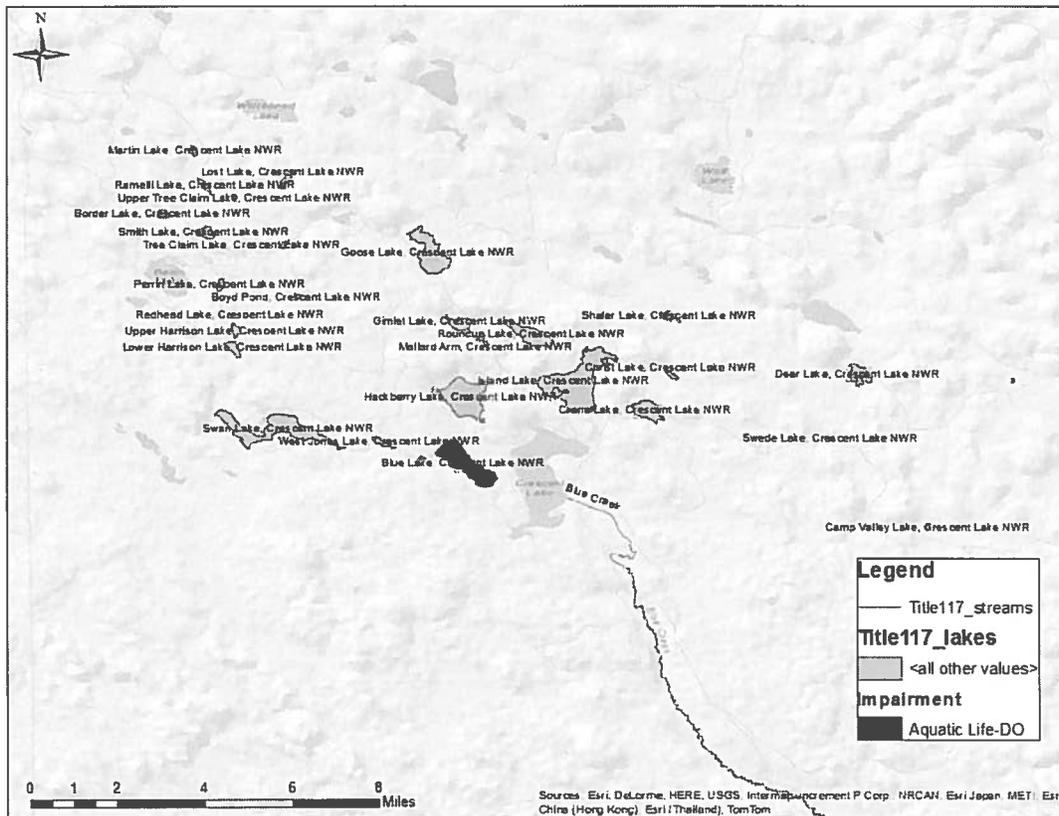


Figure 1 Blue Lake (North Platte River Basin).

Justification for Delisting Decision

Background

Blue Lake is located in the Crescent Lake National Wildlife Refuge. This refuge is located in the Nebraska panhandle and consists of 45,818 acres of sand dunes. There are 21 lakes on the refuge that are supported by a shallow groundwater aquifer (Crescent Lake National Wildlife Refuge website, <http://www.fws.gov/crescentlake/CrescentLake/index.html>). The area around Blue Lake consists of sand dunes (Figure 2).



Figure 2 Aerial view of Blue Lake and immediate area.

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.”

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Title 117 of the Nebraska Surface Water Quality Standards (Title 117) does include a definition of natural background. The definition states: “natural background shall mean quantifiable measurements of water quality existing in the absence of water pollution.”

Water pollution in turn is defined by Title 117 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 even though the parameter exceedance is not the result of a pollution source. Because of these, the “Methodologies for Waterbody Assessments and Development of the 2014 Integrated Report for Nebraska”, as well as the 2004-06 versions included a category for placement and identification of these types of water bodies. Consistent with the EPA guidance, Category 4C would be 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 methodology do not contain specific implementation language for the use or identification of natural background. It has been the NDEQ’s intent in the past to address situations independently as the circumstances differ given the diverse nature of Nebraska’s geology, land use, water policies and climate.

Water Quality Data

Data collected from Blue Lake in 2005 indicated that the dissolved oxygen concentration was below the state’s EPA-approved water quality standard criterion of 5 milligrams per liter (Table 1).

Table 1 2005 Dissolved Oxygen measurements from Blue Lake

Water body ID	DO (0.5m)	DO (1m)	DO (1.5m)	DO (2 m)	DO (3m)
5/19/2005	12.33	12.42	12.42	12.42	10.09
6/23/2005	1.68	1.38	1.51	1.51	0.95
7/9/2005	12.49	12.2			
8/10/2005	4.96	4.96	4.96	4.96	4.96
9/18/2005	6.7				

Geologic Considerations

Lakes located in this region of the Sand Hills have been shown to be dependent on groundwater inflows (Bennett et al., 2007). The sediments in Blue Lake consists of an organic sediment of up to 12 meters in thickness and this sediment overlays a peat layer that has been measured at two meters but which extent is not widely mapped (Mason et al., 1997). The top of the peat layer was radiocarbon dated at over 5,000 years before present. The organic sediment layer has been accumulating since that time. Blue Creek flowed through this area prior to the formation of a sand dune blockage which occurred some 12,000 years ago (Mason et al., 1997). Since that time, the lakes in this ancient river valley have been cut off

Appendix B.

from most surface flow and the water in the lakes interacts with the groundwater underlying this area. McCarraher (1977) found no evidence of recent eutrophication. He also described a natural eutrophication process which has progressed over the last circa 4,500 years.

Biotic Considerations

The lowering of dissolved oxygen concentrations in lakes can be caused by biotic decomposition and respiration. Chlorophyll concentrations measured in this lake in 2005 ranged from 131.8 to 244.8 micrograms per liter. At those concentrations this lake is considered eutrophic. As such, periods of oxygen super-saturation with photosynthesis and concentrations falling well below saturation due to the algal respiration as well as decomposition of organic matter in the sediments would be expected (Horne and Goldman, 1994). Data from 2005 show oxygen saturation ranging from 20 to 126 percent.

Potential Anthropogenic Sources

Blue Lake is located in the Crescent National Wildlife Refuge. As such it is under the watershed management of the US Fish and Wildlife Service. That agency manages its holdings based on the entire ecosystem.

Wastewater Treatment

A review of National Pollutant Discharge Elimination System permits shows that there are no permitted facilities located in the lake watershed.

Irrigation Water

There is no agricultural irrigation in the watershed of this lake. The local groundwater also makes up the water available to sustain the lake itself and as such would not have an adverse impact on the lake if used.

Agricultural Runoff

A review of the immediate surrounding area of Blue Lake (Figure 2) shows there are no agricultural activities located in this limited watershed.

Conclusion

While dissolved oxygen concentrations can be influenced by anthropogenic inputs of oxygen demanding pollutants or through productivity enhanced by anthropogenic nutrient additions, in the case of Blue Lake there is ample evidence of natural nutrients and oxygen demanding material. This material is located in the sediments and the groundwater which serves to maintain the lake.

The evidence above demonstrates that low dissolved oxygen concentrations in surface water for this lake is naturally occurring, and this lake is a candidate for removal from the state's section 303(d) list.

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